



Integrated Ecosystem Restoration & Hurricane Protection in Coastal Louisiana: Fiscal Year 2019 Annual Plan



committed to **our coast**





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 Board (CPRA Board) and tasked it with oversight of these activities. The Office of Coastal Protection and Restoration (OCPR) was designated as the implementation arm of the CPRA Board. To avoid confusion, the 2012 Louisiana Legislature changed the name of the state agency from OCPR to the Coastal Protection and Restoration Authority (CPRA).

The CPRA Board, with the assistance of CPRA, is required by Act 523 of the 2009 Regular Legislative Session, amended by Act 604, to produce an Annual Plan that inventories projects, presents implementation schedules for these projects, and identifies funding schedules and budgets. This Fiscal Year (FY) 2019 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.

Fiscal Year 2019 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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State of Louisiana



JOHN BEL EDWARDS
GOVERNOR

Dear Friends,

I am pleased to submit to you the Coastal Protection and Restoration Authority's *Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana: Fiscal Year 2019 Annual Plan*. In this plan, a three-year revenue and expenditure outlook is provided, and project implementation schedules are identified. In addition, some notable projects completed or in construction are highlighted.

This past year, Louisiana's coastal program created or restored thousands of acres using dredged material for marsh creation projects like Oyster Bayou in Cameron Parish and Bayou Bonfouca in St. Tammany Parish and many other areas in between. In addition, significant sections of Louisiana's barrier island chain were restored, including Elmer's Island and Whiskey Island. Several protection projects were also implemented, including levee enhancements in the Cut-Off/Pointe Aux Chene area, Jean Lafitte, Morgan City, Bayou Boeuf in Lafourche Parish, and the Falgout Canal Road levee in Terrebonne Parish.

Included in this year's Annual Plan are several restoration projects which qualify to utilize settlement funds from the *Deepwater Horizon* oil spill. This money is being used to address injuries to natural resources in Louisiana, to create marsh and living shoreline projects, and to continue the advancement of two major sediment diversion projects. Also noteworthy in FY2019 is the state's first payment under Phase II of the Gulf of Mexico Energy Security Act (GOMESA). GOMESA revenues will largely go to fund hurricane protection projects such as levees, flood gates, pump stations, and surge barriers throughout coastal Louisiana.

Also, this past year, our legislature unanimously approved the third iteration of Louisiana's Coastal Master Plan which identifies the implementation and sequence of a \$50 billion suite of coastal projects over the next 50 years. Although CPRA does not have \$50 billion in the bank, I can assure you that we are working every day, with a tremendous sense of urgency, to identify funds and to develop innovative financing approaches to deliver these projects.

Since 2007, CPRA has dredged 130 million cubic yards to restore or benefit 41,305 acres of land, constructed 60 miles of barrier islands and berms, improved 297 miles of levees, and secured \$20 billion for protection and restoration in 20 parishes. Our achievements have been significant over the last ten years, and there is much more to accomplish.

Under Governor John Bel Edwards' administration, the CPRA and its Board will continue to work for the people of Louisiana who raise their families and make a living on our working coast. They deserve the chance to continue doing so for many generations to come, and we are dedicated to this goal.

Sincerely,

Johnny Bradberry
Chairman of the Board, Coastal Protection and Restoration Authority

Thirty comments were received on the Draft FY2019 Annual Plan: In response to public comment, please note additions to Section 2: Nonstructural Mitigation and Outreach & Engagement. Also included are the newly approved CWPPRA PPL 27 projects, and minor adjustments to project schedules and expenditures in response to on-the-ground conditions.



This public document is published at a total cost of \$4,532.00. Three hundred-fifty copies of this public document were published in this first printing at a cost of \$4,532.00. The total cost of all printings of this document including reprints is \$4,532.00.

This document was published by OTS-Production Support Services, 627 North 4th Street, Baton Rouge, LA 70802 for the Coastal Protection and Restoration Authority of Louisiana as mandated by the Legislature. This material was printed in accordance with standards for printing by state agencies established in R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of the Louisiana Revised Statutes.

Coastal Protection and Restoration Authority, 2018. Fiscal Year 2019 Annual Plan: Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana. Coastal Protection and Restoration Authority of Louisiana, Baton Rouge, LA.

Purpose of the Annual Plan

The Annual Plan presents a spending plan for the upcoming fiscal year, as well as two additional fiscal year cycles. For the upcoming fiscal year, specific projects, funding and implementation schedules are identified. Three years of revenues, expenditures, and projects are overviewed herein. Additional information and projections are included to foster a better understanding of project implementation schedules and funding.

Origin of the Annual Plan

In 2007, in response to Act 8, the State released an Integrated Ecosystem Restoration and Hurricane Protection: Louisiana’s Comprehensive Master Plan for a Sustainable Coast (2007 Coastal Master Plan). The 2007 Coastal Master Plan was passed unanimously in the Louisiana Legislature and its primacy was subsequently reaffirmed by Gov. 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 2007 Coastal Master Plan’s recommendations.

To accommodate the dynamic nature of coastal processes, Act 8 specifies that the Coastal Master Plan is a living document that will be updated every five years to incorporate new data and planning tools as indicated. To comply with the mandate set forth in Act 8, two updates of the Coastal Master Plan have been submitted to the Louisiana Legislature and unanimously approved, in March 2012 and April 2017.

Act 523 of the 2009 Regular Legislative Session, amended by Act 604, directed the CPRA Board, with the assistance of CPRA, to produce an Annual Plan each year that inventories integrated coastal protection projects, presents implementation schedules for these projects, and identifies funding schedules and budgets.*

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 2019 Annual Plan fulfills the legislative mandate of Act 8 by presenting CPRA’s three-year program for funding and implementing projects during FY 2019–FY 2021.

Additionally, the FY 2019 Annual Plan builds on the process which began in the FY 2010 plan and provides an expanded discussion of CPRA’s progress in protecting and restoring the coast. Section 2 provides a summary of some of the progress and accomplishments achieved through FY 2018; Section 3 outlines an implementation plan for FY 2019; Section 4 gives fiscal projections for FY 2019 to 2021; and the Appendices provide detailed information on CPRA projects, programs and initiatives.

*La R.S. 49:214.2(11) defines “integrated coastal protection” as “plans, projects, policies, and programs intended to provide hurricane protection or coastal conservation or restoration, and shall include but not be limited to coastal restoration; coastal protection; infrastructure; storm damage reduction; flood control; water resources development; erosion control measures; marsh management; diversions; saltwater intrusion prevention; wetlands and central wetlands conservation, enhancement, and restoration; barrier island and shoreline stabilization and preservation; coastal passes stabilization and restoration; mitigation; storm surge reduction; or beneficial use projects.”

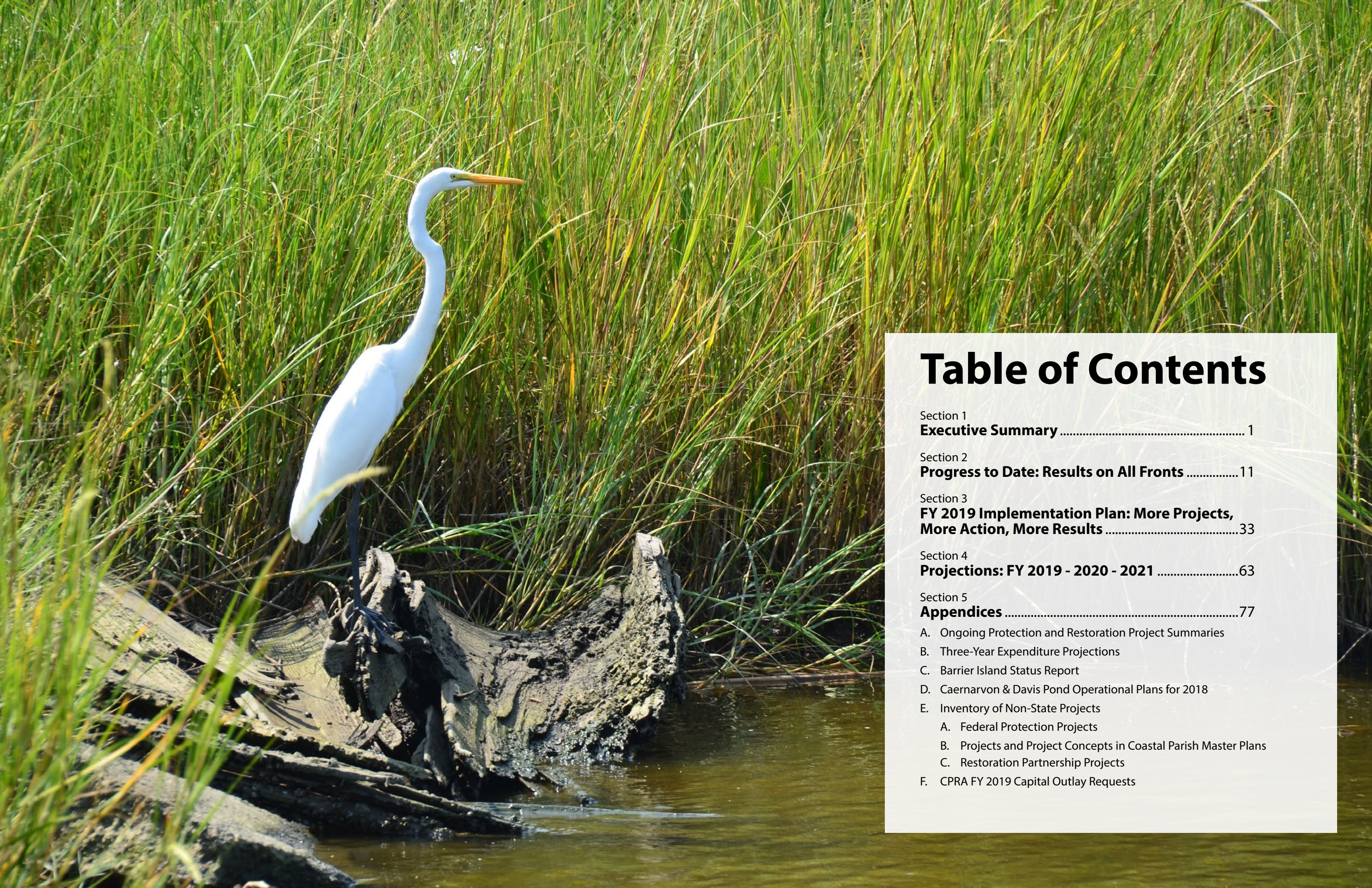


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Section 1 Executive Summary

Section 1

Executive Summary

Accomplishments and
Notable Projects

Some accomplishments and notable projects completed or in construction in Fiscal Year 2018 include:

- **Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp (BA-0034-2):** Increasing the health of the 2,400 acres of swamp ecosystem by increasing water flow via gaps cut in the spoil bank, breaching internal impediments, and reestablishing natural channels. Native vegetation will also be planted at the site.
- **Oyster Bayou Marsh Creation and Terracing (CS-0059):** Rebuilding and nourishing 740 acres of marsh in Cameron Parish using sediment dredged three miles offshore and pipelined to the area behind the Gulf Beach Highway and a section of the 8.7 miles of beach and dune restored in 2014.
- **Rockefeller Refuge Gulf Shoreline Stabilization (ME-0018):** Constructing a 2.8 mile rock breakwater along the gulf shoreline of the Rockefeller Wildlife Refuge in Cameron Parish. The shore has been retreating at an average rate of 46 feet per year, causing marsh loss and threatening habitat of the refuge's endangered species, including Whooping Cranes.
- **Bayou Bonfouca Marsh Creation (PO-0104):** Restoring 620 acres of marsh, nourishing 310 additional acres and reestablishing the Lake Pontchartrain shoreline rim that was breached during Hurricane Katrina near Bayou Bonfouca, allowing saltier water to degrade the marsh.
- **Lost Lake Marsh Creation and Hydrologic Restoration (TE-0072):** Restoring the structural framework between Lake Pagie and Bayou Decade, increasing the delivery of fresh water, sediments, and nutrients into 749 acres of marshes north and west of Lost Lake, and constructing a terrace field to reduce fetch in open water areas.
- **Cut-Off/Pointe Aux Chene Levee (TE-0078):** Refurbishing approximately 2.1 miles of existing levee near the town of Cut Off in Lafourche Parish to a minimum constant crest elevation of 10 feet.
- **Caillou Lake Headlands (TE-0100):** Restoring another Louisiana barrier island. Part of the Caillou Lake Headlands that used to be Isle Derniere, Whiskey Island is being refurbished with sand dredged from offshore to create 172 acres of marsh habitat and 730 acres of dune and beach habitat.
- **Jean Lafitte Tidal Protection (BA-0075-1):** Providing flood protection improvements by raising 15,840 linear feet of existing earthen levee, including approximately 14,000 linear feet of concrete capped, steel sheet pile floodwall, and flood gates. Led by the Lafitte Area Independent Levee District.
- **Kraemer Bayou Boeuf Levee Lift (BA-0169):** Assisting the North Lafourche Conservation, Levee and Drainage District to enhance the 33,000-foot ring levee surrounding the community south of Lac des Allemands by enhancing drainage and clearing woody vegetation encroaching on the levee in preparation for a future levee lift.

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- **Spanish Pass Ridge and Marsh Restoration (BA-0191):** Part of the Louisiana Coastal Area Beneficial Use of Dredged Material Program. Sediment routinely dredged from the Mississippi River by the U.S. Army Corps of Engineers (USACE) for channel maintenance is being beneficially used near Venice in Plaquemines Parish to restore 5,000 feet of historic ridge backed by a marsh platform approximately 450 feet wide that will serve as a means to reduce wave energy on the leeward side of the marsh.
- **Permanent Canal Closures and Pump Stations (PO-0060):** A design-build project of the USACE to reduce storm surge risk to Orleans and Jefferson Parishes by the design and construction of permanent protection and pump stations on three outfall canals that failed following Hurricane Katrina in 2005 at 17th Street, Orleans Avenue, and London Avenue.
- **Falgout Canal Road Levee (TE-0063):** This Terrebonne Parish project involves the construction of the Reach E levee along Falgout Canal Road. The project supports a larger effort that will provide protection to the Bayou Dularge communities, encompassing over 2,300 homes within a 13,413-acre area, which suffered severe flooding from Hurricanes Gustav and Ike.
- **St. Mary Backwater Flooding (TE-0116):** As part of the parish master plan to improve the Morgan City levee system to 100-year level of flood protection, the St. Mary Parish Consolidated Gravity Drainage District No. 2 is adding elevation to a half-mile stretch of land beneath the road bed of Highway 70, an important evacuation route that serves as a levee near Lake End Park, and replacing the capacity of two older pump stations with a new one on the bank of Lake Palourde.
- **Morgan City/St. Mary Flood Protection (TV-0055):** Continuing the advancement of the parish master plan for improvements to the Morgan City levee system, this project is providing flood protection improvements by raising or improving 2.5 miles of the current levee system from Lake End Park to Justa Street in the Morgan City area, reducing the risk of flooding from tropical storm events.
- **New Orleans to Venice (BA-0067):** The ongoing project consists of 20 areas of work constructing 37 miles of back levees and 29 miles of co-located Mississippi River Levees from St. Jude on the west bank down to the vicinity of Venice, and on the east bank, approximately 16 miles of back levee from Phoenix to Bohemia.
- **St. Charles West Bank Hurricane Protection Levee (BA-0085):** Constructing a system of levees, drainage structures, and pump stations to provide flood protection to the communities on the West Bank of the Mississippi River in St. Charles Parish.
- **HSDRRS Mitigation – WBV (BA-0109):** The West Bank and Vicinity Hurricane and Storm Damage Risk Reduction System (HSDRRS) mitigation effort is designed to compensate for damages inflicted upon wetland habitats through the construction of the Federal levee system after Hurricane Katrina. The project involves restoring fresh marsh, bottomland hardwood, and swamp habitats in the Barataria Basin, the same hydrologic basin in which the levee-related wetland impacts occurred.
- **Cameron-Creole Watershed Grand Bayou Marsh Creation (CS-0054):** Restoring and nourishing more than 600 acres of marsh with material dredged from Calcasieu Lake to benefit fish and wildlife resources in the Cameron Prairie National Wildlife Refuge and adjacent brackish marshes.

Anticipated Projects

- **West Bank and Vicinity (BA-0066):** The USACE is working to complete 100-year level of flood protection on the west side of the Mississippi River through rehabilitation or new construction of more than 90 miles of levees and structures as part of the HSDRRS system for greater metropolitan New Orleans.
- **Morganza to the Gulf (TE-0064):** Continuing progress towards 100-year levels of risk reduction measures for the protection of vulnerable communities, businesses, and infrastructure in Terrebonne and parts of Lafourche parishes using levees and t-walls, navigation structures, water control structures, and floodgates.
- **SELA (PO-0057):** Reducing damages due to rainfall flooding in Orleans and Jefferson parishes through increases in pump station capacity, and improvements in surface and sub-surface drainage features.
- **Violet Canal North Levee Alignment (PO-0170):** Constructing a levee/floodwall in the vicinity of the Violet Canal to maintain flood protection for the public and provide mutual benefit to the citizens within the territorial jurisdictions of Orleans Levee District and Lake Borgne Basin Levee District.

Projects anticipated to begin or continue construction in Fiscal Year 2019 include:

- CS-0066 Cameron Meadows Marsh Creation and Terracing
- P0-0170 Violet Canal North Levee Alignment
- TV-0063 Cole's Bayou Marsh Restoration
- ME-0018 Rockefeller Refuge Gulf Shoreline Stabilization
- TE-0078 Cut-Off/Pointe Aux Chene Levee
- BA-0067 New Orleans to Venice
- BA-0075-1 Jean Lafitte Tidal Protection
- BA-0109 HSDRRS Mitigation- WBV
- TE-0072 Lost Lake Marsh Creation and Hydrologic Restoration
- CS-0054 Cameron-Creole Watershed Grand Bayou Marsh Creation
- TE-0116 St Mary Backwater Flooding
- BA-0066 West Bank and Vicinity
- TE-0064 Morganza to the Gulf
- P0-0057 SELA
- BA-0125 Northwest Turtle Bay Marsh Creation

The FY 2019 Annual Plan contains budget projections (Tables ES-1 and ES-2) that show projected revenues and the amount of funds that would actually be needed to accomplish the proposed implementation plan over the next three fiscal years. Resources in FY 2019 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 2019 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.

New project opportunities may arise if additional funds become available after the approval of the FY 2019 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 in accordance with Master Plan objectives. Such flexibility allows the coastal program to respond effectively to unforeseen events that take place outside the legislatively mandated planning cycle.

We encourage you to join us as we move forward in our efforts to protect and restore coastal Louisiana. The CPRA Board conducts monthly meetings to provide a forum to hear updates and receive public receive comment on work. In addition, many tools are available online to allow greater visibility of our progress and to provide increased access to information. These resources and information about them can be accessed online at www.coastal.la.gov.

► Table ES-1: Projected Three-Year Revenues (FY 2019 - FY 2021)

Revenue Sources	FY 2019	FY 2020	FY 2021	Program Total (FY 2019 - FY 2021)
CPR Trust Fund Annual Revenue ^{1,2}	\$14,379,625	\$13,600,000	\$13,200,000	\$41,179,625
CPR Trust Fund Carried Forward	\$15,547,801	TBD	TBD	\$15,547,801
GOMESA ^{1,3}	\$70,000,000	\$70,000,000	\$70,000,000	\$210,000,000
GOMESA Carried Forward ⁴	\$65,190,150	\$87,219,214	\$49,170,157	\$201,579,522
DOTD Interagency Transfer ¹	\$4,000,000	\$4,000,000	\$4,000,000	\$12,000,000
CWPPRA Federal Funds ⁵	\$78,290,682	\$74,933,437	\$77,266,129	\$230,490,248
Surplus '07, '08, '09 Carried Forward	\$125,637,238	\$20,037,383	\$12,752,531	\$158,427,152
Community Development Block Grants	\$4,912,928	\$692,388	\$0	\$5,605,316
Capital Outlay Funds (Previously Appropriated)	\$9,405,000	\$500,000	TBD	\$9,905,000
NRDA Revenues (<i>Deepwater Horizon</i>)	\$94,096,811	\$436,533,147	\$342,789,562	\$873,419,519
NFWF Revenues (<i>Deepwater Horizon</i>)	\$73,479,656	\$133,721,027	\$52,563,957	\$259,764,641
RESTORE Revenues (<i>Deepwater Horizon</i>)	\$45,692,154	\$65,850,280	\$198,274,922	\$309,817,355
LDNR Mitigation Funds ⁶	\$300,000	\$300,000	\$300,000	\$900,000
LDNR Beneficial Use Funds ⁶	\$150,000	\$150,000	\$150,000	\$450,000
LDWF Interagency Transfer ⁷	\$1,000,000	\$0	\$0	\$1,000,000
MOEX Settlement ⁸	\$352,343	\$131,250	\$1,057,030	\$1,540,623
OM&M Federal Funds ⁹	\$27,366,658	\$16,492,809	\$14,455,631	\$58,315,097
LOSCO Funding ¹⁰	\$89,384	\$89,384	\$84,384	\$263,152
Gulf of Mexico Alliance Gulf Star Grant Funding ¹¹	\$25,000	\$12,500	\$0	\$37,500
Project Billing ¹²	\$23,254,531	\$23,000,000	\$23,000,000	\$69,254,531
Capital Outlay Request Submitted for HSDRRS 30-Year Payback	\$0	\$98,432,119	\$98,432,119	\$196,864,238
Total Projected Revenue	\$653,169,960	\$1,045,694,937	\$957,496,422	\$2,656,361,320

Notes

- 1. Annually recurring revenue source to be spent in accordance with the Louisiana Constitution, specifically State Law Section 214.5.4(E) and the provisions within paragraph (3).
- 2. Estimate tied to mineral revenue.
- 3. GOMESA funds must be disbursed to the applicable states by the end of the federal fiscal year. FY 2019 GOMESA funds are anticipated to be received between April 2019 (4Q19) and September 2019 (1Q20).
- 4. Represents carry-forward of unexpended funds from prior-year GOMESA payments.
- 5. Represents anticipated Federal reimbursement for CWPPRA projects led by CPRA in which the State is initially incurring more than its 15% cost share during project implementation.
- 6. Supplemental funding to augment construction of eligible projects (specific projects to be determined at a later date).
- 7. Supplemental funding to augment construction of project ME-0018.
- 8. Represents anticipated balance as of FY 2019 of an initial deposit of \$6.75 million of funds from the MOEX settlement.
- 9. Represents anticipated Federal reimbursement for CWPPRA and WRDA OM&M activities led by CPRA in which the State is initially incurring more than its cost share during project implementation.
- 10. Represents reimbursement of expenditures for CPRA (non-DWH) oil spill response activities.
- 11. Represents remaining balance of grant funding received in January 2018 for a pilot monitoring project.
- 12. Represents salary and other work-in-kind reimbursements for work performed on projects in funding programs listed in the table above.

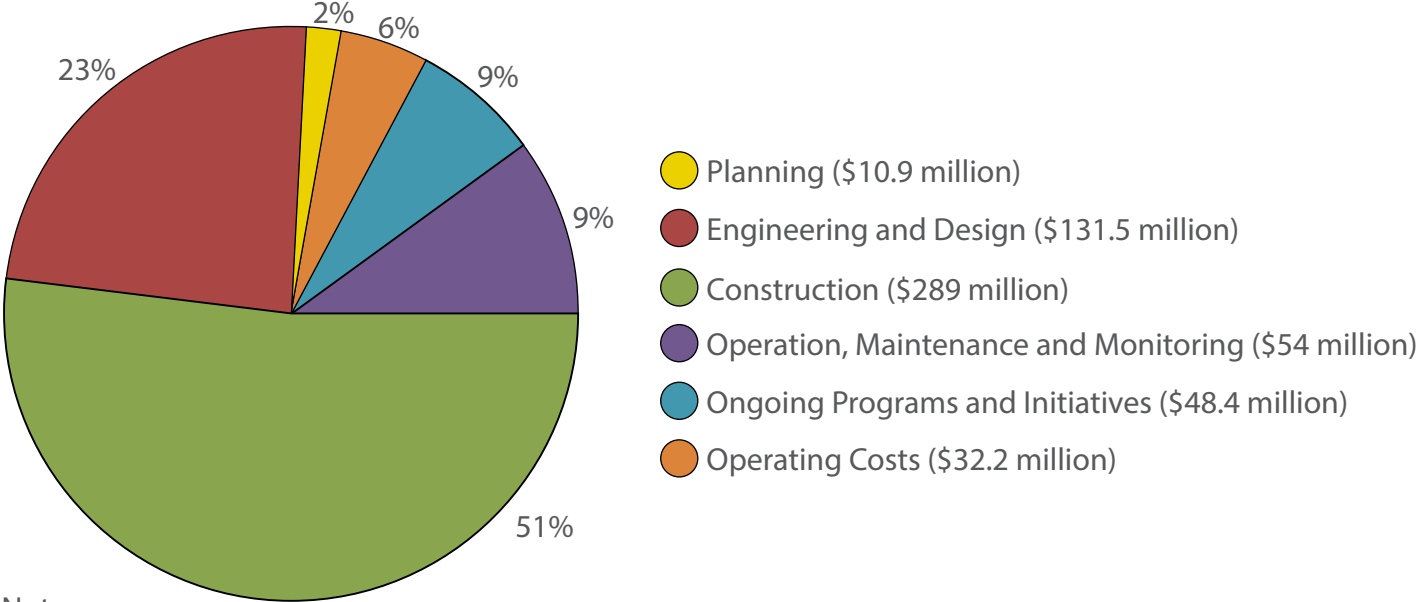
► **Table ES-2: Projected Three-Year Expenditures¹ (FY 2019 - FY 2020)**

Program / Funding Source	FY 2019	FY 2020	FY 2021	Program Total (FY 2019- FY 2021)
CWPPRA State Expenditures (not including Surplus expenditures) ²	\$14,268,665	\$15,066,563	\$12,733,871	\$42,069,099
CWPPRA Federal Expenditures ³	\$78,290,682	\$74,933,437	\$77,266,129	\$230,490,248
WRDA Project Expenditures (not including Surplus expenditures)	\$0	\$0	\$0	\$0
Surplus Projects and Program Expenditures	\$125,637,238	\$20,037,383	\$12,752,531	\$158,427,152
Community Development Block Grants	\$4,912,928	\$692,388	\$0	\$5,605,316
HSDRRS 30-Year Payback ⁴	\$0	\$98,432,119	\$98,432,119	\$196,864,238
MOEX Project Expenditures	\$352,343	\$131,250	\$1,057,030	\$1,540,623
Capital Outlay Project Expenditures	\$9,405,000	\$500,000	TBD	\$9,905,000
State-Only Project Expenditures (Non-Surplus)	\$212,953	\$94,146	\$40,003	\$347,102
NRDA Expenditures (<i>Deepwater Horizon</i>)	\$94,096,811	\$436,533,147	\$342,789,562	\$873,419,519
NFWF Expenditures (<i>Deepwater Horizon</i>) (not including Surplus Expenditures)	\$73,479,656	\$133,721,027	\$52,563,957	\$259,764,641
RESTORE Expenditures (<i>Deepwater Horizon</i>) (not including Surplus Expenditures)	\$45,692,154	\$65,850,280	\$198,274,922	\$309,817,355
LDNR Mitigation Expenditures ⁵	\$300,000	\$300,000	\$300,000	\$900,000
LDNR Beneficial Use Expenditures ⁵	\$150,000	\$150,000	\$150,000	\$450,000
LDWF Interagency Transfer Expenditures ⁶	\$1,000,000	\$0	\$0	\$1,000,000
OM&M- State Expenditures (not including Surplus or GOMESA expenditures)	\$10,596,860	\$5,943,935	\$5,297,868	\$21,838,664
OM&M- Federal Expenditures ⁷	\$27,366,658	\$16,492,809	\$14,455,631	\$58,315,097
Gulf of Mexico Alliance Gulf Star Grant Expenditures	\$25,000	\$12,500	\$0	\$37,500
GOMESA Expenditures	\$47,970,936	\$108,049,057	\$72,129,618	\$228,149,611
Operating Costs (see Tables 4-3 and 4-4) ⁸	\$32,192,863	\$35,077,751	\$36,005,417	\$103,276,031
Total Planned Expenditures	\$565,950,746	\$1,012,017,791	\$924,248,658	\$2,502,217,195

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 2020 - FY 2021 are therefore based on prior years' expenditures.
3.
- Represents anticipated Federal reimbursement for CWPPRA projects led by CPRA in which the State is initially incurring more than its 15% cost share during project implementation.
4.
- Payback is based on current HSDRRS construction schedule; payback will not commence until completion of HSDRRS construction activities. According to current USACE estimates, payback will commence in September 2019 with an estimated annual payment of \$98 million. CPRA has made a request through the Capital Outlay process for this funding.
5.
- Supplemental funding to augment construction of eligible projects (specific projects to be determined at a later date).
6.
- Supplemental funding to augment construction of project ME-0018.
7.
- Represents anticipated Federal reimbursement for CWPPRA and WRDA OM&M activities led by CPRA in which the State is initially incurring more than its cost share during project implementation.
8.
- In the event of a declared emergency, CPRA may need to expend Operating Costs in support of the State's disaster response efforts. Up to 75 percent of these expenditures would be reimbursable by FEMA.

► **Figure ES-1: Projected FY 2019 Expenditures by Project Phase**



Notes

- Construction includes Beneficial Use (\$2 million)
- OM&M includes BIMP (\$2.9 million) and Repair/Rehabilitation of Projects (\$1.1 million)

TOTAL Expenditures
\$566 million



Section 2
Progress to Date:
Results on All Fronts

Section 2

Progress to Date: Results on All Fronts

In addition to forecasting revenues and expenditures for the coming fiscal year and beyond, this Annual Plan chronicles some of CPRA’s success in accomplishing Coastal Master Plan goals and projects during the past fiscal year. CPRA oversees planning, design, and construction of an increasing number of protection and restoration projects and is making significant strides in ecosystem restoration to counter one of the biggest environmental disasters in our nation’s history. Progress toward achieving a sustainable coastal Louisiana has never been more evident. Some of last year’s most notable accomplishments include:

Project Highlights

Oyster Bayou Marsh Creation and Terracing (CS-0059)

To restore some of the dense marsh that once protected areas of Cameron Parish from storm surge, CPRA transported sediment from three miles offshore to create and nourish marsh in an area behind the Gulf Beach Highway. That roadway was the only thing separating the area east of Holly Beach from the Gulf of Mexico until CPRA rebuilt 8.7 miles of beach and dune in 2014. The marsh creation project encompasses four areas totaling 740 acres, including a 135-acre expansion of the original footprint. The sediment is held in place by over 50,000 linear feet of earthen containment dikes. Additionally, twenty 450-foot-long terraces were constructed in the northeast section of the project to further reduce wave erosion.



This once dense marsh suffered from the decline of the beachfront that protected it from the salt water of the adjacent Gulf of Mexico. After having restored the beach, CPRA has now reestablished the marsh platform that can buffer areas to the north from the surge of gulf water pushed inland by tropical storms and hurricanes.



Creating a marsh habitat involves more than just filling an area with sediment. This ecosystem will benefit from the elements planned and achieved prior to the pumping of offshore fill material. Tidal creeks and ponds were constructed and retention levees were strategically gapped to achieve a functional marsh that supports estuarine fisheries' access.

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Bayou Bonfouca Marsh Creation (PO-0104)

The marsh on the north shore of Lake Pontchartrain between Lacombe and Slidell in St. Tammany Parish was fairly stable before Hurricanes Katrina and Rita ravaged the area in 2005. Since then it has been turning into open water at an increasing rate, mostly through wind-driven erosion and shoreline breaches that allowed salt water to intrude into the fresher interior marshes. This project used sediment dredged from the lake to create 620 acres of marsh and nourish 310 additional acres. Several historic marsh ponds have been restored, and tidal creeks connect these ponds to facilitate water exchange and fisheries access.



Sediment dredged from Lake Pontchartrain is achieving the project goal of creating 620 acres of marsh habitat and nourishing 310 acres of low salinity brackish marsh in open water areas adjacent to Bayou Bonfouca in the Big Branch Marsh National Wildlife Refuge.



Reestablishing the lake shoreline is important to the resiliency of the project, enabling the return of a healthy and protective marsh ecosystem, as exemplified by the success of a similar marsh creation project completed in 2009 in the adjacent Goose Point area.

Caillou Lake Headlands (TE-0100)

The rebuilding of Louisiana’s first line of coastal defense—our chain of barrier islands—has added another link with the continued restoration of Whiskey Island, part of the Caillou Lake Headlands that used to be the famed Isle Dernière. Almost five miles of beach and dune are being created using sand from Ship Shoal in the Gulf of Mexico, along with restoration of the marsh platform along the western half of the island. Restoration of the island provides a buffer to help reduce the full force and effects of wave action, saltwater intrusion, storm surge and tidal currents on associated estuaries and wetlands. It also provides wetland habitat for a diverse number of plant and animal species.



Beach and dune construction on the eastern end of the island has also been extended to the west (top of the picture) where the creation of a back marsh now completes the transformation. Whiskey Island is located about 18 miles southwest of Cocodrie in Terrebonne Parish.



Approximately 10.4 million cubic yards of dredged material was pipelined from a borrow area nine miles offshore to restore more than 900 acres of barrier island and marsh habitat. The project was paid for with funds from the Deepwater Horizon Natural Resources Damage Assessment (NRDA) Early Restoration Program.

Jean Lafitte Tidal Protection (BA-0075-1)

Completion of this project is another step in the goal of providing a ring levee system for the historic Jean Lafitte community south of New Orleans. While no storm surge in the past 30 years has been higher than six feet, the new levee system will stand at 7.5 feet with the capacity to be raised higher in the future. This project in the Fisher Basin area included the raising of 15,840 linear feet of existing earthen levee, with approximately 14,000 linear feet of concrete-capped steel sheet pile floodwall, and flood gates. CPRA is currently working on two additional projects with the Lafitte Area Independent Levee District.



The need for increased levee protection is substantiated by the fact that the Jean Lafitte area has been damaged by multiple flooding disasters since 2005, including the inundation seen here from Hurricane Isaac in 2012.

The three miles of floodwalls and earthen levee improvements include six swing gates and five roller gates that can be closed during expected high tides and storm surges.



Falgout Canal Road Levee (TE-0063)

Located near the community of Theriot in Terrebonne Parish, this levee (also known as the Morganza to the Gulf Reach E Levee) connects to an existing forced drainage levee and a proposed Morganza to the Gulf Hurricane Protection levee, enclosing the communities of Bayou Dularge within the protection system. More than 2,300 homes within that 13,413-acre area suffered severe flooding from Hurricanes Gustav and Ike. The project also expands the zone of beneficial Atchafalaya River influence, reducing salinity and enhancing distribution of fresh water and its associated nutrients.



The marshes above Falgout Canal Road have become hydrologically isolated from their historical flow patterns because of manmade navigational changes. Now the prevailing hydrologic influence is confined to southern tidal flows, resulting in higher salinity and land loss in historically fresh and intermediate marshes.

Built in two increments, the levee totals more than 4.3 miles in length along Falgout Canal Road between Bayou Dularge Road and the Houma Navigation Canal. Built to a height of 12 feet, it will settle into its design height of 10 feet to achieve a protection level of 25 years.



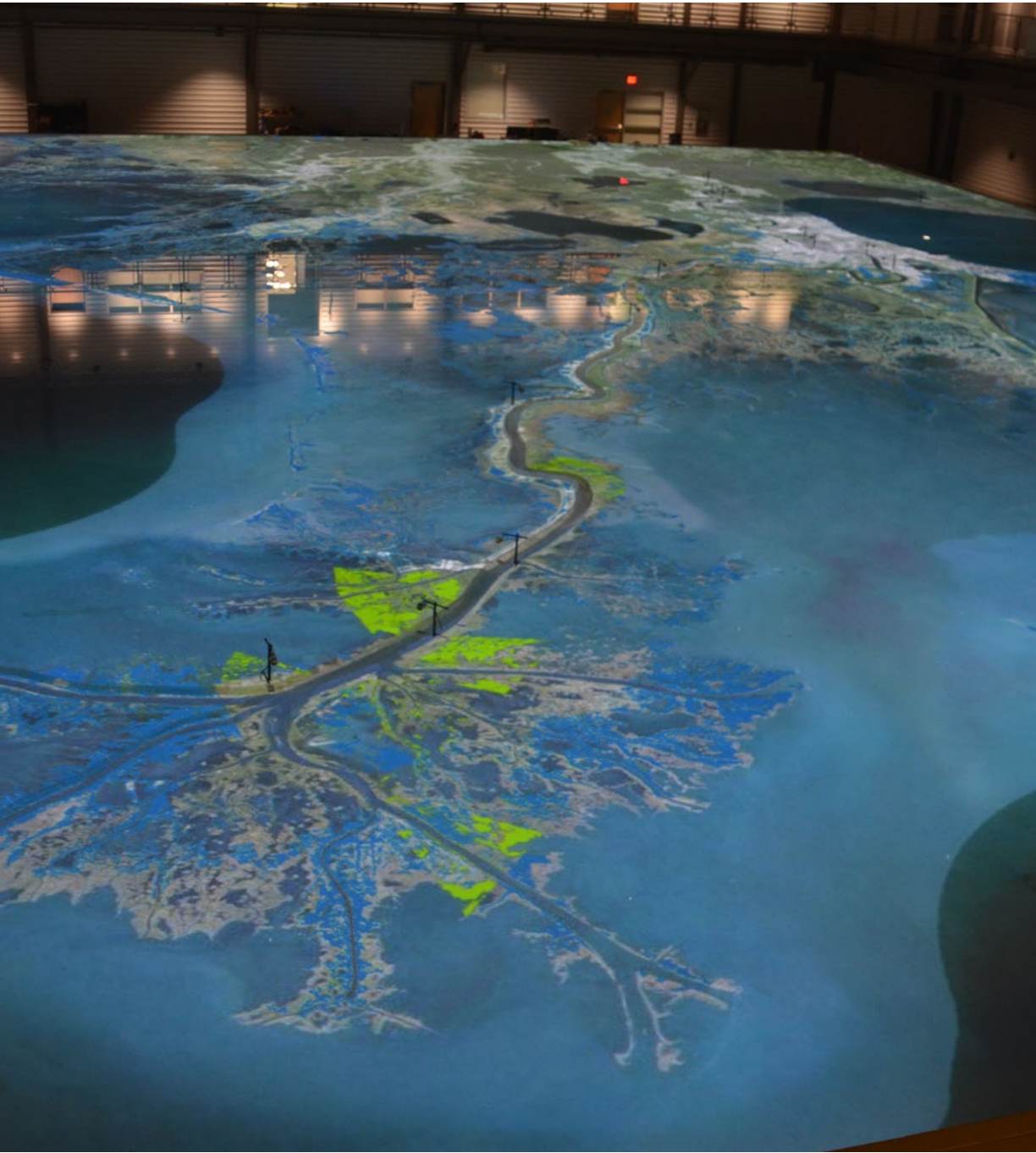
The LSU Center for River Studies

This collaborative partnership between CPRA and LSU showcases Louisiana’s working delta, the state’s coastal program, and research dedicated to coastal restoration and river management. Within its walls is one of the world’s largest physical models of the Mississippi River with the ability to produce qualitative land-building results associated with sediment diversions in the lower river. The Center provides an opportunity for researchers, scientists, and engineers to develop coastal knowledge that can be exported to other coastal communities around the world. It is located on The Water Campus in Baton Rouge, between CPRA headquarters and The Water Institute of the Gulf.



The LSU Center for River Studies is located in Baton Rouge, between CPRA headquarters and The Water Institute of the Gulf. One of the first completed buildings on The Water Campus, this world-class research and engineering center will serve as a focal point for public, private, and non-profit collaboration to develop innovative solutions for the challenges facing coastal communities in Louisiana and all over the world.

In addition to the river model, the LSU Center for River Studies also features a large interactive coastal exhibit area featuring five distinct coastal-related educational themes. The model serves as an important tool for research, and for engagement with coastal stakeholders and visitors.



Overhead equipment projects the landscape onto the 3-dimensional representation of the lower Mississippi River, starting at Donaldsonville and flowing into the Gulf of Mexico. Based on exact parameters of the river’s physical and dynamic properties, the model flows water and sediment across a 14,000 square mile section of Southeast Louisiana, Terrebonne, Barataria, Breton Sound, and Pontchartrain Basins.

For decades, sediment diversion projects have been a staple of every coastal plan that has been published. The question is rarely whether we should build them, but more so how and where to build them, how to pay for them, and how to operate them once built. That all has changed over the past five years since Louisiana's 2012 Coastal Master Plan made it an absolute priority to develop and implement river diversion projects that focus on sediment capture and land building, and since the recent *Deepwater Horizon* Oil Spill settlement has made funding more certain.

CPRA and U.S. Army Corps of Engineers (USACE) have worked together since the 2012 Coastal Master Plan on the Mississippi River Hydrodynamic and Delta Management Study to develop cutting edge technical models to better understand and predict the effects of using river resources for large-scale restoration projects such as Mississippi River sediment diversions on the river as well as its adjacent basins. These models have led to improvements in our understanding of river and estuarine dynamics and to the development of river and basin wide models to support project implementation in Barataria and Breton basins.

The 2012 Coastal Master Plan called for eight sediment diversions along the Mississippi River. Over the past several years, CPRA has conducted in-depth analyses on the Lower Breton (50,000 cfs), Lower Barataria (50,000 cfs), Mid-Breton (5,000 cfs), and Mid-Barataria (50,000 cfs) diversion projects in order to determine which projects should be prioritized for engineering and design and construction. As such, each project was modeled to predict project effects on variables such as land building, salinity, sediment transport, nutrients, and water levels. As part of this analysis, the state also considered innovative marsh creation projects that could be implemented in conjunction with sediment diversion projects in order to enhance sediment capture and build more land.

This modeling effort helped inform CPRA's decision in Fall 2015 to recommend that the Mid-Breton and Mid-Barataria sediment diversion projects move forward to preliminary engineering and design. The purpose of these projects will be to divert sediment-laden water from the Mississippi River to the adjacent basins. By re-establishing a connection between the Mississippi River and the Basin, these projects will restore historic deltaic sediment deposition necessary to build, maintain, and sustain critical coastal lands.

Over the next three years, CPRA will work to optimize operations, formulate the final design, and apply for appropriate construction permits. More specifically, work on the Mid-Barataria Environmental Impact Statement (EIS) began during the spring of 2017, followed by engineering and design work in late 2017. An EIS is a document required by the National Environmental Policy Act (NEPA) to evaluate the impact on human environments for a proposed action. As part of the EIS process, significant public engagement will occur and the document will clearly and transparently describe the environmental effects of the proposed Mid-Barataria Sediment Diversion. This action is the next step in the state's expedited plans to implement projects that will protect and restore coastal Louisiana. The process will include development of a draft EIS which will be released for public comment, public hearings on the draft EIS, and the development of a final EIS to address public comments prior to USACE's decision on the permit.

In addition to the formal required engagement in the permitting process, CPRA is committed to providing numerous opportunities for public engagement:

- Visit with CPRA Staff Members during our recurring visits to coastal Louisiana. For a schedule of upcoming visits, please visit www.coastal.la.gov/calendar
- Attend a CPRA Board Meeting to engage with CPRA leadership (schedule is posted at www.coastal.la.gov/calendar).
- Visit www.coastal.la.gov to learn more about this project and other coastal restoration efforts.
- Email us at coastal@la.gov to request a meeting.
- Follow CPRA on social media for relevant updates.

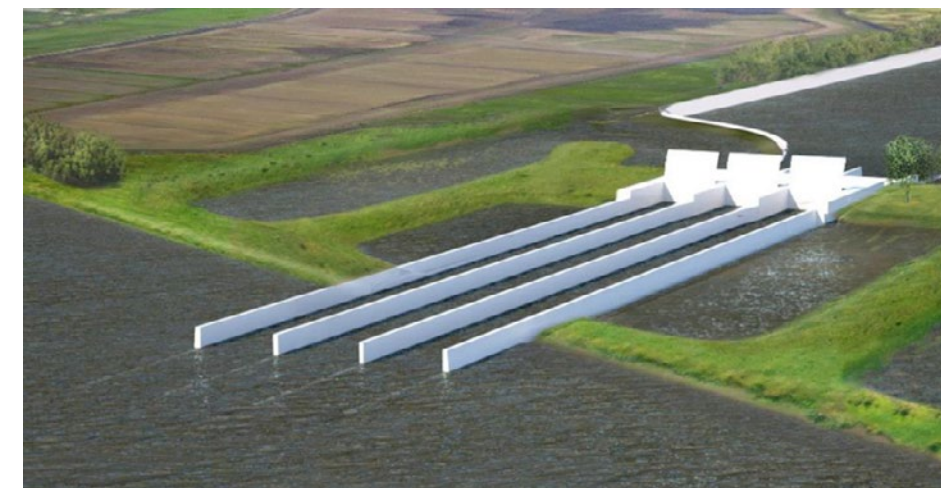
The funds utilized to conduct the studies described and the future engineering and permitting work was made available through criminal settlements associated with the *Deepwater Horizon* oil spill. The settlements identify approximately \$1.27 billion to be directed to the National Fish and Wildlife Foundation (NFWF) specifically dedicated for barrier island and diversion projects in Louisiana.



Proposed General Locations of the Mid-Barataria and Mid-Breton Diversion Projects



Proposed Mid-Barataria Sediment Diversion Project Layout



Sediment Diversion Conceptual Design

Louisiana’s Comprehensive Master Plan for a Sustainable Coast was unanimously adopted by the Louisiana Legislature in April 2017. The Coastal Master Plan is the vehicle by which the CPRA articulates a clear statement of priorities to focus development and implementation efforts to achieve comprehensive coastal protection and restoration for the state.

As CPRA carries forth the planning efforts detailed in the 2007 and 2012 Coastal Master Plans, the 2017 plan continues to build on the past and establishes clear priorities for the future through an integrated and comprehensive approach. As with previous plans, the 2017 Coastal Master Plan was developed with world-class science and engineering expertise and extensive engagement and input from citizens and stakeholders in an effort to focus our resources wisely.

The Coastal Master Plan also provides important information to Louisiana’s coastal citizens. Information and tools are available to help Louisiana coastal residents assess their current and future storm-surge flood risk, and recommendations for flood-proofing and home elevation are provided with suggestions that guide actions to reduce future damages and economic losses.

Five key priorities were recognized in the 2017 Coastal Master Plan that place an emphasis on communities, focus on flood risk and resilience, incorporate new project ideas and information, improve upon the models and analysis based on the best available science, and expand partnerships and collaboration. The 2017 plan provides a list of projects that build or maintain land and reduce flood risks that will be studied, planned, designed, constructed, operated, and monitored. CPRA acknowledges the the cost of continued land loss as well as potential effects of protection and restoration project actions on local communities and businesses, and to our regional and national economies.

The 2017 Coastal Master Plan documents and appendices are available to view and/or download at CPRA’s website, www.coastal.la.gov

Emphasizing Communities

Coastal restoration and protection goals ultimately intend to support the people who live and work in coastal Louisiana. The 2017 Coastal Master Plan places great emphasis on understanding continued land loss, as well as potential effects of protection and restoration project actions on local communities and businesses, as well as our regional and national economy. That’s why we created Appendix B – People in the Landscape – which reviews the 2017 Coastal Master Plan results as they relate to Louisiana’s coastal residents. The appendix discusses issues of special relevance to people who live and work in south Louisiana, with a particular emphasis on explaining the implications of rising sea levels.

What's At Stake

If the latest “worst case” sea level rise estimates prove to be accurate, then coastal communities around the world will all face tremendous risks. Louisiana will be no different, especially considering the fact that much of our coast is also experiencing some degree of subsidence. Louisiana has already lost at least 1,900 square miles of land since the 1930s, and we know we will lose more. In fact, our latest predictions show that if we do nothing, we stand to lose in the range of 2,250 to 4,100 additional square miles of land – our homes, our jobs, and our culture at stake.

Taking Action Today For Tomorrow's Good

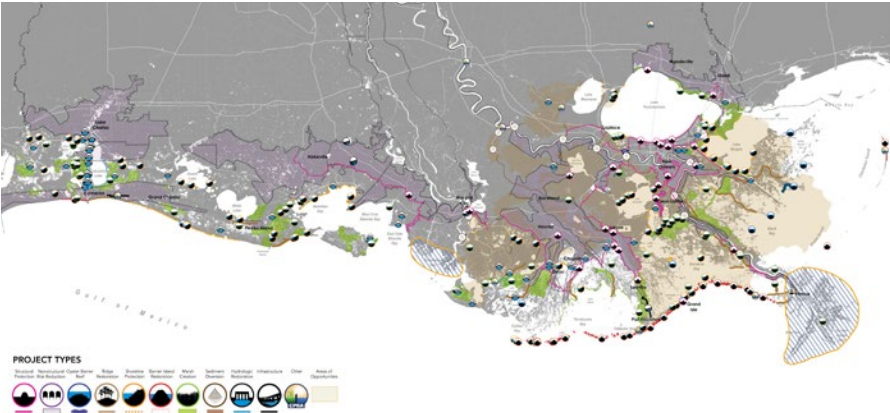
The 2017 Coastal Master Plan focuses on identifying and prioritizing high-performing projects that could be implemented over the next 10 years, while also planning for the next 50. The plan recommends a diversity of projects to build land and reduce storm-surge in order to balance short-term needs with long-term goals. In all, the master plan outlines projects that cost, in present value, approximately \$50 billion. By year 50, these projects provide land building benefits of 800 to 1,200 square miles and reduce economic damage by \$150 billion when compared to no action.



Master Plan Data Viewer

The Master Plan Data Viewer is an interactive tool that enables coastal Louisiana residents to view potential flood risk to their community or property over time as well as to view land loss projections and various socio-economic factors across the coast. It also provides updated information on the implementation of projects in order that citizens can be aware of our coastal program progress. The Master Plan Data Viewer encourages resilience awareness and promotes access to resources that can help communities reduce their storm-surge flood risk.

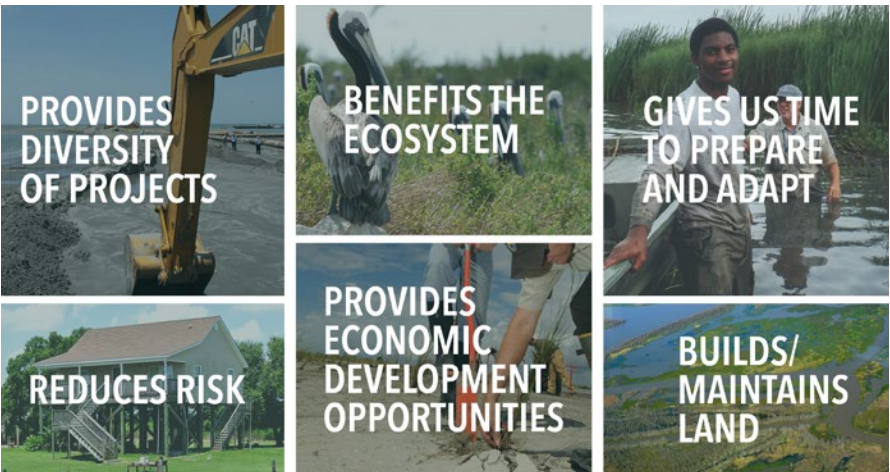
Access the Master Plan Data Viewer at <http://cims.coastal.louisiana.gov/masterplan/>



What The Plan Delivers

Coastal program investments will not only provide direct restoration and risk reduction benefits, but will also provide tremendous economic development opportunities for Louisiana and its residents. The unprecedented investment in coastal restoration and protection will continue to put Louisiana at the forefront of using science and innovation to plan a sustainable future for our coastal communities and our valuable ecosystem. Louisiana is proactively preparing for a bright future in an ever- changing landscape.

The 2017 Coastal Master Plan identifies more than \$17.7 billion in marsh creation using dredged material, \$5 billion in sediment diversions, and more than \$2 billion in other types of restoration projects that benefit 800 square miles of coast. The plan also identifies \$19 billion in structural and \$6 billion in nonstructural risk reduction projects that would reduce expected annual damages from flooding by \$150 billion over 50 years.



Focusing on Flood Risk Reduction and Resilience

In an effort to use all of the tools available to reduce communities’ storm surge flood risk, different types of nonstructural measures and refined policies were explored and suggested to help communities improve their resilience.

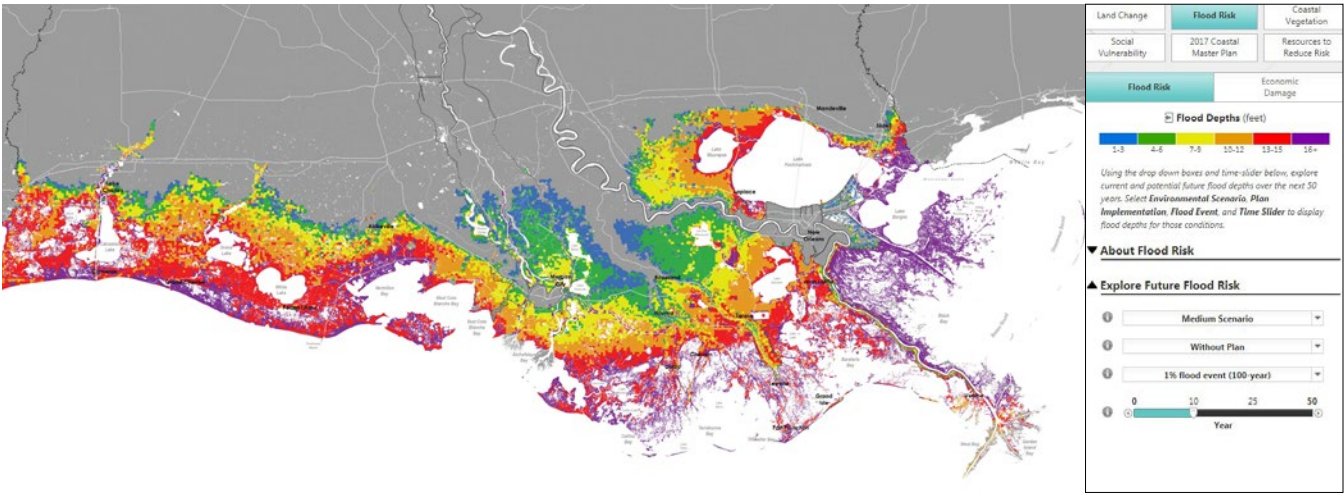
The 2017 Coastal Master Plan presents a more detailed path forward for nonstructural project recommendations, implementation procedures, and policy recommendations. In addition, CPRA also expanded outreach through the creation of a new, interactive web-based viewer to help residents better understand their storm-surge flood risk now and in the future.

This innovative online tool provides Louisiana coastal residents with access to the state’s best information about how our coast may change in the future, as well as resources to make communities and properties more resilient.

This information can be used by Louisiana state agencies, coastal stakeholders, and community advocates in coastal planning and hazard mitigation efforts. In addition, a variety of resources are provided to enable homeowners and business owners to take steps towards reducing their flood risk. Please be encouraged to visit the online tool to explore your own community through the following link: <http://cims.coastal.louisiana.gov/masterplan/>

Expanding Partnerships and Collaboration

Because a successful plan is built on local knowledge, input from a diverse range of coastal stakeholders and extensive dialogue with the public, the many partnerships developed for the 2012 Coastal Master Plan continued for the 2017 Coastal Master Plan. These partnerships included a coastal stakeholder advisory group — the Framework Development Team — as well as focus groups that represented our communities, landowners, recreational interests, and commercial activities (fisheries, navigation, and energy and industry). Throughout the process, these stakeholder and focus groups met to review and discuss key master plan developments, engaged with ongoing sediment diversion planning, and provided valuable feedback and input to help guide the process with regard to their respective interest groups. CPRA also coordinated more closely with key groups such as floodplain managers, hazard mitigation specialists, other state agencies, and NGOs. Furthermore, CPRA reached out to the public in new ways to better share information related to our changing landscape, communities’ storm-surge flood risk, and solutions to create a more resilient and sustainable coast.



Learn more about how coastal flood risk impacts communities today and in the future, as well as how to make your community safer and more resilient. The Master Plan Data Viewer displays the results from Louisiana's 2017 Coastal Master Plan and provides resources to reduce storm-surge flood risk. This information is for coastal planning purposes, and is not appropriate for site-specific decision making.

Nonstructural Risk Reduction

Nonstructural risk reduction measures are a critical component of the Flood Risk and Resilience Program and may include non-residential structure floodproofing, residential structure elevation, or residential structure acquisition. In total, 32 project areas were recommended for nonstructural risk reduction in the 2017 Coastal Master Plan. The nonstructural projects include over 26,000 structures recommended for mitigation at a cost of \$6 billion. This includes approximately 1,400 floodproofings, 22,400 elevations, and 2,400 voluntary acquisitions. CPRA is committed to implementing a comprehensive nonstructural program that ensures optimal implementation of the Master Plan. To date, CPRA has funded nonstructural program development as part of its Adaptive Management framework; and CPRA is exploring the capability and capacity of coastal parishes to implement nonstructural projects and related resilience policies, with various local governments as well as through other state and federal programs. In the FY 2019 Annual Plan, CPRA allocates funding in the amount of \$1 million per year for continued development of its nonstructural program, and is exploring options to expand future funding by leveraging opportunities with local governments through other state and federal programs.

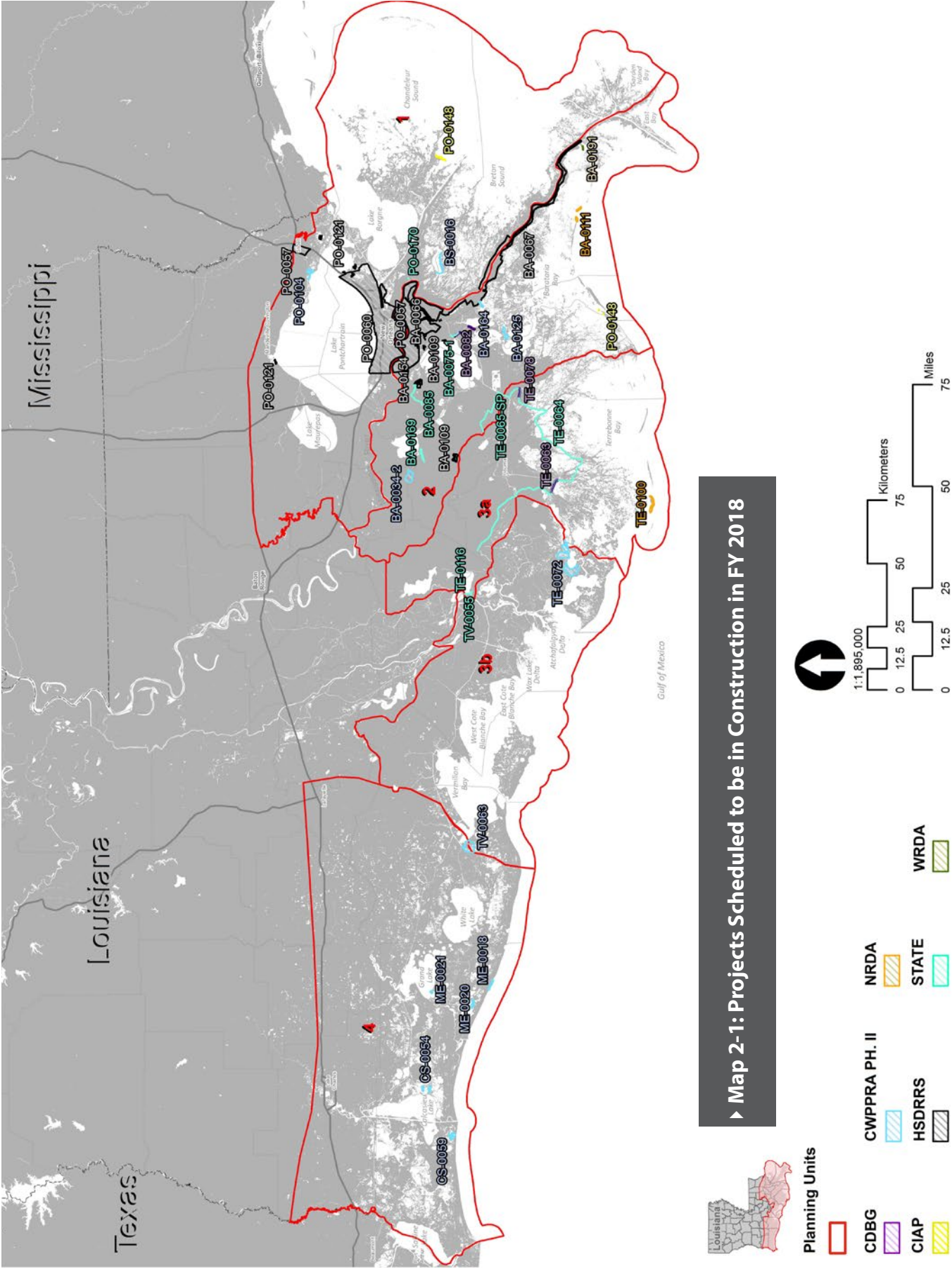
Presently, CPRA is partnering with the LSU Economics & Policy Research Group to conduct an economic assessment to quantify the impacts of future flood risk for three state agencies including the Department of Transportation and Development, Department of Education, and Department of Health. The economic assessment will promote greater interagency coordination for flood risk reduction, and result in more in-depth information describing the current and future coastal flood risks each agency faces and assist in longer term planning initiatives.

Outreach and Engagement

Outreach and Engagement for the 2017 Master Plan was unprecedented, including 16 community conversations with 900 attendees, 85 general presentations/briefings, 55 meetings with advisory groups, 3,500 Facebook views of Master Plan Data Viewer, 11,000 Facebook views of Master Plan, four public hearings with 800 attendees and receipt of over 1,300 comments. Of note, beginning in FY 2019, CPRA will dedicate \$25,000 for language translation services and other efforts to expand outreach to communities with language barriers. Additionally, CPRA delivered over 150 invited presentations, and participated as an exhibitor at community events such as Boil for the Bayou, Coastal Day at the Legislature, Terrebonne Coastal Day, New Orleans Neighborhood Summit, and Ocean Commotion.

CPRA is committed to increased communications with the general public. In 2017, CPRA implemented routine media practices which resulted in 190 media responses logged and a 200% increase in press releases issued compared to the previous four years, combined. A weekly electronic-newsletter initiative, 'Coastal Highlights', was initiated and reaches over 3600 email subscribers; a robust weekly social media program has resulted in tripling our Facebook following from 1,200 to 3,600; and each CPRA board meeting is live-streamed and averages 1,500 views. Additionally, CPRA's Quarterly Progress Report (QPR) has been expanded in response to stakeholder comments to include not only quarterly project schedule updates, but also a new project financial section in an effort to increase transparency and allow stakeholders to have better visibility on Annual Plan performance. The QPR is posted on the agency website www.coastal.la.gov and on social media platforms @LouisianaCPRA.

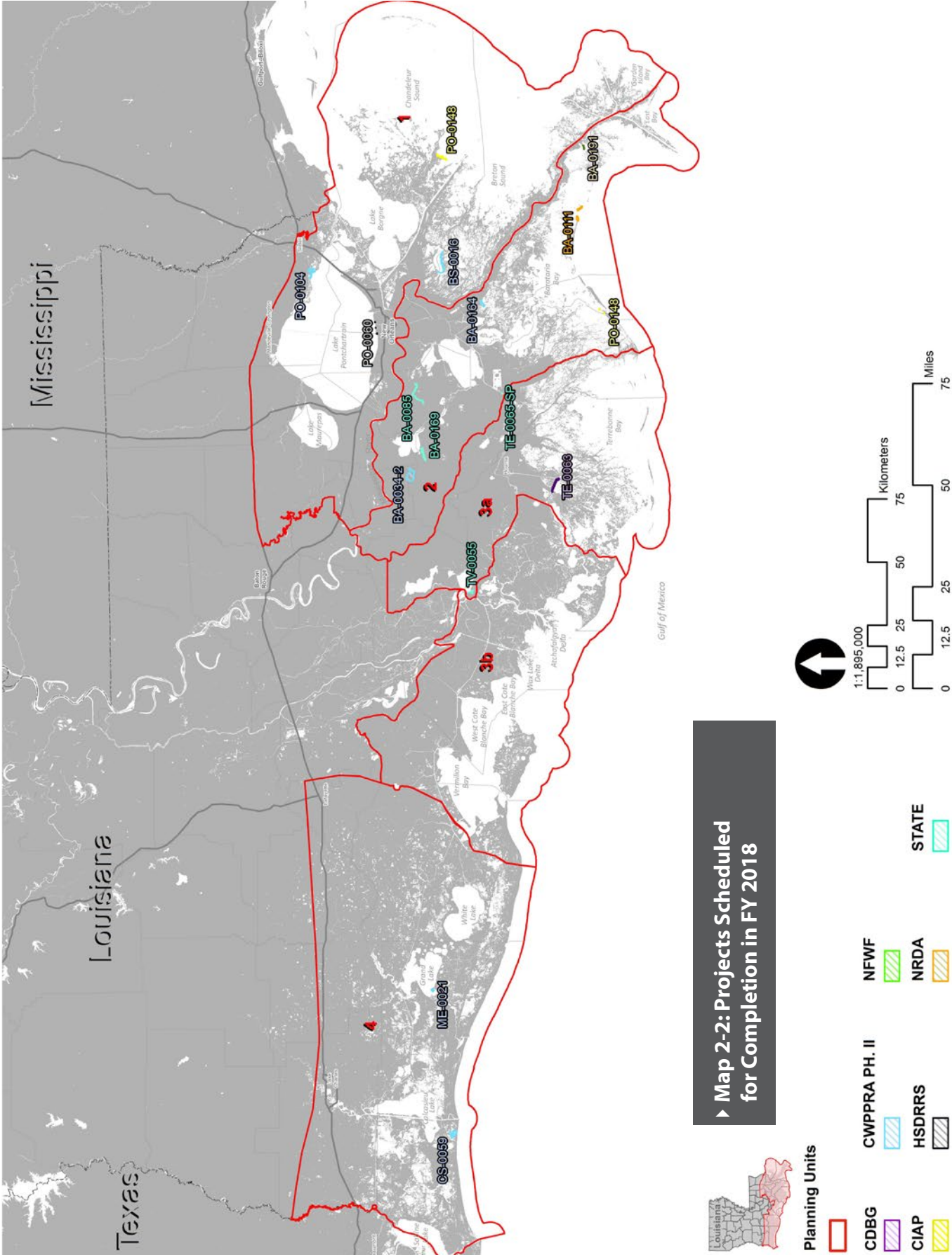
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► Map 2-1: Projects Scheduled to be in Construction in FY 2018

► Table 2-1: Projects Scheduled to be in Construction in FY 2018

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	Total Project Estimate
CWPPRA Phase II Projects				
BA-0034-2	Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp	27-Jun-17	2-Feb-18	\$6,470,448
BA-0164	Bayou Dupont Sediment Delivery - Marsh Creation #3 and Terracing	15-Jan-16	3-Aug-17	\$18,733,494
BS-0016	South lake Lery Shoreline and Marsh Restoration	05-Sep-13	15-Aug-17	\$33,716,987
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	11-May-17	26-Dec-18	\$24,655,612
CS-0059	Oyster Bayou Marsh Creation and Terracing	30-Jun-16	30-Mar-18	\$30,866,713
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	25-May-17	9-Jul-19	\$35,426,478
ME-0020	South Grand Chenier Marsh Creation Project	03-Mar-17	6-Aug-19	\$23,873,346
ME-0021	Grand Lake Shoreline Protection	17-May-16	6-Jul-17	\$10,055,616
PO-0104	Bayou Bonfouca Marsh Creation	28-Apr-16	9-Jan-18	\$29,273,984
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	07-Sep-16	18-Jan-19	\$35,876,728
TV-0063	Cole's Bayou Marsh Restoration	26-Feb-18	24-May-19	\$24,930,426
CIAP Projects				
PO-0148	Living Shoreline ²	02-Oct-15	7-Aug-17	\$14,300,000
State-Only Projects				
BA-0075-1	Jean Lafitte Tidal Protection	19-Feb-14	22-Nov-19	\$29,403,973
BA-0085	St. Charles West Bank Hurricane Protection Levee ³	01-Nov-13	30-Apr-18	\$14,500,000
BA-0169	Kraemer Bayou Boeuf Levee Lift	17-Jun-17	13-Apr-18	\$1,200,000
PO-0170	Violet Canal North Levee Alignment	29-Nov-17	8-Nov-18	\$4,000,000
TE-0064	Morganza to the Gulf	30-Nov-05	1-Jun-20	\$177,003,835
TE-0065-SP	Larose to Golden Meadow - Larose Sheetpile	26-Jan-15	15-Sep-17	\$5,205,702
TE-0116	St. Mary Backwater Flooding	25-May-17	7-Jun-19	\$10,394,609
TV-0055	Morgan City/St. Mary Flood Protection	20-Oct-16	30-Mar-18	\$10,900,000
CDBG Projects				
BA-0082	Lafitte Area Levee Repair	15-Apr-18	20-Feb-19	\$819,185
TE-0063	Falgout Canal Road Levee	05-Aug-15	30-Mar-18	\$24,803,191
TE-0078	Cut-Off/Pointe Aux Chene Levee	25-Aug-17	15-Jan-20	\$9,714,158
HSDRRS Projects				
BA-0066	West Bank and Vicinity	27-Mar-07	28-Sep-18	\$4,304,525,784
BA-0067	New Orleans to Venice	23-Nov-11	29-Aug-23	\$1,301,523,760
BA-0109	HSDRRS Mitigation- WBV ⁴	27-Feb-15	31-Dec-20	\$126,000,000
BA-0154	Previously Authorized Mitigation WBV ⁴	04-Aug-14	1-Mar-19	\$11,000,000
PO-0057	SELA- Overall	18-Feb-09	12-Oct-20	\$1,170,974,586
PO-0060	Permanent Canal Closures and Pump Stations ⁵	11-Mar-13	28-Feb-18	\$614,800,000
PO-0121	HSDRRS Mitigation- LPV ⁵	23-Jul-15	31-Oct-19	\$85,000,000
NRDA Early Restoration Projects				
BA-0111	Shell Island West- NRDA	31-Mar-15	7-Dec-17	\$78,486,655
TE-0100	NRDA Caillou Lake Headlands	22-Jul-15	11-Oct-18	\$118,340,766
WRDA Projects				
BA-0191	Spanish Pass Ridge and Marsh Restoration	15-Jul-16	31-May-18	\$18,111,516
Notes				
1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.				
2. Project partially funded with Surplus funds.				
3. Schedule represents only levee reaches that have received Surplus funding; additional reaches will continue construction with local funding.				
4. Project cost included in total cost for BA-0066.				
5. Project cost included in total cost for PO-0063.				



► **Table 2-2: Projects Scheduled to Complete Construction in FY 2018**

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	Total Project Estimate
CWPBRA Phase II Projects				
BA-0034-2	Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp	27-Jun-17	2-Feb-18	\$6,470,448
BA-0164	Bayou Dupont Sediment Delivery - Marsh Creation #3 and Terracing	15-Jan-16	3-Aug-17	\$18,733,494
BS-0016	South Lake Lery Shoreline and Marsh Restoration	05-Sep-13	15-Aug-17	\$33,716,987
CS-0059	Oyster Bayou Marsh Creation and Terracing	30-Jun-16	30-Mar-18	\$30,866,713
ME-0021	Grand Lake Shoreline Protection	17-May-16	6-Jul-17	\$10,055,616
PO-0104	Bayou Bonfouca Marsh Creation	28-Apr-16	9-Jan-18	\$29,273,984
CIAP Projects				
PO-0148	Living Shoreline ²	02-Oct-15	7-Aug-17	\$14,300,000
State-Only Projects				
BA-0085	St. Charles West Bank Hurricane Protection Levee ³	01-Nov-13	30-Apr-18	\$14,500,000
BA-0169	Kraemer Bayou Boeuf Levee Lift	17-Jun-17	13-Apr-18	\$1,200,000
TE-0065-SP	Larose to Golden Meadow - Larose Sheetpile	26-Jan-15	15-Sep-17	\$5,205,702
TV-0055	Morgan City/St. Mary Flood Protection	20-Oct-16	30-Mar-18	\$10,900,000
CDBG Projects				
TE-0063	Falgout Canal Road Levee	05-Aug-15	30-Mar-18	\$24,803,191
HSDRRS Projects				
PO-0060	Permanent Canal Closures and Pump Stations ⁴	11-Mar-13	4-Jun-18	\$614,800,000
NRDA Early Restoration Projects				
BA-0111	Shell Island West- NRDA	31-Mar-15	7-Dec-17	\$78,486,655
WRDA Projects				
BA-0191	Spanish Pass Ridge and Marsh Restoration	15-Jul-16	31-May-18	\$18,111,516
Notes				
1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.				
2. Project partially funded with Surplus funds.				
3. Schedule represents only levee reaches that have received Surplus funding; additional reaches will continue construction with local funding.				



Section 3

FY 2019

Implementation Plan:
More Projects, More
Action, More Results

Section 3

FY 2019 Implementation Plan:
More Projects, More Action, More Results

This section presents an implementation plan that describes the state’s proposed investment in coastal restoration and protection during FY 2019 (July 1, 2018, through June 30, 2019). Included are all of the coastal protection and restoration projects in which the state will participate. Projected schedules and budgets are estimates based on the most recent available information.

Project Status
Summaries

This 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. 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 (www.coastal.la.gov) for additional details about specific projects. Regional maps of projects in planning, design, and/or construction in FY 2019 are presented in Figures 3-1 through 3-3.

Projects in Planning

There are two projects in the planning phase in FY 2019, including one restoration project and one protection project. These projects, together with other non-project planning initiatives, represent a total state investment of \$10.9 million in FY 2019, and will proceed to design and construction according to their authorizing program as discussed in the Coastal Program Details section.

Projects in Design

There are 42 restoration projects in design for FY 2019. These projects represent a total state investment of \$131.5 million in FY 2019. 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

There are 21 projects that will begin or continue construction in FY 2019, including 10 protection projects and 11 restoration projects. These projects represent a total state investment of \$289 million in FY 2019, and 11 of these projects are projected to complete construction in FY 2019. Table 3-1 presents additional information about projects set for construction in FY 2019, and Figure 3-4 provides a map with the locations of these projects.

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Constructed Projects in Operation, Maintenance, and Monitoring

The CPRA will expend approximately \$54 million (including federal match dollars) in FY 2019 on operation, maintenance, and monitoring (OM&M). OM&M expenditures in FY 2019 will cover the operation and maintenance of 136 projects and monitoring of 105 projects. OM&M expenditures also include approximately \$9 million (in state and federal funds) for monitoring coast-wide conditions using CRMS-Wetlands (<http://www.lacoast.gov/crms2/Home.aspx>). Figure 3-5 provides a map with locations of all projects with OM&M expenditures in FY 2019. Project-specific OM&M expenditures are presented in Appendix B. The Barrier Island Status Report (Appendix C) is available online for review (www.coastal.la.gov). The Operating Plans for the Caernarvon and Davis Pond diversions during calendar year 2018 are referenced in Appendix D.

Ongoing Programs and Initiatives

The state operates six ongoing programs. These efforts provide supporting research, financial assistance, additional project benefits or educational support for our protection and restoration program, and are listed in the top portion of Table 4.3 (Section 4).

Adaptive Management

The Coastal Master Plan process recognizes the need to quickly implement large scale projects within an extremely dynamic environment. In so doing we must establish and maintain a robust adaptive management program that will allow us to modify constructed projects and inform the development of future projects.

Future conditions of coastal Louisiana are uncertain, due to the dynamics of riverine and marine processes, storm events, climate change, population growth, economic activity, and ongoing human reliance on the natural resources the coast provides. Managing such a complex system in which the natural and socio-economic systems are highly integrated is inherently difficult. In addition, deltaic environments are uniquely challenged due to the interdependence and delicate balance of water, land and economic systems and future uncertainties regarding the magnitude and rate of climate change impacts. Adaptive management encourages the integrated and flexible approach to land and water management that considers risk and uncertainty. It promotes solutions that are sustainable even if conditions change by providing a mechanism for robust decision making. Connecting short-term investments with long-term challenges and the selection of action paths that allow for maximum flexibility of future decisions are two of the key concepts of adaptive management. Historically, as human developments evolved in deltas, decisions were made that cannot be easily changed (such as the location of New Orleans). This results in some “path dependency”; meaning that future options are limited or constrained by past decisions. However, learning from past decisions and understanding the range of possible future scenarios allows us to avoid these constraints in the future by using adaptation pathways to make decisions that allow for maximum future flexibility. As new techniques and projects for restoration and risk reduction are being developed, there exists an opportunity to learn how the system will respond to the coastal protection and restoration program implementation and to use that learning to improve future program management decisions.

Adaptive management:

- 1. provides a structured process for making decisions over time through active learning;
- 2. enables adjustments in program implementation as new information becomes available; and
- 3. embraces a scientific approach that involves:
 - a. identifying explicit goals and objectives,
 - b. developing and implementing management actions,
 - c. assessing the system’s response to the action(s), and then
 - d. using that knowledge to make management decisions.

Adaptive management relies on an accumulation of evidence to support decisions that demand action. It also relies on maintaining flexibility to make management changes when necessary to adjust to changing conditions and a growing knowledge base. Critical to the success of adaptive management are the actions that ensure feedback of information among the various phases of project selection, engineering and design, construction, monitoring, and operations and maintenance. Adaptive management is embodied by building institutional knowledge to continually improve understanding of the system and how management actions can best achieve project and program goals. All phases of project management must be coordinated and must share information, not only to maximize the benefits on a project-by-project basis, but also to carry the information learned from past projects into the development of future projects. A high level of commitment is needed to successfully incorporate adaptive management into ongoing business operations.

An adaptive management approach is generally employed when management decisions are hindered by uncertainties in the system dynamics or system response to management actions. Long-term restoration and protection in Louisiana’s dynamic coastal environment must be an ongoing series of management decisions based upon a growing knowledge base of research information, updated measurements of ecosystem responses, and evaluations of degrees of progress in reaching goals and targets. The dynamic coastal environment associated with ongoing land loss, sea-level rise and subsidence as well as the periodic impact of tropical storms and hurricanes makes adaptive management imperative.

The scale and complexity of Louisiana’s Coastal Master Plan requires a robust adaptive management strategy to cultivate a growing body of knowledge related to restoration and protection science. Although not formalized, CPRA has been actively practicing adaptive management since its inception. Examples of early improvements in CPRA’s program include:

- Assessments and improvements in barrier island project designs based on project performance;
- Modifying operational regimes for freshwater diversion projects to mimic natural pulsing of the river; and
- Refining the types of projects authorized based on performance and improved understanding of land loss causes.

With the development of the first Coastal Master Plan in 2007, Louisiana moved from a project- and hydrologic basin-centric strategy to a more comprehensive program which demanded the development of robust and systematic decision support tools to assist with selecting portfolios of projects which would collectively address the goals and objectives of the state’s coastal protection and restoration program.

CPRA’s adaptive management approach balances the urgent need for action and the inherent uncertainty involved in large-scale coastal planning by ensuring new information is utilized in all aspects of the planning and implementation process. Adaptive management is a formalized, structured approach that identifies the pathways and mechanisms by which information is integrated into various activities related to achieving CPRA’s mission.

CPRA will continue to build on the decades of research and analysis performed to date, and must move forward to maximize riverine resources even though our science may be imperfect. 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 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. Annually, 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.

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 2019 on the implementation of 21 CWPPRA Phase 1 projects (engineering and design), 10 CWPPRA Phase 2 projects (construction and monitoring), and one CWPPRA demonstration project.

Examples of active CWPPRA projects include the following:

- East Leeville Marsh Creation and Nourishment (BA-0194) (Phase 1)
- West Fourchon Marsh Creation (TE-0134) (Phase 1)
- Northwest Turtle Bay Marsh Creation (BA-0125) (Phase 2)
- Cole’s Bayou Marsh Restoration (TV-0063) (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. 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.

Water Resources Development Act (WRDA)

The state is partnered with the USACE on multiple large-scale protection and restoration projects and studies 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.

Schedules for WRDA projects are presented in Table 3-3. Project-specific expenditures for WRDA projects are presented in Appendix B.

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., Southwest Coastal Louisiana Feasibility Study [LA-0020]) and implement other state-only projects. The state has also begun implementation of other projects without a federal partner using Trust Fund revenues.

The state will expend funds in FY 2019 on six state-only protection projects.

Broadly speaking, state-only projects generally involve one of the following categories:

- Expedited construction of components of federal protection projects (e.g., Morganza to the Gulf [TE-0064]);
- Feasibility studies for flood protection in areas not currently covered by the existing federal protection network (e.g., South Central Coastal Plan [TV-0054]); or
- 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-0075-1], Morgan City/St. Mary Flood Protection [TV-0055]).

A total of \$293.3 million in 2008 and 2009 was allocated to cover LERRDS cost for the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS). Included within this total is \$193.3 million from Act 20 of the 2009 Regular Legislative Session that was approved for Southeast Louisiana Hurricane Protection projects. This includes credits and payments toward the state and levee district match requirements for the estimated \$15 billion HSDRRS work underway. The non-federal cost share of such work is estimated to be \$1.8 billion plus applicable interest. Under the plan, these funds may be utilized to advance planning, design, and construction of hurricane protection and flood control projects in southeast Louisiana.

These investments will match local and federal funds while improving the protection of our most vulnerable communities consistent with the Master Plan. These funds are projected to be expended in their entirety by the end of FY 2019.

Project schedules for state-only projects are included in Table 3-4. Project-specific expenditures for state-only projects are presented in Appendix B.

Of the seven active state-only projects, six are funded for construction and will proceed to construction in accordance with their schedules as presented in Table 3-4. The remaining project is funded for feasibility and would only proceed to design upon receipt of further authorization through another coastal funding program.

Community Development Block Grants (CDBG)

Louisiana received \$1.06 billion from HUD'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. HUD subsequently approved nine projects for CDBG funding.

Project schedules for CDBG projects are included in Table 3-5. Project-specific expenditures for CDBG projects are presented in Appendix B.

All active state CDBG projects are funded for construction and will proceed to construction in accordance with their schedules as presented in Table 3-5. State CDBG projects require an agreement with the local sponsor, where the local sponsor is responsible for ownership and 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. Potential issues that could affect CDBG project implementation include design issues, land rights issues, environmental compliance issues, and permitting issues.

Hurricane and Storm Damage Risk Reduction System

HSDRRS 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, the Lake Pontchartrain and Vicinity project, the IHNC Lake Borgne Surge Barrier and IHNC Seabrook Complex (each of which is managed separately). Each of these projects is in turn comprised of multiple segments, which have separate design and construction schedules. Schedules for remaining HSDRRS project components are included in Table 3-6 and are fully funded for construction to proceed according to the schedules provided. HSDRRS also covers multiple restoration projects that are currently under development as mitigation for wetland impacts associated with construction of hurricane protection projects.

As the non-federal sponsor along with the local levee authorities and levee districts, the state has contributed to the West Bank and Vicinity and Lake Pontchartrain and Vicinity projects through plans and specifications review, construction inspection assistance, project and program management, and payment of LERRDS costs. According to the USACE, the non-federal sponsor is responsible for the payback of the non-federal cost share (approximately 35 percent) over a 30-year period to begin upon acceptance of the system.

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. Appendix E contains an inventory of non-state projects identified through outreach to coastal parishes and levee districts to obtain information on local, non-state coastal projects. 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 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.

Deepwater Horizon Oil Spill Restoration Planning

The settlement with BP discussed in Section 2, combined with prior *Deepwater Horizon*-related settlements, and recoveries, totals \$8.7 billion over 15 years for Louisiana coastal restoration and economic damages. Understanding that each source of oil spill funding is subject to various criteria and public approval processes, the CPRA is looking at oil spill funding sources holistically in an effort to maximize the use of these dollars.

Schedules for projects that will be implemented by CPRA as part of *Deepwater Horizon* oil spill restoration are presented in Table 3-7. Project-specific expenditures are presented in Appendix B.

Natural Resource Damage Assessment (NRDA) Restoration

The Natural Resource Damage Assessment (NRDA) is the process used by Natural Resource Trustees to develop, on behalf of the public, their claim for natural resource damages against the responsible party or responsible parties for an oil spill. Through that claim, the Trustees seek compensation in the form of restoration for the harm done to natural resources and services. The overall goal of NRDA is to make the environment and public whole by restoring natural resources to their pre-spill conditions, and to provide compensation for the loss of those resources from the date of injury through completion of restoration

NRDA Early Restoration

In April 2011, the Trustees and BP announced an agreement under which BP committed to provide \$1 billion toward the implementation of early restoration projects. The agreement represented an initial step toward fulfilling BP's obligation as a responsible party to fund complete restoration of natural resources. Early restoration provides an opportunity to implement restoration projects prior to the completion of the natural resource damage assessment process.

Louisiana received approximately \$370 million in early restoration funds which have been used for the following projects:

- Lake Hermitage Marsh Creation Project (\$14.4 M)
- Louisiana Oyster Cultch Project (\$15.6 M)
- Louisiana Outer Coast Restoration (\$318 M):
 - Caillou Lake Headlands (Whiskey Island) (\$110 M)
 - Shell Island West (\$101 M)
 - Chenier Ronquille (\$35 M)
 - North Breton Island (\$72 M)
(Implemented by Department of the Interior)
- Provide and Enhance Recreational Opportunities (\$22 M)¹

1. Due to site issues that arose during the planning and development of the originally proposed project (i.e., the Louisiana Marine Fisheries Enhancement, Research, and Science Center), these funds will be reallocated to restoration projects intended to provide and enhance recreational opportunities in Louisiana. Specific replacement projects are currently being evaluated and have been presented to the public for review and comment in a draft restoration plan released in December 2017.

Natural Resources Damages under the Oil Pollution Act

In February 2016, the *Deepwater Horizon* Trustees released the Programmatic Damage Assessment and Restoration Plan and Programmatic Environmental Impact Statement (PDARP/PEIS). The PDARP/PEIS established the framework for utilizing the \$8.8 billion allocated for restoration of natural resource damages, including a minimum of \$5 billion specifically allocated for Louisiana. Further, the PDARP/PEIS proposes an allocation of funds by restoration type and geographic area based on the Trustees' understanding and evaluation of exposure and injury to natural resources and services, as well as an analysis of where restoration associated with the various restoration types would be most appropriate.

Following the PDARP/ PEIS, a series of project-specific plans will be developed and released for public review. These plans will propose suites of projects intended to address injuries resulting from the oil spill for public consideration, and will be periodically presented and discussed with the public over the 15-year payment period specified in the settlement.

In January 2017, Louisiana finalized its first post-settlement, project-specific restoration plan, which informed the public about *Deepwater Horizon* NRDA restoration planning efforts and approved approximately \$22.3 million in engineering and design (E&D) work for six restoration projects. These projects should restore wetlands, coastal, and nearshore habitats; habitat projects on federally managed lands; and birds. The six projects are as follows:

- Terrebonne Basin Ridge and Marsh Creation Project:
Bayou Terrebonne Increment (TE-0139)
- Barataria Basin Ridge and Marsh Creation Project:
Spanish Pass Increment (BA-0203)
- Lake Borgne Marsh Creation Project: Increment One (PO-0180)
- Queen Bess Island Restoration Project (BA-0202)
- Rabbit Island Restoration Project (CS-0080)
- Shoreline Protection at Jean Lafitte National Historic Park and Preserve
(Implemented by Department of the Interior)

Once this work is completed, Louisiana will evaluate the feasibility of these projects and develop a restoration plan for the construction of the projects. If all six projects are feasible, construction is estimated to cost over \$460 million.

In December 2017, Louisiana released two additional restoration plans, a project-specific draft recreational use plan and a draft strategic restoration plan for the restoration of wetlands, coastal, and nearshore habitats in the Barataria Basin, and held a public meeting to discuss both plans during the January 2018 CPRA Board Meeting.

Recreational Use Restoration Plan

This Recreational Use Restoration Plan evaluated potential projects to restore for lost recreational use within Louisiana by evaluating alternatives that could compensate for a part of Louisiana's recreational fishing use injury. As such, Louisiana's approach to restoring for lost recreational use in this Restoration Plan emphasized the creation or enhancement of recreational fishing infrastructure, enhanced recreational fishing access or opportunity, and educational and outreach components that promote utilization of the natural resources and encourage conservation and stewardship for them, consistent with the injuries caused by the *Deepwater Horizon* Oil Spill and fisheries-based objectives.

The Louisiana Trustee Implementation Group proposed moving forward with the following proposed alternatives for recreational use within the "Provide and Enhance Recreational Opportunities" Restoration Type:

- Elmer's Island Recreational Access (\$6.0 M)
- Statewide Artificial Reef Enhancement (\$6.0 M)
- Lake Charles Science Center and Educational Complex (\$7.0 M)
- Pointe-aux-Chenes Island Road Fishing Piers (\$3.0 M)

The total funding proposed is \$22 million.

Draft Strategic Restoration Plan for the Restoration of Wetlands, Coastal, and Nearshore Habitats in the Barataria Basin

For this plan, Louisiana is undertaking a phased restoration planning approach to restore wetlands, coastal, and nearshore habitats in the Barataria Basin. The first phase involves the preparation of a strategic restoration plan for the Barataria Basin. This strategic plan will evaluate restoration approaches and techniques to serve as a preferred alternative for restoring wetlands, coastal, and nearshore habitats in the Barataria Basin. Any project or suite of projects discussed in the strategic plan will be further analyzed in subsequent phased project-specific restoration plans.

BP and Transocean Criminal Settlements - NFWF

In early 2013, a U.S. District Court approved two plea agreements resolving the criminal charges against BP and Transocean related to the *Deepwater Horizon* disaster. The agreements directed a total of \$2.54 billion to NFWF for natural resources restoration in the Gulf of Mexico. Within five years of settling, NFWF's newly established Gulf Environmental Benefit Fund will receive approximately \$1.27 billion to "create or restore barrier islands off the coast of Louisiana and/or to implement river diversion projects on the Mississippi and/or Atchafalaya Rivers for the purpose of creating, preserving and restoring coastal habitat."

The initial NFWF award funded the following projects:

- Adaptive Management: Louisiana River Diversions and Barrier Islands (\$13.2 M)
- Caminada Beach and Dune Increment II:
 - Engineering and Design (\$2.7 M)
 - Construction (\$144.5 M)
- East Timbalier Island: Engineering and Design (\$5.6 M) (subsequently rescoped as Terrebonne Basin Barrier Island and Beach Nourishment)
- Mid-Barataria Sediment Diversion: Engineering and Design (\$37.7 M)
- Lower Mississippi River Sediment Diversions: Planning (\$12.8 M)
- Increase Atchafalaya Flow to Terrebonne: Planning (\$4.6 M)

The most recent funding award, \$245 million, is a milestone in advancing implementation of cornerstone projects within the Louisiana Coastal Master Plan and another victory for rehabilitating Louisiana's most valuable asset, our coast.

- Mid Barataria Sediment Diversion (Remaining Engineering and Design) (\$102.3 M)
- Mid Breton Sediment Diversion (Engineering and Design) (\$90.6 M)
- Increase Atchafalaya Flow to Terrebonne (Engineering and Design) (\$16.4 M)
- Adaptive Management: Louisiana River Diversions and Barrier Islands Phase II (\$19.6 M)
- Mississippi River Sediment Diversion Program Management (\$16.1 M)

The next NFWF grant application cycle begins in March 2018.

Clean Water Act Penalties

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating water quality standards for surface waters. The CWA makes it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. Violations of the CWA can result in both civil and criminal prosecutions by the federal government. The U.S. Department of Justice (DOJ), on behalf of the EPA, the United States Coast Guard (USCG), or another federal agency, may bring enforcement actions for civil or criminal penalties under the CWA.

RESTORE Act

In June 2012, Congress passed the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (the RESTORE Act), which dedicates 80 percent of all prospective CWA administrative and civil penalties related to the *Deepwater Horizon* spill to a Gulf Coast Restoration Trust Fund. The RESTORE Act also outlines a structure by which the funds can be utilized to restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast region.

The RESTORE Act outlines the following framework for allocation of the RESTORE Trust Fund:

- 35 percent equally divided among the five Gulf Coast States for ecological restoration, economic development, and tourism promotion (Direct Component) (Bucket 1);
- 30 percent plus interest managed by the Council for ecosystem restoration under the Comprehensive Plan (Council-Selected Restoration Component) (Bucket 2);
- 30 percent divided among the States according to a formula to implement state expenditure plans, which require approval of the Council (Spill Impact Component) (Bucket 3);
- 2.5 percent plus interest for the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program within the Department of Commerce’s National Oceanic and Atmospheric Administration (NOAA Science Program) (Bucket 4); and
- 2.5 percent plus interest allocated in equal shares to the Gulf Coast States for the establishment of Centers of Excellence which will focus on science, technology, and monitoring related to Gulf restoration (Center of Excellence Component) (Bucket 5).

In February 2013, Transocean Deepwater Inc. (Transocean) agreed to pay \$1 billion to resolve federal CWA civil penalties associated with the *Deepwater Horizon* oil spill. In December 2015, a final judgment was issued against Anadarko Petroleum Corporation (Anadarko) for CWA penalties in the amount of \$159.5 million for its role in the oil spill. Finally, as part of the April 2016 BP consent decree, BP agreed to pay \$5.5 billion for CWA civil penalties. These CWA penalties from Transocean, Anadarko and BP are all subject to the RESTORE Act. Under the RESTORE Act and over a 15 year period, these settlements combined will direct a minimum of approximately \$988.4 million to the State of Louisiana, of which \$876.8 million will be allocated to CPRA for implementation of Master Plan projects.

Direct Component and Spill Impact Component Projects

In order to expend Direct Component or Spill Impact Component funds, CPRA is required to submit a plan describing how it will use those funds. On January 18, 2017, the state’s First Amended RESTORE Plan (RESTORE Plan), which describes how the state will use these funds over 15 years, was approved by the CPRA Board for submission to the U.S. Department of Treasury (Treasury) for expenditure of Direct Component funds and the RESTORE Council for expenditure of Spill Impact Component funds.

In March 2017, Louisiana became the first state to have a plan accepted by both Treasury and the RESTORE Council for the expenditure of all of its Direct Component and Spill Impact Component funds from the Transocean, Anadarko Petroleum Corporation and BP Exploration & Production Inc. settlements over a 15 year period. Acceptance of the RESTORE Plan by Treasury and the RESTORE Council is a prerequisite to CPRA submitting grant applications to fund projects under the plan. Under the RESTORE Plan, the state committed to funding two projects and two programs for a total of approximately \$811.9 million:

- Direct Component (~\$260.4 M)
 - Calcasieu Ship Channel Salinity Control Measures project (~\$260.4 M)
- Spill Impact Component (~\$551.5 M)
 - Houma Navigation Canal Lock Complex project (~\$366 M)
 - Adaptive Management Program (~\$60.9 M)
 - Parish Matching Program (up to \$100 M)
 - Contingency funds (~\$24.6 M)

Council-Selected Restoration Component Projects

In December 2015, the Gulf Coast Ecosystem Restoration Council approved the Initial Funded Priorities List (FPL) which included funding for seven projects in Louisiana totaling approximately \$52 million. The funds allocated by the initial FPL are associated with the Transocean settlement.

The Coastal Master Plan projects receiving funding include:

- Golden Triangle Marsh Creation Project (Engineering and Design) (\$4.3 M)
- Mississippi River Reintroduction into Maurepas Swamp (Engineering and Design) (\$14.2 M)
- Biloxi Marsh Living Shoreline Project (Engineering and Design) (\$3.2 M)
- West Grand Terre Beach Nourishment and Stabilization Project (Engineering and Design) (\$7.3 M)
- Lower Mississippi River Management Program (Planning) (\$9.3 M)

Two additional projects, Jean Lafitte Canal Backfilling (\$8.7 million; implementation) and Bayou Dularge Ridge, Marsh and Hydrologic Restoration (\$5.2 million; planning) are also located in Louisiana. These two projects, submitted for funding by federal members of the Council, will directly benefit coastal Louisiana.

Although the future funding available for Louisiana under this component is unknown, the Council does anticipate that future iterations of the FPL will include significantly larger projects and project lists that reflect the full amount available to be spent for restoration activities. CPRA anticipates that future requests for FPL funding will include additional funds for future phases of work associated with the Coastal Master Plan projects included in the Initial FPL, as well as requests for funding other projects prioritized by CPRA for RESTORE.

RESTORE Act Louisiana Center of Excellence Grants Program

In November 2016 the Louisiana Center of Excellence (COE), the Water Institute of the Gulf, issued a request for proposals to fund research under the first installment of Louisiana’s Center of Excellence research program. CPRA will provide over \$4 million under this first installment to the COE to administer and fund researchers contributing knowledge from a variety of fields that will inform and support implementation of the state’s Coastal Master Plan.

In June 2017, the RESTORE Act Louisiana Center of Excellence Grants Program announced 13 research projects funded through the first round of a competitive grants process. The two-year grants fund projects that directly relate to the implementation of Louisiana’s Coastal Master Plan. Three types of research awards were made – Louisiana-led collaborative awards, research awards, and Louisiana graduate scholarship awards. To select the projects, the COE coordinated a peer-review process where three subject matter experts from within Louisiana and from around the country evaluated each proposal. Representatives from CPRA also evaluated how well each proposal applied to advancing the Coastal Master Plan. An External Review Board of independent experts provided funding recommendations based on the evaluations and the quality of the proposals. Nearly \$3 million was awarded to collaborative and research awards, and to graduate scholarships. The Center of Excellence Grants Program is a significant opportunity to encourage research that will accelerate scientific progress relevant to implementation of Louisiana’s Coastal Master Plan. A summary of awarded projects can be found at <http://coastal.la.gov/wp-content/uploads/2017/06/List-of-Awardees.pdf>.

Gulf of Mexico Energy Security Act (GOMESA)

The Gulf of Mexico Energy Security Act (GOMESA) provides four Gulf Coast states and their coastal political subdivisions, including Louisiana, with 37.5 percent of qualified federal revenue gained from Outer Continental Shelf leases. Revenue sharing is capped at \$500 million through federal FY 2055, but the revenue sharing established under GOMESA will continue beyond that date. The first payment from Phase II of GOMESA is expected in the Spring of 2018, and although prior projections for GOMESA’s maximum potential contribution to Louisiana’s coastal program ranged from \$120-\$140 million annually, estimates are now \$60-\$70 million, because the cap was not met.

Coastal parishes will share 20 percent of the total amount received by Louisiana according to a formula that considers inverse distance to the lease site population and coastline length. CPRA receives the remaining 80 percent.

CPRA GOMESA expenditures are limited by the allowable uses of the CPR Trust Fund; however, parishes may spend funds on any of the federally approved uses:

- Coastal Protection—conservation, restoration, hurricane protection
- Mitigation of damage to wildlife or natural resources
- Implementation of a federally approved conservation management plan
- Mitigation of effects from OCS activities through onshore infrastructure project
- Associated planning and administrative expenses (capped)

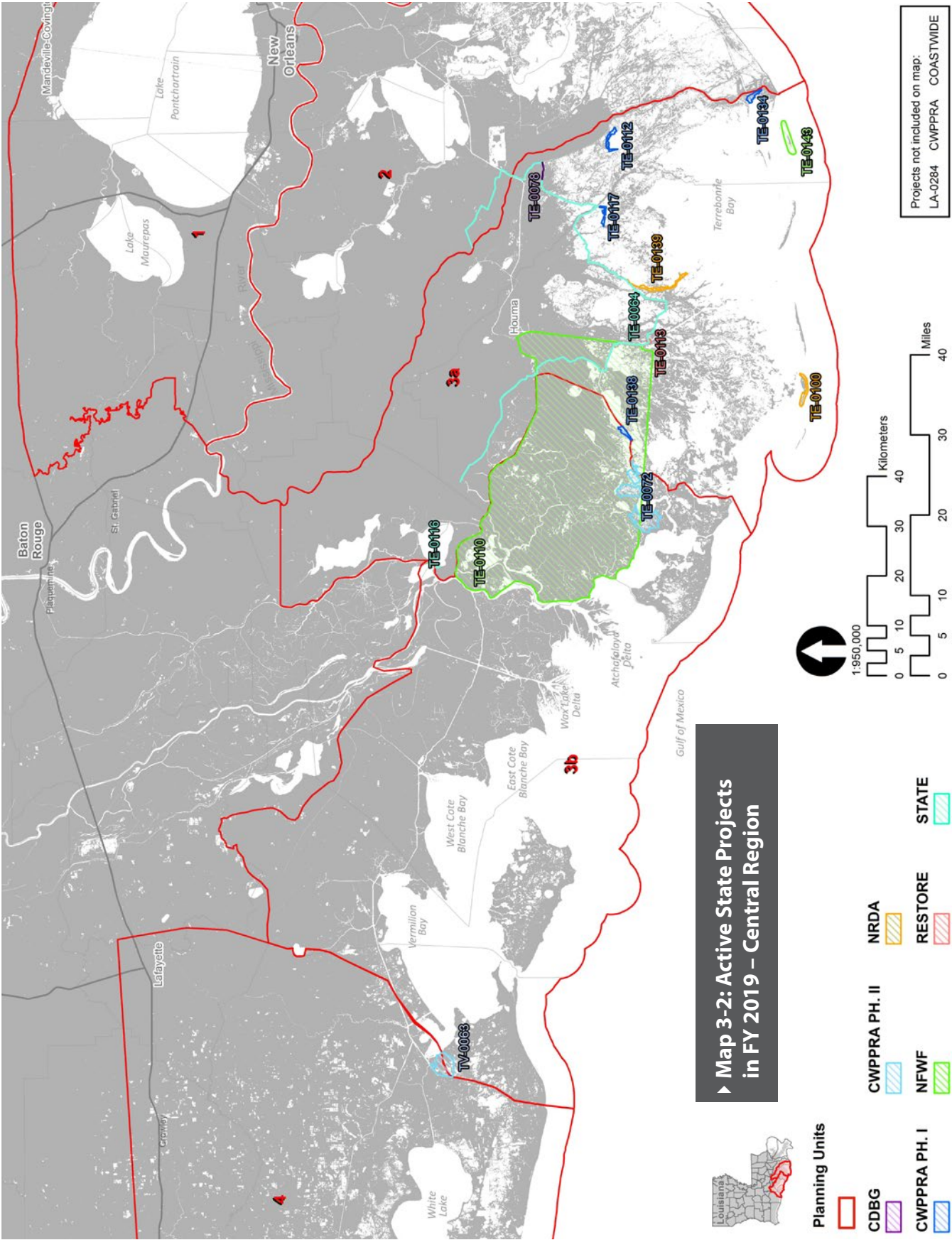
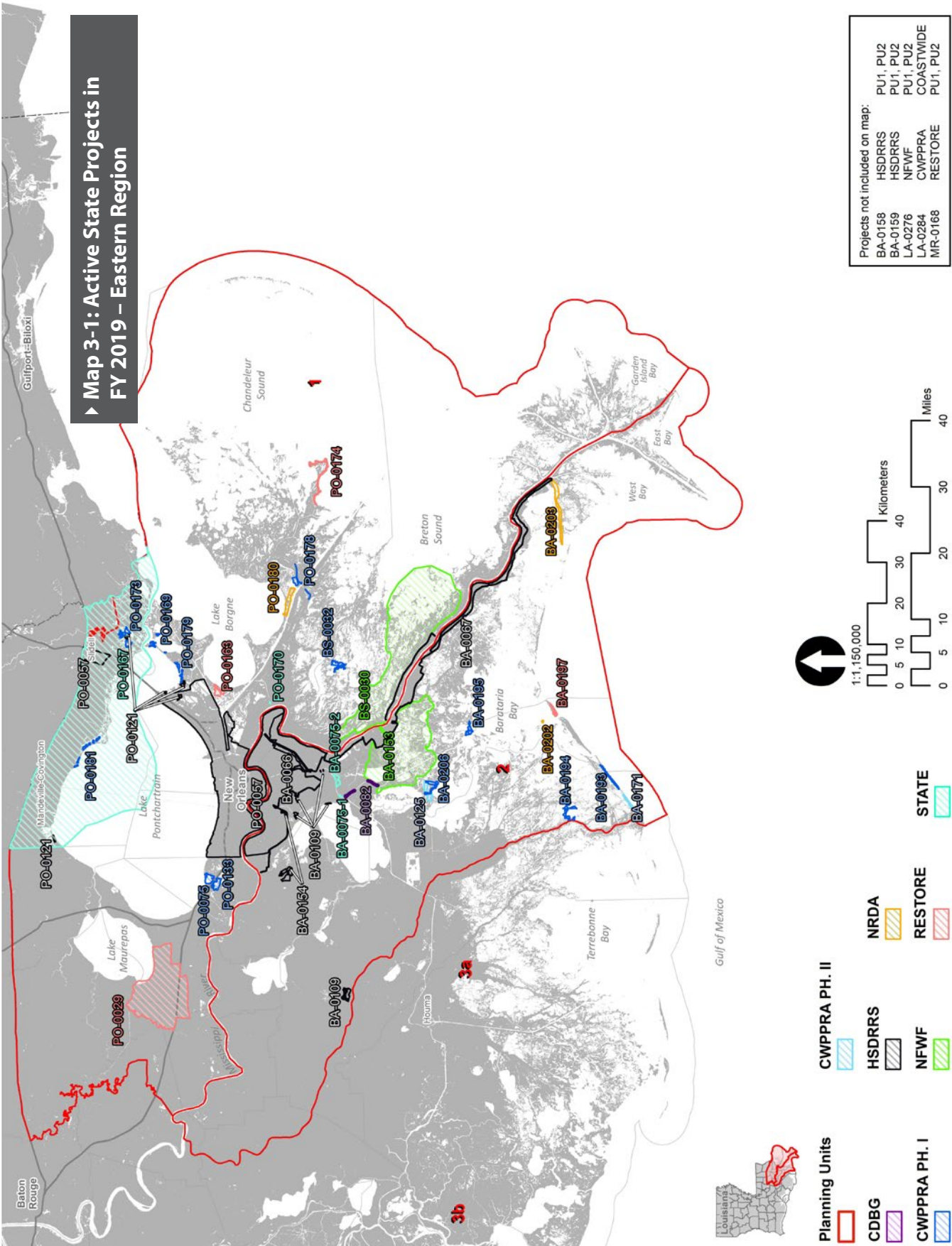
CPRA has been advised that the Phase II revenue sharing cap has not been met this year, and may also not be met in the coming three to five years. Based on this guidance, CPRA has established \$70 million as the annual expected GOMESA income level for the next three years and will reevaluate this decision as new information becomes available.

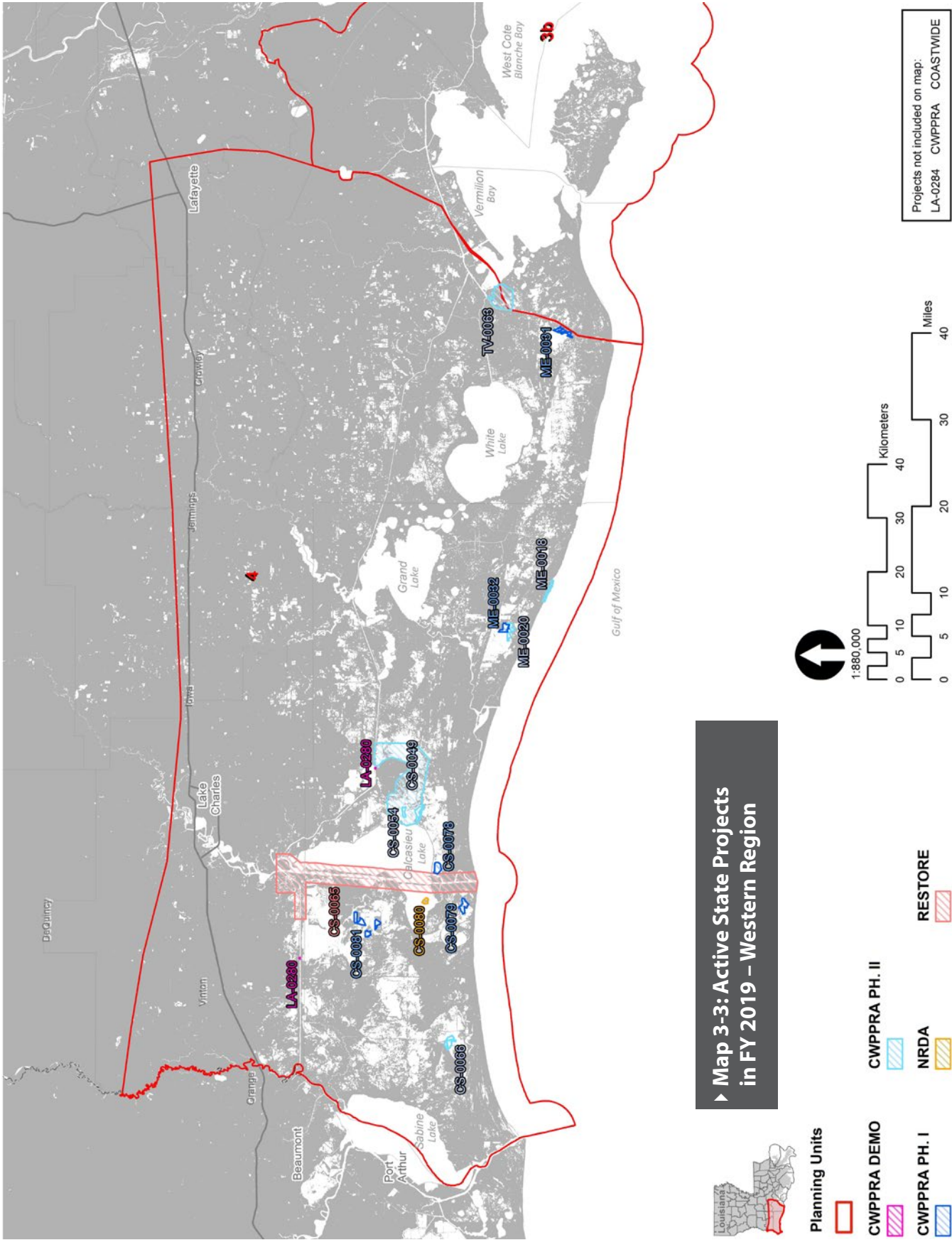
Because of the importance of this revenue stream and the uncertainty surrounding it, CPRA is partnering with Restore or Retreat to hire a team of economists and financial advisors for a large project which will include a reliable forecast for the GOMESA revenue stream. This information will be helpful for better estimating annual payments of this funding stream for the state and parishes. The results of this forecast analysis are anticipated by June 2018.

CPRA anticipates using GOMESA funds from the FY 2018 and FY 2019 allotments to fund implementation of the following projects (implementation will be led by the local parish or levee district):

- 40 Arpent Canal Levee- Lockport Co. Canal to Butch Hill Station (North Lafourche Levee District)
- Hollywood Canal Closure Structure (North Lafourche Levee District)
- Reach L (South Lafourche Levee District)
- Little Bayou Bleu (South Lafourche Levee District)
- Reach L Mitigation (South Lafourche Levee District)
- Rosethorne Basin Phase 1 & 2 (Lafitte Area Independent Levee District)
- Grand Isle Beach Stabilization (Grand Isle Independent Levee District)
- West Shore Lake Pontchartrain (Pontchartrain Levee District)
- NF-06a.1 Drainage Canal Relocation ROW Acquisition (Plaquemines Parish)
- Magnolia Ridge Levee Lift and Road (St. Charles Parish)
- St. James Parish 30% Design- Phases 1-3 (St. James Parish)
- Davis Pond Upper Barataria Risk Reduction (Lafourche Basin Levee District)
- St. Tammany Ring Levee (St. Tammany Parish)
- Vermilion Parish Hydrology & Hydraulics Study (Vermilion Parish)

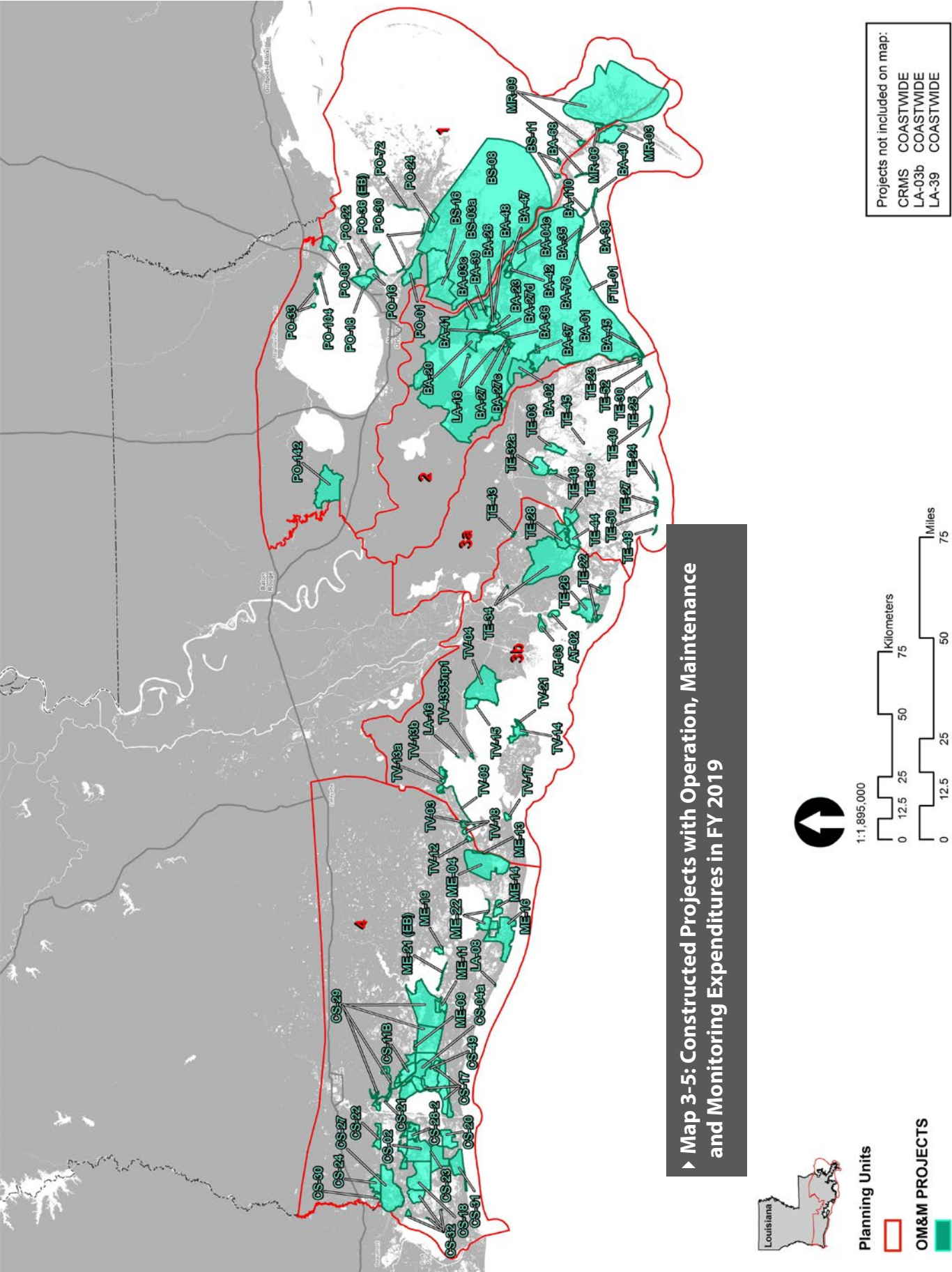
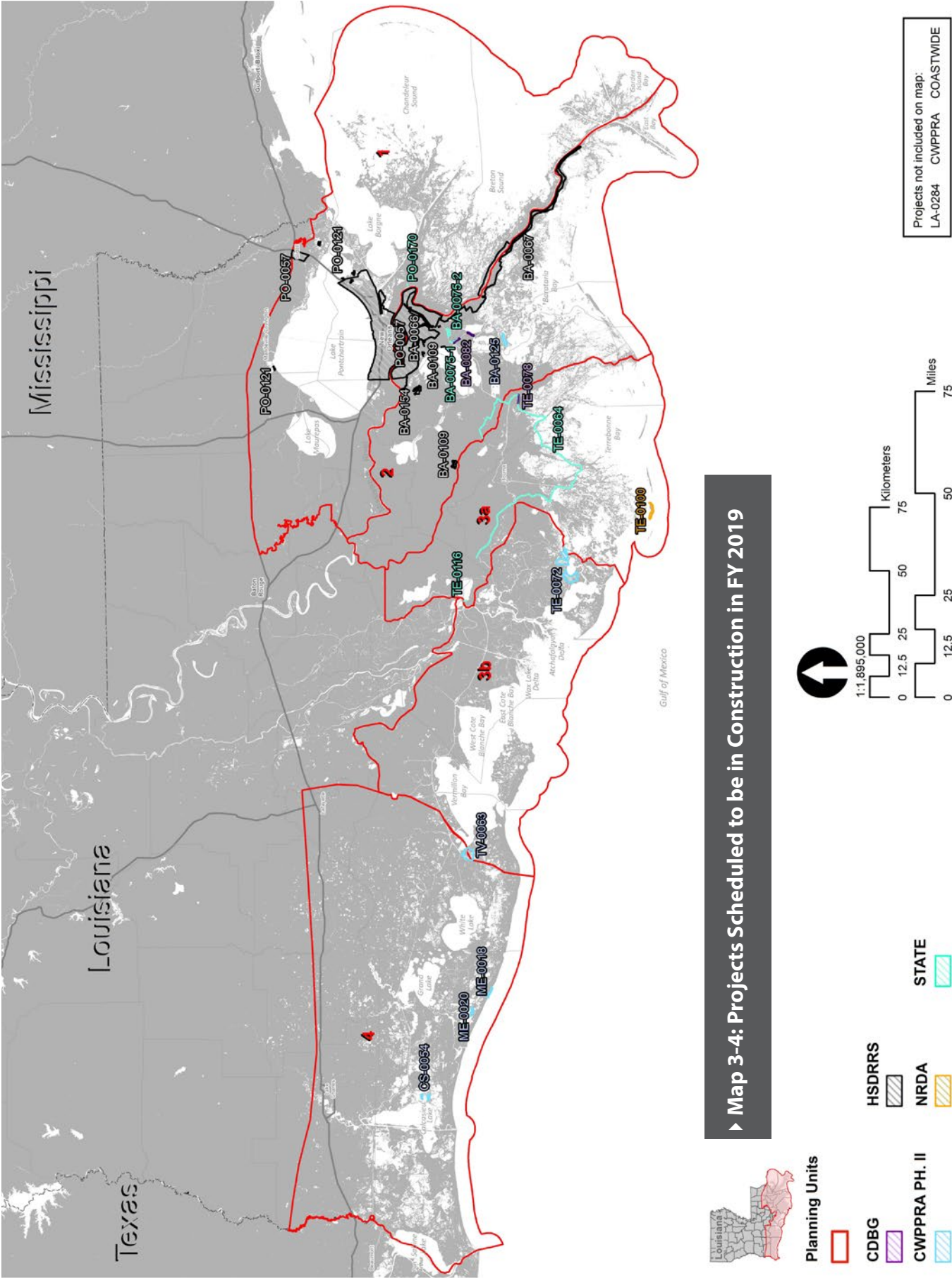
Schedules for these projects will be developed after funding agreements are in place and will be included in future annual plans. Project-specific GOMESA expenditures are presented in Appendix B.





► Table 3-1: Projects Scheduled to be in Construction in FY 2019

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	Total Project Estimate
CWPRA Phase II Projects				
BA-0125	Northwest Turtle Bay Marsh Creation	24-Aug-18	5-Feb-20	\$31,083,470
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	11-May-17	26-Dec-18	\$24,655,612
LA-0284	Salvinia Weevil Propagation Facility	01-Jul-18	29-Mar-19	\$5,052,748
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	25-May-17	9-Jul-19	\$35,426,478
ME-0020	South Grand Chenier Marsh Creation Project	03-Mar-17	6-Aug-19	\$23,873,346
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	07-Sep-16	18-Jan-19	\$35,876,728
TV-0063	Cole's Bayou Marsh Restoration	26-Feb-18	24-May-19	\$24,930,426
State-Only Projects ²				
BA-0075-1	Jean Lafitte Tidal Protection	19-Feb-14	22-Nov-19	\$29,403,973
BA-0075-2	Rosethorne Tidal Protection	31-Oct-18	11-Aug-20	\$22,950,000
PO-0170	Violet Canal North Levee Alignment	29-Nov-17	8-Nov-18	\$4,000,000
TE-0064	Morganza to the Gulf	30-Nov-05	1-Jun-20	\$177,003,835
TE-0116	St. Mary Backwater Flooding	25-May-17	7-Jun-19	\$10,394,609
CDBG Projects				
BA-0082	Lafitte Area Levee Repair	15-Apr-18	20-Feb-19	\$819,185
TE-0078	Cut-Off/Pointe Aux Chene Levee	25-Aug-17	15-Jan-20	\$9,714,158
HSDRRS Projects				
BA-0066	West Bank and Vicinity	27-Mar-07	28-Sep-18	\$4,304,525,784
BA-0067	New Orleans to Venice	23-Nov-11	29-Aug-23	\$1,301,523,760
BA-0109	HSDRRS Mitigation- WBV ³	27-Feb-15	31-Dec-20	\$126,000,000
BA-0154	Previously Authorized Mitigation WBV ³	04-Aug-14	1-Mar-19	\$11,000,000
PO-0057	SELA- Overall	18-Feb-09	12-Oct-20	\$1,170,974,586
PO-0121	HSDRRS Mitigation- LPV ⁴	23-Jul-15	31-Oct-19	\$85,000,000
NRDA Early Restoration Projects				
TE-0100	Caillou Lake Headlands	22-Jul-15	11-Oct-18	\$118,340,766
Notes				
1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.				
2. Project partially funded with Surplus funds.				
3. Project cost included in total cost for BA-0066.				
4. Project cost included in total cost for PO-0063.				



► Table 3-2: Projected Three-Year Schedules for Active CWPPRA Projects¹ (FY 2019 - 2021)

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021	
			1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020	1FQ 2021	2FQ 2021	3FQ 2021	4FQ 2021
CWPPRA Phase I Projects														
BA-0193	Caminada Headlands Back Barrier Marsh Creation Increment	EPA	D	D	W	W	W	W	W	W	W	W	W	W
BA-0194	East Leeville Marsh Creation and Nourishment	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
BA-0195	Barataria Bay Rim Marsh Creation and Nourishment	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
BA-0206	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection ¹	NRCS	D	D	D	D	D	D	D	D	D	D	W	W
BS-0032	Mid Breton Land Bridge Marsh Creation & Terracing ¹	USFWS	D	D	D	D	D	D	D	D	D	D	W	W
CS-0078	No Name Bayou Marsh Creation & Nourishment	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
CS-0079	Oyster Lake Marsh Creation and Nourishment	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
CS-0081	Sabine Marsh Creation Cycles 6 & 7 ¹	USFWS	D	D	D	D	D	D	D	D	D	D	W	W
ME-0031	Freshwater Bayou Marsh Creation (CWPPRA)	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
ME-0032	South Grand Chenier Marsh Creation - Baker Tract	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
PO-0075	LaBranche East Marsh Creation	NRCS	D	D	W	W	W	W	W	W	W	W	W	W
PO-0133	Labranche Central Marsh Creation	NRCS	D	D	W	W	W	W	W	W	W	W	W	W
PO-0169	New Orleans Landbridge Shoreline Stabilization & Marsh Creation	USFWS	D	D	W	W	W	W	W	W	W	W	W	W
PO-0173	Fritchie Marsh Creation and Terracing	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
PO-0178	Bayou La Loutre Ridge Restoration and Marsh Creation	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
PO-0179	St. Catherine Island Marsh Creation and Shoreline Protection	USFWS	D	D	D	D	D	D	W	W	W	W	W	W
PO-0181	Bayou Cane Marsh Creation ¹	USFWS	D	D	D	D	D	D	D	D	D	D	W	W
TE-0112	North Catfish Lake Marsh Creation	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
TE-0117	Island Road Marsh Creation and Nourishment	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
TE-0134	West Fourchon Marsh Creation	NOAA	D	D	W	W	W	W	W	W	W	W	W	W
TE-0138	Bayou DeCade Ridge and Marsh Creation	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
BA-0173	Bayou Grande Cheniere Marsh and Ridge Restoration	USFWS	W	W	W	W	W	W	W	W	W	W	W	W
BS-0024	Terracing and Marsh Creation South of Big Mar	USFWS	W	W	W	W	W	W	W	W	W	W	W	W
PO-0034	Alligator Bend Marsh Restoration and Shore-line Protection	NRCS	W	W	W	W	W	W	W	W	W	W	W	W
TE-0039-CU2	South Lake Decade Freshwater Introduction - CU2 ²	NRCS												

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021	
			1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020	1FQ 2021	2FQ 2021	3FQ 2021	4FQ 2021
CWPPRA Phase II Projects														
BA-0125	Northwest Turtle Bay Marsh Creation	USFWS	B	C	C	C	C	C	F	O	O	O	O	O
BA-0171	Caminada Headland Back Barrier Marsh Creation	EPA	D	D	D	D	C	C	C	C	C	C	F	O
CS-0049	Cameron-Creole Freshwater Introduction	NRCS	D	D	D	D	C	C	C	C	F	O	O	O
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	USFWS	C	F	O	O	O	O	O	O	O	O	O	O
CS-0066	Cameron Meadows Marsh Creation and Terracing	NOAA	D	D	D	D	D	D	B	C	C	C	C	C
LA-0284	Salvinia Weevil Propagation Facility	USFWS	C	C	F	O	O	O	O	O	O	O	O	O
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	NOAA	C	C	C	C	F	O	O	O	O	O	O	O
ME-0020	South Grand Chenier Marsh Creation Project	USFWS	C	C	C	C	F	O	O	O	O	O	O	O
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	USFWS	C	C	F	O	O	O	O	O	O	O	O	O
TV-0063	Cole's Bayou Marsh Restoration	NOAA	C	C	C	F	O	O	O	O	O	O	O	O
CWPPRA Demo Projects														
LA-0280	Shoreline Protection, Preservation, and Restoration (SSPR) Panel	NOAA	D	D	D	D	D	C	C	C	C	C	C	C

References	Legend		P	Feasibility & Planning	B	Both Design & Construction
	1. Project currently on hold; schedule to be updated when implementation recommences.		D	Engineering & Design	F	Construction Complete
	2. Project currently on hold; schedule to be updated when implementation recommences.		W	Awaiting Additional Funding for Implementation	I	Program Implementation
			C	Construction	O	Operations, Maintenance, & Monitoring

► Table 3-3: Projected Three-Year Schedules for Active WRDA Projects (FY 2019 - 2021)

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021	
			1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020	1FQ 2021	2FQ 2021	3FQ 2021	4FQ 2021
LCA Projects														
PO-0068	LCA Small Diversion at Convent / Blind River ²	USACE	W	W	W	W	W	W	W	W	W	W	W	W
MR-0016	Mississippi River Hydrodynamic and Delta Management Study ²	USACE												
Other WRDA Projects														
LA-0020	Southwest Coastal Louisiana Feasibility Study ^{1,2}	USACE	W	W	W	W	W	W	W	W	W	W	W	W

References	Legend		P	Feasibility & Planning	B	Both Design & Construction
	1. Project partially funded by Surplus funds.		D	Engineering & Design	F	Construction Complete
	2. Project currently on hold; schedule to be updated when implementation recommences.		W	Awaiting Additional Funding for Implementation	I	Program Implementation
			C	Construction	O	Operations, Maintenance, & Monitoring

► Table 3-4: Projected Three-Year Schedules for Active State-Only Projects (FY 2019 - 2021)

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021		
			1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020	1FQ 2021	2FQ 2021	3FQ 2021	4FQ 2021	
State Surplus Projects															
BA-0075-1	Jean Lafitte Tidal Protection	N/A	C	C	C	C	C	F							
BA-0075-2	Rosethorne Tidal Protection	N/A	D	C	C	C	C	C	C	C	F				
PO-0167	St. Tammany Parish Coastal Protection Study	N/A	P	P	P	P	P								
PO-0170	Violet Canal North Levee Alignment	N/A	C	F											
TE-0064	Morganza to the Gulf	USACE	C	C	C	C	C	C	C	F					
TE-0116	St. Mary Backwater Flooding	N/A	C	C	C	C	F								
TV-0057	Delcambre-Avery Canal (E&D)	N/A	W	W	W	W	W	W	W	W	W	W	W	W	
PO-0062	West Shore-Lake Pontchartrain, Louisiana Hurricane Protection Project Feasibility Study ¹	USACE													
TE-0065	Larose to Golden Meadow- Flood Protection ²	N/A													
TV-0067	Bayou Tigre Flood Control Project ¹	N/A													
TV-0075	Bayou Tigre Flood Control Complex ¹	N/A													
Legend		P	Feasibility & Planning						B	Both Design & Construction					
References	1. Project currently on hold; schedule to be updated when implementation recommences.	D	Engineering & Design						F	Construction Complete					
	2. Project involves additional upgrades of the existing Larose to Golden Meadow levee system; schedule will be provided once specific upgrades are identified.	W	Awaiting Additional Funding for Implementation						I	Program Implementation					
		C	Construction						O	Operations, Maintenance, & Monitoring					

► Table 3-5: Projected Three-Year Schedules for Active CDBG Projects (FY 2019 - 2021)

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021	
			1FQ	2FQ	3FQ	4FQ	1FQ	2FQ	3FQ	4FQ	1FQ	2FQ	3FQ	4FQ
			2019	2019	2019	2019	2020	2020	2020	2020	2021	2021	2021	2021
BA-0082	Lafitte Area Levee Repair	HUD	C	C	F									
TE-0078	Cut-Off/Pointe Aux Chene Levee	HUD	C	C	C	C	C	C	F					
Legend		P	Feasibility & Planning				B	Both Design & Construction						
References			D	Engineering & Design				F	Construction Complete					
			W	Awaiting Additional Funding for Implementation				I	Program Implementation					
			C	Construction				O	Operations, Maintenance, & Monitoring					

► Table 3-6: Projected Three-Year Schedules for Active HSDRRS Projects (FY 2019 - 2021)¹

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021	
			1FQ	2FQ	3FQ	4FQ	1FQ	2FQ	3FQ	4FQ	1FQ	2FQ	3FQ	4FQ
			2019	2019	2019	2019	2020	2020	2020	2020	2021	2021	2021	2021
BA-0066	West Bank and Vicinity ^{2,3,4,5}	USACE	F											
BA-0067	New Orleans to Venice ^{2,3}	USACE	C	C	C	C	C	C	C	C	C	C	C	C
BA-0109	HSDRRS Mitigation- WBV ^{2,3}	USACE	B	B	B	B	C	C	C	C	C	F		
BA-0154	Previously Authorized Mitigation WBV ^{2,3}	USACE	C	C	F									
BA-0158	New Orleans to Venice Mitigation - Plaquemines Non-Federal ^{2,3}	USACE	D	D	D	D	C	C	C	C	C	C	C	C
BA-0159	New Orleans to Venice Mitigation - Federal ^{2,3}	USACE	D	D	D	D	C	C	C	C	C	C	C	C
PO-0057	SELA- Overall ^{2,3}		C	C	C	C	C	C	C	C	C	F		
Legend		P	Feasibility & Planning				B	Both Design & Construction						
References	1. OM&M duties are the responsibility of the local sponsor. 2. Schedule based on USACE estimates. 3. State expenditures may be covered with Surplus allocation for HSDRRS LERRDS. 4. Payments for 30-year payback to commence upon completion of construction activities. According to the USACE, payback will begin in calendar year 2019. 5. Schedule does not include HSDRRS Armoring, which is anticipated to continue into 2020.		D	Engineering & Design				F	Construction Complete					
			W	Awaiting Additional Funding for Implementation				I	Program Implementation					
			C	Construction				O	Operations, Maintenance, & Monitoring					

► **Table 3-7: Projected Three-Year Schedules for Active and Proposed Oil Spill Projects (FY 2019 - 2021)**

Project ID	Project Name	Federal Sponsor	CY 2018		Calendar Yr 2019				Calendar Yr 2020				CY 2021	
			1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020	1FQ 2021	2FQ 2021	3FQ 2021	4FQ 2021
Deepwater Horizon NRDA Projects														
BA-0202	Queen Bess Island Restoration	N/A	D	D	D	D	D	D	W	W	W	W	W	W
BA-0203	Barataria Basin Ridge and Marsh Restoration- Spanish Pass Increment	N/A	D	D	D	D	D	D	D	W	W	W	W	W
CS-0080	Rabbit Island Restoration	N/A	D	D	D	D	D	D	D	W	W	W	W	W
PO-0180	Lake Borgne Marsh Creation- Increment 1	N/A	D	D	D	D	D	D	D	D	D	W	W	W
TE-0100	Caillou Lake Headlands	N/A	C	F										
TE-0139	Terrebonne Basin Ridge and Marsh Creation- Bayou Terrebonne Increment	N/A	D	D	D	D	D	D	D	D	D	D	D	D
NFWF Projects														
BA-0153	Mid-Barataria Sediment Diversion	N/A	D	D	D	D	D	D	D	D	D	W	W	W
BS-0030	Mid-Breton Sediment Diversion	N/A	D	D	D	D	D	D	D	D	D	D	D	D
LA-0276	Sediment Diversion Implementation and Program Management	N/A	I	I	I	I	I	I	I	I	I	I	I	I
TE-0110	Increase Atchafalaya Flow to Eastern Terrebonne	N/A	D	D	D	D	D	D	D	D	D	W	W	W
TE-0143	Terrebonne Basin Barrier Island and Beach Nourishment¹	N/A	D	D	D	D	W	W	W	W	W	W	W	W
RESTORE Projects														
BA-0197	West Grand Terre Beach Nourishment and Stabilization	N/A	D	D	D	D	D	D	D	W	W	W	W	W
CS-0065	Calcasieu Ship Channel Salinity Control Measures	N/A	D	D	D	D	D	D	D	D	D	D	D	D
MR-0168	Lowermost Mississippi River Management Program	N/A	P	P	P	P	P	P	P	P	P	P	P	P
PO-0029	Mississippi River Reintroduction into Maurepas Swamp	N/A	D	D	D	D	D	D	D	D	D	D	D	D
PO-0163	Golden Triangle Marsh Creation	N/A	D	D	D	D	D	D	D	D	W	W	W	W
PO-0174	Biloxi Marsh Living Shoreline Project	N/A	D	D	D	D	D	D	D	D	D	W	W	W
TE-0113	Houma Navigation Canal Lock Complex	N/A	D	D	D	D	D	D	D	D	D	D	D	D

Legend	P	Feasibility & Planning	B	Both Design & Construction
	D	Engineering & Design	F	Construction Complete
	W	Awaiting Additional Funding for Implementation	I	Program Implementation
	C	Construction	O	Operations, Maintenance, & Monitoring
1. Project will utilize funding initially approved for East Timbalier Island Restoration (TE-0118).				

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Section 4
Projections:
2019 - 2020 - 2021

Section 4

Projections: Fiscal Years 2019 – 2020 – 2021

Table 4-1 presents projected state revenues over the next three fiscal years. Tables 4-2 through 4-4 show a proposal of expenditures over the next three fiscal years. Figures 4-1 through 4-3 depict projected expenditures by project phase for FY 2019–FY 2021, 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 2019 (July 1, 2018 through June 30, 2019). The implementation plan incorporates projects that have received funding for planning, design, construction, or OM&M. The state is exploring new ways to fund projects, with the intent of obtaining a 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 2019 Annual Plan. In this event, any requests for additional expenditures will be submitted for approval by the CPRA Board.

Sources of Coastal Funding

The state will continue to pursue new possible funding sources while we make the most efficient use of existing funding sources, which include the following:

- The state Coastal Protection and Restoration Trust Fund is largely supported by mineral revenues and severance taxes on oil and gas production on state lands. The Trust Fund provides funding for the coastal program’s ongoing operating expenses, for state’s 15% cost share match in the CWPPRA program.
- 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. All surplus funds are currently projected to be expended by the end of FY 2021.
- The Gulf of Mexico Energy Security Act (GOMESA) provides four Gulf Coast states and their coastal political subdivisions, including Louisiana, with 37.5 percent of qualified federal revenue gained from Outer Continental Shelf leases. Revenue sharing is capped at \$500 million through federal FY 2055, but the revenue sharing established under GOMESA will continue beyond that date. The first payment from Phase II of GOMESA is expected in the Spring of 2018, and although prior projections for GOMESA’s maximum potential contribution to Louisiana’s coastal program ranged from \$120–\$140 million annually, estimates are now \$60-\$70 million, because the cap was not met. CPRA has been advised that this reduced revenue could continue over the next several years.
- Louisiana received \$1.06 billion in Community Development Block Grant (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. All CDBG funding resulting from Hurricanes Gustav and Ike is currently projected to be expended by FY 2020.
- The Office of the Governor 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. For FY 2019, the CPRA is requesting Capital Outlay funding to supplement implementation of 13 coastal projects and to fund the state’s 30-year HSDRRS payback obligation. Additional information about this request is presented in Appendix F. Final decisions on Capital Outlay requests will be announced at the close of the 2018 Regular Legislative Session.

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Development of Funding Projections

The budget projections in Tables 4-2 through 4-4 show the amount of state funds that would actually be needed to accomplish the proposed implementation plan for the next three fiscal years. When developing these projections, the planning team worked with the following assumptions:

- Projected 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.
- 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 2019 Annual Plan.
- 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 Board.

Forecasting the Future Funding Picture

The Coastal Master Plan outlines projects for implementation over a 50-year planning horizon. To support this effort, the state is actively pursuing possible sources of funding that may be available over the next 50 years to support future coastal restoration and storm-surge flood risk reduction projects.

Flexibility to Respond to Changing Conditions

Revenue and expenditure projections in Tables 4-1 and 4-2 are based on the most recent available information. Tables 4-1 and 4-2 present a forecast based on a snapshot in time. However, as the *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. CPRA has been granted authority to reprogram dollars from approved funding streams and to reallocate dollars to best meet new opportunities or needs. Reprogramming of existing and new funds will likely occur, with approval from the CPRA Board, 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.

LaGov

LaGov is a new statewide integrated financial and procurement system that CPRA began using July 1, 2014. This new system integrates financial, human resources, payroll, procurement, and logistics, and brings multiple benefits to CPRA, most notably, system generated project accounting. Other important advantages are better management of federal grants and other funding sources, improvements in managing vendor relationships, improved reporting, and more efficient business processes. CPRA has most recently begun the implementation of the Project Systems module which has multiple advantageous features for Project Managers to use in managing projects. CPRA will soon participate in a pilot project to develop the state's budget-development module.

Innovative Funding and Financing Initiatives

Louisiana's coastal program is entering into a phase in which it will have the financial means to implement some of the most significant projects called for in its \$50 billion, 50-year Louisiana Coastal Master Plan. This funding will be made available over the next 15 years largely as a result of the *Deepwater Horizon* oil spill settlements and the maturation of the GOMESA into Phase II. In order to make the most of this anticipated funding, CPRA will undertake a number of initiatives related to finance and funding beginning in FY 2019. These projects will address innovative financing options for certain coastal restoration projects, the marrying of a financing strategy with project implementation mileposts to insure the greatest return on investment in the near and medium term, and developing a road map for potential future revenue streams in the long term.

Outcome-Based Performance Contracting

Another new project implementation initiative being developed by CPRA is Outcome Based Performance Contracting, which was authorized by the Louisiana Legislature in the 2017 Regular Session (Act 356). This project delivery model can provide CPRA with a tool to utilize private investment to get projects on the ground faster, shift significant risk of project success to the contractor, and potentially obtain better overall value, innovation and efficiency in delivering projects. Payment is not based on a contractor merely completing a project, but is instead based on the contractor meeting defined performance criteria for the project over a defined period of time. CPRA is currently exploring which projects and funding streams are best suited for this project-implementation approach.

Restore or Retreat “Financing Louisiana’s Future”

Restore or Retreat, a non-governmental organization, is partnering with CPRA to maximize and leverage future funding opportunities along with innovative cash management tools and techniques.

Restore or Retreat has contracted with a team of experts to analyze the multiple coastal revenue streams and develop recommendations for the most feasible and cost-efficient options for financing some portion of those revenues. CPRA has partnered with Restore or Retreat to provide information on the intricacies of each revenue stream, including what can and cannot be financed as well as how dollars must be drawn down, and identifying the funds potentially available for CPRA's priority projects. This effort will explicitly investigate new and innovative financial instruments as well as traditional bonds to develop a holistic financial strategy for the coastal program's anticipated revenues.

Long Term Funding

While the coastal program is working to take full advantage of the opportunities provided by the revenues available today and for the next 15 years, the agency is cognizant of its long range funding gap. Currently, around \$20 billion has been identified for the coastal program over the next 50 years while the Coastal Master Plan envisions investing in projects with a total cost of \$50 billion in today's dollars. The CPRA Board called into action the CPRA Finance Working Group, to advance the state's efforts to identify and procure additional funds and funding sources for the Louisiana Coastal Master Plan. Early in 2018, CPRA plans to convene a meeting of key thought leaders from a variety of backgrounds to think through the funding challenges facing the coastal program in the long term. Goals of the meeting will include the identification of viable sources of future revenue as well as action items for furthering the development of the identified options.

Environmental Impact Bonds

Another innovative financing tool which provides up-front capital for environmental programs is Environmental Impact Bonds (EIB). In October, 2017, CPRA announced that the Environmental Defense Fund is performing a feasibility study to design an EIB and determine whether Louisiana can use it as a financing tool to fund coastal restoration. The aim is to develop innovative financing tools that can get projects built sooner, and that may serve as a means for attracting new sources of capital from beneficiaries of wetland restoration.

Natural Resource Damage Restoration Banking (NRD Banking)

Natural Resource Damage Restoration (NRD) Banking is one alternative method that would incentivize private investment in Coastal Master Plan projects through a new project delivery method and a new type of mitigation bank targeted at Natural Resource Damages.

This would allow private entities to finance and carry out restoration projects that are in or consistent with Louisiana's Coastal Master Plan. The private entity could then sell restoration credits to responsible parties to mitigate for natural resource damages liability resulting from certain oil spills under the Oil Pollution Act that occur in Louisiana coastal waters. For the investor, there is potential profit from the sale of the restoration credits; for the potentially responsible party in an oil spill, buying the credits in lieu of lengthy natural resource damage assessment and restoration implementation as well as potentially avoiding probable years of pending litigation and ongoing liability would be beneficial. As for the state, this approach offers another method to facilitate getting Master Plan projects implemented.

In September, 2017, Louisiana's new NRD banking program was officially activated, and it will incentivize private investment in Coastal Master Plan projects. Entities can submit a prospectus to CPRA for review.

New legislation passed by the 2016 Louisiana Legislature and Governor John Bel Edwards directed CPRA to develop a framework and rules for a Natural Resource Damage restoration banking program and an oil spill compensation schedule. Over the past year, CPRA worked with stakeholders, federal agencies, the mitigation banking industry, the Louisiana Oil Spill Coordinator's Office, and the other trustee agencies to draft the framework and regulations for this new program. The final Restoration Banking Regulations were published on July 20, 2017 and are posted at www.doa.la.gov/osr/lac/43v31/43v31.doc and the final Compensation Schedule Regulations were published on August 20, 2017 and are posted at <http://doa.la.gov/osr/lac/43v29/43v29.doc>.

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► **Table 4-1: Projected Three-Year Revenues (FY 2019 - FY 2021)**

Revenue Sources	FY 2019	FY 2020	FY 2021	Program Total (FY 2019 - FY 2021)
CPR Trust Fund Annual Revenue ^{1,2}	\$14,379,625	\$13,600,000	\$13,200,000	\$41,179,625
CPR Trust Fund Carried Forward	\$15,547,801	TBD	TBD	\$15,547,801
GOMESA ^{1,3}	\$70,000,000	\$70,000,000	\$70,000,000	\$210,000,000
GOMESA Carried Forward ⁴	\$65,190,150	\$87,219,214	\$49,170,157	\$201,579,522
DOTD Interagency Transfer ¹	\$4,000,000	\$4,000,000	\$4,000,000	\$12,000,000
CWPPRA Federal Funds ⁵	\$78,290,682	\$74,933,437	\$77,266,129	\$230,490,248
Surplus '07, '08, '09 Carried Forward	\$125,637,238	\$20,037,383	\$12,752,531	\$158,427,152
Community Development Block Grants	\$4,912,928	\$692,388	\$0	\$5,605,316
Capital Outlay Funds (Previously Appropriated)	\$9,405,000	\$500,000	TBD	\$9,905,000
NRDA Revenues (<i>Deepwater Horizon</i>)	\$94,096,811	\$436,533,147	\$342,789,562	\$873,419,519
NFWF Revenues (<i>Deepwater Horizon</i>)	\$73,479,656	\$133,721,027	\$52,563,957	\$259,764,641
RESTORE Revenues (<i>Deepwater Horizon</i>)	\$45,692,154	\$65,850,280	\$198,274,922	\$309,817,355
LDNR Mitigation Funds ⁶	\$300,000	\$300,000	\$300,000	\$900,000
LDNR Beneficial Use Funds ⁶	\$150,000	\$150,000	\$150,000	\$450,000
LDWF Interagency Transfer ⁷	\$1,000,000	\$0	\$0	\$1,000,000
MOEX Settlement ⁸	\$352,343	\$131,250	\$1,057,030	\$1,540,623
OM&M Federal Funds ⁹	\$27,366,658	\$16,492,809	\$14,455,631	\$58,315,097
LOSCO Funding ¹⁰	\$89,384	\$89,384	\$84,384	\$263,152
Gulf of Mexico Alliance Gulf Star Grant Funding ¹¹	\$25,000	\$12,500	\$0	\$37,500
Project Billing ¹²	\$23,254,531	\$23,000,000	\$23,000,000	\$69,254,531
Capital Outlay Request Submitted for HSDRRS 30-Year Payback	\$0	\$98,432,119	\$98,432,119	\$196,864,238
Total Projected Revenue	\$653,169,960	\$1,045,694,937	\$957,496,422	\$2,656,361,320

Notes:				
1.	Annually recurring revenue source to be spent in accordance with the Louisiana Constitution, specifically State Law Section 214.5.4(E) and the provisions within paragraph (3).			
2.	Estimate tied to mineral revenue.			
3.	GOMESA funds must be disbursed to the applicable states by the end of the federal fiscal year. FY 2019 GOMESA funds are anticipated to be received between April 2019 (4Q19) and September 2019 (1Q20).			
4.	Represents carry-forward of unexpended funds from prior-year GOMESA payments.			
5.	Represents anticipated Federal reimbursement for CWPPRA projects led by CPRA in which the State is initially incurring more than its 15% cost share during project implementation.			
6.	Supplemental funding to augment construction of eligible projects (specific projects to be determined at a later date).			
7.	Supplemental funding to augment construction of project ME-0018.			
8.	Represents anticipated balance as of FY 2019 of an initial deposit of \$6.75 million of funds from the MOEX settlement.			
9.	Represents anticipated Federal reimbursement for CWPPRA and WRDA OM&M activities led by CPRA in which the State is initially incurring more than its cost share during project implementation.			
10.	Represents reimbursement of expenditures for CPRA (non-DWH) oil spill response activities.			
11.	Represents remaining balance of grant funding received in January 2018 for a pilot monitoring project.			
12.	Represents salary and other work-in-kind reimbursements for work performed on projects in funding programs listed in the table above.			

► **Table 4-2: Projected Three-Year Expenditures¹ (FY 2019 - FY 2021)**

Program / Funding Source	FY 2019	FY 2020	FY 2021	Program Total (FY 2019- FY 2021)
CWPPRA State Expenditures (not including Surplus expenditures) ²	\$14,268,665	\$15,066,563	\$12,733,871	\$42,069,099
CWPPRA Federal Expenditures ³	\$78,290,682	\$74,933,437	\$77,266,129	\$230,490,248
WRDA Project Expenditures (not including Surplus expenditures)	\$0	\$0	\$0	\$0
Surplus Projects and Program Expenditures	\$125,637,238	\$20,037,383	\$12,752,531	\$158,427,152
Community Development Block Grants	\$4,912,928	\$692,388	\$0	\$5,605,316
HSDRRS 30-Year Payback ⁴	\$0	\$98,432,119	\$98,432,119	\$196,864,238
MOEX Project Expenditures	\$352,343	\$131,250	\$1,057,030	\$1,540,623
Capital Outlay Project Expenditures	\$9,405,000	\$500,000	TBD	\$9,905,000
State-Only Project Expenditures (Non-Surplus)	\$212,953	\$94,146	\$40,003	\$347,102
NRDA Expenditures (<i>Deepwater Horizon</i>)	\$94,096,811	\$436,533,147	\$342,789,562	\$873,419,519
NFWF Expenditures (<i>Deepwater Horizon</i>) (not including Surplus Expenditures)	\$73,479,656	\$133,721,027	\$52,563,957	\$259,764,641
RESTORE Expenditures (<i>Deepwater Horizon</i>) (not including Surplus Expenditures)	\$45,692,154	\$65,850,280	\$198,274,922	\$309,817,355
LDNR Mitigation Expenditures ⁵	\$300,000	\$300,000	\$300,000	\$900,000
LDNR Beneficial Use Expenditures ⁵	\$150,000	\$150,000	\$150,000	\$450,000
LDWF Interagency Transfer Expenditures ⁶	\$1,000,000	\$0	\$0	\$1,000,000
OM&M- State Expenditures (not including Surplus or GOMESA expenditures)	\$10,596,860	\$5,943,935	\$5,297,868	\$21,838,664
OM&M- Federal Expenditures ⁷	\$27,366,658	\$16,492,809	\$14,455,631	\$58,315,097
Gulf of Mexico Alliance Gulf Star Grant Expenditures	\$25,000	\$12,500	\$0	\$37,500
GOMESA Expenditures	\$47,970,936	\$108,049,057	\$72,129,618	\$228,149,611
Operating Costs (see Tables 4-3 and 4-4) ⁸	\$32,192,863	\$35,077,751	\$36,005,417	\$103,276,031
Total Planned Expenditures	\$565,950,746	\$1,012,017,791	\$924,248,658	\$2,502,217,195

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 2020 - FY 2021 are therefore based on prior years' expenditures.			
3.	Represents anticipated Federal reimbursement for CWPPRA projects led by CPRA in which the State is initially incurring more than its 15% cost share during project implementation.			
4.	Payback is based on current HSDRRS construction schedule; payback will not commence until completion of HSDRRS construction activities. According to current USACE estimates, payback will commence in September 2019 with an estimated annual payment of \$98 million.			
5.	Supplemental funding to augment construction of eligible projects (specific projects to be determined at a later date).			
6.	Supplemental funding to augment construction of project ME-0018.			
7.	Represents anticipated Federal reimbursement for CWPPRA and WRDA OM&M activities led by CPRA in which the State is initially incurring more than its cost share during project implementation.			
8.	In the event of a declared emergency, CPRA may need to expend Operating Costs in support of the State's disaster response efforts. Up to 75 percent of these expenditures would be reimbursable by FEMA.			

► **Table 4-3: Programmatic Projected Three-Year Expenditures (FY 2019 - FY 2021)**

Program ID	Program Name	FY 2019	FY 2020	FY 2021	Program Total (FY 2019 - FY 2021)
Ongoing Program Expenditures					
N/A	Beneficial Use Program ¹	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000
LA-0251	Barrier Island Maintenance Program ¹	\$2,900,110	TBD	TBD	\$2,900,110
N/A	Vegetative Plantings	\$400,000	\$400,000	\$400,000	\$1,200,000
PO-0162	Assistance to Levee Authorities	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
LA-0028	Restoration Partnerships	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
N/A	Project Support	\$3,500,000	\$3,500,000	\$3,500,000	\$10,500,000
Total Ongoing Programs Expenditures		\$10,800,110	\$7,900,000	\$7,900,000	\$26,600,110
Adaptive Management Expenditures					
Future Project Development					
LA-0255	Project Development and Implementation Program	\$250,000	\$250,000	\$250,000	\$750,000
LA-0025	Innovative Programs	\$150,000	\$150,000	\$150,000	\$450,000
LA-0261	Non-structural Program Development ¹	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
Focused Applied Research					
LA-0158	Coastal Science Assistantship Program ²	\$235,000	\$235,000	\$335,000	\$805,000
Science and Technical Advisory Boards					
LA-0260	Master Plan Advisory Committees ²	\$0	\$300,000	\$300,000	\$600,000
Model Development and Refinement					
LA-0250	Master Plan Predictive Models ²	\$2,500,000	\$3,500,000	\$4,000,000	\$10,000,000
MR-0016-SSPM	Small Scale Physical Model ³	\$500,000	\$500,000	\$500,000	\$1,500,000
System Wide Assessment and Monitoring Program (SWAMP)					
LA-0252	SWAMP Development ⁴	\$600,000	\$0	\$0	\$600,000
N/A	Fisheries ⁵	\$7,500,000	\$7,800,000	\$8,000,000	\$23,300,000
N/A	SWAMP Implementation ^{3,4,5}	\$11,800,000	\$16,280,000	\$16,280,000	\$44,360,000
LA-0226	Barrier Island Comprehensive Monitoring ³	\$735,300	\$1,927,159	\$765,659	\$3,428,118
LA-0030	CRMS-Wetlands	\$1,250,000	\$1,250,000	\$1,250,000	\$3,750,000
N/A	Regional Geology and Sediment Management ⁴	\$1,000,000	\$830,000	\$830,000	\$2,660,000
Data Management and Analysis					
LA-0258	Data Management ⁴	\$2,450,000	\$2,400,000	\$2,400,000	\$7,200,000
LA-0254	Monitoring Data Interpretations ^{3,4,5}	\$1,050,000	\$1,050,000	\$1,050,000	\$3,150,000
Communication and Messaging					
N/A	Workshop and Conference Development	\$150,000	\$150,000	\$150,000	\$450,000
N/A	Language Access	\$25,000	\$25,000	\$25,000	\$75,000
LA-0249	Coastal Education	\$600,000	\$600,000	\$600,000	\$1,800,000
Total Adaptive Management Expenditures		\$31,795,300	\$38,247,159	\$37,885,659	\$107,928,118

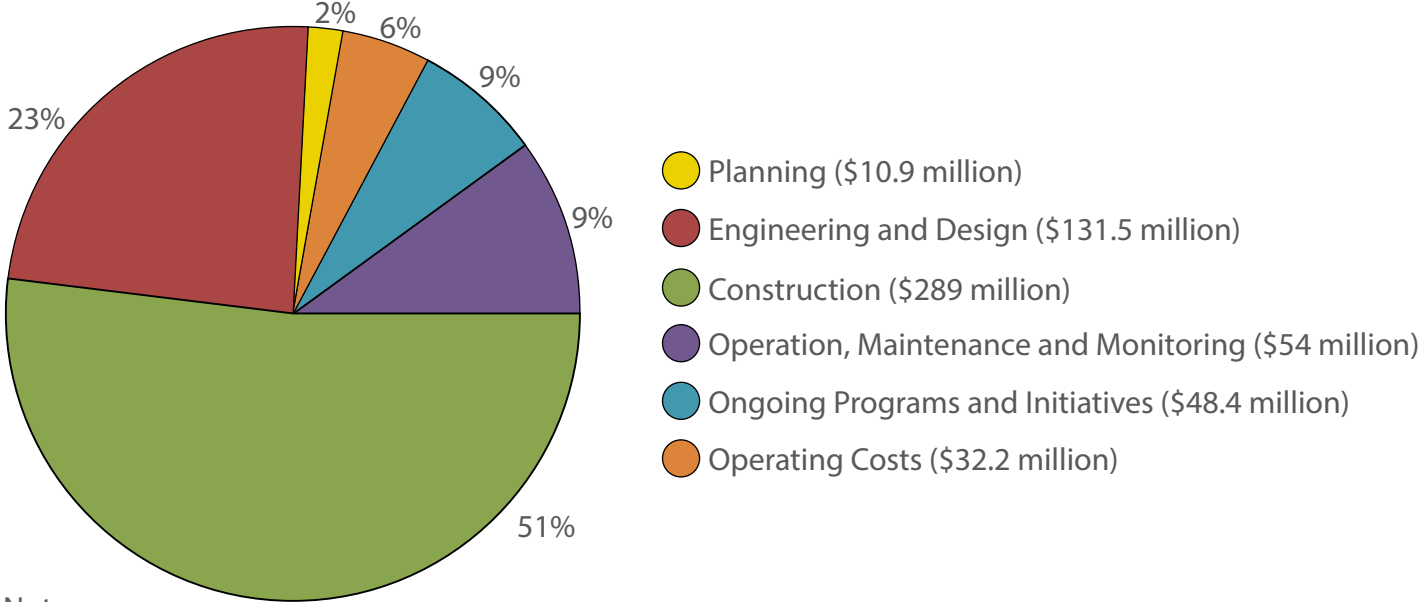
► **Table 4-3: Programmatic Projected Three-Year Expenditures (FY 2019 - FY 2021)**

Program ID	Program Name	FY 2019	FY 2020	FY 2021	Program Total (FY 2019 - FY 2021)
TOTAL Programmatic Expenditures		\$42,595,410	\$46,147,159	\$45,785,659	\$134,528,228
Programmatic Surplus Expenditures (See Table B-5)		\$5,189,296	\$151,047	\$0	\$5,340,343
Programmatic NRDA Expenditures (See Table B-14)		\$12,250,000	\$14,258,475	\$14,458,475	\$40,966,949
Programmatic NFWF Expenditures (See Table B-14)		\$6,860,300	\$10,016,905	\$8,855,405	\$25,732,610
Programmatic RESTORE Expenditures (See Table B-14)		\$6,525,000	\$6,511,780	\$6,511,780	\$19,548,559
Programmatic GOMESA Expenditures		\$2,735,000	\$4,035,000	\$4,635,000	\$11,405,000
Programmatic Operations Expenditures		\$9,035,814	\$11,173,953	\$11,325,000	\$31,534,767
Notes					
1. FY 2019 expenditures funded at least partially with Surplus funds					
2. FY 2019 expenditures funded by GOMESA funds.					
3. FY 2019 expenditures funded by NFWF Adaptive Management funds.					
4. FY 2018 expenditures funded by RESTORE Adaptive Management funds.					
5. FY 2019 expenditures funded by NRDA Adaptive Management funds.					

► **Table 4-4: State Protection and Restoration Projected Three-Year Operating Expenditures (FY 2019 - FY 2021)**

Program	FY 2019	FY 2020	FY 2021	Program Total (FY 2019 - FY 2021)
CPRA	\$18,668,730	\$19,415,479	\$20,192,098	\$58,276,308
OCM	\$2,827,134	\$2,827,134	\$2,827,134	\$8,481,402
Office of the Governor - Coastal Activities	\$1,476,185	\$1,476,185	\$1,476,185	\$4,428,555
DNR Secretary (OMF Back Office Support)	\$0	\$0	\$0	\$0
Office of the Attorney General	\$185,000	\$185,000	\$185,000	\$555,000
Total Operating Costs	\$23,157,049	\$23,903,798	\$24,680,417	\$71,741,265

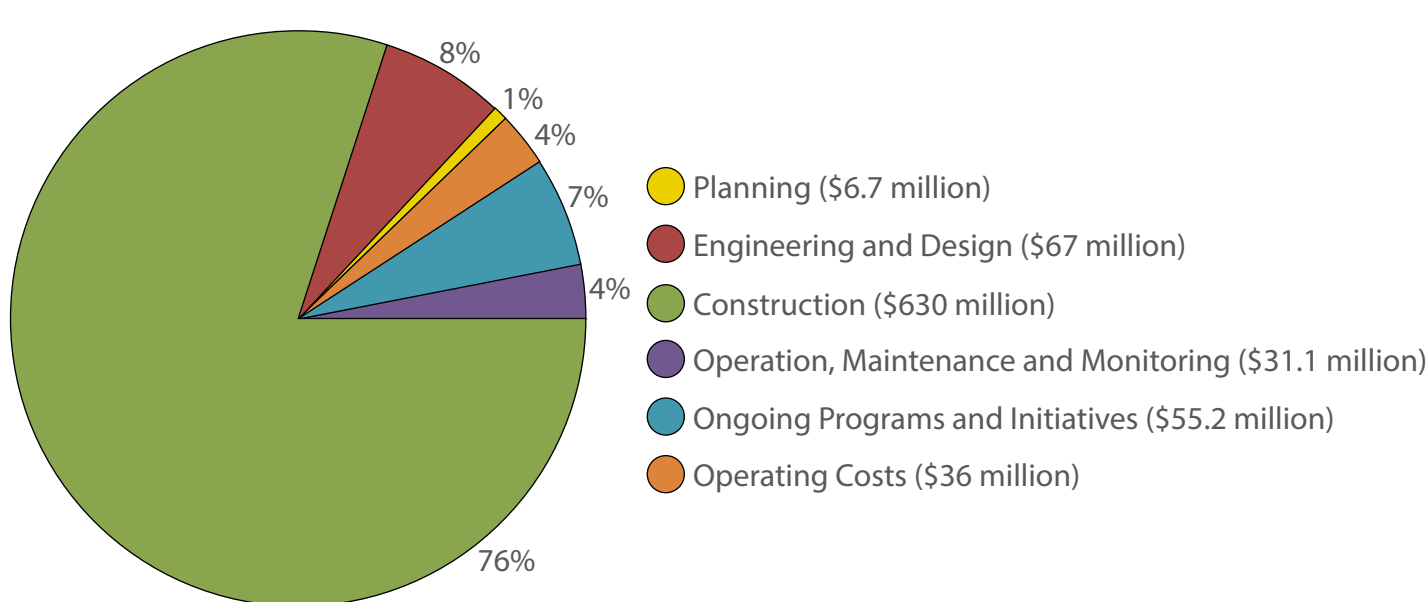
► Figure 4-1: Projected FY 2019 Expenditures by Project Phase



- Notes
- Construction includes Beneficial Use (\$2 million)
 - OM&M includes BIMP (\$2.9 million) and Repair/Rehabilitation of Projects (\$1.1 million)

TOTAL Expenditures
\$566 million

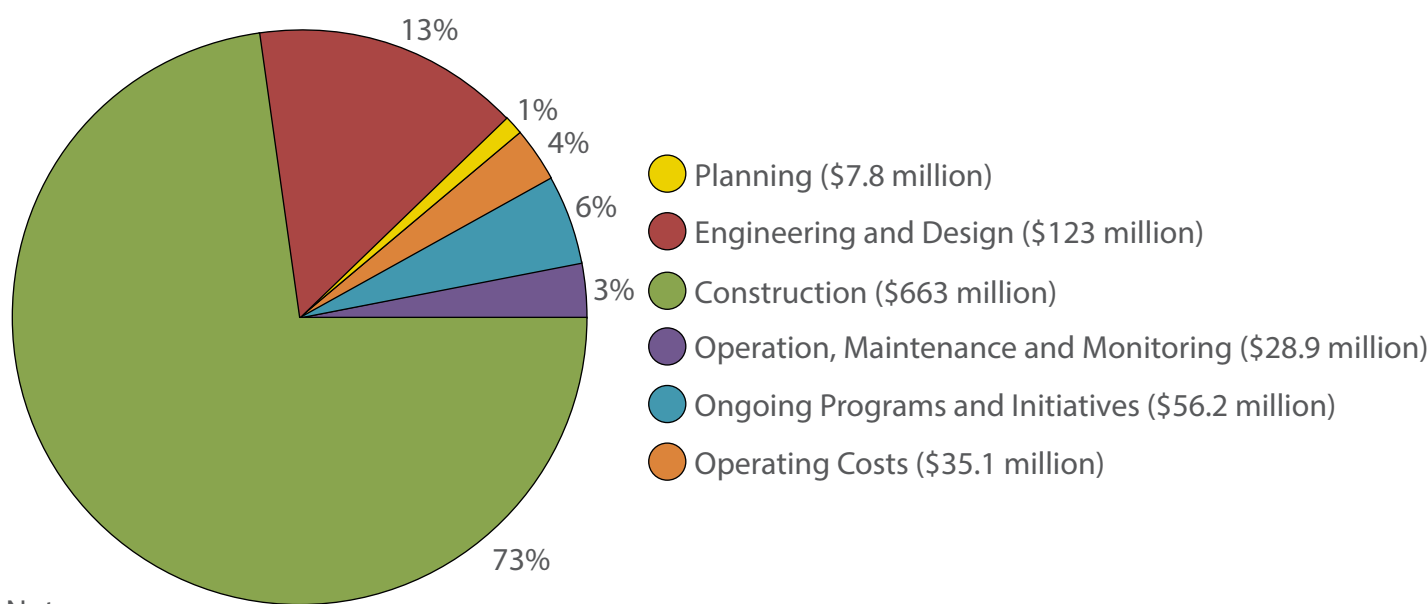
► Figure 4-3: Projected FY 2021 Expenditures by Project Phase



- Notes
- Construction includes Beneficial Use (\$2 million)
 - Engineering and Design and Construction include CWPPRA adjustment for outlying years (see Table 4-2 for explanation)
 - Total excludes HSDRRS payback (\$98.4 million)

TOTAL Expenditures
\$826 million

► Figure 4-2: Projected FY 2020 Expenditures by Project Phase



- Notes
- Construction includes Beneficial Use (\$2 million)
 - Engineering and Design and Construction include CWPPRA adjustment for outlying years (see Table 4-2 for explanation)
 - Total excludes HSDRRS payback (\$98.4 million)

TOTAL Expenditures
\$914 million



Section 5 Appendices

Appendix A
Ongoing Protection
and Restoration
Project Summaries

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ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
BERM	Riviera S and Mingis Island Restoration	BA-0040	BH	N/A	PLAQUEMINES	606	N/A	2013	\$60,939,484	The goal of this project is to transport sediments from the Mississippi River to restore dune and marsh habitat on Scotland Island. Project was designed under CWPRA, but constructed under Barron to Barron funds.	2
	Shell Island East	BA-0110	BH	N/A	PLAQUEMINES	676	N/A	2014	\$47,675,500	The purpose of the project is to restore the integrity of Shell Island, reduce wave energies within the bay area and reestablish productive habitat to Baitian Bay and the surrounding area. Shell Island East was constructed to a length of approximately 2.0 miles, a dune location of 3.0 and NAVD83. A marsh location of 4.5 and NAVD83, and a total area of 2.0 acres.	2
	Emergency Barrier Borne	N/A	OT	N/A	PLAQUEMINES; SAINT BERNARD	1417	N/A	2011	\$251,000,000	This project involves the construction of a new barrier along the coast of the Mississippi River, extending from the mouth of the river to the Gulf of Mexico. The project will provide a barrier to protect the coastal area from storm surge and flooding. The project will also provide a barrier to protect the coastal area from erosion and sedimentation.	1, 2
CCBG	Lafite Area Levee Repair	BA-0082	HP	HUD	JEFFERSON	N/A	4	Pending	\$500,000	This project will repair damage 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 the 2005 and 2006 hurricanes. The project will provide for a 4 inch lift on approximately a 5 mile stretch of levee.	2
	Roseholme Wetland Assessment Project	BA-0083	HR	HUD	JEFFERSON	374	N/A	Inactive	\$1,093,769	The Roseholme Wetland facility currently discharges treated municipal effluent into Bayou Barataria. This project was intended to construct a secondary treated municipal effluent treatment facility to treat the effluent prior to discharge into the bayou, to restore and sustain coastal habitats.	2
	Bayou Lafourche Fresh Water Memorial Pump Station	BA-0084	FD	HUD	ASCENSION	N/A	N/A	2014	\$3,194,355	This project will replace two of the existing pumps and motors at the Walker S. Lemann Pump Station. This project will also install an emergency generator to operate the pump station during power outages.	2, 3A
	Madisonville Bulkhead	PO-0087	SP	HUD	ST TAMMANY	N/A	0.1	2014	\$2,144,266	This project will provide construction of improvements to the existing bulkhead along the shore of Lake Pontchartrain and the Chalmette River & into the Lake Borgne area.	1
	St. Tammany Parish Watershed Management Study	PO-0151	HR	HUD	ST TAMMANY	N/A	N/A	N/A	\$1,363,233	This project involves a planning study to evaluate the feasibility of watershed management measures in St. Tammany Parish.	1
	Falgout Canal Road Levee	TE-0093	FD	HUD	TERREBONNE	N/A	4.4	2017	\$24,903,191	This project will replace, modify or repair 6 existing water control structures, dredge 33,000 feet of interior channels, and construct 2 new structures to allow freshwater to flow under the existing roadway and proposed levee. The goal of the project is to restore project-area wetlands to levels that are favorable for fish and invertebrate resources and to improve the efficiency of freshwater flow within the area.	3A
	Cul-DE-Sac Area Channel Levee	TE-0078	HP	HUD	LAFOURCHE	N/A	8	Pending	\$9,468,957	This project will replace the existing levee system that currently allows the existing levee system. The 2.5-mile levee will be constructed along Grand Bayou and the old, existing levee systems on each end.	3A
	Franklin Floodgate Sinkable Barge and Pump Station (Phase 1)	TV-0052-1	HP	HUD	ST MARY	N/A	0.2	2012	\$4,591,380	This project involves the construction of a sinkable barge structure on Franklin Canal to prevent storm surge from inundating the town of Franklin.	3B
	Franklin Floodgate Sinkable Barge and Pump Station (Phase 2)	TV-0052-2	HP	HUD	ST MARY	N/A	0.2	2015	\$2,140,086	This project will construct a pump station adjacent to the sinkable barge structure on Franklin Canal (constructed in Phase 1 of the project) to prevent storm surge from inundating the town of Franklin.	3B
	Flood Control Structure at Boston Canal (Cresteduleap)	TV-0058	HP	HUD	VERMILION	N/A	N/A	Deauthorized	\$5,800,000	This project involves a flood control structure at the intersection of Boston Canal and the Old GWV, which could be closed in the event of a hurricane or tropical storm.	3B
CDRG	Front Ridge Channel Force Pipe Protection	TV-0060	TE	HUD	VERMILION	40	N/A	Pending	\$2,070,162	This project will construct approximately 1/4 mile of front ridge channel force pipe south east of Pecan Island in Vermilion Parish.	4
	Bayou Type Flood Control Project	TV-0067	HP	HUD	VERMILION	N/A	0.1	Pending	\$6,343,862	This project involves the implementation of flood control measures in Bayou Tigre.	4
CIAP	Morgan City Industrial Road	AT-0005	OT	USFWS	ST MARY	N/A	N/A	2015	\$1,247,000	The project is a road alignment that begins at the First Street floodgate in Morgan City, LA. The alignment will proceed along the unprotected area of the floodgate a distance of 1/4 mile. And end at the Port of Morgan City's north gate. The project goal is to reduce the risk of flooding in the industrial neighborhood by improving the drainage through the floodgate and the surrounding area. The project will be constructed in two phases. The first phase will be to improve the drainage through the floodgate and the surrounding area. The second phase will be to improve the drainage through the floodgate and the surrounding area.	3B
CIAP	Atchafalaya Long Distance Sediment Pipeline	AT-0015	OT, MC	USFWS	TERREBONNE	N/A	N/A	N/A	\$1,500,000	CIAP funds also added to this project are for the purpose of advancing the design of a sediment pipeline which will be used to restore marsh in lower Terrebonne Parish.	3A
CIAP	Louis Sandoz Shoreline Protection (Phase II)	BA-0015-X2	SP	USFWS	ST CHARLES	844	N/A	2009	\$2,300,000	This project involved the construction of approximately 7,000 linear feet of shoreline protection near the northwest shore of Lake Sakagawia.	2
CIAP	East Grand Terre	BA-0030	BH	USFWS	PLAQUEMINES	683	N/A	2010	\$75,426,247	The project goal is to restore 2.1 miles and 620 acres of barrier shoreline and 450 acres of marsh by dredging 3.3 million cubic yards of sediment and relocating the sediment to the island. The project was designed under the CWPRA Program and constructed under the CAP program.	2
CIAP	Barataria Land Bridge	BA-0036	MC	USFWS	JEFFERSON	363	N/A	2010	\$18,000,000	The objective of this project is to create and or mouth 1200 acres of marsh in conjunction with CWPRA project BA-36.	2
CIAP	Long Distance Mississippi River Sediment Pipeline	BA-0043-EB	OT, MC	USFWS	JEFFERSON	371	N/A	2016	\$66,094,073	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
CIAP	Caminada Headlands	BA-0045	BH	USFWS	LAFOURCHE	730	N/A	2014	\$70,675,580	This project is located 60 miles south of New Orleans in lower Lafourche Parish between Levee and Port Fourchon. The project involves the construction of a barrier to protect the beach and dune habitat from offshore borrow areas.	2
CIAP	LA 1 Improvements - Fourchon to Levee Bridge (CIAP)	BA-0055	OT	USFWS	LAFOURCHE	N/A	N/A	2010	\$33,000,000	This project involves the construction of a barrier to protect the beach and dune habitat from offshore borrow areas.	2
CIAP	Fringe Marsh Repair	BA-0058	MC	USFWS	PLAQUEMINES	300	N/A	2014	\$8,756,605	This program involves the reestablishment of approximately 300 acres of critical areas of fringe marsh in lower Plaquemines Parish to help minimize the continued fragmentation of wetlands system throughout the coast.	2
CIAP	Mississippi River Water Control Structure - Bayou Lafourche - BLFWO	BA-0161	FD	USFWS	ASUMPTION; LAFOURCHE	Not Available	N/A	2016	\$20,000,000	Overall project features identified for implementation include a reworking intake structure at the point of diversion in the Mississippi River, a pump station system with a combined discharge capacity of 1,000 cfs; a discharge cutting pond/dam at the point of diversion in the Mississippi River; a pump station system with a combined discharge capacity of 1,000 cfs; a discharge cutting pond/dam at the point of diversion in the Mississippi River; a pump station system with a combined discharge capacity of 1,000 cfs; a discharge cutting pond/dam at the point of diversion in the Mississippi River.	2, 3A
	Shoreline Protection - Caminada Marsh Subsidance Study	BA-0162-SPEER	SP	USFWS	LAFOURCHE	40	N/A	Inactive	\$1,200,000	This project involves the construction of a barrier to protect the beach and dune habitat from offshore borrow areas.	2
CIAP	Shoreline Protection - Emergency Restoration	BA-0162-SPEER	SP	USFWS	LAFOURCHE	40	N/A	2013	\$365,700	This project consists of a series of submerged wave breaks surrounding shoreline segments in Lower Plaquemines Parish to protect the beach and dune habitat from offshore borrow areas.	2
CIAP	Bayou Larroque Floodgate Removal (Inactive)	BE-0013-EB	FD	USFWS	PLAQUEMINES	660	N/A	Inactive	\$2,070,559	This project involves the removal of floodgates to allow unimpeded flow of freshwater through the water control structures.	1
CIAP	FIF Island Restoration	CIAPFIF1	SP	USFWS	JEFFERSON	126	N/A	2003	\$751,406	This project provides protection for approximately 100 acres of existing island habitat (Grand Lake & Fifi Island) 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
CIAP	Marsh Creation via Beneficial Use (Phase 10, Black Lake)	CS-0035-EB	DM	USFWS	CAMERON	300	N/A	2010	\$10,000,000	This project involves the creation of approximately 200 acres marsh through beneficial use of dredged material from the Caledonia Ship Channel.	4
CIAP	Troisclair Road Repairs	CS-0047	OT	USFWS	CAMERON	N/A	N/A	2009	\$2,938,592	This project involves construction an overlay on Troisclair Road, a parish road that is heavily used by off-road traffic. The project is approximately 8 miles long and connects State Highway 2782 from Cameron to State Highway 82 to Oak Grove.	4

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
CIAP	Buch Canal and Bayou Terrebonne Bank Stabilization	DNR-2513-0311	SP	USFWS	TERREBONNE	4300	N/A	2007	\$3,700,000	This project reconstructed the south bank of Buch Canal using material dredged from the canal. The restored bank area was then covered with geotextile fabric and armored with stone rip-rap. The rebuilt bank-line will help to diminish storm surge as well as reduce salinity intrusion. This project was funded by the CIAP of 2001.	3A
CIAP	Performance Evaluation - Barataria Land Bridge	LA-0012-2	OT	USFWS	JEFFERSON	N/A	N/A	N/A	\$432,618	This research study will be conducted on the Barataria Land Bridge Dredging Project (BA-36) and will address the effect of dredged sediment application on soil-vegetation-hydrologic dynamics within deteriorating interior brackish marshes.	2
CIAP	Performance Evaluation - Freshwater Bayou	LA-0012-3	OT	USFWS	VERMILION	N/A	N/A	N/A	\$286,029	This study focuses on the expected vertical elevation change of the dredge along fill due to immediate and long term sediment and consolidation. Work performed reviewing previous analyses performed to help improve our ability to predict sediment and consolidation, researching new methods, models, and techniques that could improve how C-PRA design teams predict settlement and consolidation. Additionally, field samples and construction monitoring shall be performed to verify the accuracy of the settlement and consolidation analyses performed during project design.	3A
CIAP	CIAP Performance Evaluation - Bayou Lafourche	LA-0012-5	OT	USFWS	JEFFERSON, LAFOURCHE	N/A	N/A	N/A	\$550,606	Evaluation of Total Pass Morphology Post-Restoration at East Grand Terre and Development of Barrier Island Comprehensive Management Plan for Bayou Lafourche.	2
CIAP	CIAP Performance Evaluation - Caminada Marsh Subsidance Study	LA-0012-6	OT	USFWS	JEFFERSON, LAFOURCHE	N/A	N/A	N/A	N/A	Research to be conducted on the Caminada Headland in order to quantify the amount of consolidation in the substrate underlying barrier islands resulting from placement of sand for island restoration.	2
CIAP	CIAP Performance Evaluation - Borrow Area Management and Monitoring	LA-0012-7	OT	USFWS	COASTWIDE	N/A	N/A	N/A	\$813,612	The Borrow Area Management and Monitoring (BAMM) was established to understand the evolution of borrow risks for restoration projects (dredge, nourishment, and offshore) over time, with a particular focus on the inflating factors and types of sediment and gradient of the fill slopes as well as potential dredge impacts. The study involves the collection of geophysical, geotechnical and water quality data from several borrow areas to understand not only the above objectives but also the hypoxic conditions vis-a-vis depth of cut of borrow area.	COASTWIDE
CIAP	Coastal Forest Conservation Initiative	LA-0013	PP, OT	USFWS	COASTWIDE	40000	N/A	N/A	\$20,166,136	A program to preserve existing coastal forest via purchase of fee title or conservation servitudes from willing land owners.	COASTWIDE
CIAP	Rockyshore Shoreline Protection Demo (CIAP)	ME-0019-EB	SP	USFWS	CAMERON	23	N/A	2009	\$9,500,000	The project involves the construction of offshore breakwaters to protect the shoreline as a demonstration to determine which types of structures are successful in protecting the shoreline. Successful structures are intended for use in a larger CWPRA Project.	4
CIAP	Grand Lake Shoreline Protection (CIAP)	ME-0021-EB	SP	USFWS	CAMERON	495	N/A	2010	\$9,129,919	This project involves the construction of approximately 37,000 linear feet of shoreline protection on the south shore of Grand Lake from the mouth of the Grand Lake to the mouth of the Grand Lake.	4
CIAP	Mississippi River Delta Strategic Planning - SSPM Expansion	MR-16-SSPM	OT	USFWS	EAST BATON ROUGE	N/A	N/A	2017	\$13,570,000	This project involves the construction of a new expanded Small Scale Phase II Mutual SSPM capable of restoring smaller bays and wetlands with an increased area of coverage in comparison to the previous SSPM. The project will also include the construction of a new facility to house the model as well as the use of the model for public outreach the educational efforts. The project will be a valuable educational and research tool to provide insight and qualitative understanding of critical aspects of the impacts of major diversions of water and sediments, future conditions, and navigation impacts.	1, 2, 3A
CIAP	Vegetation Diversification	PO-0035-EB	FD	USFWS	ST BERNARD	13200	N/A	N/A	\$1,170,902	This project investigates the beneficial use of Fertilizer as an alternative to chlorine to treat effluent at the SWBNO's East Bank Sewer Treatment Plant.	1
CIAP	Olefin Land Bridge & Marsh Creation	PO-0035-EB	SP	USFWS	ORLEANS	140	N/A	2013	\$20,860,000	This project provides shoreline protection on the northwest rim of Lake Borgne west of Alligator Point.	1
CIAP	East LaBranche Shoreline Protection	PO-0043	SP	USFWS	ST CHARLES	Not Available	N/A	2015	\$3,763,816	Through various funding mechanisms, including CWPRA and CIAP, at about approximately 10,000 linear feet of the East LaBranche shoreline has been protected. Saint Charles Parish has acquired \$1,763,816 of CIAP funding to construct 1,400 linear feet of shoreline protection (PO-43 East LaBranche Shoreline Protection). The State has contributed additional \$2,000,000 in CIAP funding to construct shoreline protection for the most critical areas.	1
CIAP	Central Wetlands Demonstration	PO-0073	HR	USFWS	ST BERNARD	10-20	N/A	2016	\$1,500,000	This project involves the construction of a new expanded Small Scale Phase II Mutual SSPM capable of restoring smaller bays and wetlands with an increased area of coverage in comparison to the previous SSPM. The project will also include the construction of a new facility to house the model as well as the use of the model for public outreach the educational efforts. The project will be a valuable educational and research tool to provide insight and qualitative understanding of critical aspects of the impacts of major diversions of water and sediments, future conditions, and navigation impacts.	1
CIAP	Central Wetlands - Riverbank	PO-0073-1	HR	USFWS	ST BERNARD	346	N/A	2015	\$2,000,000	This project involves the discharge of effluent from a CWPBNO oxidation plant to be discharged into the Central Wetlands. This would allow vegetation to prosper once again in the area, and would also save St. Bernard Parish the cost of running a sewer line from the oxidation plant to the Munster Plant.	1
CIAP	Central Wetlands - EBSTP to A2	PO-0073-2	HR	USFWS	ST BERNARD, ORLEANS	473	N/A	Inactive	\$4,500,000	This project involves the introduction of freshwater from the SWBNO's East Bank Sewer Treatment Plant to combat salt water intrusion from MRGO and thus attempt to replenish the once thriving Central Wetlands. The project involves piping treated effluent from the SWBNO's East Bank Sewer Treatment Plant to the Central Wetlands and then discharging it into the Central Wetlands.	1
CIAP	Central Wetlands - Expansion	PO-0073-3	HR	USFWS	ORLEANS	17.2	N/A	2016	\$4,500,000	This project involves the construction of a new expanded Small Scale Phase II Mutual SSPM capable of restoring smaller bays and wetlands with an increased area of coverage in comparison to the previous SSPM. The project will also include the construction of a new facility to house the model as well as the use of the model for public outreach the educational efforts. The project will be a valuable educational and research tool to provide insight and qualitative understanding of critical aspects of the impacts of major diversions of water and sediments, future conditions, and navigation impacts.	1
CIAP	Living Shoreline	PO-0148	SP	USFWS	ST BERNARD, JEFFERSON, ORLEANS	5340	N/A	2017	\$26,500,000	The primary project involves the construction of bioengineered oyster reefs along coastal fringe marsh in St. Bernard Parish. The reef area will take place from Lake Front to the mouth of Bayou La Loutre around Lyssa Point and Paulina Point extending around the southern shore of Troucure Bay. Other related Living Shoreline projects are in Plaquemines Parish and Jefferson Parish.	1, 2
CIAP	Rainey Audubon Wildlife Sanctuary Ecosystem Terrestrial	RAINEY	MC	USFWS	VERMILION	640	N/A	2005	\$951,899	The project consists of constructing approximately 35,000 linear feet of terraces. The terraces were created by dredging in shallow open water areas and placing the spoil on one side of the borrow area. An additional \$391,763 was contributed from the CIAP of 2001.	3B
CIAP	GWV Bank Restoration of Critical Areas of Terrebonne (CIAP)	TE-0043-EB	SP	USFWS	TERREBONNE	1,180	N/A	2011	\$7,274,676	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.	3B
CIAP	Freshwater Bayou Bank Stabilization	TV-0011-B-EB	SP	USFWS	VERMILION	273	N/A	2014	\$13,580,004	The goal of the project is to stop erosion along the bank of Freshwater Bayou Canal and to protect the interior wetlands from saltwater intrusion, increased soil exchange and wave-induced erosion. This will be achieved by constructing a rock dike along critical areas of the eastern and western banks of the Canal.	3B
CIAP	Port of Iberia Bridge Replacement - Port Road over Commercial Canal	TV-0028	OT	USFWS	IBERIA	N/A	N/A	2013	\$625,792	This project involves the replacement of the bridge on Port Road over Commercial Canal at the Port of Iberia. 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
CIAP	Port of Iberia Bridge Replacement - Devil Dabois Road over Commercial Canal	TV-0030	OT	USFWS	IBERIA	N/A	N/A	2013	\$1,068,013	This project involves the replacement of the bridge on Devil Dabois Road over Commercial Canal at the Port of Iberia. 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
CIAP	Acadiana Regional Airport Street Improvements - Admiral Boudry Drive	TV-0031	OT	USFWS	IBERIA	N/A	N/A	2016	\$1,114,942	This project involves patching and overlaying 5,310 feet (about 1 mile) of Admiral Doyle Road around the Acadiana Regional Airport in Iberia Parish from its intersection with LA 3272 to the end of the four lane section. The project provides improved access to both the airport and the Port of Iberia, both of which support OCS for pipe and corrosion.	3B

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRP Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Level Improvement	Construction Completion	Total Budget	Project Description	Planning Unit
CWPFPRA	Atchafalaya Sediment Delivery	AT-0002	SD	NMFS	ST MARY	2232	N/A	1998	\$2,532,147	The objective of this project is to enhance natural delta growth by opening Natch Channel and Cocotte Pass. Natch Channel was re-opened by excavating 100,000 cubic yards of sediment from the channel. Cocotte Pass was re-opened by excavating 100,000 cubic yards of sediment from the channel. Material dredged (700,925 cubic yards) as a result of construction was strategically placed at elevations mimicking natural delta ridges.	3B
CWPFPRA	Big Island Mining	AT-0003	DM	NMFS	ST MARY	1560	N/A	1998	\$7,077,404	The project includes creating a new wetland area 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. Reopening the channels is expected to enhance natural sediment transport and marsh growth.	3B
CWPFPRA	Cadotte River Channel Sediment Delivery (Deauthorized)	AT-0004	SD	NMFS	ST MARY	589	N/A	Deauthorized	\$1,717,883	This project investigated dredging a system of distributary channels to create 689 acres of marsh through sediment placement and natural deposition.	3B
CWPFPRA	OMWV (Gulf Intracoastal Waterway) to Crowley Hydrologic Restoration	BA-0002	HR	NRCIS	LAFOURCHE	175	N/A	2000	\$12,896,368	The project includes the construction of features (including canal plugs, rock walls, hard crest weirs with boat bays, one variable crest weir, and the rebuilding of low overflow banks that have eroded away) in order to restore the area to the area to the hydrologic conditions that prevailed historically.	2
CWPFPRA	Natch Outfall Management	BA-0003-C	OM	NRCIS	JEFFERSON	634	N/A	2002	\$2,985,972	The project goal is to optimize use of fresh water and sediment captured by existing siphon by reducing channelized flow and routing the diverted flow to natural marshes. Project was deauthorized in 2015.	2
CWPFPRA	West Fording a la Roche Outfall Management (Deauthorized)	BA-0004-C	HR	NRCIS	PLAQUEMINES	646	N/A	Deauthorized	\$6,620,516	The objective of this project is to maintain the shoreline along a section of Lake Savator and help re-establish the natural hydrology of the interior marsh. Phase I of the project was constructed to demonstrate the effectiveness of four separate types of depondment levees in a poor soil environment. Phase II of the project included the installation of 6,000 feet of continuous rock structure along the shoreline. Phase III of the project was to remove tidal exchange to 2,400 acres of impounded wetlands. The project was officially deauthorized by the CWPFPRA Task Force in April 2003 because of budget issues.	2
CWPFPRA	Lake Savator Shoro Protection Hydrologic Restoration	BA-0015	SP	NMFS	ST CHARLES	N/A	N/A	1998	\$6,866,506	The goal of this project was to restore tidal exchange to 2,400 acres of impounded wetlands. The project was officially deauthorized by the CWPFPRA Task Force in April 2003 because of budget issues.	2
CWPFPRA	Fourchon Hydrologic Restoration (Deauthorized)	UA-0010	HR	USACE	LAFOURCHE	N/A	N/A	Deauthorized	\$7,703	The project beneficially used dredge material to enlarge Queen Bios Island.	2
CWPFPRA	Barataria Bay Wetland Restoration	BA-0019	MC	USACE	JEFFERSON	510	N/A	1996	\$1,170,000	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Jonathan Davis Wetland Protection	UA-0020	HR, SP	NRCIS	JEFFERSON	510	N/A	2003, 2012	\$20,060,616	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Bayou Lafourche Riparian Marsh Restoration (Deauthorized)	BA-0021	MC	NMFS	JEFFERSON	1065	N/A	Deauthorized	\$20,964	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Bayou L'Ouise Riparian Hydrologic Restoration (Deauthorized)	BA-0022	HR	NRCIS	LAFOURCHE	737	N/A	Deauthorized	\$371,232	This project was proposed to restore natural hydrologic flow to the marsh by reinforcing breached areas of the Bayou L'Ouise Ridge through a series of canal closures and two water control structures. The project was officially deauthorized by the CWPFPRA Task Force in April 2003 because of budget issues.	2
CWPFPRA	Barataria Bay Wetland West Side Shoreline Protection	BA-0023	SP	NRCIS	JEFFERSON	1789	N/A	2000	\$3,304,787	The project objective is to rebuild the west bank of the Duane Cut to protect the adjacent marsh from unnatural water exchange and sedimentation. A rock dike was constructed along 3,400 feet of the west bank of the Duane Cut in the Barataria Bay area.	2
CWPFPRA	Myrtle Grove Shoro Protection (Deauthorized)	BA-0024	FD	NMFS	PLAQUEMINES	N/A	N/A	Deauthorized	\$491,802	The project objective 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 4,100 ft of rock revetment structure.	2
CWPFPRA	Bayou Lafourche Siphon (Deauthorized)	BA-0025-A	FD	EPA	LAFOURCHE	428	N/A	Deauthorized	\$46,822	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Mississippi River Reintroduction into Bayou Lafourche (Deauthorized)	BA-0025-B	FD	EPA	ASCENSION, ASSUMPTION, LA TERRE BONNE	85000	N/A	Deauthorized	\$9,619,586	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Barataria Bay Wetland East Side Shoreline Protection	BA-0026	SP	NRCIS	JEFFERSON	217	N/A	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 salinization 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
CWPFPRA	Barataria Basin Landridge Shoreline Protection, Phase 1	BA-0027	SP	NRCIS	JEFFERSON	1304	N/A	2009	\$31,266,623	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 Rapides. The length of protection is estimated to be approximately 71,000 feet.	2
CWPFPRA	Barataria Basin Landridge Shoreline Protection, Phase 2	BA-0027-C	SP	NRCIS	JEFFERSON, LAFOURCHE	5297	N/A	1999, 2008, 2017	\$46,231,597	The project consisted of 31,500 feet of forshore rock dike with a lightweight aggregate core of concrete sheetpile and will incorporate fish traps and openings at intervals natural channels to eliminate shoreline erosion and deterioration of the Barataria landridge.	2
CWPFPRA	Barataria Basin Landridge Shoreline Protection, Phase 3	BA-0027-D	SP	NRCIS	JEFFERSON	589	N/A	2006	\$17,769,216	This project involved the installation of vegetative plantings on previously constructed marsh and dune platform.	2
CWPFPRA	Vegetative Plantings of a Cropped Material Disposal Site on Grand Terre Island	BA-0028	VP	NMFS	JEFFERSON	127	N/A	2001	\$526,314	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 CWPFPRA Task Force in January of 2005 because it was determined to be infeasible.	2
CWPFPRA	Edwards Grand Terre Islands Restoration (Transferred)	BA-0030	MC	NMFS	JEFFERSON	403	N/A	Transferred	\$2,211,739	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 was constructed using CIAP 2007 funds.	2
CWPFPRA	Coke Building Division at Myrtle Grove (Transferred)	BA-0033	SD	USACE	JEFFERSON, PLAQUEMINES	8891	N/A	Transferred	\$327,422	The objective of the 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 4,100 ft of rock revetment structure.	2
CWPFPRA	Mississippi River Reintroduction into Northwest Barataria Basin (Transferred)	BA-0034	FD	EPA	ST JOHN THE BAPTIST, ST JAMES, LA TERRE BONNE	5134	N/A	Transferred	\$17,098,769	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Hydrologic Restoration and Vegetative Plantings in the Lac des Amantes Swamp	BA-0034-2	HR, VP	USFWS	BAPTIST, ST JAMES, LAFOURCHE	5134	N/A	Pending	\$14,356,710	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 4,100 ft of rock revetment structure.	2
CWPFPRA	Pass Channel to Grand Bayou Pass	UA-0035	BH	NMFS	PLAQUEMINES	359	N/A	2009	\$46,414,530	The project involved the creation of a dune and marsh platform on the north side of the Gulf of Mexico adjacent to Bay Joe Wise.	2
CWPFPRA	Dedicated Dredging on the Barataria Basin Landridge	BA-0036	MC	USFWS	JEFFERSON	2800	N/A	2010	\$30,281,893	Approximately 3,000,000 cubic yards of dredged material was placed in two contained marsh creation areas to conduct approximately 1,211 acres of marsh creation. The project involved the creation of a dune and marsh platform on the north side of the Gulf of Mexico adjacent to Bay Joe Wise.	2
CWPFPRA	Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake	BA-0037	MM, SP	NMFS	LAFOURCHE	713	N/A	2007	\$44,931,412	This project is designed to protect water wetlands, which currently experience high rates of shoreline erosion. This project projects approximately 21,000 feet of Little Lake shoreline, create 488 acres of interior wetlands, and nourish an additional 532 acres of fragmented, subsiding marsh.	2
CWPFPRA	Indian Island and Pass La Mer to Chaudron Pass Restoration	BA-0038	BH, VP	NMFS	PLAQUEMINES	1117	N/A	2012	\$62,893,695	The objective of this project is 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 was first authorized on the 9th PFI, as authorized by the Louisiana Department of Natural Resources in 2007. Construction of the Pass La Mer to Chaudron Pass Restoration segment was completed in 2007.	2

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRP Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Level Improvement	Construction Completion	Total Budget	Project Description	Planning Unit
CWPFPRA	Mississippi River Sediment Delivery System - Bayou Dupont	BA-0039	MC	EPA	JEFFERSON, PLAQUEMINES	677	N/A	2010	\$31,631,908	The goal of this project is 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 was first authorized on the 9th PFI, as authorized by the Louisiana Department of Natural Resources in 2007. Construction of the Pass La Mer to Chaudron Pass Restoration segment was completed in 2007.	2
CWPFPRA	Reversing Sand Mining/Gravel Island Restoration (Transferred)	BA-0040	BH	NMFS	PLAQUEMINES	234	N/A	Transferred	\$40,951,272	The goal of this project is 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 was first authorized on the 9th PFI, as authorized by the Louisiana Department of Natural Resources in 2007. Construction of the Pass La Mer to Chaudron Pass Restoration segment was completed in 2007.	2
CWPFPRA	South Shore of the Pen and Bayou Dupont	UA-0041	SP, MC	NRCIS	JEFFERSON	211	N/A	2012	\$21,636,515	This project involves the construction of approximately 1,000 feet of concrete pile and sand wall and 10,900 feet of rock revetment along the south shore of The Pen and Bayou Dupont. Dredged material was used to create approximately 14 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 Wetlands, Duane Cut, and the Cadeaux Gas Pipeline Canal.	2
CWPFPRA	Lake Heritage Marsh Creation	BA-0042	TE, SP, MC	USFWS	PLAQUEMINES	438	N/A	2015	\$40,528,484	The goal of this project is to create approximately 438 acres of wetlands, reduce tidal exchange in marshes surrounding Lake Heritage using material dredged from the Mississippi River.	2
CWPFPRA	Bayou Dupont Marsh and Ridge Creation Project	BA-0047	MC	NRCIS	PLAQUEMINES	203	N/A	2015, Transferred	\$15,871,708	The goal of the project is to create marsh habitat in two contained marsh creation areas to conduct approximately 1,211 acres of marsh creation. The project involved the creation of a dune and marsh platform on the north side of the Gulf of Mexico adjacent to Bay Joe Wise.	2
CWPFPRA	Grand Land Marsh and Ridge Restoration	BA-0048	MC	NMFS	JEFFERSON	317	N/A	2016	\$38,324,646	This marsh and ridge creation project will nourish approximately 118 acres of marsh and create 15 acres of freshwater ridge by using dredged material from the Mississippi River.	2
CWPFPRA	Chienre Ronquille Barrier Island Restoration (Transferred)	UA-0050	BH	NMFS	PLAQUEMINES	502	N/A	2015	\$41,972,705	This project will create 378 acres of marsh, nourish about 140 acres of marsh and build about 20,000 ft of ridge.	2
CWPFPRA	Northwest Turtle Bay Marsh Creation	BA-0076	BH	NMFS	PLAQUEMINES	398	N/A	Transferred	\$51,145,769	The project goal is to maintain shoreline integrity and create and restore saline marsh on Chenier Ronquille. The project involves dedicated dredging from nearshore Gulf of Mexico to create saline marsh in open water areas and nourish wetlands and barrier island creation. Intensive dune plantings in the project area were also proposed. This project was transferred to NRCNA for construction.	2
CWPFPRA	Northwest Turtle Bay Marsh Creation	BA-0126	MC	USFWS	JEFFERSON	407	N/A	Pending	\$24,448,757	This project involves the creation of approximately 423 acres and nourish approximately 337 acres of marsh using sediment dredged from Turtle Bay or Little Lake. Existing canal spoil banks, emergent marsh, and limited segments of containment dikes will be used to guide the distribution of the dredged material. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands.	2
CWPFPRA	Bayou Dupont Sediment Delivery System - Bayou Dupont	BA-0164	MC	EPA	PLAQUEMINES, JEFFERSON	302	N/A	Pending	\$39,529,163	This project involves dedicated dredging from the Mississippi River to create and nourish 415 acres of marsh.	1
CWPFPRA	Cameron Headlands Bank Barrier Marsh Creation	BA-0171	MC	EPA	LAFOURCHE	430	N/A	Pending	\$32,284,094	This project involves the creation of approximately 700 acres of low barrier island marsh and nourishment of 130 acres of emergent marsh behind 3.5 miles of the Cameron Headlands Bank barrier island located along the Gulf of Mexico.	2
CWPFPRA	Bayou Grande Chenier Marsh and Ridge Restoration	BA-0173	MC	USFWS	PLAQUEMINES	264	N/A	Pending	\$30,311,402	The goal of this project is to re-create approximately 342 acres of marsh habitat in the open water areas and nourish marsh along the eastern side of the Bayou Grande Chenier ridge, as well as create 1.2 acres of forested coastal ridge habitat.	2
CWPFPRA	Cameron Headlands Bank Barrier Marsh Creation	BA-0183	BH	EPA	JEFFERSON, LAFOURCHE	444	N/A	Pending	\$25,977,605	In addition to having one of the highest shoreline retreat rates in Louisiana, Cameron Headland has suffered significant shoreline losses due to recent hurricanes. As the beach and dune continue to migrate landward, overwashed sediment is lost into newly formed open water areas. Cameron Headland deterioration threatens thousands of acres of wetlands and one of the most important bird refuges in the state. The project will create a barrier island marsh and create a platform upon which the beach and dune can migrate. This project will work synergistically with existing Cameron Headland dune and back barrier marsh projects.	2
CWPFPRA	East Levee Marsh Creation and Nourishment	BA-0194	MC	NOAA	LAFOURCHE	462	N/A	Pending	\$34,680,876	The project goal is to create approximately 260 acres and nourish 124 acres of saline marsh east of Levee.	2
CWPFPRA	Barataria Bay Marsh Creation and Nourishment	BA-0195	MC	NRCIS	PLAQUEMINES, JEFFERSON	517	N/A	Pending	\$23,545,026	The goal of the project is to create approximately 251 acres of marsh and nourish approximately 269 acres of marsh (517 acres total) with dredged material from Barataria Bay.	2
CWPFPRA	Bayou L'Ouise Marsh Creation and Nourishment	BS-0003-A	OM	NRCIS	PLAQUEMINES	802	N/A	2002	\$4,536,000	The project involves the construction of approximately 342 acres of marsh habitat in the open water areas and nourish marsh along the eastern side of the Bayou Grande Chenier ridge, as well as create 1.2 acres of forested coastal ridge habitat.	1
CWPFPRA	White's Ditch Outfall Management (Deauthorized)	BS-0004-A	OM	NRCIS	PLAQUEMINES	N/A	N/A	Deauthorized	\$32,862	This project was designed to direct the flow of Mississippi River nutrients and sediment into the outstanding wetlands in the Broken Sound Basin that are not directly benefited by the Cameron Freshwater Diversion project. Because of the failure to secure land rights, the project was officially deauthorized by the CWPFPRA Task Force in January of 1998. This project was reauthorized on the 14th PFI, as 05-17.	1
CWPFPRA	Grand Bay Crevasse (Deauthorized)	BS-0007	SD	USACE	PLAQUEMINES	N/A	N/A	Deauthorized	\$65,747	Project goals included construction of a rock-lined opening through the levee at the head of the Jurevich 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 CWPFPRA Task Force in July of 1998 because of land rights issues.	1
CWPFPRA	Upper Oak River Freshwater Siphon (Deauthorized) Phase 1	BS-0009	FD	NRCIS	PLAQUEMINES	N/A	N/A	Deauthorized	\$56,476	The primary goal of this project was to reverse the trend of minor marsh deterioration in the project area due to saltwater intrusion through installation of a freshwater siphon and outfall channel. Those strategies would have provided freshwater, nutrients, and sediment to enhance marsh health. The project was officially deauthorized by the CWPFPRA Task Force in January of 2003 because of land rights issues.	1
CWPFPRA	Delta Building Diversion North of Fort St. Philip (Deauthorized)	BS-0010	SD	USACE	PLAQUEMINES	543	N/A	Deauthorized	\$1,178,640	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
CWPFPRA	Delta Management at Fort St. Philip	BS-0011	SNT	USFWS	PLAQUEMINES	267	N/A	2006	\$3,190,948	The objective of the project is to enhance the delta-building process occurring due to the crevasse at Fort St. Philip. Six artificial crevasses were constructed to divert freshwater and sediment into areas currently restricted by spoil banks or natural ridges and linear vegetated terraces were constructed to enhance sediment retention and reduce wave energy in one of the receiving bays.	1
CWPFPRA	White Ditch Resurrection and Outfall Management (Deauthorized)	BS-0012	OM, FD	NRCIS	PLAQUEMINES	108	N/A	Deauthorized	\$1,595,677	The goal of the project was to promote utilization of freshwater, sediments, and nutrients from Mississippi River by renewing operation for existing siphon and siphon system. The project was deauthorized by the CWPFPRA Task Force in 2013.	1
CWPFPRA	Bayou L'Ouise Freshwater Diversion (Transferred)	BS-0013	FD	EPA	PLAQUEMINES	620	N/A	Transferred	\$9,509	The goal of this project was to create approximately 620 acres of new marsh, increase the percent cover of aquatic vegetation, to increase the area of shallow open water habitat, and decrease mean salinity in the project area. This CWPFPRA project was transferred to the USACE for construction.	1
CWPFPRA	Bohemian Mississippi River Reintroduction Project (Deauthorized)	BS-0015	FD	EPA	PLAQUEMINES	640	N/A	Deauthorized	\$556,703	The goal of the project was to reintroduce Mississippi River water into saline wetlands through an uncontrolled diversion with a capacity of approximately 10,000 cfs, reducing natural debris growth and habitats. The project was deauthorized by the CWPFPRA Task Force in 2013.	1
CWPFPRA	South Lake Lery Shoreline and Marsh Restoration	BS-0016	VP, MC	USFWS	PLAQUEMINES	652	N/A	Pending	\$33,710,987	This project involves designing sediment to create 396 acres of marsh and restore approximately 32,000 feet of the southern Lake Lery shoreline.	1
CWPFPRA	Intermedia Siphon (Deauthorized)	BS-0018	FD	EPA	PLAQUEMINES	1613	N/A	Deauthorized	\$22,570,208	The goal of the project was to create and sustain marsh through a siphon system between 0.000 cfs minimum siphon into the open water area and 200 cfs maximum siphon into the marsh area.	1
CWPFPRA	Terracing and Marsh Creation South of Big Marsh	BS-0024	MC, TE	USFWS	PLAQUEMINES	383	N/A	Pending	\$22,774,368	This project involves the construction of approximately 65,000 linear feet of levees (33 acres) with in-situ material to reduce debris and turbidity and capture suspended sediment. Sediments will be hydraulically dredged from Lake Lery and pumped via pipeline to create and re-restore approximately 334 acres of marsh in the project area.	2
CWPFPRA	Cameron Creole Maintenance	CS-0004-A	HR	NRCIS	CAMERON	2602	N/A	1997, 2011	\$4,844,371	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 provides maintenance for the existing 18 miles of levee and five major structures which make up the Cameron-Creole Watershed Project.	4
CWPFPRA	Brown Lake Hydrologic Restoration (Deauthorized)	CS-0009	MM	NRCIS	CALCASIEU, CAMERON	916	N/A	Deauthorized	\$1,097,838	The project involved the restoration of the natural hydrology of the Brown Lake area. The project was deauthorized by the CWPFPRA Task Force.	4
CWPFPRA	Sweet Lake/Willow Lake Hydrologic Restoration	CS-0011-B	SP	NRCIS	CAMERON	247	N/A	2002	\$3,929,152	The project objectives are to re-establish the shoreline (hydrologic boundary) between Sweet Lake and the Gulf Intracoastal Waterway (GIWV), to reduce lake turbidity and erosion, and to fill erosion and trap sediment needed to rebuild marsh along the northern shoreline of Sweet Lake. The project involves the construction of approximately 65,000 linear feet of levees (33 acres) with in-situ material to reduce debris and turbidity and capture suspended sediment. Sediments will be hydraulically dredged from Lake Lery and pumped via pipeline to create and re-restore approximately 334 acres of marsh in the project area.	4
CWPFPRA	Cameron Creole Plugs	CS-0017	HR	USFWS	CAMERON	865	N/A	1997	\$418,539	The project goal is to restore historic water circulation patterns within the Cameron Creole Watershed. This objective will be accomplished by slowing the rapid movement of saline waters that enter the watershed from Calcasieu Lake. The project consisted of the installation of two shadpole plugs in the Lakeshore borrow canal.	4

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planting Unit
CWPPRA	Sabine National Wildlife Refuge Erosion Protection	CS-0018	SP	USFWS	CAMERON	5542	N/A	1995	\$1,602,656	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-0019	VP	NRCS	CAMERON	N/A	N/A	1994	\$250,200	The goal of this demonstration project is to reduce marsh erosion from interior open water bay energy using vegetation plantings consisting of Calamagrostis canadensis (Shoreline Planting). In addition, water-dwelling bay bale energy was utilized to protect the vegetation plantings.	4
CWPPRA	East Mud Lake Marsh Management	CS-0020	MM	NRCS	CAMERON	1520	N/A	1998	\$6,036,741	This project involved the creation of a hydrologic regime conducive to restoration, protection, and enhancement of the Mud Lake area. The project included the installation of a rock armor shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the shoreline. The project also included the installation of a rock armor shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the shoreline. The project also included the installation of a rock armor shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the shoreline.	4
CWPPRA	Highway 304 Hydrologic Restoration	CS-0021	MM	NRCS	CAMERON	650	N/A	2000	\$1,586,278	The project purpose was to restore the natural hydrology of the project area and eliminate undue erosion of the levee. The project included the installation of a rock armor shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the shoreline. The project also included the installation of a rock armor shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the shoreline. The project also included the installation of a rock armor shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the shoreline.	4
CWPPRA	Clear Marsh Bank Protection	CS-0022	SP	USACE	CALCASIEU	1067	N/A	1997	\$3,690,088	The project is located north of the Gulf Intracoastal Waterway (GIWW) approximately 10 miles northwest of Houma 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	Repairs Sabine Refuge Water Control Structures at Headquarters Canal, Wet Cove Canal, and Hog Island Gulf	CS-0023	MM	USFWS	CAMERON	953	N/A	2001	\$5,709,299	This project involved the replacement of existing structures at Sabine National Wildlife Refuge with structures that have substantially greater discharge potential and greater management flexibility.	4
CWPPRA	Perry Ridge Shore Protection	CS-0024	SP	NRCS	CALCASIEU	1203	N/A	1989	\$2,789,090	The project reduces tidal scour, water action from boats, and other excessive energy impacts on interior marshes and the possibility of seaborne intrusion by placing rip-rap along low areas on the northern spoil bank of the GIWW from Perry Ridge to Vinton Drainage Canal.	4
CWPPRA	Prowed Terraces Demonstration	CS-0025	SNT	NRCS	CAMERON	N/A	N/A	2000	\$325,841	Concept of this demonstration project is to develop and demonstrate a non-structural procedure for constructing artificial terraces in shallow open water areas. Thirty-eight option terraces served as wave-damping, sediment trapping structures and provided a medium base for the establishment of emergent vegetation.	4
CWPPRA	Completed Demonstration (Deadwater)	CS-0026	MC	EPA	CAMERON	N/A	N/A	Deauthorized	\$255,390	This project was authorized to evaluate the effectiveness of using live trimmings as compostable material, the compost amended material in providing a growth medium for emergent vegetation, and determining settlement rates of the material against amended materials and live trimmings. The project was officially deauthorized by the COWPRA Task Force in January 2007.	4
CWPPRA	Black Bayou Hydrologic Restoration	CS-0027	HR	NMFS	CALCASIEU, CAMERON	3594	N/A	2003	\$6,170,784	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 Cycles 4-5	CS-0028-4-5	MC	USACE	CAMERON	480	N/A	2015	\$11,430,549	The Sabine Refuge Marsh Creation Cycles 4-5 Project consists of the placement of dredged material from routine maintenance of the Calcasieu River Ship Channel into temporary pipelines into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWPPRA	Sabine Refuge Marsh Creation Cycles 1-3	CS-0028-1-3	MC	USACE	CAMERON	662	N/A	2002, 2010	\$24,627,399	The Sabine Refuge Marsh Creation Cycles 1-3 Project consists of the placement of dredged material from routine maintenance of the Calcasieu River Ship Channel into temporary pipelines into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWPPRA	Black Bayou Culverts Hydrologic Restoration	CS-0029	HR	NRCS	CALCASIEU	540	N/A	2007	\$16,890,069	This project involved the construction of 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-0030	SP	NRCS	CALCASIEU	1132	N/A	2001	\$2,750,216	The project consists of installing rock along the bank of the GIWW to prevent further erosion.	4
CWPPRA	Houma Branch S and Management	CS-0031	SP	NRCS	CAMERON	330	N/A	2003	\$14,130,233	The purpose of the project is to protect existing coastal wetlands by restoring and maintaining the integrity and functionality of the Houma Branch S and Management. The objective was to complete dredging to meet requirements for sand filling, vegetation planting, and maintenance of the shoreline resources. The project was completed under the 8th PLT as the Cameron Project Hwy Branch Project, CS-001.	4
CWPPRA	East Sabine Lake Hydrologic Restoration CUI	CS-0032-CUI	TE, HR	USFWS	CAMERON	281	N/A	2009	\$4,944,870	The objectives of this project are to protect and restore area marsh, and restore the natural 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 were used to build additional terraces.	4
CWPPRA	Cameron-Creole Freshwater Introduction	CS-0049	VP, FD	NRCS	CAMERON	473	N/A	Pending	\$14,037,045	The purpose of the project is to restore the function, value and sustainability to approximately 22,427 acres of marsh and open water along the Cameron-Creole Freshwater Introduction Project. The project includes the construction of a public water control marsh and the purchase of 319 acres of land to be restored to a project area. The project also includes the construction of a public water control marsh and the purchase of 319 acres of land to be restored to a project area.	4
CWPPRA	Kido Bayou Marsh Creation and Hydrologic Restoration	CS-0053	MC, SP	NRCS	CAMERON	274	N/A	Transferred	\$17,882,705	The goal of this project is to restore a portion of the historic meandering channel of Kido Bayou and provide direct protection to Louisiana State Highway 27. The region's only northward hurricane evacuation route. The project has been transferred to the Chenier Plain Coastal Protection and Restoration Authority.	4
CWPPRA	Cameron-Creole Watershed Grand Bayou Marsh Creation	CS-0054	MC	USFWS	CAMERON	534	N/A	Pending	\$22,915,987	Project goals include creating 600 acres of brackish marsh and maintaining 7 acres of brackish marsh with updated 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 valley.	4
CWPPRA	Oyster Bayou Marsh Creation and Terracing	CS-0059	MC, SNT	NMFS	CAMERON	489	N/A	Pending	\$31,031,354	The project consists of reclaiming marsh and associated edge habitat and creating terraces in order to reduce wavehatch along the Calcasieu Lake river using sediment from gulfed disposal sites of the Calcasieu River.	4
CWPPRA	Cameron Meadows Marsh Creation and Terracing	CS-0066	MC, TE	NMFS	CAMERON	401	N/A	Pending	\$28,936,820	This project involves the construction of 334 acres of marsh and the reestablishment of Old North Bayou via dredged material from the Gulf of Mexico. The project also involves the construction of 35,000 linear feet of terraces (10 acres) to reduce wind generated wave fetch.	4
CWPPRA	No Name Bayou Marsh Creation and Nourishment	CS-0078	MC	NMFS	CAMERON	497	N/A	Pending	\$28,080,745	The project goal is to create and/or nourish approximately 533 acres of emergent saline marsh within the Cameron-Creole watershed along the Calcasieu Lake river using sediment from gulfed disposal sites of the Calcasieu River.	4
CWPPRA	Oyster Lake Marsh Creation and Nourishment	CS-0079	MC	NOAA	CALCASIEU	681	N/A	Pending	\$37,542,910	The primary goals of the project are to create and/or nourish approximately 681 acres of emergent saline marsh within the Cameron-Creole watershed along the Calcasieu Lake river using sediment from gulfed disposal sites of the Calcasieu River.	4
CWPPRA	Nature Harvest for Wetland Restoration Demonstration	LA-0003-A	OT	USFWS	COASTWIDE	N/A	N/A	2003	\$908,220	This project involves 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, promoting the consumption of	COASTWIDE
CWPPRA	Coastwide Nuts Control Program	LA-0003-B	MM	NRCS	COASTWIDE	14963	N/A	N/A	\$68,730,156	The purpose of this demonstration project was to develop and test unique and previously untested technologies for creating floating marsh islands of coastal degraded marsh with artificial islands.	COASTWIDE
CWPPRA	Floating Marsh Creation	LA-0005	OT	NRCS	TERREBONNE	N/A	N/A	2006	\$1,080,891	The purpose of this demonstration project was to develop and test unique and previously untested technologies for creating floating marsh islands of coastal degraded marsh with artificial islands.	3A
CWPPRA	Shoreline Protection Foundation Improvements Demonstration	LA-0006	SP	USACE	VERMILION	0	N/A	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 White Lake Shoreline Protection (WLS-72) project.	4
CWPPRA	Benthopneust Oyster Reef Demonstration	LA-0008	SP	NMFS	CAMERON	4.5	N/A	2012	\$2,316,682	This project is intended to evaluate the Oysterbank structure to prevent beach erosion and increase habitat diversity associated with natural oyster reefs.	4
CWPPRA	Sediment Containment System Demonstration	LA-0009	MC	NRCS	ST CHARLES	N/A	N/A	2013	\$2,723,073	This demonstration project utilizes an un-conventional sediment containment system for marsh creation.	3A
CWPPRA	Non-rock Alternatives to Shoreline Protection Demo	LA-0016	SP	NRCS	BEREA, JEFFERSON, LAFOURCHE	N/A	N/A	2015	\$6,108,699	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	Coastwide Planting	LA-0039	VP	NRCS	COASTWIDE	779	N/A	N/A	\$12,068,725	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 changing conditions.	COASTWIDE
CWPPRA	Shoreline Protection, Preservation, and Restoration (SPPR) Pilot	LA-0280	SP	NOAA	COASTWIDE	N/A	N/A	N/A	\$2,669,829	The proposed demonstration project would establish existing shoreline features and eliminate shoreline retreat and potentially enhance interior marshes and an accretion platform behind the structure. The goal of this project is to provide a cost effective construction alternative to rip-rap for shoreline protection.	COASTWIDE

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRR Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Savanna Wovell Propagation Facility	LA 0284	OT	USFWS	COASTWIDE	26	N/A	N/A	\$5,052,748	The goal of this project is to operate a weevil propagation facility in Jeanerette, like that previously operated by LSU in Houma, to raise weevils available for release to help control the rice weevil in coastal Louisiana.	COASTWIDE
CWPPRA	Freshwater Bayou Wetland Protection	ME-0004	SP	NRCS	VERMILION	14381	N/A	1998	\$9,871,230	The project features installation of 10,000 linear feet of rock breakwater (10' high) along the west shoreline of Freshwater Bayou. The breakwater is designed to protect the wetlands from erosion and sedimentation. The project has been extended for another 20 years.	4
CWPPRA	Dead-River Vegetative Plantings Demonstration (Deauthorized)	ME-0008	VP	NRCS	VERMILION	102	N/A	1994; Deauthorized	\$92,147	This demonstration project's purpose was to investigate the ability of vegetation plantings of smooth cordgrass (<i>Spartina alterniflora</i>) to control a new accreted mudflat, thereby easing a vegetation barrier between the Gulf of Mexico and coastal wetlands. This project was officially authorized by the CWPPRA Task Force in February 1998 because no plants remained.	4
CWPPRA	Cameron Prairie National Wildlife Refuge Shoreline Protection	ME-0009	SP	USFWS	CAMERON	640	N/A	1984	\$1,227,123	This project protects the emergent wetlands of the Cameron Prairie National Wildlife Refuge adjacent to the GOMV, enhances the emergent wetlands protected by constructing approximately 2.5 miles of rock dike parallel to the existing spoil bank, and terraces the encroachment of the GOMV into the refuge.	4
CWPPRA	Humble Canal Hydrologic Restoration	ME-0011	HR	NRCS	CAMERON	378	N/A	2003	\$1,530,812	The project consists of replacing the existing Humble Canal structure to reduce water management capabilities to the area.	4
CWPPRA	Southwest Shore White Lake Demonstration (Deauthorized)	ME-0012	SP	NRCS	IBERIA	N/A	N/A	1996; Deauthorized	\$41,777	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 <i>Spartina alterniflora</i> (smooth cordgrass) 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-0013	SP	NRCS	VERMILION	511	N/A	1988	\$8,013,357	The goal of the project is to dam erosion along the bank of Freshwater Bayou Canal and to protect the interior wetlands from saltwater intrusion, increased tidal exchange and wave-induced erosion. This was achieved by constructing a rock dike along critical areas of the eastern and western banks of the canal. The project was extended for another 20 years.	4
CWPPRA	Pecan Island Terracing	ME-0014	TE	NMFS	VERMILION	437	N/A	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 levees to reduce wave action. Levees were constructed in a staggered gap formation and planted with smooth cordgrass (<i>Spartina alterniflora</i>) and <i>Cañadua bartramica</i> (cattails).	4
CWPPRA	Freshwater Introduction South of Highway 82	ME-0016	HR	USFWS	IBERIA	296	N/A	2006	\$6,342,505	The purpose of the project was to move freshwater from White Lake across LA 102 to target marshes and marsh restoration through various techniques.	4
CWPPRA	Little Pecan Bayou Hydrologic Restoration (Deauthorized)	ME-0017	HR	NRCS	CAMERON	144	N/A	Deauthorized	\$1,303,713	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. The project was subsequently deauthorized by the CWPPRA Task Force.	4
CWPPRA	Rochester Refuge Out Shoreline Stabilization	ME-0018	SP	NMFS	CAMERON	863	N/A	Pending	\$26,776,463	The purpose of the project is to construct a continuous near shore breakwater along the Gulf of Mexico shoreline, approximately 50-60 ft. deep from Bayou Rouge to Bayou de l'Est.	4
CWPPRA	Grand White Lakes Landbridge Protection	ME-0019	SP	USFWS	CAMERON	213	N/A	2004	\$3,536,830	The purpose of the project was to prevent the coalescence of Grand and White Lakes through the installation of 11,000 feet of hard rock breakwater.	4
CWPPRA	South Grand Chenier Hydrologic Restoration	ME-0020	HR, MC	USFWS	VERMILION	440	N/A	Pending	\$23,873,348	The objective of this project is 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-0021	SP	NRCS	CAMERON	495	N/A	Pending	\$11,306,616	This project involves the construction of a rock dike to protect the south shoreline of Grand Lake from Catfish Lake to Tebo Point and perform open water O&M on the dike as well as a separate portion from Superior Canal to Catfish Lake (constructed using CMAP 2007 funding).	4
CWPPRA	South White Lake Shoreline Protection	ME-0022	SP	USACE	VERMILION	844	N/A	2006	\$19,673,961	This project involved the construction of a rock dike along the south shoreline of White Lake to reduce erosion and maintain shoreline integrity.	4
CWPPRA	South Pecan Island Freshwater Introduction (Deauthorized)	ME-0023	FD	NMFS	CAMERON	98	N/A	Deauthorized	\$4,138,693	The purpose of this 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 Wetlands Nourishment and Protection	ME-0024	OT	USACE	IBERIA	8088	N/A	Pending On Hold	\$17,144,234	The goal of the project is to nourish 47,900 linear feet of gulf shoreline with sediment from Densett Canal and Big Constance Lake, protect Louisiana wetlands from saltwater intrusion, extending approximately 300 feet seaward. The project is located on the Bayou de l'Est, Louisiana, in the Gulf of Mexico.	4
CWPPRA	Freshwater Bayou Marsh Creation	ME-0031	MC	NRCS	VERMILION	401	N/A	Pending	\$26,756,528	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
CWPPRA	South Grand Chenier Marsh Creation - Baker Tract	ME-0032	MC	NRCS	CAMERON	393	N/A	Pending	\$26,691,833	The purpose of this project is to create and/or nourish about 420 acres of marsh. Reclamation known to be degraded and approximately 11,756 linear feet of tidal creeks will be constructed by tracking marsh bugs on the marsh platform for relative fisheries access. Smooth cordgrass plugs will be planted on 20-foot centers throughout the area (total 49,269 plants).	4
CWPPRA	West Bay Sediment Diversion	MR-0003	SD	USACE	PLAQUEMINES	9831	N/A	2003	\$50,863,503	The project consists of a conveyance channel for large-scale uncontrolled diversion of freshwater and sediments from the Mississippi River. The diversion channel was designed to 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 lower after a period of intensive monitoring and observation.	2
CWPPRA	Channel/Armor Gap Crevasse	MR-0006	SD	USACE	PLAQUEMINES	2097	N/A	1987	\$888,895	The project consists of a 1500 foot long armor gap in the Mississippi River channel bank, across the river. The existing armor gap was 1000 feet long and 100 feet wide. The armor gap was constructed to prevent the river from breaching the levee beyond the bank. The armor gap was enlarged. Approximately 125,000 cubic yards of material were excavated from the outfall channel and cast adjacent to the channel in a manner conducive to bank nourishment.	1
CWPPRA	Pass-a-Louise Crevasse (Deauthorized)	MR-0007	SD	USACE	PLAQUEMINES	1043	N/A	Deauthorized	\$119,835	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 side ending Bank of the Mississippi River between Pass-a-Louise and Rapihan Pass. The project was officially deauthorized by the CWPPRA Task Force in July of 1995 due to high costs attributed to relocating underground utilities in the area.	1
CWPPRA	Gravel/Use of Topsoil Dredged Material (Deauthorized)	MR-0008	DM	USACE	PLAQUEMINES	N/A	N/A	Deauthorized	\$58,309	The goal of this project was to utilize dredged material from a barge 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	Delta Wide Crevasse	MR-0009	SD	NMFS	PLAQUEMINES	2386	N/A	1989	\$4,720,310	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-Louise Wildlife Management Area and the Delta National Wildlife Refuge by either cleaning existing spoils or creating new ones.	1
CWPPRA	Dredging Operations for Marsh Creation in the Mississippi River Delta Demonstration (Deauthorized)	MR-0010	DM	USACE	PLAQUEMINES	N/A	N/A	2002	\$1,909,020	This project demonstrated the beneficial use of dredged material from outfall maintenance of the Mississippi River Natchitoches Channel by using a dredge 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 722,000 cubic yards of dredged material.	2
CWPPRA	Periodic Introduction of Sediment and Nutrients at Selected Overbank Sites (Deauthorized)	MR-0011	FD	USACE	ST BERNARD	N/A	N/A	Deauthorized	\$93,556	This demonstration project was intended to show the effectiveness of using a hydraulic placing 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. The project was subsequently deauthorized by the CWPPRA Task Force.	1
CWPPRA	Mississippi River Sediment Trap (Deauthorized)	MR-0012	MC	USACE	PLAQUEMINES	1190	N/A	Deauthorized	\$354,790	The project was authorized 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 mebed that will force sediment deposition. The project was officially deauthorized by the CWPPRA Task Force in 2009 due to the high cost to implement the project.	1, 2
CWPPRA	Bennets Bay Diversion (Deauthorized)	MR-0013	SD	USACE	PLAQUEMINES	4580	N/A	Deauthorized	\$976,580	The objective of the project was to create vegetated wetlands in shallow open water areas in Bennets 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. The project was deauthorized by the CWPPRA Task Force in 2013.	1

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Level Inundated	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Spanish Pass Diversion (Deauthorized)	MR-0014	SD	USACE	PLAQUEMINES	433	N/A	Deauthorized	\$310,151	The goal of this project was to create emergent marsh by diverting Mississippi River water and sediment from Grand Pass into open water-releasing areas. The project was deauthorized by the CWPPRA Task Force in 2013.	2
CWPPRA	Venture Ponds Marsh Creation and Overwash Diversion	MR-0015	MC	EPA	PLAQUEMINES	511	N/A	Inactive	\$23,442,176	The goals of the project are to create, maintain, nourish, and replenish existing deteriorating wetlands through dedicated dredging, hydrologic restoration, levee construction, and levee abandonment. The project was designated as inactive by the CWPPRA Task Force in 2013.	2
CWPPRA	Fliche Marsh Restoration	PO-0005	HR	NRCIS	ST TAMMANY	1040	N/A	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 by restoring the wetland area and the marsh and mangrove habitat. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Violet Freshwater Distribution (Deauthorized)	PO-0009-A	HR	NRCIS	ST BERNARD	247	N/A	Deauthorized	\$128,626	The purpose of this project was to restore the wetland area and the marsh and mangrove habitat. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	PO-0016	HR	USFWS	ORLEANS	3000	N/A	1996	\$1,680,193	The purpose of this project was to restore the wetland area and the marsh and mangrove habitat. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Bayou Labarre Wetland Restoration	PO-0017	MC	USACE	ST CHARLES	487	N/A	1994	\$3,034,000	The purpose of this project was to restore the wetland area and the marsh and mangrove habitat. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	PO-0018	HR	USFWS	ORLEANS	1200	N/A	1997	\$1,892,552	The purpose of this project was to restore the wetland area and the marsh and mangrove habitat. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Mississippi River Gulf Outlet (MRGO) Disposal Area Marsh Protection	PO-0019	MM	USACE	ST BERNARD	755	N/A	1999	\$318,145	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 area. Repairs to a 28,000 linear-foot dike, in conjunction with the installation of metal box weirs with a single 40-inch pipe, were used to control and divert water flow to prevent the potential marsh loss. The project was deauthorized by the CWPPRA Task Force in 1999 because of land-use issues.	1
CWPPRA	Red Mud Demonstration (Deauthorized)	PO-0020	MC	EPA	ST JOHN THE BAPTIST	N/A	N/A	Deauthorized	\$520,129	The purpose of this project was to restore the wetland area and the marsh and mangrove habitat. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Eisen Lake East Marsh Restoration (Deauthorized)	PO-0021	HR	NMFS	CAMERON	1453	N/A	Deauthorized	\$39,025	The project intended to restore 7-10 acres of drained land by actively managing water levels to maximize marsh creation. There was a change in landowner of the project area during the planning phase of this project. Consequently, the project was officially deauthorized by the CWPPRA Task Force in January 1999.	1
CWPPRA	Bayou Chauvin Shoreline Protection	PO-0022	SP	USACE	ORLEANS	212	N/A	2001	\$2,889,403	The project consists of constructing a 50,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The project created about 150 acres of marsh, valued at \$1.5 million, and 100 acres of open water, valued at \$1.5 million. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Hopetank Hydrologic Restoration	PO-0024	HR	NMFS	ST BERNARD	106	N/A	2005	\$2,281,287	The project consisted of constructing a 50,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The project created about 150 acres of marsh, valued at \$1.5 million, and 100 acres of open water, valued at \$1.5 million. The project was deauthorized by the CWPPRA Task Force in 2001 because of land-use issues.	1
CWPPRA	Bayou Bienvenue Pump Station and Trenching (Deauthorized)	PO-0025	MC	NMFS	TERREBOINE	442	N/A	Deauthorized	\$212,152	The project intended to combine the use of existing pump stations with the construction of a diversion channel, water control structures, and earthen levees planted with smooth cordgrass (Spartina alterniflora). This would force the flow of freshwater and nutrients through a defended marsh area to avoid 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 Carré Shipway (Deauthorized)	PO-0026	FD	USACE	PLAQUEMINES	177	N/A	Deauthorized	\$85,932	The 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 Carré Shipway 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	Choudry Islands Marsh Restoration	PO-0027	VP	NMFS	ST BERNARD	88	N/A	2001	\$839,427	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 Shoreline Protection and Marsh Creation (Deauthorized)	PO-0028	VP	NMFS	ST CHARLES	489	N/A	Deauthorized	\$306,836	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. The project was officially deauthorized by the CWPPRA Task Force in October 2007.	1
CWPPRA	Lake Borgne Shoreline Protection	PO-0030	SP	EPA	ST BERNARD	278	N/A	2008	\$20,980,775	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 Chalmette, Metairie, and Houma from direct exposure to lake wave energy and storm surges. The goal was accomplished through construction of a continuous shoreline rock breakwater.	1
CWPPRA	Lake Borgne and MRGO Shoreline Protection	PO-0032	SP	USACE	ST BERNARD	93	N/A	Deauthorized	\$1,089,193	The objective of this project was to preserve the marsh between Lake Borgne and the Mississippi River Gulf Outlet (MRGO) by constructing a rock dike along the lake shoreline and the northern bank of the MRGO. The lake Borgne segment of this project was constructed by the USACE with funds from the 3th supplemental, and the remaining portion of the project was deauthorized by the CWPPRA Task Force.	1
CWPPRA	Goose Pond Point Pile Marsh Creation	PO-0033	MC	USFWS	ST TAMMANY	436	N/A	2009	\$15,975,442	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 Protection	PO-0034	TE, VP, SP	NRCIS	ORLEANS	121	N/A	Pending	\$29,715,052	The goal of this project is to provide shoreline protection in Lake Borgne, during at Alligator Point, using rock dikes and vegetative plantings.	1
CWPPRA	Labranche East Marsh Creation	PO-0075	MC	NRCIS	ST CHARLES	715	N/A	Pending	\$31,555,033	Project features consist of the creation of 720 acres of marsh and the abandonment of 702 acres of existing marsh using dedicated dredging from Lake Pontchartrain.	1
CWPPRA	Bayou Bourque Marsh Creation	PO-0104	MC	USFWS	ST TAMMANY	424	N/A	Pending	\$28,273,984	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 Bourque with sediment dredged from Lake Pontchartrain.	1
CWPPRA	Labranche Central Marsh Creation	PO-0133	MC	NRCIS	ST CHARLES	731	N/A	Pending	\$43,409,208	Project features include the creation of 702 acres of marsh and the abandonment of 240 acres of existing marsh using dedicated dredging from Lake Pontchartrain.	1
CWPPRA	New Orleans Landbridge Shoreline Stabilization and Marsh Creation	PO-0168	MC	EPA	ST BERNARD	634	N/A	Pending	\$27,946,159	The project consists of creating 634 acres (60 of emergent brackish marsh) to stabilize the brackish emergent marsh area adjacent to the MRGO. 343 acres of new marsh would be created and 201 acres would be restored using material from Lake Borgne.	1
CWPPRA	New Orleans Landbridge Shoreline Stabilization and Marsh Creation	PO-0169	MC, BS	USFWS	ORLEANS	271	N/A	Pending	\$17,778,172	The project goal is to restore and enhance 271 acres of brackish marsh (109 acres marsh creation and 102 acres nourishment) and to enhance 15,340 acres of open water through the construction of an emergent brackish marsh.	1
CWPPRA	Fliche Marsh Creation and Terracing	PO-0173	MC	NOAA	ST TAMMANY	366	N/A	Pending	\$37,020,763	This project goal is to create and maintain approximately 340 acres of emergent brackish marsh and create 36,610 feet of erosion terraces (26 emergent acres) in the Fliche Marsh area between the city of Slidell and the Houma and the Houma using sediment from Lake Pontchartrain.	1
CWPPRA	Bayou La Loutre Ridge Restoration and Marsh Creation	PO-0178	MC	NRCIS	ST BERNARD	167	N/A	N/A	\$31,012,138	The goal of the project is to create an approximate 31.7 acre ridge feature with material from bucket dredging Bayou La Loutre. Additionally dredged material from Lake Borgne will create 163 acres of marsh and nourish approx. 256 acres along Lema Capon.	1
CWPPRA	St. Catherine Island Marsh Creation and Shoreline Protection	PO-0179	MC	USFWS	ORLEANS	219	N/A	N/A	\$25,324,715	The primary goals of this project are to protect a portion of the Lake Pontchartrain shoreline and restore/protect interior marsh habitat with the placement of dredged material.	2
CWPPRA	Grand Bayou Hydrologic Restoration (Deauthorized)	TE-0010	HR	USFWS	LAFOURCHE	199	N/A	Deauthorized	\$1,452,357	The objective of this project was to maintain emergent wetlands in the area by providing supplemental freshwater, nutrients, and sediment from the Atchafalaya River via the Bull Intracoastal Waterway (BIWW). 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 by the CWPPRA Task Force.	3A
CWPPRA	Falout Canal Planting Demonstration	TE-0017	VP	NRCIS	TERREBOINE	N/A	N/A	1996	\$206,522	For this demonstration project, smooth cordgrass (Spartina alterniflora) suited to the salinity and habitat type of the Falout Canal area was planted along the canal and protected by six types of wave-damping devices.	3A
CWPPRA	Timberland Island Planting Demonstration	TE-0018	VP	NRCIS	TERREBOINE	N/A	N/A	1996	\$300,492	For this demonstration project, approximately 7,300 linear feet of sand fences were installed and vegetation suited to the salinity and habitat type of Timberland Island was planted in several areas on the island to trap sand and buffer wind and wave energy.	3A

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Level Inundated	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Lower Bayou LaCache Hydrologic Restoration (Deauthorized)	TE-0019	MM	NMFS	TERREBOINE	N/A	N/A	Deauthorized	\$99,825	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 landfills and navigation, the project was officially deauthorized by the CWPPRA Task Force in 1996.	3A
CWPPRA	Goose Pond Point Marsh Restoration	TE-0020	BH	EPA	TERREBOINE	449	N/A	1999	\$8,762,416	The project objective is to restore the coastal dunes and wetlands of the E. Adrien Isles Dunes barrier island chain. Approximately 3.9 million cubic yards of sand were dredged from Lake Pato and used to build a retaining dike which would protect hydrologically flooded areas of an elevated marsh platform. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven erosion.	3A
CWPPRA	Point Au Fer Canal Plugs	TE-0022	VP, MC	NMFS	TERREBOINE	375	N/A	1997	\$5,544,367	This project is intended to reduce saltwater intrusion into the Point au Fer marshes without reducing freshwater flooding from the Atchafalaya River. Phase I of this project, completed in 1997, involved the plugging of two major natural gator holes canals on the western half of the island. Under Phase II, a rock shoreline stabilization structure was constructed in 2000 along a thin stretch of beach separating the Gulf of Mexico from the Mobil Canal.	3B
CWPPRA	West Lake Pass Headland Restoration	TE-0023	SP	USACE	LAFOURCHE	474	N/A	1998	\$6,926,754	The project includes the construction of a timberland flow into the marshes on the west side of Bayou LaCache with the use of bucket dredging material to create 194 acres of marsh on the west side of Lake Pato. A water control structure was placed in the E. Adrien Isles Dunes barrier island chain to reduce saltwater intrusion into the marshes south of the lake.	3A
CWPPRA	Isles Dunes Restoration	TE-0024	BH, MC	EPA	TERREBOINE	776	N/A	1999	\$10,774,974	The project objectives are to restore the Trinity Island dunes and marsh wetlands of the Isles Dunes barrier island chain, enhance the physical integrity of the island, and protect the lower Terrebonne estuary.	3A
CWPPRA	East Timberland Island Sediment and Hydrologic Restoration	TE-0025	BH	NMFS	TERREBOINE	1913	N/A	2001	\$3,720,721	The objective of this project is to strengthen and thus increase the life expectancy of East Timberland Island. The project called for the removal of 2.7 million cubic yards of sediment and placement of the material in three embankments along the landward shoreline of East Timberland Island. The project also included aerial seeding of the dune platform, installation of sand fencing, and dune vegetation plantings.	3A
CWPPRA	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	TE-0026	MC	NMFS	TERREBOINE	509	N/A	1999	\$6,810,133	The objective of this project is to reduce the marsh loss of Lake Chapeau, re-establish the hydrologic separation of the Lac du Pont au Fer and Lake Chapeau, 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 stepped. 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	Whiskey Island Restoration	TE-0027	BH, MC	EPA	TERREBOINE	657	N/A	2000	\$7,106,586	The project created and restored beaches and back sand marshes on Whiskey Island. The project created 523 acres of back sand 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 seedling planting was carried out in Spring 2000.	3A
CWPPRA	Brady Canal Hydrologic Restoration	TE-0028	HR	NRCIS	TERREBOINE	297	N/A	2000	\$7,580,752	The objective of the project is to maintain the fragile, highly-fractured transitional marshes between the fresh and estuarine zones by enhancing freshwater, sediment, and nutrient delivery into the area.	3B
CWPPRA	Raccoon Island Breakwaters Demonstration	TE-0029	BH	NRCIS	TERREBOINE	N/A	N/A	1997	\$1,765,388	The project involves the removal of existing breakwaters and the construction of new breakwaters to protect the marshes from saltwater intrusion.	3A
CWPPRA	East Timberland Island Sediment Restoration	TE-0030	BH	NMFS	TERREBOINE	215	N/A	2000	\$7,000,150	The project goal is to strengthen and increase the life expectancy of East Timberland Island by placing dredged material along the 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	Point Marsh Fencing Demonstration (Deauthorized)	TE-0031	SP	NRCIS	TERREBOINE	N/A	N/A	Deauthorized	\$106,960	The project objective was to determine the effectiveness of different fencing techniques used to conserve and restore brackish marshes. There was difficulty in finding an appropriate site for demonstration and in addressing engineering constraints. The restoration techniques that were originally anticipated for this project were not feasible. The project was officially deauthorized by the CWPPRA Task Force in 2001.	3A
CWPPRA	North Lake Bourdeaux Basin Freshwater Introduction and Hydrologic Management (Deauthorized)	TE-0032-A	FD	USFWS	TERREBOINE	603	N/A	Pending	\$26,875,959	The project aims to introduce freshwater from the HNC through an enlarged Bayou Paton channel across Bayou Grand Calou and through a gated channel.	3A
CWPPRA	Bayou Boeur Pump Station Restoration	TE-0033	HR	EPA	TERREBOINE	N/A	N/A	Deauthorized	\$3,422	The purpose of this project was to fix the wetlands and hydrologic separation objectives of the CWPPRA with flood protection and navigation needs generally covered by WRCA. The project components consisted of implementing a long-term water management strategy for the Vernal 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 1998.	3A
CWPPRA	Pentach Basin Natural Resource Plan Increment 1	TE-0034	FD, HR, SP	NRCIS	TERREBOINE	675	N/A	2011	\$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 brackish marsh areas in overall Pentach Basin in Terrebonne Parish.	3B
CWPPRA	Marsh Creation East of the Atchafalaya River - Avoca Island (Deauthorized)	TE-0035	MC	USACE	ST MARY	434	N/A	Deauthorized	\$86,868	The project consisted of the beneficial use of dredged material from the "Green Boat Channel" and placing it in the Avoca Island area. The project involved the construction of a 50,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The project created about 150 acres of marsh, valued at \$1.5 million, and 100 acres of open water, valued at \$1.5 million. The project was deauthorized by the CWPPRA Task Force in 1998.	3B
CWPPRA	Thin Mat Flooding Marsh Enhancement Demonstration	TE-0036	MC	NRCIS	TERREBOINE	N/A	N/A	2000	\$530,101	The objective of this project is to reduce the degradation of this wetland, conduct floodwater from a thin mat of water into various adjacent areas, and to restore the wetland area. The project involved the construction of a 50,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The project created about 150 acres of marsh, valued at \$1.5 million, and 100 acres of open water, valued at \$1.5 million. The project was deauthorized by the CWPPRA Task Force in 1998.	3B
CWPPRA	New Cut Dune and Marsh Restoration	TE-0037	BH, MC	EPA	TERREBOINE	386	N/A	2008	\$12,869,325	The objective of this project was to create the brackish marsh and marsh habitat and improve the structure integrity of the eastern Isles Dunes barrier island chain by restoring the lateral dike and adding sediment into the marsh-shore system.	3A
CWPPRA	South Lake Decade Freshwater Introduction	TE-0039	SP	NRCIS	TERREBOINE	202	N/A	2011	\$5,223,006	This project involves the construction of a water control structure in the southern bank of Lake Decade. The structure increases the amount of Atchafalaya River water and sediment introduced into the marshes south of the lake. In addition, shoreline protection was implemented adjacent to the proposed structure, and a way to improve Bayou was removed.	3A
CWPPRA	Trinivalier Island Dune and Marsh Restoration	TE-0040	BH, MC	EPA	TERREBOINE	683	N/A	2004	\$16,862,189	Trinivalier Island is migrating rapidly to the westward, threatening the western end of Trinivalier Island and the marshes to the north. The project involves the construction of a 50,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The project created about 150 acres of marsh, valued at \$1.5 million, and 100 acres of open water, valued at \$1.5 million. The project was deauthorized by the CWPPRA Task Force in 1998.	3A
CWPPRA	Manday Island Protection Demonstration	TE-0041	SP	USFWS	TERREBOINE	N/A	N/A	2003	\$1,732,498	This demonstration project is intended to develop new techniques for protecting and restoring organic soils, which can be easily eroded. Intact banks and broadthroats were treated to restore the improved distribution of excess freshwater seasonally available in the Gulf Intracoastal Waterway (GIWW). The project was beneficial in demonstrating the effectiveness of various techniques for protecting and restoring organic soils, which can be easily eroded. The project was deauthorized by the CWPPRA Task Force in 2003.	3A, 3B
CWPPRA	More Existing Atchafalaya Water to Central Terrebonne (Deauthorized)	TE-0042	HR	USFWS	ST MARY	N/A	N/A	Transferred	N/A	The project objective is to restore critical lengths of deteriorated channel banks with hard shoreline stabilization materials. A portion of this project was constructed using CIAP 2007 funds and the remainder of the project was transferred under CWPPRA.	3A
CWPPRA	GIWW Bank Restoration of Critical Areas in Terrebonne	TE-0043	SP	NRCIS	TERREBOINE	345	N/A	2014	\$13,022,245	The project is intended to help maintain and restore the landscape (Lake Mermentau marsh shoreline and the Small Bayou La Pente 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 feed-rest weir.	3A
CWPPRA	North Lake Mechant Landbridge Restoration	TE-0044	SP, MC	USFWS	TERREBOINE	604	N/A	2009	\$39,004,428	The project objective is to create critical lengths of deteriorated channel banks and stabilize/restore selected critical lengths of the landbridge (Lake Mermentau marsh shoreline and the Small Bayou La Pente 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 feed-rest weir.	3A
CWPPRA	Terrebonne Lake Shore Protection Demonstration	TE-0045	SP	USFWS	TERREBOINE	0	N/A	2007	\$2,710,760	The project is intended to evaluate several different shoreline protection methods, including concrete mat, artificial oyster reefs and A-Jacobs.	3A
CWPPRA	West Lake Bourdeaux Shoreline Protection and Marsh Creation	TE-0046	SP	USFWS	TERREBOINE	145	N/A	2008	\$17,892,813	The purpose of this project is to create and nourish about 200 acres of marsh along the western shoreline of Lake Bourdeaux to protect the shoreline from erosion due to dike failure and to restore interior marsh lost to subsidence and saltwater intrusion.	3A
CWPPRA	Shin Shoal Whiskey West Bank Restoration (Inactive)	TE-0047	BH	EPA	TERREBOINE	500	N/A	Inactive	\$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 Shin Shoal. This project would provide a barrier to reduce wave and tidal energy, thereby protecting mainland shoreline from continued erosion. The project was designated as inactive by the CWPPRA Task Force in 2013.	3A
CWPPRA	Raccoon Island Shoreline Protection and Marsh Creation	TE-0048	BH, MC	NRCIS	TERREBOINE	16	N/A	2007, 2013	\$23,163,393	The purpose of the project is to protect the existing southern shoreline of the island by constructing 8 more rock breakwaters. Phase B of the project would create 16 acres of marsh on the land side of the island.	3A

ONGOING PROTECTION AND RESTORATION SUMMARIES

CWPPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Wetland Restored	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Avoca Island Diversion and Land Building (Deadwater)	TE-0049	FD, MC	USACE	ST MARY	N/A	N/A	Deauthorized	\$19,157,200	Project features include a small diversion from Bayou Shafter into Avoca Lake paired with marsh creation through oolite dredging. The goal of this project is to create a back barrier marsh platform on which the barrier island can migrate in order to increase the integrity of the previously restored and natural portions of the island. Heavy construction was complete in the fall of 2009. Project features include 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 dunes on the Gulf side beach ridge.	3A
CWPPRA	Whiskey Island Back Barrier Marsh Creation	TE-0050	BH	EPA	TERREBONNE	270	N/A	2010	\$30,411,083	The goal of this project is to recreate a back barrier marsh platform on which the barrier island can migrate in order to increase the integrity of the previously restored and natural portions of the island. Heavy construction was complete in the fall of 2009. Project features include 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 dunes on the Gulf side beach ridge.	3A
CWPPRA	Madison Bay Marsh Creation and Trenching	TE-0051	MC, TE	NMFS	TERREBONNE	1019	N/A	Pending	\$39,021,430	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 fringed marsh and open water over the 20-year project life.	3A
CWPPRA	West Bayou Pass Barrier Headland Restoration	TE-0052	BH	NMFS	LAFourche	389	N/A	2012	\$38,422,093	This project involves the headland of the West Bayou Pass by rebuilding a large portion of the beach, dune, and back barrier marsh that once existed. Approximately 9,300 feet of beach and dune were rebuilt.	3A
CWPPRA	Enhancement of Barrier Island Vegetation Dens	TE-0053	VP	EPA	TERREBONNE	N/A	N/A	2011	\$919,784	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 focuses specifically on enhancing the establishment and growth of transplants of both dune and salt marsh species, including grasses (Urolo pennis), and marsh vegetation (gulf cordgrass (Spartina alterniflora) and black rush (Spartina patens)).	3A
CWPPRA	Central Terrebonne Freshwater Enhancement	TE-0056	MC, HR	NRCS	TERREBONNE	456	N/A	Pending	\$17,890,120	The project will establish historic hydrologic and sandy conditions by reducing the artificial intrusion of Gulf marine waters via the Grand Pass into the Central Terrebonne marshes while enhancing the entrance of the Atchafalaya River waters into the area.	3A
CWPPRA	Lost Lake Marsh Creation and Hydrologic Restoration	TE-0072	HR, MC	USFWS	TERREBONNE	749	N/A	Pending	\$35,873,728	Project goals include 1) restore an important feature of structural framework between Lake Pagnon and Bayou D'Arbonne 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.	3B, 3B
CWPPRA	Terrebonne Bay Marsh Creation - Nourishment	TE-0083	MC	USFWS	TERREBONNE	353	N/A	Pending	\$28,664,401	The goal of this project is to create and maintain a minimum 200-acre area of freshwater marsh within the Terrebonne Bay Marsh Creation project area reducing water exchange between Terrebonne Bay and interior bays during tidal and small storm events and to reduce erosion along 16,000 feet of the northern Terrebonne Bay shoreline.	3A
CWPPRA	North Calais Lake Marsh Creation	TE-0112	MC	NRCS	LAFourche	265	N/A	Pending	\$30,325,016	Sediments will be hydraulically pumped from Calais Lake and pumped via pipeline to create approximately 415 acres of marsh habitat and nourish an additional 201 acres of marsh habitat.	3A
CWPPRA	Island Road Marsh Creation & Nourishment	TE-0117	MC	NMFS	TERREBONNE	312	N/A	Pending	\$40,435,267	The proposed project's primary feature is 314 acres of created same marsh and 19 acres of nourished same marsh adjacent to Island Road. Sediment will be hydraulically pumped from a borrow source near Lake Fochy. Half of the newly constructed marsh (182 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation. The project would result in an additional 182 acres of marsh habitat.	3A
CWPPRA	West Fourchon Marsh Creation	TE-0134	MC	NMFS	LAFourche	304	N/A	Pending	\$29,037,788	The goal of this project is to create and maintain 314 acres of marsh, by pumping sediment from an offshore borrow area in the Gulf of Mexico. This project will create new marsh habitat and increase the longevity of existing habitat. The project will also help protect the people and infrastructure of Port Fourchon.	3A
CWPPRA	Bayou Decade Ridge and Marsh Creation	TE-0138	MC	NOAA	TERREBONNE	382	N/A	N/A	\$31,252,031	The project goal is to construct 11,720 linear feet of ridge along the northern bank of Bayou Decade and create and/or nourish approximately 300 acres of intermediate marsh along the northern bank of Bayou Decade.	3A
CWPPRA	Vermion River Cutoff Bank Protection	TV-0003	SP	USACE	VERMILION	202	N/A	1986	\$2,047,479	The project includes protecting the east side of the Vermion River Cutoff with rock to prevent further erosion, hardening the points on existing and bridges on the west bank of the Cutoff with rock, and constructing sediment trapping fences on the Vermion Bay side to reduce the project's erosion. The project will create and maintain 202 acres of marsh habitat.	3B
CWPPRA	Cote Blanche Hydrologic Restoration	TV-0004	HR	NRCS	ST MARY	2223	N/A	1998	\$10,093,902	The project involves stabilizing 15 miles of Vermion Bay shoreline and preventing further reversion of the Bayou Canal banks. A situ of Vermion Bay shoreline approximately 25 feet by 15 miles long was planted with single stems of Spartina alterniflora at 3 foot intervals.	3B
CWPPRA	Bayou Canal/Vermion Bay Bank Protection	TV-0009	SP	NRCS	VERMILION	378	N/A	1995	\$1,043,748	The project was intended to construct a rock dike to protect the east shoreline of Frichwater Bayou Canal. The project was subsequently designated as inactive by the CWPPRA Task Force.	3B
CWPPRA	Frishwater Bayou Bank Stabilization - Bayou Lake Canal to Lock (Lock)	TV-0011-B	SP	USACE	VERMILION	N/A	N/A	Inactive	\$1,101,738	This project is designed to optimize the retention of sediment from the Atchafalaya River to create new marsh areas in Little Vermion Bay. Dredged material was placed to create emergent marsh, thereby protecting the existing shoreline from wind induced wave erosion.	3B
CWPPRA	Little Vermion Bay Sediment Trapping	TV-0012	TE	NMFS	VERMILION, IBERIA	441	N/A	1999	\$886,030	The objective of the project is to improve hydrology, reduce tidal fluctuation to minimize marsh loss, and provide protection to critically eroding barge and shoreline area.	3B
CWPPRA	Oakview Canal Hydrologic Restoration, Increment 1	TV-0013-A	HR	NRCS	VERMILION, IBERIA	180	N/A	2002	\$2,925,216	The objective of the project is to induce sedimentation to create emergent vegetated wetlands. This was achieved by constructing wetland terraces, thereby reducing wave fetch. Diagonal channels were dredged to deliver water and sediment to the project area.	3B
CWPPRA	Marsh Island Hydrologic Restoration	TV-0014	HR	USACE	IBERIA	408	N/A	2001	\$5,143,373	The objective of the project is to stabilize the northeastern shoreline of Marsh Island, including the northern shoreline of Lake Saint, and to help to restore the historic hydrology. The project included construction of new dikes to fill gaps in old dikes and the northeast end of Marsh Island, protection of the northeast shoreline with rock, and isolation of Lake Saint from Vermion Bay with a rock dike.	3B
CWPPRA	Sediment Trapping at 'The Jaws'	TV-0015	TE, VP	NMFS	ST MARY	1999	N/A	2005	\$1,653,792	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 Tire, and build up portions of the coastline that have already eroded away.	3B
CWPPRA	Cheniere au Tire Sediment Trapping (Deadwater)	TV-0016	SNT	NRCS	VERMILION	N/A	N/A	2001	\$674,999	The objective of this project is to prevent the shoreline south of Lake Portage from breaching and creating another pass from Vermion Bay to the Gulf. The project consists of backfilling a canal and armoring the beach with rock.	3B
CWPPRA	Lake Portage Land Bridge	TV-0017	SP	NRCS	VERMILION	1496	N/A	2004	\$1,181,129	This project includes construction and planting of terraces with smooth cordgrass (Spartina alterniflora) within Little White Lake and Little Vermion Bay, along Four Mile Canal, to create wave-induced shoreline erosion and facilitate sedimentation in the open water areas between the terraces.	3B
CWPPRA	Four Mile Canal Trapping and Sediment Trapping	TV-0018	TE	NMFS	IBERIA	52	N/A	2004	\$2,067,186		3B
CWPPRA	Weeks Bay Marsh Creation and Shore Protection/ Commercial Canal Freshwater Reduction (Transferred)	TV-0019	SP	USACE	IBERIA	N/A	N/A	Transferred	\$30,227	The goal of the project is to create marsh and bridge separating Weeks Bay and GWWV. In 2013, the CWPPRA Task Force transferred implementation of the project to parish stakeholders.	3B
CWPPRA	Bayou Lake Marsh Creation and Shore Protection (Transferred)	TV-0020	SP	NRCS	ST MARY	131	N/A	Deauthorized	\$32,103,020	The goal of the project was to protect an eroding shoreline with approx 35,716 feet of rock dike shoreline protection. The project was deauthorized by the CWPPRA Task Force in 2014.	3B
CWPPRA	East Marsh Island Marsh Creation	TV-0021	MC	NRCS	IBERIA	1159	N/A	2010	\$21,215,936	The objective of the project was to create approximately 382 acres of sustainable marsh. The majority of the project area has been converted to open water, primarily because of Hurricane LA (2002). Through the use of approximately \$2 million in unexpended construction funds, the project will create and maintain 382 acres of marsh habitat. The sediment for marsh creation was dredged from Lake Cade.	3B
CWPPRA	Cote's Bayou Marsh Creation	TV-0063	MC	NMFS	VERMILION	398	N/A	Pending	\$27,881,223	The project consists of creating/nourishing marsh habitat and increasing freshwater and sediment inflow into interior wetlands by improving project area hydrology.	3B

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Wetland Restored	Construction Completion	Total Budget	Project Description	Planning Unit
FEDERAL	Lake Pontchartrain Hurricane Mitigation Project	HPL-MIT	SP	USACE	ST JOHN THE BAPTIST	600	N/A	1998	\$2,222,892	This project consisted of a new dike, segmented perpendicular to the Lake Pontchartrain parallel to the main body of the Lake Pontchartrain. The project specifically mitigated for damages resulting from construction of the Lake Pontchartrain.	1
FEDERAL	MFOO Ecosystem Restoration	PO-0065	VP, FID, MM, SP, MC	USACE	ST BERNARD, ORLEANS	53700	N/A	Pending	\$2,900,000,000	This project investigates an suite of restoration measures that are collectively intended to reduce some of the ecosystem damaged by construction of I-10.	1
FEDERAL	Lost Lake Vegetation Project	TE-0082	VP	USFWS	TERREBONNE	N/A	N/A	2011	\$161,000	This coastal vegetative planting project is for erosion control and habitat restoration in the Lost Lake area of southwestern Terrebonne Parish.	3A
FEWA	Houma Navigation Canal Levee Maintenance	DSR-01557	SP	FEWA	TERREBONNE	4000	N/A	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
FEWA	Wine Island	DSR-01558	DM	FEWA	TERREBONNE	25	N/A	1995	\$253,579	This FEMA project was a cooperative venture with the USACE in the beneficial use of dredged material from a scheduled Houma Navigation Canal maintenance dredging project. The island was repaired to pre-Hurricane Andrew condition and planted with vegetation to stabilize the sediment.	3A
FEWA	Tribalier Island Repairs	DSR-01559	BH	FEWA	TERREBONNE	70	N/A	1996	\$551,853	This FEMA project consisted of a major breach created by Hurricane Andrew and provided a 300-foot-wide elevated marsh platform to vegetation. The vegetation was planted to stabilize the sand.	3A
FEWA	East Island Repair Protection	DSR-01560	DM	FEWA	TERREBONNE	25	N/A	1996	\$633,179	This FEMA project consisted of a major breach created by Hurricane Andrew and provided a 300-foot-wide elevated marsh platform to vegetation. The vegetation was planted to stabilize the sand.	3A
FEWA	LaBranche Wetlands	DSR-01768	SP	FEWA	ST CHARLES	N/A	N/A	2000	\$43,315	A 700-foot section of a Christmas tree brush fence was replaced. This project was damaged by Hurricane Georges, Hurricane Eliot, and Tropical Storm Fabrice in 1998.	1
FEWA	Tribalier Island	DSR-01784	BH	FEWA	TERREBONNE	N/A	N/A	2000	\$181,394	This FEMA project repaired sand fencing on Tribalier Island that was destroyed during a series of tropical storms and hurricanes in the fall of 1998.	3A
FEWA	Falout Canal	DSR-01785	SP	FEWA	TERREBONNE	N/A	N/A	2000	\$10,761	The installation of the new flapgate culverts was completed by Terrebonne Parish Consolidated Government.	3A
FEWA	East Island	DSR-01708	VP	FEWA	TERREBONNE	N/A	N/A	2000	\$188,113	This FEMA project involved the planting of marsh vegetation on the dune and Lake Palu shoreline of East Island. This area is part of a CWPRA project damaged by a series of tropical storms and hurricanes in the fall of 1998. A total of 4,260 smooth cordgrass seedlings, 300 black mangrove (Avicennia germinans), and 0, 147 roseau cane (Phragmites australis) plants were planted in April 2000.	3A
FEWA	Isle Dernieres (Whiskey Island)	DSR-01787	VP	FEWA	TERREBONNE	1259	N/A	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 CWPRA project area and CWPRA funds were combined with the FEMA funds for repairs.	3A
FEWA	Marsh Island Repairs	PW-1646	MM	FEWA	IBERIA	N/A	N/A	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 CWPRA.	3B
FEWA	Cole Blanche Repairs	PW-1906	HR	FEWA	ST MARY	N/A	N/A	2005	\$64,092	This FEMA project consisted of repairs to areas of stone paving, stone dikes, and minor repair of navigation aids on the Cole Blanche Hydrologic Restoration (TV-04) project damaged during Hurricane Lili in 2002. The project also included minor maintenance work paid for by CWPRA.	3B
FEWA	Cameron Creole Structures	PW-1257	HR	FEWA	CAMERON	N/A	N/A	2007	\$325,700	This FEMA project consists of repairs to the structures of the Cameron Creole Maintenance (CS-04) project that were damaged by Hurricane Rita in 2005. These structures are located at Grand, Pecan, Landcut, No Name, and Mangrove Barons.	4
FEWA	Holly Beach Sand Fencing	PW-1403	SP	FEWA	CAMERON	N/A	N/A	2006	\$210,473	This FEMA project consists of the replacement of 40,000 linear feet of sand fencing on the Holly Beach Island Management (CS-31) project damaged by Hurricane Rita in 2005.	4
FEWA	Hopisdale Hydrological Structure	PW-0743	HR	FEWA	ST BERNARD	N/A	N/A	2007	\$64,800	This FEMA project consisted of repairs to the structure of the Hopisdale Hydrologic Restoration (HVO-20) 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
FEWA	Lake Pontchartrain Debris Removal	N/A	N/A	N/A	JEFFERSON, ORLEANS, ST JOHN THE BAPTIST, ST CHARLES, ST TAMMANY, TANGIPLOUA	N/A	N/A	2010	\$10,000,000	The goal of this project was to remove debris from approximately 758 square miles of Lake Pontchartrain.	1
FEWA	Montegut Wetlands	PW-1728	MM	FEWA	TERREBONNE	N/A	N/A	2005	\$1,093,862	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
HSDRRS	West Bank and Vicinity	BA-0066	HP	USACE	ST CHARLES, ORLEANS, JEFFERSON, PLAQUEMINES	N/A	71	Pending	\$3,150,000,000	The project is currently designed to provide 100 Year protection levels to the project area through the construction of levees to the 2011 protection levels and 17' dikes and other structures to the 2057 protection levels.	2
HSDRRS	New Orleans to Venice	BA-0067	HP	USACE	PLAQUEMINES	N/A	58	Pending	\$1,301,523,760	The NOV project consists of 24 areas of work covered by projects NOV-1-2, NOV-5-16, NOV-NF-4 to 8, NF-02, and Taskforce Guardian (TFG) Continuing Projects P-13, P-15, P-17, and P-24 that includes the section of the Plaquemines Parish Hurricane Protection System.	1,2
HSDRRS	Grand Isle and Vicinity	BA-0073	SP	USACE	JEFFERSON	N/A	Not Available	Pending	\$25,000,000	The Grand Isle and Vicinity Hurricane Protection Project consists of a 7.5 mile vegetative sand dike extending the length of Grand Isle's east shore, a levy to stabilize the western end of the Island at Cameron Pass, and an offshore breakwater dike.	2
HSDRRS	Storm Paving of Interior Parish Systems	BA-0074	FP	USACE	JEFFERSON, ORLEANS, JEFFERSON, LAFOURCHE	N/A	N/A	2014	\$340,000,000	This project involves the installation of various improvement measures to the interior parish systems of Orleans and Jefferson Parish under the Storm Paving of Interior Parish Systems (SPIS) project.	2
HSDRRS	HSDRRS Migration - WBV	BA-0109	MC	USACE	JEFFERSON, LAFOURCHE	1318	N/A	Pending	\$126,000,000	This USACE project involves the implementation of various restoration measures to mitigate wetland losses associated with the construction of the West Bank and Vicinity (WBV) project.	2, 3A
HSDRRS	Risk Reduction: Barataria Basin Landbridge	BA-0148	MC, HP	USACE	JEFFERSON	723	N/A	Pending	\$10,100,000	This project is being led by USACE and is 100% federally funded with \$10.1 Million allocated by the US 4th Supplemental Appropriations as a Hurricane Risk Reduction project. It provides for about 101 acres of marsh creation and 172 acres of marsh restoration on the south shore of the Pond.	2
HSDRRS	Previously Authorized Migration WBV	BA-0154	MM, VP, PP	USACE	JEFFERSON, ST. CHARLES	11700	N/A	Pending	\$11,000,000	This project is being led by USACE and is 100% federally funded with approximately \$79 Million allocated. It provides for about 1,300 acres of mitigation, including: 1) acquisition, improvement, and management of approximately 970 acres of high value wooded wetlands in St. Charles Parish, and 3) acquisition, improvement, and management of approximately 350 acres of high quality wooded lands in St. Charles Parish.	2
HSDRRS	Plaquemines TFM Migration - Brathwaite to St. Charles - Big Marsh	BA-0156	MC	USACE	PLAQUEMINES	24	N/A	Pending	\$2,000,000	This project is being led by USACE and is 100% federally funded with approximately \$2.8 Million allocated. It provides for the creation of approximately 24 acres of marsh. Additionally, Plaquemines Parish will be combining a neighboring local project of 19 acres of marsh creation to this project with supplemental funding for a total of 43 acres.	1
HSDRRS	New Orleans to Venice Migration - Plaquemines Non-Federal	BA-0158	MC	USACE	PLAQUEMINES	342	N/A	Pending	\$14,500,000	This project is being led by USACE and is 100% federally funded with approximately \$14.5 Million allocated. It provides for about 100 acres of mitigation, which includes approximately 50 acres of BLH wetland combined, 140 acres of intermediate marsh, 70 acres of freshwater marsh, 76 acres of brackish marsh, and 280 acres of saline marsh.	2, 1
HSDRRS	New Orleans to Venice Migration - Federal	BA-0159	MC	USACE	PLAQUEMINES	410	N/A	Pending	\$30,000,000	This project is being led by USACE and is 100% federally funded with approximately \$30 Million allocated. It provides for about 700 acres of mitigation, which includes approximately 130 acres of BLH wetland combined, 140 acres of intermediate marsh, 70 acres of freshwater marsh, 76 acres of brackish marsh, and 280 acres of saline marsh.	2, 1
HSDRRS	Risk Reduction: Vias Maroon Freshwater Diversion	BS-0003-B	FD, SD, HP	USACE	PLAQUEMINES	65	N/A	Pending/On Hold	\$10,100,000	This project is being led by USACE and is 100% federally funded with \$10.1 Million allocated by the US 4th Supplemental Appropriations as a Hurricane Risk Reduction project. It provides for redirecting water from the Cameron Diversion into the 40-A segment of the Vias Maroon Canal to create a freshwater diversion. The project was originally included as a grant under CWPRA BS-16 but removed to allow USACE to fund it as a marsh creation project.	1

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
HSRRS	Lake Pontchartrain & Vicinity, Lake Borgne Surge Barrier (LPV-HBO-02)	PO-0055	HP	USACE	ST BERNARD, ORLEANS	N/A	2	2013	\$1,34,000,000	This project involves the construction of a Hurricane Surge Barrier across the tip of Lake Borgne connecting the M-RO levees south of Bayou Bienvenue with the OMW levees East of Michoud Canal with floodgates at Bayou Bienvenue and OMW.	1
HSRRS	SELA	PO-0057	OT	USACE	JEFFERSON, ORLEANS	N/A	N/A	Pending	\$1,170,974,586	This project consists of drainage and pump station projects within Jefferson Parish and Orleans Parish, on both the east bank and west bank of the Mississippi River.	1,2
HSRRS	Permanent Closure of Canals and Pumps	PO-0060	HP	USACE	ORLEANS, JEFFERSON	N/A	0.34	Pending	\$614,000,000	This project, authorized under Public Law 109-324, involves the design and construction of a permanent protection system for the outfall canals along 17th Street, Orleans Avenue, and London Avenue and install pumps and closure structures at or near the lakefront of the Mississippi River.	1
HSRRS	West Shore Lake Pontchartrain	PO-0062	HP	USACE	ST JOHN THE BAPTIST, ST CHARLES, ST JAMES, ASCENSION	N/A	27	Pending	\$898,584,266	This project involves the assessment of hurricane and storm reduction measures in a study area bounded by the Buried Canal Railway 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
HSRRS	Lake Pontchartrain and Vicinity	PO-0063	HP	USACE	ST CHARLES, JEFFERSON	N/A	128	2010	\$3,852,000,000	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
HSRRS	Lake Pontchartrain & Vicinity, Seabrook Lock LPV-HINC-01	PO-0064	HP	USACE	ORLEANS	N/A	0.5	2012	\$177,156,414	This project consists of 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 Sluice Barrier	1
HSRRS	HSRRS Migration LPV	PO-0121	MC	USACE	ST TAMMANY, ORLEANS	1099	N/A	Pending	\$85,000,000	This USACE project involves the implementation of various restoration measures to mitigate wetland impacts associated with the construction of the Lake Pontchartrain and Vicinity (LPV) project.	1
HSRRS	LPV Task Force Guardian Migration, Bayou Sauvage	PO-0145	MM, VP	USACE	ORLEANS	59	N/A	Pending	\$760,000	This project is being led by USACE and is 100% federally funded with approximately \$2.1 million allocated. This project is mitigating the impacts of the LPV project on the wetlands of the Bayou Sauvage National Wildlife Refuge. The project includes the construction of non-tidal levees with a height of about 4 feet, and then the rearing of up to 88,000 trees and shrubs of native species, including baldpates, pelicans, cypresses and oaks.	1
HSRRS	Preexisting Authorized Migration LPV - Maricure	PO-0146	M, C, SP	USACE	ST JOHN THE BAPTIST	1329	N/A	7/8/1905	\$22,985,958	This project is being led by USACE and is 100% federally funded with approximately \$21.3 million allocated. It provides for containment dikes with rock and fill areas with dredge material to match the CPRA Tumb Core project success). The project is intended to create marsh and reduce erosion.	1
LOUISIANA COASTAL AREA	LCA Small Bayou Lafourche Retrodredging	BA-0070	FD	USACE	ASSUMPTION, LAFOURCHE	N/A	N/A	Pending/On Hold	\$131,500,000	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 Bayou Lafourche and Terrebonne. Funds from the budget surplus of 2008 will be used for the state's cost-share requirement. *Construction cost taken from WPCA 2007 legislation.	3A
LOUISIANA COASTAL AREA	LCA Medium Diversion with Wetland Dredging at Mile 60/61	BA-0071	FD	USACE	PLAQUEMINES	N/A	N/A	Pending/On Hold	\$730,300,000	Authorized by WPCA 2007 as a sediment diversion between 2,500 and 13,000 cfs. Ongoing modeling effort to examine potential for marsh expansion. Fully funded Phase 2 cost taken from WPCA 2007 legislation.	2
LOUISIANA COASTAL AREA	LCA Modification of Davis Pond Diversion	BA-0072	FD	USACE	ST CHARLES, JEFFERSON, PLAQUEMINES, LAFOURCHE	N/A	N/A	Pending/On Hold	\$69,277,895	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 Modification of the Mississippi River at the diversion	BS-0019	FD	USACE	ST BERNARD, PLAQUEMINES	N/A	N/A	Pending/On Hold	\$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 Cameron, west of the Mississippi River.	1
LOUISIANA COASTAL AREA	LCA Modification of the Mississippi River at the diversion	BS-0020	FD	USACE	JEFFERSON, PLAQUEMINES, LAFOURCHE	N/A	N/A	Pending/On Hold	\$176,686,400	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 Cameron, west of the Mississippi River.	1
LOUISIANA COASTAL AREA	LCA Hardened Dike Barrier Shoreline, 2007	LA-0010	MC, BH	USACE	JEFFERSON, PLAQUEMINES, LAFOURCHE	N/A	N/A	Pending/On Hold	\$383,600,000	The purpose of this project is to provide beach/dune restoration and marsh creation on Caminada Headlands and Shell Island.	2
LOUISIANA COASTAL AREA	LCA Beneficial Use Feasibility Study	LA-0019	DM	USACE	COASTWIDE	N/A	N/A	Pending/On Hold	\$100,000,000	This Feasibility Study will examine increased beneficial use of dredged material from Federally authorized navigation channels.	COASTWIDE
LOUISIANA COASTAL AREA	LCA Mississippi River Delta Management Study	MR-0016	OT	USACE	PLAQUEMINES	N/A	N/A	Pending/On Hold	\$24,368,136	This project involves the development of a Strategic Framework for feasibility evaluation of improved management of fresh water resources of the Lower Mississippi River, from the Old River Control Structure to Head of Passes, to Deltaic Plain.	1, 2
LOUISIANA COASTAL AREA	Small Diversion at Hope Canal	PO-0067	FD	USACE	ST JOHN THE BAPTIST	N/A	N/A	Pending/On Hold	\$150,000,000	This project evaluates a small freshwater diversion (less than 5000 cfs) to introduce sediment and nutrients into Maurepas Swamp in order to increase sediment and nutrient inputs to the marsh. The project is intended to provide a cost-effective means of providing surplus funds as part of the required cost share for this project. Fully funded Phase 2 cost provided for the projected cost estimates.	1
LOUISIANA COASTAL AREA	LCA Small Diversion at Lake Borgne	PO-0068	FD	USACE	ST LAURENCE, ASCENSION	N/A	N/A	Pending/On Hold	\$121,140,000	This project evaluates a small diversion of up to 3,000 cfs from the Mississippi River into the Lake Borgne through a new control structure to introduce freshwater, sediments, and nutrients into the sediment basin of the Lake Borgne.	1
LOUISIANA COASTAL AREA	LCA Small River Diversion Canal Modification (Grandfroid)	PO-0069	VP, HR	USACE	LIVINGSTON, ASCENSION	N/A	N/A	Transferred	\$1,740,000	The goal of this project is to reestablish hydrologic connectivity between Maurepas Swamps and natural waterbodies. The project was transferred from the LCA program and is being implemented as State project PO-142.	1
LOUISIANA COASTAL AREA	LCA Wetland Land Bridge Between Calumet Lake and Gulf of Mexico	TE-0067	MC	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$62,600,000	The goals of this project are to prevent connection between the gulf and Calumet 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 surge intrusion, and increase freshwater influence on marshes in project area.	3A
LOUISIANA COASTAL AREA	LCA Point Aul Fer	TE-0068	SP	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$46,300,000	This project is intended to provide a cost-effective means of providing surplus funds as part of the required cost share for this project. Fully funded Phase 2 cost provided for the projected cost estimates.	3A
LOUISIANA COASTAL AREA	LCA Terrebonne Basin Barrier Shoreline Restoration	TE-0070	BH	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$133,300,000	This project provides for the restoration of the Terrebonne and Isles Dernieres barrier island channels. This would stimulate natural conditions by reducing the current number of breaches, changing width and dune crest of the Isles Dernieres Island, East Island, Trinity Island, Vire Island, and Whisker Island/Trickster Island, and East Trickster Island.	3A
LOUISIANA COASTAL AREA	LCA Corney Atchafalaya River Water to Northern Terrebonne Marshes	TE-0071	HR	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$349,995,500	The project would increase existing Atchafalaya River influence to central (Lake Bourdeau) and eastern (Grand Bayou) Terrebonne marshes via the Old Intracoastal Waterway (OIWW).	3A
NPWF	Corneille Headland Beach Increment 2	BA-0143	BH	N/A	JEFFERSON, LAFOURCHE	532	N/A	2016	\$147,983,587	This project will restore and protect beach and dune habitat across the Caminada Headland through the direct placement of approximately 5.4 million cubic yards of sandy material from Ship Shoal (an offshore borrow source). The project footprint begins near Bayou Maureas and extends approximately 3 miles east towards Caminada Pass. A total of 4015 acres of beach and dune habitat will be created.	2
NPWF	McGrathine Diversion	BA-0153	SD	N/A	PLAQUEMINES	60,000	N/A	Pending	In Development	The MBSD is a large and complex civil works and restoration project. MBSD, when in operation, would transfer sediment-laden water from the Mississippi River through a sea-contorted channel roughly 1.5 miles long, before outfalling past the back levee into mid-bayou Maurepas. The MBSD would also provide a means of restoring the natural marsh habitat along the back levee from Mile 67 to Mile 70. The project is intended to provide a cost-effective means of providing surplus funds as part of the required cost share for this project. Fully funded Phase 2 cost provided for the projected cost estimates over a 50 year period, being the 2012 Mile 67 project of gathering no net loss of land in the future.	2
NPWF	Lower Barataria Diversion	BA-0163	SD	N/A	PLAQUEMINES	In Development	N/A	N/A	In Development	The purpose of the project is to construct a sediment diversion to transport sediment from the Mississippi River into the Lower Barataria Basin via the Barataria Basin. The project is intended to build a sediment diversion in the Bayou Barataria Basin. The project is intended to build a sediment diversion in the Bayou Barataria Basin. The project is intended to build a sediment diversion in the Bayou Barataria Basin.	2
NPWF	Lower Breton Diversion	BS-0023	SD	N/A	PLAQUEMINES	In Development	N/A	N/A	In Development	The purpose of the project is to construct a sediment diversion to transport sediment from the Mississippi River into the Lower Breton Sound Basin to reestablish deltaic processes in order to build, sustain, and maintain wetlands. The project intends to build a sediment diversion in the lower Breton Sound in the vicinity of Block Bay around 50,000 cfs capacity.	1

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
NFWF	M&B Breton Diversion	BS-0030	DI	N/A	PLAQUEMINES	In Development	N/A	Pending	In Development	The purpose of this project is to evaluate a sediment diversion located in the vicinity of White Ditch around 75,000 cfs.	1
NFWF	Increase Atchafalaya Flow to Exceed Terrebonne	TE-0110	SD	N/A	TERREBONNE	In Development	N/A	Pending	In Development	The purpose of the project is to utilize freshwater and sediment from the Atchafalaya River in order to build, sustain, and maintain wetlands within the Terrebonne Basin. The project intends to dredge the OHWV east of the Atchafalaya and install a bypass structure at Bayou Boeuf Lock to increase freshwater and sediment flows from Atchafalaya River to Terrebonne marshes.	3A, 3B
NFWF	Eel Trunkier Island Restoration	TE-0118	BH	N/A	LAFOURCHIE	In Development	N/A	Pending	\$74,000,000	This project will engineer and design a restoration of dune, marsh, and wetland habitat such that the bay presently remaining, some grassy areas, and some marsh areas will be restored to a natural state. The project will also install a bypass structure at Bayou Boeuf Lock to increase freshwater and sediment flows from Atchafalaya River to Terrebonne marshes.	3A
NRDA	Cheniere Ronquiere Barrier Island Restoration	BA-0076	BH, MC	NMFS	PLAQUEMINES	408	N/A	Pending	\$39,993,175	The objective of this project is to prevent breaching of the barrier shoreline by restoring the dune and marsh platform. Project was designed under CWP/PPRA but will seek NRDA funds for construction.	2
NRDA	Shoal Island West - NRDA	BA-0111	BH	N/A	PLAQUEMINES	347	N/A	Pending	\$110,524,280	This project aims to restore the integrity of the Shoal Island West barrier island, reduce wave energies within the bay area, and provide protection to the surrounding area. It will create 328 acres of marsh and 312 acres of dune and beach.	2
NRDA	Lake Heritage Marsh Creation Increment 7	BA-0141	MC	N/A	PLAQUEMINES	101	N/A	2014	\$139,000,000	This project will create 101 acres of marsh building off of the BA-47 Lake Heritage CWP/PPRA project utilizing NRDA, early restoration funds.	2
NRDA	Queen Bess Island Restoration	BA-0202	BH	N/A	JEFFERSON	36	N/A	N/A	\$20,000,000	This project is designed to restore suitable colonial waterfowl nesting and brood rearing habitat on the island from its current state of less than 5 acres to approximately 36 acres (figures 24 & 25). This will be accomplished by hydraulicaily dredging sediment from a nearby suitable offshore sand source and disposing of it within existing rock lining that outlines the island. The island will be pumped to a low construction settled elevation of +5.5 NAVD 88. Small levees will be deposited on most of the perimeter of the island to create a low maintenance beach for nesting terns and seabirds. The island will be planted with suitable vegetation to provide optimal habitat.	2
NRDA	Barataria Basin Ridge and Marsh Creation - Spanish Pass Project	BA-0703	MC	N/A	PLAQUEMINES	1254	N/A	N/A	\$174,500,000	Spanish Pass is a natural ridge, boundary of the Mississippi River located west of Venice, Louisiana. The natural channel banks and adjacent marsh have degraded due to natural and manmade causes. The ridge restoration feature of this project will restore 120 acres of earthen ridge. The marsh creation feature of this project will dredge sediment from the Mississippi River, near Venice, LA, to create approximately 1,134 acres of marsh.	2
NRDA	Rabbit Island Restoration	CS-0080	BH	N/A	CAMERON	200	N/A	N/A	\$27,000,000	The primary goal of the project is to restore bird habitat by dredging material from the Calcasieu Ship Channel and adding it to the island along with constructing rock dikes and dunes. Approximately 200 acres of bird habitat will be restored.	4
NRDA	Lake Eugene Marsh Creation - Breton Island	PO-0180	MC	N/A	ST BERNARD	1548	N/A	N/A	\$177,000,000	This project will create approximately 1,348 acres of marsh, extending approximately four miles from Shell Beach on the southern rim of Breton Island to Lake Eugene.	1
NRDA	NRDA - Calumet Lake Headlands	TE-0100	BH	N/A	TERREBONNE	1272	N/A	Pending	\$111,309,000	This project aims to restore the Whiskey Island Barrier Island in order to obtain the geomorphologic form and ecological function. It will create 170 acres of marsh habitat and 917 acres of dune and beach habitat.	3A
NRDA	Terrebonne Basin Ridge and Marsh Creation - Bayou Terrebonne Increment	TE-0139	MC	N/A	TERREBONNE	1496	N/A	N/A	\$176,000,000	The Bayou Terrebonne Increment of the Terrebonne Basin Ridge and Marsh Creation Project is a ridge restoration and marsh creation project located in western Terrebonne Parish. The ridge restoration feature of this project will restore 126 acres of earthen ridge, and the marsh creation feature of this project will dredge sediment from offshore to create 1,370 acres of marsh. This increment is part of a large-scale restoration strategy for the Terrebonne basin that will rebuild ridge and intertidal marsh habitat that has degraded due, in part, to the DWH oil spill.	3A
OTHER	Lake Pontchartrain Marsh Project	HPL-MIT	SP	N/A	ST JOHN THE BAPTIST	600	N/A	1996	\$2,222,892	This project consisted of a near-shore, segmented brackwater system in Lake Pontchartrain parallel to a 4.6-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
OTHER	Coastal Wetlands Public Outreach	N/A	OT	N/A	N/A	N/A	N/A	N/A	\$400,000	The DNR Public Information Office provides a variety of printed materials, educational videos and CDs, fact sheets, website information, events, and school activities, exhibit for the public. Other department outreach efforts include participation in conferences, workshops, civic and the America's Wetlands Campaign. As a result of outreach in several noted activities, visitors and reports, the Public Information Office has received numerous requests for information over the past years. To contact the Louisiana Department of Natural Resources' Public Information Office, please contact the following information.	COAST TWIDE
RESTORE	West Grand Terre Beach Nourishment and Stabilization	BA-0197	BH	N/A	JEFFERSON	In Development	N/A	N/A	\$65,000,694	The project would complete the engineering and design to build an estimated 12,700 feet of beach and dune, restore up to 66 acres of back barrier marsh and a rock revetment to protect restored marsh.	2
RESTORE	Calcasieu Ship Channel Safety Control Measures	CS-0065	HR	N/A	CAMERON	In Development	N/A	Pending	In Development	The purpose of the project is to manage sediments being introduced into adjacent water bodies through the Calcasieu Ship Channel to reduce the rate of wetland loss in the surrounding wetlands. The project intends to construct features to prevent sediment from entering wetlands adjacent to Calcasieu Lake through the Calcasieu Ship Channel. Measures would control safety spikes and would be constructed in a manner that would allow for the continued functioning and ideally improvement and increased viability of the Calcasieu Ship Channel and the Port of Lake Charles.	4
RESTORE	River Reintroduction into Marshes	PO-0029	FD	EPA	ST JOHN THE BAPTIST, ST JAMES	36121	N/A	Pending	\$147,028,735	This project intends to restore a natural hydrologic regime and increase nutrient inputs in cypress-tupelo swamp tracts south of Lake Marquette through the diversion of Mississippi River water into an area of degraded swamp. The project was originally proposed under CWP/PPRA but underwent subsequent development as a State-only project.	1
RESTORE	Golden Triangle Marsh Creation	PO-0163	MC	N/A	ORLEANS, ST BERNARD	In Development	N/A	N/A	\$54,550,330	This project would complete the engineering and design to create approximately 6000 acres of marsh within the Golden Triangle Marsh system.	1
RESTORE	Blanco Marsh Living Shoreline Project	PO-0174	SP	N/A	ST BERNARD	In Development	N/A	N/A	\$57,718,731	The project would create a living shoreline structure by mechanically placing a manufactured structure, or suite of structures, off the shoreline of Ebo Bay and Ebo Point, near the mouth of Bayou La Loubie.	1
RESTORE	Houma Navigation Canal Lock Complex	TE-0113	HR	N/A	TERREBONNE	In Development	N/A	Pending	In Development	The Houma Navigation Canal Lock Complex (TE-113) is a part of the Morgantown to the Gulf of Mexico to Humaceta Protection Project. The project is designed to restore the integrity of the canal and lock complex, which is a critical component of the navigation system. The project will involve the construction of a new lock and the restoration of the canal and lock complex. The project will also involve the construction of a new lock and the restoration of the canal and lock complex.	3A
SECTION 204/1135	MRGO, Breton Island Restoration, M&B-2 3 to 4.0	N/A	DM	USACE	PLAQUEMINES	26	N/A	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 Restoration, M&B-2 3 to 4.0	N/A	DM	USACE	PLAQUEMINES	N/A	N/A	1999	\$150,000	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	Mississippi River Gulf Outlet, Breton, Mile 14 to 11	N/A	DM	USACE	ST BERNARD	50	N/A	1999	\$360,000	This section 204 project provided for the unconfined placement of 3,480,901 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, Breton, Mile 14 to 12 (2002)	N/A	DM	USACE	ST BERNARD	50	N/A	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 tracked due to the impact of Hurricane Lili and Tropical Storm laborer in 2002.	1
SECTION 204/1135	Mississippi River Gulf Outlet, Breton, Mile 14 to 12 (2003)	N/A	DM	USACE	ST BERNARD	113	N/A	2003	\$680,000	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
SECTION 204/1135	Barataria Bay Wetlands, Mile 31 to 24.5	N/A	DM	USACE	JEFFERSON	125	N/A	1999	\$140,000	(BBWWV) to create marsh habitat.	2

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
SECTION 20401135	Barataria Wetland Grand Terre Island Ph. 2	N/A	DM	USACE	JEFFERSON	80	N/A	2002	\$100,000	This Section 204 project provided for the beneficial placement of 500,000 cubic yards of material dredged from the Barataria Bay Wetlands (BBWW) to create wetlands on the bay side of Grand Terre Island.	2
SECTION 20401135	Catahoula River and Pass (Savane NWD) Phase I, II, III	N/A	DM	USACE	CAMERON	400	N/A	1999	\$1,560,004	This Section 204 project provides for the disposal of dredged material removed from the area between mile 7.5 and 11.5 of the Catahoula Ship Channel. A total of 4 million cubic yards of material was deposited in three phases within the Sabine National Wildlife Refuge at an excavation conducted to protect oysters.	4
SECTION 20401135	Wine Island Restoration	DSR-81558	DM	USACE	TERREBONNE	37	N/A	1991, 2003	\$1,007,000	This Section 20401135 project was a cooperative effort with the USACE and included the use of beneficial dredging from a scheduled dredging project in the Mississippi River to create wetlands on Grand Terre Island.	3A
SECTION 20401135	Barataria Bay Wetland Grand Terre Island (Phase I)	N/A	DM	USACE	JEFFERSON	115	N/A	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 Wetlands (BBWW) to create wetlands on Grand Terre Island.	2
SECTION 20401135	Houma Navigation Canal, WYing Island Restoration	N/A	DM	USACE	TERREBONNE	50	N/A	2002	\$1,000,000	The Section 20401135 project investigated the feasibility of beneficially using the dredged material from the bar channel area in lieu of the Oyster 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 Hurricanes Lili and Tropical Storm Isidore.	3A
SECTION 20401135	Brown Lake	N/A	MC, DM	USACE	CAMERON	315	N/A	1999	\$1,132,435	This project will restore, to the extent possible, the natural hydrology of the area. A reduction in marsh loss and improved water flow will result in a more resilient marsh system. Long-term water management objectives will be directed towards maintaining a backwash marsh system.	4
STATE	Alexandria to the Gulf	AT-0012	OT	N/A	RAPIDES	N/A	N/A	N/A	\$970,000	This feasibility study is intended to evaluate options and alternatives for providing urban drainage and flood reduction to the City of Alexandria and erosion and flood reduction benefits to structural areas south and southeast of the city.	30B
STATE	Atchafalaya State Natural Resources Inventory and Assessment	AT-0013	OT	N/A	ST MARY, IBERIA, ST MARTIN	N/A	N/A	N/A	\$1,450,000	This project assesses and inventories the natural resources in the Atchafalaya Swamp.	3B
STATE	Naomi Siphon Diversion	BA-0003	FD	N/A	PLAQUEMINES, JEFFERSON	8200	N/A	1992	\$9,802,381	This project involved 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 à la Pêche, Louisiana. The maximum discharge of the siphons is 2,100 cfs.	2
STATE	West Pointe à la Pêche Siphon Diversion	BA-0004	FD	N/A	PLAQUEMINES	9200	N/A	1992	\$9,845,693	This project involved 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 à la Pêche, Louisiana. The maximum discharge of the siphons is 2,100 cfs.	2
STATE	Quen Bess	BA-0005-B	SP, DM	N/A	JEFFERSON	145	N/A	1993	\$1,475,176	The purpose of this project is to restore Quen Bess Island as a brown pocket of ecological and scientific interest. Dredged material was added to the island to increase its size in 1991, and a rock dyke was installed around the perimeter of the original island in 1992 to protect the shoreline. The area has become vegetated and the number of oyster nests on the island increased after project completion.	2
STATE	Ba de Chacras	BA-0005-C	SP	N/A	ST CHARLES	130	N/A	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 Sakar and Ba de Chacras and Ba de Chacras.	2
STATE	Lake Salvador Shoreline Protection Extension	BA-0015-K1	SP	N/A	ST CHARLES	2035	N/A	2005	\$4,041,344	The purpose of this project is to build a rock dyke 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 CWP/RA project.	2
STATE	Bayou Sagnette	BA-0016	SP	N/A	JEFFERSON	08	N/A	1994, 1998	\$1,772,151	This project involved the construction of a 6,800-foot limestone rock berm to reinforce the bank between Lake Sakar and Bayou Sagnette and the installation of a timber piling fence across an abandoned access canal that connects the two water bodies. The fence is designed to wave energies and prevent erosion from the lake while still allowing exchange of sediment and aquatic organisms. The project was completed in 1994 and 1998.	2
STATE	Bayou Labouche Freshwater Introduction	BA-0025	FD	N/A	LAFOURCHE	Not Available	N/A	2011	\$70,000,000	This project funded the diversion of the lake's 7 miles of the bayou to accommodate a proposed increased flow of 1,000 cfs.	2
STATE	Plaquemines Parish - Southeast Louisiana Strategic Restoration	BA-0046-SF	MC	N/A	PLAQUEMINES	N/A	N/A	N/A	\$4,500,000	This project provided State funding to supplement a Plaquemines Parish dredging design project.	2
STATE	Jeon Lafitte Tidal Protection	BA-0075-1	HP	N/A	JEFFERSON	N/A	2.9	Pending	\$15,730,000	This project will provide flood protection improvements by raising 15,840 linear feet of existing earthen levees. The project will also include approximately 7600 linear feet of concrete cased, steel sheet pile sheet pile and flood gates to 8.0 NAVD.	2
STATE	Rochester Tidal Protection	BA-0075-2	HP	N/A	JEFFERSON	N/A	5.3	Pending	\$70,500,000	This project will provide flood protection improvements consisting of new earthen levees, approximately 8,010 linear feet of reinforced concrete sheet pile and flood gates to 8.0 NAVD.	2
STATE	St. Charles West Bank Hurricane Protection Levee	BA-0085	HP	N/A	ST CHARLES	N/A	9	Pending	\$14,500,000	This project is a system of levees, drainage structures and pump stations being constructed to provide flood protection to the communities of St. Charles Parish on the West Bank of the Mississippi River.	2
STATE	Bayou Lafourche SAR Water Control Structure	BA-0091	OT	N/A	LAFOURCHE	N/A	N/A	Pending	\$4,090,000	This project will allow sandy levees in Bayou Lafourche to be more effectively managed through operation of the saltwater control structure.	2
STATE	Grand Lake East End Breakwater Jetty Design	BA-0092	SP	N/A	JEFFERSON	N/A	N/A	N/A	\$1,000,000	This project provided funding for the design of breakwaters/jetties work for Grand Isle State Park.	2
STATE	Donatienville to the Gulf of Mexico Hurricane Protection	BA-0115	HP	USACE	ASSUMPTION, JEFFERSON, LAFOURCHE, ST JOHN THE BAPTIST, ST CHARLES, ST JAMES	N/A	Not Available	Pending/On Hold	\$10,260,987	The purpose of the project is to reduce the risk of flooding from coastal storm surge and rainfall to prevent further economic losses and property damage in the Grand Isle area. The project will include the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will also include the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will include the development of identification, classification, and protection methodologies with recommendations for beach protection and response measures. The project goals are to restore landfills, increase sustainability of restoration projects, reduce expenditures and maintenance costs, and improve ecosystems.	2, 3A
STATE	Grand Isle FRI Island Breakwaters	BA-0188	SP	N/A	JEFFERSON	Not Available	N/A	2015	\$6,000,000	The project will construct breakwaters along the southwestern portion of FRI Island to reduce erosion on FRI Island and the bay side of Grand Isle. The project will include the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will include the development of identification, classification, and protection methodologies with recommendations for beach protection and response measures. The project goals are to restore landfills, increase sustainability of restoration projects, reduce expenditures and maintenance costs, and improve ecosystems.	2
STATE	Kramer Bayou Broad Levee	BA-0169	HP	N/A	LAFOURCHE	N/A	6	Pending	\$1,000,000	This project will improve and raise approximately 31,000 feet of ring levees surrounding the Kramer Community, a forced drainage area. The project will include the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will include the development of identification, classification, and protection methodologies with recommendations for beach protection and response measures. The project goals are to restore landfills, increase sustainability of restoration projects, reduce expenditures and maintenance costs, and improve ecosystems.	2
STATE	Black Management Plan	BA-0170	BH	N/A	JEFFERSON, LAFOURCHE, TERREBONNE	N/A	N/A	N/A	\$1,106,511	This project will provide funding for the design of breakwaters/jetties work for Grand Isle State Park.	2, 3A
STATE	Barataria Large-Scale Component CWP/RA	BA-0192	MC	N/A	PLAQUEMINES, JEFFERSON	8070	N/A	N/A	In Development	Creation of approximately 8,070 acres of marsh in the Barataria Basin to address the levee and placement at an elevation of 2.5 feet NAVD88 to create new wetland habitat, restore degraded marsh, and reduce wave erosion (component of 2002 MC 05). Project involves components to be constructed in 1st and 2nd implementation periods.	2
STATE	Brannon Ditch	BD	SP	N/A	CALCASIEU	480	N/A	1991	\$12,440	This project included the construction of wooden breakwater fences along 2,200 feet of the COWW across from Brannon Ditch in Calcasieu Parish. This area has experienced shoreline erosion in excess of 25 feet/year. The breakwaters 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

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
STATE	Brown Marsh	BRM-01	MC	N/A	LAFOURCHE	44	N/A	2002	\$473,365	Project features consisted of a thin layer marsh creation/nourishment covering 44 acres in Lafourche Parish.	3A
STATE	Lake Lery Hydrologic Restoration	BS-0006	FD	N/A	ST BERNARD	100	N/A	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, Lake Borgne, and was completed in May of 1997.	1
STATE	Cheniere Au Tigre	CAT-01	SP	BOEMRE	VERMILION	40	N/A	2005	\$1,802,271	The primary objective of this project is to protect the Cheniere au Tigre shoreline from additional erosion and protect local infrastructure. The project will include the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will include the development of identification, classification, and protection methodologies with recommendations for beach protection and response measures. The project goals are to restore landfills, increase sustainability of restoration projects, reduce expenditures and maintenance costs, and improve ecosystems.	3B
STATE	Holly Beach	CS-0001	SP	N/A	CAMERON	88	N/A	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	Ryckado Canal Marsh Management	CS-0002	MM	N/A	CAMERON	6575	N/A	1984	\$2,005,857	The project was designed to stabilize salinities and water levels by reducing water flows through Ryckado canal and Black Lake.	4
STATE	Cameron Creole Levees	CS-0004-A	HP	N/A	CAMERON	2602	N/A	2011	\$12,600,000	The intent of this project is to provide for repair and maintenance of critical perimeter control structures around Calcasieu Lake and repairs to the Cameron Creole Levee. These structures were severely damaged by Hurricane Rita.	4
STATE	Cameron-Creole Structure Automation	CS-0004-A-1	HR	N/A	CAMERON	N/A	N/A	1999	\$700,000	This project consists of automating three existing water control structures along the east shore of C-C Lake. These structures are currently located and are difficult to manipulate. Automation of these structures will improve management capabilities in the Sabana National Wildlife Refuge.	4
STATE	Cameron Parish Shoreline Restoration	CS-0003	OT	N/A	CAMERON	523	N/A	2014	\$45,800,000	The project involved the reestablishment of dunes and beach front for 5.7 miles extending from the western Calcasieu River Jetty to the eastern-most breakwater at the Holly Beach - Constance Beach breakwater field.	4
STATE	Black Lake Supplemental Beneficial Use Disposal Area	CS-0034	DM	USACE	CAMERON	440	N/A	2010	\$21,034,329	This project benefited 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 Wetland Beneficial Use site.	4
STATE	Blind Lake	CS-BL	SP	N/A	CAMERON	480	N/A	1989	\$173,433	The purpose of this project was to prevent the Gulf Intracoastal Waterway from breaching with Blind Lake. The project consisted of the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will include the development of identification, classification, and protection methodologies with recommendations for beach protection and response measures. The project goals are to restore landfills, increase sustainability of restoration projects, reduce expenditures and maintenance costs, and improve ecosystems.	4
STATE	Sabine Terraces	CS-ST	SNT	N/A	CAMERON	110	N/A	1990	\$190,047	A total of 128 earthen terraces were constructed in a checkboard pattern and planted with smooth cordgrass (Spartina alterniflora) in order 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	Fisheries Habitat Restoration on West Grand Terre Island at Port L'Angeles	FTL-01	SP	N/A	JEFFERSON	Not Available	N/A	2003	\$2,076,816	This project consists of a rock dike built to protect the Gulf shoreline of West Grand Terre Island and Fort L'Angeles. This project was designed to stabilize salinities and water levels by reducing water flows through Ryckado canal and Black Lake.	2
STATE	Grand Lake Bay Side Breakwaters	GBSB	SP	N/A	JEFFERSON	50	N/A	1995	\$500,000	The purpose of this project was to reduce erosion on the bay side of Grand Lake. Fifteen 300-foot breakwaters were constructed on the backbay side of Grand Lake.	2
STATE	Dedicated Dredging Program - Lake Salvador	LA-0001-A	MC, DM	N/A	ST CHARLES	28	N/A	1989	\$342,276	Two dikes were filled utilizing dredged material adjacent to Baie du Calcasieu on the Sakadou Wildlife Management Area. This project is part of the coastal 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 Dugout	LA-0001-B	DM, MC	N/A	JEFFERSON	68	N/A	2000	\$1,000,017	Three dikes were filled utilizing dredged material adjacent to Bayou Dugout and The Pen. This project is part of the coastal 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	Pas de la Pêche Site - Dedicated Dredging Program	LA-0001-C	DM	N/A	PLAQUEMINES	26	N/A	2005	\$450,000	The project created approximately 26 acres of sustainable freshwater marsh in the vicinity of Pas de la Pêche, Louisiana. This project is part of the coastal 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	Terrebonne School Board Site - Dedicated Dredging	LA-0001-D	DM	N/A	TERREBONNE	40	N/A	2006	\$2,989,587	This project created approximately 40 acres of marsh just north of Lake DeCade along the western bank of Miroirs Canal. This project is part of the coastal 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	Grand Bayou Blue Site - Dedicated Dredging	LA-0001-E	DM, MC	N/A	LAFOURCHE	38	N/A	2007	\$1,831,534	This project is part of the coastal 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	Dedicated Dredging - Port au For	LA-0001-F	DM	N/A	TERREBONNE	67	N/A	2007	\$2,469,250	This project created approximately 67 acres of marsh on Point au Fer Island adjacent to the CWP/RA TE-20 project using material dredged from Atchafalaya Bay. This project is part of the coastal 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.	30B
STATE	Southeast Coastal Louisiana Feasibility Study	LA-0020	DM, TE, SP, MC	USACE	CALCASIEU, VERMILION, CAMERON	In Development	In Development	Pending	\$8,800,000	The project includes an ecosystem restoration and hurricane protection alternative to address the coastal issues of Southwest Louisiana. The project will include the construction of a breakwater that is 1.5 miles long and 100 feet high, enclosing storm surge and beach erosion. The project will include the development of identification, classification, and protection methodologies with recommendations for beach protection and response measures. The project goals are to restore landfills, increase sustainability of restoration projects, reduce expenditures and maintenance costs, and improve ecosystems.	4
STATE	Sabine Cycle 2	LA-0021-1	DM	N/A	CAMERON	227	N/A	2010	\$6,000,000	The purpose of this project is to cover the east of Grand Terre Island with the Sabine Ridge Marsh Creation, Cycle 2 Bureau Act project.	4
STATE	WAS1 - Management	LA-0211	OT	N/A	COASTWIDE	N/A	N/A	N/A	\$200,000	This project is to recognize and acknowledge the contribution by the State of Louisiana's Coastal Protection and Restoration Authority as part of the wave process (managing multiple hurricanes) project for the coastal area of Louisiana.	3B
STATE	Sediment Diversion Implementation and Program Management	LA-0276	DI	N/A	JEFFERSON, LAFOURCHE, PLAQUEMINES, ST BERNARD	N/A	N/A	N/A	In Development	This project will include all work involved in the development of the Diversion Management program. This will be performed by CPRA personnel and CH2M and will initially result in the development of full EAD scopes for both the Mid-Barataria and Mid-Breton diversions.	1
STATE	Pecan Island Freshwater Introduction	ME-0001	FD	N/A	VERMILION	30000	N/A	1982	\$407,152	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 the lake into the marsh.	4
STATE	Marsh Creation Near Freshwater Bayou	ME-0025-SF	MC	N/A	VERMILION	86	N/A	2015	\$5,700,000	The purpose of this project is to create 96 acres of marsh southwest of intersection of Acadiana Canal and Freshwater Bayou.	4
STATE	Small Settlement Diversions	MR-0001-10	SD	N/A	PLAQUEMINES	6719	N/A	1983	\$1,011,500	This project involved the excavation of 13 canals through the levees of Mississippi River distributary channels within the Atchafalaya Wetlands to the south marshes.	1
STATE	North Grand Lake Breakwaters	NGI	SP	N/A	JEFFERSON	50	N/A	1995	\$100,000	This project was authorized December 2, 2005.	2
STATE	Violet Siphon Diversion	PO-0001	FD	N/A	ST BERNARD	84	N/A	1992	\$380,384	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

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRP Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
STATE	Bayou Closures	PO-0002-C	SP	N/A	ORLEANS	75	N/A	1994	\$62,000	This project included 2,000 feet of barge closures at the mouth of Bayou Chozeau.	1
STATE	Labarre's Shoreline Stabilization and Canal Closure	PO-0003	SP	N/A	ST CHARLES	1750	N/A	1987	\$1,324,000	The purpose of this project is to restore the integrity of this shoreline, which separates Lake Pontchartrain from the western edge of the Labarre's wetlands.	1
STATE	Labranche Shoreline Protection	PO-0003-B	SP	N/A	ST CHARLES	50	N/A	1996	\$1,280,051	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 future beach erosion.	1
STATE	Central Wetlands Pump Outfall	PO-0008	FD	N/A	ST BERNARD	300	N/A	1992	\$250,000	This project was designed to provide freshwater, nutrients, and sediment associated with storm water runoff to an area of marsh near the Vieux-Blanc (PO-01).	1
STATE	Turtle Cove Shore Protection	PO-0010	SP	N/A	ST JOHN THE BAPTIST	184	N/A	1994	\$386,000	This project involved the construction of a 1,640 foot rock-filled gabion breakwater to maintain and protect the Lake Pontchartrain shoreline that separates "The Frame" (an 800-acre expanse of shallow open water marsh bordered by organic freshwater marsh) from high wave energetic and to encourage oedmont deposition behind the gabion structure. An additional \$195,600 was used for maintenance in 2001.	1
STATE	MROGO Closure Structure	PO-0038-SF	OT	USACE	ST BERNARD	2343	N/A	2009	\$14,115,500	This project involves the installation of a closure structure in the Mississippi River Gulf Outlet (MRGO) to prevent the intrusion of saline Gulf waters into wetter marsh via the channel. Project implementation was 100%, except the State acquired real estate interests for structure and is responsible for O&M activities.	1
STATE	St. Bernard Parish 40 Acre Marsh	PO-0061	HP	N/A	ST BERNARD	N/A	Not Available	2011	\$5,000,000	This project is in the Lake Borgne Levee District and provided funds for the raising of low reaches of the F only Airport Levee.	1
STATE	North Shore Hurricane Flood Protection and Restoration Plan	PO-0072	SP	N/A	ST BERNARD	300	N/A	2014	\$22,000,000	This project involved the construction of approximately four miles of shoreline protection along the southeastern shoreline of Lake Borgne.	1
STATE	MRGO and Lake Borgne (Barataria Island segment)	PO-0083	SP	USACE	ST BERNARD	N/A	N/A	N/A	Not Available	This project involves the development of a hurricane protection plan for the North Shore.	1
STATE	MRGO and Lake Borgne (Shell Beach segment)	PO-0084	SP	USACE	ST BERNARD	N/A	N/A	Pending	Not Available	This project will conduct approximately 14,440 linear feet of stone shoreline dike along the southwest shoreline of Lake Borgne in the vicinity of Bayou Bienvenue. CPHA is acquiring portions of the three oyster leases that are impacted by the project.	1
STATE	MRGO and Lake Borgne (Shell Beach segment)	PO-0085	SP	USACE	ST BERNARD	N/A	N/A	Pending	Not Available	This project will conduct approximately 15,700 linear feet of stone shoreline dike along the southern shoreline of Lake Borgne, west of Shell Beach. CPHA is acquiring portions of the four oyster leases that are impacted by this project.	1
STATE	MAS2 - Outreach	PO-0129	OT	N/A	JEFFERSON, CALCAHAN, ST BERNARD, ST CHARLES, LIVINGSTON	N/A	N/A	N/A	\$266,070	The objective of this project is to support the release by the Federal Emergency Management Agency (FEMA) of a Digital Flood Insurance Rate Map (DFIRM) and Flood Insurance Study (FIS) report, for the Greater New Orleans area.	1
STATE	Hydrologic Restoration of the Atchafalaya River	PO-0142	HR, VP	N/A	ASCENSION, LIVINGSTON	1800	N/A	7/9/1995	\$3,992,100	The purpose of this project is to reestablish hydrologic connectivity between Manassas Swamps and natural wetlands, plant vegetation in highly degraded swamp habitat.	1
STATE	St. Tammany Parish Coastal Protection Study	PO-0167	HP	N/A	ST TAMMANY	N/A	N/A	N/A	\$2,000,000	This project was re-scoped in March 2016. It now involves updating the 2012 Northshore Hurricane and Flood Protection Study for St. Tammany and Tangipahoa Parishes study with newly completed and proposed projects at the St. Tammany Parish Coastal Zone. In addition, the project will conduct a feasibility study to determine the need for future project vulnerable areas, and finally a feasibility analysis of projects will be undertaken to determine project utility and viability.	1
STATE	Violet Canal North Levee Agreement	PO-0170	HP	N/A	ST BERNARD	N/A	Not Avail	Pending	\$1,184,000	For the construction of a levee/bowwall in the vicinity of the Violet Canal, to maintain flood protection for the public, and provide mutual benefit to the citizens within the territorial jurisdictions of OLD and LEBOLD. The bowwall is required for the certification of the F only Airport and Florida Avenue levee systems located in Orleans Parish and St. Bernard Parish.	1
STATE	Pontchartrain State Park Mitigation	PO-435NP4	SP	N/A	ST TAMMANY	6	N/A	1999	\$476,104	This project required a section of breached shoreline by depositing approximately 9,000 cubic yards of sand for a rector berm on the eastward end of Pontchartrain State Park.	1
STATE	Raccoon Island Repair	RI	DM	N/A	TERREBOONNE	197	N/A	1994	\$1,400,000	This project involved the disposal of material and vegetation from a major storm damage to Raccoon Island.	3A
STATE	Spillbank along the GOMW	SSB	VP	N/A	TERREBOONNE	1	N/A	1993	\$9,400	Cooperation to take the Louisiana Department of Natural Resources coastal restoration division, Louisiana Department of Wildlife and Fisheries for and Redigo 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	Sabine Shellbank Stabilization	SSB	SP	N/A	CAMERON	10	N/A	1990	\$66,000	This project planned 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 nutra exclusion devices was tested.	3A
STATE	Montgout Island	TE-0001	MM	N/A	TERREBOONNE	4200	N/A	1993	\$5,637,036	The objective 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 impairment.	4
STATE	Bayou LaCade Wetlands	TE-0002	MM	N/A	TERREBOONNE	1300	N/A	1993, 1995	\$1,560,000	Chen Wildlife Management Area southeast of Montgout, Louisiana.	3A
STATE	Bayou LaCade Wetland	TE-0003	MM	N/A	TERREBOONNE	4374	N/A	1991, 1996	\$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-0006	MM	N/A	TERREBOONNE	4700	N/A	2006	\$2,771,819	This cooperative coastal restoration project benefits approximately 4,700 acres of brackish-intermediate marsh within the Pointe aux Chien WMA managed by the Louisiana Department of Wildlife and Fisheries. Major funding for the project was provided by Ducks Unlimited and the North Avenue Wetlands Conservation Act.	3A
STATE	Lower Pelit Calhou	TE-0007-B	HR	N/A	TERREBOONNE	3465	N/A	1995, 2007	\$1,536,084	The objective of this project is to decrease saltwater intrusion into the project area by re-orienting freshwater discharge from the Mississippi River into the project area.	3A
STATE	Point Farm Redigo Ponding	TE-0014	VP	N/A	TERREBOONNE	150	N/A	1995	\$236,931	Approximately 100,000 seedlings of other pecan (Carya aquatica), water oak (Quercus nigra), and cow oak (Quercus macrocarpa) with nutra exclusion devices were planted on 300 acres of former farmland within the PFRA.	3A
STATE	Morgans to the Gulf	TE-0064	HP	USACE	LAFOURCHE, TERREBOONNE	N/A	18	Pending	\$136,703,895	This project is currently being developed to provide protection to Terrebonne and portions of Lafourche parishes to provide protection against the project storm event. When complete, the project will consist of the construction of 66 miles of levees and levee walls, navigation structures, water control structures, and floodgates.	3A
STATE	Larose to Gordon Meadow Flood Protection	TE-0065	HP	N/A	LAFOURCHE, TERREBOONNE	N/A	23	2014	\$19,820,000	This project includes levee modifications and improvements. The project was allocated \$15 million in US Surplus and \$4.82 million in US Surplus.	2, 3A
STATE	Larose to Gordon Meadow Flood Protection	TE-0065-SP	HP	N/A	LAFOURCHE	N/A	0.5	Pending	\$9,000,000	This project involves the construction of approximately 2400 feet of levee pile to an elevation of 13 feet along the GOMW at Larose to protect the area from future flooding.	2
STATE	Lost Lake Vegetation Project	TE-0082	VP	N/A	TERREBOONNE	N/A	N/A	2011	\$161,000	This project consists of vegetation plantings on the shore and vents of Lost Lake.	3A, 3B
STATE	HNC Deepening Section 303 Study	TE-0108	OT	USACE	TERREBOONNE	N/A	N/A	Pending	TBD	Feasibility study and EIS preparation for investigating deepening of the HNC to accommodate the current fleet of large vessels utilizing the navigation channel, as well as the increased need for support of the offshore oil and gas platform fabrication operations along the HNC. This project is being managed by DOTD with interim funding being provided by CPHA.	3A
STATE	Vigilante to Larose	TE-0111	HP	N/A	LAFOURCHE	N/A	0.38	2014	\$1,000,000	This project provides flood protection improvements to the current flood protection system under local jurisdiction and consists of engineering, design, survey, repair, rehabilitation and possible construction of approximately 2,000 linear feet of levee along Bayou Lafourche, from the levee of Vigilante to the town of Larose.	2
STATE	St. Mary Backwater Flooding	TE-0116	HP	N/A	ST MARY, TERREBOONNE	N/A	1.72	Pending	\$5,000,000	This project provides for flood protection improvement to the current Morgan City flood protection system by raising some of the existing levees to elevations as outlined in the March 27, 2013 report by T. Baker Smith.	3B

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRP Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
STATE	Yellow Bayou	TV-0002-B	SP	N/A	ST MARY	126	N/A	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-Amerik Canal and to stabilize 7,465 feet of the East Cole 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-0006	MM	N/A	IBERIA	643	N/A	1993	\$463,500	The objectives of the project were to reduce the rate of land loss, revegetate shallow open water areas, and increase waterfowl food within the water management units. Flag-gated/drop culverts and weirs/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-0011	SP	N/A	VERMILION	241	N/A	1994	\$2,177,025	This project addresses vegetation 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 1995 and 2001.	3B
STATE	Onshore Structures	TV-0013-B	SP	N/A	VERMILION, IBERIA	160	N/A	2000	\$3,107,735	This project enhanced the adjacent CWPPRA-funded TV-13a project by installing low-alt structures at the outfall of Oaks and Avery Canals to redirect more water flow through the portion of Bayou l'Ette Area south of the GOMW.	3B
STATE	South Central Coastal Plan	TV-0054	OT	USACE	ST MARY, IBERIA, ST MARTIN	In Development	In Development	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. Martin 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. The information will be used to start the project with the US Army Corps of Engineers. Once study information is obtained from the US Congress the project will progress to the feasibility phase.	3B
STATE	Marine Corps St. Mary Flood Protection	TV-0055	HP	N/A	ST MARY	N/A	4.5	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
STATE	Dok-Lambre Avery Canal (E&D)	TV-0057	HP	N/A	IBERIA	N/A	N/A	N/A	\$970,000	This project will design and engineer a flood control structure for the Dok-Lambre-Avery Canal just south of the Intracoastal Waterway. When constructed this project will provide flood protection improvements by allowing the closure of the Dok-Lambre-Avery Canal to reduce the impact of storm surge from Vermilion Bay.	3B
STATE	Bayou Tote Flood Control Complex	TV-0075	HP	N/A	IBERIA, VERMILION	N/A	Not Avail	Pending	\$6,980,000	This project will use up to \$6,380,000 of funds re-allocated from TV-56 to design and construct a pumping station to augment flood control operations at a closure gate across Bayou Tote, currently under design as project TV-67. This project will help mitigate ponding and flooding on the parish side caused by flood gate closure during a storm surge event.	3B
STATE	Surplus Freshwater Bayou Bank Stabilization	TV-0076	SP	N/A	VERMILION	Not Available	N/A	2016	\$1,300,000	This project will use up to \$1,300,000 remaining from the NE 0025-SF project to augment the TV 0011B EB freshwater rock dike feature along Freshwater Bayou.	3B
STATE	Pointe aux Chien/Cyprien Port	TV 435NP1	SP	N/A	ST MARY	26	N/A	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 concrete rock dike along the Vermilion Bayshore Canal and the south bank of the Cyprien Canal.	3B
STATE	Beneficial Use of 110 Twin Span Levees (Caldwell)	N/A	OT	N/A	ORLEANS	N/A	N/A	Deauthorized	\$1,500,000	This project involves the use of Two Span Debris as a form of shoreline protection for the Bayou Sauvage area.	1
STATE	East of Harvey Canal Intern Hurricane Protection - Phical	N/A	HP	N/A	JEFFERSON	N/A	N/A	2009	\$4,000,000	This project involved the installation of a combination of sheet pile and caisson flood protection, ultimately to an elevation of 10.0 feet above the crest of the existing levee, to be constructed in the existing levee at the west end, to provide interim hurricane protection during construction of the HSDRRS system.	2
STATE	Raiding of LA 1 at Gobon Meadow Floodgate and Completion of Golden Meadow Lock Structure	N/A	HP	N/A	LAFOURCHE	N/A	N/A	2010	\$18,000,000	This project funded the raising of LA-1 to the 100-year flood elevation and to complete the lock in Bayou Lafourche, both critical elements of the Larose to Golden Meadow Hurricane Protection System.	2
STATE	Raiding of LA 23 at LaRousselle	N/A	HP	N/A	PLAQUEMINES	N/A	N/A	2012	\$1,200,000	This project involves raising LA-HW 23 to the elevation of the adjoining LaRousselle Schott guide levees, where the highway crosses those guide levees. DOTD determined the engineering in-house and is continuing to complete the project.	2
STATE	Bayou White Channel Ship (Houma Navigation Canal)	N/A	DM	N/A	TERREBOONNE	N/A	N/A	N/A	\$300,000	The purpose of this project is to pre-clear the Bayou White disposal site adjacent to and east of the Houma Navigation Canal.	3A
STATE	Chabert Ring Levee	N/A	HP	N/A	TERREBOONNE	N/A	Not Available	2008	\$500,000	The project consists of the design and construction for a segment of levees around the Chabert Medical Center in Houma, Louisiana. The proposed ring levee will surround the Chabert Medical Center and will provide flood protection for the facility allowing operation during possible flood events.	3A
STATE	Wine Island	N/A	DM	N/A	TERREBOONNE	N/A	N/A	2007	\$2,000,000	The purpose of this project was to beneficially use material from the dredging of the Houma Navigation Canal Bay Channel on Wine Island.	3A
STATE	NRCS Biomass Production Program	N/A	VP	NRCS	COASTWIDE	N/A	N/A	N/A	\$80,000	The NRCS-Louisiana Biomass Program is a multi-year programmatic initiative to accelerate the collection, testing, and release of important coastal wetland restoration plants. The Biomass Program began in 1999 in conjunction with the LONRCS Small Dredge Program with emphasis on plant performance and debris and dredged sediment. This program is an important coastal restoration initiative that is advancing coastal wetland plant production development.	COASTWIDE
STATE	NRCS Biomass Production Program	N/A	VP	NWRC	COASTWIDE	N/A	N/A	N/A	\$1,552,100	This multi-year cooperative agreement funds the study of endemic wetland plant productivity, with the goal of identifying specific environmental conditions for maximum growth of a number of varieties (i.e., cattails) within four plant species. The information obtained is intended to further matching plant species and varieties to selected environmental conditions at restoration sites, thereby increasing the success of the restoration program.	COASTWIDE
STATE	NRCS Vegetative Planting	N/A	VP	NRCS	COASTWIDE	609	N/A	N/A	\$399,658	This is a long-term cooperative program that is implemented annually and involves the installation of dredged/dike plantings in selected areas where vegetation is needed.	COASTWIDE
WFDA	Davis Pond Freshwater Diversion	BA-0001	FD	USACE	ST CHARLES	33000	N/A	2002	\$120,000,000	The purpose of this project is to maintain and enhance the existing ecological framework of the Louisiana basin by providing freshwater, nutrients, and sediment. This will counter saltwater intrusion and help offset marsh subsidence. This project can divert up to 10,950 cfs of water from the Mississippi River to the Mississippi River by coastal bays and marshes in the basin.	2
WFDA	Cameron Freshwater Diversion	BS-0008	FD	USACE	PLAQUEMINES	10000	N/A	1991	\$24,816,800	This project diverts freshwater and its accompanying nutrients and sediment from the Mississippi River to coastal bays and marshes in the basin. This project can divert up to 6,000 cubic feet per second.	1

Notes: Program: CWPPRA=Coastal Wetlands Planning, Protection and Restoration Act; State Restoration projects funded primarily by the State of Louisiana; SECTION 204(f) 135= 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 Management Agency funded projects; CAP= 2007's Coastal Impact Assistance Program; Surplus 001, Surplus 002, Surplus 003-state surplus-funded projects. Other funded by programs not otherwise listed.

Agency Sponsor: BOEMRE=Bureau of 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 Survey.

Project Type: B=Barrier Island/Headland; C=Beneficial Use of Dredged Material; F=Freshwater Diversion; H=Hurricane Protection; HRE=Hydrologic Restoration; MC=Marsh Creation; MM=Marsh Management; OM=Offshore Management; OT=Other project types (infrastructure, etc.); PP=Property Purchase; SD=Sediment Overrun; SNT=Sediment and Nutrient Trapping; SP=Shoreline Protection; TE=Terraces; VP=Vegetation Planting.

P.L. = 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 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
Engineering and Design (P1)					
BA-0193	Caminada Headlands Back Barrier Marsh Creation Increment 2 ¹	\$852,977	\$0	\$0	\$852,977
BA-0194	East Leeville Marsh Creation and Nourishment ¹	\$1,092,071	\$472,732	\$0	\$1,564,803
BA-0195	Barataria Bay Rim Marsh Creation and Nourishment	\$43,982	\$28,317	\$0	\$72,300
BA-0206	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection	\$231,030	\$231,030	\$115,515	\$577,576
BS-0032	Mid Breton Land Bridge Marsh Creation & Terracing	\$1,375,460	\$1,375,460	\$687,730	\$3,438,649
CS-0078	No Name Bayou Marsh Creation and Nourishment ¹	\$505,837	\$141,357	\$0	\$647,194
CS-0079	Oyster Lake Marsh Creation and Nourishment ¹	\$700,000	\$120,000	\$0	\$820,000
CS-0081	Sabine Refuge Marsh Creation Cycles 6 & 7	\$223,565	\$223,565	\$111,782	\$558,912
ME-0031	Freshwater Bayou Marsh Creation	\$40,350	\$28,317	\$0	\$68,667
ME-0032	South Grand Chenier Marsh Creation- Baker Tract	\$10,000	\$5,000	\$0	\$15,000
PO-0075	LaBranche East Marsh Creation	\$40,350	\$0	\$0	\$40,350
PO-0133	LaBranche Central Marsh Creation	\$45,947	\$0	\$0	\$45,947
PO-0169	New Orleans Landbridge Shoreline Stabilization and Marsh Creation ¹	\$650,000	\$0	\$0	\$650,000
PO-0173	Fritchie Marsh Creation and Terracing	\$120,000	\$80,000	\$0	\$200,000
PO-0178	Bayou LaLoutre Ridge Restoration and Marsh Creation ¹	\$1,800,000	\$800,000	\$0	\$2,600,000
PO-0179	St. Catherine Island Marsh Creation and Shoreline Protection ¹	\$1,150,940	\$542,361	\$0	\$1,693,301
PO-0181	Bayou Cane Marsh Creation	\$1,199,418	\$1,199,418	\$599,709	\$2,998,545
TE-0112	North Catfish Lake Marsh Creation	\$17,780	\$17,780	\$8,038	\$43,598
TE-0117	Island Road Marsh Creation and Nourishment ¹	\$718,748	\$181,164	\$0	\$899,912
TE-0134	West Fourchon Marsh Creation ¹	\$135,441	\$0	\$0	\$135,441
TE-0138	Bayou DeCade Ridge and Marsh Creation ¹	\$596,296	\$393,719	\$0	\$990,014
Construction (P2)					
BA-0125	Northwest Turtle Bay Marsh Creation ¹	\$20,646,943	\$8,953,057	\$0	\$29,600,000
BA-0171	Caminada Headlands Back Barrier Marsh Creation ¹	\$2,227,089	\$13,863,465	\$29,954,019	\$46,044,573
CS-0049	Cameron-Creole Freshwater Introduction	\$200,000	\$1,681,067	\$720,457	\$2,601,524
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation ¹	\$9,174,182	\$0	\$0	\$9,174,182
CS-0066	Cameron Meadows Marsh Creation and Terracing ¹	\$163,000	\$7,859,999	\$18,179,997	\$26,202,996
LA-0284	Salvinia Weevil Propagation Facility ¹	\$280,967	\$0	\$0	\$280,967
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization ¹	\$16,632,284	\$2,000,000	\$0	\$18,632,284
ME-0020	South Grand Chenier Marsh Creation Project	\$1,922,200	\$189,587	\$0	\$2,111,787
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration ¹	\$18,000,000	\$0	\$0	\$18,000,000
TV-0063	Cole's Bayou Marsh Restoration ¹	\$12,068,795	\$0	\$0	\$12,068,795
Demonstration Projects (P1 & P2)					
LA-0280	Shoreline Protection, Preservation, and Restoration (SPPR) Panel ¹	\$318,565	\$27,056	\$0	\$345,621
Subtotal		\$93,184,217	\$40,414,451	\$50,377,247	\$183,975,916
Adjustment for Outlying Years ²		N/A	\$49,585,549	\$39,622,753	\$89,208,301
Total Expenditures		\$93,184,217	\$90,000,000	\$90,000,000	\$273,184,217
Surplus Expenditures (See Table B-5)		(\$624,870)	\$0	\$0	(\$624,870)
Federal Expenditures (see Note 1)		\$78,290,682	\$74,933,437	\$77,266,129	\$230,490,248
Trust Fund Expenditures		\$14,268,665	\$15,066,563	\$12,733,871	\$42,069,099

Notes:

1- Project is being led by CPRA; projected expenditures include Federal funds; any State expenditures beyond its 15% cost share will be reimbursed by the Federal partner.

2- Because CWPPRA projects compete for funding annually, CWPPRA expenditures as presented in Table B-1 (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 2020 - FY 2021 are therefore based on prior years' expenditures.

Table B-2. Louisiana WRDA Projected Expenditures

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
LA-0020	Southwest Coastal Louisiana ¹	\$311,854	TBD	TBD	\$311,854
Total Expenditures		\$311,854	\$0	\$0	\$311,854
Surplus Expenditures for WRDA (see Table B-6)		(\$311,854)	\$0	\$0	(\$311,854)
Trust Fund Expenditures for WRDA		\$0	\$0	\$0	\$0

Notes:

1- Project expenditures are funded through Surplus revenues (see Table B-5); expenditures in future fiscal years will be covered with accrued credit or Trust Fund dollars.

Table B-3. Community Development Block Grant (CDBG) Projected Expenditures

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
BA-0082	Lafitte Area Levee Repair	\$417,000	\$0	\$0	\$417,000
TE-0078	Cut-Off/Pointe Aux Chene Levee	\$4,484,248	\$680,708	\$0	\$5,164,956
N/A	CDBG Program Administration	\$11,680	\$11,680	\$0	\$23,360
Total Expenditures		\$4,912,928	\$692,388	\$0	\$5,605,316

Table B-4. State-Only Project Expenditures (Non-Surplus)

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
MOEX Projects					
PO-0142	Hydrologic Restoration of the Amite River Diversion Canal ¹	\$352,343	\$131,250	\$1,057,030	\$1,540,623
Capital Outlay Projects					
BA-0066	West Bank and Vicinity ²	\$405,000	\$0	\$0	\$405,000
TE-0064	Morganza to the Gulf ²	\$9,000,000	\$500,000	\$0	\$9,500,000
Projects with Trust Fund Expenditures					
BA-0109	HSDRRS Mitigation- WBV ³	\$75,000	\$50,000	\$10,000	\$135,000
BA-0154	Previously Authorized Mitigation WBV ³	\$30,000	\$7,500	\$0	\$37,500
BA-0158	New Orleans to Venice Mitigation- Plaquemines Non-Fed ³	\$11,680	\$11,680	\$11,680	\$35,040
BA-0159	New Orleans to Venice Mitigation- Fed ³	\$11,680	\$11,680	\$11,680	\$35,040
PO-0057	SELA- Overall ³	\$13,286	\$13,286	\$6,643	\$33,215
PO-0121	HSDRRS Mitigation- LPV ³	\$71,307	\$0	\$0	\$71,307
Total State Expenditures		\$9,970,296	\$725,396	\$1,097,033	\$11,792,725

Notes:

1- Projected expenditures are for post-construction activities including site assessment, nutria control, and vegetative plantings.

2- Project receiving supplemental funding from Surplus funds (see Table B-5).

3- Project is currently 100% Federal. Projected expenditures are for staff coordination with Federal project team members.

Table B-5. Surplus Projected Expenditures (2007, 2008, 2009)

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
BA-0043 (EB)	Mississippi River Long Distance Sediment Pipeline ¹	\$5,000,000	\$4,364,368	\$0	\$9,364,368
BA-0045	Caminada Headland Beach and Dune Restoration ²	\$96,024	\$80,840	\$0	\$176,864
BA-0071	Medium Diversion with Dedicated Dredging at Myrtle Grove ³	\$1,214,260	\$0	\$0	\$1,214,260
BA-0075-1	Jean Lafitte Tidal Protection	\$10,000,000	\$4,800,000	\$0	\$14,800,000
BA-0075-2	Rosethorne Tidal Protection	\$9,000,000	\$0	\$0	\$9,000,000
BA-0169	Kraemer/Bayou Boeuf Levee Lift	\$100,000	\$0	\$0	\$100,000
LA-0020	Southwest Coastal Louisiana	\$311,854	\$0	\$0	\$311,854
PO-0062	West Shore Lake Pontchartrain	\$3,500,000	\$0	\$0	\$3,500,000
PO-0063	Lake Pontchartrain and Vicinity	\$11,504,188	\$1,566,720	\$340,048	\$13,410,956
PO-0167	St. Tammany Parish Coastal Protection Study	\$1,200,000	\$500,000	\$0	\$1,700,000
PO-0170	Violet Canal North Levee Alignment ⁴	\$218,874	\$0	\$0	\$218,874
TE-0064	Morganza to the Gulf	\$8,600,000	\$2,000,000	\$0	\$10,600,000
TE-0065-SP	Larose to Golden Meadow- Larose Sheetpile ⁵	\$3,000,000	\$1,741,940	\$741,940	\$5,483,880
TE-0116	St. Mary Backwater Flooding	\$500,000	\$0	\$0	\$500,000
TV-0057	Delcambre-Avery Canal (E&D)	\$100,000	\$573,268	\$0	\$673,268
TV-0067	Bayou Tigre Flood Control Project	\$1,000,000	\$1,000,000	\$3,372,021	\$5,372,021
TV-0075	Bayou Tigre Flood Control Complex	\$0	\$1,000,000	\$4,838,522	\$5,838,522
N/A	Southeast Louisiana Flood Protection/ LERRDS ⁶	\$50,599,000	\$2,259,200	\$3,460,000	\$56,318,200
N/A	Reprogrammed Surplus ⁷	\$5,804,321	\$0	\$0	\$5,804,321
Programmatic and Non-Project Surplus Expenditures					
LA-0026	Rehabilitation and Repair of State Restoration Projects	\$1,098,239	\$0	\$0	\$1,098,239
LA-0027	Barrier Island Maintenance Program	\$2,900,110	\$0	\$0	\$2,900,110
N/A	Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) ⁸	\$624,870	\$0	\$0	\$624,870
LA-0025	Innovative Coast-Wide Initiatives	\$106,394	\$0	\$0	\$106,394
N/A	Beneficial Use	\$1,289,186	\$0	\$0	\$1,289,186
N/A	Emergency Reserve	\$5,993,775	\$0	\$0	\$5,993,775
N/A	Innovative Programs	\$876,143	\$0	\$0	\$876,143
N/A	Non-Structural Program Development ⁹	\$1,000,000	\$151,047	\$0	\$1,151,047
LA-0265	Levee Engineering and Design Standards Development and Analysis	\$0	\$0	\$0	\$0
Total Expenditures		\$125,637,238	\$20,037,383	\$12,752,531	\$158,427,152

Notes:

- 1- Expenditures may be used to supplement funding for Large-Scale Barataria Marsh Creation (BA-0192) and other coastal projects.
- 2- Surplus funds include post-construction monitoring expenditures (see Table B-8).
- 3- Includes funding for Diversion Modeling and Model Improvement (LA-0282).
- 4- Project constructed with leftover funds from project PO-0061 (completed in FY 2011).
- 5- Expenditures will be used to fund additional improvements within the Larose to Golden Meadow alignment.
- 6- Includes funds that may be used for West Bank and Vicinity (BA-0066), HSDRRS Mitigation- West Bank and Vicinity (BA-0109), HSDRRS Mitigation- Lake Pontchartrain and Vicinity (PO-0121), SELA (PO-0057), Permanent Closure of Canals and Pump Stations (PO-0060), LPV Task Force Guardian Mitigation- Bayou Sauvage (PO-0145), Previously Authorized Mitigation LPV- Manchac (PO-0146), Previously Authorized Mitigation- WBV (BA-0154), New Orleans to Venice (BA-0067), New Orleans to Venice Mitigation- Plaquemines Non-Fed (BA-0158), New Orleans to Venice Mitigation- Fed (BA-0159), and/or Plaquemines TFU Mitigation- Braithwaite to Scarsdale (BA-0156).
- 7- Represents unexpended funds from previously completed Surplus projects. Funds will be used for implementation of additional projects subject to approval by the Joint Legislative Committee on the Budget.
- 8- Expenditures will be used to supplement funding for CWPPRA projects (see Table B-1).
- 9- Funds will be used to develop a coordinated strategy for implementing nonstructural projects identified in the Master Plan coastal communities. This may also include development of pilot projects in coastal parishes with high levels of risk and vulnerability.

Table B-6. CWPPRA Monitoring Projected Expenditures

Project No.	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
AT-0002	Atchafalaya Sediment Delivery	\$2,920	\$0	\$0	\$2,920
AT-0003	Big Island Mining	\$2,920	\$0	\$0	\$2,920
BA-0002	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	\$41,024	\$46,024	\$2,336	\$89,384
BA-0003-C	Naomi Outfall Management	\$30,340	\$22,014	\$16,424	\$68,778
BA-0020	Jonathan Davis Wetland Protection	\$16,936	\$11,680	\$4,380	\$32,996
BA-0027-C	Barataria Landbridge Shoreline Protection (Phase 3)	\$4,380	\$19,272	\$11,680	\$35,332
BA-0034-2	Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp	\$61,680	\$47,300	\$57,300	\$166,280
BA-0035	Chaland Pass to Grand Bayou	\$4,380	\$90,440	\$11,680	\$106,500
BA-0036	Dedicated Dredging on the Barataria Basin Landbridge	\$4,380	\$4,380	\$4,380	\$13,140
BA-0037	Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake	\$5,840	\$2,920	\$2,920	\$11,680
BA-0038	Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration	\$4,380	\$17,300	\$11,680	\$33,360
BA-0039	Mississippi River Sediment Delivery (Bayou Dupont)	\$11,422	\$12,840	\$83,930	\$108,192
BA-0042	Lake Hermitage Marsh Creation	\$18,713	\$76,625	\$12,848	\$108,186
BA-0048	Bayou Dupont Marsh and Ridge Creation	\$14,464	\$29,228	\$21,152	\$64,844
BA-0068	Grand Liard Marsh and Ridge Restoration	\$106,264	\$30,520	\$11,680	\$148,464
BA-0164	Bayou Dupont Sediment Delivery Marsh Creation #3	\$24,759	\$3,504	\$10,512	\$38,775
BA-0173	Bayou Grande Chenier Marsh and Ridge Restoration	\$0	\$2,920	\$107,846	\$110,766
BS-0003-A	Caernarvon Diversion Outfall Management	\$2,920	\$2,920	\$14,016	\$19,856
BS-0011	Delta Management at Fort St. Philip	\$14,600	\$4,380	\$4,380	\$23,360
BS-0016	South Lake Lery Shoreline and Marsh Restoration	\$16,224	\$4,672	\$22,473	\$43,369
CS-0004-A	Cameron-Creole Maintenance	\$44,384	\$44,384	\$30,368	\$119,136
CS-0011-B	Sweet Lake/Willow Lake Hydrologic Restoration	\$2,920	\$2,920	\$2,920	\$8,760
CS-0021	Highway 384 Hydrologic Restoration	\$8,760	\$10,804	\$2,920	\$22,484
CS-0023	Replace Sabine Refuge Water Control Structures at Headquarters Canal,	\$10,804	\$5,840	\$2,920	\$19,564
	West Cove Canal, and Hog Island Gully				
CS-0024	Perry Ridge Shore Protection	\$2,920	\$2,920	\$0	\$5,840
CS-0027	Black Bayou Hydrologic Restoration	\$31,038	\$18,190	\$18,190	\$67,419
CS-0028-3	Sabine Refuge Marsh Creation, Increment 3	\$12,264	\$8,760	\$16,936	\$37,960
CS-0028-4	Sabine Refuge Marsh Creation, Increment 4	\$12,264	\$4,380	\$16,936	\$33,580
CS-0029	Black Bayou Culverts Hydrologic Restoration	\$2,920	\$16,936	\$16,936	\$36,792
CS-0030	GIWW - Perry Ridge West Bank Stabilization	\$2,920	\$2,920	\$20,148	\$25,988
CS-0031	Holly Beach Sand Management	\$16,936	\$2,920	\$16,936	\$36,792
CS-0032	East Sabine Lake Hydrologic Restoration	\$12,264	\$2,920	\$12,264	\$27,448
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	\$2,920	\$2,920	\$2,920	\$8,760
CS-0059	Oyster Bayou Marsh Creation & Terracing	\$29,950	\$43,966	\$43,966	\$117,883
LA-0003-B	Coastwide Nutria Control Plan	\$152,920	\$152,920	\$152,920	\$458,760
LA-0008	Bioengineered Oyster Reef Demonstration	\$2,920	\$0	\$0	\$2,920
LA-0016	Non-Rock Alternatives for Shoreline Protection Demonstration Project	\$5,840	\$0	\$0	\$5,840
LA-0039	Coastwide Plantings Program	\$138,324	\$158,180	\$162,852	\$459,356
ME-0004	Freshwater Bayou Wetland (Phases 1 & 2)	\$6,140	\$16,936	\$16,936	\$40,012
ME-0011	Humble Canal Hydrologic Restoration	\$31,038	\$31,038	\$17,022	\$79,099
ME-0013	Freshwater Bayou Bank Stabilization	\$2,920	\$7,016	\$2,920	\$12,856
ME-0014	Pecan Island Terracing	\$2,920	\$2,920	\$22,776	\$28,616
ME-0016	Freshwater Introduction South of Highway 82	\$30,206	\$29,038	\$15,022	\$74,267
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	\$11,680	\$76,680	\$76,680	\$165,040
ME-0019	Grand-White Lakes Landbridge Protection	\$2,920	\$2,920	\$2,920	\$8,760
ME-0020	South Grand Chenier Hydrologic Restoration Project	\$2,920	\$2,920	\$2,920	\$8,760
ME-0022	South White Lake Shoreline Protection	\$2,920	\$2,920	\$2,920	\$8,760
MR-0003	West Bay Sediment Diversion	\$176,440	\$14,600	\$5,840	\$196,880
MR-0006	Channel Armor Gap Crevasse	\$4,672	\$0	\$0	\$4,672
MR-0009	Delta-Wide Crevassees	\$162,943	\$4,672	\$4,672	\$172,287
PO-0006	Fritchie Marsh Restoration	\$14,600	\$11,680	\$4,380	\$30,660
PO-0016	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	\$2,920	\$2,920	\$2,920	\$8,760
PO-0018	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	\$2,920	\$2,920	\$2,920	\$8,760
PO-0022	Bayou Chevee Shoreline Protection	\$8,760	\$7,592	\$8,760	\$25,112
PO-0024	Hopedale Hydrologic Restoration	\$2,920	\$2,920	\$2,920	\$8,760
PO-0033	Goose Point/Point Platte Marsh Creation	\$8,760	\$2,336	\$2,336	\$13,432
PO-0104	Bayou Bonfouca Marsh Creation	\$44,675	\$43,784	\$2,336	\$90,795
TE-0020	Isle Dernieres Restoration East Island	\$21,024	\$2,920	\$0	\$23,944
TE-0026	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	\$21,024	\$2,336	\$2,336	\$25,696
TE-0028	Brady Canaly Hydrologic Restoration	\$46,024	\$30,840	\$36,680	\$113,544
TE-0034	Penchant Basin Natural Resources Plan, Increment 1	\$92,520	\$55,840	\$5,840	\$154,200
TE-0037	New Cut Dune/Marsh Restoration	\$21,024	\$5,840	\$3,504	\$30,368
TE-0040	Timbalier Island Dune/Marsh Restoration	\$11,680	\$20,440	\$2,336	\$34,456
TE-0044	North Lake Mechant Landbridge Restoration	\$28,032	\$28,032	\$3,504	\$59,568
TE-0046	West Lake Boudreaux Shoreline Protection and Marsh Creation	\$2,628	\$20,615	\$18,104	\$41,347
TE-0048	Raccoon Island Shoreline Protection/Marsh Creation	\$68,760	\$48,760	\$5,840	\$123,360
TE-0050	Whiskey Island Back Barrier Marsh Creation	\$21,024	\$5,840	\$3,504	\$30,368
TE-0052	West Belle Pass Barrier Headland Restoration	\$5,840	\$2,920	\$2,920	\$11,680
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	\$2,920	\$5,840	\$5,840	\$14,600
TV-0004	Cote Blanche Hydrologic Restoration	\$2,920	\$2,920	\$2,920	\$8,760
TV-0012	Little Vermilion Bay Sediment Trapping	\$2,920	\$2,920	\$0	\$5,840
TV-0013-A	Oaks/Avery Canal Hydrologic Restoration, Increment 1	\$8,968	\$16,936	\$16,936	\$42,840
TV-0014	Marsh Island Hydrologic Restoration	\$6,966	\$20,982	\$16,936	\$44,884
TV-0015	Sediment Trapping at "The Jaws"	\$16,936	\$2,920	\$2,920	\$22,776
TV-0017	Lake Portage Land Bridge	\$16,936	\$16,936	\$2,920	\$36,792

Table B-6. CWPBRA Monitoring Projected Expenditures

Project No.	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
TV-0018	Four Mile Canal Terracing and Sediment Trapping	\$2,920	\$2,920	\$8,760	\$14,600
TV-0021	East Marsh Island Marsh Creation	\$11,362	\$12,264	\$20,706	\$44,333
TV-0063	Coles Bayou Marsh Restoration	\$8,760	\$28,864	\$16,936	\$54,560
CRMS	Coastwide Reference Monitoring System	\$8,667,740	\$8,995,740	\$9,192,820	\$26,856,300
Total Expenditures		\$10,494,018	\$10,510,258	\$10,501,213	\$31,505,489
Federal CWPBRA Monitoring Expenditures		\$8,919,915	\$8,933,719	\$8,926,031	\$26,779,665
Trust Fund CWPBRA Monitoring Expenditures		\$1,574,103	\$1,576,539	\$1,575,182	\$4,725,823

Table B-7. Projected Expenditures for Monitoring of WRDA Projects

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
BA-0001	Davis Pond Freshwater Diversion	\$653,999	\$693,455	\$700,557	\$2,048,011
BS-0008	Caernarvon Freshwater Diversion	\$536,352	\$567,572	\$587,990	\$1,691,914
Total Expenditures (GOMESA) ¹		\$1,190,351	\$1,261,027	\$1,288,547	\$3,739,924

Notes:

1- Monitoring expenditures of WRDA projects are subject to a 75% federal/25% state cost share. For FY 2019-2021, CPRA is funding its 25% cost share of monitoring costs with GOMESA funds, and will seek reimbursement from the USACE for the 75% federal match.

Table B-8. Projected Expenditures for Monitoring of Other Projects

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
Berm to Barrier Projects¹					
BA-0040	Riverine Sand Mining/Scofield Island Restoration	\$84,372	\$5,840	\$5,840	\$96,052
BA-0110	Shell Island East	\$14,600	\$17,300	\$4,380	\$36,280
NFWF Projects					
BA-0143	Caminada Headland Beach and Dune Restoration Increment 2	\$353,360	\$351,024	\$291,024	\$995,408
NRDA Projects					
BA-0111	Shell Island West	\$134,678	\$26,424	\$91,024	\$252,126
BA-0141	NRDA Lake Hermitage Marsh Creation Increment 2	\$58,360	\$81,024	\$31,680	\$171,064
BA-0142	NRDA Cheniere Ronquille	\$114,040	\$26,424	\$91,024	\$231,488
TE-0100	NRDA Caillou Lake Headlands	\$164,300	\$131,024	\$141,024	\$436,348
Surplus Projects²					
BA-0045	Caminada Headland Restoration	\$96,024	\$80,840	\$0	\$176,864
USACE Mitigation Projects					
BA-0109	HSDRRS Mitigation - WBV	\$11,680	\$11,680	\$11,680	\$35,040
BA-0154	Previously Authorized Mitigation - WBV	\$11,680	\$11,680	\$11,680	\$35,040
BA-0158	New Orleans to Venice Mitigation - Plaquemines Non-Federal	\$7,300	\$7,300	\$0	\$14,600
BA-0159	New Orleans to Venice Mitigation - Federal	\$7,300	\$7,300	\$0	\$14,600
PO-0038-SF	MRGO Closure Structure	\$7,300	\$7,300	\$0	\$14,600
PO-0093	MRGO - Lake Borgne -Bayou Dupre Segment	\$7,300	\$7,300	\$0	\$14,600
PO-0094	MRGO - Lake Borgne -Bayou Bienvenue Segment	\$7,300	\$7,300	\$0	\$14,600
PO-0095	MRGO - Lake Borgne -Shell Beach Segment	\$7,300	\$7,300	\$0	\$14,600
PO-0121	HSDRRS Mitigation - LPV	\$7,300	\$7,300	\$7,300	\$21,900
PO-0145	LPV Task Force Guardian Mitigation - Bayou Sauvage	\$7,300	\$7,300	\$7,300	\$21,900
PO-0146	LPV Mitigation Project, Manchac WMA Marsh Creation	\$7,300	\$7,300	\$7,300	\$21,900
LOSCO Projects					
BA-0196	LOSCO- EML	\$36,680	\$36,680	\$31,680	\$105,040
LA-0278	General Oil Spill- LOSCO	\$11,680	\$11,680	\$11,680	\$35,040
LA-0283	Multiple Oil Spill- LOSCO	\$41,024	\$41,024	\$41,024	\$123,072
State-Only Projects					
PO-0142	Hydrologic Restoration of the Amite River Diversion Canal	\$76,796	\$43,447	\$33,014	\$153,257
PO-0148	Living Shoreline	\$37,916	\$67,131	\$43,755	\$148,802
PO-0152	Lake Borgne and MRGO Shoreline Protection	\$7,300	\$7,300	\$0	\$14,600
Total Expenditures		\$1,320,190	\$1,016,222	\$862,409	\$3,035,419
NFWF Expenditures		\$353,360	\$351,024	\$291,024	\$995,408
NRDA Expenditures		\$471,378	\$264,896	\$354,752	\$1,091,026
Surplus Expenditures		\$96,024	\$80,840	\$0	\$176,864
LOSCO Expenditures		\$89,384	\$89,384	\$84,384	\$263,152
Trust Fund Expenditures		\$310,044	\$230,078	\$132,249	\$672,371

Notes:

1- Monitoring expenditures funded with remaining Berm to Barrier funds (included in Trust Fund Carry Forward in Table 4-1).

2- Monitoring expenditures funded with Surplus funds (see Table B-5).

Table B-9. CWPBRA Projects with O&M Budget Project Expenditures^{1,2,3}

Project No.	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
AT-0002	Atchafalaya Sediment Delivery	\$2,920	\$2,920	\$2,920	\$8,760
AT-0003	Big Island Mining	\$2,920	\$2,920	\$2,920	\$8,760
BA-0002	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	\$28,760	\$24,694	\$22,300	\$75,754
BA-0003-C	Naomi Outfall Management	\$21,740	\$21,740	\$22,616	\$66,096
BA-0020	Jonathan Davis Wetland Protection	\$5,840	\$5,840	\$6,716	\$18,396
BA-0023	Barataria Bay Waterway West Side Shoreline Protection	\$12,650	\$12,876	\$0	\$25,526
BA-0026	Barataria Bay Waterway East Side Shoreline Protection	\$88,756	\$9,216	\$9,456	\$107,428
BA-0027	Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2	\$4,672	\$3,679	\$3,679	\$12,030
BA-0027-C	Barataria Basin Landbridge Shoreline Protection, Phase 3	\$68,176	\$3,679	\$3,679	\$75,534
BA-0027-D	Barataria Basin Landbridge Shoreline Protection Phase 4	\$4,672	\$3,679	\$3,679	\$12,030
BA-0034-2	Hydrologic Restoration and Vegetative Plantings in the des Allemands Swamp	\$4,672	\$4,672	\$4,672	\$14,016
BA-0035	Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	\$9,461	\$9,578	\$10,220	\$29,258
BA-0037	Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake	\$646,680	\$10,337	\$5,490	\$662,506
BA-0038	Pelican Island and Pass La Mer to Chaland Pass Restoration	\$9,928	\$110,045	\$10,045	\$130,018
BA-0039	Bayou Dupont Sediment Delivery System	\$6,140	\$6,140	\$6,140	\$18,420
BA-0041	South Shore of the Pen Shoreline Protection and Marsh Creation	\$281,008	\$13,972	\$14,252	\$309,232
BA-0042	Lake Hermitage Marsh Creation	\$11,797	\$11,972	\$12,147	\$35,916
BA-0048	Bayou Dupont Marsh and Ridge Creation	\$291,200	\$19,856	\$147,785	\$458,841
BA-0068	Grand Liard Marsh and Ridge Restoration	\$301,194	\$19,856	\$63,081	\$384,131
BA-0164	Bayou Dupont Sediment Delivery- Marsh Creation 3	\$9,928	\$99,856	\$9,928	\$119,712
BA-0173	Bayou Grande Chenier Marsh and Ridge Restoration	\$50,000	\$70,440	\$284,046	\$404,486
BS-0003-A	Caernarvon Diversion Outfall Management	\$47,336	\$47,336	\$47,336	\$142,008
BS-0011	Delta Management at Fort St. Philip	\$5,840	\$5,840	\$5,840	\$17,520
BS-0016	South Lake Lery Shoreline and Marsh Restoration	\$5,840	\$5,840	\$5,840	\$17,520
CS-0004-A	Cameron-Creole Maintenance	\$204,200	\$204,200	\$129,200	\$537,600
CS-0011-B	Sweet Lake/Willow Lake Hydrologic Restoration	\$417,848	\$4,088	\$4,380	\$426,316
CS-0020	East Mud Lake Marsh Management	\$576,800	\$5,840	\$5,840	\$588,480
CS-0021	Highway 384 Hydrologic Restoration	\$40,840	\$39,088	\$19,380	\$99,308
CS-0023	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully	\$53,796	\$39,088	\$59,380	\$152,264
CS-0024	Perry Ridge Shore Protection	\$3,796	\$4,088	\$4,380	\$12,264
CS-0027	Black Bayou Hydrologic Restoration	\$5,789,200	\$14,088	\$14,380	\$5,817,668
CS-0028-2	Sabine Refuge Marsh Creation, Increment 2	\$388,760	\$388,760	\$88,760	\$866,280
CS-0028-4	Sabine Refuge Marsh Creation, Increment 4	\$70,625	\$4,088	\$4,380	\$79,093
CS-0028-5	Sabine Refuge Marsh Creation, Increment 5	\$70,625	\$4,088	\$4,380	\$79,093
CS-0029	Black Bayou Culverts Hydrologic Restoration	\$141,680	\$31,680	\$31,680	\$205,040
CS-0030	GIWW - Perry Ridge West Bank Stabilization	\$358,680	\$4,088	\$4,380	\$367,148
CS-0031	Holly Beach Sand Management	\$48,760	\$4,088	\$4,380	\$57,228
CS-0032	East Sabine Lake Hydrologic Restoration	\$4,672	\$4,672	\$4,672	\$14,016
CS-0049	Cameron-Creole Freshwater Introduction - Vegetative Plantings	\$474,600	\$54,088	\$54,380	\$583,068
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	\$3,796	\$4,088	\$195,507	\$203,391
CS-0059	Oyster Bayou Marsh Creation & Terracing	\$3,796	\$202,215	\$4,380	\$210,391
LA-0003-B	Coastwide Nutria Control Program	\$3,454,859	\$3,453,968	\$3,455,500	\$10,364,327
LA-0016	Non-Rock Alternatives for Shoreline Protection Demonstration Project	\$3,796	\$4,088	\$4,380	\$12,264
LA-0039	Coastwide Plantings Program	\$1,189,488	\$1,210,899	\$1,233,862	\$3,634,249
ME-0004	Freshwater Bayou Wetland (Phases 1 & 2)	\$3,796	\$4,088	\$4,380	\$12,264
ME-0011	Humble Canal Hydrologic Restoration	\$28,796	\$19,088	\$19,380	\$67,264
ME-0013	Freshwater Bayou Bank Stabilization	\$3,796	\$4,088	\$4,380	\$12,264
ME-0014	Pecan Island Terracing	\$3,796	\$4,088	\$4,380	\$12,264
ME-0016	Freshwater Introduction South of Highway 82	\$13,796	\$14,088	\$14,380	\$42,264
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	\$3,796	\$4,088	\$4,380	\$12,264
ME-0019	Grand-White Lakes Landbridge Protection	\$3,796	\$4,088	\$4,380	\$12,264
ME-0020	South Grand Chenier Hydrologic Restoration Project	\$3,796	\$4,088	\$4,380	\$12,264
ME-0021	Grand Lake Shoreline Protection (CIAP + Tebo Point)	\$13,796	\$14,088	\$14,380	\$42,264
ME-0022	South White Lake Shoreline Protection	\$3,796	\$4,088	\$4,380	\$12,264
MR-0009	Delta Wide Crevasses	\$20,740	\$300	\$300	\$21,340
PO-0006	Fritchie Marsh Restoration	\$11,680	\$5,840	\$5,840	\$23,360
PO-0016	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	\$27,596	\$27,596	\$27,596	\$82,788
PO-0018	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	\$25,141	\$25,141	\$25,141	\$75,422
PO-0022	Bayou Chevee Shoreline Protection	\$94,016	\$14,016	\$14,016	\$122,048
PO-0024	Hopedale Hydrologic Restoration	\$28,976	\$28,976	\$28,976	\$86,928
PO-0030	Lake Borgne Shoreline Protection	\$826,580	\$6,140	\$6,140	\$838,860
PO-0033	Goose Point/Point Platte Marsh Creation	\$5,840	\$5,840	\$5,840	\$17,520
PO-0075	Labranche East Marsh Creation	\$0	\$4,088	\$4,088	\$8,176
PO-0104	Bayou Bonfouca Marsh Creation Project	\$298,791	\$21,043	\$25,548	\$345,382
PO-0133	Labranche Central Marsh Creation	\$0	\$4,088	\$4,088	\$8,176
TE-0022	Point au Fer Canal Plugs	\$5,840	\$5,840	\$5,840	\$17,520
TE-0023 (USACE)	West Belle Pass Headland Restoration	\$5,840	\$5,840	\$4,672	\$16,352
TE-0026	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	\$491,760	\$250,260	\$5,840	\$747,860
TE-0028	Brady Canal Hydrologic Rest.	\$33,680	\$33,680	\$33,680	\$101,040
TE-0034	Penchant Basin Natural Resources Plan Increment 1	\$118,840	\$118,840	\$5,840	\$243,520
TE-0037	New Cut Dune and Marsh Restoration	\$19,728	\$19,728	\$7,990	\$47,446
TE-0039	South Lake Decade Freshwater Introduction	\$3,504	\$4,672	\$4,672	\$12,848
TE-0043	GIWW Bank Restoration of Critical Areas in Terrebonne	\$4,672	\$4,672	\$4,672	\$14,016
TE-0044	North Lake Mechant Landbridge Restoration	\$88,210	\$88,210	\$5,490	\$181,910
TE-0045	Terrebonne Bay Shore Protection Demonstration	\$475,168	\$4,672	\$4,672	\$484,512
TE-0046	West Lake Boudreaux Shoreline Protection and Marsh Creation	\$5,490	\$5,490	\$5,490	\$16,469
TE-0048	Raccoon Island Shoreline Protection/Marsh Creation	\$2,760,206	\$1,393,297	\$5,490	\$4,158,992
TE-0050	Whiskey Island Back Barrier Marsh Creation	\$7,172	\$7,172	\$7,172	\$21,516

Table B-9. CWPPRA Projects with O&M Budget Project Expenditures^{1,2,3}

Project No.	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
TE-0052	West Belle Pass Barrier Headland Restoration	\$426,736	\$306,213	\$4,672	\$737,621
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	\$83,760	\$83,760	\$83,760	\$251,280
TV-0004	Cote Blanche Hydrologic Restoration	\$21,680	\$21,680	\$21,680	\$65,040
TV-0012	Little Vermilion Bay Sediment Trapping	\$58,176	\$4,088	\$4,380	\$66,644
TV-0013-A	Oaks/Avery Canal Hydrologic Restoration, Increment 1	\$301,344	\$4,088	\$4,380	\$309,812
TV-0014	Marsh Island Hydrologic Restoration	\$3,796	\$4,088	\$4,380	\$12,264
TV-0015	Sediment Trapping at "The Jaws"	\$57,008	\$4,088	\$4,380	\$65,476
TV-0017	Lake Portage Land Bridge	\$3,796	\$4,088	\$4,380	\$12,264
TV-0018	Four Mile Canal Terracing and Sediment Trapping	\$37,008	\$4,088	\$4,380	\$45,476
TV-0021	East Marsh Island Marsh Creation	\$39,774	\$83,184	\$4,380	\$127,338
TV-0063	Coles Bayou Marsh Restoration	\$3,796	\$4,088	\$4,380	\$12,264
TOTAL CWPPRA O&M Expenditures		\$21,702,050	\$8,893,047	\$6,505,411	\$37,100,508
Federal CWPPRA O&M Expenditures		\$18,446,743	\$7,559,090	\$5,529,600	\$31,535,432
State CWPPRA O&M Expenditures		\$3,255,308	\$1,333,957	\$975,812	\$5,565,076

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 a given year have "Not Constructed" entered in the budget column(s).

2. State share is based on CWPPRA cost share of 85% Federal/15% State except for PPL 5-6 projects, which have a 90% Federal/10% State cost share.

3. Projects that the USACE is responsible for O&M are indicated by (USACE) after the project number.

Table B-10. O&M Projected Expenditures for CWPPRA Projects without Federal Cost Share

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
TE-0020	Isles Dernieres Restoration East Island	\$7,172	\$7,172	\$7,172	\$21,516
TE-0024	Isles Dernieres Restoration Trinity Island	\$7,172	\$7,172	\$7,172	\$21,516
TE-0025	East Timbalier Island Sediment Restoration, Phase 1	\$4,672	\$4,672	\$4,672	\$14,016
TE-0027	Whiskey Island Restoration	\$7,172	\$7,172	\$7,172	\$21,516
TE-0030	East Timbalier Island Sediment Restoration, Phase 2	\$4,672	\$4,672	\$4,672	\$14,016
TE-0040	Timbalier Island Dune and Marsh Restoration	\$7,172	\$7,172	\$7,172	\$21,516
Total Expenditures		\$38,032	\$38,032	\$38,032	\$114,096

Table B-11. Projected Expenditures for O&M of WRDA Projects

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
BA-0001	Davis Pond Freshwater Diversion	\$1,072,601	\$1,155,902	\$1,131,443	\$3,359,946
BS-0008	Caernarvon Freshwater Diversion	\$600,484	\$147,128	\$147,128	\$894,740
Total Expenditures (GOMESA) ¹		\$1,673,085	\$1,303,030	\$1,278,571	\$4,254,686

Notes:

1- O&M expenditures of WRDA projects are subject to a 75% federal/25% state cost share. For FY 2019-2021, CPRA is funding its 25% cost share of O&M costs with GOMESA funds, and will seek reimbursement from the USACE for the 75% federal match.

Table B-12. Projected Expenditures for O&M of Other Projects

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
Hurricane Protection Projects					
BA-0066	West Bank and Vicinity ¹	\$455,024	\$506,575	\$359,144	\$1,320,743
BA-0067	New Orleans and Vicinity ¹	\$455,398	\$529,168	\$550,420	\$1,534,986
LA-0154	FEMA LAMP ¹	\$132,147	\$109,717	\$0	\$241,864
LA-0206	HSDRRS Armoring ¹	\$349,523	\$379,479	\$412,805	\$1,141,807
LA-0253	Flood Protection Inspections ¹	\$263,257	\$276,270	\$292,583	\$832,110
LA-0269	CPRA Letter of No Objection	\$485,888	\$510,182	\$535,691	\$1,531,761
LA-0271	O&M Division State Wide Levee Board Meetings	\$172,490	\$181,115	\$190,170	\$543,775
PO-0057	SELA- Overall ¹	\$156,441	\$158,264	\$150,133	\$464,838
PO-0060	Permanent Canal Closures and Pump Stations ¹	\$2,609,325	\$1,114,791	\$51,018	\$3,775,134
PO-0063	Lake Pontchartrain and Vicinity ¹	\$553,245	\$617,707	\$379,232	\$1,550,184
PO-0096	Flood Protection Assistance ¹	\$2,371,472	\$1,377,546	\$2,683,923	\$6,432,941
USACE Mitigation Projects					
BA-0109	HSDRRS Mitigation - WBV	\$7,008	\$12,614	\$18,688	\$38,310
BA-0154	Previously Authorized Mitigation - WBV	\$7,008	\$12,614	\$18,688	\$38,310
BA-0158	New Orleans to Venice Mitigation - Plaquemines Non-Federal	\$7,008	\$7,008	\$7,008	\$21,024
	New Orleans to Venice Mitigation - Federal	\$7,008	\$7,008	\$7,008	\$21,024
PO-0038SF	MRGO Closure Structure	\$294,080	\$61,960	\$61,960	\$418,000
PO-0093	MRGO - Lake Borgne -Bayou Dupre Segment	\$8,184	\$8,184	\$8,184	\$24,552
PO-0094	MRGO - Lake Borgne -Bayou Bienvenue Segment	\$8,184	\$8,184	\$8,184	\$24,552
PO-0095	MRGO - Lake Borgne -Shell Beach Segment	\$8,184	\$8,184	\$8,184	\$24,552
PO-0121	HSDRRS Mitigation - LPV	\$39,343	\$39,343	\$39,343	\$118,030
PO-0145	LPV Task Force Guardian Mitigation - Bayou Sauvage	\$18,688	\$18,688	\$18,688	\$56,064
PO-0146	LPV Mitigation Project, Manchac WMA Marsh Creation	\$13,114	\$13,114	\$13,114	\$39,343
PO-0152	Lake Borgne and MRGO Shoreline Protection	\$8,184	\$8,184	\$8,184	\$24,552
State-Only Projects					
BA-0003	Naomi Siphon	\$26,680	\$12,180	\$12,180	\$51,040
BA-0004	West Point a la Hache Siphon	\$26,680	\$12,180	\$12,180	\$51,040
BA-0005	Fort Livingston	\$90,740	\$90,740	\$27,892	\$209,372
CS-0002	Rycade Canal	\$82,008	\$0	\$0	\$82,008
LA-0273	Gulf Coast Joint Venture and Partnerships	\$8,576	\$8,576	\$8,576	\$25,728
ME-0001	Pecan Island Structure	\$13,796	\$14,088	\$14,380	\$42,264
PO-0001	Violet Siphon	\$325,680	\$25,680	\$25,680	\$377,040
PO-0036	Orleans Landbridge	\$7,308	\$7,308	\$7,308	\$21,924
PO-0072	Biloxi Marsh	\$41,208	\$40,274	\$40,274	\$121,755
PO-0142	Hydrologic Restoration of the Amite River Diversion Canal	\$13,114	\$13,114	\$13,114	\$39,343
PO-0148	Living Shoreline	\$52,521	\$56,673	\$56,673	\$165,867
TE-0001	Montegut Wetlands	\$5,840	\$5,840	\$5,840	\$17,520
TE-0003	Bayou LaCache Wetlands	\$108,760	\$108,760	\$108,760	\$326,280
TV-xx	Quintana Canal	\$2,034,795	\$14,088	\$14,380	\$2,063,263
TV-0013-B	Avery Canal	\$83,796	\$14,088	\$14,380	\$112,264
N/A	Maintenance Surveys	\$33,288	\$33,288	\$33,288	\$99,864
N/A	GPS Network (continued development and maintenance)	\$78,796	\$79,088	\$75,000	\$232,884
Total Expenditures		\$11,463,790	\$6,501,865	\$6,292,258	\$24,257,913
Surplus Expenditures		\$6,133,800	\$3,825,920	\$3,800,048	\$13,759,768
Trust Fund Expenditures		\$5,329,990	\$2,675,945	\$2,492,210	\$10,498,145

Notes:

1- Expenditures funded with Surplus funds (see Table B-5).

Table B-13. Oil Spill Projected Expenditures¹

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
Deepwater Horizon NRDA					
BA-0153	Mid-Barataria Sediment Diversion (Construction)	\$0	\$348,913,760	\$248,913,760	\$597,827,520
BA-0202	Queen Bess Island Restoration	\$1,200,000	\$18,600,000	\$0	\$19,800,000
BA-0203	Barataria Basin Ridge and Marsh Restoration-Spanish Pass Increment	\$1,500,000	\$500,000	\$0	\$2,000,000
CS-0080	Rabbit Island Restoration	\$1,400,000	\$700,000	\$24,000,000	\$26,100,000
PO-0180	Lake Borgne Marsh Creation- Increment 1	\$2,000,000	\$1,000,000	\$20,500,000	\$23,500,000
TE-0100	NRDA Caillou Lake Headlands	\$15,000,000	\$0	\$0	\$15,000,000
TE-0139	Terrebonne Basin Ridge and Marsh Creation-Bayou Terrebonne Increment	\$2,900,000	\$1,950,000	\$500,000	\$5,350,000
N/A	NRDA Replenish and Protect Living Coastal and Marine Resources	\$2,820,000	\$26,000,000	\$26,000,000	\$54,820,000
N/A	NRDA Recreational Use 1	\$22,000,000	\$0	\$0	\$22,000,000
N/A	NRDA Recreational Use 2	\$25,000,000	\$13,000,000	\$0	\$38,000,000
N/A	NRDA Bird Islands	\$1,000,000	\$5,000,000	\$2,000,000	\$8,000,000
N/A	NRDA Restoration Planning	\$2,555,433	\$2,346,016	\$2,062,575	\$6,964,024
N/A	NRDA Nutrient Reduction	\$3,000,000	\$3,000,000	\$3,000,000	\$9,000,000
N/A	Regionwide Trustee Implementation Group	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
N/A	NRDA Adaptive Management	\$12,250,000	\$14,258,475	\$14,458,475	\$40,966,949
N/A	NRDA OM&M (See Table B-8)	\$471,378	\$264,896	\$354,752	\$1,091,026
Total Deepwater Horizon NRDA Expenditures		\$94,096,811	\$436,533,147	\$342,789,562	\$873,419,519
NFWF Projects					
BA-0153	Mid-Barataria Sediment Diversion (E&D)	\$34,920,464	\$45,331,822	\$6,318,378	\$86,570,664
BS-0030	Mid-Breton Sediment Diversion	\$20,639,935	\$18,268,293	\$29,437,186	\$68,345,414
LA-0276	Sediment Diversion Management	\$3,756,507	\$4,303,893	\$2,212,874	\$10,273,274
TE-0110	Increase Atchafalaya Flow to Eastern Terrebonne	\$5,449,090	\$5,449,090	\$5,449,090	\$16,347,271
TE-0143	Terrebonne Basin Barrier Island and Beach Nourishment ²	\$1,500,000	\$50,000,000	\$0	\$51,500,000
N/A	NFWF Adaptive Management	\$6,860,300	\$10,016,905	\$8,855,405	\$25,732,610
N/A	NFWF OM&M (See Table B-8)	\$353,360	\$351,024	\$291,024	\$995,408
Total NFWF Expenditures		\$73,479,656	\$133,721,027	\$52,563,957	\$259,764,641
RESTORE Projects					
BA-0197	West Grand Terre Beach Nourishment and Stabilization	\$2,700,000	\$3,000,000	\$20,000,000	\$25,700,000
MR-0168	Lowermost Mississippi River Management Program	\$3,000,000	\$3,000,000	\$2,700,000	\$8,700,000
CS-0065	Calcasieu Ship Channel Salinity Control Measures	\$7,363,739	\$4,250,380	\$17,134,293	\$28,748,412
PO-0029	Mississippi River Reintroduction into Maurepas Swamp	\$5,000,000	\$5,000,000	\$28,700,000	\$38,700,000
PO-0163	Golden Triangle Marsh Creation	\$750,000	\$750,000	\$20,000,000	\$21,500,000
PO-0174	Biloxi Marsh Living Shoreline	\$900,000	\$700,000	\$10,400,000	\$12,000,000
TE-0113	Houma Navigation Canal Lock Complex	\$10,103,415	\$30,188,120	\$87,074,000	\$127,365,535
N/A	RESTORE Adaptive Management	\$6,525,000	\$6,511,780	\$6,511,780	\$19,548,559
N/A	RESTORE Bucket 2 Planning Grants	\$500,000	\$500,000	\$500,000	\$1,500,000
N/A	Parish Matching Program- Projects ³	\$6,750,000	\$9,750,000	\$3,500,000	\$20,000,000
N/A	Parish Matching Program- CPRA Costs	\$300,000	\$700,000	\$254,849	\$1,254,849
N/A	RESTORE Center of Excellence	\$1,800,000	\$1,500,000	\$1,500,000	\$4,800,000
Total RESTORE Expenditures		\$45,692,154	\$65,850,280	\$198,274,922	\$309,817,355
Total Oil Spill Expenditures		\$213,268,620	\$636,104,453	\$593,628,441	\$1,443,001,515
GOMESA Oil Spill Expenditures		\$0	\$0	\$0	\$0
Surplus Oil Spill Expenditures		\$0	\$0	\$0	\$0
State Oil Spill Expenditures		\$213,268,620	\$636,104,453	\$593,628,441	\$1,443,001,515

Notes:

1- **Red font** denotes projected expenditures for which funding has not yet been procured.

2- Project will utilize funding initially approved for East Timbalier Island Restoration (TE-0118).

3- Expenditures represent potential matching funds for project implementation to eligible parishes identified in 33 U.S.C. §1321(t)(1)(D)(II) provided that the project constitutes an eligible activity under 31 C.F.R. §§ 34.201 and 34.203 and meets the purposes identified in La. R.S. 49:214.5.4(G) & (I).

Table B-14. GOMESA Projected Expenditures

Project ID	Project Name	FY 2019	FY 2020	FY 2021	Project Total (FY 2019 - FY 2021)
N/A	40 Arpent Canal Levee- Lockport Co. Canal to Butch Hill Station (NLLD)	\$100,000	\$5,450,000	\$0	\$5,550,000
N/A	Hollywood Canal Closure Structure (NLLD)	\$72,500	\$0	\$1,427,500	\$1,500,000
N/A	Reach L (SLLD)	\$500,000	\$4,000,000	\$2,000,000	\$6,500,000
N/A	Little Bayou Bleu (SLLD)	\$400,000	\$0	\$0	\$400,000
N/A	Reach L Mitigation (SLLD)	\$200,000	\$0	\$1,000,000	\$1,200,000
N/A	Rosethorne Basin Phase 1 & 2 (LAILD)	\$7,000,000	\$4,000,000	\$0	\$11,000,000
N/A	Grand Isle Beach Stabilization (GIILD)	\$8,500,000	\$7,000,000	\$0	\$15,500,000
N/A	West Shore Lake Pontchartrain (PLD)	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000
N/A	NF-06a.1 Drainage Canal Relocation ROW Acquisition (Plaquemines Parish)	\$6,000,000	\$0	\$0	\$6,000,000
N/A	Magnolia Ridge Levee Lift and Road (St. Charles Parish)	\$3,500,000	\$0	\$0	\$3,500,000
N/A	30% E&D- Phases 1-3 (St. James Parish)	\$500,000	\$500,000	\$0	\$1,000,000
N/A	Davis Pond Upper Barataria Risk Reduction (LBLD)	\$1,500,000	\$1,500,000	\$3,000,000	\$6,000,000
N/A	St. Tammany Ring Levee (St. Tammany Parish)	\$3,000,000	\$3,000,000	\$3,000,000	\$9,000,000
N/A	H&H Study (Vermilion Parish)	\$600,000	\$0	\$0	\$600,000
N/A	GOMESA CPRA Allocation	\$3,500,000	\$3,500,000	\$3,500,000	\$10,500,000
N/A	GOMESA OM&M- Diversions	\$7,863,436	\$2,564,057	\$7,567,118	\$17,994,610
N/A	GOMESA Adaptive Management (See Table 4-3)	\$2,735,000	\$4,035,000	\$4,635,000	\$11,405,000
N/A	Future GOMESA Projects (TBD) ¹	\$0	\$70,500,000	\$44,000,000	\$114,500,000
Total Expenditures		\$47,970,936	\$108,049,057	\$72,129,618	\$228,149,611

Notes:

1- GOMESA funding in outlying years is contingent upon receipt of sufficient funding. Projects proposed to begin receiving funding in FY 2020-2021 include the following:

- Goose Bayou (Penn Levee (LAILD)- FY 2021
- Pumping Capacity Improvements Phase 1 (BLFWD)- FY 2020
- Bayou Chene Option 1 (SMLD)- FY 2020
- 100-Year Levee Lift- NOV-NF-W-4, Oakville to LaReusitte and MRL 179 (Plaquemines Parish)- FY 2020
- PrB Levvee (Iberia Parish)- FY 2021
- Kellog Pump Station T-Wall (St. Charles Parish)- FY 2020
- Magnolia Ridge Levee Pipeline and T-Wall (St. Charles Parish)- FY 2021
- Levee Reach 1 (Vermilion Parish)- FY 2021
- Sunset Levee Upper Barataria Risk Reduction (LBLD)- FY 2020

Appendix C

Barrier Island Status Report

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BARRIER ISLAND STATUS REPORT

Fiscal Year 2019 Annual Plan

In compliance with Act 297 of the 2006 Regular Legislative Session, the Coastal Protection and Restoration Authority (CPRA) provides this barrier island status report as part of the Annual Plan document, which will be submitted to each member of the Louisiana Legislature. The current Barrier Island Status report is available electronically at the CPRA website. Please visit www.coastal.la.gov to download and review the full report. A summary of the report is provided below.

Constructed Projects

The coastlines of the modern Mississippi River delta plain are bordered by numerous barrier islands from Racoon Island in the west to Hewes Point in the northern Chandeleur Islands (Figure 1). These barrier islands could be grouped to represent fragmented remnants of distal extremities of several major delta lobes and headlands: to identify these barrier islands with their respective delta lobes they have been grouped from west to east as the Early Lafourche Delta System, Late Lafourche Delta System, Modern Delta System, and the St. Bernard Delta System. The back-barrier lagoons are connected to the Gulf of Mexico by approximately 25 tidal inlets which separate these barrier islands from each other and allow the exchange of diurnal tides.

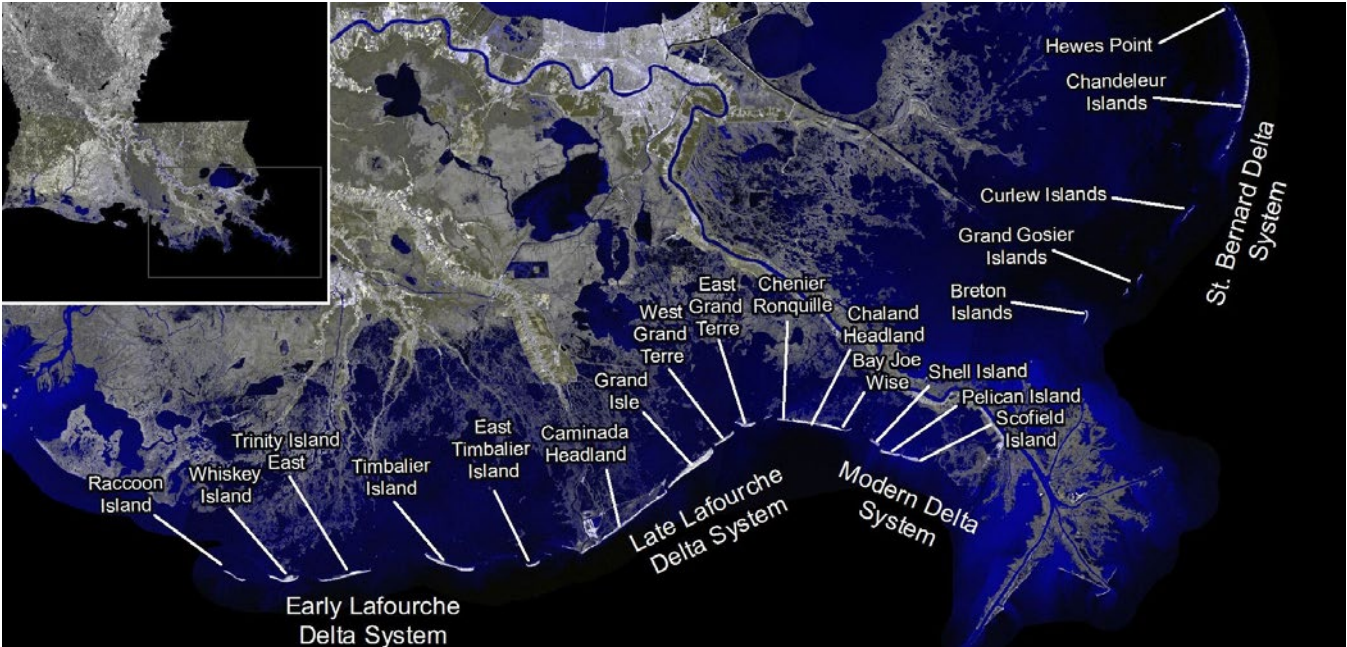


Figure 1. Location of barrier islands and Barrier Island Delta Systems in Louisiana

The restoration of Louisiana's barrier islands and barrier island systems has been a priority for a number of restoration programs over the past several decades and 39 barrier island projects have been constructed to date (including 12 in the Early Lafourche Delta System, 16 in the Late Lafourche Delta System, 9 in the Modern Delta System, and 2 in the St. Bernard Delta System: see Table 1). Most of these constructed barrier island projects have been monitored, and their performance has been assessed to adaptively improve resilience and persistence of these projects and future barrier island projects.

With several major restoration projects in place, the post-restoration estimated Year of Disappearance (YOD) for several barrier island systems in Louisiana have been extended from years to decades. This increase in island longevity throughout the system is a direct benefit of the restoration projects. Further, with the increase in both frequency and intensity of major hurricanes over the past decade (and similar projections into the future), in the absence of the restoration and protection program, it is expected many of these islands would have disappeared much sooner than original projections.

Monitoring and Maintenance

Louisiana's barrier islands are part of a complex system controlled by many overlapping and interrelated processes. The four primary barrier island systems have been monitored and evaluated by recent efforts, such as the Barrier Island Comprehensive Monitoring (BICM) program, the monitoring of the Emergency Berms, and project specific efforts. These programs have provided information to CPRA regarding the current condition and stability of Louisiana's barrier islands. To minimize the acceleration of island disintegration that commonly occurs after a breach, a barrier island Breach Management Program is currently being developed to address both breach prevention and response to breaches when they occur. This program will considerably improve the state's ability to repair storm-induced damages and extend the life-expectancy and integrity of Louisiana's barrier shorelines. Finally, to ensure the efficient and effective use of limited sediment resources in Louisiana, a number of programs/projects, including Borrow Area Monitoring and Maintenance (BAMM) and the Louisiana Sand Resources Database (LASARD), have been initiated under the overarching umbrella of the Louisiana Sediment Management Plan (LASMP). In order to monitor the impact of loading of sand to build beach and dune and restore the barrier islands/headlands, a CIAP-funded Caminada Moreau Subsidence Study (CMSS) was undertaken.

A final report entitled "Louisiana Barrier Island Comprehensive Monitoring (BICM) Program Summary Report: Data and Analyses 2006 through 2010: U.S. Geological Survey Open-File Report 2013-1083" was published as a USGS open file and can be accessed online at <http://cims.coastal.la.gov/DocLibrary/DocumentSearch.aspx?Root=0&Folder=0> (Kindinger et al 2013). The BICM program used both historical and newly acquired (2006 - 2010) data to assess and monitor changes in the aerial and subaqueous extent of islands, habitat types, sediment texture and geotechnical properties, environmental processes, and vegetation composition. BICM datasets included aerial still and video photography (multiple time series) for shoreline assessment, shoreline position, habitat mapping, and land loss from CIR aerial photography light detection and ranging (LiDAR) surveys for topographic elevations; single-beam and swath bathymetry; and sediment grab samples. The BICM program has begun a new data collection cycle in 2015 with plans to complete analysis and reporting in 2019.

Barrier Island Performance Assessment

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. Barrier island stability is affected by a number of factors, including settlement, overwash, offshore loss of sediment, longshore transport, and island breaching. Each of these factors is discussed in the context of recent high-frequency data collection.

Shoreline erosion data from BICM 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. However, recent information from the post-BICM studies elucidates the benefits of recent restoration projects. The full report includes a presentation of the overall findings from BICM and detailed discussion of recent shoreline change rates by geomorphologic delta complex. Additionally, the BICM program is currently updating shoreline change rates for the entire coast thru 2012, with plans to develop 2015 data.

Minimized Design Template

The minimized design template is defined as a design template with minimal barrier island dimensions that restores the barrier shoreline’s geomorphic form and ecologic function and retains this form and function after being subjected to the design storm events.

A minimized design template was previously developed for the Terrebonne Basin barrier shorelines extending from East Timbalier Island to Raccoon Island as part of the Louisiana Coastal Area program for the Terrebonne Basin Barrier Shoreline Restoration Project (TBBSR). Efforts related to modeling for 2017 Master Plan project evaluations have led to development of a minimal design template for the coast. Future efforts related to regional project evaluation and prioritizations can utilize this minimal design, allowing valid comparisons and prioritization areas along the coast using an un-biased approach. Table 2 in the full report presents the dimensions of the minimized restoration templates.

Future Plans

Louisiana has invested hundreds of millions of dollars over the past two decades restoring its barrier islands and shorelines and plans to continue to invest in rebuilding these features. Unlike the 2012 Coastal Master Plan, which called for restoration of specific barrier islands, the 2017 Coastal Master Plan recommends funding Louisiana’s Barrier Island Program, which CPRA is currently developing. Rather than recommending specific barrier island and shoreline projects and assigning them to a certain implementation period, CPRA intends to restore the Terrebonne, Timbalier, and Barataria barrier islands and shorelines as part of a regular rebuilding program. In addition, CPRA plans to continue system-wide monitoring, exploration and management of compatible sediment via acquisition of geotechnical and geophysical data, and improving overall understanding of sediment management requirements to support the sediment needs and prioritization of the current 2017 Coastal Master Plan projects. This will allow monitoring and assessment of these critical features to drive project investment and for CPRA to be able to nimbly react when catastrophic events like future hurricanes impact these areas.

Table 1. List of Constructed, Funded for Construction, and Future Barrier Island Projects in Louisiana

Barrier Shoreline Restoration Projects	Funding Program	Construction Date
Early Lafourche Barrier System		
Constructed Projects		
1 Raccoon Island Repair (TE-0106)	Various	1994
2 Barrier Island Sand Retention (TE-0004b)	FEMA	1995
3 Raccoon Island Breakwaters (TE-0029)	CWPPRA	1997
4 Raccoon Island Shoreline Protection/ Marsh Creation (TE-0048)	CWPPRA	2007, 2013
5 Whiskey Island Restoration (TE-0027)	CWPPRA	1999
6 Whiskey Island Back Barrier Marsh Creation (TE-0050)	CWPPRA	2009
7 Enhancement of Barrier Island and Salt Marsh Vegetation DEMO (TE-0053)	CWPPRA	2012
8 Isles Dernieres Restoration Trinity Island (TE-0024)	CWPPRA	1999
9 New Cut Dune and Marsh Restoration (TE-0037)	CWPPRA	2007
10 Isles Dernieres Restoration East Island (TE-0020)	CWPPRA	1999
11 BIMP 2009 Sand Fencing (LA-0246)	STATE	2009
12 Wine Island Revegetation Project	FEMA	1995
Funded for Construction		
1 NRDA Caillou Lake Headlands (TE-0100) (under construction) (includes Ship Shoal: Whiskey West Flank Restoration (TE-0047))	NRDA	2018
Future Projects		
None		

Barrier Shoreline Restoration Projects	Funding Program	Construction Date
Late Lafourche Barrier System		
Constructed Projects		
1 Barrier Island Sand Retention (TE-0004b)	FEMA	1995
2 Timbalier Island Planting Demonstration (TE-18)	CWPPRA	1996
3 Timbalier Island Dune and Marsh Creation (TE-40)	CWPPRA	2004
4 BIMP 2009 Sand Fencing (LA-0246)	STATE	2009
5 East Timbalier Island Sediment Restoration, Phase 1 (TE-25)	CWPPRA	2000
6 East Timbalier Island Sediment Restoration, Phase 2 (TE-30)	CWPPRA	2000
7 West Belle Pass Barrier Headland Restoration (TE-52)	CWPPRA	2012
8 Caminada Headland Beach and Dune Restoration (BA-45)	CIAP/ STATE	2015
9 Grand Isle Bay Side Breakwaters (BA-0187)	STATE	
10 Fifi Island Restoration (BA-0155)	CIAP	2015
11 Fifi Island Breakwater (BA-0168)	CIAP	2015
12 Grand Isle and Vicinity Hurricane Protection	WRDA	2010
13 Vegetative Planting of a Dredged Material Disposal Site on Grand Terre (BA-28)	CWPPRA	2001
14 Restoration on West Grand Terre Island at Fort Livingston (BA-0186)	NOAA	2003
15 East Grand Terre Island Restoration (BA-30)	CIAP	2010
16 Caminada Headland Beach and Dune Restoration, Increment 2 (BA-143)	NFWF	2016
Future Projects		
1 East Timbalier Island (TE-0118) (in design)	NFWF	TBD
2 West Grand Terre Beach Nourishment and Stabilization Project (BA-0197) (in design)	RESTORE	TBD
3 Caminada Back Barrier Marsh Creation (BA-0171) (in design)	CWPPRA	TBD
4 Caminada Back Barrier Marsh Creation Increment 2 (BA-0193) (in design)	CWPPRA	TBD

Barrier Shoreline Restoration Projects	Funding Program	Construction Date
Modern Barrier System		
Constructed Projects		
1 Pass La Mer to Chaland Pass (BA-38, part 1) also known as "Chaland Headland"	CWPPRA	2007
2 BIMP 2009 Sand Fencing (LA-0246)	STATE	2009
3 Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35) also known as "Bay Joe Wise"	CWPPRA	2009
4 Barataria Barrier Island Complex Project: Pelican Island and Pass (BA-38, part 2)	CWPPRA	2012
5 Emergency Berms W8, W9, W10	Berm Funds	2010-2011
6 Riverine Sand Mining/Scofield Island Restoration (BA-40)	CWPPRA/ Berm Funds	2013
7 Shell Island Restoration East Berm (BA-110)	Berm Funds	2013
8 Chenier Ronquile Barrier Island Restoration (BA-76)	NRDA	2017
9 Shell Island Restoration West NRDA (BA-111)	NRDA	2017
Funded for Construction		
None		
Future Projects		
None		

Barrier Shoreline Restoration Projects	Funding Program	Construction Date
St. Bernard Delta System		
Constructed Projects		
1 Chandeleur Islands Marsh Restoration (PO-27)	CWPPRA	2001
2 Emergency Berms E4	Berm Funds	2010
Funded for Construction		
None		
Future Projects		
1 Louisiana Outer Coast Restoration: Breton Island (in design)	NRDA	TBD

Appendix D

Caernarvon & Davis Pond Operational Plans for 2018

Available Online (<http://coastal.la.gov/diversion-operations/>)

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Appendix E

Inventory of Non-State Projects

A. Federal Protection Projects

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- Legend
- Levee Construction Type
- Earthen Levee

I-Wall

Sheet Pile

Control Structure

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



- 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





- Legend**
- Levee Construction Type**
- Earthen Levee
 - I-Wall
 - Control Structure
 - Control Structure
 - Pump Station
 - Water Bodies

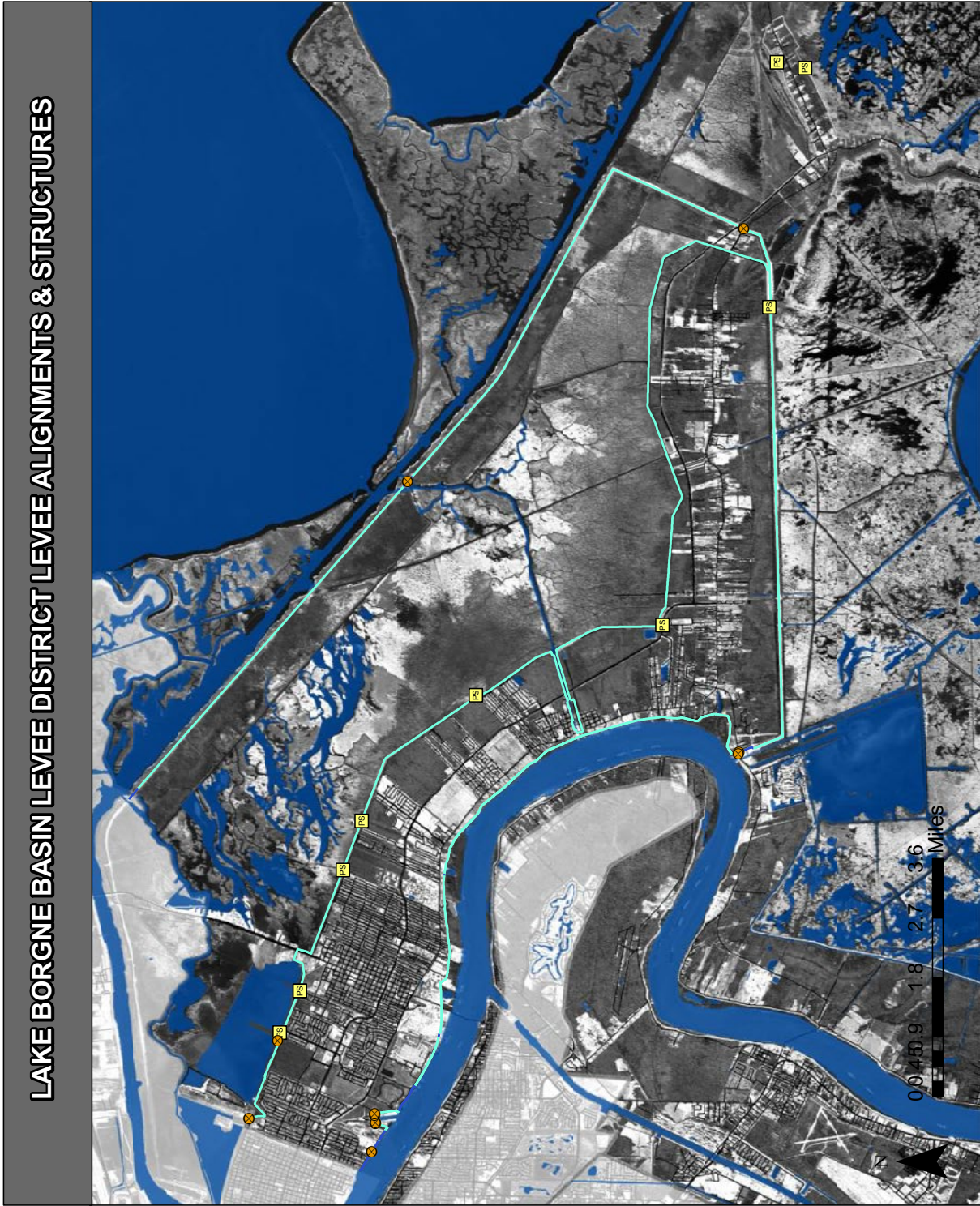


Map by: Louisiana Office of
Coastal Protection & Restoration

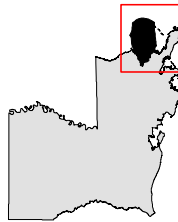
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Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR



- Legend**
- Levee Construction Type**
- Earthen Levee
 - I-wall
 - Control Structure
 - Flood Gate
 - Pump Station
 - Water Bodies

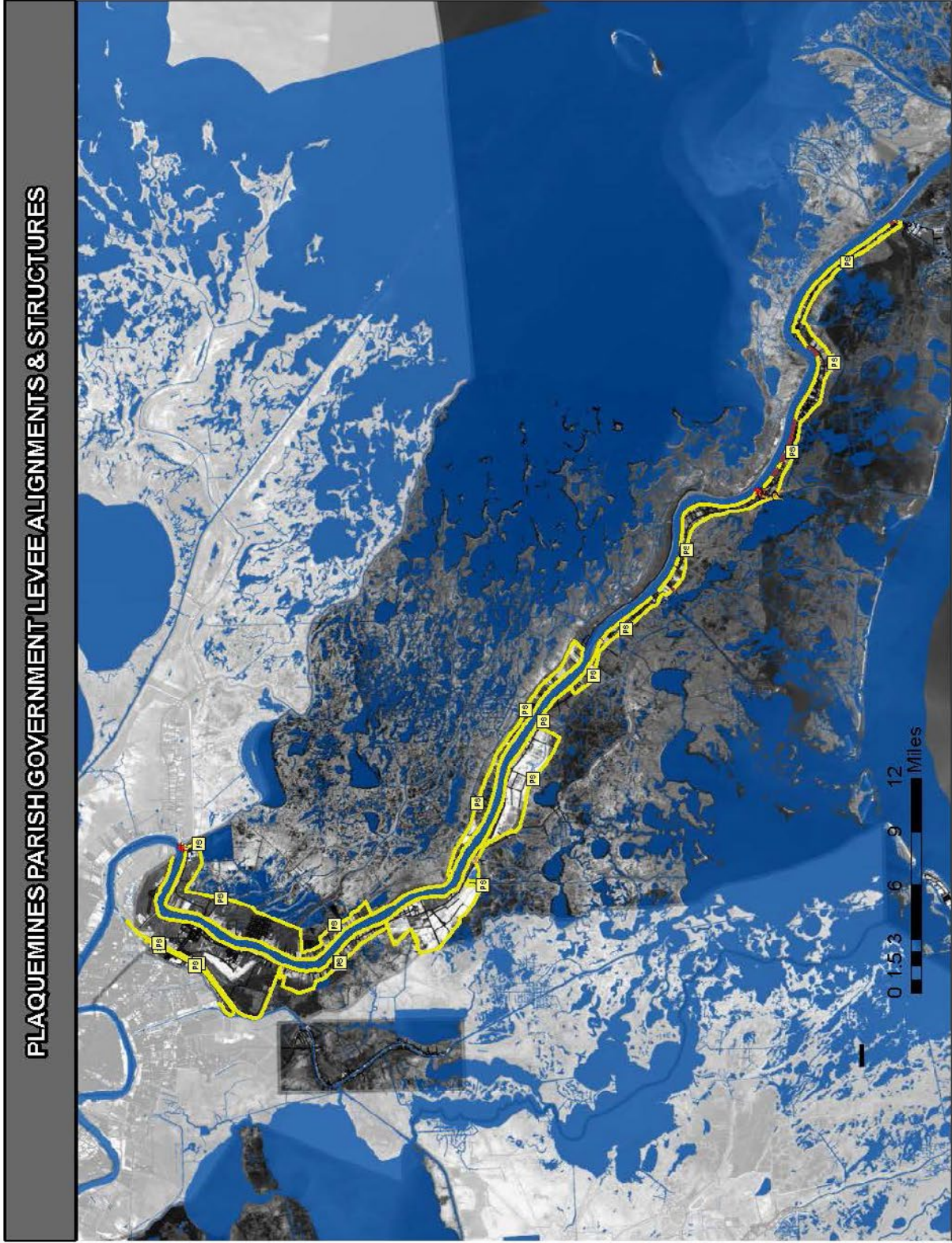
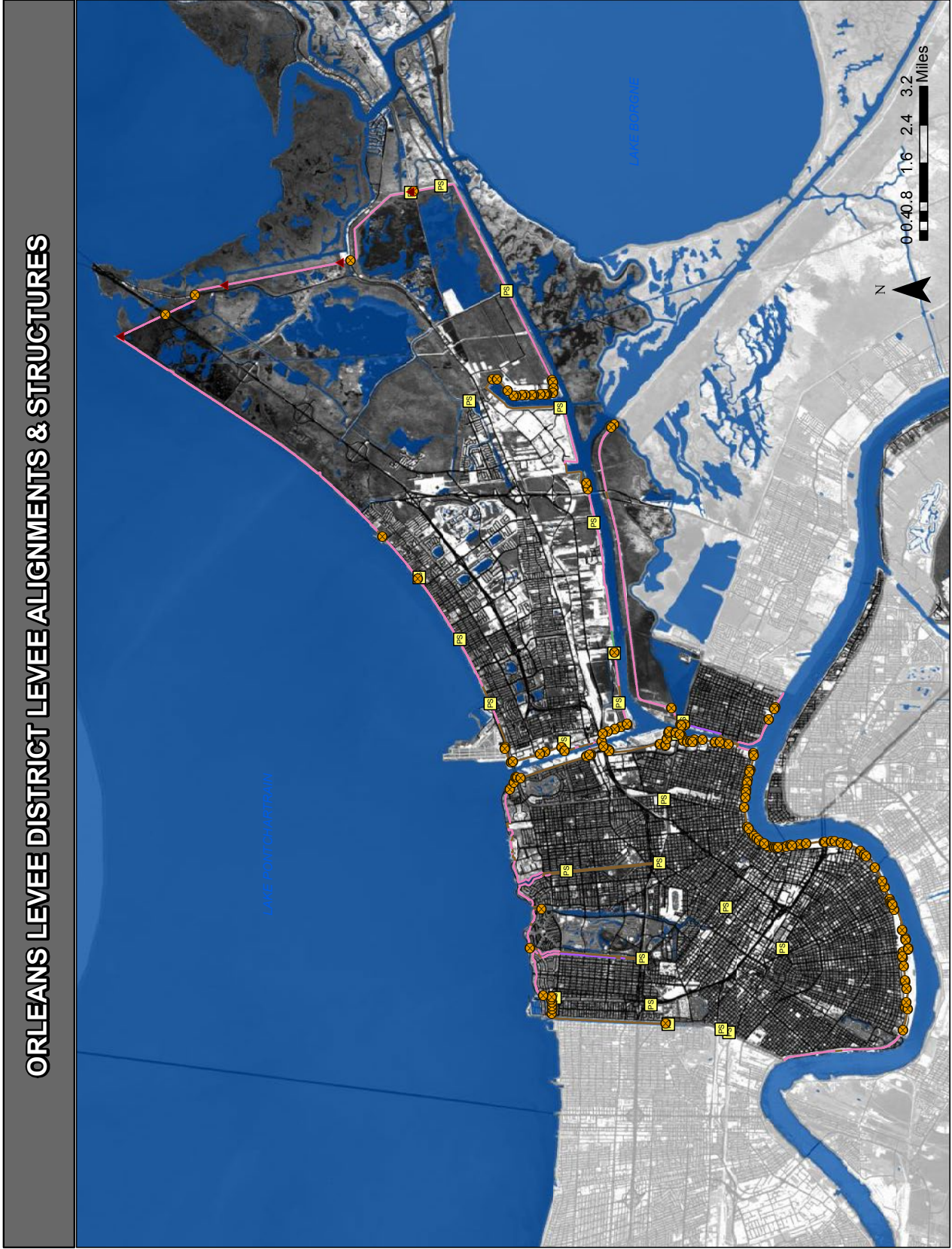


Map by: Louisiana Office of
Coastal Protection & Restoration

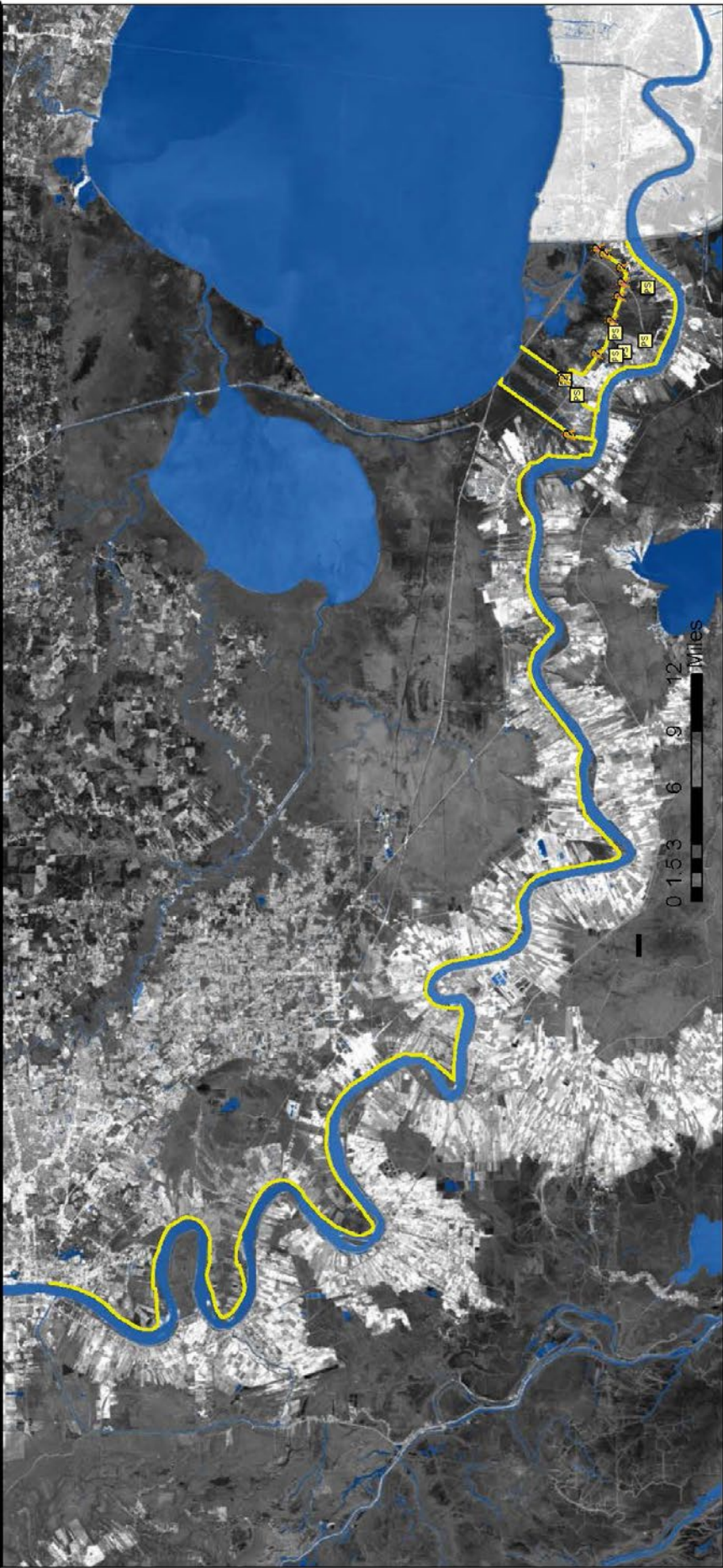
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Data Sources:
USACE
LA OCPR



PONTCHARTRAIN LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



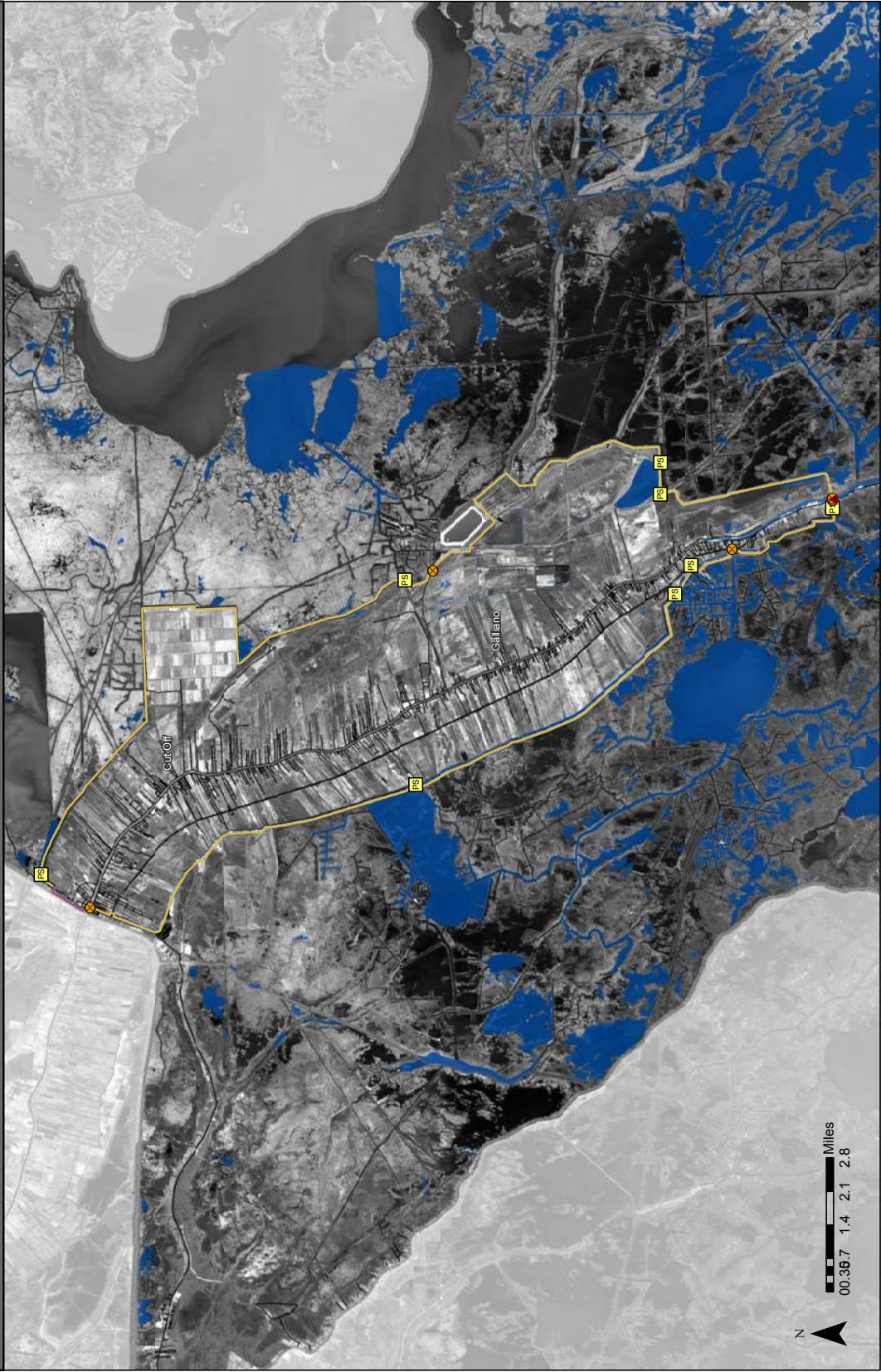
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Coastal Protection & Restoration
Date: April 28, 2009
Imagery: 2000 SPOT
Data Sources:
USACE
LA OCP
CPRA
Coastal Protection & Restoration
Administration Authority of Louisiana

Legend

Levee Construction Type	
I-Wall	Flood Gate
Earthen Levee	Pump Station
Control Structure	Water Bodies



SOUTH LAFOURCHE LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES

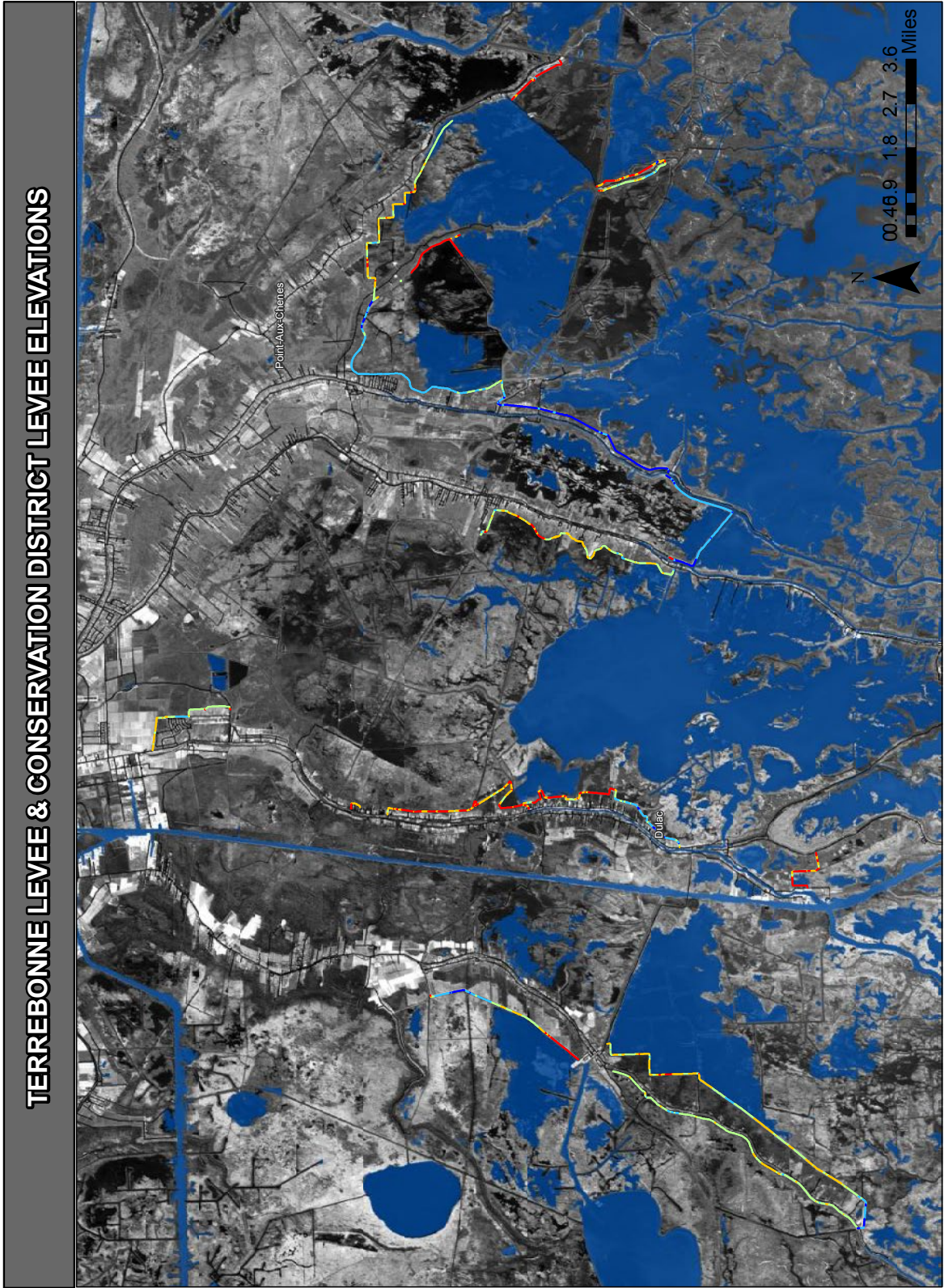


Legend

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



Map by: Louisiana Office of
Coastal Protection & Restoration
Date: April 28, 2009
Imagery: 2000 SPOT
Data Sources:
USACE
LA OCP
CPRA
Coastal Protection & Restoration
Administration Authority of Louisiana



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

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Appendix E
Inventory of Non-State
Projects

**B. 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
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 Slump 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 benefited.				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
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 benefited and the level of water quality enhancement.	1	
	N/A		Breton Sound	MC	1		105		Plaq.		Not provided			Breton Sound Fringe Marsh Barriers.	1	
N/A	N/A		Baptiste Collette	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 Collette-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-Ostica	RR	1		105		Plaq.		Not provided			Fort St. Phillip to Ostica Lock Ridge Reforestation.	1	
N/A	N/A		Ostica-Bayou Lamoque	RR	1		105		Plaq.		Not provided			Ostica 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		SIB.		Not provided			Violet Diversion.	1	
N/A	N/A		Lake Borgne	SP, OR	1		103		SIB.		Not provided			Lake Borgne surge breaker/reef.	1	
N/A	N/A		Bayou Terre aux Boeufs/La Loure	MC	1		103		SIB.		Not provided			Marsh Creation-Bayou Terre aux Boeufs to Bayou la Loure Land Bridge.	1	
N/A	N/A		Bloxi Marsh	MC	1		103		SIB.		Not provided			Bloxi Marsh Creation.	1	
N/A	N/A		Central Wetlands	MC	1		103		SIB.		Not provided			Central Wetlands Marsh Creation.	1	
N/A	N/A		Lake Borgne/MRGO	MC	1		103		SIB.		Not provided			MRGO/Lake Borgne Landbridge Marsh Creation.	1	
N/A	N/A		Orleans Landbridge	MC	1		103		SIB.		Not provided			Orleans Landbridge Marsh Creation.	1	
N/A	N/A		Bloxi Marsh	SP, OR	1		103		SIB.		Not provided			Bloxi Marsh Oyster Reefs/Shoreline Protection.	1	
N/A	N/A		Lake Borgne	SP	1		103		SIB.		Not provided			Lake Borgne Shoreline Protection-MRGO Land Bridge.	1	
N/A	N/A		Orleans Landbridge	SP	1		103		SIB.		Not provided			Orleans Landbridge shoreline protection.	1	
N/A	N/A		St. Bernard Parish	OR	1		103		SIB.		Not provided			Develop Oyster reefs as shoreline barrier-Bloxi 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 Rigollettes, 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		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	Caminnada 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 features. 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 levels, 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 Rigollettes near Bayou Barataria	SP	8		105	Jef.					\$1,040,000	This project would protect the integrity of the north shoreline of Bayou Rigollettes 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 Rigollettes 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		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	Levee 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 Levee 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/ Rigollettes 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 on-site 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 Debon, and Creole Bay in the western portion of the project. The project would restird 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	Rosehome Wetlands Sewage Effluent Diversion	WA	8		105	Jef.					\$90,000	The proposed project envisions re-routing the Rosehome 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

Local Project Number		Project Name		Project Type		Senate District		House District		Parish		Project Costs		Project Summary	Planning Unit
		Program													
N/A	N/A		Sandy Point	BI	1	105		105		Plaq.		Not provided		Sandy Point/Bay Coquette.	2
N/A	N/A		Scofield Island	BI	1	105		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		105		Plaq.		Not provided		Shell/Lanaux Island.	2
N/A	N/A		Baptiste Collette	DE	1	105		105		Plaq.		Not provided		Baptiste Collette sub-delta.	2
N/A	N/A		Venice	FD	1	105		105		Plaq.		Not provided		Venice: Tiger Pass to West Bay.	2
N/A	N/A		Bastian Bay/Buras	FD	1	105		105		Plaq.		Not provided		BurasBastian Bay Diversion.	2
N/A	N/A		Myrtle Grove	FD	1	105		105		Plaq.		Not provided		Myrtle Grove Diversion.	2
N/A	N/A		Naomi	FD	1	105		105		Plaq.		Not provided		Naomi Siphon.	2
N/A	N/A		Spanish Pass/Venice Diversion	FD	1	105		105		Plaq.		Not provided		Spanish Pass Freshwater Diversion.	2
N/A	N/A		West Point a la Hache	FD	1	105		105		Plaq.		Not provided		West Pointe a la Hache Siphon.	2
N/A	N/A		Empire-Triumph Fringe Marsh	MC	1	105		105		Plaq.		Not provided		Fringe Marsh Construction.	2
N/A	N/A		Myrtle Grove-Naomi	MC	1	105		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		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		105		Plaq.		Not provided		Fringe Marsh Construction.	2
N/A	N/A		West Point a la Hache-Myrtle Grove	MC	1	105		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		105		Plaq.		Not provided		Empire Channel Islands. Bayou Long/Bayou Fontanelle.	2
N/A	N/A		Lake Hemillage	RR	1	105		105		Plaq.		Not provided		Bayou Grand Cheniere/Lake Hemillage.	2
N/A	N/A		Nairn	RR	1	105		105		Plaq.		Not provided		Ridge North of Bay de la Cheniere (West of Nairn).	2
N/A	N/A		Bastian Bay	SP	1	105		105		Plaq.		Not provided		Bastian Bay.	2
N/A	N/A		Bay Coquette	SP	1	105		105		Plaq.		Not provided		Bay Coquette.	2
N/A	N/A		Bay Joe Wise	SP	1	105		105		Plaq.		Not provided		Bay Joe Wise.	2
N/A	N/A		Bay Long	SP	1	105		105		Plaq.		Not provided		Bay Long.	2
N/A	N/A		Bayou Grand Liard/Buras	SP	1	105		105		Plaq.		Not provided		Bayou Grande Liard/Buras Fringe Marsh.	2
N/A	N/A		Bayou Long	SP	1	105		105		Plaq.		Not provided		Empire Waterway/ Bayou Long.	2
N/A	N/A		Grand Terre (West)	SP	1	105		105		Plaq.		Not provided		North of West Grande Terre Island.	2
N/A	N/A		Venice	RR	1	105		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 Mementau 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

Local Project Number		Project Name		Project Type		Senate District		House District		Parish		Project Costs		Project Summary	Planning Unit
		Program													
N/A	FD 11		Marsh Creation North Raccourd 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 Oulmain 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 Chen	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 Palge 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 Montegit - 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 75	Lower Grand Caillou	HR	20	53	Ter.					Not provided	Description not provided.		3a		
	FD 76	Upper Grand Caillou	HR	20	51	Ter.					Not provided	Description not provided.		3a		
	FD 78	Point-Aux-Chene	HR	20	53	Ter.					Not provided	Description not provided.		3a		
	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	Chachoulia Basin Plan	HR	20	51	Ter.					Not provided	Description not provided.		3a		
N/A	FD 64	Carenton 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 Timberlall 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 Racoon 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	SIM.					\$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	SIM.					\$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	Annelia Flood Protection Improvements - Initial Phase (Partial Miller Plan Alternative 2E)	HP	21	50	SIM.					\$2,260,350	Annelia 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 Annelia 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			SIM.	\$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			SIM.	\$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			SIM.	\$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 lying 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			SIM.	\$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			SIM.	\$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			SIM.	\$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			SIM.	\$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			SIM.	\$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			SIM.	\$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			SIM.	\$100,000			Reconnaissance Study and possible feasibility analysis	3b
N/A	N/A	Amelia Area - Miller Plan Alternative 3E	HP	21	50			SIM.	\$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			SIM.	\$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			SIM.				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		SIM.		\$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		SIM.		\$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 Charenton Drainage Canal - Levee Construction - Miller Plan (SMLD Alternative 2W)	HP		21		50		SIM.		\$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 Charenton Drainage Canal - Levee Construction - Louisiana State Master Plan (SMLD Alternative 1W)	HP		21		50		SIM.		\$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		SIM.		\$500,000		Scott Canal acts as a conduit for storm surge much like 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		SIM.		\$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		SIM.		\$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 Tigre 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 event 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 and Nutrient Trapping; SP=Shoreline Protection; VP=Vegetation Planting; WA=Wastewater Assimilation.

Parish: Asc.=Ascension, Assu.=Assumption, Cal.=Calcasieu, Cam.=Cameron, Ibe.=Iberia, Jef.=Jefferson, Laf.=Lafourche, Liv.=Livingston, Ori.=Orleans, Plaq.=Plaquemines, SIB.=St. Bernard, SIC.=St. Charles, SJA.=St. James, StJo.=St. John the Baptist, SIM.=St. Mary, SIMt.=St. Martin, SIT.=St. Tammany, Tan.=Tangipahoa, Ter.=Terrebonne, Ver.=Vermilion.

PARISH CONCEPTS FROM COASTAL MASTER PLANS

Program	Local Project Number		Project Name		Project Type		Senate District		House District		Parish		Project Costs		Project Summary		Planning Unit
N/A	CPCS13		Calcasieu Ship Channel Salinity Control Measure Hydrologic Restoration	HR	25	47	Cam.					\$404,198,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS14		Cameron Creole Freshwater Introduction	HR	25	47	Cam.					\$12,482,434		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS19		Constriction of Sabine Lake at Hwy 82 Causeway	HR	25	47	Cam.					\$1,083,514		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS20		East Calcasieu Lake Hydrologic Restoration	HR	25	47	Cam.					\$5,495,089		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS22		East Calcasieu Lake Marsh Creation & Hydrologic Restoration (A)	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS23		East Calcasieu Lake Marsh Creation & Hydrologic Restoration (B)	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS29		First Bayou Freshwater Introduction	HR	25	47	Cam.					\$3,772,982		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS31		Gulf Intracoastal Water Way Calcasieu Locks Expansion	HR	25	47	Cam.					\$300,000,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS34		Gum Cove Ridge Hydrologic Restoration	HR	25	47	Cam.					\$307,820,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS39		Maintain Sabine River Flows into Sabine Lake	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS10		Calcasieu Ship Channel Sediment By Pass	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS70		Plug West Cove Canal	HR	25	47	Cam.					\$1,033,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS53		Sabine River Hydrologic Restoration	HR	25	47	Cam.					\$47,768,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS54		Salinity Reduction at Sabine Lake Causeway	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS59		Tripod Bayou Control Structure	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME09		Humble Canal Hydrologic Restoration (Spillway)	HR	25	47	Cam.					\$3,878,982		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME10		Humble Canal Spillway	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME11		Improved Drainage East Grand Chenier	HR	25	47	Cam.					\$5,000,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME12		Kings Bayou Hydrologic Restoration	HR	25	47	Cam.					\$1,200,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME14		Little Pecan Bayou Hydrologic Restoration	HR	25	47	Cam.					\$8,778,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME18		Mermentau River Hydrologic Restoration	HR	25	47	Cam.					\$76,040,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME20		Mermentau Spillway (Big Burn) Humble Canal	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME21		Muria & Kings Bayou Drainage Improvements	HR	25	47	Cam.					\$1,281,040		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME23		Oak Grove Hydrologic Restoration	HR	25	47	Cam.					\$877,800		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME24		Reconditioning of East End Locks	HR	25	47	Cam.					\$20,000,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME27		Rockefeller Wildlife Refuge Spillway & Hwy 82 Modification	HR	25	47	Cam.					\$12,000,000		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME30		South Oak Grove Hydrologic Restoration	HR	25	47	Cam.					\$877,800		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME33		West Club Hydrologic Restoration	HR	25	47	Cam.					\$458,407		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME35		Woods Tract Hydrologic Restoration	HR	25	47	Cam.					\$219,450		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS01		Beneficial Use of Dredge Spoil at Sabine National Wildlife Refuge	MC	25	47	Cam.					\$25,939,077		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS02		Black Bayou Marsh Creation	MC	25	47	Cam.					\$1,189,934,181		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS03		Black Bayou Terraces	MC	25	47	Cam.					\$8,532,094		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS04		Black Bayou Terracing Project	SNT	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS05		Black Lake Marsh Restoration	MC	25	47	Cam.					\$4,382,606		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS06		Black Lake Restoration Project	Not Avail.	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS08		Black Lake/Gum Cove Terracing	MC	25	47	Cam.					\$11,655,866		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	

PARISH CONCEPTS FROM COASTAL MASTER PLANS

Program	Local Project Number		Project Name		Project Type				Senate District		House District		Parish		Project Costs		Project Summary		Planning Unit
					Project Type		Senate District		House District		Parish		Project Costs		Project Summary				
N/A	CPCS09	Calcasieu Ship Channel Marsh Creation	MC	25	47	47	Cam.						\$620,658,248	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS15	Cameron Meadows Marsh Creation	MC	25	47	47	Cam.						\$774,465,811	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS16	Cameron Meadows Wetland Restoration	MC	25	47	47	Cam.						\$2,580,279,941	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS17	Central Canal Marsh Creation	MC	25	47	47	Cam.						\$893,862,252	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS18	Commissary Point Marsh Creation	MC	25	47	47	Cam.						\$78,427,828	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS21	East Calcasieu Lake Marsh Creation	MC	25	47	47	Cam.						\$3,477,117,831	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS22	East Calcasieu Lake Marsh Creation	MC	25	47	47	Cam.						\$12,979,029	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS23	East Calcasieu Lake Marsh Creation	MC	25	47	47	Cam.						\$8,847,120	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS24	East Calcasieu Lake Marsh Creation	MC	25	47	47	Cam.						\$11,977,646	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS23	East Calcasieu Lake Marsh Creation & Hydrologic Restoration	MC	25	47	47	Cam.						\$7,071,533	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS24	East Cove Marsh Creation	MC	25	47	47	Cam.						\$13,832,088	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS26	East Prong Grand Bayou Marsh Creation Project	MC	25	47	47	Cam.						\$26,566,711	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS33	Gum Cove Marsh Creation	MC	25	47	47	Cam.						\$780,218,832	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS37	Kelso Bayou Marsh Creation	MC	25	47	47	Cam.						\$12,040,467	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS38	Lake Calcasieu Beneficial Use	MC	25	47	47	Cam.						\$24,007,981	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS40	Marsh Creation in Calcasieu Lake- Beneficial Use	MC	25	47	47	Cam.						\$11,022,316	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS41	Mud Lake Marsh Creation	MC	25	47	47	Cam.						\$916,359,223	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS42	No Name Bayou Marsh Creation	MC	25	47	47	Cam.						\$39,478,302	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS43	North Cameron Meadows Restoration	MC	25	47	47	Cam.						\$87,470,645	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS44	North Mud Lake Marsh Creation & Nourishment	MC	25	47	47	Cam.						\$38,723,287	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS45	North West Cove Marsh Creation & Nourishment	MC	25	47	47	Cam.						\$49,018,650	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS46	North Willow Lake Restoration	MC	25	47	47	Cam.						\$13,063,672	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS47	Northwest Calcasieu Lake (North of Hackberry) Marsh Creation	MC	25	47	47	Cam.						\$3,093,080,570	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS47A	Northwest Calcasieu Lake (North of Hackberry) Component A Marsh Creation	MC	25	47	47	Cam.						\$904,215,130	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS47B	Northwest Calcasieu Lake (North of Hackberry) Component B Marsh Creation	MC	25	47	47	Cam.						\$934,629,690	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS47C	Northwest Calcasieu Lake (North of Hackberry) Component C Marsh Creation	MC	25	47	47	Cam.						\$1,274,052,035	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS48	Northwest Calcasieu Lake (South of Hackberry) Marsh Creation	MC	25	47	47	Cam.						\$2,569,391,271	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS48A	Northwest Calcasieu Lake (South of Hackberry) Component A Marsh Creation	MC	25	47	47	Cam.						\$1,136,005,097	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS48B	Northwest Calcasieu Lake (South of Hackberry) Component B Marsh Creation	MC	25	47	47	Cam.						\$1,442,245,190	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS50	Rabbit Island Marsh Creation	MC	25	47	47	Cam.						\$10,217,288	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS51	Sabine Marsh Creation Browns Lake Area	MC	25	47	47	Cam.						Not provided	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS52	Sabine Refuge Marsh Creation & Nourishment	MC	25	47	47	Cam.						\$53,031,969	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS53	Sabine Refuge Marsh Creation Project Cycles 6 & 7	MC	25	47	47	Cam.						\$22,051,574	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS56	Southeast Calcasieu Lake Marsh Creation	MC	25	47	47	Cam.						\$1,783,258,033	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS58	Sweet Lake Land & Oil Shoreline Protection & Marsh Creation	MC	25	47	47	Cam.						\$79,094,433	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				
N/A	CPCS59	Sweet Lake Marsh Creation	MC	25	47	47	Cam.						\$604,964,269	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.	4				

PARISH CONCEPTS FROM COASTAL MASTER PLANS

Program	Local Project Number		Project Name		Project Type		Senate District		House District		Parish		Project Costs		Project Summary		Planning Unit
N/A	CPCS61A	Vincent and Chinaberry Island Cameron Parish Marsh Creation	MC	25	47	Cam.							\$28,900,241	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS61B	Vincent and Chinaberry Island Cameron Parish Marsh Creation	MC	25	47	Cam.							\$28,926,641	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS61C	Vincent and Chinaberry Island Cameron Parish Marsh Creation	MC	25	47	Cam.							\$28,900,241	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS61D	Vincent and Chinaberry Island Cameron Parish Marsh Creation	MC	25	47	Cam.							\$27,370,884	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS62	West Cove Marsh Creation & Nourishment	MC	25	47	Cam.							\$31,851,587	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME01	Chenier du Fond Restoration & Shoreline Protection	SP	25	47	Cam.							Not provided	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME16	Lower Mud Lake Sediment Trapping	MC	25	47	Cam.							\$932,469	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME17	Lower Mud Lake Terracing and Bankline Stabilization	SNT, BS	25	47	Cam.							Not provided	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME28	South Grand Chenier Marsh Creation	MC	25	47	Cam.							\$22,325,704	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME29	South Grand Chenier Marsh Creation	MC	25	47	Cam.							\$1,717,512,928	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME34	Willow Cutoff Wetland Restoration	SP	25	47	Cam.							\$774,713	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS07	Black Lake Shoreline Restoration	SP	25	47	Cam.							\$13,668,024	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS11	Calcasieu-Sabine Bank Stabilization	SP	25	47	Cam.							\$25,412,000	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS12	Calcasieu-Sabine Component A Shoreline Protection	SP	25	47	Cam.							\$31,998,068	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS25	East Holly Beach Gulf Shoreline Protection	SP	25	47	Cam.							\$31,997,068	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS27	East Sabine Lake Shoreline Protection	SP	25	47	Cam.							\$11,376,898	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS32	Gulf Shoreline Protection (Calcasieu River to Freshwater Bayou)	SP	25	47	Cam.							\$452,469,592	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME19	Mermentau Ship Channel Sediment By Pass	OT	25	47	Cam.							Not provided	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS32A	Gulf Shoreline Protection (Calcasieu River to Rockefeller)	SP	25	47	Cam.							\$338,507,025	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS32B	Gulf Shoreline Protection (Calcasieu River to Lower Mud Lake)	SP	25	47	Cam.							\$173,457,789	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPCS56	Sweet Lake & Willow Lake North Shoreline Restoration	MC	25	47	Cam.							\$30,745,784	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME01	Chenier du Fond Restoration & Shoreline Protection	SP	25	47	Cam.							\$31,630,947	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME03	GIWW at Amoco Bank Stabilization	SP	25	47	Cam.							\$1,354,393	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME05	Grand Lake Shoreline Protection	SP	25	47	Cam.							\$14,085,683	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME06	Grand Lake Shoreline Protection at Umbrella Bay and Lacassine Point	SP	25	47	Cam.							\$29,986,251	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME13	Lacassine Pool South Levee Protection	SP	25	47	Cam.							\$17,932,158	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME22	North Little Chenier Levee Protection	OT	25	47	Cam.							Not provided	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME25	Rockefeller Gulf of Mexico Shoreline Stabilization, Joseph's Harbor East Project	SP	25	47	Cam.							\$19,564,190	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME26	Rockefeller Refuge Shoreline Protection	SP	25	47	Cam.							\$97,820,948	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME31	Southwest White Lake Shoreline Protection	SP	25	47	Cam.							\$21,077,340	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME32	Umbrella Bay Shoreline Protection Project	SP	25	47	Cam.							\$21,670,281	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	

Project Type: BR=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; PA=Planning; TRR=Ridge Restoration; SD=Sediment Diversion; SNT=Sediment and Nutrient Trapping; SP=Shoreline Protection; TE=Terraces; VP=Vegetation Planting; WA=Wastewater Assimilation.

Parish: Asc.=Ascension, Asu.=Assumption, Cal.=Caldcasieu, Cam.=Cameron, Ibe.=Iberia, Jef.=Jefferson, Laf.=Lafourche, Liv.=Livingston, Ori.=Orleans, Pla.=Plaquemines, StB.=St. Bernard, StC.=St. Charles, StJ.=St. James, StM.=St. Mary, StMT.=St. Martin, StT.=St. Tammany, Tan.=Tangipahoa, Ter.=Terrebonne, Ver.=Vermilion

Appendix E

Inventory of Non-State Projects

C. Restoration Partnership Projects

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Year	Project	Partner	Award	Match
FY2008	Black Lake/West Hackberry Terracing	Ducks Unlimited, Inc	\$2,000,000	\$2,110,000
FY2010	Westwego WHARF	Trust for Public Land	\$1,025,000	\$1,250,000
FY2010	Calcasieu-Sabine Watershed Restoration	Ducks Unlimited, Inc	\$1,780,805	\$1,195,290
FY2010	Christian Marsh Terraces	Coalition to Restore Coastal Louisiana	\$454,720	\$298,000
FY2010	10,000 Trees for Louisiana	Coalition to Restore Coastal Louisiana	\$84,475	\$335,790
FY2010	Terrebonne Vegetative Plantings	Terrebonne Parish	\$11,833	\$130,000
FY2010	N. Lake Mechant Landbridge completion	Conoco Phillips	\$30,000	\$5,000
FY2012	LaBranche Wetlands Hydrologic Restoration	Coalition to Restore Coastal Louisiana	\$350,000	\$330,000
FY2012	Reforestation 50 acres with Superior Bald cypress	Restore The Earth Foundation	\$100,000	\$540,000
FY2012	St. Louis Canal Freshwater Introduction Project	Ducks Unlimited, Inc	\$550,000	\$800,000
FY2013	Biloxi Marsh Oyster Reef Restoration Project	The Nature Conservancy	\$400,000	\$159,300
FY2013	Establishment of Bald cypress--Water Tupelo Nurseries for Restoration of Forested Wetlands and for Protection of Flood Control Levees in Coastal Louisiana	Comite Resources	\$100,000	\$50,000
FY2013	Carencro Bayou Freshwater Introduction	Ducks Unlimited, Inc	\$500,000	\$560,537
FY2014	Restoration and Refurbishment of the Grand Chenier Marshes	Miami Corporation and Cameron Gravity Drainage District #5	\$75,000	\$220,000
FY2014	Golden Meadow Marsh Creation	Ducks Unlimited, Inc	\$480,000	\$600,000
FY2014	Planting Bald cypress for Forested Wetland Restoration at East Tchefuncte Marsh Assimilation Wetland	City of Mandeville	\$25,000	\$25,000
FY2014	Coastal Forest and Ridge Restoration Planting Project	Coalition to Restore Coastal Louisiana	\$80,000	\$296,264
FY2014	Biloxi Marsh Community-based Oyster Reef Restoration Project	TNC and CRCL	\$352,432	\$210,696
FY 2015	Mud Lake Area Terraces	Apache Louisiana Minerals	\$150,000	\$150,000
FY 2015	Golden Meadow Marsh Creation, Phase II	Ducks Unlimited, Inc	\$385,000	\$600,000
FY 2015	W-15 Beneficial Use Marsh Creation Project	St. Tammany Parish Government	\$400,000	\$244,000
FY 2015	Freshwater Bayou Volunteer-Based Marsh Restoration Project	Coalition to Restore Coastal Louisiana	\$65,000	\$78,664
FY 2016	Mud Lake Area Terraces, Phase II	Apache Louisiana Minerals	\$100,000	\$100,000
FY 2016	Oyster Bed Surge Protection System	Terrebonne Parish	\$500,000	\$2,100,000
FY 2016	Calcasieu Lake & Sabine national wildlife refuge-oyster reef restoration project	The Nature Conservancy	\$300,000	\$200,000
FY 2016	Coastal Forest Restoration Project	Coalition to Restore Coastal Louisiana	\$100,000	\$327,648
TOTAL			\$10,399,265	\$12,916,189

Appendix F
CPRA FY 2019 Capital
Outlay Requests

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STATE OF LOUISIANA
DIVISION OF ADMINISTRATION
FACILITY PLANNING AND CONTROL
State Agency E-Corts Priority List for Fiscal Year 2019

Agency Priority	Department Priority	Agency Number	Project Request Title	Funding Source	(Year 1) FY2019		(Year 2) FY2020	(Year 3) FY2021	(Year 4) FY2022	(Year 5) Outlying Years	Total by Project
					\$150,000						
1 of 14	1 of 14	109	CPRA Projects	IAT							\$150,000
				FED	\$55,250,000						\$55,250,000
				NRR STAT DED	\$93,000,000						\$93,000,000
				CPR STAT DED	\$211,522,500						\$211,522,500
2 of 14	2 of 14	109	West Bank and Vicinity , New Orleans, LA Hurricane Protection (BA-66)	GO Bonds	\$0	\$49,857,025	\$49,857,025	\$49,857,025	\$49,857,025	\$1,346,139,675	\$1,495,710,750
3 of 14	3 of 14	109	Lake Pontchartrain, LA & Vicinity Hurricane Protection Project (PO-63)	GO Bonds	\$0	\$48,575,094	\$48,575,094	\$48,575,094	\$48,575,094	\$1,311,527,538	\$1,457,252,820
4 of 14	4 of 14	109	St. Mary Backwater Flooding Protection (AT-024)	GO Bonds	\$11,200,000	\$15,000,000	\$15,000,000	\$4,800,000	\$0	\$0	\$31,000,000
5 of 14	5 of 14	110	Grand Isle Levee Dune Enhancement Project (BA-198)	GO Bonds	\$2,000,000	\$9,100,000	\$9,100,000	\$3,900,000	\$0	\$0	\$15,000,000
6 of 14	6 of 14	109	Lafitte Area Tidal Protection (BA-75)	GO Bonds	\$12,000,000	\$10,000,000	\$10,000,000	\$0	\$0	\$0	\$22,000,000
7 of 14	7 of 14	109	Western St. Charles Flood Protection	GO Bonds	\$4,500,000	\$3,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$37,500,000
8 of 14	8 of 14	109	West Shore, Lake Pontchartrain, Louisiana Hurricane Protection Project (PO-62)	GO Bonds	\$1,625,000	\$1,000,000	\$13,279,500	\$13,279,500	\$13,279,500	\$222,148,000	\$251,332,000
9 of 14	9 of 14	109	Southwest Coastal Louisiana Project (LA-20)	GO Bonds	\$1,050,000	\$17,500,000	\$17,500,000	\$17,500,000	\$17,500,000	\$1,133,340,600	\$1,186,896,600
10 of 14	10 of 14	109	Lockport to Larose Hurricane Protection Levee	GO Bonds	\$5,000,000	\$10,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$75,000,000
11 of 14	11 of 14	109	Morganza, LA to the Gulf of Mexico Hurricane Protection Project (TE-64)	GO Bonds	\$53,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$213,000,000
12 of 14	12 of 14	109	North Shore, Lake Pontchartrain Flood Protection (PO-167)	GO Bonds	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$5,000,000
13 of 14	13 of 14	109	South Central Coastal Plan (TV-54)	GO Bonds	\$30,000,000	\$25,000,000	\$25,000,000	\$25,000,000	\$25,000,000	\$30,667,279	\$135,667,279
14 of 14	14 of 14	109	Delcambre-Avery Canal Storm Surge Protection (TV-57)	GO Bonds	\$2,500,000	\$25,000,000	\$8,000,000	\$8,000,000	\$0	\$0	\$35,500,000
				TOTALS:	\$487,797,500	\$254,032,119	\$240,911,619	\$240,911,619	\$224,211,619	\$4,113,823,092	\$5,320,775,949





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