



Integrated Ecosystem Restoration & Hurricane Protection in Coastal Louisiana: Fiscal Year 2018 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 (CPRA) 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. To avoid confusion, the 2012 Louisiana Legislature changed the name of the state agency from OCPR to CPRA.

The CPRA is required by Act 523 of the 2009 Regular Legislative Session, to produce an Annual Plan that inventories projects, presents implementation schedules for these projects, and identifies funding schedules and budgets. This Fiscal Year (FY) 2018 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 2018 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

April 25, 2017

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 2018 Annual Plan*.

The Annual Plan includes three-year revenue and expenditure projections, project implementation schedules, and a program progress assessment. It also identifies immediate actions toward implementation of the Coastal Master Plan. Included in this year's plan are funds from the *Deepwater Horizon* oil spill for restoration projects to address injuries to natural resources in Louisiana, for marsh creation and living shoreline projects, and funds for the continued advancement of two major sediment diversion projects critical to the long-term sustainability of coastal Louisiana. These projects require extremely sophisticated and comprehensive planning, strict adherence to engineering and design schedules, and an adaptive management program to ensure optimal implementation and management.

While restoring our natural assets, we must also protect what we still have. Flood gates like the recently-dedicated Petite Caillou floodgate and rollergate near Cocodrie—part of the ever-advancing Morganza to the Gulf levee system—and the barge gate on Bayou Lafourche at Lockport are examples of critical flood risk reduction projects. In FY 2018, additional flood reduction projects include levee lifts, installation of permanent pump stations, tidal protection at Rosethorne and Jean Lafitte, flood protection improvements at Morgan City, and additional St. Mary Parish backwater flood protection project, to name just a few.

We also acknowledge that while we cannot restore Louisiana's footprint to the time before the levees were built, CPRA's Coastal Master Plan is a bold action plan that recognizes the urgency to reconnect the Mississippi River to the delta. Every single decision we make will be based on reflection and review of those decisions that came before it. Using engineering, ingenuity, and adaptive science, CPRA will implement robust solutions to counter Louisiana's coastal land loss.

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.

I encourage you to read the plan, ask questions about the plan, and become an advocate of the plan. Stand with us to build momentum and consensus around the plan, now and for future generations, to support implementation of the 2017 Coastal Master Plan.

Sincerely,

Johnny Bradberry
Chair, Coastal Protection and Restoration Authority

Purpose of the Annual Plan

This plan is the annual report card used to track the progress of projects outlined in *Louisiana’s Comprehensive Master Plan for a Sustainable Coast*. 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’s directive, the State released *Integrated Ecosystem Restoration and Hurricane Protection: Louisiana’s Comprehensive Master Plan for a Sustainable Coast* (2007 Coastal Master Plan). The 2007 Coastal Master Plan established four planning objectives as benchmarks for implementing coastal protection and restoration projects and identified large-scale measures needed to achieve a sustainable coast. The 2007 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, the first update of the Coastal Master Plan was submitted to the Louisiana Legislature in March 2012. It was unanimously adopted. The update will be submitted in April 2017.

Act 523 of the 2009 Regular Legislative Session directed 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 2018 Annual Plan fulfills the legislative mandate of Act 8 by presenting CPRA’s three-year program for funding and implementing projects during FY 2018–FY 2020.

Additionally, the FY 2018 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 2017; Section 3 outlines an implementation plan for FY 2018; Section 4 gives fiscal projections for FY 2018 to 2020; and the Appendices provide detailed information on CPRA projects, programs and initiatives.

*La R.S. 49:214.29(4) 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 17 include:

- **Barataria Basin Landbridge Shoreline Protection – Phase 3 (BA-0027-C):** Completing construction of approximately 22,800 feet of rock dike shoreline to reduce or eliminate erosion along the west bank of Bayou Perot and the north shore of Little Lake. Benefits 5,587 acres of marsh.
- **Mississippi River Long Distance Sediment Pipeline (BA-0043-EB):** This reusable pipeline corridor (that remains available for future restoration projects) helped accomplish a suite of projects in Plaquemines and Jefferson Parishes below Belle Chasse that used sustainable sediment sources to create and nourish approximately 542 acres of marsh in an area where sediment is limited.
- **Bayou Dupont Marsh and Ridge Creation (BA-0048):** This completed project used sediment from the Mississippi River to create 277 acres of marsh, nourish 93 additional acres of marsh, and built 20 acres (11,000 linear feet) of ridge. Project used a total of more than 5.3 million cubic yards of cut and fill sediment.
- **Bayou Dupont Sediment Delivery – Marsh Creation #3 and Terracing (BA-0164):** Created and nourished 138 acres of emergent intermediate marsh using sediment from the Mississippi River, along with creation of 9,679 linear feet of terraces.
- **Bayou Bonfouca Marsh Creation (PO-0104):** Restoring and nourishing approximately 621 acres of interior marsh and reestablishing the Lake Pontchartrain shoreline rim.
- **Mississippi River Water Reintroduction into Bayou Lafourche - BLFWD (BA-0161):** Constructed a barge-gate capable of preventing saltwater intrusion coming up the bayou. Other components of the project include modifications to the pump station and railroad crossing at Donaldsonville, dredging and other structures addressing problems facing the Bayou Lafourche waterway.
- **Jean Lafitte Tidal Protection (BA-0075-1):** This project, currently in construction, will provide flood protection improvements by raising 15,840 linear feet of existing earthen levee. The project will also include approximately 7,900 linear feet of concrete capped, steel sheet pile floodwall, and flood gates.
- **Living Shoreline (PO-0148):** Used 9,000 manmade structures to create 3.1 miles of shoreline protection in Eloi Bay in St. Bernard Parish with the additional goal of oyster reef inducement. Ancillary projects in Plaquemines and Jefferson Parishes.

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- **Shell Island West - NRDA (BA-0111):** This completed project has restored the integrity of the Shell Island West barrier island, reduced wave energies within the bay area, and reestablished productive habitat to Bastian Bay and the surrounding area. It created 287 acres of marsh and 319 acres of dune and beach while adding 1.5 miles in length to the eastern lobe of Shell Island (originally restored in 2013 as project BA-0110), and added another 281 acres and 1.2 miles to the western lobe. These islands are part of the Barataria Basin barrier island chain reconstructed in Plaquemines Parish.
- **Caminada Headland Beach and Dune – Increment 2 (BA-0143):**
This completed project has restored and protected beach and dune habitat across the Caminada Headland through the direct placement of approximately 5.5 million cubic yards of sandy material from Ship Shoal (an offshore borrow source). A total of 489 acres of beach and dune habitat was restored. The restored shoreline stretches 13 miles eastward from Belle Pass at the mouth of Bayou Lafourche below Port Fourchon to the eastern end of Elmer’s Island.
- **Hydrologic Restoration of the Amite River Diversion Canal (PO-0142):**
This completed project allows for drainage of the Maurepas Swamp into the Amite River Diversion Canal by dredging three bank openings along with conveyance channels, berms and swamp floor vegetative plantings.
- **South Lake Lery Shoreline and Marsh Restoration (BS-0016):** This project has used 2.1 million cubic yards of dredged sediment to create 396 acres of marsh and restored approximately 32,000 feet of the southern Lake Lery shoreline in Plaquemines Parish.
- **SELA (PO-0057):** Advancement on the Hurricane & Storm Damage Risk Reduction System around greater metropolitan New Orleans to reduce damage from rainfall flooding in Orleans and Jefferson parishes. This includes increasing pump station capacity and improving surface and sub-surface drainage features.
- **Lake Pontchartrain and Vicinity (PO-0063):** Rehabilitation or new construction of more than 128 miles of levees and structures that make up the Lake Pontchartrain and Vicinity Hurricane Protection System. Involves more than 30 projects in St. Charles, Jefferson, Orleans and St. Bernard Parishes to provide 100 year protection levels.
- **LPV Mitigation Project, Manchac WMA Marsh Creation (PO-0146):**
Created approximately 110 acres of marsh using more than 800,000 cubic yards of dredged material, with five miles of non-continuous rock breakwaters for shoreline protection in St. John the Baptist Parish.
- **Grand Lake Shoreline Protection – Tebo Point (ME-0021):** Construction of a rock dike in Cameron Parish to protect the south shoreline of Grand Lake from Catfish Lake through Tebo Point, with operations and maintenance to include rock dike previously constructed from Superior Canal to Catfish Lake.

Anticipated Projects

- **Larose to Golden Meadow – Larose Sheetpile (TE-0065-SP):** Constructed approximately 2,400 feet of sheet pile to an elevation of +13 feet along the Gulf Intracoastal Waterway at Larose in Lafourche Parish to increase the level of hurricane protection for the adjacent area.
- **Mississippi River Delta Strategic Planning – SSPM Expansion (MR-0016-SSPM):** Completing construction of a small scale physical model of the lower Mississippi River housed in a 50,000 square foot building at the Baton Rouge Water Campus.

Projects anticipated to begin or continue construction in Fiscal Year 2018 include:

- Hydrologic Restoration and Vegetative Plantings in the Lac De Allemands Swamp (BA-0034-2)
- Rosethorne Tidal Protection (BA-0075-2)
- Jean Lafitte Tidal Protection (BA-0075-1)
- Lafitte Area Levee Repair (BA-0082)
- WBV HSDRRS Mitigation (BA-0109)
- Previously Authorized WBV Mitigation (BA-0154)
- Kraemer-Bayou Boeuf Levee Lift (BA-0169)
- Spanish Pass Ridge and Marsh Restoration (BA-0191)
- Cameron Creole Watershed Grand Bayou Marsh Creation (CS-0054)
- Oyster Bayou Marsh Creation and Terracing (CS-0059)
- Permanent Canal Closures and Pump Stations (PO-0060)
- Bayou Bonfouca Marsh Creation Project (PO-0104)
- Violet Canal North Levee/Floodwall Realignment (PO-0170)
- Rockefeller Refuge Gulf Shoreline Stabilization (ME-0018)
- Grand Lake Shoreline and Marsh Restoration, Tebo Point (ME-0021)
- Lost Lake Marsh Creation and Hydrologic Restoration (TE-0072)
- Cut-Off Pointe Aux Chene Levee (TE-0078)
- NRDA Caillou Lake Headlands (TE-0100)
- St. Mary Parish Backwater Flood Protection (TE-0116)
- Morgan City Flood Protection Improvements (TV-0055)
- Cole’s Bayou Marsh Restoration (TV-0063)

The FY 2018 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 2018 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 2018 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 2018 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 can be accessed online at www.coastal.la.gov.

► Table ES-1: Projected Three-Year Revenues (FY 2018 - FY 2020)

Revenue Sources	FY 2018	FY 2019	FY 2020	Program Total (FY 2018 - FY 2020)
CPR Trust Fund Annual Revenue ^{1,2}	\$14,600,000	\$15,200,000	\$15,700,000	\$45,500,000
CPR Trust Fund Carried Forward	\$6,751,177	TBD	TBD	\$6,751,177
GOMESA ^{1,3}	\$140,000,000	\$140,000,000	\$140,000,000	\$420,000,000
GOMESA Carried Forward ⁴	\$1,600,000	\$119,750,000	TBD	\$121,350,000
DOTD Interagency Transfer ¹	\$4,000,000	\$4,000,000	\$4,000,000	\$12,000,000
DOTD Interagency Transfer- Projects	\$73,600	\$0	\$0	\$73,600
CWPPRA Federal Funds ⁵	\$96,384,103	\$75,904,989	\$76,500,081	\$248,789,173
Surplus '07, '08, '09 Carried Forward	\$161,284,403	\$26,000,310	\$7,054,375	\$194,339,088
Community Development Block Grants	\$9,806,680	\$11,680	\$0	\$9,818,360
Capital Outlay Funds	\$15,560,000	TBD	TBD	\$15,560,000
NRDA Revenues (<i>Deepwater Horizon</i>)	\$140,820,491	\$38,940,922	\$150,855,241	\$330,616,653
NFWF Revenues (<i>Deepwater Horizon</i>)	\$54,410,295	\$65,827,227	\$519,239,290	\$639,476,812
Proposed RESTORE Revenues (<i>Deepwater Horizon</i>)	\$61,718,000	\$48,206,637	\$132,798,175	\$242,722,812
LDNR Mitigation Funds ⁶	\$500,000	\$500,000	\$500,000	\$1,500,000
LDNR Beneficial Use Funds ⁶	\$250,000	\$250,000	\$250,000	\$750,000
LDWF Interagency Transfer ⁷	\$1,000,000	\$0	\$0	\$1,000,000
MOEX Settlement ⁸	\$704,687	\$131,250	\$704,687	\$1,540,624
Berm to Barrier ⁹	\$98,972	\$14,600	\$21,680	\$135,252
OM&M Federal Funds ¹⁰	\$29,048,815	\$17,423,395	\$15,467,305	\$61,939,515
FEMA Reimbursement for OM&M ^{11,12}	\$1,510,886	\$0	\$0	\$1,510,886
LOSCO Funding ¹³	\$112,272	\$102,272	\$102,272	\$316,816
NAS Research Practice Grant ¹⁴	\$200,000	\$200,000	\$200,000	\$600,000
Project Billing ¹⁵	\$23,380,757	\$24,701,841	\$25,689,914	\$73,772,512
Capital Outlay Request Submitted for HSDRRS 30-Year Payback	\$0	\$0	\$98,000,000	\$98,000,000
Total Projected Revenue	\$763,815,138	\$577,165,122	\$1,187,083,020	\$2,528,063,280

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 2018 GOMESA funds are anticipated to be received between April 2018 (4Q18) and September 2018 (1Q19). Because the funds would arrive no earlier than the final quarter of FY 2018, nearly all 2018 GOMESA funding would be expended no earlier than FY 2019. Projects to receive GOMESA funding will be provided in the FY 2019 Annual Plan to ensure that proper clarity is available regarding the exact amount of available GOMESA funding, and also to ensure consistency with the 2017 Master Plan (which will be in effect at the time of receipt of GOMESA funding).
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 2018 of an initial deposit of \$6.75 million of funds from the MOEX settlement.
9. Used to fund monitoring of constructed Berm to Barrier projects.
10. 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.
11. Represents anticipated reimbursement associated with recovery from past disasters which has been obligated by FEMA.
12. CPRA is pursuing FEMA recovery funding through the FEMA appeals process to restore the form and function of the Coastal Barrier Island Resource System (CBRS) units S01-S08 which were lost as a result of Hurricane Katrina. The cumulative cost of this restoration is estimated to be on the order of \$500 million.
13. Represents reimbursement of expenditures for CPRA (non-DWH) oil spill response activities.
14. Represents funding applied for in December 2016 to fund select Monitoring Data and Interpretations tasks (see Table 4-3).
15. Represents salary and other work-in-kind reimbursements for services performed on projects in funding programs listed in the table above.

► **Table ES-2: Projected Three-Year Expenditures¹ (FY 2018 - FY 2020)**

Program/Funding Source	FY 2018	FY 2019	FY 2020	Program Total
CWPPRA State Expenditures (not including Surplus expenditures) ²	\$8,509,289	\$14,095,011	\$13,499,919	\$36,104,219
CWPPRA Federal Expenditures ³	\$96,384,103	\$75,904,989	\$76,500,081	\$248,789,173
WRDA Project Expenditures (not including Surplus expenditures)	\$0	\$0	\$0	\$0
Surplus Projects and Program Expenditures	\$161,284,403	\$26,000,310	\$7,054,375	\$194,339,088
Community Development Block Grants	\$9,806,680	\$11,680	\$0	\$9,818,360
HSDRRS 30-Year Payback ⁴	\$0	\$0	\$98,000,000	\$98,000,000
MOEX Project Expenditures	\$704,687	\$131,250	\$704,687	\$1,540,624
DOTD Interagency Transfer- HNC Deepening Expenditures	\$73,600	\$0	\$0	\$73,600
Capital Outlay Project Expenditures	\$15,560,000	TBD	TBD	\$15,560,000
State-Only Project Expenditures (Non-Surplus)	\$188,184	\$199,864	\$199,864	\$587,912
NRDA Expenditures (<i>Deepwater Horizon</i>)	\$140,820,491	\$38,940,922	\$150,855,241	\$330,616,653
NFWF Expenditures (<i>Deepwater Horizon</i>)	\$54,410,295	\$65,827,227	\$519,239,290	\$639,476,812
Proposed RESTORE Expenditures (<i>Deepwater Horizon</i>) (not including Surplus Expenditures)	\$61,718,000	\$48,206,637	\$132,798,175	\$242,722,812
LDNR Mitigation Expenditures ⁵	\$500,000	\$500,000	\$500,000	\$1,500,000
LDNR Beneficial Use Expenditures ⁵	\$250,000	\$250,000	\$250,000	\$750,000
LDWF Interagency Transfer Expenditures ⁶	\$1,000,000	\$0	\$0	\$1,000,000
OM&M- State Expenditures (not including Surplus expenditures)	\$9,126,372	\$8,673,455	\$6,083,374	\$23,883,201
OM&M- Federal Expenditures ⁷	\$29,048,815	\$17,423,395	\$15,467,305	\$61,939,515
OM&M- Marine Debris Removal (Partially Reimbursed by FEMA) ⁸	\$1,640,130	\$0	\$0	\$1,640,130
GOMESA Expenditures ⁹	\$21,850,000	TBD	TBD	\$21,850,000
NAS Research Practice Grant Expenditures	\$200,000	\$200,000	\$200,000	\$600,000
Operating Costs (see Tables 4-3 and 4-4)	\$30,990,089	\$36,800,160	\$39,790,392	\$107,580,641
Total Planned Expenditures	\$644,065,138	\$333,164,899	\$1,061,142,703	\$2,038,372,740

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 2019 - FY 2020 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).

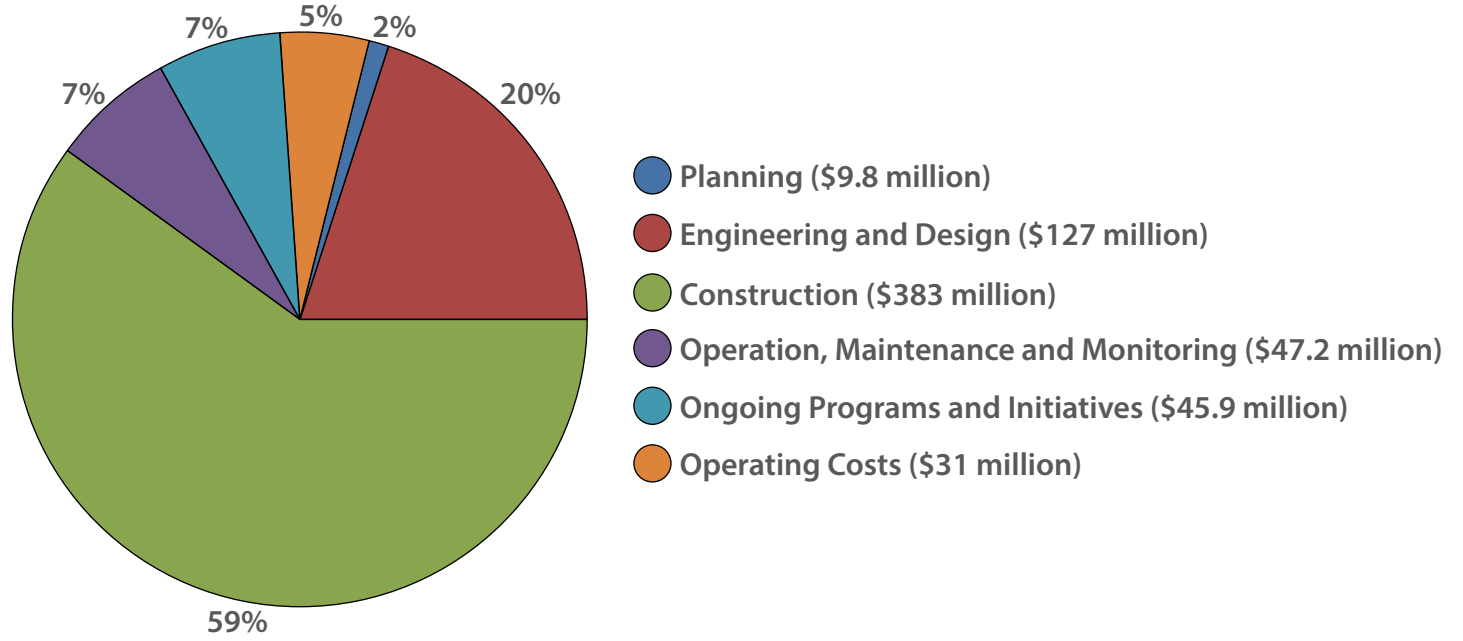
6. Supplemental funding to augment construction of project ME-0018.

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. Represents anticipated reimbursement associated with recovery from past distasters which has been obligated by FEMA.

9. FY 2018 GOMESA expenditures include the GOMESA Infrastructure Program (\$14 million) and Adaptive Management expenditures (see Table 4-3). Projects to receive GOMESA funding will be provided in the FY 2019 Annual Plan to ensure that proper clarity is available regarding the exact amount of available funding and also to ensure consistency with the 2017 Master Plan (which will be in effect at the time of receipt of GOMESA funding).

► **Figure ES-1: Projected FY 2018 Expenditures by Project Phase**



Notes

- Construction includes Beneficial Use (\$1.7 million)
- OM&M includes BIMP (\$2.6 million), Repair/Rehabilitation of Projects (\$759,739), Marine Debris Removal (\$1.6 million)

TOTAL Expenditures
\$644 million



Section 2
Progress to Date:
Results on All Fronts

Section 2

Progress to Date: Results on All Fronts

Project Highlights

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, engineering, 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:

Caminada Headland Beach and Dune Restoration Project (BA-0143)

With restoration of the final reach on the eastern end of the headlands, CPRA accomplished its largest restoration project to date. Combined with the first increment of the project (BA-0045), more than 13 miles of beach and dune have been restored, stretching from below Port Fourchon to the eastern end adjacent to Caminada Pass. In all, 8.41 million cubic yards of material was dredged from Ship Shoal in federal offshore waters and barged 30 miles to create 1059 acres of protective headlands. Total cost of the two increments was more than \$216 million. With the seaward barrier restored, future plans include sediment supplementation into the marsh area between the beach and Highway One leading to Grand Isle.



This aerial photograph shows the Caminada Headland beach and dune extending eastward towards Grand Isle at the top of the photo. At a combined cost of more than \$216 million, this restoration project is the largest in CPRA history. The declining wetlands behind the beach will be addressed in a future CWPPRA-funded project.

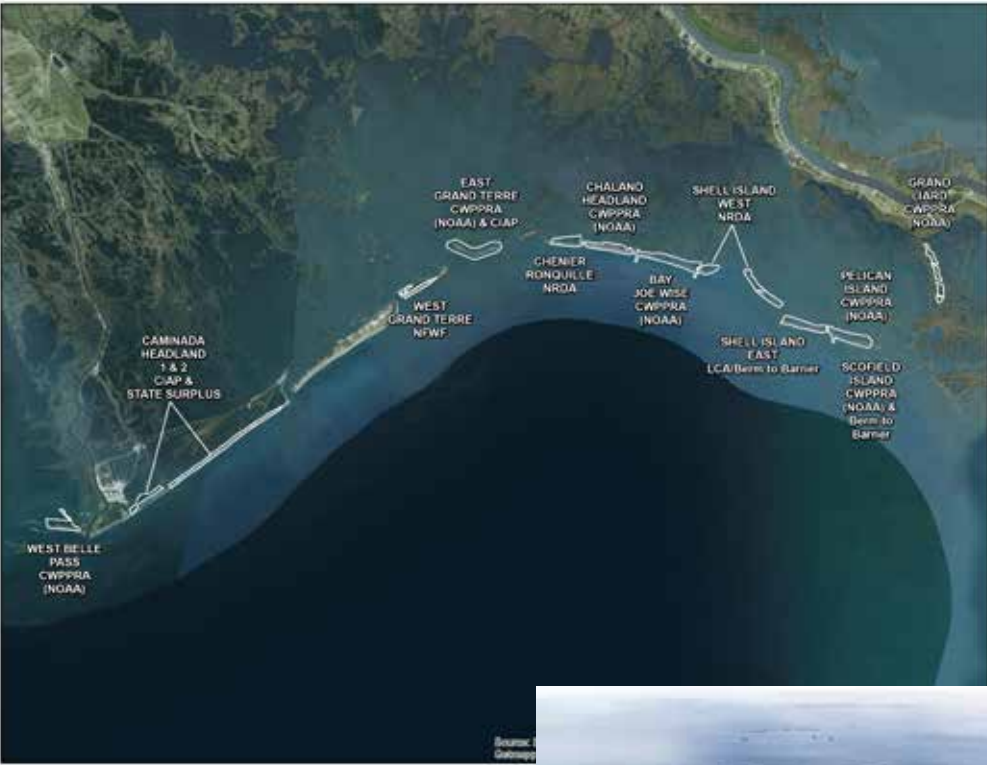


To restore the 13 miles of headland, CPRA used more than 8.4 million cubic yards of sand to create 1059 acres of beach and dune, roughly an area equivalent of almost 1047 football fields.

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Shell Island West - NRDA (BA-0111)

The latest accomplishment in restoring our barrier islands chain is actually an extension of an earlier restoration, doubling Shell Island in size after resurrecting it from open water just three years earlier. That earlier project built a two mile island with a back marsh; this latest project added another 1.5 miles and 600 acres of beach, dune and marsh. An additional 1.2 miles and 133 acres were also added to a non-consecutive section to the west.



Barrier islands are our first line of defense against damaging storm surge. CPRA has been restoring these islands and headlands in a substantial and more sustainable manner.

The extension of Shell Island is seen here as the beach and dune are extended to the west using sand dredged from the Mississippi River and pipelined more than 20 miles to the site. The back marsh is also being extended to the west.



Bayou Dupont Sediment Delivery – Marsh Creation #3 and Terracing (BA-0164)

A series of projects has been building land along a permitted corridor stretching westward from the Mississippi River below Belle Chasse and Jean Lafitte. The original Bayou Dupont project was the first to build land using sediment dredged from the Mississippi River. This latest project created 138 acres along with 1.8 miles of sediment-capturing terraces.



All of this brown “dirt” is actually sediment dredged from the bottom of the nearby Mississippi River and pumped through more than 13 miles of pipeline to its final destination, turning open water areas into land and marsh.

This and adjacent projects along the “Long Distance Sediment Pipeline” corridor have built more than 1,800 acres of land, roughly the equivalent of 1,648 football fields, all using material dredged from the Mississippi River.



Mississippi River Reintroduction into Bayou Lafourche (BA-0161)

This suite of projects is revitalizing historic Bayou Lafourche, a distributary of the Mississippi that was cut off from the river’s flow, then reconnected via water pumped over the levee at Donaldsonville. However, a railroad bridge was restricting adequate flow until \$4 million in CPRA funding helped open the bottleneck by rebuilding the bridge into an open span support structure.

Other components of the Bayou Lafourche project include doubling the pump capacity, dredging the bayou, and constructing a salinity control structure at Lockport.



Culverts under the old railroad bridge restricted the amount of water that could be pumped from the Mississippi River at Donaldsonville. CPRA helped fund the construction of a new open span bridge that now allows the pumps (also funded by CPRA) to send more fresh water down Bayou Lafourche.



When conditions make it necessary, this barge gate at Lockport can be closed to prevent the progression of saltwater up Bayou Lafourche.

Hydrologic Restoration of the Amite River Diversion Canal (PO-0142)

Too much water can be a bad thing, even for swamps and wetlands. Water sitting for too long a time can drown a marsh or even a hardwood swamp. This was the case with portions of the 122,000 acre Maurepas Swamp Wildlife Management Area. The north spoil bank of the Amite River Diversion Canal was acting as a dam, not allowing the swamp to drain the way healthy swamp areas periodically do. Three openings were dredged to allow natural drainage, to be followed with the planting of one million cypress seedlings in areas that were once too waterlogged for natural propagation.



The water line is evident at about the 4-foot height of these tree trunks in the Maurepas Swamp. While other plant species can thrive in a constant water environment, cypress tree seedlings cannot.

Channels dredged through the spoil bank levee not only help drain the swamp, but also allows the periodic flow of fresh river water and nutrients into the swamp basin.



Living Shoreline Demonstration Project (PO-0148)

Oysters are more than a delicacy, they can be a natural form of coastal protection against damaging storm surge and wave action. Restoring our depleted oyster reefs—once massive along our coast—is a difficult but worthwhile pursuit. This project is using 9,000 manmade structures to create 3.1 miles of shoreline protection in St. Bernard Parish. Four different artificial structures are being used to test whether one type is better than the others at inducing oysters to attach, grow and accumulate into a sustainable reef.



The calming effect of even a small foreshore barrier is evident as the energy of the choppy water is dissipated before reaching the marsh edge.



Workers place one of the four types of artificial reef structures designed to attenuate wave action, increase biodiversity along with oyster development, and allow sediment accretion between the shore and the reef.

Deepwater Horizon Oil Spill

In April 2016, the federal court overseeing the 2010 *Deepwater Horizon* oil spill litigation approved a settlement agreement and consent decree resolving civil claims against BP arising from the oil spill. The global settlement is worth more than \$20 billion. Over the next 15 years, Louisiana will receive a minimum of \$8.7 billion for claims related to natural resource damages under the Oil Pollution Act, Clean Water Act civil penalties, and the State’s various economic claims.

In addition to the consent decree, which provides the details of the settlement, the *Deepwater Horizon* Natural Resource Damage Assessment (NRDA) Trustees prepared a Programmatic Damage Assessment and Restoration Plan and Programmatic Environmental Impact Statement (PDARP/PEIS). This document will govern the use of the up to \$8.8 billion in NRDA settlement funds, which includes at least \$5 billion specifically for restoring damages to natural resources in Louisiana.

Details of the Consent Decree

Under the terms of the consent decree, BP must pay the following:

- Up to \$8.8 billion for natural resource damages (includes \$1 billion in early restoration projects);
- \$5.5 billion (plus interest) for Clean Water Act civil penalties (subject to the RESTORE Act); and
- \$600 million for other claims.

Additionally, BP entered into a separate agreement to pay \$4.9 billion to the five Gulf States and up to a total of \$1 billion to several hundred local governmental bodies to settle claims for economic damages suffered as a result of the spill.

A breakdown of Louisiana’s share of these funds is as follows:

- A minimum of \$5 billion for natural resource damages (includes \$368 million previously allocated for early restoration projects);
- A minimum of approximately \$787 million for Clean Water Act civil penalties (subject to the RESTORE Act); and
- \$1 billion for state economic damages.

Details of the PDARP/PEIS

The PDARP/PEIS includes an ecosystem-level assessment of impacts to the Gulf’s natural resources, a proposed programmatic restoration plan, and an examination of the environmental impacts of various restoration alternatives. The document proposes appropriate types of restoration and provides guidance for identifying, evaluating, and selecting future restoration projects to be implemented with the approximately \$5 billion allocated to Louisiana for natural resource damages.

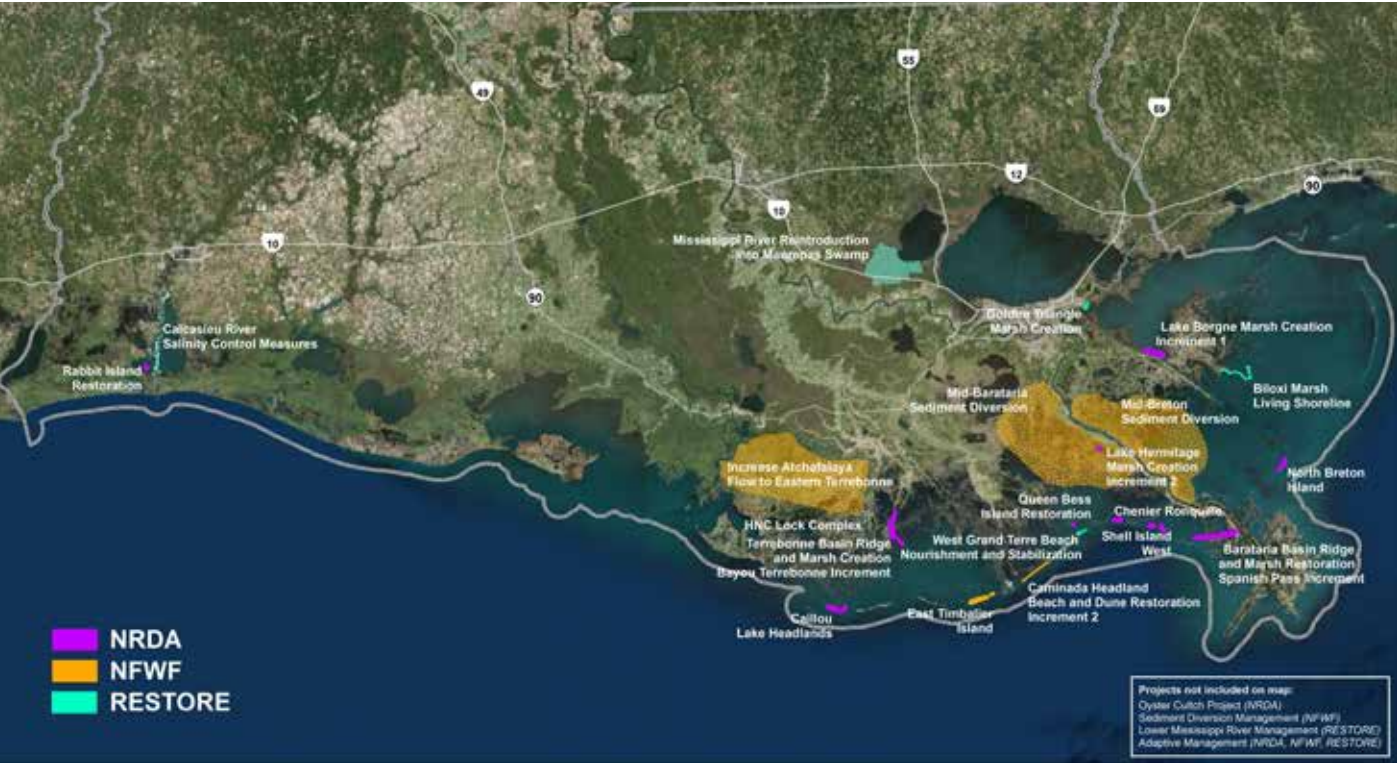
An overview of the Louisiana allocation by major funding category is provided in the table below. Before any of these NRDA settlement funds can be spent on restoration projects, the Louisiana and federal trustees charged with restoring damages to natural resources caused by the *Deepwater Horizon* oil spill must develop project-specific restoration plans for public review and comment.

An overview of the Louisiana allocation by major funding category is provided in the table below:

MAJOR RESTORATION CATEGORIES	AMOUNT ALLOCATED TO LA
1. Restore & Conserve Habitat	
Wetlands, Coastal, & Nearshore	\$4,009,062,700
Habitat Projects – Federally Managed Lands	\$50,000,000
Early Restoration	\$259,625,700
2. Restore Water Quality	
Nutrient Reduction (Nonpoint Source)	\$20,000,000
3. Replenish & Protect Living Coastal & Marine Resources	
Sea Turtles	\$10,000,000
Submerged Aquatic Vegetation	\$22,000,000
Marine Mammals	\$50,000,000
Birds	\$148,500,000
Early Restoration - Birds	\$71,937,300
Oysters	\$26,000,000
Early Restoration - Oysters	\$14,874,300
4. Provide & Enhance Recreational Opportunities	
Provide & Enhance Recreational Opportunities	\$38,000,000
Early Restoration – Recreational Opportunities	\$22,000,000
5. Monitoring, Adaptive Management, Administrative Oversight	
Monitoring & Adaptive Management	\$225,000,000
Administration Oversight & Comp. Planning	\$33,000,000
MINIMUM NRD FUNDING ALLOCATED TO LA	\$5,000,000,000

Combined Settlements

The settlement with BP, combined with prior *Deepwater Horizon*-related settlements and recoveries, translates into approximately \$8.8 billion over 15 years for Louisiana coastal restoration and economic damages. Approval of the consent decree and finalization of the PDARP/PEIS will allow the state to move forward with identifying and implementing critical restoration and protection projects, providing approximately \$580 million annually for the coastal program.



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 5 years since the 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 United States 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 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 diversions 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, the project will restore historic deltaic sediment deposition to build, maintain, and sustain critical coastal lands.

Over the next several years, CPRA will work to optimize operations, formulate the final project design, and apply for appropriate construction permits. More specifically, work on the Mid Barataria Environmental Statement (EIS) will begin during the spring of 2017 and engineering and design work will commence later in 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 public scoping meetings, development of a draft EIS which will be released for public comment, and the development of a final EIS which will undergo additional public comment and will be reviewed by the USACE prior to commencement of construction.

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 <http://coastal.la.gov/calendar/>
- Attend a CPRA Board Meeting to engage with CPRA leadership (schedule can be found at coastal.la.gov/calendar/)
- Visit coastal.la.gov to learn more about this project and other coastal restoration efforts
- Email us at outreach@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 included 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.



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



Mid-Barataria Sediment Diversion Project Layout



Sediment Diversion Conceptual Design

Although not due to the Louisiana Legislature until April 2017, development of the 2017 Coastal Master Plan is underway with the draft plan scheduled to be delivered in January 2017.

The 2017 Coastal Master Plan will be the third Coastal Master Plan prepared by CPRA for approval by the Louisiana State Legislature. This process occurs every five years, and with the development of each plan comes a more refined, improved path forward to create a sustainable coastal Louisiana landscape.

The Coastal Master Plan provides important information to Louisiana’s coastal citizens, providing information for them to protect their families, manage businesses, and plan for the future. The 2017 Coastal Master Plan will continue to move the people of Louisiana forward in pursuit of our state’s shared protection and restoration goals of reducing coastal storm surge flood risk, promoting sustainable ecosystems, providing habitats for a variety of commercial and recreational activities coast-wide, strengthening communities, and supporting regionally and nationally important business and industry.

As CPRA carries forth the planning efforts detailed in the 2007 and 2012 Coastal Master Plans, the 2017 effort will continue to build on the past and establish clear priorities for the future through an integrated and comprehensive approach. As was the case with previous plans, the 2017 Coastal Master Plan will be 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.

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 appreciates the importance of understanding the cost of 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 is why information to help us better understand the effects that projects actions will have – for example, on our traditional fishing, agricultural, and oil and gas industry related communities – have been quantified and included in our 2017 analysis.

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 will place a greater focus 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 Draft 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.

The appendix includes discussions of land loss rates in a future without action, insurance issues, population shifts, and what the proposed projects in the Draft Master Plan might deliver to residents, in terms of land building as well as reductions in flood risk. The appendix also provides an overview of CPRA’s Flood Risk and Resilience Program, as well as information on new economic opportunities driven by the coast. The appendix ends with a summary of coastal Louisiana’s significance to the nation. This information can be used by residents, local parish leaders, and others looking for a non-technical summary of master plan themes and findings.

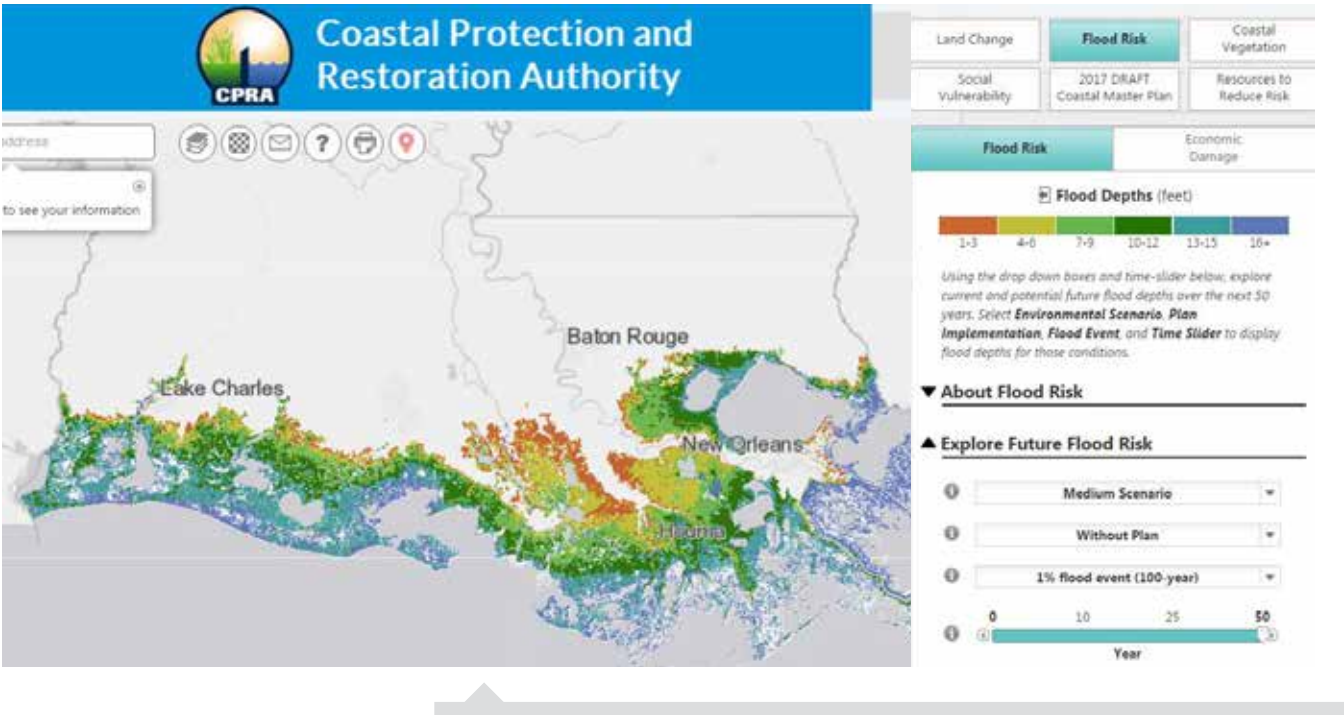
Focusing on Flood Risk Reduction and Resilience

In an effort to use all of the tools available to reduce communities’ flood risk, we explored different types of nonstructural measures and refined policies to help communities become more resilient.

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 flood risk now and in the future.

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

This information can be used by 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. You can visit the online tool to explore your own community through the following link: <http://cims.coastal.la.gov/masterplan>.



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 CPRA’s 2017 Coastal Master Plan and provides resources to reduce flood risk. This information is for coastal planning purposes, and is not appropriate for site-specific decision making. Access the Master Plan Data Viewer at <http://cims.coastal.louisiana.gov/masterplan>.

Incorporating New Project Ideas and Information

The 2017 Coastal Master Plan considers an array of new project ideas not modeled in 2012; these new project ideas were submitted from across the coast by stakeholders and members of the public. Also, a wider range of ecosystem outcomes is included, such as additional fisheries and wildlife species.

To ensure the latest project ideas are included for consideration in the 2017 Coastal Master Plan, CPRA established the New Project Development Program. The program provided opportunities (two solicitation periods; 140 days total) for new projects to be proposed by individuals and organizations, including citizens, academia, parishes, elected officials, agencies, non-government organizations (NGOs), landowners, and businesses/industries. New projects could be proposed that build and/or sustain land, provide significant flood risk reduction, address radical shifts in the coastal landscape, or confront future uncertainty challenges.

Each project submission was screened using the following criteria: size threshold, geographic area, adequate information, consistency with Master Plan objectives and principles, and duplicative effects. Overall, the CPRA received 155 project ideas from 42 project sponsors. Based on this process and other efforts, 148 candidate projects were identified for consideration in the 2017 Coastal Master Plan.

Improving Models Based on Best Available Science

The 2012 Coastal Master Plan was founded on state-of-the-art science and analysis, and the 2017 effort builds upon this further. The improved modeling process provided a deeper understanding of our coastal environment today, as well as the changes that are expected over the next 50 years. In an effort to make the modeling process as transparent and accessible to the public as possible, CPRA posted technical modeling reports in draft form to its website throughout the master plan development process. The CPRA website also provides a full list of technical reports documenting the models used to evaluate projects and alternatives for the 2017 Coastal Master Plan. Additionally, CPRA has posted other resources online related to the development of the plan, such as project definition, planning tool, and modeling appendices, an executive summary, webinar recordings and PowerPoint slides detailing the suite of modeling tools that were developed to support the 2017 Coastal Master Plan.

Based on the New Project Development Program and the improved modeling results, 76 restoration projects are selected in the 2017 Draft Coastal Master Plan along with 12 structural and 32 nonstructural risk reduction projects. The 2017 Coastal Master Plan dedicates more than \$17.7 billion to marsh creation using dredged material, \$5 billion to sediment diversions, and more than \$2 billion to other types of restoration projects that benefit 800 square miles of coast. The plan also dedicates \$19 billion to structural and \$6 billion to nonstructural risk reduction projects that, by the end of 50 years, would reduce expected annual damages from flooding by \$8.3 billion.

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 have met to review and discuss key master plan developments, been 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’ flood risk, and the solutions to create a more resilient and sustainable coast.

Learn More and Get Involved

Want to learn more about the 2017 Coastal Master Plan? The team at CPRA is prepared to present at your next community meeting and answer any questions that individuals in your area might have about the 2017 Coastal Master Plan and how it will affect the place you call home. Simply email us at masterplan@la.gov with the subject line: “Community Meeting Presentation” to schedule a presentation. In addition, stay tuned to our calendar of events and follow us on social media to learn about ways to get involved and voice your thoughts. You can also visit our website to learn more about the 2017 Coastal Master Plan: <http://coastal.la.gov/a-common-vision/2017-master-plan-update>.

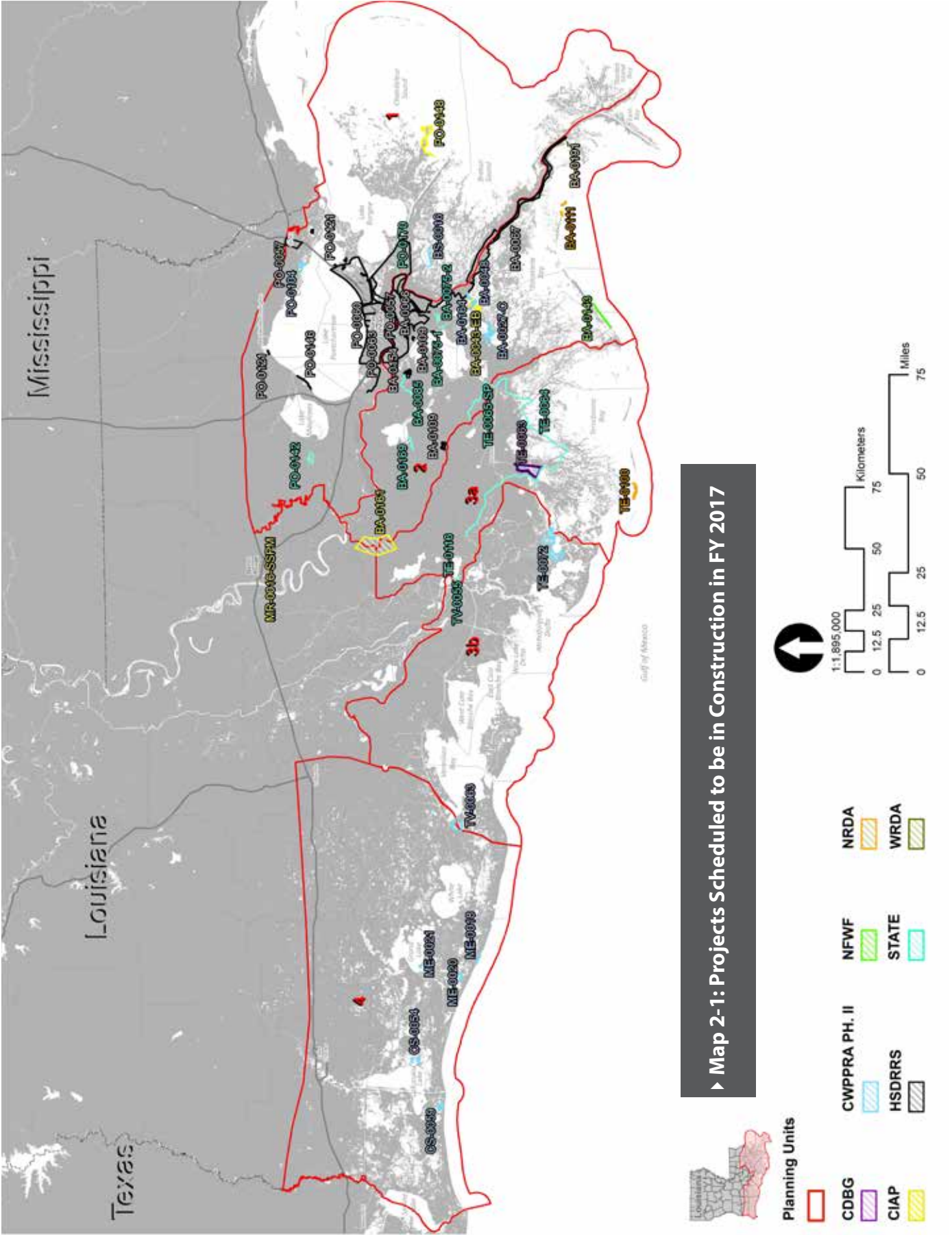


► Table 2-1: Projects Scheduled to be in Construction in FY 2017

Project ID	Project Name	Construction Start Date¹	Construction Finish Date	Total Project Estimate
CWPPRA Phase II Projects				
BA-0027-C	Barataria Basin Landbridge Shoreline Protection, Phase 3-CU7 & 8	3-Jun-15	26-Jan-17	\$26,351,988
BA-0048	Bayou Dupont Marsh and Ridge Creation Project	11-Jun-13	5-Jan-17	\$38,324,646
BA-0164	Bayou Dupont Sediment Delivery - Marsh Creation #3 and Terracing	15-Jan-16	31-May-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	01-May-17	15-Aug-18	\$24,655,612
CS-0059	Oyster Bayou Marsh Creation and Terracing	30-Jun-16	31-Aug-17	\$30,866,713
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	17-Apr-17	13-Sep-18	\$35,426,478
ME-0020	South Grand Chenier Marsh Creation Project	03-Mar-17	17-Aug-18	\$23,873,346
ME-0021	Grand Lake Shoreline Protection- Tebo Point	17-May-16	20-Jul-17	\$11,305,616
PO-0104	Bayou Bonfouca Marsh Creation	28-Apr-16	31-Jan-18	\$29,273,984
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	07-Sep-16	18-Jun-18	\$35,876,728
TV-0063	Cole's Bayou Marsh Restoration	20-Jun-17	19-Sep-18	\$24,930,426
CIAP Projects				
BA-0043-EB	Mississippi River Long Distance Sediment Pipeline²	17-Sep-13	5-Jan-17	\$66,310,461
BA-0161	Mississippi River Water Reintroduction into Bayou Lafourche - BLFWD	16-Jun-15	15-Feb-17	\$26,691,418
MR-0016-SSPM	Mississippi River Delta Strategic Planning- SSPM Expansion	15-Sep-14	11-Apr-17	\$13,520,000
PO-0148	Living Shoreline²	02-Oct-15	22-May-17	\$15,287,311
State-Only Projects				
BA-0075-1	Jean Lafitte Tidal Protection	19-Feb-14	12-Dec-18	\$29,403,973
BA-0075-2	Rosethorne Tidal Protection	16-Aug-17	28-May-19	\$22,950,000
BA-0085	St. Charles West Bank Hurricane Protection Levee	01-Nov-13	1-Sep-22	\$14,500,000
BA-0169	Kraemer Bayou Boeuf Levee Lift	26-Apr-17	30-Apr-19	\$1,200,000
PO-0142	Hydrologic Restoration of the Amite Diversion Canal	19-Apr-16	19-Jan-17	\$3,592,100
PO-0170	Violet Canal North Levee Alignment	31-Jul-17	31-Aug-18	\$1,164,000
TE-0064	Morganza to the Gulf	30-Nov-05	1-Oct-19	\$177,003,835
TE-0065-SP	Larose to Golden Meadow - Larose Sheetpile	26-Jan-15	30-Jun-18	\$8,000,000
TE-0116	St. Mary Backwater Flooding	27-Mar-17	20-Feb-19	\$5,000,000
TV-0055	Morgan City/St. Mary Flood Protection	20-Oct-16	12-Mar-18	\$10,900,000

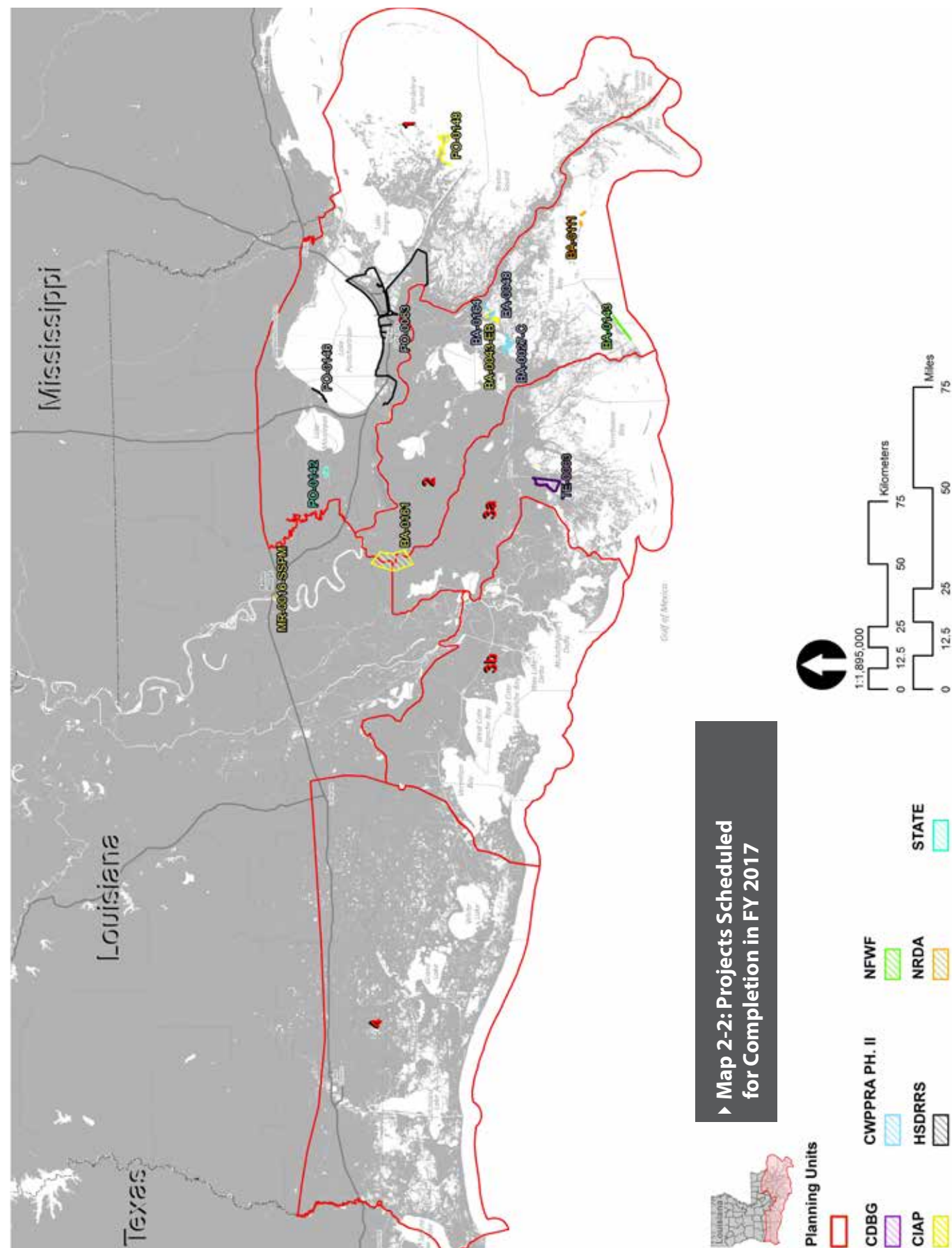
► Table 2-1: Projects Scheduled to be in Construction in FY 2017

Project ID	Project Name	Construction Start Date¹	Construction Finish Date	Total Project Estimate
CDBG Projects				
TE-0063	Falgout Canal Road Levee	05-Aug-15	15-May-17	\$24,803,191
HSDRRS Projects				
BA-0066	West Bank and Vicinity	27-Mar-07	29-Jun-18	\$4,304,525,784
BA-0067	New Orleans to Venice	21-Nov-11	11-Dec-23	\$1,301,523,760
BA-0109	HSDRRS Mitigation- WBV³	16-Jun-16	15-Jul-19	\$126,000,000
BA-0154	Previously Authorized Mitigation WBV³	04-Aug-14	31-Oct-18	\$11,000,000
PO-0057	SELA- Overall	18-Feb-09	12-Oct-20	\$1,170,974,586
PO-0060	Permanent Canal Closures and Pump Stations⁴	01-Jan-13	30-Jun-18	\$614,800,000
PO-0063	Lake Pontchartrain and Vicinity	31-Oct-07	10-Apr-17	\$3,852,000,000
PO-0121	HSDRRS Mitigation- LPV⁴	23-Jul-15	3-Sep-19	\$85,000,000
PO-0146	LPV Mitigation Project, Manchac WMA Marsh Creation⁴	27-May-11	1-Sep-16	\$40,989,172
NRDA Early Restoration Projects				
BA-0111	Shell Island West- NRDA	31-Mar-15	5-May-17	\$101,307,860
TE-0100	NRDA Caillou Lake Headlands	22-Jul-15	10-Aug-18	\$118,340,766
NFWF Projects				
BA-0143	Caminada Headland Beach and Dune Restoration Increment ²	28-May-14	26-Oct-16	\$147,063,587
WRDA Projects				
BA-0191	Spanish Pass Ridge and Marsh Restoration	15-Jul-16	30-May-18	\$18,111,516
Notes				
<div>1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.</div> <div>2. Project partially funded with Surplus funds.</div> <div>3. Project cost included in total cost for BA-0066.</div> <div>4. Project cost included in total cost for PO-0063.</div>				



► Table 2-2: Projects Scheduled to Complete Construction in FY 2017

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	Total Project Estimate
CWPBRA Phase II Projects				
BA-0027-C	Barataria Basin Landbridge Shoreline Protection, Phase 3-CU7 & 8	3-Jun-15	26-Jan-17	\$26,351,988
BA-0048	Bayou Dupont Marsh and Ridge Creation Project	11-Jun-13	5-Jan-17	\$38,324,646
BA-0164	Bayou Dupont Sediment Delivery - Marsh Creation #3 and Terracing	15-Jan-16	31-May-17	\$18,733,494
CIAP Projects				
BA-0043-EB	Mississippi River Long Distance Sediment Pipeline2	17-Sep-13	5-Jan-17	\$66,310,461
BA-0161	Mississippi River Water Reintroduction into Bayou Lafourche - BLFWD	16-Jun-15	15-Feb-17	\$26,691,418
MR-0016-SSPM	Mississippi River Delta Strategic Planning- SSPM Expansion	15-Sep-14	11-Apr-17	\$13,520,000
PO-0148	Living Shoreline	02-Oct-15	22-May-17	\$15,287,311
State-Only Projects				
PO-0142	Hydrologic Restoration of the Amite Diversion Canal	19-Apr-16	19-Jan-17	\$3,592,100
CDBG Projects				
TE-0063	Falgout Canal Road Levee	05-Aug-15	15-May-17	\$24,803,191
HSDRRS Projects				
PO-0063	Lake Pontchartrain and Vicinity	31-Oct-07	10-Apr-17	\$3,852,000,000
PO-0146	LPV Mitigation Project, Manchac WMA Marsh Creation ²	27-May-11	1-Sep-16	\$40,989,172
NRDA Early Restoration Projects				
BA-0111	Shell Island West- NRDA	31-Mar-15	5-May-17	\$101,307,860
NFWF Projects				
BA-0143	Caminada Headland Beach and Dune Restoration Increment 2	28-May-14	26-Oct-16	\$147,063,587
Notes				
1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.				
2. Project cost included in total cost for PO-0063				



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Section 3
FY 2018
Implementation Plan:
More Projects, More
Action, More Results

Section 3

FY 2018 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 2018 (July 1, 2017, through June 30, 2018). 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 (<http://coastal.la.gov/>) for additional details about specific projects. Regional maps of projects in planning, design, and/or construction in FY 2018 are presented in Figures 3-1 through 3-3.

Projects in Planning

There are 3 projects in the planning phase in FY 2018, including one restoration project, one navigation project, and one integrated protection and restoration project. These projects, together with other non-project planning initiatives, represent a total state investment of \$9.8 million in FY 2018, 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 projects in design for FY 2018, including three protection projects and 39 restoration projects. These projects represent a total state investment of \$127 million in FY 2018. 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 30 projects that will begin or continue construction in FY 2018, including 15 protection projects and 15 restoration projects. These projects represent a total state investment of \$383 million in FY 2018, and nine of these projects are projected to complete construction in FY 2018. Table 3-1 presents additional information about projects set for construction in FY 2018, 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 \$39 million (including federal match dollars) in FY 2018 on operation, maintenance, and monitoring (OM&M). OM&M expenditures in FY 2018 will cover the operation and maintenance of 143 projects and monitoring of 109 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>). Finally, the state will expend approximately \$1.6 million in FY 2018 to engage in marine debris removal in offshore areas. These expenditures are reimbursable by the Federal Emergency Management Agency (FEMA). Figure 3-5 provides a map with locations of all projects with OM&M expenditures in FY 2018. 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 2017 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.

CPRA is seeking approval this legislative session to utilize outcome based performance contracts for the purposes of marsh creation. If approved, CPRA would be able to utilize a competitive selection process to award full-delivery contracts to finance, permit, engineer, construct, and monitor marsh creation projects. The contractor would receive payment only once established success criteria are met. Payment terms could extend for numerous years after the project success has been determined. Outcome based performance contracts shifts project risks onto the contractor and allows CPRA to utilize future revenues to construct projects now. Initial pilot projects would be authorized under the proposed legislation and could utilize funding expected to be awarded in FY 2018 and beyond. If approved, CPRA would initiate outcome based performance contracting as early as FY 2018.

The 2017 Coastal Master Plan recommends 32 nonstructural project areas for nonstructural risk reduction measures, addressing flood risk for over 26,000 structures at a cost of \$6 billion. All nonstructural measures are considered voluntary and may include non-residential floodproofing, residential elevation, or residential acquisition. To assist in the development and implementation of this program, in 2014 CPRA allocated \$2 million in Surplus funding for Nonstructural Program Development, with the objective of developing a coordinated strategy for implementing nonstructural projects identified in the Master Plan for coastal communities. CPRA will continue its nonstructural program development in FY 2018 to ensure that the Master Plan's goal of a robust Flood Risk and Resilience Program to implement recommended projects is realized as additional funding becomes available.

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 2018 on the implementation of 17 CWPPRA Phase 1 projects (engineering and design), 13 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)
- No Name Bayou Marsh Creation and Nourishment (CS-0078) (Phase 1)
- Rockefeller Refuge Gulf Shoreline Stabilization (ME-0018) (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.

The state currently intends to expend funds in FY 2018 on several WRDA authorizations, including:

- Spanish Pass Ridge and Marsh Restoration (BA-0191)
- Southwest Coastal Louisiana Feasibility Study (LA-0020)

Schedules for these projects are presented in Table 3-3. Additional information about these projects is available at www.lca.gov.

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 2018 on 14 state-only projects, including 13 protection projects and one navigation project.

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]);
- 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, an additional \$40 million of 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 14 active state-only projects, 11 are funded for construction and will proceed to construction in accordance with their schedules as presented in Table 3-4. One project is funded for design and following completion of design will proceed to construction upon procurement of construction funds. The remaining projects are 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. 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. Schedules for HSDRRS projects are included in Table 3-6. All of these projects are fully funded for construction and will proceed with construction according to the schedules provided in Table 3-6. The principal issues that affect HSDRRS projects include engineering, constructability, budget and time issues.

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 may be implemented 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
 - Shell
 - Chenier
 - Breton
- Caillou Lake Headlands (Whiskey Island) (\$110 M)
- Shell Island West (\$101 M)
- Chenier Ronquille (\$35 M)
- North Breton Island (\$72 M)
- Provide and Enhance Recreational Opportunities (\$22M)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 will be presented to the public for review and comment in a restoration plan.

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 October 2016, Louisiana released its first post-settlement project-specific draft restoration plan for public review and comment, and held a public meeting to discuss the plan during the November CPRA Board Meeting. In January 2017, Louisiana finalized the plan, which informs the public about Deepwater Horizon NRDA restoration planning efforts and approves 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
- Barataria Basin Ridge and Marsh Creation Project: Spanish Pass Increment
- Lake Borgne Marsh Creation Project: Increment One
- Queen Bess Island Restoration Project
- Rabbit Island Restoration Project
- Shoreline Protection at Jean Lafitte National Historic Park and Preserve

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.

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.”

- 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)
- 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)

This latest funding award, \$245 million, is a milestone in advancing implementation of the biggest 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 2017.

Clean Water Act Penalties

The 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 Economy of the Gulf Coast 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 \$988.2 million to the State of Louisiana, of which \$876.7 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 million):
 - Calcasieu Ship Channel Salinity Control Measures project (~\$260.4 million)
- Spill Impact Component (~\$551.5 million):
 - Houma Navigation Canal Lock Complex project (~\$366 million)
 - Adaptive Management Program (~\$60.9 million)
 - Parish Matching Program (up to \$100 million)
 - Contingency funds (~\$24.6 million)

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:

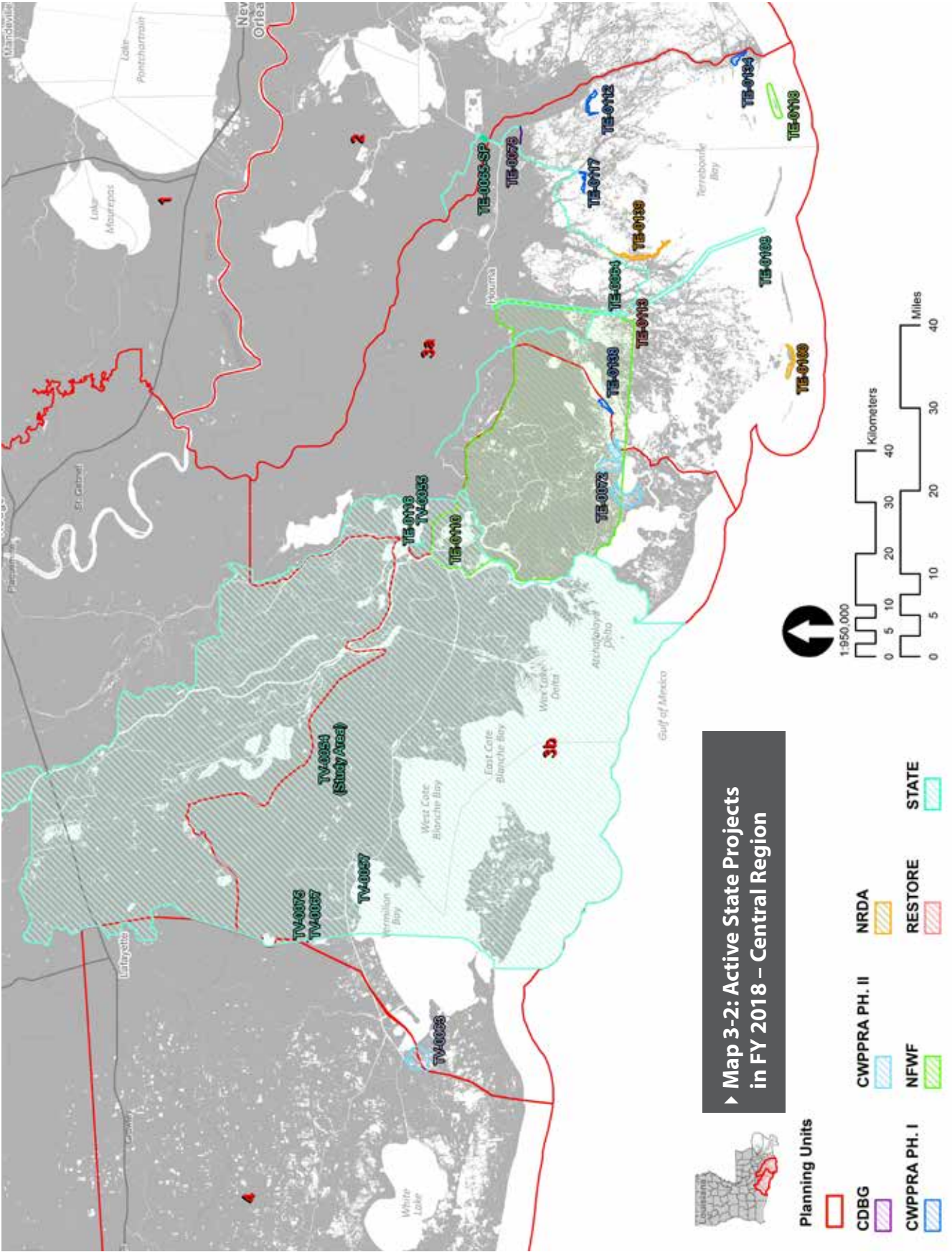
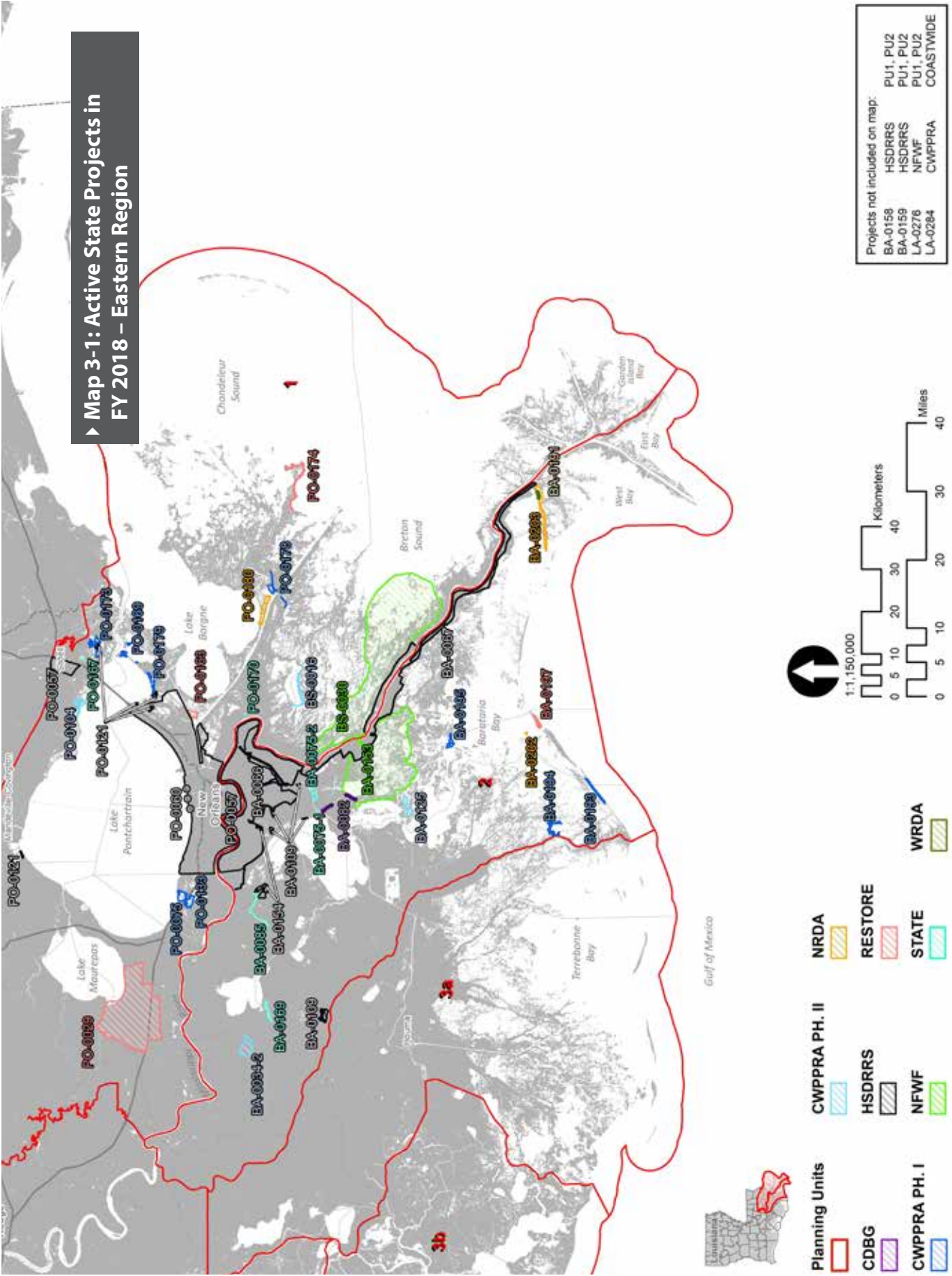
- Golden Triangle Marsh Creation Project (\$4.3M; planning)
- Mississippi River Reintroduction into Maurepas Swamp (\$14.2 M; planning)
- Biloxi Marsh Living Shoreline Project (\$3.2 M; planning)
- West Grand Terre Beach Nourishment and Stabilization Project (\$7.3 M; planning)
- Lower Mississippi River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

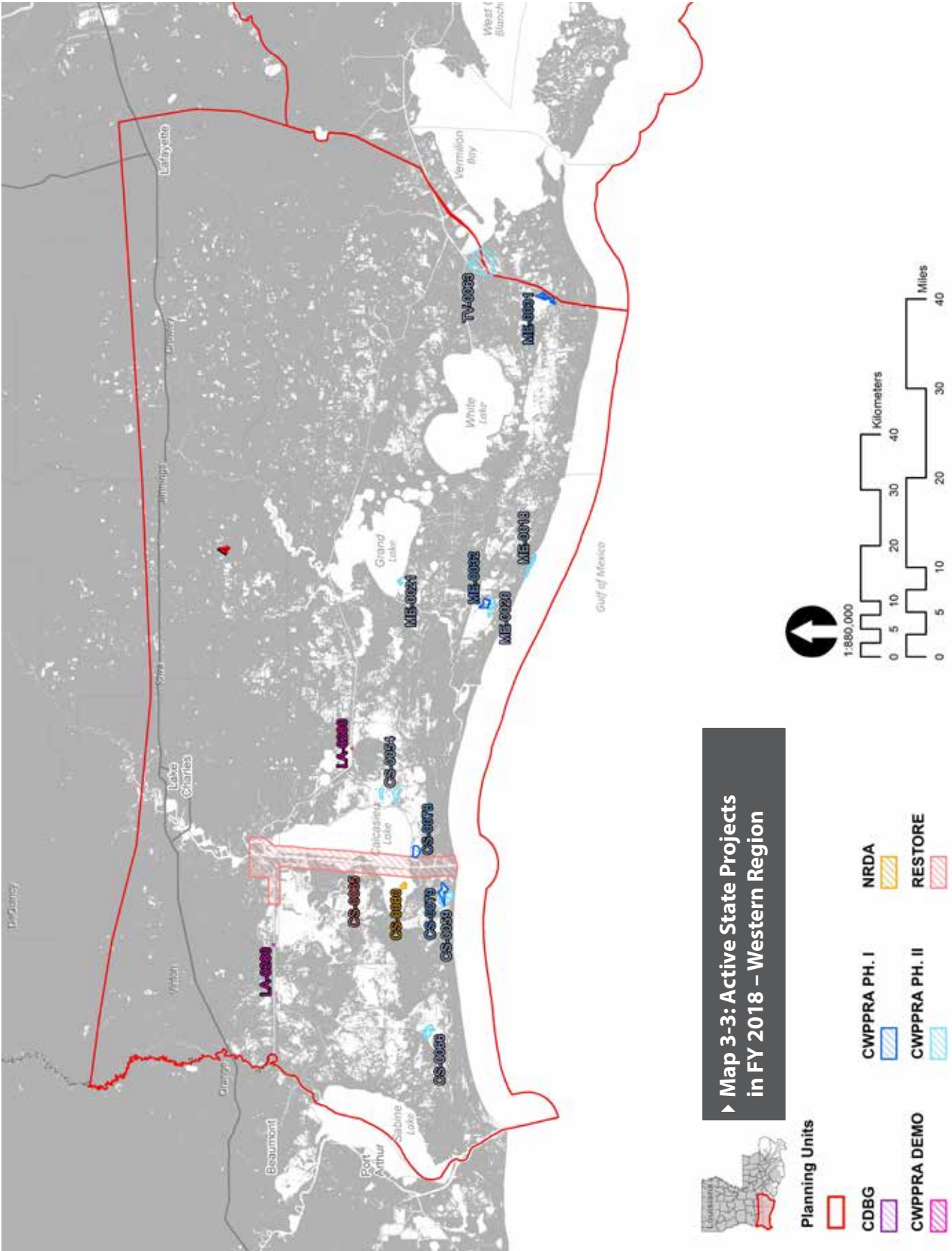
Two additional projects, Jean Lafitte Canal Backfilling (\$8.7 million; implementation) and Bayou Dularge Ridge, Marsh and Hydrologic Restoration (\$5.2 million; planning) are also located in Louisiana. These two projects, submitted for funding by federal members of the Council, will directly benefit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

In November 2016 the State's Center of Excellence, 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. The CPRA will provide over \$4 million under this first installment to the Center 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. More information on the Center's work may be found at: www.LA-COE.org.





► Table 3-1: 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	11-Jul-17	31-Jul-18	\$6,188,548
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	01-May-17	15-Aug-18	\$24,655,612
CS-0059	Oyster Bayou Marsh Creation and Terracing	30-Jun-16	31-Aug-17	\$30,866,713
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	17-Apr-17	13-Sep-18	\$35,426,478
ME-0020	South Grand Chenier Marsh Creation Project	03-Mar-17	17-Aug-18	\$23,873,346
ME-0021	Grand Lake Shoreline Protection- Tebo Point	17-May-16	20-Jul-17	\$11,305,616
PO-0104	Bayou Bonfouca Marsh Creation	28-Apr-16	31-Jan-18	\$29,273,984
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	07-Sep-16	18-Jun-18	\$35,876,728
TV-0063	Cole's Bayou Marsh Restoration	20-Jun-17	19-Sep-18	\$24,930,426
State-Only Projects				
BA-0075-1	Jean Lafitte Tidal Protection	19-Feb-14	12-Dec-18	\$29,403,973
BA-0075-2	Rosethorne Tidal Protection	16-Aug-17	28-May-19	\$22,950,000
BA-0085	St. Charles West Bank Hurricane Protection Levee	01-Nov-13	1-Sep-22	\$14,500,000
BA-0169	Kraemer Bayou Boeuf Levee Lift	26-Apr-17	30-Apr-19	\$1,200,000
PO-0170	Violet Canal North Levee Alignment	31-Jul-17	31-Aug-18	\$1,164,000
TE-0064	Morganza to the Gulf	30-Nov-05	1-Oct-19	\$177,003,835
TE-0065-SP	Larose to Golden Meadow - Larose Sheetpile	26-Jan-15	30-Jun-18	\$8,000,000
TE-0116	St. Mary Backwater Flooding	27-Mar-17	20-Feb-19	\$5,000,000
TV-0055	Morgan City/St. Mary Flood Protection	20-Oct-16	12-Mar-18	\$10,900,000
CDBG Projects				
BA-0082	Lafitte Area Levee Repair	21-Aug-17	17-Jul-18	\$546,000
TE-0078	Cut-Off/Pointe Aux Chene Levee	26-Jul-17	13-Aug-18	\$8,468,857
HSDRRS Projects				
BA-0066	West Bank and Vicinity	27-Mar-07	29-Jun-18	\$4,304,525,784
BA-0067	New Orleans to Venice	21-Nov-11	11-Dec-23	\$1,301,523,760
BA-0109	HSDRRS Mitigation- WBV ³	16-Jun-16	15-Jul-19	\$126,000,000
BA-0154	Previously Authorized Mitigation WBV ³	04-Aug-14	31-Oct-18	\$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 ⁴	01-Jan-13	30-Jun-18	\$614,800,000
PO-0121	HSDRRS Mitigation- LPV ⁴	23-Jul-15	3-Sep-19	\$85,000,000
NRDA Early Restoration Projects				
TE-0100	NRDA Caillou Lake Headlands	22-Jul-15	15-May-18	\$118,340,766
WRDA Projects				
BA-0191	Spanish Pass Ridge and Marsh Restoration	15-Jul-16	6-Feb-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. Project cost included in total cost for BA-0066.				
4. Project cost included in total cost for PO0063.				

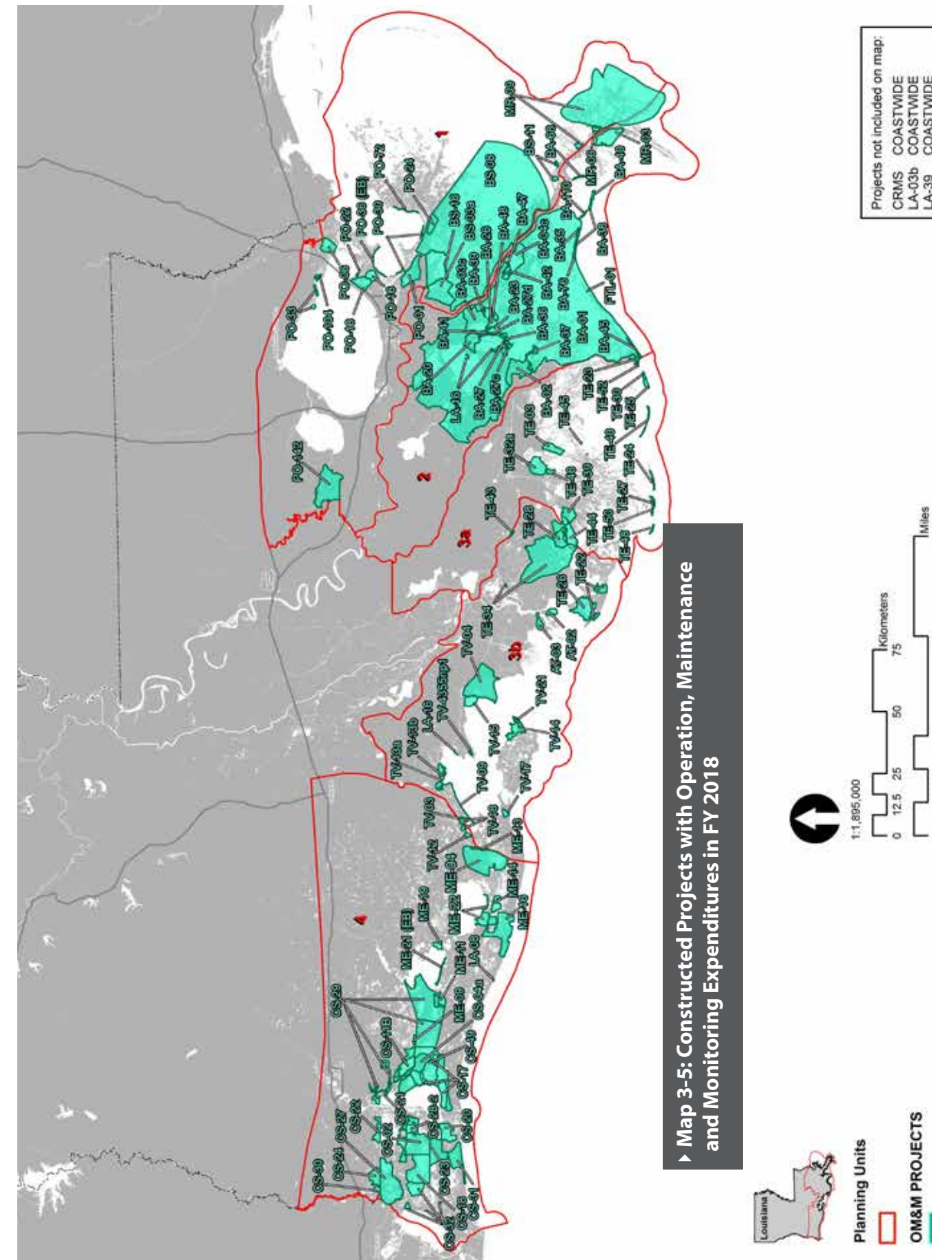
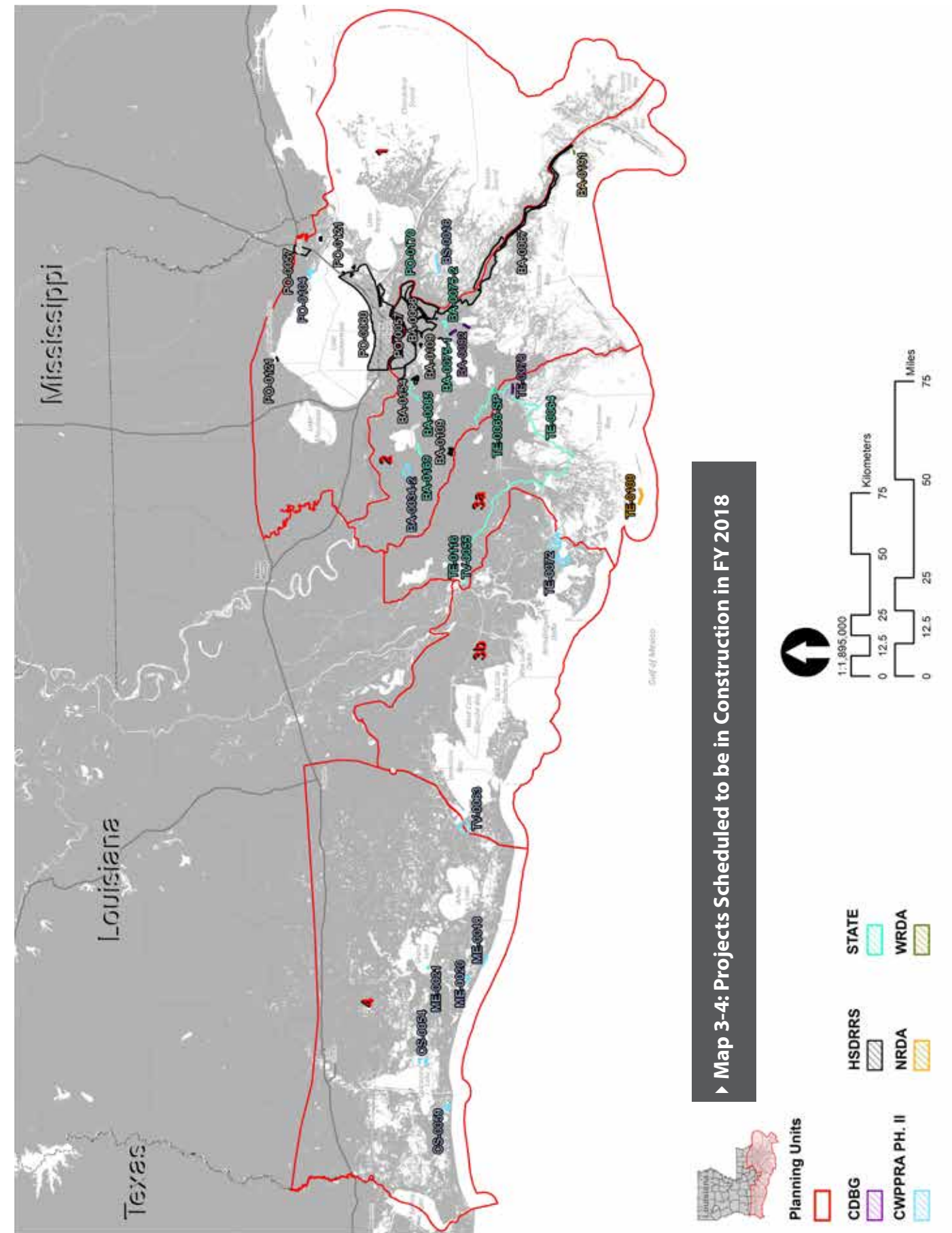


Table 3-2: Projected Three-Year Schedules for Active CWPPRA Projects¹ (FY 2018 - 2020)

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020	
				1FQ	2FQ	3FQ	4FQ	1FQ	2FQ	3FQ	4FQ	1FQ	2FQ	3FQ	4FQ
				2018	2018	2018	2018	2019	2019	2019	2019	2020	2020	2020	2020
CWPPRA Phase I Projects															
BA-0193	Caminada Headlands Back Barrier Marsh Creation Increment 2	2	EPA	D	D	D	D	D	D	W	W	W	W	W	W
BA-0194	East Leeville Marsh Creation and Nourishment	1	NOAA	D	D	D	D	D	D	D	D	D	D	W	W
BA-0195	Barataria Bay Rim Marsh Creation and Nourishment	1	NRCS	D	D	D	D	D	D	D	D	D	D	W	W
CS-0078	No Name Bayou Marsh Creation and Nourishment	1	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
CS-0079	Oyster Lake Marsh Creation and Nourishment	1	NOAA	D	D	D	D	D	D	W	W	W	W	W	W
ME-0031	Freshwater Bayou Marsh Creation (CWPPRA)	1	NRCS	D	D	D	D	D	D	D	D	D	D	W	W
ME-0032	South Grand Chenier Marsh Creation - Baker Tract	1	NRCS	D	D	D	D	D	D	D	W	W	W	W	W
PO-0075	LaBranche East Marsh Creation	2	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
PO-0133	Labranche Central Marsh Creation	2	NRCS	D	D	D	D	D	D	W	W	W	W	W	W
PO-0169	New Orleans Landbridge Shoreline Stabilization & Marsh Creation	1	USFWS	D	D	D	D	D	D	W	W	W	W	W	W
PO-0173	Fritchie Marsh Creation and Terracing	1	NOAA	D	D	D	D	D	D	D	D	D	D	W	W
PO-0178	Bayou La Loutre Ridge Restoration and Marsh Creation	1	NRCS	D	D	D	D	D	D	D	D	D	D	D	D
PO-0179	St. Catherine Island Marsh Creation and Shoreline Protection	1	USFWS	D	D	D	D	D	D	D	D	D	D	W	W
TE-0112	North Catfish Lake Marsh Creation	2	NRCS	D	D	D	D	D	W	W	W	W	W	W	W
TE-0117	Island Road Marsh Creation and Nourishment	1	NOAA	D	D	D	D	D	W	W	W	W	W	W	W
TE-0134	West Fourchon Marsh Creation	1	NOAA	D	D	D	D	D	W	W	W	W	W	W	W
TE-0138	Bayou DeCade Ridge and Marsh Creation	1	NOAA	D	D	D	D	D	D	D	D	D	D	W	W
BA-0171	Caminada Headland Back Barrier Marsh Creation	1	EPA	W	W	W	W	W	W	W	W	W	W	W	W
BA-0173	Bayou Grande Cheniere Marsh and Ridge Restoration	1	USFWS	W	W	W	W	W	W	W	W	W	W	W	W
BS-0024	Terracing and Marsh Creation South of Big Mar	2	USFWS	W	W	W	W	W	W	W	W	W	W	W	W
CS-0049	Cameron-Creole Freshwater Introduction	1	NRCS	W	W	W	W	W	W	W	W	W	W	W	W
PO-0034	Alligator Bend Marsh Restoration and Shoreline Protection	1	NRCS	W	W	W	W	W	W	W	W	W	W	W	W
PO-0168	Shell Beach South Marsh Creation ¹	1	EPA												
TE-0039-CU2	South Lake Decade Freshwater Introduction - CU2 ¹	1	NRCS												

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020		
				1FQ 2018	2FQ 2018	3FQ 2018	4FQ 2018	1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020	
CWPPRA Phase II Projects																
BA-0034-2	Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp	2	EPA	C	C	C	C	F	O	O	O	O	O	O	O	
BA-0125	Northwest Turtle Bay Marsh Creation	2	USFWS	D	D	D	D	B	C	C	C	C	C	F	O	
BS-0016	South Lake Lery Shoreline and Marsh Restoration	C	USFWS	F	O	O	O	O	O	O	O	O	O	O	O	
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	1	USFWS	C	C	C	C	F	O	O	O	O	O	O	O	
CS-0059	Oyster Bayou Marsh Creation and Terracing	1	NOAA	F	O	O	O	O	O	O	O	O	O	O	O	
CS-0066	Cameron Meadows Marsh Creation and Terracing	2	NOAA	D	D	D	D	D	D	B	C	C	C	C	C	
LA-0284	Salvinia Weevil Propagation Facility		USFWS	D	D	D	D	D	D	C	O	O	O	O	O	
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	1	NOAA	C	C	C	C	F	O	O	O	O	O	O	O	
ME-0020	South Grand Chenier Marsh Creation Project	C	USFWS	C	C	C	C	F	O	O	O	O	O	O	O	
ME-0021	Grand Lake Shoreline Protection- Tebo Point	C	NRCS	F	O	O	O	O	O	O	O	O	O	O	O	
PO-0104	Bayou Bonfouca Marsh Creation	C	USFWS	C	C	F	O	O	O	O	O	O	O	O	O	
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	1	USFWS	C	C	C	F	O	O	O	O	O	O	O	O	
TV-0063	Cole's Bayou Marsh Restoration	1	NOAA	C	C	C	C	F	O	O	O	O	O	O	O	
CWPPRA Demo Projects																
LA-0280	Shoreline Protection, Preservation, and Restoration (SSPR) Panel	2	NOAA	D	D	D	D	D	D	D	D	D	D	C	C	C
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							
		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 2018 - 2020)

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020	
				1FQ 2018	2FQ 2018	3FQ 2018	4FQ 2018	1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020
LCA Projects															
BA-0191	Spanish Pass Ridge and Marsh Restoration ¹	1	USACE	C	C	C	F	W	W	W	W	W	W	W	W
PO-0068	LCA Small Diversion at Convent / Blind River ²	1	USACE	W	W	W	W	W	W	W	W	W	W	W	W
MR-0016	Mississippi River Hydrodynamic and Delta Management Study ²	1	USACE												
Other WRDA Projects															
LA-0020	Southwest Coastal Louisiana Feasibility Study ^{1,2}	1	USACE	W	W	W	W	W	W	W	W	W	W	W	W
Legend		P	Feasibility & Planning					B	Both Design & Construction						
References	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 2018 - 2020)

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020	
				1FQ 2018	2FQ 2018	3FQ 2018	4FQ 2018	1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020
State Surplus Projects															
BA-0075-1	Jean Lafitte Tidal Protection	1	N/A	C	C	C	C	C	F						
BA-0075-2	Rosethorne Tidal Protection	1	N/A	C	C	C	C	C	C	C	F				
BA-0085	St. Charles West Bank Hurricane Protection Levee	1	N/A	C	C	C	C	C	C	C	C	C	C	C	C
BA-0169	Kramer/Bayou Boeuf Levee Lift	1	N/A	C	C	C	C	C	C	C	F				
PO-0167	St. Tammany Parish Coastal Protection Study	1	N/A	D	D	D	D	D	D	D					
PO-0170	Violet Canal North Levee Alignment	1	N/A	B	C	C	C	F							
TE-0064	Morganza to the Gulf	C	USACE	C	C	C	C	C	C	C	C	C	F		
TE-0065-SP	Larose to Golden Meadow- Larose Sheetpile	C	N/A	B	B	B	B								
TE-0108	HNC Deepening Section 203 Study	2	USACE	P	P	P	P	P	P						
TE-0116	St. Mary Backwater Flooding	1	N/A	B	B	B	C	C	C	F					
TV-0054	South Central Coastal Plan	-	N/A	P	P	P	P	P	P	P	P	P	P		
TV-0055	Morgan City/ St Mary Flood Protection	1	N/A	C	C	F									
TV-0067	Bayou Tigre Flood Control Project	1	HUD	D	D	D	D	D	D	D	C	C	C	C	C
TV-0075	Bayou Tigre Flood Control Complex	1	N/A	D	D	D	D	D	D	D	C	C	C	C	C
TV-0057	Delcambre-Avery Canal (E&D)	1	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	1	USACE												
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						
		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 2018 - 2020)

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020	
				1FQ 2018	2FQ 2018	3FQ 2018	4FQ 2018	1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020
BA-0082	Lafitte Area Levee Repair	1	HUD	C	C	C	C	F							
TE-0078	Cut-Off/Pointe Aux Chene Levee	1	HUD	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 2018 - 2020)¹

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020	
				1FQ 2018	2FQ 2018	3FQ 2018	4FQ 2018	1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020
BA-0066	West Bank and Vicinity ^{2,3,4,5}	C	USACE	C	C	C	F								
BA-0067	New Orleans to Venice ^{2,3}	1	USACE	C	C	C	C	C	C	C	C	C	C	C	C
BA-0109	HSDRRS Mitigation- WBV ^{2,3}	2	USACE	B	B	B	B	B	B	C	C	F			
BA-0154	Previously Authorized Mitigation WBV ^{2,3}	2	USACE	C	C	C	C	C	F						
BA-0158	New Orleans to Venice Mitigation - Plaquemines Non-Federal ^{2,3}	2	USACE	D	D	D	D	D	C	C	C	C	C	C	C
BA-0159	New Orleans to Venice Mitigation - Federal ^{2,3}	2	USACE	D	D	D	D	D	C	C	C	C	C	C	C
PO-0057	SELA- Overall ^{2,3}	C	USACE	C	C	C	C	C	C	C	C	C	C	C	C
PO-0060	Permanent Canal Closures and Pump Stations ^{2,3}	1	USACE	C	C	C	F								
PO-0121	HSDRRS Mitigation- LPV2 ^{2,3}	2	USACE	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. Schedule does not include HSDRRS Armoring, which is anticipated to continue into 2020. 5. Payments for 30-year payback to commence upon completion of construction activities. According to the USACE, payback will begin in calendar year 2019.	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 2018 - 2020)

Project ID	Project Name	Tier	Federal Sponsor	CY 2017		Calendar Yr 2018				Calendar Yr 2019				CY 2020	
				1FQ 2018	2FQ 2018	3FQ 2018	4FQ 2018	1FQ 2019	2FQ 2019	3FQ 2019	4FQ 2019	1FQ 2020	2FQ 2020	3FQ 2020	4FQ 2020
NRDA Early Restoration Projects															
BA-0202	Queen Bess Island Restoration	1	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	1	N/A	D	D	D	D	D	D	D	D	D	D	W	W
CS-0080	Rabbit Island Restoration	1	N/A	D	D	D	D	D	D	D	D	W	W	W	W
PO-0180	Lake Borgne Marsh Creation- Increment 1	1	N/A	D	D	D	D	D	D	D	D	D	D	W	W
TE-0100	NRDA Caillou Lake Headlands	1	N/A	C	C	C	C	F							
TE-0139	Terrebonne Basin Ridge and Marsh Creation- Bayou Terrebonne Increment	1	N/A	D	D	D	D	D	D	D	D	D	D	W	W
NFWF Projects															
BA-0153	Mid-Barataria Sediment Diversion	1	N/A	D	D	D	D	D	D	D	D	D	D	W	W
BS-0030	Mid-Breton Sediment Diversion	1	N/A	D	D	D	D	D	D	D	D	D	D	D	D
LA-0276	Sediment Diversion Implementation and Program Management	1	N/A	D	D	D	D	D	D	D	D	D	W	W	W
TE-0110	Increase Atchafalaya Flow to Eastern Terrebonne	1	N/A	D	D	D	D	D	D	D	D	D	D	D	D
TE-0118	East Timbalier Island Restoration	1	N/A	D	D	D	D	D	D	D	D	D	D	W	W
RESTORE Projects (Proposed)															
BA-0197	West Grand Terre Beach Nourishment and Stabilization	1	N/A	D	D	D	D	D	D	D	D	D	W	W	W
CS-0065	Calcasieu Ship Channel Salinity Control Measures	1	N/A	D	D	D	D	D	D	D	D	W	W	W	W
PO-0029	Mississippi River Reintroduction into Maurepas Swamp	1	N/A	D	D	D	D	D	D	D	D	D	D	D	D
PO-0163	Golden Triangle Marsh Creation	1	N/A	D	D	D	D	D	D	D	D	D	D	D	W
PO-0174	Biloxi Marsh Living Shoreline Project	1	N/A	D	D	D	D	D	D	D	D	D	D	W	W
TE-0113	Houma Navigation Canal Lock Complex	1	N/A	D	D	D	D	D	D	D	W	W	W	W	W
N/A	Lower Mississippi River Management	-	N/A	P	P	P	P	P	P	P	P	P	P	P	P
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						

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Section 4
Projections:
2018 - 2019 - 2020

Section 4

Projections: Fiscal Years 2018 – 2019 – 2020

Table 4-1 presents projected state revenues over the next three fiscal years. Tables 4-2 through 4-4 show how the state proposes to spend its coastal budget over the next three fiscal years. Figures 4-1 through 4-3 depict projected expenditures by project phase for FY 2018–FY 2020, 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 2018 (July 1, 2017 through June 30, 2018). The implementation plan incorporates projects that have received funding for planning, design, construction, or OM&M. The state is exploring new funding sources, with the intent of obtaining 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 2018 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 and for continuing state efforts in coastal restoration and protection.
- 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 2020.
- The Gulf of Mexico Energy Security Act (GOMESA) provides four Gulf Coast states, including Louisiana, with 37.5 percent of federal revenue gained from new OCS drilling leases. Full funding from GOMESA will begin in 2018 and is expected to eventually contribute \$120–140 million to Louisiana each year. No end date has been established for GOMESA funding. The state is considering bonding GOMESA funds based on expected revenue from future oil and gas royalty payments, a strategy that could contribute significant funding to the coastal program over the near-term. The state is also considering borrowing GOMESA funds from the federal government based on expected future royalties. Before bonding or borrowing can take place, however, the U.S. Department of the Interior must publish regulations for allocating funds to the state, and the state must estimate the amount of money that can be expected from oil and gas revenues (both short- and long-term). With these estimates, the potential revenue stream can be evaluated.

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- Louisiana received \$1.06 billion in CDBG funding to assist in the recovery from Hurricanes Gustav and Ike. This total includes an allocation of \$27.4 million for state coastal protection and restoration projects. All CDBG funding resulting from Hurricanes Gustav and Ike is currently projected to be expended by FY 2018.
- 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 2018, the CPRA is requesting Capital Outlay funding to supplement implementation of 13 coastal projects. Additional information about this request is presented in Appendix F. Final decisions on Capital Outlay requests will be announced at the close of the 2017 Regular Legislative Session.

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 2018 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 flood risk reduction projects. The *Deepwater Horizon* oil spill has the potential to be a significant source of funding in the coming years.

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. The CPRA has been granted authority to reprogram dollars from approved funding streams and allocate the dollars to best meet new opportunities or needs. Reprogramming of existing and new funds will likely occur, with approval from the CPRA 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.

► Table 4-1: Projected Three-Year Revenues (FY 2018 - FY 2020)

Revenue Sources	FY 2018	FY 2019	FY 2020	Program Total (FY 2018 - FY 2020)
CPR Trust Fund Annual Revenue ^{1,2}	\$14,600,000	\$15,200,000	\$15,700,000	\$45,500,000
CPR Trust Fund Carried Forward	\$6,751,177	TBD	TBD	\$6,751,177
GOMESA ^{1,3}	\$140,000,000	\$140,000,000	\$140,000,000	\$420,000,000
GOMESA Carried Forward ⁴	\$1,600,000	\$119,750,000	TBD	\$121,350,000
DOTD Interagency Transfer ¹	\$4,000,000	\$4,000,000	\$4,000,000	\$12,000,000
DOTD Interagency Transfer- Projects	\$73,600	\$0	\$0	\$73,600
CWPPRA Federal Funds ⁵	\$96,384,103	\$75,904,989	\$76,500,081	\$248,789,173
Surplus '07, '08, '09 Carried Forward	\$161,284,403	\$26,000,310	\$7,054,375	\$194,339,088
Community Development Block Grants	\$9,806,680	\$11,680	\$0	\$9,818,360
Capital Outlay Funds	\$15,560,000	TBD	TBD	\$15,560,000
NRDA Revenues (<i>Deepwater Horizon</i>)	\$140,820,491	\$38,940,922	\$150,855,241	\$330,616,653
NFWF Revenues (<i>Deepwater Horizon</i>)	\$54,410,295	\$65,827,227	\$519,239,290	\$639,476,812
Proposed RESTORE Revenues (<i>Deepwater Horizon</i>)	\$61,718,000	\$48,206,637	\$132,798,175	\$242,722,812
LDNR Mitigation Funds ⁶	\$500,000	\$500,000	\$500,000	\$1,500,000
LDNR Beneficial Use Funds ⁶	\$250,000	\$250,000	\$250,000	\$750,000
LDWF Interagency Transfer ⁷	\$1,000,000	\$0	\$0	\$1,000,000
MOEX Settlement ⁸	\$704,687	\$131,250	\$704,687	\$1,540,624
Berm to Barrier ⁹	\$98,972	\$14,600	\$21,680	\$135,252
OM&M Federal Funds ¹⁰	\$29,048,815	\$17,423,395	\$15,467,305	\$61,939,515
FEMA Reimbursement for OM&M ^{11,12}	\$1,510,886	\$0	\$0	\$1,510,886
LOSCO Funding ¹³	\$112,272	\$102,272	\$102,272	\$316,816
NAS Research Practice Grant ¹⁴	\$200,000	\$200,000	\$200,000	\$600,000
Project Billing ¹⁵	\$23,380,757	\$24,701,841	\$25,689,914	\$73,772,512
Capital Outlay Request Submitted for HSDRRS 30-Year Payback	\$0	\$0	\$98,000,000	\$98,000,000
Total Projected Revenue	\$763,815,138	\$577,165,122	\$1,187,083,020	\$2,528,063,280
Notes				
<div><div>1.</div><div>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).</div></div> <div><div>2.</div><div>Estimate tied to mineral revenue.</div></div> <div><div>3.</div><div>GOMESA funds must be disbursed to the applicable states by the end of the federal fiscal year. FY 2018 GOMESA funds are anticipated to be received between April 2018 (4Q18) and September 2018 (1Q19). Because the funds would arrive no earlier than the final quarter of FY 2018, nearly all 2018 GOMESA funding would be expended no earlier than FY 2019. Projects to receive GOMESA funding will be provided in the FY 2019 Annual Plan to ensure that proper clarity is available regarding the exact amount of available GOMESA funding, and also to ensure consistency with the 2017 Master Plan (which will be in effect at the time of receipt of GOMESA funding).</div></div> <div><div>4.</div><div>Represents carry-forward of unexpended funds from prior-year GOMESA payments.</div></div> <div><div>5.</div><div>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.</div></div> <div><div>6.</div><div>Supplemental funding to augment construction of eligible projects (specific projects to be determined at a later date).</div></div> <div><div>7.</div><div>Supplemental funding to augment construction of project ME-0018.</div></div> <div><div>8.</div><div>Represents anticipated balance as of FY 2018 of an initial deposit of \$6.75 million of funds from the MOEX settlement.</div></div> <div><div>9.</div><div>Used to fund monitoring of constructed Berm to Barrier projects.</div></div> <div><div>10.</div><div>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.</div></div> <div><div>11.</div><div>Represents anticipated reimbursement associated with recovery from past disasters which has been obligated by FEMA.</div></div> <div><div>12.</div><div>CPRA is pursuing FEMA recovery funding through the FEMA appeals process to restore the form and function of the Coastal Barrier Island Resource System (CBRS) units S01-S08 which were lost as a result of Hurricane Katrina. The cumulative cost of this restoration is estimated to be on the order of \$500 million.</div></div> <div><div>13.</div><div>Represents reimbursement of expenditures for CPRA (non-DWH) oil spill response activities.</div></div> <div><div>14.</div><div>Represents funding applied for in December 2016 to fund select Monitoring Data and Interpretations tasks (see Table 4-3).</div></div> <div><div>15.</div><div>Represents salary and other work-in-kind reimbursements for services performed on projects in funding programs listed in the table above.</div></div>				

► Table 4-2: Projected Three-Year Expenditures¹ (FY 2018 - FY 2020)

Program / Funding Source	FY 2018	FY 2019	FY 2020	Program Total (FY 2018 - FY 2020)
CWPPRA State Expenditures (not including Surplus expenditures) ²	\$8,509,289	\$14,095,011	\$13,499,919	\$36,104,219
CWPPRA Federal Expenditures ³	\$96,384,103	\$75,904,989	\$76,500,081	\$248,789,173
WRDA Project Expenditures (not including Surplus expenditures)	\$0	\$0	\$0	\$0
Surplus Projects and Program Expenditures	\$161,284,403	\$26,000,310	\$7,054,375	\$194,339,088
Community Development Block Grants	\$9,806,680	\$11,680	\$0	\$9,818,360
HSDRRS 30-Year Payback ⁴	\$0	\$0	\$98,000,000	\$98,000,000
MOEX Project Expenditures	\$704,687	\$131,250	\$704,687	\$1,540,624
DOTD Interagency Transfer- HNC Deepening Expenditures	\$73,600	\$0	\$0	\$73,600
Capital Outlay Project Expenditures	\$15,560,000	TBD	TBD	\$15,560,000
State-Only Project Expenditures (Non-Surplus)	\$188,184	\$199,864	\$199,864	\$587,912
NRDA Expenditures (<i>Deepwater Horizon</i>)	\$140,820,491	\$38,940,922	\$150,855,241	\$330,616,653
NFWF Expenditures (<i>Deepwater Horizon</i>)	\$54,410,295	\$65,827,227	\$519,239,290	\$639,476,812
Proposed RESTORE Expenditures (<i>Deepwater Horizon</i>) (not including Surplus Expenditures)	\$61,718,000	\$48,206,637	\$132,798,175	\$242,722,812
LDNR Mitigation Expenditures ⁵	\$500,000	\$500,000	\$500,000	\$1,500,000
LDNR Beneficial Use Expenditures ⁵	\$250,000	\$250,000	\$250,000	\$750,000
LDWF Interagency Transfer Expenditures ⁶	\$1,000,000	\$0	\$0	\$1,000,000
OM&M- State Expenditures (not including Surplus expenditures)	\$9,126,372	\$8,673,455	\$6,083,374	\$23,883,201
OM&M- Federal Expenditures ⁷	\$29,048,815	\$17,423,395	\$15,467,305	\$61,939,515
OM&M- Marine Debris Removal (Partially Reimbused by FEMA) ⁸	\$1,640,130	\$0	\$0	\$1,640,130
GOMESA Expenditures ⁹	\$21,850,000	TBD	TBD	\$21,850,000
NAS Research Practice Grant Expenditures	\$200,000	\$200,000	\$200,000	\$600,000
Operating Costs (see Tables 4-3 and 4-4)	\$30,990,089	\$36,800,160	\$39,790,392	\$107,580,641
Total Planned Expenditures	\$644,065,138	\$333,164,899	\$1,061,142,703	\$2,038,372,740
Notes				
<div><div>1.</div><div>Represents proposed expenditures provided that commensurate level of funding is received.</div></div> <div><div>2.</div><div>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 2019 - FY 2020 are therefore based on prior years' expenditures.</div></div> <div><div>3.</div><div>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.</div></div> <div><div>4.</div><div>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.</div></div> <div><div>5.</div><div>Supplemental funding to augment construction of eligible projects (specific projects to be determined at a later date).</div></div> <div><div>6.</div><div>Supplemental funding to augment construction of project ME-0018.</div></div> <div><div>7.</div><div>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.</div></div> <div><div>8.</div><div>Represents anticipated reimbursement associated with recovery from past disasters which has been obligated by FEMA.</div></div> <div><div>9.</div><div>FY 2018 GOMESA expenditures include the GOMESA Infrastructure Program (\$14 million) and Adaptive Management expenditures (see Table 4-3). Projects to receive GOMESA funding will be provided in the FY 2019 Annual Plan to ensure that proper clarity is available regarding the exact amount of available funding and also to ensure consistency with the 2017 Master Plan (which will be in effect at the time of receipt of GOMESA funding).</div></div>				

► **Table 4-3: Programmatic Projected Three-Year Expenditures (FY 2018 - FY 2020)**

Program ID	Program Name	FY 2018	FY 2019	FY 2020	Program Total (FY 2018 - FY 2020)
Ongoing Program Expenditures ¹					
N/A	Beneficial Use Program ²	\$1,709,653	\$2,000,000	\$2,000,000	\$5,709,653
LA-0251	Barrier Island Maintenance Program ²	\$2,644,359	TBD	TBD	\$2,644,359
N/A	Vegetative Plantings	\$400,000	\$400,000	\$400,000	\$1,200,000
PO-0162	Assistance to Levee Authorities	\$0	\$1,000,000	\$1,000,000	\$2,000,000
LA-0028	Restoration Partnerships	\$0	\$1,000,000	\$1,000,000	\$2,000,000
N/A	Project Support	\$2,700,000	\$3,000,000	\$3,000,000	\$8,700,000
Total Ongoing Programs Expenditures		\$7,454,012	\$7,400,000	\$7,400,000	\$22,254,012
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	\$0	\$150,000	\$150,000	\$300,000
LA-0261	Non-structural Program Development ^{2,3}	\$500,000	TBD	TBD	\$500,000
Focused Applied Research					
LA-0257	Louisiana Coastal Engineering, Research and Education ⁴	\$40,000	\$0	\$0	\$40,000
LA-0158	Coastal Science Assistantship Program	\$200,000	\$385,000	\$385,000	\$970,000
N/A	Coastal Innovation Partnership Program	\$0	\$225,000	\$0	\$225,000
Science and Technical Advisory Boards					
LA-0260	Master Plan Advisory Committees	\$0	\$0	\$300,000	\$300,000
Model Development and Refinement					
LA-0250	Master Plan Predictive Models ⁵	\$1,650,000	\$2,500,000	\$4,000,000	\$8,150,000
MR-0016-SSPM	Small Scale Physical Model ⁶	\$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 ^{6,7}	\$5,800,000	\$6,000,000	\$6,300,000	\$18,100,000
N/A	SWAMP Implementation ^{4,6,7}	\$17,095,000	\$17,800,000	\$22,580,000	\$57,475,000
LA-0226	Barrier Island Comprehensive Monitoring ⁵	\$1,405,300	\$735,300	\$1,927,159	\$4,067,759
LA-0030	CRMS-Wetlands	\$1,250,000	\$1,250,000	\$1,250,000	\$3,750,000
LA-0253	Flood Protection Inspections/Analysis ⁵	\$1,800,000	\$2,700,000	\$2,800,000	\$7,300,000
N/A	Regional Geology and Sediment Management ⁴	\$400,000	\$400,000	\$400,000	\$1,200,000
Data Management and Analysis					
LA-0258	Data Management ⁴	\$2,400,000	\$2,400,000	\$2,400,000	\$7,200,000
LA-0254	Monitoring Data Interpretations ^{4,6,7,8}	\$1,200,000	\$1,050,000	\$1,050,000	\$3,300,000

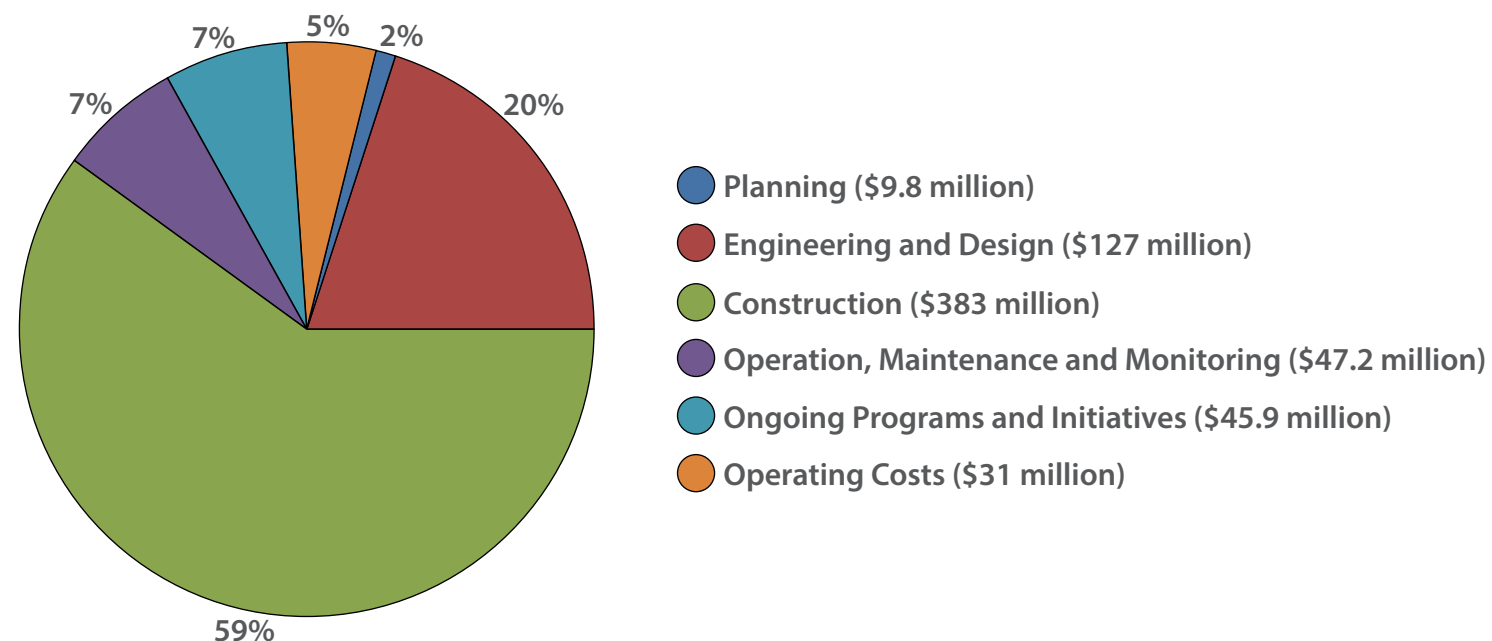
► **Table 4-3: Programmatic Projected Three-Year Expenditures (FY 2018 - FY 2020)**

Program ID	Program Name	FY 2018	FY 2019	FY 2020	Program Total (FY 2018 - FY 2020)
Communication and Messaging					
N/A	Workshop and Conference Development	\$150,000	\$150,000	\$150,000	\$450,000
LA-0249	Coastal Education ⁴	\$600,000	\$600,000	\$600,000	\$1,800,000
Total Adaptive Management Expenditures		\$35,840,300	\$37,095,300	\$45,042,159	\$117,977,759
TOTAL Programmatic Expenditures		\$43,294,312	\$44,495,300	\$52,442,159	\$140,231,771
Programmatic Surplus Expenditures (See Table B-5)		\$4,854,012	\$0	\$0	\$4,854,012
Programmatic NRDA Expenditures (See Table B-14)		\$11,550,000	\$13,387,579	\$16,479,325	\$41,416,904
Programmatic NFWF Expenditures (See Table B-14)		\$7,650,300	\$5,780,300	\$4,795,000	\$18,225,600
Programmatic RESTORE Expenditures (See Table B-14)		\$10,040,000	\$9,517,421	\$11,755,675	\$31,313,096
Programmatic GOMESA Expenditures		\$6,250,000	\$8,000,000	\$9,600,000	\$23,850,000
Programmatic NAS Expenditures		\$200,000	\$200,000	\$200,000	\$600,000
Programmatic Operations Expenditures		\$2,750,000	\$7,610,000	\$9,612,159	\$19,972,159
Notes					
1. FY 2018 expenditures for Ongoing Programs are significantly reduced because of lower incoming Trust Fund revenues relative to prior years. Future expenditures are anticipated to return to typical levels as additional funding becomes available.					
2. FY 2018 expenditures funded by surplus funds.					
3. FY 2018 expenditures will be used to develop a coordinated strategy for implementing nonstructural projects identified in the Master Plan for coastal communities. This may also include the development of pilot projects in coastal parishes with high levels of risk and vulnerability.					
4. FY 2018 expenditures funded by RESTORE Adaptive Management Funds.					
5. FY 2018 expenditures funded by GOMESA funds (provided funding is procured within the fiscal year).					
6. FY 2018 expenditures funded by NFWF Adaptive Management Funds.					
7. FY 2018 expenditures funded by NRDA Adaptive Management Funds.					
8. FY 2018 expenditures funded by NAS Research Practice Grant (see Table 4-1).					

► **Table 4-4: State Protection and Restoration Projected Three-Year Operating Expenditures (FY 2018 - FY 2020)**

Program	FY 2018	FY 2019	FY 2020	Program Total (FY 2018 - FY 2020)
CPRA	\$23,751,770	\$24,701,841	\$25,689,914	\$74,143,525
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	\$28,240,089	\$29,190,160	\$30,178,233	\$87,608,482

► **Figure 4-1: Projected FY 2018 Expenditures by Project Phase**

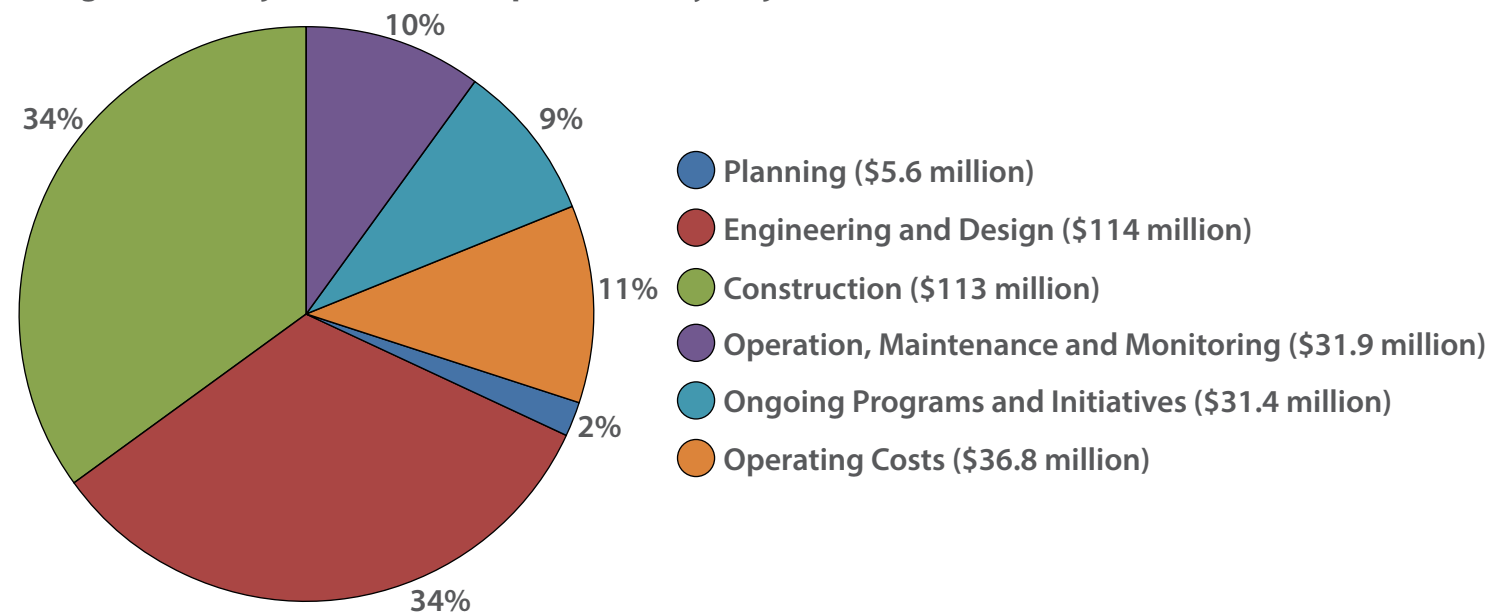


Notes

- Construction includes Beneficial Use (\$1.7 million)
- OM&M includes BIMP (\$2.6 million), Repair/Rehabilitation of Projects (\$759,739), Marine Debris Removal (\$1.6 million)

TOTAL Expenditures
\$644 million

► **Figure 4-2: Projected FY 2019 Expenditures by Project Phase**

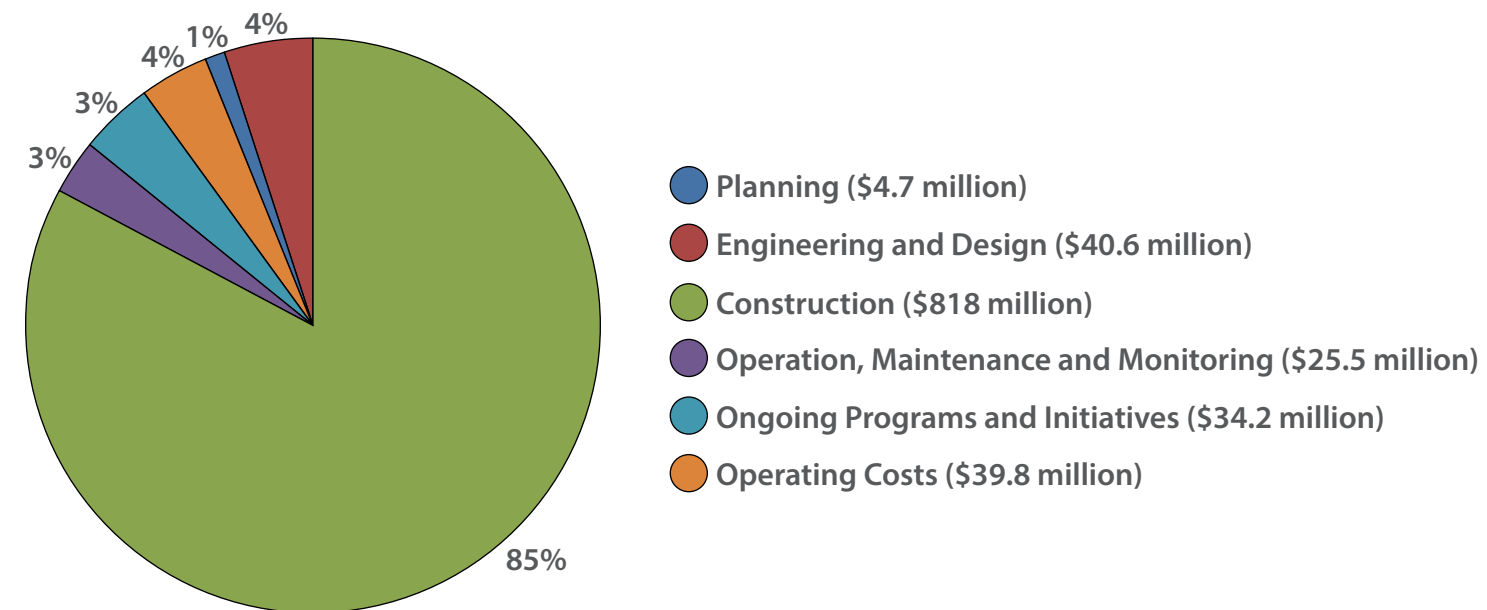


Notes

- Construction includes Beneficial Use (\$2 million)
- Engineering and Design and Construction include CWPPRA adjustment for outlying years (see Table 4-2 for explanation)
- Expenditures do not include GOMESA funding (GOMESA expenditure forecast to be developed following receipt of funding)

TOTAL Expenditures
\$333 million

► **Figure 4-3: 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 million)
- Expenditures do not include GOMESA funding (GOMESA expenditure forecast to be developed following receipt of funding)

TOTAL Expenditures
\$963 million



Section 5 Appendices

Appendix A
Ongoing Protection
and Restoration
Project Summaries

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ONGOING PROTECTION AND RESTORATION SUMMARIES

CBPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acrees Benefited	Miles of Levee Insured	Construction Completion	Total Budget	Project Description	Planning Unit	
BERM	Riverine Sand Mining/Siltation Island Restoration	BA-0040	BH	N/A	PLAQUEMINES	606	N/A	2013	\$60,839,484	The goal of this project is to transport sediments from the Mississippi River to restore dune and marsh habitat on Scofield Island. Project was designed under CWPFPRA, but constructed using Berman Barrier funds.	Scofield Island	2
BERM	Shell Island East	BA-0110	BH	N/A	PLAQUEMINES	626	N/A	2014	\$47,679,580	The purpose of this project is to restore the integrity of Shell Island, reduce wave energies within the bay area and reestablish productive habitat to B station Bay and the surrounding area. Shell Island East was constructed to a length of approximately 2.8 miles, a dune crest width of approximately 100 feet, and a total area of 620 acres. The project also includes 16 miles of sand berms along the shoreline to protect the landward area.	Shell Island East	2
BERM	Emergency Barrier Berms	N/A	OT	N/A	PLAQUEMINES, SAINT BERNARD	1417	N/A	2011	\$251,000,000	This project involves the construction of a barrier system along the coast of the Mississippi River. The objective of this project was to provide a barrier to oil and minimize the potential impact of the oil spill to thousands of acres of fragile barrier islands and wetlands in coastal Louisiana. Approximately 16 miles of barrier berms were constructed along existing and relic barrier islands in the Chandeleur Islands (Reach E4 - 47,000 LF), Shell Island (Reach W6 - 9,000 LF), Pelican Island (Reach W9 - 12,700 LF), and Scofield Island (Reach W10 - 14,795 LF). Sediment placed at Reaches W8, W9, and W10 was subsequently utilized in barrier island restoration projects BA-110, BA-35, and BA-40, respectively.	Chandeleur Islands	1, 2
CDBG	Lafitte Area Levee Repair	BA-0082	HP	HUD	JEFFERSON	N/A	4	Pending	\$500,000	This project will repair damages to the existing levees in the Fisher Basin Area. This damage was caused by heavy equipment and vehicles used on the levee for flood fighting activities during Ike and Gustav. This project will provide for a 4 inch ft on approximately a 5 mile stretch of levee.	Fisher Basin Area	2
CDBG	Rosehome Wetland Assailation Project	BA-0083	HR	HUD	JEFFERSON	334	N/A	Inactive	\$1,093,769	This project is a wetland mitigation project for currently displaced bays located north of Bayou Bourgeois. This project was intended to utilize a secondary treated municipal effluent diverted from the Rosehome treatment facility, to restore and sustain coastal wetland habitats.	Bayou Bourgeois	2
CDBG	Bayou Lafourche Fresh Water District - Walter S. Lemann 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 Walter S. Lemann Pump Station. This project will also install an emergency generator to operate the pump station during power outages.	Walter S. Lemann Pump Station	2, 3A
CDBG	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 in the Madisonville area.	Lake Pontchartrain and the Chalmette River	1
CDBG	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.	St. Tammany Parish	1
CDBG	Falgout Canal Road Levee	TE-0063	FD	HUD	TERREBONNE	N/A	4.4	2017	\$24,803,191	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 salinities to levels that are favorable for fresh and intermediate marshes and to improve the efficiency of freshwater flow within the project area.	Falgout Canal Road	3A
CDBG	Cut-off Pointe aux Chene Levee	TE-0078	HP	HUD	LAFOURCHE	N/A	8	Pending	\$9,468,657	This project will replace the existing levee that is currently in the existing levee system. The 2.5-mile levee will be constructed along Grand Bayou and lie into the existing levee systems on each end.	Grand Bayou	3A
CDBG	Franklin Floodgate Sinkable Barge and Pump Station (Phase I)	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.	Franklin Canal	3B
CDBG	Franklin Floodgate Sinkable Barge and Pump Station (Phase 2)	TV-0052-2	HP	HUD	ST MARY	N/A	0.2	2015	\$2,148,866	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.	Franklin Canal	3B
CDBG	Flood Control Structure at Boston Canal (Deamureau)	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 GWWV, which could be closed in the event of a hurricane or tropical storm.	Boston Canal	3B
CDBG	Fort Rouge Cremer Hurricane Protection	TV-0060	TE	HUD	VERMILION	40	N/A	Pending	\$2,078,162	This project will conduct approximately 35,000 linear feet of marsh terraces south east of Pecan Island in Vermilion Parish.	Pecan Island	4
CDBG	Bayou Tigre 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.	Bayou Tigre	4
C&P	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 side of the floodwall a distance of 1957 feet. And end at the Port of Morgan City's north gate. The project goal is to reduce the risk traffic through the residential neighborhoods by routing the traffic through the proposed realigned road. The preliminary design shows the road access to the industrial facilities and the museum through the proposed new road, and decrease the traffic in the residential area.	Morgan City	3B
C&P	Achala/La Long Distance Settlement Pipeline	AT-0015	OT, MC	USFWS	TERREBONNE	N/A	N/A	N/A	\$1,500,000	C&P funds allocated 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.	Lower Terrebonne Parish	3A
C&P	Lake Skador Shoreline Protection (Phase II)	BA-0015-V2	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 Salvador.	Lake Salvador	2
C&P	East Grand Terre	BA-0030	BH	USFWS	PLAQUEMINES	683	N/A	2010	\$25,420,247	The objective of this project is to create and/or nourish 1200 acres of marsh in conjunction with CWPFPRA project BA-36.	East Grand Terre	2
B&P	Barataria Land Bridge Designated Dredging (C&P)	BA-0036	MC	USFWS	JEFFERSON	363	N/A	2010	\$18,000,000	The goal of this project is to use material dredged from the Mississippi River and transported via new permanent pipeline across the Barataria Basin to create marsh and/or a ridge.	Barataria Basin	2
C&P	Long Distance Mississippi River Settlement Pipeline	BA-0043-EB	OT, MC	USFWS	LAFOURCHE, TERREBONNE	371	N/A	2016	\$66,094,073	The proposed project will restore and protect beach and dune habitat across the Cammarada Headland through the direct placement of sediment (sand) material for the beach and dune habitat from offshore borrow areas.	Cammarada Headland	2
C&P	Cammarada Headlands	BA-0045	BH	USFWS	LAFOURCHE	730	N/A	2014	\$70,679,580	This project is located 60 miles south of New Orleans in lower Lafourche Parish between Leavelle and Port Fourchon. The project involves the construction of a 12 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders). The Phase IA project involves the construction of a 12 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders). The Phase IB project involves the construction of a 12 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders).	Cammarada Headlands	2
C&P	LA 1 Improvements - Fouchon	BA-0055	OT	USFWS	LAFOURCHE	N/A	N/A	2010	\$33,000,000	This program involves the continued establishment of approximately 300 acres of critical areas of fragile marsh in lower Plaquemines Parish to help maintain the continued rehabilitation of wetlands system throughout the coast.	Lower Plaquemines Parish	2
C&P	Fringe Marsh Repair	BA-0058	MC	USFWS	PLAQUEMINES	300	N/A	2014	\$8,756,605	This project is estimated to allow for the continued dredging of a 1,000 cfs channel for an additional 7 - 12 miles of Bayou Lafourche. Overall project identified for implementation include a receiving 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 settling pondmenting basin in Bayou Lafourche at Donaldsonville, modification of water structures, bank stabilization along Bayou Lafourche, pondmenting basins, and dredging of Bayou Lafourche. The project involves the construction of a 12 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders). The Phase IB project involves the construction of a 12 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders). The Phase IC project involves the construction of a 12 mile long, two lane elevated highway (two, 12 ft lanes and two, 8 ft shoulders).	Bayou Lafourche	2, 3A
C&P	Shoreline Protection Call Island	BA-0162-CAT	SP	USFWS	PLAQUEMINES	40	N/A	Inactive	\$1,200,000	This project will construct a series of submerged levee break structures surrounding the shoreline segments in Lower Plaquemines Parish to protect the shoreline from erosion and maintain the integrity of the shoreline. The project involves the construction of a series of submerged levee break structures surrounding the shoreline segments in Lower Plaquemines Parish to protect the shoreline from erosion and maintain the integrity of the shoreline.	Call Island	2
C&P	Shoreline Protection Emergency Restoration	BA-0162-SFER	SP	USFWS	PLAQUEMINES	40	N/A	2013	\$355,780	This project consists of a series of submerged levee break structures surrounding the shoreline segments in Lower Plaquemines Parish to protect the shoreline from erosion and maintain the integrity of the shoreline. The project involves the construction of a series of submerged levee break structures surrounding the shoreline segments in Lower Plaquemines Parish to protect the shoreline from erosion and maintain the integrity of the shoreline.	Call Island	2
C&P	Bayou Lafourche Floodgate Removal (Inactive)	B8-0013-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.	Bayou Lafourche	1
C&P	FIF Island Restoration	CIAPFFI	SP	USFWS	JEFFERSON	126	N/A	2003	\$751,406	This project provides protection for approximately 100 acres of existing island habitat (Grand Isle & FIF 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.	FIF Island	2
C&P	Marsh Creation via Beneficial Use (Phase 1) (Back 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 Calcasieu Ship Channel.	Calcasieu Ship Channel	4
C&P	Trocenar Road Repairs	CS-0047	OT	USFWS	CAMERON	N/A	N/A	2009	\$2,039,592	This project involves construction an overlay on Trocenar Road, a parish road that is heavily used by off-road traffic. The project is approximately 5 miles long and connects State Highway 27892 from Cameron to State Highway 82 to Lake Groce.	Trocenar Road	4

ONGOING PROTECTION AND RESTORATION SUMMARIES

CFRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
CAKP	Bush 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 Bush Canal using material dredged from the canal. The restored bank-line was then covered with geotextile fabric and armored with stone rip-rap. The result bank-line will help to diminish storm surge as well as reduce saltwater intrusion. This project was funded by the CAAP of 2001.	3A
CAKP	Performance Evaluation - Bayou Lafourche Biological Monitoring	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 Dedicated Dredging Project (BA-36) and will assess the effect of dredged sediment application on soil-vegetation-hydrologic dynamics within deteriorating interior brackish marshes.	2
CAKP	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 slurry fill due to immediate and long term settlement and consolidation. Work performed: reviewing previous analyses performed to help improve our ability to predict settlement and consolidation, researching new methods, models, and techniques that could improve how CFRA design teams predict settlement and consolidation, and conducting field monitoring studies that will be performed to verify the accuracy of the settlement and consolidation analyses performed during project design.	3A
CAKP	CAAP Performance Evaluation - Barrier Island Studies	LA-0012-5	OT	USFWS	JEFFERSON, LAFOURCHE	N/A	N/A	N/A	\$558,806	Evaluation of Tidal Pass Morphology Post-Restoration at East Grand Terre and Development of Barrier Island Comprehensive Monitoring Program regarding sampling protocols.	2
CAKP	CAAP Performance Evaluation - Caminada Moreau Subsidence Study	LA-0012-6	OT	USFWS	JEFFERSON, LAFOURCHE	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
CAKP	CAAP Performance Evaluation - Borrow Area Management and Monitoring	LA-0012-7	OT	USFWS	COASTWIDE	N/A	N/A	N/A	\$813,512	The Borrow Area Monitoring and Management (BAMM) was initiated to understand the evolution of borrow pits for restoration projects (reshore, nearshore, and offshore) over time, with a particular focus on the rifling (rates and types of sediment) and quality of the pit-sediments 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 structures but also the hydroic conditions resulting from the depth of cut of borrow area.	COASTWIDE
CAKP	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
CAKP	Rockefeller Shoreline Protection Demo (CAAP)	ME-0018-EB	SP	USFWS	CAMERON	23	N/A	2009	\$8,500,000	The project involves the construction of three types of shoreline protection structures as a demonstration to determine which type(s) of structures are successful in protecting the shoreline. Successful structures(s) are intended for use in a larger CWPRA Project.	4
CAKP	Grand Lake Shoreline Protection (CAAP)	ME-0021-EB	SP	USFWS	CAMERON	495	N/A	2010	\$9,128,919	This project involves the construction of approximately 37,800 linear feet of shoreline protection on the south shore of Grand Lake from Superior Canal to Tebe Point.	4
CAKP	Mississippi River Delta Strategic Planning - SSPM Expansion	MR-16-SSPM	OT	USFWS	EAST BATON ROUGE	N/A	N/A	2017	\$1,520,000	This project involves the construction of a new expanded Small Scale Physical Model (SSPM) capable of modeling smaller flows and 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 facilitate the use of the model by public, outreach the educational efforts. The project will be a valuable tool for understanding the effects of climate change on the Mississippi River delta and the impacts of major diversions of water and sediments, future conditions, and navigation impacts.	1, 2, 3A
CAKP	Volier Diversion	PO-0035-EB	FD	USFWS	ST BERNARD	13200	N/A	N/A	\$1,170,982	This project investigates the diversion of freshwater from the Mississippi River into Lake Eugene to freshen Mississippi Sound, Central Wetlands, and Back Bay areas. The Feasibility Study for this project is being done as part of the MRSO Ecosystem Restoration ES.	1
CAKP	Orleans Land Bridge & Marsh Creation	PO-0036-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
CAKP	East LaBranche Shoreline Erosion Protection	PO-0043	SP	USFWS	ST CHARLES	Not Available	N/A	2015	\$3,752,816	Through various funding mechanisms including CWPRA and CAAP, all but approximately 18,000 linear feet of the East LaBranche shoreline has been protected. Saint Charles Parish has acquired \$1,753,816 of CAAP 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 CAAP funding to construct shoreline protection for the most critical areas.	1
CAKP	Central Wetlands Demonstration	PO-0073	HR	USFWS	ST BERNARD	10-20	N/A	2016	\$3,500,000	This demonstration project investigates the beneficial use of F-errate as an alternative to chlorine to treat effluent at the SWBNO's East Bank Sewer Treatment Plant.	1
CAKP	Central Wetlands - Riverbend	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 the effluent to be treated in the area, and would also save St. Bernard Parish the cost of running a sewer line from the oxidation plant to the Muslar Plant.	1
CAKP	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 central salt water intrusion from MRGO and thus attempt to replenish the once thriving Central Wetlands. The project involves piping treated effluent from the EBSTP to St. Bernard Parish, and vegetative plantings to nourish and sustain marsh.	1
CAKP	Central Wetlands Demonstration Expansion	PO-0073-3	HR	USFWS	ORLEANS	17.2	N/A	2016	\$4,500,000	The Central Wetlands Demonstration Expansion project would restore up to 17.2 acres of critical wetlands in the area designated A-1 using waste water assimilation of treated wastewater effluent and/or beneficial use of subsidence from the East Bank Wastewater Treatment Plant. The project would provide a natural habitat for waterfowl and other wildlife, and would also encourage the development of a wetland area with indigenous planting from cypress/saple trees to feeding marsh islands. Marsh islands shall encourage the development of habitat for wetlands birds and fish.	1
CAKP	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 installation will take place from Eau Point to the mouth of Bayou La Loure around Lydia Point and Pauline Point extending around the southern shore of Treasure Bay. Other related Living Shoreline projects are in Plaquemines Parish and Jefferson Parish.	1, 2
CAKP	Raney Audubon Wildlife Sanctuary Earthen Terraces	RAINEY	MC	USFWS	VERMILION	640	N/A	2005	\$951,869	This project consists of constructing approximately 35,000 linear feet of terraces. The terraces were created by disking in shallow open water areas and piling the spot on one side of the borrow area. An additional \$301,763 was contributed from the CAAP of 2001.	3B
CAKP	GWYB Bank Restoration of Critical Areas of Terrebonne (CAAP)	TE-0043-EB	SP	USFWS	TERREBONNE	1,180	N/A	2011	\$7,274,676	The project objective is to reduce critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.	3B
CAKP	Freshwater Bayou Bank Stabilization	TV-0011-B-EB	SP	USFWS	VERMILION	223	N/A	2014	\$13,560,804	The goal of this project is to stop erosion along the bank of Freshwater Bayou Canal and to protect the interior wetlands from saltwater intrusion. Increase total earthen and water-induced erosion. This will be achieved by constructing a rock dike along critical areas of the eastern and western banks of the Canal.	3B
CAKP	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 take a major toll on the ports bridges and roadways.	3B
CAKP	Port of Iberia Bridge Replacement - David Dubois Road over Commercial Canal	TV-0030	OT	USFWS	IBERIA	N/A	N/A	2013	\$1,056,013	This project involves the replacement of the bridge on David Dubois 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 toll on the ports bridges and roadways.	3B
CAKP	Adriatic Regional Airport Street Improvements - Admiral Doyle Drive	TV-0031	OT	USFWS	IBERIA	N/A	N/A	2016	\$1,114,942	This project involves patching and widening 5,310 feet (about 1 mile) of Admiral Doyle Road around the Adriatic Regional Airport in Iberia Parish from its intersection with LA 321.2 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 facilities and commerce.	3B

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Erosion Mitigated	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Atchafalaya Sediment Delivery System	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 re-opening Natal Channel and Casselle Pass. Natal Channel was re-opened by dredging 100,000 cubic yards of sediment from the point bar channel. Material dredged (700,925 cubic yards) as a result of construction was strategically placed at elevations mimicking natural delta lobes.	3B
CWPPRA	Big Island Mining	AT-0003	DM	NMFS	ST MARY	1560	N/A	1998	\$7,077,404	The project involves creating a new western delta lobe behind Big Island to enhance the accretion of land behind 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 about to continue natural sediment transport and marsh accretion.	3B
CWPPRA	Cadotte Pass Channel Sediment Delivery (Deauthorized)	AT-0004	SD	NMFS	ST MARY	589	N/A	Deauthorized	\$1,117,883	This project investigates dredging a system of distributary channels to create 589 acres of marsh through sediment placement and natural deposition.	3B
CWPPRA	GWAV (Gulf Intracoastal Waterway) to Covelley Hydrologic Restoration	BA-0002	HR	NRCIS	LAFOURCHE	175	N/A	2000	\$12,896,348	The project includes the construction of features (including canal plugs, rock walls, fixed crest walls with boat bays, one variable crest weir, and the rebuilding of low overflow banks that have eroded away) in eastern Lafourche Parish to restore the area to the hydrologic conditions that prevailed historically.	2
CWPPRA	Namit Outfall Management	BA-0003-C	OM	NRCIS	JEFFERSON	634	N/A	2002	\$2,385,972	The project manages the outfall of the existing eight siphons by controlling the movement of the diverted waters. The siphons divert sediment laden water from the Mississippi River into the west bank wetlands to retard saltwater intrusion and enhance wetland productivity.	2
CWPPRA	Weef Fort e a la Hache Outfall Management (Deauthorized)	BA-0004-C	HR	NRCIS	PLAQUEMINES	646	N/A	Deauthorized	\$6,020,516	The project goal is to optimize use of fresh water and sediment supplied by existing siphon by reducing channelled flow and routing the diverted flow to nourish marshes. Project was deauthorized in 2015.	2
CWPPRA	Lake Salvador Shore Protection Demonstration	BA-0015	SP	NMFS	ST CHARLES	N/A	N/A	1998	\$5,656,506	The objective of this project is to maintain the shoreline along a section of Lake Salvador and help re-establish the natural hydrology of interior marsh. Phase I of the project was conducted to demonstrate the effectiveness of four separate types of segmented breakwaters in a poor soil environment. Phase II of the project included the installation of 6,000 feet of continuous rock structure along the shoreline in a poor soil environment.	2
CWPPRA	Fouchon Hydrologic Restoration (Deauthorized)	BA-0018	HR	NRCIS	LAFOURCHE	N/A	N/A	Deauthorized	\$7,703	The goal of the project was to restore tidal exchange to 2,400 acres of impounded wetlands. The project was officially deauthorized by the CWPPRA Task Force in July of 1994 at the request of the landowner.	2
CWPPRA	Barataria Bay Waterway Wetland Restoration	BA-0019	MC	USACE	JEFFERSON	510	N/A	1996	\$1,170,000	The project beneficially used dredge material to enhance Queen Bees Island.	2
CWPPRA	Jonathan Davis Wetland Protection	BA-0020	HR, SP	NRCIS	JEFFERSON	510	N/A	2003, 2012	\$28,886,616	The goal of this project is to restore the natural hydrologic conditions of the area and reduce shoreline erosion. The goal was partly accomplished through constructing a series of water control structures. Construction unit 4 consists of 4,160 ft of rock rip rap.	2
CWPPRA	Bayou Pansol Bayou Reprofitting (Deauthorized)	BA-0021	MC	NMFS	JEFFERSON	1065	N/A	Deauthorized	\$20,964	This project was authorized to protect deteriorated intermediate to brackish marsh located between Lake Salvador and Little Lake by using dredged material to re-establish the shoreline. Due to an unstable and rapidly eroding site, the project was deemed unfeasible and was officially deauthorized by the CWPPRA Task Force in January of 1998.	2
CWPPRA	Bayou L'Ours Ridge Hydrologic Restoration (Deauthorized)	BA-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'Ours Ridge through a series of canal closures and two water control structures. The project was officially deauthorized by the CWPPRA Task Force in April 2002 because of landfills issues.	2
CWPPRA	Barataria Bay Waterway 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 Dupre Cut to protect the adjacent marsh from unnatural water exchange and erosion. The project includes the construction of a series of water control structures. Construction unit 1 consists of 4,160 ft of rock rip rap.	2
CWPPRA	Myrtle Grove Siphon (Deauthorized)	BA-0024	FD	NMFS	PLAQUEMINES	N/A	N/A	Deauthorized	\$481,802	The goal of the project is to reduce erosion along the shoreline of the Myrtle Grove Siphon. The project was officially deauthorized by the CWPPRA Task Force in October 2007 because a larger diversion was authorized at the same location (see BA-33).	2
CWPPRA	Bayou Lafourche Siphon (Deauthorized)	BA-0025-A	FD	EPA	LAFOURCHE	428	N/A	Deauthorized	\$45,922	The area of the project is to reduce marsh loss adjacent to Bayou Lafourche by introducing nutrient and sediment laden river water through large siphon pipes. This project was reauthorized on the 11th PPL as BA-25b.	2
CWPPRA	Mississippi River Reintroduction into Bayou Lafourche (Deauthorized)	BA-0025-B	FD	EPA	ASCENSION, ASSUMPTION, LAFOURCHE, LA TERRE BONNE	85000	N/A	Deauthorized	\$9,619,586	The goal of the project is to restore and protect the health of marshes in the Barataria and Terrebonne basins through reintroduction of sediment and nutrient laden Mississippi River water via Bayou Lafourche. The project was originally authorized on the 5th PPL as BA-25 and was later reauthorized by the Bureau of Reclamation Task Force in October 2007. However, engineering and design will be continued by the CEPA using state funds.	2
CWPPRA	Barataria Bay Waterway 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 saltwater intrusion. The project consists of 17,600 (3.3 miles) of levee constructed with dredged material from the BBWW, and 17,600 (3.3 miles) of rock armor.	2
CWPPRA	Barataria Basin Landridge Shoreline Protection, Phases 1 and 2	BA-0027	SP	NRCIS	JEFFERSON	1304	N/A	2009	\$31,286,623	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. The project has been authorized by the CWPPRA Task Force in July of 2009.	2
CWPPRA	Barataria Basin Landridge Shoreline Protection, Phase 3	BA-0027-C	SP	NRCIS	JEFFERSON	5567	N/A	1999, 2008, 2017	\$46,231,597	The project tested sections of different shoreline protection types, such as, concrete panel wall, rock and light rock. These projects have constructed over 41,000 feet of shoreline protection.	2
CWPPRA	Barataria Basin Landridge Shoreline Protection, Phase 4	BA-0027-D	SP	NRCIS	JEFFERSON	589	N/A	2006	\$17,709,216	This project consists of 31,500 feet of shoreline rock dikes with a lightweight aggregate core of concrete sheetpile and will incorporate non cap and openings at historic natural channels to eliminate shoreline erosion and deterioration of the Barataria landridge.	2
CWPPRA	Vegetative Plantings of a Dredged Material Disposal Site on Grand Terre Island (Deauthorized)	BA-0028	VP	NMFS	JEFFERSON	127	N/A	2001	\$526,314	This project involved the installation of vegetative plantings on previously constructed marsh and dune platform.	2
CWPPRA	LA Highway 1 Marsh Creation (Deauthorized)	BA-0029	MC	EPA	LAFOURCHE	146	N/A	Deauthorized	\$250,257	The objective of this project was to create marsh habitat in a large open water area adjacent to Louisiana Highway 1 using dredged material from two proposed borrow areas. This project was officially deauthorized by the CWPPRA Task Force in February of 2005 because it was determined to be infeasible.	2
CWPPRA	EastWest 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
CWPPRA	Delta Building Diversion at Myrtle Grove (Transferred)	BA-0033	SD	USACE	JEFFERSON, PLAQUEMINES	8891	N/A	Transferred	\$327,422	The objective of this project is to divert Mississippi Bay water and sediment for the creation of new emergent wetlands. The project will involve installation of gated box culverts on the west bank of the Mississippi River in the vicinity of Myrtle Grove, dedicated dredging from the Mississippi River to create marsh in the vicinity of Bayou Dupont, the Barataria Bay Waterway, and the Wilkinson Canal, or a combination of these actions. This project was transferred to the LCA Program.	2
CWPPRA	Mississippi River Reintroduction into Northwest Barataria Basin (Transferred)	BA-0034	FD	EPA	ST JOHN THE BAPTIST, ST JAMES, LAFOURCHE	5134	N/A	Transferred	\$17,098,769	The goal of this project is to restore the natural hydrologic regime and add nutrients to adjacent swamp areas. The project would utilize a freshwater diversion from the Mississippi River to northwest Barataria Basin wetlands with gating of spoil banks and placement of culverts under LA Highway 20. The scope of the project was changed and the revised project was re-numbered BA-34-2.	2
CWPPRA	Hydrologic Restoration and Vegetative Plantings in the Lake de l'Ameland Swamp	BA-0034-2	HR, VP	USFWS	LAFOURCHE	5134	N/A	Pending	\$14,355,710	The objectives of this project are to create barrier island habitat, enhance storm-related surge and wave protection, prevent overtopping during storms, and increase the volume of sand within the active barrier system. This project was first authorized on the 9th PPL as BA-34 and was later reauthorized by the CWPPRA Task Force in July of 2009.	2
CWPPRA	Pass Channel to Grand Bayou Pass	BA-0035	BH	NMFS	PLAQUEMINES	359	N/A	2009	\$46,414,530	The project involves the creation of a dune and marsh platform on the north side of the Gulf of Mexico adjacent to Bay Joe Wise. Sand berms and vegetation were installed.	2
CWPPRA	Dedicated Dredging on the Barataria Basin Landridge	BA-0036	MC	USFWS	JEFFERSON	2800	N/A	2010	\$36,261,893	Approximately 1,575 acres of marsh were placed in two contiguous marsh creation areas by conducting approximately 1,511,000 cubic yards of material from the Gulf of Mexico at an elevation of +1.5 NAVD 88. Approximately 3,001,000 cubic yards of material was placed in adjoining fill areas to nourish approximately 1,575 acres of marsh.	2
CWPPRA	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 Lake area wetlands, which currently experience high rates of shoreline erosion. This project protects approximately 21,000 feet of Little Lake shoreline, create 488 acres of intertidal wetlands, and nourish an additional 532 acres of fragmented, subsiding marsh.	2
CWPPRA	Pelican Island and Pass La Mer to Chaudron Pass Restoration	BA-0038	BH, VP	NMFS	PLAQUEMINES	1117	N/A	2012	\$52,893,695	The objectives of this project are to create barrier island habitat, enhance storm-related surge and wave protection, prevent overtopping during storms, and increase the volume of sand within the active barrier system. This project was first authorized on the 9th PPL as BA-38 and was later reauthorized by the CWPPRA Task Force in July of 2009.	2

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Erosion Mitigated	Construction Completion	Total Budget	Project Description	Planning Unit
CWPPRA	Mississippi River Sediment Delivery System - Bayou Dupont	BA-0039	MC	EPA	JEFFERSON, PLAQUEMINES	577	N/A	2010	\$31,631,908	The goal of this project is to create/restore 493 acres of brackish marsh by delivering via pipeline, dredged material from the Mississippi River to an adjacent area within the Barataria Basin, and planting marsh vegetation.	2
CWPPRA	Reversing Sand Minings Field and Restoration (Transferred)	BA-0040	BH	NMFS	PLAQUEMINES	234	N/A	Transferred	\$40,851,272	The goals of this project are to repair breaches and tidal inlets in the shoreline, reinforce the existing shoreline with sand, and increase the sand width with back barrier marsh creation to increase longevity. This project was transferred to the Bern to Barrier Program for the Gulf of Mexico.	2
CWPPRA	South Shore of the Pen	BA-0041	SP, MC	NRCIS	JEFFERSON	211	N/A	2012	\$21,639,575	This project involves the construction of approximately 1,000 feet of concrete pile and panel wall and 10,900 feet of rock revetment along the south shore of The Pen and Bayou Dupont. Dedic ated dredging was used to create approximately 74 acres of marsh, and nourish an additional 107 acres of marsh, within the triangular area bounded by the south shore of The Pen, the Barataria Bay Waterway, Dupre Cut, and the Creole Gas Pipeline Canal.	2
CWPPRA	Lake Heritage Marsh Creation	BA-0042	TE, SP, MC	USFWS	PLAQUEMINES	438	N/A	2015	\$40,539,484	The goals of this project are to create approximately 438 acres of wetlands, reduce tidal exchange in marshes surrounding Lake Heritage using material dredged from the Mississippi River.	2
CWPPRA	Weef Fort e a la Hache Marsh Creation	BA-0047	MC	NRCIS	PLAQUEMINES	203	N/A	2015, Transferred	\$15,671,708	The goal of the project is to create/maintain marsh using sediment hydraulically dredged from the Mississippi River and pumped via pipeline to the Weef Fort e a la Hache Marsh. The project was transferred to the LCA Program in 2015.	2
CWPPRA	Bayou Dupont Marsh and Ridge Creation Project	BA-0048	MC	NMFS	JEFFERSON	317	N/A	2016	\$38,324,646	This marsh and ridge creation project will nourish approximately 119 acres of marsh and create 15 acres of maritime ridge by long ditch area pumping of Mississippi River sediment.	2
CWPPRA	Grand Lard Marsh and Ridge Restoration	BA-0066	BH	NMFS	PLAQUEMINES	502	N/A	2015	\$41,872,795	This project will create 228 about acres of marsh, nourish about 140 acres of marsh and build about 20,000 ft of ridge.	2
CWPPRA	Cheniere Ronquille Barrier Island Restoration (Transferred)	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 deposits to create saline marsh in open water areas and nourish existing marshes and barrier island project area. Intensive dune plantings in the project area were also proposed. This project was transferred to NRCIA for conclusion.	2
CWPPRA	Northwest Turtle Bay Marsh Creation	BA-0125	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 Turt e 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
CWPPRA	Bayou Dupont Sediment Creation	BA-0164	MC	EPA	PLAQUEMINES, JEFFERSON	302	N/A	Pending	\$39,529,163	This project involves the creation of approximately 300 acres of the back barrier intertidal marsh and nourishment of 130 acres of emergent marsh behind 3.5 miles of the Caminada beach using material dredged from the Gulf of Mexico.	2
CWPPRA	Caminada Headlands Back Barrier Marsh Creation	BA-0171	MC	EPA	LAFOURCHE	430	N/A	Pending	\$32,284,094	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 Cheniere ridge, as well as create 12 acres of forested coastal ridge habitat.	2
CWPPRA	Bayou Grande Cheniere Marsh and Ridge Restoration	BA-0173	MC	USFWS	PLAQUEMINES	264	N/A	Pending	\$30,311,402	In addition to having one of the highest shoreline retreat rates in Louisiana, Caminada 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. Caminada Headland deterioration threatens thousands of acres of wetlands and critical infrastructure to the north.	2
CWPPRA	Caminada Headlands Back Barrier Marsh Creation Increment 2	BA-0183	BH	EPA	JEFFERSON, LAFOURCHE	444	N/A	Pending	\$25,977,605	The project goal is to create/maintain marsh using sediment hydraulically dredged from the Mississippi River and pumped via pipeline to the Caminada Headlands Back Barrier Marsh. The project was transferred to the LCA Program in 2015.	2
CWPPRA	East Levee Marsh Creation and Nourishment	BA-0194	MC	NOAA	LAFOURCHE	482	N/A	Pending	\$34,880,876	The project goal is to create approximately 356 acres and nourish 124 acres of saline marsh east of Levee.	2
CWPPRA	Barataria Bay Rim 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 266 acres of marsh (517 acres total) with dredged material from the Barataria Bay waterway.	2
CWPPRA	Bayou L'Ours Ridge Hydrologic Restoration (Transferred)	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 Cheniere ridge, as well as create 12 acres of forested coastal ridge habitat.	1
CWPPRA	White's Ditch Outfall Management (Deauthorized)	BS-0004-A	OM	NRCIS	PLAQUEMINES	N/A	N/A	Deauthorized	\$2,982	This project was designed to direct the flow of Mississippi River nutrients and sediment into the deteriorating wetlands in the Breton Sound Basin that are not directly benefited by the Caernarvon Freshwater Diversion project. Because of the failure to secure land rights, the project was officially deauthorized by the CWPPRA Task Force in January of 1998. This project was reauthorized on the 14th PPL as BS-12.	1
CWPPRA	Grand Bay Crevasse (Deauthorized)	BS-0007	SD	USACE	N/A	N/A	N/A	Deauthorized	\$65,747	Project goals included construction of a rock-lined opening through the rocks at the head of the Jureivich Canal in order to establish a pathway for freshwater and sediment into Grand Bay and the adjacent marshes to create, restore, and enhance wetlands in the area. The project was officially deauthorized by the CWPPRA Task Force in July of 1998 because of landrights issues.	1
CWPPRA	Upper Oak River Freshwater Siphon (Deauthorized) Phase 1	BS-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. These strategies would have provided freshwater, nutrients, and sediment to enhance marsh health. The project was officially deauthorized by the CWPPRA Task Force in January of 2003 because of landrights issues.	1
CWPPRA	Delta Building Diversion North of Fort St. Philip (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
CWPPRA	Delta Management at Fort St. Philip	BS-0011	SNT	USFWS	PLAQUEMINES	267	N/A	2006	\$3,199,948	The objective of the project is to enhance the data-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
CWPPRA	White Ditch Resurrection and Outfall Management (Deauthorized)	BS-0012	OM, FD	NRCIS	PLAQUEMINES	189	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 of existing siphon and adding another. The project was deauthorized by the CWPPRA Task Force in 2013.	1
CWPPRA	Bayou L'Anouche Freshwater Diversion (Transferred)	BS-0013	FD	EPA	PLAQUEMINES	620	N/A	Transferred	\$3,509	The goal of this project was to create approximately 620 acres of new marsh, increase the percent cover of aquatic vegetation, increase the capacity of shallow open water habitat, and decrease mean salinity in the project area. This CWPPRA project was transferred to the LCA Program in 2013.	1
CWPPRA	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 the capacity of approximately 10,000 cfs, restoring natural deltaic growth and habitats. The project was deauthorized by the CWPPRA Task Force in 2013.	1
CWPPRA	South Lake Levy Shoreline and Marsh Restoration	BS-0016	VP, MC	USFWS	PLAQUEMINES	652	N/A	Pending	\$33,716,987	This project involves dredging sediment to create 396 acres of marsh and restore approximately 32,000 feet of the southern Lake Levy shoreline.	1
CWPPRA	Barataria Siphon (Deauthorized)	BS-0018	FD	EPA	PLAQUEMINES	1613	N/A	Deauthorized	\$22,576,208	The goal of the project was to create and maintain marsh through a MS River waterway (2,000 (5 maximum siphon) into the open water area. The project was deauthorized by the CWPPRA Task Force in 2013.	1
CWPPRA	Terracing and Marsh Creation South of Big Mar	BS-0024	MC, TE	USFWS	PLAQUEMINES	383	N/A	Pending	\$22,774,388	This project involves the construction of approximately 65,000 linear feet of terraces (37 acres) with in-situ material to reduce erosion and turbidity and capture suspended sediment. Sediments will be hydraulically dredged from Lake Levy and pumped via pipeline to create and restore approximately 334 acres of marsh in the project area.	2
CWPPRA	Cameron-Creole Maintenance	CS-0004-A	HR	NRCIS	CAMERON	2602	N/A	1997, 2011	\$4,444,371	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 19 miles of levee and five major structures which make up the Cameron-Creole Watershed Project.	4
CWPPRA	Brown Lake Hydrologic Restoration (Deauthorized)	CS-0009	MM	NRCIS	CALCASIEU, CAMERON	916	N/A	Deauthorized	\$1,097,828	The project investigated the restoration of the natural hydrology of the Brown Lake area. The project was deauthorized by the CWPPRA Task Force.	4
CWPPRA	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 through a series of levee repairs, to improve the health of the wetlands, to create and maintain open water areas, and to improve the health of the wetlands. The project was deauthorized by the CWPPRA Task Force in 2013.	4
CWPPRA	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 sheetpile plugs in the lake's borrow canal.	4

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Corridor Unimproved	Construction Completion	Total Budget	Project Description	Planning Unit
CWFPRA	Sabine National Wildlife Refuge Erosion Protection	CS-0018	SP	USFWS	CAMERON	5542	N/A	1995	\$1,002,656	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
CWFPRA	West Hackberry Vegetative Planting Demonstration	CS-0019	VP	NRCS	CAMERON	N/A	N/A	1994	\$255,250	The goal of this demonstration project is to reduce marsh erosion from interior open water where energy using vegetation plantings consisting of California bulrush (Schoenoplectus californicus). In addition, wave-sitting hay bale fences were utilized to protect the vegetation plantings.	4
CWFPRA	East Mud Lake Marsh Management	CS-0020	MM	NRCS	CAMERON	1520	N/A	1996	\$6,036,741	The project involves the creation of a hydrologic regime conducive to restoration, protection, and enhancement of the Mud Lake area using various types of water control structures and vegetative plantings. Structural components include culverts with flap gates, two types of water control structures, and vegetative plantings. The project also includes the installation of a water control structure to reduce fluctuations, tremendously reduce the potential hydrology of the project area and eliminate undesirable high salinities and severe water fluctuations, tremendously reduce the potential for future marsh loss.	4
CWFPRA	Highway 384 Hydrologic Restoration	CS-0021	MM	NRCS	CAMERON	650	N/A	2000	\$1,586,228	The project purpose is to restore the natural hydrology of the project area and eliminate undesirable high salinities and severe water fluctuations, tremendously reduce the potential for future marsh loss.	4
CWFPRA	Clear Marais Bank Protection	CS-0022	SP	USACE	CALCASIEU	1067	N/A	1997	\$3,996,088	The project is located north of the Gulf Intracoastal Waterway (GIWW) approximately 10 miles northwest of Hackberry in Calcasieu Parish, Louisiana. The goal of this project is to extend the rock armored shoreline stabilization by one mile adjacent to the GIWW to protect continued erosion of the GIWW levee and to prevent the encroachment of the GIWW into the marshes north of the project area.	4
CWFPRA	Replace Sabine Refuge Water Control Structures at Headquaters Canal, West Cove Canal, and Hog Island Gully	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
CWFPRA	Perry Ridge Shore Protection	CS-0024	SP	NRCS	CALCASIEU	1203	N/A	1999	\$2,389,090	The project reduces tidal scour, wave action from boats, and other excessive energy impacts on interior marshes and the possibility of saltwater intrusion by placing rip-rap along low areas on the northern spoil bank of the GIWW from Perry Ridge to Vinton Drange Canal.	4
CWFPRA	Paved Terraces Demonstration	CS-0025	SNT	NRCS	CAMERON	N/A	N/A	2000	\$325,941	This objective of this demonstration project is to develop and demonstrate a non-traditional procedure for constructing earthen terraces for erosion control. The project involves the construction of earthen terraces served as wave-sitting, sediment-trapping structures and provided a medium base for the establishment of emergent vegetation.	4
CWFPRA	Compost Demonstration (Deauthorized)	CS-0026	MC	EPA	CAMERON	N/A	N/A	Deauthorized	\$255,390	This project was authorized to evaluate the effectiveness of using tree limnings as compostable material, using compost amended material in providing a growth medium for emergent vegetation, and determining sediment rates of the compost amended materials and tree limnings. The project was officially deauthorized by the CWFPRA Task Force in January 2002.	4
CWFPRA	Black Bayou Hydrologic Restoration	CS-0027	HR	NMFS	CALCASIEU, CAMERON	3594	N/A	2003	\$6,170,284	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
CWFPRA	Sabine Refuge Marsh Creation, Cycles 4-5	CS-0028-4-5	MC	USACE	CAMERON	460	N/A	2015	\$11,636,649	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 via temporary pipeline into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWFPRA	Sabine Refuge Marsh Creation, Cycles 1-3	CS-0029-1	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 via temporary pipeline into a marsh creation site within the Sabine National Wildlife Refuge.	4
CWFPRA	Black Bayou Culverts Hydrologic Restoration	CS-0029	HR	NRCS	CALCASIEU	540	N/A	2007	\$16,990,059	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
CWFPRA	GIWW - Perry Ridge West Bank Stabilization	CS-0030	SP	NRCS	CALCASIEU	1132	N/A	2001	\$2,356,216	The project consists of installing rock along the bank of the GIWW to prevent further erosion.	4
CWFPRA	Holly Beach Sand 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 remaining chenierephank ridge. This objective was accomplished through beach renourishment, installation of sand fencing, vegetation planting, and installation of the shoreline response. This project was originally authorized on the 8th PFL as the complex project Holly Beach Project, CSUJ.	4
CWFPRA	East Sabine Lake Hydrologic Restoration CUI	CS-0032-CUI	TE, HR	USFWS	CAMERON	281	N/A	2009	\$4,044,870	The objectives of this project are to protect and restore area marsh, and restore the historical hydrologic regime to the Sabine National Wildlife Refuge. This was to be accomplished using shoreline protection, terraces, vegetation plantings and water control structures to reduce tidal scour, shoreline erosion, turbidity, and salinities. However, design of the water control structures has been discontinued and the remaining construction funds were used to build additional terraces.	4
CWFPRA	Cameron-Croche 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 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity.	4
CWFPRA	Kelle Bayou Marsh Creation and Hydrologic Restoration	CS-0053	MC, SP	NRCS	CAMERON	274	N/A	Transferred	\$17,882,765	This project is to restore and protect approximately 319 acres of critically important marsh and the adjacent functions provided by the marsh. The project involves the construction of a levee system to protect the marsh from erosion and to 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
CWFPRA	Cameron-Croche W. Leached Grand Bayou Marsh Creation	CS-0054	MC	USFWS	CAMERON	534	N/A	Pending	\$22,918,987	Project goals include creating 609 acres of brackish marsh and nourishing 7 acres of brackish marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources in the Cameron Prairie National Wildlife Refuge and adjacent brackish marshes of the Calcasieu Lake estuary.	4
CWFPRA	Oyster Bayou Marsh Creation and Terracing	CS-0059	MC, SNT	NMFS	CAMERON	489	N/A	Pending	\$31,031,354	The project consists of creating/nourishing marsh and associated ridge habitat and creating terraces in order to reduce wave/wake erosion along the Calcasieu Lake rim using sediment from upland disposal sites of the Calcasieu River.	4
CWFPRA	Cameron Meadows Marsh Creation and Terracing	CS-0066	MC, TE	NMFS	CAMERON	401	N/A	Pending	\$28,935,820	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 (18 acres) to reduce wind generated wave fetch.	4
CWFPRA	No Name Bayou Marsh Creation and Nourishment	CS-0078	MC	NMFS	CAMERON	497	N/A	Pending	\$38,090,745	The project goal is to create and/or nourish approximately 533 acres of emergent saline marsh within the Cameron-Croche watershed along the Calcasieu Lake rim using sediment from upland disposal sites of the Calcasieu River.	4
CWFPRA	Oyster Lake Marsh Creation and Nourishment	CS-0079	MC	NOAA	CALCASIEU	561	N/A	Pending	\$37,542,910	The primary goals of the project are to create and nourish approximately 601 acres of saline marsh. Sediment would be mined from the Gulf of Mexico and transported to the project area via a barge. The project also involves the construction of a levee system to protect 185 acres of saline marsh. Most of the created area will be adjacent with smooth cordgrass vegetation.	4
CWFPRA	Nutria Harvest for Wetland Restoration Demonstration	LA-0003-A	OT	USFWS	COASTWIDE	N/A	2003	2003	\$906,226	This project enables the Louisiana Department of Wildlife and Fisheries to establish an economic incentive program to trap and control nutria, which are contributing to coastal wetland loss, by promoting the consumption of nutria meat.	COASTWIDE
CWFPRA	Coastwide Nutria Control Program	LA-0003-B	MM	NRCS	COASTWIDE	14963	N/A	N/A	\$68,739,156	Project goals is to harvest approximately 400,000 nutria tails annually. Damage inflicted by nutria is estimated to be reduced 25 to 49%, and the purpose of this demonstration project was to develop and test unique and previously untested technologies for creating floating mats made of burlap, degraded rocks or anti-saltators.	COASTWIDE
CWFPRA	Florida Marsh Creation	LA-0005	OT	NRCS	TERREBOUNNE	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 mats made of burlap, degraded rocks or anti-saltators.	3A
CWFPRA	Shoreline Protection and Foundation Improvements	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 South White Lake Shoreline Protection (ME-22) project.	4
CWFPRA	Bioengineered Oyster Reef Demonstration	LA-0008	SP	NMFS	CAMERON	4.5	N/A	2012	\$2,316,682	This project is intended to evaluate the Oysterbreak structure to prevent beach erosion and increase habitat diversity associated with natural oyster reefs.	4
CWFPRA	Sediment Containment System for Marsh Creation	LA-0009	MC	NRCS	ST CHARLES	N/A	N/A	2013	\$2,223,073	This demonstration project utilizes an unconventional sediment containment system for marsh creation.	3A
CWFPRA	Non-rock Alternatives to Shoreline Protection Demo	LA-0016	SP	NRCS	IBERIA, 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
CWFPRA	Coastwide Planting	LA-0039	VP	NRCS	COASTWIDE	779	N/A	N/A	\$12,689,725	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 the needs following some of other damaging events.	COASTWIDE
CWFPRA	Shoreline Protection, Preservation, and Restoration (SEPRP) Panel	LA-0280	SP	NOAA	COASTWIDE	N/A	N/A	N/A	\$2,669,829	The project involves the construction of a rock dike to protect the south shoreline of Grand Lake from Catfish Lake to Tuba Port and beyond the bank were enlarged. Approximately 125,000 cubic yards of material were excavated from the outfall channel and set adjacent to the channel in a manner conducive to marsh nourishment.	COASTWIDE

ONGOING PROTECTION AND RESTORATION SUMMARIES

CPRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Corridor Unimproved	Construction Completion	Total Budget	Project Description	Planning Unit
CWFPRA	Sabine Wetland Propagation Facility	LA-0284	OT	USFWS	COASTWIDE	26	N/A	N/A	\$5,052,748	The goal of this project is to operate a wetland propagation facility in Jeanerette, like that previously operated by LSU in Houma, to make wetlands available free of charge to landowners in coastal Louisiana.	COASTWIDE
CWFPRA	Freshwater Bayou Wetland Protection	ME-0004	SP	NRCS	VERMILION	14381	N/A	1998	\$9,971,230	The project features include the installation of 10,000 linear feet of rock breaker (rip-rap) along the west shoreline of Freshwater Bayou Canal, where needed, to protect this shoreline from further erosion, and the installation of paired water control structures on the Acadiana Maria Canal to reduce ponding in the area known as the Freshwater Bayou Wetlands. The project has been extended for another 20 years.	4
CWFPRA	Devitt-Rolover 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 (Spartina alterniflora) to colonize a newly accreted mudflat, thereby establishing a vegetation buffer between the Gulf of Mexico and coastal wetlands. This project was officially deauthorized by the CWFPRA Task Force in February 1998 because to plants remained.	4
CWFPRA	Cameron Prairie National Wildlife Refuge Shoreline Protection	ME-0009	SP	USFWS	CAMERON	640	N/A	1994	\$1,227,123	This project protects the emergent wetlands of the Cameron Prairie National Wildlife Refuge adjacent to the GIWW, enhances the emergent wetlands protected by constructing approximately 2.5 miles of rock dike parallel to the existing spot bank, and terminates the encroachment of the GIWW into the refuge.	4
CWFPRA	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 restore water management capabilities to the area.	4
CWFPRA	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 California bulrush (Schoenoplectus californicus) is effective at damping high energy wave action. The project was officially deauthorized by the CWFPRA Task Force in October of 1998 and is no longer monitored.	4
CWFPRA	Freshwater Bayou Bank Stabilization	ME-0013	SP	NRCS	VERMILION	511	N/A	1998	\$8,813,357	The goal of this project is to stop erosion along the bank of Freshwater Bayou Canal and to protect the interior wetlands from saltwater intrusion, increased tidal exchange and 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
CWFPRA	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 smooth cordgrass (Spartina alterniflora) and California bulrush (Schoenoplectus californicus) along the eroded shoreline and planted with smooth cordgrass through earthen terraces.	4
CWFPRA	Freshwater Introduction South of Highway 82	ME-0016	HR	USFWS	IBERIA	286	N/A	2006	\$6,342,505	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 CWFPRA Task Force.	4
CWFPRA	Little Pecan Bayou Hydrologic Restoration (Deauthorized)	ME-0017	HR	NRCS	CAMERON	144	N/A	Deauthorized	\$1,303,713	The purpose of the project is to construct a continuous near shore breakwater along the Gulf of Mexico shoreline, approximately 4000 feet from the Bayou to prevent saltwater intrusion.	4
CWFPRA	Rock Island Ridge Gulf Shoreline Stabilization	ME-0018	SP	NMFS	CAMERON	863	N/A	Pending	\$26,776,463	The purpose of the project was to prevent the encroachment of Grand and White Lakes through the installation of 11,000 feet of hard shoreline stabilization and construction of terraces.	4
CWFPRA	Grand White Lakes Landridge Protection	ME-0019	SP	USFWS	CAMERON	213	N/A	2004	\$3,536,830	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 dikes (178 and 277 acres) via 1.55 M cubic yards of dredged material from a Gulf of Mexico borrow site.	4
CWFPRA	South Grand Chenier Hydrologic Restoration	ME-0020	HR, MC	USFWS	VERMILION	440	N/A	Pending	\$23,873,346	The project involves the construction of a rock dike to protect the south shoreline of Grand Lake from Catfish Lake to Tuba Port and beyond the bank were enlarged. Approximately 125,000 cubic yards of material were excavated from the outfall channel and set adjacent to the channel in a manner conducive to marsh nourishment.	4
CWFPRA	Grand Lake Shoreline Protection, Tuba Point	ME-0021	SP	NRCS	CAMERON	495	N/A	Pending	\$11,305,616	The objective of this project was to create and/or nourish about 400 acres of marsh near Freshwater Bayou north of intersection with Integrity.	4
CWFPRA	South White Lake Shoreline Protection, Tuba Point	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
CWFPRA	South Pecan Island Freshwater Introduction (Deauthorized)	ME-0023	FD	NMFS	CAMERON	98	N/A	Deauthorized	\$4,138,693	The purpose of the project was to introduce freshwater from the lakes subs basin north, under Hwy 82 and into the lakes subs basin south of Hwy. 82. The project was officially deauthorized by the CWFPRA Task Force in January of 2011.	4
CWFPRA	Southwest Louisiana Gulf Shoreline Nourishment and Protection	ME-0024	OT	USACE	IBERIA	888	N/A	Pending/on Hold	\$17,144,224	The goal of the project is to nourish 47,900 linear feet of our shoreline with sediment from sediment barge Canal and Big Constance Lake, and create approximately 421 acres of marsh platform, mud flat and shallow water, extending approximately 384 feet seaward. The project is on hold until the Phase 1 USA template is finalized with the USACE.	4
CWFPRA	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
CWFPRA	South Grand Chenier Marsh Creation - Baker Tract	ME-0032	MC	NRCS	CAMERON	383	N/A	Pending	\$26,691,833	The purpose of this project is to create new wetland habitat, restore degraded marsh, and reduce wave erosion. Material dredged from the Gulf of Mexico will be utilized to create and nourish approximately 420 acres of marsh. Retention levees will be degraded and approximately 11,756 linear feet of tidal creeks will be constructed by tracking marsh buggies on the marsh platform for estuarine fisheries access. Smooth cordgrass plugs will be planted on 20-foot centers throughout the area (total 49,268 plants).	4
CWFPRA	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 scaled 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 stages in the river and marsh development areas.	2
CWFPRA	Channel Armor Gap Crevasses	MR-0006	SD	USACE	PLAQUEMINES	2097	N/A	1997	\$988,965	The project consists of deepening the lower of the existing 150 foot wide gap in the Mississippi River channel bank armor. The existing invert was lowered to -4.0 feet NGVD. In addition, an existing earthen channel leading from the armored gap to the open water area beyond the bank were enlarged. Approximately 125,000 cubic yards of material were excavated from the outfall channel and set adjacent to the channel in a manner conducive to marsh nourishment.	1
CWFPRA	Pas-a-Louche Crevasse (Deauthorized)	MR-0007	SD	USACE	PLAQUEMINES	1043	N/A	Deauthorized	\$119,935	The objective of this project was to create and restore marsh in the Mississippi River Delta. This was to be accomplished through construction of a crevasse on the left descending bank of the Mississippi River between Pass-a-Louche and Rapraire Pass. The project was officially deauthorized by the CWFPRA Task Force in July of 1999 due to high costs attributed to locating underground dikes in the area.	1
CWFPRA	Beneficial Use of Hopper Dredged Material Demonstration (Deauthorized)	MR-0008	DM	USACE	PLAQUEMINES	N/A	N/A	Deauthorized	\$58,209	The goal of this project was to utilize dredged material from a hopper dredge to create emergent vegetated marsh in an area that is currently a shallow open-water pond. Due to design problems, the project was officially deauthorized by the CWFPRA Task Force in November of 2006.	2
CWFPRA	Delta Wide Crevasses	MR-0009	SD	NMFS	PLAQUEMINES	2386	N/A	1999	\$4,728,318	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-Louche Wildlife Management Area and the Delta National Wildlife Refuge by either cleaning existing slays or creating new ones.	1
CWFPRA	Cudpan Maintenance Dredging Operations for Marsh Creation - Baker Tract	MR-0010	DM	USACE	PLAQUEMINES	N/A	N/A	2002	\$1,009,020	This project demonstrated the beneficial use of dredged material from routine maintenance of the Mississippi River Navigation 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 222,000 cubic yards of dredged material.	2
CWFPRA	Periodic Introduction of Sediment and Nutrients at Delta Demonstration	MR-0011	FD	USACE	ST BERNARD	N/A	N/A	Deauthorized	\$83,556	This demonstration project was intended to show the effectiveness of using a hydraulic pipeline dredge to provide increased sediment through a diversion structure or spout. Monitoring of the project will determine not only the characteristics of the sediment input, but also the subsequent effects in the outfall area. The project was subsequently deauthorized by the CWFPRA Task Force.	1
CWFPRA	Mississippi River Sediment Trap (Deauthorized)	MR-0012	MC	USACE	PLAQUEMINES	1190	N/A	Deauthorized	\$354,790	This project was authorized on the 12th PFL 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 CWFPRA Task Force in 2009 due to the high costs to implement the project.	1, 2
CWFPRA	Benecke Bay Diversion (Deauthorized)	MR-0013	SD	USACE	PLAQUEMINES	4560	N/A	Deauthorized	\$976,580	The objective of the project was to create vegetated wetlands in shallow open water areas in Benecke Bay. The project would divert sediment in an effort to create, nourish, and maintain approximately 16,962 acres of fresh to intermediate marsh over the 20-year project life. The project was deauthorized by the CWFPRA Task Force in 2013.	1

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRPA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Erosion Mitigated	Construction Completion	Total Budget	Project Description	Planning Unit
CWFPRA	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-receiving areas. The project was deauthorized by the CWFPRA Task Force in 2013.	2
CWFPRA	Verde Ponds Marsh Creation and Crevasse Widening	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, crevasse constriction, and crevasse enlargement. The project was designated as inactive by the CWFPRA Task Force in 2013.	2
CWFPRA	Fitchite Marsh Restoration	PO-0006	HR	NRCSS	ST TAMMANY	1040	N/A	2001	\$2,201,674	The purpose of this project is to achieve remediation of the causes of wetland loss in the area and to improve habitat for wildlife and the surrounding environment. The project was deauthorized by the CWFPRA Task Force in 2001.	1
CWFPRA	Violet Freshwater Distribution (Deauthorized)	PO-0009-A	HR	NRCSS	ST BERNARD	247	N/A	Deauthorized	\$128,026	The purpose of this project was to create emergent marsh by diverting Mississippi River water and sediment supplied by the existing canals by means of a water control and water control structure. The project was deauthorized by the CWFPRA Task Force in 2001 because of land-use issues.	1
CWFPRA	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	PO-0016	HR	USFWS	ORLEANS	3800	N/A	1996	\$1,680,193	The Lake Pontchartrain Hurricane Protection levee isolates units 3 and 4 of the Bayou Sauvage Wildlife Refuge from the surrounding marsh complex and establishes a large freshwater impoundment. This project established a means for removing the excess water during the spring and summer.	1
CWFPRA	Bayou Lafourche Wetland Creation	PO-0017	MC	USACE	ST CHARLES	487	N/A	1994	\$3,034,000	The project consists of constructing a 5,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The dike will create a new wetland area of approximately 1,000 acres.	1
CWFPRA	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	PO-0018	HR	USFWS	ORLEANS	1280	N/A	1997	\$1,692,552	The construction of U.S. Highway 90, canals, railroad lines, and Lake Pontchartrain hurricane protection levees has impounded the marsh in the project area. Project features consist of two 36-inch pumps, which operate to maintain water levels at 0.5 feet above or below marsh elevation to promote vegetative growth in the project area.	1
CWFPRA	Mississippi River Gulf Outlet (MRGO) Disposal Area Marsh Protection	PO-0019	MM	USACE	ST BERNARD	755	N/A	1999	\$318,445	The objective of this project is to preserve vegetated wetlands by repairing the lateral and rear dikes of the Mississippi River Gulf Outlet (MRGO) disposal areas. Repairs to a 28,000 linear-foot dike, in conjunction with the installation of metal box weirs with a single 40-inch pipe used to control and divert water flow to prevent the erosion of the dike and surrounding marsh areas.	1
CWFPRA	Red Mud Demonstration (Deauthorized)	PO-0020	MC	EPA	ST JOHN THE BAPTIST	N/A	N/A	Deauthorized	\$520,729	The project was deauthorized by the CWFPRA Task Force in 1997, however, due to unexpected problems with fill material, leers, and contaminants in the water source, the project was officially deauthorized by the CWFPRA Task Force in August 2001.	1
CWFPRA	Eaton Isles East Marsh Restoration (Deauthorized)	PO-0021	HR	NMFS	CAMERON	1453	N/A	Deauthorized	\$39,025	The project intended to restore 7,536 acres of drained lands 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 CWFPRA Task Force in January 1996.	1
CWFPRA	Bayou Chevre Shoreline Protection	PO-0022	SP	USACE	ORLEANS	212	N/A	2001	\$2,689,403	The project consists of constructing a 5,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The dike will create a new wetland area of approximately 1,000 acres.	1
CWFPRA	Hopedale Hydrologic Restoration	PO-0024	HR	NMFS	ST BERNARD	106	N/A	2005	\$2,381,287	The project consists of constructing a 5,000-foot earthen, erodible dike to contain dredged material from Lake Pontchartrain. The dike will create a new wetland area of approximately 1,000 acres.	1
CWFPRA	Bayou Bienvenue Pump Station and Trenching (Deauthorized)	PO-0025	MC	NMFS	TERREBOINNE	442	N/A	Deauthorized	\$212,152	This 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 deteriorated marsh area to abate site-specific marsh loss. The project was officially deauthorized by the CWFPRA Task Force in April 2002 because construction was determined to be too costly.	1
CWFPRA	Opportunistic Use of the Bonnet Carré Shipway (Deauthorized)	PO-0026	FD	USACE	PLAQUEMINES	177	N/A	Deauthorized	\$93,932	This project intended to abate high salinity stress on the vegetated wetlands surrounding Lake Pontchartrain. This objective was to be accomplished through the removal of pins from the Bonnet 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 CWFPRA Task Force in October of 2007 due to uncertainty of benefits and lack of landowner support.	1
CWFPRA	Chandeleur Islands Marsh Restoration	PO-0027	VP	NMFS	ST BERNARD	88	N/A	2001	\$939,927	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
CWFPRA	Labranche Wetlands Trenching and Shoreline Protection (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. This project was officially deauthorized by the CWFPRA Task Force in October 2007.	1
CWFPRA	Lake Borgne Shoreline Protection	PO-0030	SP	EPA	ST BERNARD	229	N/A	2008	\$28,908,775	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 Shell Beach, Yazookey, and Houma from direct exposure to lake wave energy and storm surges. The goal was accomplished through construction of a continuous nearshore rock breakwater.	1
CWFPRA	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 Borgne 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 CWFPRA Task Force.	1
CWFPRA	Goose Pond Point Plate Marsh Creation	PO-0033	MC	USFWS	ST TAMMANY	436	N/A	2009	\$15,979,442	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
CWFPRA	Alligator Bend Marsh Creation and Shoreline Protection	PO-0034	TE, VP, SP	NRCSS	ORLEANS	121	N/A	Pending	\$29,716,052	The goal of this project is to provide shoreline protection in Lake Borgne, starting at Alligator Point, using rock dikes and vegetative plantings.	1
CWFPRA	Labranche East Marsh Creation	PO-0075	MC	NRCSS	ST CHARLES	715	N/A	Pending	\$33,555,033	Project features consist of the creation of 728 acres of marsh and the nourishment of 202 acres of existing marsh using dedicated dredging from Lake Pontchartrain.	1
CWFPRA	Bayou Bourcua Marsh Creation	PO-0104	MC	USFWS	ST TAMMANY	424	N/A	Pending	\$29,273,984	The primary goal of the project is to create 533 acres and nourish 12 acres of low salinity brackish marsh in open water areas adjacent to Bayou Bourcua with sediment dredged from Lake Pontchartrain.	1
CWFPRA	Labranche Central Marsh Creation	PO-0133	MC	NRCSS	ST CHARLES	731	N/A	Pending	\$43,409,208	Project features include the creation of 762 acres of marsh and the nourishment of 240 acres of existing marsh using dedicated dredging from Lake Pontchartrain.	1
CWFPRA	Shell Beach South Marsh Creation	PO-0168	MC	EPA	ST BERNARD	634	N/A	Pending	\$27,946,159	The project would create and/or nourish 634 acres (60 of emergent brackish marsh to stabilize the landform separating Lake Borgne from the MRGO, 343 ac. of new marsh would be created and 261 ac. nourished using fill material from Lake Borgne.	1
CWFPRA	New Orleans Landbridge Shoreline Stabilization and Marsh Creation	PO-0169	MC, BS	USFWS	ORLEANS	271	N/A	Pending	\$17,776,172	The project goal is to restore and enhance 271 acres of brackish marsh (169 acres marsh creation and 102 acres nourishment) and to enhance 15,340 linear feet of shoreline through the construction of an earthen shoreline berm.	1
CWFPRA	Fitchite Marsh Creation and Terracing	PO-0173	MC	NOAA	ST TAMMANY	366	N/A	Pending	\$27,020,763	The project goal is to create and/or nourish approximately 340 acres of emergent brackish marsh and create 36,610 feet of earthen terraces (20 emergent acres) in the Fitchite Marsh area between the city of Slidell and the Rigolets using sediment from Lake Pontchartrain.	1
CWFPRA	Bayou La Loutre Ridge Restoration and Marsh Creation	PO-0178	MC	NRCSS	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 Lena Lapointe.	1
CWFPRA	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
CWFPRA	Grand Bayou Hydrologic Restoration (Deauthorized)	TE-0010	HR	USFWS	LAFOURCHE	199	N/A	Deauthorized	\$1,452,357	The objective of the project was to maintain emergent wetlands in this area by providing supplemental freshwater nutrients and sediment from the Atchafalaya River via the Gulf Intracoastal Waterway (GIWW). Project features included a water control structure on Bayou Pointe au Chen 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 CWFPRA Task Force.	3A
CWFPRA	Falgout Canal Planting Demonstration	TE-0017	VP	NRCSS	TERREBOINNE	N/A	N/A	1996	\$206,522	For this demonstration project, smooth cordgrass (Spartina alterniflora) suited to the salinity and habitat type of the Falgout Canal area was planted along the canal and protected by six types of wave-stilling devices.	3A
CWFPRA	Timbalier Island Planting Demonstration	TE-0018	VP	NRCSS	TERREBOINNE	N/A	N/A	1996	\$300,492	For this demonstration project, approximately 7,390 linear feet of sand fences were installed and vegetation suited to the salinity and habitat type of Timbalier Island was planted in several areas on the island to trap sand and buffer wind and wave energy.	3A

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRPA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Erosion Mitigated	Construction Completion	Total Budget	Project Description	Planning Unit
CWFPRA	Lower Bayou LaCache Hydrologic Restoration (Deauthorized)	TE-0019	MM	NMFS	TERREBOINNE	N/A	N/A	Deauthorized	\$99,625	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 CWFPRA Task Force in 1996.	3A
CWFPRA	Sales Dénieres Restoration East Island	TE-0020	BH	EPA	TERREBOINNE	449	N/A	1999	\$8,762,416	The project objective is to restore the coastal dunes and wetlands of the E. Adrien Isles Dénieres barrier island chain. Approximately 3.9 million cubic yards of sand were dredged from Lake Pato and used to build a retaining dune which was then hydraulically filled to transport sand to elevated marsh platform. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven erosion.	3A
CWFPRA	Point Au Fer Canal Plugs	TE-0022	VP, MC	NMFS	TERREBOINNE	375	N/A	1997	\$5,444,367	This project is intended to reduce saltwater intrusion into the Point au Fer marshes without reducing freshwater back flooding from the Atchafalaya River. Phase I of this project, completed in 1997, involved the plugging of two major natural gas/oil pipeline canals on the eastern half of the island. Under Phase II, a rock shoreline stabilization structure was constructed in 2000 along a thin stretch of beach separating the Gulf of Mexico from the Mobile Canal.	3B
CWFPRA	West Belle Pass Headland Restoration	TE-0023	SP	USACE	LAFOURCHE	474	N/A	1998	\$6,626,754	The project reduces the encroachment of Timbalier Island into the marshes on the west side of Bayou Lafourche with the use of a water control structure on the west side of Belle Pass. A water control structure was placed in the E. Adrien Isles Dénieres barrier island chain, and dunes on other lands.	3A
CWFPRA	Sales Dénieres Restoration Timbalier Island	TE-0024	BH, MC	EPA	TERREBOINNE	776	N/A	1999	\$10,774,974	The project objectives are to restore the Timbalier Island (dunes and marsh) wetlands of the Sales Dénieres chain, enhance the physical integrity of the island, and protect the lower Terrebonne estuary.	3A
CWFPRA	East Timbalier Island Sediment Restoration	TE-0025	BH	NMFS	TERREBOINNE	1913	N/A	2001	\$3,720,721	The objective of this project is to strengthen and thus increase the self-sustainability of East Timbalier Island. The project called for the mining of 2.7 million cubic yards of sediment and placement of the material in three embankments along the landward shoreline of East Timbalier Island. The project also included aerial seeding of the dune platform, installation of sand fencing, and dune vegetation.	3A
CWFPRA	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	TE-0026	MC	NMFS	TERREBOINNE	509	N/A	1999	\$6,810,133	Bedrock ridges of the project are to reduce the marshes west of Lake Chapeau, re-establish the hydrologic separation of the Point au Fer marshes from the marshes east of 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 spot banks were gapped. An estimated 850,000 cubic yards of material were hydraulically dredged from Atchafalaya Bay and spread to a thickness of approximately 2 feet to create 160 acres of marsh.	3B
CWFPRA	Whiskey Island Restoration	TE-0027	BH, MC	EPA	TERREBOINNE	657	N/A	2000	\$7,106,586	The project created and restored beaches and back island marshes on Whiskey Island. The project created 523 acres of back island marsh and filling in the breach at Coupe Nouvelle (134 acres). The initial vegetation planting with smooth cordgrass (Spartina alterniflora) on the bay shore was completed in July 1998 and additional vegetation seedling/planting was carried out in Spring 2000.	3A
CWFPRA	Brady Canal Hydrologic Restoration	TE-0028	HR	NRCSS	TERREBOINNE	297	N/A	2000	\$7,693,752	The objective of the project is to maintain the fragile, highly-fragmented transitional marshes between the fresh and estuarine zones by enhancing freshwater, sediment, and nutrient delivery into the area.	3B
CWFPRA	Raccoon Island Breakwaters Demonstration	TE-0029	BH	NRCSS	TERREBOINNE	N/A	N/A	1997	\$1,795,388	This project promotes the newly restored marshes and wetlands of Raccoon Island and protects the barrier and mainland marshes with six segmented breakwaters.	3A
CWFPRA	East Timbalier Island Sediment Restoration	TE-0030	BH	NMFS	TERREBOINNE	215	N/A	2000	\$7,000,150	The project goal is to strengthen and increase the life expectancy of East Timbalier Island by placing dredged material along its landward shoreline. Additional rock has been placed on the existing breakwater in front of the island, which will help protect the created area from erosion.	3A
CWFPRA	Foliant Marsh Fencing Demonstration (Deauthorized)	TE-0031	SP	NRCSS	TERREBOINNE	N/A	N/A	Deauthorized	\$106,960	The purpose of this project was to fix the wetlands protection/conservation objectives of the CWFPRA, with flood protection and navigation needs generally covered by the MRGO. The project components consisted of implementing a long-term water management strategy for the Verret Basin, and evaluating a long-term river water delivery strategy from Atchafalaya River to Terrebonne wetlands. The project was officially deauthorized by the CWFPRA Task Force in 2001.	3A
CWFPRA	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management (Deauthorized)	TE-0032-A	FD	USFWS	TERREBOINNE	603	N/A	Pending	\$26,875,959	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 Perchartrain Basin in Terrebonne Parish.	3A
CWFPRA	Bayou Boeur Pump Station Restoration (Deauthorized)	TE-0033	HR	EPA	TERREBOINNE	N/A	N/A	Deauthorized	\$3,452	The project consisted of the beneficial use of dredged material from the "Crew Boat Channel" and placing it in the Avoca Island area. The project was deauthorized by the CWFPRA Task Force in 1998.	3B
CWFPRA	Perchartrain Basin Landbridge Resources Plan Increment 1	TE-0034	FD, HR, SP	NRCSS	TERREBOINNE	675	N/A	2011	\$17,628,814	The project consists of the beneficial use of dredged material from the "Crew Boat Channel" and placing it in the Avoca Island area. The project was deauthorized by the CWFPRA Task Force in 1998.	3B
CWFPRA	Marsh Creation East of the Atchafalaya River - Avoca Island (Deauthorized)	TE-0035	MC	USACE	ST MARY	434	N/A	Deauthorized	\$66,869	The project consists of the beneficial use of dredged material from the "Crew Boat Channel" and placing it in the Avoca Island area. The project was deauthorized by the CWFPRA Task Force in 1998.	3B
CWFPRA	Thin Mat Floating Marsh Enhancement Demonstration	TE-0036	MC	NRCSS	TERREBOINNE	N/A	N/A	2000	\$538,101	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 wall in Lakevouse Bayou was removed.	3A
CWFPRA	New Cut Dune and Marsh Restoration	TE-0037	BH, MC	EPA	TERREBOINNE	386	N/A	2008	\$12,869,325	Greater island is migrating rapidly to the west/northwest, therefore, the western end of Timbalier Island is undergoing lateral migration and is at risk of being lost. The project was deauthorized by the CWFPRA Task Force in 2008.	3A
CWFPRA	South Lake Decade Freshwater Introduction	TE-0039	SP	NRCSS	TERREBOINNE	202	N/A	2011	\$5,223,806	The objective of this project is to induce the development of thick-rooted, continuously flooding marsh from a thin-rooted flood using various combinations of treatments including vegetation removal, reduction, and transplanting healthy, but sand marsh plugs into the natural island. Project management is intended to determine the effects of water movement and sediment availability on these marshes.	3B
CWFPRA	Manday Bank Protection Demonstration	TE-0040	BH, MC	EPA	TERREBOINNE	663	N/A	2004	\$16,662,199	The objective of this project was to plug the breach between East and Trinity Islands that was a significant threat to the integrity of the island and adjacent marsh areas. The project was deauthorized by the CWFPRA Task Force in 1998.	3A
CWFPRA	More Existing Atchafalaya Water to Central Terrebonne (Greenhouse)	TE-0041	SP	USFWS	TERREBOINNE	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 breakthroughs were treated to determine the cost-effectiveness of demonstrated approaches. The project allows the evaluation of several low-cost solutions for restoring habitat in blowout areas and preventing bank erosion.	3A, 3B
CWFPRA	MRGO Bank Restoration of Critical Areas in Terrebonne	TE-0042	HR	USFWS	ST MARY	N/A	N/A	Transferred	N/A	This project is intended to reduce marsh loss through the improved distribution of access freshwater seasonally available in the Gulf Intracoastal Waterway (GIWW). The project was deauthorized by the CWFPRA Task Force in 1998.	3A
CWFPRA	SWWW Bank Restoration of Critical Areas in Terrebonne	TE-0043	SP	NRCSS	TERREBOINNE	345	N/A	2014	\$13,022,245	The project objective is to restore critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of the remaining of the project was deauthorized by the CWFPRA Task Force in 2001.	3A
CWFPRA	North Lake Mechant Landbridge Restoration	TE-0044	SP, MC	USFWS	TERREBOINNE	604	N/A	2009	\$39,004,428	The project is intended to help maintain and restore the landbridge (Lake Mechant north shoreline and the Small Bayou La Pointe Ridge), which provides a hydrologic barrier between brackish and low-salinity habitats. Project features include marsh creation, the planting of smooth cordgrass (Spartina alterniflora) on the shoreline, the construction of various plugs, and repairing a flood-rest-weir.	3A
CWFPRA	Terrebonne Bay Shore Protection Demonstration	TE-0045	SP	USFWS	TERREBOINNE	0	N/A	2007	\$2,718,768	This project is intended to evaluate several different shoreline protection methods, including concrete mats, artificial oyster reefs and A-Jacks.	3A
CWFPRA	West Lake Boudreaux Shoreline Protection and Marsh Creation	TE-0046	SP	USFWS	TERREBOINNE	145	N/A	2008	\$17,893,813	The purpose of this project is to create and nourish about 200 acres of marsh along the western shoreline of Lake Boudreaux to protect the shoreline from erosion due to direct exposure to lake wave energy and to restore interior marsh lost to subsidence and saltwater intrusion.	3A
CWFPRA	Ship Shoal Whiskey Island Restoration (Inactive)	TE-0047	BH	EPA	TERREBOINNE	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 Ship 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 CWFPRA Task Force in 2013.	3A
CWFPRA	Raccoon Island Shoreline Protection and Marsh Creation	TE-0048	BH, MC	NRCSS	TERREBOINNE	16	N/A	2007, 2013	\$23,163,393	The purpose of this project is to protect the existing southern shoreline of the island by constructing 8 more rock breakwaters. Phase B of the project would consist of the creation of 16 acres to create marsh on the north side of the island.	3A

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
CWPPRA	Avoca Island Division and Land Building (Deauthorized)	TE-0049	FD, MC	USACE	ST MARY	N/A	N/A	Deauthorized	\$19,157,200	Project features include a small diversion from Bayou Sharferr into Avoca Lake paired with marsh creation through dedicated dredging. The project was subsequently deauthorized by the CWPFPRA Task Force.	3A
	Whiskey Island Back Barrier Marsh Creation	TE-0050	BH	EPA	TERREBOONNE	270	N/A	2010	\$30,414,083	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 included construction of 316 acres of back barrier marsh, 5,600 linear feet of tidal creeks, three 1-acre tidal ponds, and 13,000 linear feet of sand dunes on the Gulf side beach shore.	3A
CWPPRA	Madison Bay Marsh Creation and Terracing	TE-0051	MC, TE	NMFS	TERREBOONNE	1019	N/A	Pending	\$39,821,438	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 Indian Bay. The project would benefit approximately 1,019 acres of fresh marsh and open water over the 20-year project life.	3A
CWPPRA	West Belle Pass Barrier Headland Restoration	TE-0052	BH	NMFS	LAFOURCHE	389	N/A	2012	\$38,422,093	This project involves the reestablishment of the West Belle headland by rebuilding a large portion of the beach, dune, and back barrier marsh that once existed. Approximately 9,300 feet of beach and dune were rebuilt.	3A
CWPPRA	Enhancement of Barrier Island Vegetation Demo	TE-0053	VP	EPA	TERREBOONNE	N/A	N/A	2011	\$919,264	The goal of this project is to test several technologies or products to enhance the establishment and growth of key barrier island and vegetation (bahiá panicum (Panicum ananum) and sea oats (Uniola paniculata)) and marsh vegetation (smooth cordgrass (Spartina alterniflora) and black mangrove (Avicennia germinans)).	3A
CWPPRA	Central Terrebonne Freshwater Enhancement	TE-0066	MC, HR	NRCOS	TERREBOONNE	456	N/A	Pending	\$17,890,120	The project will reestablish historic hydrologic and salinity conditions by reducing the artificial intrusion of Gulf marine waters via the Grand Pass into the Central Terrebonne marshes while enhancing the influence of the Atchafalaya River waters into the area.	3A
CWPPRA	Lost Lake Marsh Creation and Hydrologic Restoration	TE-0072	HR, MC	USFWS	TERREBOONNE	749	N/A	Pending	\$35,877,728	Project goals include 1) restore an important feature of structural framework between Lake Pagnie and Bayou Decade to prevent the loss of marsh habitat, 2) improve hydrologic connectivity between the marsh and the Gulf of Mexico, and 3) improve the marsh's ability to reduce flood risk to adjacent areas. The project will also help protect the people and infrastructure of Port Fourchon.	3A, 3B
CWPPRA	Terrebonne Bay Marsh Creation - Nourishment	TE-0083	MC	USFWS	TERREBOONNE	353	N/A	Pending	\$28,864,401	Project goals are to create 365 acres of intertidal marsh in shallow open water and nourish 289 acres of fragmented marsh within the project area reducing water exchange between Terrebonne Bay and interior lakes during tidal and small storm events and to reduce erosion along 16,000 ft of the northern Terrebonne Bay shoreline.	3A
CWPPRA	North Catfish Lake Marsh Creation	TE-0112	MC	NRCOS	LAFOURCHE	265	N/A	Pending	\$30,325,016	Sediments will be hydraulically dredged from Catfish Lake and pumped via pipeline to create approximately 415 acres of marsh habitat and nourish an additional 241 acres of marsh habitat.	3A
CWPPRA	Island Road Marsh Creation & Nourishment	TE-0117	MC	NMFS	TERREBOONNE	312	N/A	Pending	\$40,435,287	The project will improve the marsh's ability to reduce flood risk to adjacent areas. The project will also help protect the people and infrastructure of Port Fourchon.	3A
CWPPRA	Bayou DeCade Ridge and Marsh Creation	TE-0134	MC	NMFS	LAFOURCHE	304	N/A	Pending	\$29,037,788	The goals of this project are to create and nourish 614 acres of marsh, by pumping sediment from an offshore borrow site 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	TERREBOONNE	382	N/A	N/A	\$31,352,831	The project goals are to construct 11,120 linear feet of ridge along the northern bank of Bayou Decade and create and/or nourish marsh habitat.	3A
CWPPRA	Vermilion River Cutoff Bank Protection	TV-0003	SP	USACE	VERMILION	202	N/A	1996	\$2,047,479	The project includes protecting the east side of the Vermilion River Cutoff with rock to prevent further erosion, hardening the points on existing land bridges on the west bank of the Cutoff with rock, and constructing sediment trapping fences on the Vermilion Bay side to help stabilize and protect the land bridge from wave action in the Bay.	3B
CWPPRA	Cote Blanche Hydrologic Restoration	TV-0004	HR	NRCOS	ST MARY	2223	N/A	1998	\$10,093,902	The primary objectives of the project are to reduce future shoreline loss from wave erosion, reduce excessive tidal fluctuations and rapid tidal exchange to prevent scouring of interior marsh, develop a hydrologic regime conducive to sediment and nutrient deposition, and to re-establish vegetation in eroded areas.	3B
CWPPRA	Boston Canal/Vermilion Bay Bank Protection	TV-0009	SP	NRCOS	VERMILION	378	N/A	1995	\$1,043,748	The project will improve the marsh's ability to reduce flood risk to adjacent areas. The project will also help protect the people and infrastructure of Port Fourchon.	3B
CWPPRA	Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (Inactive)	TV-0011-B	SP	USACE	VERMILION	N/A	N/A	Inactive	\$1,101,738	This project was intended to conduct a rock dike to protect the east shoreline of Freshwater Bayou Canal. The project was subsequently designated as inactive by the CWPFPRA Task Force.	3B
CWPPRA	Little Vermilion Bay Sediment Trapping	TV-0012	TE	NMFS	VERMILION, IBERIA	441	N/A	1999	\$986,030	This project is designed to optimize the retention of sediment from the Atchafalaya River to create new marsh areas in Little Vermilion Bay. Dredged material was placed to create emergent marsh, thereby protecting the existing shoreline from wind-induced wave erosion.	3B
CWPPRA	Calskaway Canal Hydrologic Restoration, Increment 1	TV-0013-A	HR	NRCOS	VERMILION, IBERIA	160	N/A	2002	\$2,925,216	The objective of the project is to improve hydrology, reduce tidal fluctuation to minimize marsh loss, and provide protection to critically eroding landline and shoreline area.	3B
CWPPRA	Marsh Island Hydrologic Restoration	TV-0014	HR	USACE	IBERIA	408	N/A	2001	\$5,143,323	The objective of the project is to stabilize the northeastern shoreline of Marsh Island, including the northern shoreline of Lake Sand, and to help to restore the historical hydrology. The project included construction of nine plugs in of and gas canals at the northeast end of Marsh Island, protection of the northeast shoreline with rock, and isolation of Lake Sand from Vermilion Bay with a rock dike.	3B
CWPPRA	Sediment Trapping at "The Jaws"	TV-0015	TE, VP	NMFS	ST MARY	1999	N/A	2005	\$1,653,792	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. Distributary channels were dredged to deliver water and sediment to the project area.	3B
CWPPRA	Chavira Au Tins Sediment Trapping Demarcation	TV-0016	SNT	NRCOS	VERMILION	N/A	N/A	2001	\$624,999	The objective of the project is to field test a conceptual device designed to trap sediment from the Gulf Sea, stabilize the on-going erosion, stabilize the bank, and build up the tops of the coastal barrier base already eroded away.	3B
CWPPRA	Lake Portage Land Bridge	TV-0017	SP	NRCOS	VERMILION	1496	N/A	2004	\$1,181,129	The objective of this project is to prevent the shoreline south of Lake Portage from breaching and creating another pass from Vermilion Bay to the Gulf. The project consists of backfilling a canal and around the beach with rock.	3B
CWPPRA	Four Mile Canal Terracing and Sediment Trapping	TV-0018	TE	NMFS	IBERIA	52	N/A	2004	\$2,867,186	This project includes construction and planting of terrace with smooth cordgrass (Spartina alterniflora) within Little White Lake and Little Vermilion Bay, along Four Mile Canal, to slow wave-induced shoreline erosion and facilitate sedimentation in the open water areas between the terraces.	3B
CWPPRA	Weeks Bay Marsh Creation and Shore Protection/ Commercial Canal Freshwater Reduction (Transferred)	TV-0019	SP	USACE	IBERIA	N/A	N/A	Transferred	\$30,227	The goal of the project is to create marsh to restore land-bridge separating Weeks Bay and OLMV. In 2013, the CWPFPRA Task Force transferred implementation of the project to parish stakeholders.	3B
CWPPRA	Bayou Sane Shoreline Protection (Deauthorized)	TV-0020	SP	NRCOS	ST MARY	131	N/A	Deauthorized	\$32,103,020	The goal of the project was to protect an eroding shoreline with approx 35,776 feet of rock dike shoreline protection. The project was deauthorized by the CWPFPRA Task Force in 2014.	3B
CWPPRA	East Marsh Island Marsh Creation	TV-0021	MC	NRCOS	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 constructed with rock and sediment. The project also included minor maintenance work paid for by CWPFPRA. The sediment for marsh creation was dredged from East Cote Blanche Bay and pumped a maximum of 6 miles.	3B
CWPPRA	Gold'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

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
FEDERAL	Lake Pontchartrain Hurricane Mitigation Project	HPL-MIT	SP	USACE	ST JOHN THE BAPTIST	600	N/A	1996	\$2,222,882	This project consisted of a near-shore, segmented breakwater system in Lake Pontchartrain parallel to a five-mile reach of the M archipelago. The project specifically mitigated for damages resulting from construction of the Lake Pontchartrain Hurricane and Protection project.	1
FEDERAL	MRGO Ecosystem Restoration	PO-0065	VP, FD, 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 restore some of the ecosystem damaged by construction of MRGO.	1
FEDERAL	Lost Lake Vegetation Project	TE-0082	VP	USFWS	TERREBOONNE	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
FEMA	Houma Navigation Canal Levee Maintenance	DSR-81557	SP	FEMA	TERREBOONNE	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
FEMA	Wine Island	DSR-81558	DM	FEMA	TERREBOONNE	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 Navigational Canal maintenance dredging project. The island was repaired to pre-Hurricane Andrew condition and planted with vegetation to stabilize the sediment.	3A
FEMA	Trinbalier Island Repairs	DSR-81559	BH	FEMA	TERREBOONNE	70	N/A	1996	\$551,653	This FEMA project closed a major breach created by Hurricane Andrew and provided a 300-foot-wide elevated marsh platform to stabilize the island. Vegetation was also planted to stabilize the sand.	3A
FEMA	East Island Repair Protection	DSR-81560	DM	FEMA	TERREBOONNE	25	N/A	1996	\$633,179	This FEMA project constructed an elevated marsh platform in an area of a Terrebonne Parish project destroyed by Hurricane Andrew in 1992. Vegetation was also planted to stabilize the sand.	3A
FEMA	LaFranchette Wetlands	DSR-81768	SP	FEMA	ST CHARLES	N/A	N/A	2000	\$43,315	This FEMA project closed a major breach created by Hurricane Andrew and provided a 300-foot-wide elevated marsh platform to stabilize the island. Vegetation was also planted to stabilize the sand.	1
FEMA	Trinbalier Island	DSR-81784	BH	FEMA	TERREBOONNE	N/A	N/A	2000	\$191,394	This FEMA project repaired sand fencing on Trinbalier Island that was destroyed during a series of tropical storms and hurricanes in the fall of 1998.	3A
FEMA	Falsepoint Canal	DSR-81795	SP	FEMA	TERREBOONNE	N/A	N/A	2000	\$107,761	This FEMA project replaced sand gates on water control structures damaged during tropical storms and hurricanes in the fall of 1998.	3A
FEMA	East Island	DSR-81786	VP	FEMA	TERREBOONNE	N/A	N/A	2000	\$168,113	The installation of the new flapgate culverts was completed by Terrebonne Parish Consolidated Government.	3A
FEMA	Isle Dernieres (Whiskey Island)	DSR-81787	VP	FEMA	TERREBOONNE	1259	N/A	2000	\$561,566	This FEMA project involved the planting of marsh vegetation on the dune and Lake Peto shoreline of East Island. This area is part of a CWPFPRA project damaged by a series of tropical storms and hurricanes in the fall of 1998. A total of 4,280 smooth cordgrass (Spartina alterniflora), 500 black mangrove (Avicennia germinans), and 6,147 roseau cane (Phragmites australis) plants were planted in the area.	3A
FEMA	Marsh Island Repairs	PW-1046	MM	FEMA	IBERIA	N/A	N/A	2005	\$895,881	This FEMA project involved the installation of sand fencing and the planting of vegetation to repair areas of Marsh Island damaged by tropical storms and hurricanes during the fall of 1998. This area is part of a CWPFPRA project area and CWPFPRA lands were combined with that FEMA funds for repairs.	3A
FEMA	Cote Blanche Repairs	PW-1006	HR	FEMA	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 Marsh Island Hydrologic Restoration (TV-14) project damaged during Hurricane Lili in 2002. The project also included minor maintenance work paid for by CWPFPRA.	3B
FEMA	Cameron Creole Structures	PW-4257	HR	FEMA	CAMERON	N/A	N/A	2007	\$325,700	This FEMA project consisted of repairs to areas of stone paving, stone dikes, and minor repair of navigation aids on the Cote Blanche Hydrologic Restoration (TV-04) project damaged during Hurricane Lili in 2002. The project also included minor maintenance work paid for by CWPFPRA.	3B
FEMA	Holly Beach Sand Fencing	PW-4403	SP	FEMA	CAMERON	N/A	N/A	2006	\$218,473	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, Peacock, Lambert, No Name, and Mangrove Bayous.	4
FEMA	Hopedale Hydrological Structure	PW-8743	HR	FEMA	ST BERNARD	N/A	N/A	2007	\$64,900	This FEMA project consists of repairs to the water control structure of the Hopedale Hydrologic Restoration (PO-24) project that was damaged by Hurricane Lili in 2002. Repairs were made to damaged fencing, canals, and displaced riprap, and a local portable hydraulic actuator is being replaced.	4
FEMA	Lake Pontchartrain Debris Removal	N/A	N/A	N/A	JEFFERSON, ORLEANS, ST JOHN THE BAPTIST, ST CHARLES, TANGIPAHOLA	N/A	N/A	2010	\$10,000,000	This FEMA project consists of repairs to the water control structure of the Hopedale Hydrologic Restoration (PO-24) project that was damaged by Hurricane Lili in 2002. Repairs were made to damaged fencing, canals, and displaced riprap, and a local portable hydraulic actuator is being replaced.	1
FEMA	Montegut Wetlands	PW-1728	MM	FEMA	TERREBOONNE	N/A	N/A	2005	\$1,083,962	The goal of this project was to remove debris from approximately 758 square miles of Lake Pontchartrain.	1
HSDRRS	West Bank and Vicinity	BA-0066	HP	USACE	ST CHARLES, 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 T-Walls 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 5-18, NOV-NF-WV- 4 to 6, NF-02, and Taskforce Guardian (TF-G) Continuing Projects P13- 15, P17, and P24 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 vegetated sand dune extending the length of Grand Isle's Gulf shore, a jetty to stabilize the western end of the island at Caminada Pass, and an offshore breakwater system.	2
HSDRRS	Storm-Proofing of Interior Outlying Stations	BA-0074	FP	USACE	JEFFERSON, PLAQUEMINES	N/A	N/A	2014	\$340,000,000	This project involves the installation of various improvement features to the interior pump stations of Orleans and Jefferson Parish under the USACE and Stormwater Management Program (SWMP) to improve the protection of the interior pump stations.	2
HSDRRS	HSDRRS Mitigation - WBV	BA-0109	MC	USACE	JEFFERSON, LAFOURCHE	1318	N/A	Pending	\$17,26,000,000	This project involves the installation of various improvement features to the interior pump stations of Orleans and Jefferson Parish under the USACE and Stormwater Management Program (SWMP) to improve the protection of the interior pump stations.	2, 3A
HSDRRS	Risk Reduction- Barataria Basin Landbridge	BA-0148	MC, HP	USACE	JEFFERSON	223	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 U.S. 4th Supplemental Appropriations as a Hurricane Risk Reduction project. It provides for about 101 acres of marsh creation and 122 acres of marsh improvement on the south shore of the Pen.	2
HSDRRS	Previously Authorized Mitigation WBV	BA-0154	MM, VP, PP	USACE	JEFFERSON, ST. CHARLES	1130	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 1,130 acres of mitigation, including: 1) acquisition, improvement, and management of approximately 128 acres of BLH wetland habitat adjacent to Bayou Segnette State Park, 2) acquisition 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 TFW Mitigation - Brathwaite to Scardale - Big Mar	BA-0156	MC	USACE	PLAQUEMINES	24	N/A	Pending	\$2,800,000	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 16 acres of marsh creation to this project with supplemental funding for a total of 40 acres.	1
HSDRRS	New Orleans to Venice Mitigation - 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 180 acres of mitigation, which includes approximately 50 acres of BLH wetland combined, 50 acres of swamp, 60 acres of freshwater marsh, and 20 acres of brackish marsh.	2, 1
HSDRRS	New Orleans to Venice Mitigation - 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 Via Dredication to the Cameron Freshwater Division	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 U.S. 4th Supplemental Appropriations as a Hurricane Risk Reduction project. It provides for redirecting water from the Cameron Division into the 40 Ament Canal to enhance the protection of marsh and wetland water under the Lake Land and Wetland Conservation and Restoration Act. This project was originally included as a short under CWPFPRA BS-16 but removed to allow USACE to fund it as a marsh creation project.	1

ONGOING PROTECTION AND RESTORATION SUMMARIES

CFRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Levee Improved	Construction Completion	Total Budget	Project Description	Planning Unit
HSDRRS	Lake Pontchartrain & Vicinity, Lake Borgne Surge Barrier LPV-HNC-02	PO-0055	HP	USACE	ST BERNARD, ORLEANS	N/A	2	2013	\$11,134,000,000	This project involves the construction of a Hurricane Surge Barrier across the tip of Lake Borgne connecting the MRGO levees south of Bayou Bienvenue with the GWNV Levees East of Michoud Canal with floodgates at Bayou Bienvenue and GWNV.	1
HSDRRS	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
HSDRRS	Permanent Closure of Canals and Purses	PO-0060	HP	USACE	JEFFERSON	N/A	0.34	Pending	\$614,800,000	This project, authorized under Public Law 109-234, involves the design and construction of a permanent protection system for the outfall canals along 17th Street, Orleans Avenue, and London Avenue and linear pumps and closure structures at or near the waterfront.	1
HSDRRS	West Shore Lake Pontchartrain	PO-0062	HP	USACE	ST JOHN THE BAPTIST, ST CHARLES, ST JAMES, ASCENSION	N/A	27	Pending	\$989,594,586	This project involves the assessment of hurricane and storm reduction measures in a study area bounded by the Bonnet Carré Spillway to the north, Lake Pontchartrain and 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
HSDRRS	Lake Pontchartrain and Vicinity	PO-0063	HP	USACE	ST CHARLES, JEFFERSON	N/A	128	2010	\$3,862,000,000	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
HSDRRS	Lake Pontchartrain & Vicinity, Seabrook Lock LPV-HNC-01	PO-0064	HP	USACE	ORLEANS	N/A	0.5	2012	\$157,156,414	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 HNC Bogine Surge Barrier.	1
HSDRRS	HSDRRS Migration- LPV	PO-0121	MC	USACE	ST TAMMANY, ORLEANS	1089	N/A	Pending	\$65,000,000	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
HSDRRS	LPV Task Force Guardian Migration- Bayou Sauvage	PO-0145	MM, VP	USACE	ORLEANS	58	N/A	Pending	\$780,000	This project is being led by USACE and is 100% federally funded with approximately \$2.1 million allocated. This project is mitigating approximately 147 acres due to emergency levee work that utilized 2 borrow pits of about 57 acres. It provides for the elimination of non-native trees with spraying and mechanical clearing, and then the replanting of up to 69,000 trees and shrubs of native species.	1
HSDRRS	Previously Authorized Migration LPV- M archac	PO-0146	MC, 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 \$2.1 million allocated. It provides for containment dikes with rock and fill areas with dredge material (to match the CPRA Tule Cove project success). The project is intended to create marsh and feeding areas.	1
LOUISIANA COASTAL AREA	LCA Small Bayou Lafourche Retrofit/Protection	BA-0070	FD	USACE	ASSUMPTION, LAFOURCHE	N/A	N/A	Pending/On Hold	\$133,500,000	The project will use a small diversion (less than 5,000 cfs) to introduce flow from the Mississippi River into Bayou Lafourche. Project goals include providing freshwater, sediment and nutrients needed to reduce salinity, stimulating plant productivity, and reducing wetland loss between Bayous Lafourche and Terrebonne. Funds from the budget surplus of 2008 will be used for the state's cost-share requirement. Construction cost taken from WRODA 2007 legislation.	3A
LOUISIANA COASTAL AREA	LCA Medium Diversion with Dike and Dredging at Myrtle Grove	BA-0071	FD	USACE	PLAQUEMINES	N/A	N/A	Pending/On Hold	\$278,300,000	Authorized by WRODA 2007 as a sediment diversion between 2,500 and 15,000 cfs. Ongoing modeling effort to examine potential for modification of the MRGO authority for a larger sediment diversion to promote infilling of shallow open water areas through deposition and marsh expansion. "Full Unfunded Phase 2 cost taken from WRODA 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	\$68,277,895	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 Canebaron Diversion	BS-0019	FD	USACE	ST BERNARD	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 Canebaron, west of the Mississippi River.	1
LOUISIANA COASTAL AREA	LCA Medium Diversion at Little's Loch	BS-0020	FD	USACE	PLAQUEMINES	N/A	N/A	Pending/On Hold	\$126,686,000	A medium diversion from the Mississippi River into the central River area Chenevas using a controlled structure to provide additional freshwater, nutrients, and fill sediment to the area between the Mississippi River and other east channel ridges.	1
LOUISIANA COASTAL AREA	LCA Barataria Basin Barrier Shoreline - 2007	LA-0010	MC, BH	USACE	JEFFERSON, PLAQUEMINES, LAFOURCHE	N/A	N/A	Pending/On Hold	\$363,900,000	The purpose of this project is to provide beachline 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	\$25,356,136	This project involves the development of a strategic framework for feasibility evaluation of improved management of fresh water, nutrients, and sediment resources of the Lower Mississippi River, from the Old River Control Structure to Head of Passes, to better sustain its deltaic basin.	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 facilitate organic deposition, improve biological productivity, and prevent further deterioration of the swamp. The state is using surplus lands as part of the required cost share for the project. Fully funded Phase 2 cost provided as the projected cost estimate.	1
LOUISIANA COASTAL AREA	LCA Small Diversion at Conzent Blind River	PO-0068	FD	USACE	ST JAMES, ASCENSION	N/A	N/A	Pending/On Hold	\$123,140,000	This project evaluates a small diversion of up to 5,000 cfs from the Mississippi River into the Blind River through a new control structure to introduce freshwater, sediments, and nutrients into the southwest portion of the Maurepas Swamp.	1
LOUISIANA COASTAL AREA	LCA River Diversion at Calumet Station (Transferred)	PO-0069	VP, HR	USACE	LIVINGSTON, ASCENSION	N/A	N/A	Transferred	\$1,760,000	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 Mainland Land Bridge Between Calumet Lake and Gulf of Mexico	TE-0067	MC	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$62,600,000	One of the goals of this project is 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 store erosion and increase freshwater influence on marshes in project area.	3A
LOUISIANA COASTAL AREA	LCA Point Aul'ier	TE-0068	SP	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$48,300,000	The goal of the project is to stabilize gulf shoreline of Point Aul'ier for island to prevent direct connection between gulf and interior water bodies thereby preventing conversion of existing wetlands to marine habitat.	3A
LOUISIANA COASTAL AREA	LCA Terrebonne Basin Barrier Shoreline Restoration	TE-0070	BH	USACE	TERREBONNE	N/A	N/A	Pending/On Hold	\$133,300,000	Under existing federal authority, the project will stabilize the shoreline of Terrebonne Bayou, including the Gulf of Mexico, and East Terrebonne Island, Trunk Island, and Whiskey Island, and East Terrebonne Island.	3A
LOUISIANA COASTAL AREA	LCA Corner 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 flooding Atchafalaya River influence to central (Lake Bourdeaux) and eastern (Grand Bayou) Terrebonne marshes via the Gulf Intracoastal Waterway (GIWW).	3

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefitted	Miles of Losses Incurred	Construction Completion	Total Budget	Project Description	Planning Unit
NFWF	Mid 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 Easter 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 GOMW 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	East Timberland Island Restoration	TE-0118	BH	N/A	LAFOURCHE	In Development	N/A	Pending	\$74,000,000	This project will engineer and design a restoration of dunes, supratidal, and intertidal habitat, such that the two presently remaining, severely degraded island segments will be reconnected and the historic island topography re-sculptured, which will improve bird and fish habitat, help protect oil and gas infrastructure, and provide future surge protection for western Louisiana Parish.	3A
NROA	Island Roncoulle Barrier Channel Restoration	BA-0076	BH, MC	NHFS	PLAQUEMINES	408	N/A	Pending	\$38,883,175	The objective of this project is to prevent breaching of the barrier shoreline by restoring the dune and marsh platform. Project was designed under CWFPRA, but will seek NROA funds for construction.	2
NROA	Shell Island West - NROA	BA-0111	BH	N/A	PLAQUEMINES	347	N/A	Pending	\$110,524,380	This project aims to restore the integrity of the Shell Island West barrier island, reduce wave energies within the bay area, and reestablish productive habitat to Breton Bay and the surrounding area. It will create 328 acres of marsh and 372 acres of dune and beach.	2
NROA	Lake Hermitage Marsh Creation Increment 1	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-42 Lake Hermitage CWFPRA project utilizing NROA early restoration funds.	2
NROA	Queen Beas 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 hydraulic dyke design segment from a nearby suitable offshore sand source and disposing of twinned existing rock ring that outlines the island. The island will be pumped to a post-construction settled elevation of +5.5 NAVD 88. Small limestone will be deposited on most of the perimeter of the island to create a low maintenance beach-like feature for nesting terns and skimmers. The island will be planted with suitable vegetation to provide optimal nesting substrate (owder grass, wild grass, marsh ragwort, & black mangrove).	2
NROA	Barataria Basin Ridge and Marsh Creation - Spanish Pass Increment	BA-0203	MC	N/A	PLAQUEMINES	1254	N/A	N/A	\$124,500,000	Spanish Pass is a severely degraded due to wind and marine 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
NROA	Rabbit Island Restoration Project	CS-0080	BH	N/A	CAMERON	200	N/A	N/A	\$27,000,000	The primary goal of the project is to restore and 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
NROA	Lake Borgne Marsh Creation - Increment One	PO-0180	MC	N/A	ST BERNARD	1548	N/A	N/A	\$127,000,000	This project will create approximately 1,548 acres of marsh, extending approximately four miles from Shell Beach on the southern rim of Lake Borgne to Latta Lagoon on the eastern shore of Lake Borgne.	1
NROA	NROA Calou Lake Headlands	TE-0100	BH	N/A	TERREBONNE	1272	N/A	Pending	\$111,309,000	This project aims to restore the historic Bayou and Bayou Island in order to retain its geomorphologic form and ecologic function. It will create 1,272 acres of marsh and 1,272 acres of dune habitat.	3A
NROA	Terrebonne Basin Ridge and Marsh Creation - Bayou Terrebonne Increment	TE-0139	MC	N/A	TERREBONNE	1486	N/A	N/A	\$126,000,000	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 OMW at Gulf.	3A
OTHER	Lake Pontchartrain Mitigation Project	HPL-MIT	SP	N/A	ST JOHN THE BAPTIST	800	N/A	1996	\$2,272,892	This project consisted of a near-shore, segmented freshwater system in Lake Pontchartrain parallel to a five-mile reach of the Manchac Wildlife Management Area. The project specifically mitigated for damages resulting from construction of the Lake Pontchartrain Hurricane Protection Project.	1
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, and traveling wetlands exhibit for the public. Other department outreach efforts include participating in conferences, workshops, civic events, and school activities. Much of the agency's educational outreach is in partnership with the Breau Act Task Force committees and the America's WETLAND campaign. As a result of working with several noted authors, writers and reporters, the Public Information Office has contributed to the publishing of hundreds of national articles over the past years. To contact the Louisiana Department of Natural Resources Public Information Office online---info@dnr.state.la.us	COASTWIDE
RESTORE	West Grand Terre Beach Nourishment and Stabilization	BA-0187	BH	N/A	JEFFERSON	In Development	N/A	N/A	\$65,000,684	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 Salinity Control Measures	CS-0065	HR	N/A	CAMERON	In Development	N/A	Pending	In Development	The purpose of the project is to manage salinities being introduced into adjacent water bodies through the Calcasieu Ship Channel to wetlands adjacent to Calcasieu Lake through the Calcasieu Ship Channel. Measures would control salinity spikes and would be constructed in a manner that would allow for the continued functioning and ideal improvement and increased viability of the Calcasieu Ship Channel and the Port of Lake Charles.	4
RESTORE	River Reintroduction into Maurepas Swamp	PO-0029	FD	EPA	ST JOHN THE BAPTIST ST JAMES	36121	N/A	Pending	\$147,028,725	This project intends to restore a natural hydrologic regime and increase nutrient inputs to cypress-tupelo swamps located south of Lake Maurepas. The project will dredge the Mississippi River into the Lake Maurepas and into the cypress-tupelo swamps. The project was designed proposed under CWFPRA, 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 600 acres of marsh within the Golden Triangle Marsh system.	1
RESTORE	Blox Marsh Living Shoreline Project	PO-0174	SP	N/A	ST BERNARD	In Development	N/A	N/A	\$57,719,731	The project would create a living breakwater structure by mechanically placing a manufactured structure, or suite of structures, off the shoreline of Eloi Bay and Eloi Point, near the mouth of Bayou La Loutre.	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 Morgazcar to the Gulf of Mexico Hunt-Are Protection Project. The structure will provide storm surge protection, increase freshwater distribution, and provide navigation along the Houma Navigation Canal. The project is designed to discuss alternative design considerations for optimization of the Canal Lock Complex and determine a preferred design. The next step will be to conduct Engineering and Design of the preferred design.	3A
SECTION 204H135	MROCO, Breton Island Restoration, Mile 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 204H135	MROCO, Breton Island Berm, Mile 2.3 to 3.0	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 nourish the littoral system that feeds Breton Island.	1
SECTION 204H135	Mississippi River Gulf Outlet, Mile 14 to 11	N/A	DM	USACE	ST BERNARD	50	N/A	1999	\$350,000	This Section 204 project provided for the unconfined placement of 3,468,901 cubic yards of material into shallow water adjacent to the south jetty at about mile 15.3. The material was dredged from miles 14.0 to 11.0 of the Mississippi River Gulf Outlet (MRGO) navigation channel and placed to an elevation conducive to marsh vegetation establishment.	1
SECTION 204H135	Mississippi River Gulf Outlet, 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 fast tracked due to the impact of Hurricane Luis and Tropical Storm Isidore in 2002.	1
SECTION 204H135	Mississippi River Gulf Outlet, Mile 14 to 12 (2003)	N/A	DM	USACE	ST BERNARD	113	N/A	2003	\$580,000	This project involved pumping 4.3 million cubic yards of sediments to create 113 acres of marsh. The material was dredged from miles 14.0 to 12.0 of the Mississippi River Gulf Outlet (MRGO) navigation channel and placed at an elevation conducive to marsh vegetation establishment.	1
SECTION 204H135	Barataria Bay Waterway, Mile 31 to 24.5	N/A	DM	USACE	JEFFERSON	125	N/A	1999	\$140,000	(BBWW) to create marsh habitat.	2

ONGOING PROTECTION AND RESTORATION SUMMARIES

CFRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Insured	Construction Completion	Total Budget	Project Description	Planning Unit
SECTION 204H1135	Barataria Wetway 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 Wetway. (BEWW) 10 create wetlands on the bay side of Grand Terre Island.	2
SECTION 204H1135	Calksish River and Pass (Sabine NWR) Phase I, II, III	N/A	DM	USACE	CAMERON	480	N/A	1999	\$1,560,804	This Section 204 project provides for the disposal of dredged material removed from the area between mile 7.9 and 11.5 of the Calksish River Channel. A total of 4 million cubic yards of material was deposited in three phases within the Sabine National Wildlife Refuge.	4
SECTION 204H1135	Wine Island Restoration	DSR-01558	DM	USACE	TERREBONNE	37	N/A	1991, 2003	\$1,007,000	This Section 204 project was a restoration effort with the USACE and included the use of beneficial dredging from a scheduled Houma Navigational Canal maintenance dredging project to restore Wine Island.	3A
SECTION 204H1135	Barataria Bay Wetway 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 Wetway. (BEWW) 10 create wetlands on Grand Terre Island.	2
SECTION 204H1135	Houma Navigation Canal, Wine Island Barrier Island Restoration	N/A	DM	USACE	TERREBONNE	50	N/A	2002	\$1,000,000	This Section 204H1135 project investigated the feasibility of beneficially using the dredged material from the bar channel area in lieu of the Ocean Dredged Material Disposal Site. The project area is approximately 35 miles south of Houma, Louisiana at the mouth of the navigation channel in Terrebonne Bay. The construction schedule of this project was expedited due to the impact of Hurricane Lili and conditions are expected to occur following project implementation. Long-term water management objectives will be directed towards maintaining a brackish marsh system.	3A
SECTION 204H1135	Brown Lake	N/A	MC, DM	USACE	CAMERON	315	N/A	1999	\$1,132,435	This Section 204 project was to, in the event possible, the natural hydrology of the area. A reduction in marsh loss and improved water conditions are expected to occur following project implementation. Long-term water management objectives will be directed towards maintaining a brackish marsh system.	4
STATE	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 irrigation and flood reduction benefits to agricultural areas south and southeast of the City of Alexandria.	3B
STATE	Achafalaya Basin 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	Namur Siphon Diversion	BA-0003	FD	N/A	PLAQUEMINES, JEFFERSON	9200	N/A	1992	\$9,602,381	This project involved the construction of eight parallel siphons to divert water from the Mississippi River into the adjacent wetlands near Nauru, Louisiana. The maximum discharge of the siphons is 2,100 cfs.	2
STATE	West Pointe a la Haye Siphon Diversion	BA-0004	FD	N/A	PLAQUEMINES	9200	N/A	1992	\$9,645,693	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 a la Haye, Louisiana. The maximum discharge of the siphons is 2,100 cfs.	2
STATE	Queen Bees	BA-0005-B	SP, DM	N/A	JEFFERSON	145	N/A	1993	\$1,475,176	The purpose of this project is to restore Queen Bees Island as a brown pelican (Pelecanus occidentalis) rookery. Dredged material was added to the area to increase its size in 1991, and a rock dike was installed around the perimeter of the original island in 1992 to protect the shoreline. The area has been degraded and the number of nesting birds on the island increased after project completion.	2
STATE	Bale de Chactas	BA-0005-C	SP	N/A	ST CHARLES	130	N/A	1990	\$175,000	This project involved the construction of a 1,000 foot long dike across an abandoned access canal that connects the two water bodies. The dike is designed to reduce wave energies and ensure forces from the lake while still allowing exchange of sediment and aquatic organisms. Additional CWP/PPA funds were appropriated for the design of this state-funded project. Maintenance of this project was necessary in the 1998-1999 fiscal year at a cost of \$300,000.	2
STATE	Lake Sakador Shoreline Protection Extension	BA-0015-X1	SP	N/A	ST CHARLES	2035	N/A	2005	\$4,840,344	The purpose of this project is to build a rock dike that will protect the marsh shoreline along the northeastern portion of Lake Sakador. 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/PPA project.	2
STATE	Bayou Segnette	BA-0016	SP	N/A	JEFFERSON	88	N/A	1994, 1998	\$1,373,151	This project involved the construction of a 5,000 foot long dike that runs from the bank between Lake Sakador and Bayou Segnette and the installation of a timber pile fence across an abandoned access canal that connects the two water bodies. The fence is designed to reduce wave energies and ensure forces from the lake while still allowing exchange of sediment and aquatic organisms. Additional CWP/PPA funds were appropriated for the design of this state-funded project. Maintenance of this project was necessary in the 1998-1999 fiscal year at a cost of \$300,000.	2
STATE	Bayou Lafourche Freshwater Introduction	BA-0025	FD	N/A	LAFOURCHE	Not Available	N/A	2011	\$20,000,000	The Mississippi River diversion into Bayou Lafourche will restore coastal marshes and provide drinking water to over 300,000 residents. This project funded the dredging of the first 6.2 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	Jean 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 capped, steel sheet pile floodwall and flood gates to 8.0 NAVD.	2
STATE	Roseholme Tidal Protection	BA-0075-2	HP	N/A	JEFFERSON	N/A	5.3	Pending	\$20,500,000	This project will provide flood protection improvements consisting of new earthen levees, approximately 6,010 linear feet of reinforced concrete floodwall and flood gates to 8.0 NAVD.	2
STATE	St. Charles West Bank Hurricane Protection Levee Control Structure	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	Grand Isle East End Breakwater Jetty Design	BA-0091	OT	N/A	LAFOURCHE	N/A	N/A	Pending	\$4,990,000	This project will allow stable levels in Bayou Lafourche to be more effectively managed through operation of the saltwater control structure.	2
STATE	Donatonsville 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/In Hold	\$10,269,987	This project provided funding for the design of breakwaters/jetties work for Grand Isle State Park.	2
STATE	Grand Isle/Ft. Island Breakwaters	BA-0168	SP	N/A	JEFFERSON	Not Available	N/A	2015	\$6,000,000	The purpose of this project is to reduce the risk of flooding from coastal storm surge and rainfall to prevent further economic losses and environmental damage in the Barataria Basin. The project is currently in its feasibility study phase, during which various alternatives to structural surge are being examined. The adequacy of the existing drainage system is being assessed, and cultural, environmental, and recreational issues are being identified. The scope is to study various alternatives that will provide flood protection from tidal, hurricane surges, and heavy rainfall events, determine the adequacy of the existing interior drainage systems and evaluate whether additional pumping capacity is required, and analyze recreational, cultural, and environmental needs.	2
STATE	Kraemer Bayou Board Levee Lift	BA-0169	HP	N/A	LAFOURCHE	N/A	6	Pending	\$1,000,000	This project will improve and raise approximately 33,000 feet of ring levees surrounding the Kraemer Community, a forced drainage area. The levees were not sufficient during Hurricane Isaac and overtopped.	2
STATE	Breach Management Plan	BA-0170	BH	N/A	JEFFERSON, LAFOURCHE, PLAQUEMINES, TERREBONNE	N/A	N/A	N/A	\$7,06,511	This project involves the development of a system-wide program for handling breaching that occurs within the barrier island and headland system of the Louisiana coastline. The project will extend eastward from Racoon Island to Scuffed Island south within the Terrebonne and Barataria Basins. The project will include development of identification, classification, and prioritization methodologies for assessing and managing breaches. The project will also include development of a system-wide program for handling breaches. The project will include development of identification, classification, and prioritization methodologies for assessing and managing breaches. The project will also include development of a system-wide program for handling breaches.	2, 3A
STATE	Barataria Large-Scale Component E-Planning	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 sites and placement at an elevation of 2.5 feet above mean high tide. The project will include development of identification, classification, and prioritization methodologies for assessing and managing breaches. The project will also include development of a system-wide program for handling breaches.	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 GOMWY across from Brannon Ditch in Calcasieu Parish. The project was designed to protect the shoreline from erosion and provide a buffer for the levee system. The project was completed in 1991 and has been successful in reducing erosion and providing a buffer for the levee system. The project was also planned behind the breakwaters in order to enhance accretion and increase the stability of this area.	4

ONGOING PROTECTION AND RESTORATION SUMMARIES

CRA Program	Name	State Project Number	Project Type	Federal Sponsor	Parish	Acres Benefited	Miles of Levee Insured	Construction Completion	Total Budget	Project Description	Planning Use
STATE	Brown Marsh	BRK-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 main north of Lake Lery and help prevent saltwater intrusion. The project was built in conjunction with the Lake Borgne Basin Levee District 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 consists of 10 miles of shoreline stabilization using a combination of rock armor, sand nourishment, and vegetation along the beach north of the breakwater structures. The proposed series of segmented breakwaters was placed just east of the CWPFPRA funded TV-16 project with up to nine additional structures. The structures cover approximately 2,800 linear feet with an approximate distance of 240 feet from the existing shoreline.	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, 19 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 barge foundations and armor stone.	4
STATE	Rivade Canal Marsh Management	CS-0002	MM	N/A	CAMERON	6575	N/A	1994	\$2,065,657	The project was designed to stabilize salinities and water levels by reducing water flows through Rycade canal and Black Lake.	4
STATE	Cameron Creole Levee	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 Calcasieu Lake. These structures are remotely located and are difficult to manipulate. Automation of these structures will improve management capabilities in the Sabine National Wildlife Refuge.	4
STATE	Cameron Parish Shoreline Restoration	CS-0003	OT	N/A	CAMERON	523	N/A	2014	\$45,800,000	The project involved the re-establishment of dunes and beach near 8.7 miles extending from the western Calcasieu River delta 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	The project benefited by 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 into Blind Lake. The project consisted of placing 2,339 near feet of limestone breakwater along the south side of the COWW adjacent to Blind Lake. The second phase of this project included planting giant cypress (Cyclopogon mitchellii) along the inside of the breakwater to enhance the accretion process.	4
STATE	Sabine Terraces	CS-ST	SNT	N/A	CAMERON	110	N/A	1990	\$1,90,047	A total of 128 earthen terraces were constructed in a checkered pattern and planted with smooth cordgrass (Spartina alterniflora) in open water areas of the Sabine National Wildlife Refuge. The project's objective was to increase the length of the marsh-water interface, re-establish emergent marsh vegetation, reduce marsh fringe retreat by reducing wind-generated wave energy, increase overall primary productivity, and promote the deposition of suspended sediment.	4
STATE	Fisheries Habitat Restoration on West Grand Terre Island at Fort Livingston	FTL-01	SP	N/A	JEFFERSON	Not Available	N/A	2003	\$2,076,816	This project consists of a rock break built to protect the Gulf shoreline of West Grand Terre Island and Fort Livingston. This project was expected because erosion rates along West Grand Terre rapidly accelerated due to the impacts of tropical storms in 2002.	2
STATE	Grand Isle Bay Side Breakwaters	QBSB	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 Isle. Fifteen 300-foot breakwaters were constructed on the backbay side of Grand Isle.	2
STATE	Dedicated Dredging Program - Lake Skidrow	LA-0001-A	MC, DM	N/A	ST CHARLES	28	N/A	1999	\$342,276	Two sites were filled utilizing dredged material adjacent to Base du Cabanage on the Salvador Wildlife Mangement 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 Dupont	LA-0001-B	DM, MC	N/A	JEFFERSON	66	N/A	2000	\$1,080,017	Three sites were filled utilizing dredged material adjacent to Bayou Dupont 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	Pass a Loure 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 Pass a Loure, 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	\$2,599,597	This project created approximately 40 acres of marsh just north of Lake DeCade along the western bank of M Mors 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	\$1,931,534	This project created approximately 38 acres of marsh near Catfish Lake using dredged material from Grand Bayou Blue. This project is part of the 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 - Point au Fer	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 CWPFPRA TE-26 project using material dredged from Abbeville 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.	3B
STATE	Southwest Coastal Louisiana Feasibility Study	LA-0020	DM, TE, SP, MC	USACE	CALCASIEU, VERMILION, CAMERON	In Development	In Development	Pending	\$8,800,000	Thorough research was conducted on coastal marshes adjacent to the waterways to address the coastal issues of Southwest Louisiana. It includes shoreline stabilization, marsh creation, salinity control, hurricane protection, and estuarine restoration measures. Project was authorized December 7, 2005.	4
STATE	Sabine Cycle 2	LA-0021-1	DM	N/A	CAMERON	227	N/A	2010	\$5,600,000	The purpose of this project is to cover the cost of marsh fill for the Sabine Refuge Marsh Creation, Cycle 2 Breake Act project.	4
STATE	MAST - Management	LA-0211	OT	N/A	COASTWIDE	N/A	N/A	N/A	\$200,000	This project is to recognize aches undertaken by the State of Louisiana's Coastal Protection and Restoration Authority as part of the active process of managing multiple floodplain mapping projects 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 CFPRA personnel and CH2M and will initially result in the development of full E&D scopes for both the MIA-Barataria and Mid-Breton diversions.	1
STATE	Pas an Island Freshwater Introduction	ME-0001	FD	N/A	VERMILION	39000	N/A	1992	\$487,152	The purpose of this project is to introduce freshwater from the north to counteract the saltwater intrusion from the south. The project consists of two water control structures and approximately 5,000 linear feet of earthen embankment needed to channel water from other lakes to the south marshes.	4
STATE	Marsh Creation Near Freshwater Bayou	ME-0025-SF	MC	N/A	VERMILION	96	N/A	2015	\$5,700,000	The purpose of this project is to create 96 acres of marsh southeast of intersection of Acadiana Canal and Freshwater Bayou.	4
STATE	Small Sediment Diversions	MR-0001-B	SD	N/A	PLAQUEMINES	6719	N/A	1993	\$1,010,500	The purpose of this project is to create 96 acres of marsh southeast of intersection of Acadiana Canal and Freshwater Bayou.	4
STATE	North Grand Isle Breakwaters	N61	SP	N/A	JEFFERSON	50	N/A	1995	\$160,000	This project involved the excavation of 13 crevasses through the levees of Mississippi River distributary channels within the Balce Delta in order to create self-sustaining emergent marsh.	1
STATE	Volet Siphon Diversion	PO-0001	FD	N/A	ST BERNARD	84	N/A	1992	\$380,584	This project was authorized to construct segmented rock breakwaters on the bay side of Grand Isle to protect Lancos located between Camarda Bay and the west side of Louisiana Hwy 1. The Louisiana Department of Natural Resources (LDNR) contributed no construction funds and was involved in construction inspection only. The local Levee District supplied construction funds. 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.	2
STATE											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
STATE	Bayou Chauve	PO-0002-C	SP	N/A	ORLEANS	75	N/A	1994	\$82,000	This project installed 2,000 feet of brush fences at the mouth of Bayou Chauve.	1
STATE	Bayou de la Branche 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 the shoreline, which separates Lake Pontchartrain from the western edge of the Lafourche wetlands.	1
STATE	Lafourche Shoreline Protection	PO-0003-B	SP	N/A	ST CHARLES	50	N/A	1996	\$1,230,851	A rock breakwater was constructed along the Lake Pontchartrain shoreline, east of Bayou LaBranche, to protect the hydrologic function of the lake and the wetlands from being breached.	1
STATE	Central Wetlands Pump Outfall	PO-0008	FD	N/A	ST BERNARD	300	N/A	1992	\$250,000	Urban development has provided 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	\$366,000	This project involved the construction of 1,140 foot rock-filled gabion breakwater to maintain and protect the Lake Pontchartrain shoreline that shelters "The Prairie" (an 800-acre expanse of shallow, open water marsh bordered by organic freshwater marsh) from high wave energies and to encourage sediment deposition behind the gabion structure. An additional \$195,000 was used for maintenance in 2001.	1
STATE	MRGO Closure Structure	PO-0038-SF	OT	USACE	ST BERNARD	2343	N/A	2009	\$14,116,500	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 inland marsh via the channel. Project implementation was 100% Federal; the State acquired Real Estate interests for structure and is responsible for O&M activities.	1
STATE	St. Bernard Parish 40 Acrent Lake Caissons	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 Forty Acrent Levee.	1
STATE	Blount Marsh	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	North Shore Hurricane Flood Protection and Restoration Plan	PO-0074	OT	N/A	ST TAMMANY; TANGIPAHOA	N/A	N/A	N/A	\$1,271,888	This project involves the development of a hurricane protection plan for the North Shore.	1
STATE	MRGO and Lake Borgne (Bayou Bienvenue Segment)	PO-0093	SP	USACE	ST BERNARD	N/A	N/A	Pending	Not Available	This project will construct approximately 14,440 linear feet of stone shoreline dike along the southwest shoreline of Lake Borgne in the vicinity of Bayou Bienvenue. CPRA is acquiring portions of the three oyster leases that are impacted by this project.	1
STATE	MRGO and Lake Borgne (Bayou Bienvenue Segment)	PO-0094	SP	USACE	ST BERNARD	N/A	N/A	Pending	Not Available	This project will construct approximately 15,700 linear feet of stone shoreline dike along the southern shoreline of Lake Borgne, west of Shell Beach. CPRA is acquiring portions of the four oyster leases that are impacted by this project.	1
STATE	MRGO and Lake Borgne (Shell Beach Segment)	PO-0095	SP	USACE	ST BERNARD	N/A	N/A	Pending	Not Available		
STATE	MAS2 - Outreach	PO-0129	OT	N/A	JEFFERSON; PLAQUEMINES; ST BERNARD; ST CHARLES; LIVINGSTON	N/A	N/A	N/A	\$266,670	The objective of this project is to support the release by the Federal Emergency Management Agency (FEMA) of a Digital Flood Insurance Rate Map (OFIRM) and Flood Insurance Study (FIS) report, for the Greater New Orleans area.	1
STATE	Hydrologic Restoration of the Arme River Diversion Canal	PO-0142	HR, VP	N/A	ASCENSION	1600	N/A	7/8/1905	\$3,592,100	The purpose of this project is to reestablish hydrologic connectivity between Maurepas Swamps and natural watercourses; 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 which was previously completed and proposed projects in the St. Tammany Parish Coastal Zone. In addition, the project will include a study to determine the future protection vulnerable areas, and finally a benefit cost analysis of projects will be undertaken to determine project priority and viability.	1
STATE	Violet Canal North Levee Agreement	PO-0170	HP	N/A	ST BERNARD	N/A	Not Avail.	Pending	\$1,164,000	For the construction of a levee/breakwall 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 LBOLD. The floodwall is required for the certification of the Forty Acrent and Froids Avenue levee systems located in Orleans Parish and St. Bernard Parish.	1
STATE	Fontainebeau State Park Mitigation	PO-4356NP4	SP	N/A	ST TAMMANY	6	N/A	1999	\$476,104	This project repaired a section of breached shoreline by depositing approximately 9,000 cubic yards of sand for a feeder berm on the east/southwest end of Fontainebeau State Park.	1
STATE	Raccoon Island Repair	RI	DM	N/A	TERREBOONNE	197	N/A	1994	\$1,400,000	Cooperatives include the Louisiana Department of Natural Resources/Coastal Restoration Division, Louisiana Department of Wildlife and Fisheries/ur and Refuge Division, Terrebonne Parish Consolidated Government, South Terrebonne Tidewater Mangement 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	Spillbank along the GWW	SBG	VP	N/A	TERREBOONNE	1	N/A	1993	\$9,400	This project planted 8,000 feet of spoilbank along the Gulf Intracoastal Waterway with black willow (Salix nigra) and bald cypress (Taxodium distichum) in an effort to reduce further bank erosion. The effectiveness of different types of nutria exclusion devices was tested.	3A
STATE	Sabine Shellbank Stabilization	SSB	SP	N/A	CAMERON	10	N/A	1990	\$66,000	The purpose of this project was to provide natural shoreline protection by using float currents to deposit clam shell on the shoreline. The benefits of this design over the use of permanent structures are lower cost, less disturbance of the natural habitat during construction, and allowing natural distribution of sediment and organisms without impingement.	4
STATE	Worshiput Wetland	TE-0001	MM	N/A	TERREBOONNE	4200	N/A	1993	\$5,537,036	The objective of the Montepout Wetland project is to protect and enhance 4,200 acres of degraded wetland habitat in the Pointe aux Chien Wildlife Management Area southeast of Montegut, Louisiana.	3A
STATE	Falgout Canal Wetland	TE-0002	MM	N/A	TERREBOONNE	1300	N/A	1993, 1995	\$1,560,000	The primary objectives of this project were to protect approximately 8,000 acres of marsh and cypress-tupelo swamp, reduce saltwater intrusion, and improve wildlife habitat by moderating water flow and tidal energy in the deteriorating wetland community.	3A
STATE	Bayou LaCache 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 Wetlands Mangement and the Louisiana Department of Wildlife and Fisheries. Major funding for the project was provided by Ducks Unlimited and the North American Wetlands Conservation Act.	3A
STATE	Lower Petit Calibou	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-routing freshwater discharge from the Mississippi River into the project area and provide wildlife habitat and waterfowl habitat.	3A
STATE	Point Farm Refuge Planting	TE-0014	VP	N/A	TERREBOONNE	150	N/A	1995	\$226,931	Approximately 108,900 seedlings of bitter pecan (Carya aquatica), water oak (Quercus nigra), and cow oak (Quercus michauxii) (with nutria exclusion devices) were planted on 300 acres of former farmland within the PF RA.	3A
STATE	Morgantza to the Gulf	TE-0064	HP	USACE	LAFOURCHE; TERREBOONNE	N/A	18	Pending	\$136,703,835	The project is currently being designed 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 t walls, navigation structures, water control structures, and floodgates.	3A
STATE	Larose to Golden Meadow - Flood Protection	TE-0065	HP	N/A	LAFOURCHE	N/A	23	2014	\$19,820,000	This project includes levee modifications and improvements. The project was allocated \$15 million in '08 Surplus and \$4.82 million in '09 Surplus.	2, 3A
STATE	Golden Meadow-Larose Shoal	TE-0065-SP	HP	N/A	LAFOURCHE	N/A	0.5	Pending	\$8,000,000	This project involves the construction of approximately 24,000 feet of sheet pile to an elevation of +13 feet along the GWW at Larose to increase the level of hurricane protection for the adjacent area.	2
STATE	Just Lake Vegetation Project	TE-0082	VP	N/A	TERREBOONNE	N/A	N/A	2011	\$161,000	This project consists of vegetative plantings on the shore and vicinity of Lost Lake.	3A, 3B
STATE	HNC Deepening Section 203 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 COITD with interim funding being provided by CPRA.	3A
STATE	Valentine 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 M. Morgan City flood protection system by raising some of the existing levees to elevations as defined in the March 2012, 2013 report by T. Baker Smith.	2
STATE	St. Mary Backwater Flooding	TE-0116	HP	N/A	ST MARY; TERREBOONNE	N/A	1.72	Pending	\$5,000,000		3B

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	Yellow Bayou	TY-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-American Canal and to stabilize 7,465 feet of the East Cote Blanche Bay shoreline. This was achieved by constructing a greater shell berm adjacent to the water's edge to reduce shoreline erosion.	3B
STATE	Marsh Island Control Structures	TY-0006	MM	N/A	IBERIA	643	N/A	1993	\$453,500	The objectives of this project were to reduce the rate of land loss, revegetate shallow open-water areas, and increase waterfowl food within the water management units. Flag-patedistop culverts and earthen canal plugs were installed in October of 1993 at the northeast and southeast units to control water exchange between the units and the surrounding water bodies. Within the management units, canal spoil banks were breached and ditches were constructed to facilitate water movement between interior marsh ponds.	3B
STATE	Freshwater Bayou Bank Protection	TY-0011	SP	N/A	VERMILION	241	N/A	1994	\$2,177,075	This project conserves vegetated wetlands by maintaining the physical integrity of marshes that separate Freshwater Bayou and interior water bodies. The dominant project feature consists of the construction of 24,000 linear feet of rock dike, extending north to the confluence of Belle Isle Bayou and Freshwater Bayou. The original project was constructed in 1984, however, repairs were made to the structure in 1996 and 2001.	3B
STATE	Cakekay Structures	TY-0013-B	SP	N/A	VERMILION; IBERIA	160	N/A	2000	\$3,07,735	This project enhanced the adjacent CWPPRA-funded TY-13a project by installing low-sill structures at the outfall of Oaks and Avery Canals to redirect more water flow through the portion of Bayou Petite Anse south of the GWW.	3B
STATE	South Central Coastal Plan	TY-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. Mary Parish, St. Martin Parish, and Iberia Parish, have initiated a data gathering effort. We anticipate completing this phase of the project by the end of 2010. This information will be used 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	Morgan City/St. Mary Flood Protection	TY-0055	HP	N/A	ST MARY	N/A	4.5	Pending	\$3,970,000	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	DeLambre-Avery Canal (E&D)	TY-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 DeLambre-Avery Canal just south of the Intracoastal Waterway. When constructed this project will provide flood protection improvements by allowing the closure of the DeLambre-Avery Canal to reduce the impact of storm surge from Vermilion Bay.	3B
STATE	Bayou Tige Flood Control Complex	TY-0075	HP	N/A	IBERIA; VERMILION	N/A	Not Avail.	Pending	\$6,380,000	This project will use utilize \$6,280,000 of funds re-allocated from TY-56 to design and construct a pumping station to augment flood control operations at a closure gate across Bayou Tige, currently under design as project TY-67. This project will help mitigate ponding and flooding on the project site caused by flood rate closure during a landfall hurricane.	3B
STATE	Surplus Freshwater Bayou Bank Stabilization	TY-0076	SP	N/A	VERMILION	Not Available	N/A	2016	\$1,300,000	This project will use \$1,300,000 remaining from the ME-0025-SF project to augment the TY-0011 B-EB onshore rock dike feature along Freshwater Bayou.	3B
STATE	Gutman Canal/Cypremont Point	TY-4356NP1	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 tressure rock dike along the Vermilion Bayou and Iberia Canal intersect and the south bank of the Gutman Canal.	3B
STATE	Beneficial Use of H-10 Twin Span Dike (Authorized)	N/A	OT	N/A	ORLEANS	N/A	N/A	Deauthorized	\$1,500,000	This project involves the use of Twin Span Dike as a form of shoreline protection for the Bayou Sauvage area.	1
STATE	East of Harvey Canal Interim Hurricane Protection - PhaseI	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 asphalt flood protection, ultimately to an elevation of 10.0 feet above the east side of the Houma Canal from the section gate at La Cade Boulevard to the existing levee at the west end, to provide interim hurricane protection during construction of the HDRPS system.	2
STATE	Wading of LA 1 at Golden 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	Raising of LA 23 at LaReussille (Houma Navigation Canal)	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 LaReussille Storm guide levees, where the highway crosses those guide levees. LCOTD performed the engineering studies and let contracts to complete the project.	2
STATE	Chabert Ring Levee	N/A	HP	N/A	TERREBOONNE	N/A	N/A	N/A	\$300,000	The purpose of this project is to pre-clear the Bay Welsh disposal site adjacent to and east of the Houma Navigation Canal.	3A
STATE	Wine Island	N/A	DM	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 levee will surround the Chabert Medical Center and will provide flood protection for the facility allowing operation during possible flood events.	3A
STATE	NRCS Biomass Production Program	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	N/A	COASTWIDE	N/A	N/A	N/A	\$80,000	The NRCS-LDNRCFD Biomass Program is a multi-year programmatic initiative to accelerate the collection, feeding, and release of important coastal wetland restoration plants. The Biomass Program began in 1999 in conjunction with the LDNRCFD Smart-Dredge Program with emphasis on plant performance and debridged sediment. This program is an important coastal restoration initiative that is advancing coastal wetland plant technology development.	COASTWIDE
STATE	NRCS Biomass Production Program	N/A	VP	N/A	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., cultivars) within four plant species. The information obtained in this study will be used to select the most appropriate plant species and varieties to expected environmental conditions at restoration sites, thereby increasing the success of the plantings.	COASTWIDE
STATE	NRCS Vegetative Planting	N/A	VP	N/A	COASTWIDE	609	N/A	N/A	\$399,658	This is a coastal vegetative planting program that is implemented annually and involves the installation of vegetative plantings in selected areas where vegetation is needed.	COASTWIDE
WRDA	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 Barataria Basin by providing freshwater, nutrients, and sediment. This will counter saltwater intrusion and help offset marsh subsidence. This project can divert up to 10,650 cfs of water into the basin.	2
WRDA	Cameron Freshwater Diversion	BS-0008	FD	USACE	PLAQUEMINES	16000	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 Breton Sound for fish and wildlife enhancement. This project is an divert up to 8,000 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 2041735= Water Resource Development Act Sections 204 and 1135 beneficial use of dredged material projects; WRDA=Water Resources Development Act; LOA=Louisiana Coastal Area; FEMA= Federal Emergency Management Agency funded projects; CAP 2007= Coastal Impact Assistance Program; Surplus 08, Surplus 09=State surplus-funded projects. Other=funded by programs not otherwise listed.

AGencies: 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.

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

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

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 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
Engineering and Design (P1)					
	Caminada Headlands Back Barrier Marsh Creation Increment 2 ¹	\$565,952	\$125,120	\$0	\$691,072
BA-0193					
BA-0194	East Leeville Marsh Creation and Nourishment ¹	\$800,000	\$600,000	\$300,000	\$1,700,000
BA-0195	Barataria Bay Rim Marsh Creation and Nourishment	\$250,000	\$175,000	\$75,000	\$500,000
CS-0049	Cameron-Creole Freshwater Introduction	\$100,000	\$0	\$0	\$100,000
CS-0078	No Name Bayou Marsh Creation and Nourishment ¹	\$570,507	\$302,362	\$0	\$872,869
CS-0079	Oyster Lake Marsh Creation and Nourishment ¹	\$2,000,000	\$600,000	\$0	\$2,600,000
ME-0031	Freshwater Bayou Marsh Creation	\$23,891	\$11,945	\$0	\$35,836
ME-0032	South Grand Chenier Marsh Creation- Baker Tract	\$93,060	\$39,680	\$0	\$132,740
PO-0075	LaBranche East Marsh Creation	\$48,183	\$24,092	\$0	\$72,275
PO-0133	LaBranche Central Marsh Creation	\$77,393	\$33,169	\$0	\$110,562
	New Orleans Landbridge Shoreline Stabilization and Marsh Creation ¹	\$542,286	\$242,172	\$0	\$784,458
PO-0169					
PO-0173	Fritchie Marsh Creation and Terracing	\$26,280	\$26,280	\$13,140	\$65,700
PO-0178	Bayou LaLoutre Ridge Restoration and Marsh Creation ¹	\$1,077,905	\$1,077,905	\$1,077,905	\$3,233,715
	St. Catherine Island Marsh Creation and Shoreline Protection ¹	\$955,723	\$955,723	\$477,862	\$2,389,308
PO-0179					
TE-0112	North Catfish Lake Marsh Creation	\$22,883	\$8,009	\$0	\$30,892
TE-0117	Island Road Marsh Creation and Nourishment ¹	\$1,151,337	\$31,543	\$0	\$1,182,881
TE-0134	West Fourchon Marsh Creation ¹	\$792,890	\$198,223	\$0	\$991,113
TE-0138	Bayou DeCade Ridge and Marsh Creation ¹	\$1,283,254	\$1,283,254	\$641,627	\$3,208,134
Construction (P2)					
	Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp ¹	\$2,008,304	\$217,342	\$0	\$2,225,646
BA-0034-2					
BA-0125	Northwest Turtle Bay Marsh Creation ¹	\$200,000	\$16,487,209	\$10,991,473	\$27,678,682
BS-0016	South Lake Lery Shoreline and Marsh Restoration	\$321,482	\$0	\$0	\$321,482
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation ¹	\$16,823,058	\$4,205,765	\$0	\$21,028,823
CS-0059	Oyster Bayou Marsh Creation and Terracing ¹	\$13,376,082	\$0	\$0	\$13,376,082
CS-0066	Cameron Meadows Marsh Creation and Terracing ¹	\$720,000	\$21,243,465	\$8,950,056	\$30,913,521
LA-0284	Salvinia Weevil Propagation Facility ¹	\$94,980	\$339,287	\$0	\$434,267
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization ¹	\$22,628,242	\$7,542,747	\$0	\$30,170,989
ME-0020	South Grand Chenier Marsh Creation Project	\$30,368	\$7,592	\$0	\$37,960
ME-0021	Grand Lake Shoreline Protection, Tebo Point	\$150,000	\$0	\$0	\$150,000
PO-0104	Bayou Bonfouca Marsh Creation ¹	\$13,607,626	\$0	\$0	\$13,607,626
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration ¹	\$20,173,768	\$0	\$0	\$20,173,768
TV-0063	Cole's Bayou Marsh Restoration ¹	\$16,434,897	\$4,108,724	\$0	\$20,543,621
Demonstration Projects (P1 & P2)					
	Shoreline Protection, Preservation, and Restoration (SPPR) Panel ¹	\$117,835	\$117,835	\$117,835	\$353,504
LA-0280					
Subtotal		\$117,068,184	\$60,004,442	\$22,644,897	\$199,717,523
Adjustment for Outlying Years ²		N/A	\$29,995,558	\$67,355,103	\$97,350,661
Total Expenditures		\$117,068,184	\$90,000,000	\$90,000,000	\$297,068,184
Surplus Expenditures (See Table B-5)		(\$12,174,792)	\$0	\$0	(\$12,174,792)
Federal Expenditures (see Note 1)		\$96,384,103	\$75,904,989	\$76,500,081	\$248,789,173
Trust Fund Expenditures		\$8,509,289	\$14,095,011	\$13,499,919	\$36,104,219

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 2019 - FY 2020 are therefore based on prior years' expenditures.

Table B-2. Louisiana WRDA Projected Expenditures

Project ID	Project Name	FY 2017	FY 2018	FY 2019	Project Total (FY 2017 - FY 2019)
BA-0191	Spanish Pass Ridge and Marsh Restoration ¹	\$0	\$0	\$0	\$0
LA-0020	Southwest Coastal Louisiana ²	\$901,048	TBD	TBD	\$901,048
Total Expenditures		\$901,048	\$0	\$0	\$901,048
Surplus Expenditures for WRDA (see Table B-6)		(\$901,048)	\$0	\$0	(\$901,048)
Trust Fund Expenditures for WRDA		\$0	\$0	\$0	\$0

Notes:

1- Project construction is anticipated to continue into FY 2018, but all CPRA expenditures are anticipated to be complete by the end of FY 2017.

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

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

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
BA-0082	Lafitte Area Levee Repair	\$700,000	\$0	\$0	\$700,000
TE-0063	Falgout Canal Road Levee ¹	\$2,000,000	\$0	\$0	\$2,000,000
TE-0078	Cut-Off/Pointe Aux Chene Levee	\$7,095,000	\$0	\$0	\$7,095,000
N/A	CDBG Program Administration	\$11,680	\$11,680	\$0	\$23,360
Total Expenditures		\$9,806,680	\$11,680	\$0	\$9,818,360

Notes:

1- Project is anticipated to complete construction in FY 2017; FY 2018 expenditures are for closeout activities.

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

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
MOEX Projects					
	Mississippi River Delta Strategic Planning-				
MR-0016-S	SSPM Expansion ¹	\$0	\$0	\$0	\$0
	Hydrologic Restoration of the Amite River				
PO-0142	Diversion Canal ¹	\$704,687	\$131,250	\$704,687	\$1,540,624
Capital Outlay Projects					
BA-0066	West Bank and Vicinity ²	\$560,000	\$0	\$0	\$560,000
BA-0075-1	Jean Lafitte Tidal Protection ³	\$0	\$0	\$0	\$0
BA-0075-2	Rosethorne Tidal Protection ³	\$0	\$0	\$0	\$0
TE-0064	Morganza to the Gulf ²	\$15,000,000	\$0	\$0	\$15,000,000
LDOTD Interagency Transfer Projects					
TE-0108	HNC Deepening Section 203 Study	\$73,600	\$0	\$0	\$73,600
Projects with Trust Fund Expenditures					
BA-0109	HSDRRS Mitigation- WBV ³	\$50,000	\$50,000	\$50,000	\$150,000
BA-0154	Previously Authorized Mitigation WBV ³	\$50,000	\$50,000	\$50,000	\$150,000
	New Orleans to Venice Mitigation-				
BA-0158	Plaquemines Non-Fed ³	\$5,840	\$11,680	\$11,680	\$29,200
BA-0159	New Orleans to Venice Mitigation- Fed ³	\$5,840	\$11,680	\$11,680	\$29,200
PO-0057	SELA- Overall ³	\$20,440	\$20,440	\$20,440	\$61,320
PO-0121	HSDRRS Mitigation- LPV ³	\$56,064	\$56,064	\$56,064	\$168,192
Total State Expenditures		\$16,526,471	\$331,114	\$904,551	\$17,762,136

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 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
BA-0025	Bayou Lafourche Freshwater Introduction ¹	\$848,740	\$0	\$0	\$848,740
BA-0043 (EB)	Mississippi River Long Distance Sediment Pipeline ²	\$10,700,527	\$0	\$0	\$10,700,527
BA-0045	Caminada Headland Beach and Dune Restoration ³	\$159,016	\$126,508	\$0	\$285,524
BA-0071	Medium Diversion with Dedicated Dredging at Myrtle Grove ⁴	\$3,860,892	\$0	\$0	\$3,860,892
BA-0075-1	Jean Lafitte Tidal Protection	\$10,000,000	\$4,500,000	\$0	\$14,500,000
BA-0075-2	Rosethorne Tidal Protection	\$4,500,000	\$5,500,000	\$0	\$10,000,000
BA-0085	St. Charles West Bank Hurricane Levee Protection	\$4,000,000	\$2,116,368	\$0	\$6,116,368
BA-0115	Donaldsonville to the Gulf ⁵	\$1,325,833	\$0	\$0	\$1,325,833
BA-0169	Kraemer/Bayou Boeuf Levee Lift	\$1,000,000	\$0	\$0	\$1,000,000
CS-0004	Cameron Creole Levee ⁶	\$2,876,528	\$0	\$0	\$2,876,528
LA-0020	Southwest Coastal Louisiana	\$901,048	\$0	\$0	\$901,048
ME-0025 (SF)	Marsh Creation near Freshwater Bayou	\$0	\$0	\$0	\$0
PO-0062	West Shore Lake Pontchartrain	\$3,500,000	\$0	\$0	\$3,500,000
PO-0063	Lake Pontchartrain and Vicinity	\$17,478,316	\$2,922,920	\$1,106,000	\$21,507,236
PO-0072	Biloxi Marsh ⁶	\$849,395	\$0	\$0	\$849,395
PO-0167	St. Tammany Parish Coastal Protection Study	\$1,200,000	\$700,000	\$0	\$1,900,000
PO-0170	Violet Canal North Levee Alignment ⁷	\$219,874	\$0	\$0	\$219,874
TE-0064	Morganza to the Gulf	\$10,700,000	\$600,000	\$0	\$11,300,000
TE-0065-SP	Larose to Golden Meadow- Larose Sheetpile	\$2,000,000	\$0	\$0	\$2,000,000
TE-0113	Houma Navigation Canal Lock Complex	\$8,000,000	\$0	\$0	\$8,000,000
TE-0116	St. Mary Backwater Flooding	\$2,147,950	\$536,988	\$0	\$2,684,938
TV-0054	South Central Coastal Plan	\$449,420	\$0	\$0	\$449,420
TV-0055	Morgan City/ St Mary Flood Protection	\$5,162,062	\$0	\$0	\$5,162,062
TV-0057	Delcambre-Avery Canal (E&D)	\$103,892	\$0	\$0	\$103,892
TV-0067	Bayou Tigre Flood Control Project	\$500,000	\$2,488,375	\$2,488,375	\$5,476,750
TV-0075	Bayou Tigre Flood Control Complex	\$3,421,200	\$2,280,800	\$0	\$5,702,000
N/A	East of Harvey Canal	\$161,399	\$0	\$0	\$161,399
N/A	Southeast Louisiana Flood Protection/ LERRDS ⁸	\$47,161,375	\$3,429,800	\$3,460,000	\$54,051,175
Programmatic and Non-Project Surplus Expenditures					
AT-0013	Atchafalaya Basin Natural Resources Inventory and Assessment ⁶	\$289,120	\$0	\$0	\$289,120
LA-0026	Rehabilitation and Repair of State Restoration Projects ⁶	\$759,739	\$0	\$0	\$759,739
LA-0027	Barrier Island Maintenance Program	\$2,644,359	\$0	\$0	\$2,644,359
N/A	Science, Technology, and Education	\$0	\$0	\$0	\$0
N/A	Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) ⁶	\$624,870	\$0	\$0	\$624,870
LA-0025	Innovative Coast-Wide Initiatives	\$0	\$0	\$0	\$0
N/A	Beneficial Use	\$1,709,653	\$0	\$0	\$1,709,653
N/A	Emergency Reserve	\$6,263,645	\$0	\$0	\$6,263,645
N/A	Innovative Programs	\$876,143	\$0	\$0	\$876,143
LA-0259	University Partnerships	\$126,320	\$0	\$0	\$126,320
N/A	Non-Structural Program Development ⁹	\$500,000	\$798,551	\$0	\$1,298,551
LA-0265	Levee Engineering and Design Standards Development and Analysis	\$4,263,087	\$0	\$0	\$4,263,087
Total Expenditures		\$161,284,403	\$26,000,310	\$7,054,375	\$194,339,088

Notes:

1- Expenditures represent contingency funds to cover post-construction activities.

2- Includes funding for Large-Scale Barataria Marsh Creation (BA-0192) and CWPPRA projects (see Table B-1).

3- Surplus funds include post-construction monitoring expenditures (see Table B-8).

4- Includes funding for Diversion Modeling and Model Improvement (LA-0282).

5- Expenditures may be used for project closeout and to supplement funding of other coastal projects.

6- Expenditures may be used to supplement funding of other coastal projects.

7- Project constructed with leftover funds from project PO-0061 (completed in FY 2011).

8- 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).

9- Funds will be used to develop a coordinated strategy for implementing nonstructural projects in 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 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
AT-0002	Atchafalaya Sediment Delivery	\$39,760	\$2,920	\$0	\$42,680
AT-0003	Big Island Mining	\$13,760	\$2,920	\$0	\$16,680
BA-0002	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	\$56,617	\$31,797	\$85,817	\$174,230
BA-0003-C	Naomi Outfall Management	\$15,090	\$28,004	\$19,094	\$62,188
BA-0020	Jonathan Davis Wetland Protection	\$2,920	\$16,936	\$8,760	\$28,616
BA-0027-C	Barataria Landbridge Shoreline Protection (Phase 3)	\$5,840	\$4,380	\$19,272	\$29,492
BA-0034-2	Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp	\$114,140	\$45,300	\$47,344	\$206,784
BA-0035	Chaland Pass to Grand Bayou	\$5,840	\$68,760	\$15,840	\$90,440
BA-0036	Dedicated Dredging on the Barataria Basin Landbridge	\$11,680	\$2,920	\$2,920	\$17,520
BA-0037	Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake	\$9,344	\$5,840	\$5,840	\$21,024
BA-0038	Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration	\$14,600	\$4,380	\$15,840	\$34,820
BA-0039	Mississippi River Sediment Delivery (Bayou Dupont)	\$95,180	\$9,670	\$9,920	\$114,770
BA-0042	Lake Hermitage Marsh Creation	\$82,703	\$14,625	\$76,625	\$173,953
BA-0048	Bayou Dupont Marsh and Ridge Creation	\$18,843	\$17,428	\$38,016	\$74,287
BA-0068	Grand Liard Marsh and Ridge Restoration	\$5,840	\$105,680	\$30,520	\$142,040
BA-0164	Bayou Dupont Sediment Delivery Marsh Creation #3	\$21,255	\$2,920	\$2,920	\$27,095
BA-0173	Bayou Grande Chenier Marsh and Ridge Restoration	\$2,336	\$85,070	\$25,112	\$112,518
BS-0003-A	Caernarvon Diversion Outfall Management	\$2,920	\$2,920	\$2,920	\$8,760
BS-0011	Delta Management at Fort St. Philip	\$14,600	\$8,760	\$2,920	\$26,280
BS-0016	South Lake Lery Shoreline and Marsh Restoration	\$8,760	\$15,056	\$2,336	\$26,152
CS-0004-A	Cameron-Creole Maintenance	\$30,368	\$44,384	\$44,384	\$119,136
CS-0011-B	Sweet Lake/Willow Lake Hydrologic Restoration	\$2,920	\$2,920	\$2,920	\$8,760
CS-0017	Cameron Creole Plugs	\$2,920	\$0	\$0	\$2,920
CS-0020	East Mud Lake Marsh Management	\$2,920	\$2,920	\$2,920	\$8,760
CS-0021	Highway 384 Hydrologic Restoration	\$2,920	\$26,572	\$19,272	\$48,764
CS-0022	Clear Marais Bank Protection	\$2,920	\$2,920	\$2,920	\$8,760
CS-0023	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully	\$6,132	\$19,272	\$19,272	\$44,676
CS-0024	Perry Ridge Shore Protection	\$16,936	\$2,920	\$2,920	\$22,776
CS-0027	Black Bayou Hydrologic Restoration	\$33,958	\$31,038	\$18,190	\$83,187
CS-0028-3	Sabine Refuge Marsh Creation, Increment 3	\$37,008	\$12,264	\$8,760	\$58,032
CS-0028-4	Sabine Refuge Marsh Creation, Increment 4	\$37,008	\$12,264	\$8,760	\$58,032
CS-0029	Black Bayou Culverts Hydrologic Restoration	\$2,920	\$2,920	\$16,936	\$22,776
CS-0030	GIWW - Perry Ridge West Bank Stabilization	\$2,920	\$2,920	\$6,132	\$11,972
CS-0031	Holly Beach Sand Management	\$19,272	\$16,936	\$2,920	\$39,128
CS-0032	East Sabine Lake Hydrologic Restoration	\$2,920	\$12,264	\$12,264	\$27,448
CS-0053	Kelso Bayou Marsh Creation	\$0	\$0	\$2,920	\$2,920
CS-0059	Oyster Bayou Marsh Creation & Terracing	\$14,950	\$29,950	\$43,966	\$88,867
LA-0008	Bioengineered Oyster Reef Demonstration	\$21,608	\$2,920	\$0	\$24,528
LA-0016	Non-Rock Alternatives for Shoreline Protection Demonstration Project	\$71,608	\$2,920	\$0	\$74,528
LA-0039	Coastwide Plantings Program	\$76,504	\$63,656	\$63,656	\$203,816
LA-0003-B	Coastwide Nutria Control Plan	\$152,920	\$152,920	\$152,920	\$458,760
ME-0004	Freshwater Bayou Wetland (Phases 1 & 2)	\$17,236	\$19,856	\$2,920	\$40,012
ME-0011	Humble Canal Hydrologic Restoration	\$17,022	\$31,038	\$31,038	\$79,099
ME-0013	Freshwater Bayou Bank Stabilization	\$16,310	\$12,264	\$0	\$28,574
ME-0014	Pecan Island Terracing	\$4,088	\$2,920	\$2,920	\$9,928
ME-0016	Freshwater Introduction South of Highway 82	\$15,022	\$30,206	\$29,038	\$74,267
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	\$0	\$11,680	\$65,844	\$77,524
ME-0019	Grand-White Lakes Landbridge Protection	\$2,920	\$2,920	\$2,920	\$8,760
ME-0020	South Grand Chenier Hydrologic Restoration Project	\$7,008	\$16,936	\$16,936	\$40,880
ME-0022	South White Lake Shoreline Protection	\$2,920	\$2,920	\$2,920	\$8,760
MR-0003	West Bay Sediment Diversion	\$2,920	\$176,440	\$14,600	\$193,960
MR-0006	Channel Armor Gap Crevasse	\$7,008	\$0	\$0	\$7,008
MR-0009	Delta-Wide Crevasses	\$186,747	\$8,760	\$2,336	\$197,843
PO-0006	Fritchie Marsh Restoration	\$2,920	\$14,600	\$8,760	\$26,280
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	\$11,680	\$2,920	\$2,920	\$17,520
PO-0022	Bayou Chevee Shoreline Protection	\$8,760	\$2,336	\$7,592	\$18,688
PO-0024	Hopedale Hydrologic Restoration	\$2,920	\$2,920	\$2,920	\$8,760
PO-0033	Goose Point/Point Platte Marsh Creation	\$4,672	\$8,760	\$2,336	\$15,768
PO-0104	Bayou Bonfouca Marsh Creation	\$43,507	\$2,336	\$43,784	\$89,627
TE-0020	Isle Dernieres Restoration East Island	\$16,352	\$20,440	\$20,440	\$57,232
TE-0022	Point Au Fer Canal Plugs	\$2,336	\$2,278	\$2,290	\$6,903
TE-0026	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	\$10,512	\$2,920	\$2,920	\$16,352
TE-0028	Brady Canaly Hydrologic Restoration	\$38,688	\$15,840	\$0	\$54,528
TE-0034	Penchant Basin Natural Resources Plan, Increment 1	\$167,520	\$67,520	\$5,840	\$240,880
TE-0037	New Cut Dune/Marsh Restoration	\$11,680	\$2,920	\$2,920	\$17,520
TE-0040	Timbalier Island Dune/Marsh Restoration	\$17,520	\$17,520	\$584	\$35,624
TE-0044	North Lake Mechant Landbridge Restoration	\$3,504	\$31,700	\$29,200	\$64,404
TE-0046	West Lake Boudreaux Shoreline Protection and Marsh Creation	\$7,125	\$7,125	\$7,125	\$21,374
TE-0048	Raccoon Island Shoreline Protection/Marsh Creation	\$68,760	\$48,760	\$8,760	\$126,280
TE-0050	Whiskey Island Back Barrier Marsh Creation	\$14,016	\$5,840	\$5,840	\$25,696
TE-0052	West Belle Pass Barrier Headland Restoration	\$5,840	\$5,840	\$5,840	\$17,520
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	\$14,016	\$49,780	\$62,276	\$126,072
TV-0004	Cote Blanche Hydrologic Restoration	\$16,936	\$2,920	\$0	\$19,856
TV-0012	Little Vermilion Bay Sediment Trapping	\$16,936	\$2,920	\$0	\$19,856

Table B-6. CWPBRA Monitoring Projected Expenditures

Project No.	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
TV-0013-A	Oaks/Avery Canal Hydrologic Restoration, Increment 1	\$2,920	\$8,968	\$16,936	\$28,824
TV-0014	Marsh Island Hydrologic Restoration	\$16,936	\$6,966	\$20,982	\$44,884
TV-0015	Sediment Trapping at "The Jaws"	\$20,156	\$16,936	\$2,920	\$40,012
TV-0017	Lake Portage Land Bridge	\$2,920	\$16,936	\$16,936	\$36,792
TV-0018	Four Mile Canal Terracing and Sediment Trapping	\$2,920	\$2,920	\$2,920	\$8,760
TV-0021	East Marsh Island Marsh Creation	\$22,458	\$11,362	\$12,264	\$46,085
TV-0063	Coles Bayou Marsh Restoration	\$17,016	\$8,760	\$28,864	\$54,640
CRMS	Coastwide Reference Monitoring System	\$8,862,955	\$8,920,075	\$8,928,835	\$26,711,866
Total Expenditures		\$10,800,264	\$10,551,145	\$10,271,445	\$31,622,854
Federal CWPBRA Monitoring Expenditures		\$9,180,224	\$8,968,474	\$8,730,728	\$26,879,426
Trust Fund CWPBRA Monitoring Expenditures		\$1,620,040	\$1,582,672	\$1,540,717	\$4,743,428

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

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
BA-0001	Davis Pond Freshwater Diversion ¹	\$611,284	\$653,999	\$693,455	\$1,958,738
BS-0008	Caernarvon Freshwater Diversion ¹	\$501,334	\$536,352	\$567,572	\$1,605,257
Total Expenditures		\$1,112,618	\$1,190,351	\$1,261,027	\$3,563,995
Federal WRDA Monitoring Expenditures		\$834,463	\$892,763	\$945,770	\$2,672,996
NFWF WRDA Monitoring Expenditures (See Table B-13)		\$253,422	\$253,422	\$253,422	\$760,266
State WRDA Monitoring Expenditures		\$24,732	\$44,166	\$61,835	\$130,733

Notes:

1- Monitoring expenditures partially funded with NFWF Adaptive Management funds (See Table B-13).

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

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
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	\$8,760	\$15,840	\$39,200
NFWF Projects					
BA-0143	Caminada Headland Beach and Dune Restoration Increment 2	\$785,250	\$656,500	\$268,000	\$1,709,750
NRDA Projects					
BA-0111	Shell Island West	\$154,961	\$134,680	\$26,420	\$316,061
BA-0141	NRDA Lake Hermitage Marsh Creation Increment 2	\$29,016	\$60,440	\$29,016	\$118,472
BA-0142	NRDA Cheniere Ronquille	\$151,709	\$114,040	\$24,080	\$289,829
TE-0100	NRDA Caillou Lake Headlands	\$355,479	\$165,117	\$163,213	\$683,809
Surplus Projects²					
BA-0045	Caminada Headland Restoration	\$109,016	\$126,508	\$0	\$235,524
USACE Mitigation Projects					
BA-0109	HSDRRS Mitigation - WBV	\$7,300	\$7,300	\$7,300	\$21,900
BA-0154	Previously Authorized Mitigation - WBV	\$7,300	\$7,300	\$7,300	\$21,900
PO-0038SF	MRGO Closure Structure	\$7,300	\$7,300	\$7,300	\$21,900
PO-0093	MRGO - Lake Borgne -Bayou Dupre Segment	\$7,300	\$7,300	\$7,300	\$21,900
PO-0094	MRGO - Lake Borgne -Bayou Bienvenue Segment	\$7,300	\$7,300	\$7,300	\$21,900
PO-0095	MRGO - Lake Borgne -Shell Beach Segment	\$7,300	\$7,300	\$7,300	\$21,900
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					
AT-0016	Bayou Sorrel, Frog Lake	\$7,008	\$7,008	\$7,008	\$21,024
BA-0188	OPA Lake Washington/Mendicant	\$7,008	\$7,008	\$7,008	\$21,024
BA-0196	LOSCO- EML	\$31,680	\$21,680	\$21,680	\$75,040
CS-0072	OPA Calcasieu River	\$9,344	\$9,344	\$9,344	\$28,032
LA-0278	General Oil Spill- LOSCO	\$29,200	\$29,200	\$29,200	\$87,600
MR-0027	OPA Joseph's Bayou I & II	\$7,008	\$7,008	\$7,008	\$21,024
MR-0165	OPA Gretna/Mississippi River	\$7,008	\$7,008	\$7,008	\$21,024
MR-0166	OPA Dune Energy - Garden Island Bay	\$7,008	\$7,008	\$7,008	\$21,024
TE-0121	OPA Hilcorp Bay St. Elaine	\$7,008	\$7,008	\$7,008	\$21,024
State-Only Projects					
PO-0142	Hydrologic Restoration of the Amite River Diversion Canal	\$52,984	\$66,087	\$44,795	\$163,866
PO-0148	Living Shoreline	\$59,084	\$37,916	\$65,379	\$162,379
PO-0152	Lake Borgne and MRGO Shoreline Protection	\$7,300	\$7,300	\$7,300	\$21,900
Total Expenditures		\$1,981,744	\$1,551,160	\$817,855	\$4,166,479
Berm to Barrier Expenditures		\$98,972	\$14,600	\$21,680	\$135,252
NFWF Expenditures		\$785,250	\$656,500	\$268,000	\$1,709,750
NRDA Expenditures		\$691,166	\$474,277	\$242,729	\$1,408,171
Surplus Expenditures		\$109,016	\$126,508	\$0	\$235,524
LOSCO Expenditures		\$112,272	\$102,272	\$102,272	\$316,816
Trust Fund Expenditures		\$185,068	\$177,003	\$183,174	\$545,245

Notes:

1- Monitoring expenditures funded with Berm to Barrier funds.

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 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
AT-0002	Atchafalaya Sediment Delivery	\$8,760	\$4,672	\$2,336	\$15,768
AT-0003	Big Island Mining	\$8,760	\$4,672	\$2,336	\$15,768
BA-0002	GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration	\$1,679,726	\$22,534	\$22,534	\$1,724,794
BA-0003-C	Naomi Outfall Management	\$21,740	\$21,740	\$21,740	\$65,220
BA-0020	Jonathan Davis Wetland Protection	\$5,840	\$5,840	\$5,840	\$17,520
BA-0023	Barataria Bay Waterway West Side Shoreline Protection	\$5,840	\$5,840	\$5,840	\$17,520
BA-0026	Barataria Bay Waterway East Side Shoreline Protection	\$88,764	\$2,770,440	\$5,840	\$2,865,044
BA-0027	Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2	\$2,920	\$2,336	\$2,336	\$7,592
BA-0027-C	Barataria Basin Landbridge Shoreline Protection, Phase 3	\$2,920	\$2,336	\$2,336	\$7,592
BA-0027-D	Barataria Basin Landbridge Shoreline Protection Phase 4	\$2,920	\$2,336	\$2,336	\$7,592
BA-0034-2	Hydrologic Restoration and Vegetative Plantings in the des Allemands Swamp	\$3,650	\$2,920	\$2,920	\$9,490
BA-0035	Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	\$9,402	\$9,461	\$9,578	\$28,441
BA-0037	Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake	\$749,778	\$5,490	\$5,490	\$760,757
BA-0038	Pelican Island and Pass La Mer to Chaland Pass Restoration	\$9,811	\$9,928	\$10,045	\$29,784
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	\$5,840	\$133,176	\$5,840	\$144,856
BA-0042	Lake Hermitage Marsh Creation	\$11,680	\$11,797	\$11,972	\$35,449
BA-0048	Bayou Dupont Marsh and Ridge Creation	\$86,873	\$136,473	\$9,928	\$233,275
BA-0068	Grand Liard Marsh and Ridge Restoration	\$80,911	\$80,911	\$9,928	\$171,751
BA-0164	Bayou Dupont Sediment Delivery- Marsh Creation 3	\$91,856	\$9,928	\$99,856	\$201,640
BA-0173	Bayou Grande Chenier Marsh and Ridge Restoration	\$0	\$70,440	\$70,440	\$140,880
BS-0003-A	Caernarvon Diversion Outfall Management	\$41,055	\$42,323	\$42,323	\$125,701
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
BS-0024	Terracing and Marsh Creation South of Big Mar	\$0	\$13,640	\$374,693	\$388,333
CS-0004-A	Cameron-Creole Maintenance	\$220,840	\$102,628	\$102,803	\$426,271
CS-0011-B	Sweet Lake/Willow Lake Hydrologic Restoration	\$2,453	\$2,628	\$2,803	\$7,884
CS-0017	Cameron Creole Plugs	\$2,453	\$0	\$0	\$2,453
CS-0018	Sabine National Wildlife Refuge Erosion Protection	\$2,453	\$2,628	\$2,803	\$7,884
CS-0020	East Mud Lake Marsh Management	\$536,517	\$2,628	\$2,803	\$541,948
CS-0021	Highway 384 Hydrologic Restoration	\$22,920	\$23,095	\$22,803	\$68,818
CS-0022	Clear Marais Bank Protection	\$82,453	\$2,628	\$2,803	\$87,884
CS-0023	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully	\$37,453	\$37,628	\$40,803	\$115,884
CS-0024	Perry Ridge Shore Protection	\$2,453	\$2,628	\$2,803	\$7,884
CS-0027	Black Bayou Hydrologic Restoration	\$5,659,760	\$12,628	\$12,803	\$5,685,191
CS-0028-2	Sabine Refuge Marsh Creation, Increment 2	\$376,008	\$71,628	\$376,008	\$823,644
CS-0028-4	Sabine Refuge Marsh Creation, Increment 4	\$69,340	\$2,628	\$2,803	\$74,771
CS-0028-5	Sabine Refuge Marsh Creation, Increment 5	\$69,340	\$2,628	\$2,803	\$74,771
CS-0029	Black Bayou Culverts Hydrologic Restoration	\$27,008	\$27,300	\$27,592	\$81,900
CS-0030	GIWW - Perry Ridge West Bank Stabilization	\$347,512	\$2,628	\$2,803	\$352,943
CS-0031	Holly Beach Sand Management	\$37,008	\$2,628	\$2,803	\$42,439
CS-0032	East Sabine Lake Hydrologic Restoration	\$2,453	\$2,628	\$2,803	\$7,884
CS-0049	Cameron-Creole Freshwater Introduction - Vegetative Plantings	\$424,600	\$59,052	\$59,344	\$542,996
CS-0054	Cameron-Creole Watershed Grand Bayou Marsh Creation	\$131,650	\$2,628	\$2,803	\$137,081
CS-0059	Oyster Bayou Marsh Creation & Terracing	\$90,614	\$2,628	\$2,803	\$96,045
LA-0003-B	Coastwide Nutria Control Program	\$3,305,016	\$3,315,739	\$3,315,739	\$9,936,494
LA-0016	Non-Rock Alternatives for Shoreline Protection Demonstration Project	\$2,453	\$2,628	\$2,803	\$7,884
LA-0039	Coastwide Plantings Program	\$8,760	\$8,760	\$11,680	\$29,200
ME-0004	Freshwater Bayou Wetland (Phases 1 & 2)	\$2,453	\$2,628	\$2,803	\$7,884
ME-0009	Cameron Prairie National Wildlife Refuge Shoreline Protection	\$2,453	\$2,628	\$2,803	\$7,884
ME-0011	Humble Canal Hydrologic Restoration	\$17,453	\$17,628	\$17,803	\$52,884
ME-0013	Freshwater Bayou Bank Stabilization	\$2,453	\$2,628	\$2,803	\$7,884
ME-0014	Pecan Island Terracing	\$2,453	\$2,628	\$2,803	\$7,884
ME-0016	Freshwater Introduction South of Highway 82	\$12,453	\$12,628	\$12,803	\$37,884
ME-0018	Rockefeller Refuge Gulf Shoreline Stabilization	\$2,453	\$2,628	\$2,803	\$7,884
ME-0019	Grand-White Lakes Landbridge Protection	\$2,453	\$2,628	\$2,803	\$7,884
ME-0020	South Grand Chenier Hydrologic Restoration Project	\$568,378	\$2,628	\$2,803	\$573,809
ME-0021	Grand Lake Shoreline Protection (CIAP + Tebo Point)	\$12,453	\$12,628	\$12,803	\$37,884
ME-0022	South White Lake Shoreline Protection	\$2,453	\$2,628	\$2,803	\$7,884
MR-0009	Delta Wide Crevasses	\$6,140	\$6,140	\$6,140	\$18,420
PO-0006	Fritchie Marsh Restoration	\$5,840	\$5,840	\$5,840	\$17,520
PO-0016	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	\$26,960	\$27,596	\$27,596	\$82,152
PO-0018	Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	\$24,570	\$25,141	\$25,141	\$74,852
PO-0022	Bayou Chevee Shoreline Protection	\$19,622	\$14,016	\$14,016	\$47,654
PO-0024	Hopedale Hydrologic Restoration	\$28,870	\$28,976	\$28,976	\$86,822
PO-0030	Lake Borgne Shoreline Protection	\$84,060	\$84,060	\$6,140	\$174,260
PO-0033	Goose Point/Point Platte Marsh Creation	\$83,176	\$5,840	\$5,840	\$94,856
PO-0075	Labranche East Marsh Creation	\$0	\$4,088	\$4,088	\$8,176
PO-0104	Bayou Bonfouca Marsh Creation Project	\$22,008	\$7,008	\$22,008	\$51,024
PO-0133	Labranche Central Marsh Creation	\$0	\$4,088	\$4,088	\$8,176
TE-0022	Point au Fer Canal Plugs	\$36,213	\$7,242	\$7,242	\$50,696
TE-0023 (USACE)	West Belle Pass Headland Restoration	\$5,490	\$2,336	\$2,336	\$10,162
TE-0026	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	\$471,432	\$7,242	\$7,242	\$485,915
TE-0028	Brady Canal Hydrologic Rest.	\$83,680	\$38,060	\$38,060	\$159,800
TE-0034	Penchant Basin Natural Resources Plan Increment 1	\$102,008	\$5,490	\$61,680	\$169,178
TE-0037	New Cut Dune and Marsh Restoration	\$138,760	\$17,520	\$5,490	\$161,770
TE-0039	South Lake Decade Freshwater Introduction	\$2,920	\$2,453	\$2,453	\$7,826

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

Project No.	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
TE-0043	GIWW Bank Restoration of Critical Areas in Terrebonne	\$42,928	\$5,490	\$5,490	\$53,907
TE-0044	North Lake Mechant Landbridge Restoration	\$1,545,040	\$5,490	\$5,490	\$1,556,019
TE-0045	Terrebonne Bay Shore Protection Demonstration	\$13,504	\$0	\$0	\$13,504
TE-0046	West Lake Boudreaux Shoreline Protection and Marsh Creation	\$17,300	\$5,490	\$5,490	\$28,279
TE-0048	Raccoon Island Shoreline Protection/Marsh Creation	\$2,210,772	\$17,520	\$5,490	\$2,233,781
TE-0050	Whiskey Island Back Barrier Marsh Creation	\$4,380	\$5,490	\$5,490	\$15,359
TE-0052	West Belle Pass Barrier Headland Restoration	\$453,330	\$5,490	\$5,490	\$464,309
TE-0072	Lost Lake Marsh Creation and Hydrologic Restoration	\$37,300	\$5,490	\$5,490	\$48,280
TV-0003	Vermilion River Cutoff Bank Protection	\$2,453	\$2,628	\$2,803	\$7,884
TV-0004	Cote Blanche Hydrologic Restoration	\$12,453	\$12,628	\$12,803	\$37,884
TV-0012	Little Vermilion Bay Sediment Trapping	\$57,008	\$2,628	\$2,803	\$62,439
TV-0013-A	Oaks/Avery Canal Hydrologic Restoration, Increment 1	\$343,564	\$2,628	\$2,803	\$348,995
TV-0014	Marsh Island Hydrologic Restoration	\$2,453	\$2,628	\$2,803	\$7,884
TV-0015	Sediment Trapping at "The Jaws"	\$52,453	\$2,628	\$2,803	\$57,884
TV-0017	Lake Portage Land Bridge	\$2,453	\$2,628	\$2,803	\$7,884
TV-0018	Four Mile Canal Terracing and Sediment Trapping	\$37,008	\$2,628	\$2,803	\$42,439
TV-0021	East Marsh Island Marsh Creation	\$104,774	\$2,628	\$77,008	\$184,410
TV-0063	Coles Bayou Marsh Restoration	\$2,453	\$2,628	\$127,618	\$132,699
TOTAL CWPPRA O&M Expenditures		\$21,109,662	\$7,523,456	\$5,366,011	\$33,999,129
Federal CWPPRA O&M Expenditures		\$17,943,212	\$6,394,937	\$4,561,110	\$28,899,259
State CWPPRA O&M Expenditures		\$3,166,449	\$1,128,518	\$804,902	\$5,099,869

- 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 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
TE-0020	Isles Dernieres Restoration East Island	\$3,650	\$3,650	\$3,650	\$10,950
TE-0024	Isles Dernieres Restoration Trinity Island	\$3,650	\$3,650	\$3,650	\$10,950
TE-0025	East Timbalier Island Sediment Restoration, Phase 1	\$3,650	\$3,650	\$3,650	\$10,950
TE-0027	Whiskey Island Restoration	\$3,650	\$3,650	\$3,650	\$10,950
TE-0030	East Timbalier Island Sediment Restoration, Phase 2	\$3,650	\$3,650	\$3,650	\$10,950
TE-0040	Timbalier Island Dune and Marsh Restoration	\$3,650	\$3,650	\$3,650	\$10,950
Total Expenditures		\$21,900	\$21,900	\$21,900	\$65,700

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

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
BA-0001	Davis Pond Freshwater Diversion	\$1,002,467	\$1,072,601	\$1,155,902	\$3,230,970
BS-0008	Caernarvon Freshwater Diversion	\$452,086	\$483,694	\$483,694	\$1,419,474
Total Expenditures		\$1,454,553	\$1,556,295	\$1,639,596	\$4,650,444
Federal O&M Monitoring Expenditures		\$1,090,915	\$1,167,221	\$1,229,697	\$3,487,833
State WRDA O&M Expenditures		\$363,638	\$389,074	\$409,899	\$1,162,611

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

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
Hurricane Protection Projects					
BA-0066	West Bank and Vicinity ¹	\$388,465	\$409,089	\$431,293	\$1,228,847
BA-0067	New Orleans and Vicinity ¹	\$627,646	\$654,829	\$626,698	\$1,909,172
LA-0154	FEMA LAMP	\$135,038	\$128,030	\$0	\$263,068
LA-0206	HSDRRS Armoring ¹	\$437,956	\$455,693	\$473,662	\$1,367,311
LA-0253	Flood Protection Inspections ¹	\$256,215	\$268,875	\$284,819	\$809,909
LA-0269	CPRA Letter of No Objection	\$514,269	\$539,983	\$566,982	\$1,621,234
LA-0271	O&M Division State Wide Levee Board Meetings	\$182,189	\$191,298	\$200,863	\$574,351
PO-0057	SELA- Overall ¹	\$289,765	\$376,253	\$260,374	\$926,393
PO-0060	Permanent Canal Closures and Pump Stations ¹	\$2,681,036	\$2,690,088	\$749,484	\$6,120,608
PO-0063	Lake Pontchartrain and Vicinity ¹	\$405,213	\$426,674	\$449,758	\$1,281,644
PO-0096	Flood Protection Assistance	\$2,701,395	\$2,743,964	\$2,827,162	\$8,272,521
USACE Mitigation Projects					
BA-0109	HSDRRS Mitigation - WBV	\$7,008	\$7,008	\$7,008	\$21,024
BA-0154	Previously Authorized Mitigation - WBV	\$7,008	\$7,008	\$7,008	\$21,024
BA-0158	New Orleans to Venice Mitigation - Plaquemines Non-Federal	\$7,008	\$7,008	\$7,008	\$21,024
BA-0159	New Orleans to Venice Mitigation - Federal	\$7,008	\$7,008	\$7,008	\$21,024
PO-0038SF	MRGO Closure Structure ¹	\$82,400	\$61,960	\$61,960	\$206,320
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	\$0	\$39,343	\$39,343	\$78,686
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	\$11,680	\$26,680	\$12,180	\$50,540
BA-0004	West Point a la Hache Siphon	\$11,680	\$26,680	\$12,180	\$50,540
BA-0005	Fort Livingston	\$80,740	\$24,972	\$24,972	\$130,684
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
PO-0001	Violet Siphon	\$333,680	\$25,680	\$25,680	\$385,040
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	\$34,926	\$52,521	\$56,673	\$144,120
TE-0003	Bayou LaCache Wetlands	\$105,840	\$105,840	\$105,840	\$317,520
TV-xx	Quintana Canal	\$12,453	\$2,037,423	\$12,803	\$2,062,679
TV-0013-B	Avery Canal	\$84,906	\$12,628	\$12,803	\$110,337
N/A	Maintenance Surveys	\$33,288	\$33,288	\$33,288	\$99,864
N/A	GPS Network (continued development and maintenance)	\$72,336	\$72,336	\$72,336	\$217,008
Total Expenditures		\$9,727,901	\$11,565,970	\$7,502,996	\$28,796,867
Surplus Expenditures		\$6,194,600	\$6,352,720	\$4,566,000	\$17,113,320
Trust Fund Expenditures		\$3,533,301	\$5,213,250	\$2,936,996	\$11,683,547

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

Table B-13. Oil Spill Projected Expenditures¹

Project ID	Project Name	FY 2018	FY 2019	FY 2020	Project Total (FY 2018 - FY 2020)
Deepwater Horizon NRDA ²					
BA-0111	Shell Island West- NRDA	\$1,000,000	\$250,000	\$250,000	\$1,500,000
BA-0202	Queen Bess Island Restoration	\$1,500,000	\$5,375,000	\$13,125,000	\$20,000,000
BA-0203	Barataria Basin Ridge and Marsh Restoration- Spanish Pass Increment	\$2,250,000	\$1,350,000	\$30,900,000	\$34,500,000
CS-0080	Rabbit Island Restoration	\$2,000,000	\$1,000,000	\$24,000,000	\$27,000,000
PO-0180	Lake Borgne Marsh Creation- Increment 1	\$3,000,000	\$2,000,000	\$32,000,000	\$37,000,000
TE-0100	NRDA Caillou Lake Headlands	\$103,176,805	\$0	\$0	\$103,176,805
TE-0139	Terrebonne Basin Ridge and Marsh Creation- Bayou Terrebonne Increment	\$1,500,000	\$900,000	\$30,600,000	\$33,000,000
N/A	Provide and Enhance Recreational Opportunities	\$11,000,000	\$11,000,000	\$0	\$22,000,000
N/A	NRDA Restoration Planning	\$2,152,520	\$2,204,066	\$2,258,187	\$6,614,773
N/A	Regionwide Trustee Implementation Group	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
N/A	NRDA Adaptive Management	\$12,241,166	\$13,861,856	\$16,722,054	\$42,825,075
Total Deepwater Horizon NRDA Expenditures		\$140,820,491	\$38,940,922	\$150,855,241	\$330,616,653
NFWF Projects					
BA-0143	Caminada Headland Beach and Dune Restoration Increment 2	\$785,250	\$656,500	\$268,000	\$1,709,750
BA-0153	Mid-Barataria Sediment Diversion	\$17,214,663	\$29,165,417	\$388,490,535	\$434,870,615
BS-0030	Mid-Breton Sediment Diversion	\$9,919,723	\$16,035,977	\$13,664,335	\$39,620,036
LA-0276	Sediment Diversion Management	\$2,740,359	\$2,835,611	\$3,382,998	\$8,958,967
TE-0110	Increase Atchafalaya Flow to Eastern Terrebonne	\$15,000,000	\$10,000,000	\$5,000,000	\$30,000,000
TE-0118	East Timbalier Island	\$1,100,000	\$1,100,000	\$103,385,000	\$105,585,000
N/A	NFWF Adaptive Management	\$7,650,300	\$6,033,722	\$5,048,422	\$18,732,444
Total NFWF Expenditures		\$54,410,295	\$65,827,227	\$519,239,290	\$639,476,812
Proposed RESTORE Projects					
BA-0197	West Grand Terre Beach Nourishment and Stabilization	\$4,000,000	\$2,659,216	\$25,000,000	\$31,659,216
CS-0065	Calcasieu Ship Channel Salinity Control Measures	\$14,000,000	\$16,400,000	\$30,200,000	\$60,600,000
PO-0029	Mississippi River Reintroduction into Maurepas Swamp	\$4,730,000	\$4,730,000	\$4,730,000	\$14,190,000
PO-0163	Golden Triangle Marsh Creation ³	\$3,600,000	\$1,300,000	\$1,000,000	\$5,900,000
PO-0174	Biloxi Marsh Living Shoreline	\$1,700,000	\$1,200,000	\$7,712,500	\$10,612,500
TE-0113	Houma Navigation Canal Lock Complex ⁴	\$10,000,000	\$9,000,000	\$50,000,000	\$69,000,000
N/A	Lower Mississippi River Management	\$1,600,000	\$1,600,000	\$1,600,000	\$4,800,000
N/A	Adaptive Management	\$10,040,000	\$9,517,421	\$11,755,675	\$31,313,096
N/A	Parish Matching Program ⁵	\$20,000,000	TBD	TBD	\$20,000,000
N/A	RESTORE Center of Excellence	\$1,648,000	\$1,800,000	\$800,000	\$4,248,000
Total RESTORE Expenditures		\$71,318,000	\$48,206,637	\$132,798,175	\$252,322,812
Total Oil Spill Expenditures		\$266,548,786	\$152,974,785	\$802,892,706	\$1,222,416,277
GOMESA Oil Spill Expenditures		(\$1,600,000)	\$0	\$0	(\$1,600,000)
Surplus Oil Spill Expenditures		(\$8,000,000)	\$0	\$0	(\$8,000,000)
State Oil Spill Expenditures		\$256,948,786	\$152,974,785	\$802,892,706	\$1,212,816,277

Notes:
1- Red font denotes projected expenditures for which funding has not yet been procured.
2- Projects may be initiated with Trust Fund revenue if available to be reimbursed with oil spill revenues.
3- Project funding includes \$1.6 million in GOMESA funding for landrights tasks.
4- Project partially funded with surplus funds (see Table B-5).
5- 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).

Appendix C

Barrier Island Status Report

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BARRIER ISLAND STATUS REPORT **Fiscal Year 2018 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 Raccoon 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.

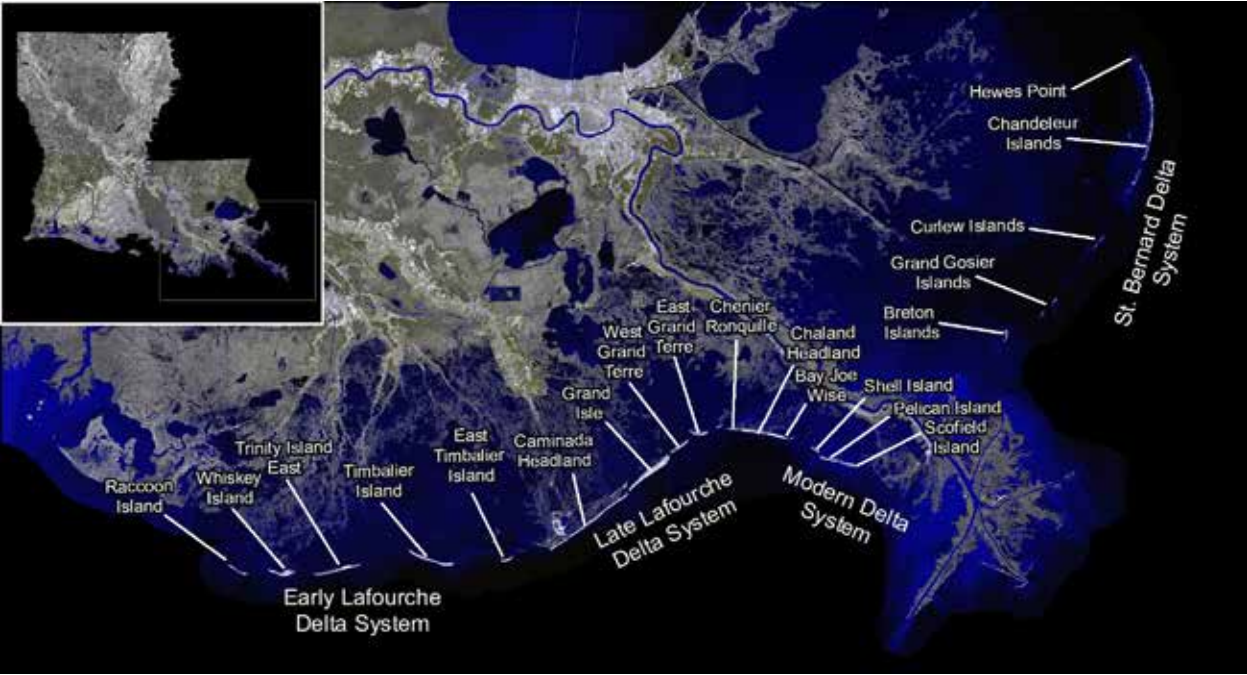


Figure 1. Location of barrier islands and Barrier Island Delta Systems in Louisiana

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 37 barrier island projects have been constructed to date (including 12 in the Early Lafourche Delta System, 16 in the Late

Lafourche Delta System, 7 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 the 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 7 in the full report presents the dimensions of the minimized restoration templates.

FUTURE PLANS

Future plans for Louisiana’s barrier islands include additional projects, continuation of system wide barrier island monitoring via BICM, continued improvements in borrow area management, management of relevant sediment, geophysical, and ecological data, and improved overall understanding of sediment budgets and sediment management requirements to support the needs of the Coastal Master Plans barrier shoreline projects and better prioritize Louisiana’s barrier shoreline efforts.

Table 1. List of constructed and pending barrier island projects in Louisiana

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

Barrier Shoreline Restoration Projects	Funding Program	Construction Date
Late Lafourche Barrier System		
Constructed Projects		
Barrier Island Sand Retention (TE-0004b)	FEMA	1995
Timbalier Island Planting Demonstration (TE-18)	CWPPRA	1996
Timbalier Island Dune and Marsh Creation (TE-40)	CWPPRA	2004
BIMP 2009 Sand Fencing (LA-0246)	STATE	2009
East Timbalier Island Sediment Restoration, Phase 1 (TE-25)	CWPPRA	2000
East Timbalier Island Sediment Restoration, Phase 2 (TE-30)	CWPPRA	2000
West Belle Pass Barrier Headland Restoration (TE-52)	CWPPRA	2012
Caminada Headland Beach and Dune Restoration (BA-45)	CIAP/ STATE	2015
Grand Isle Bay Side Breakwaters (BA-0187)	STATE	
Fifi Island Restoration (BA-0155)	CIAP	2015
Fifi Island Breakwater (BA-0168)	CIAP	2015
Grand Isle and Vicinity Hurricane Protection	WRDA	2010
Vegetative Planting of a Dredged Material Disposal Site on Grand Terre (BA-28)	CWPPRA	2001
Restoration on West Grand Terre Island at Fort Livingston (BA-0186)	NOAA	2003
East Grand Terre Island Restoration (BA-30)	CIAP	2010
NRDA Caminada Headland Beach and Dune Restoration, Increment 2 (BA-143)	NFWF	2016
Funded for Construction		
None		
Future Projects		
Barataria Basin Barrier Shoreline (BBBS) Restoration (BA-10) Eastern portion of Caminada	LCA	TBD
East Timbalier Island (TE-0118) (in design)	NFWF	TBD
West Grand Terre Beach Nourishment and Stabilization Project (in design)	RESTORE	TBD
Caminada Back Barrier Marsh Creation (BA-0171) (in design)	CWPPRA	TBD
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		
Pass La Mer to Chaland Pass (BA-38, part 1) also known as "Chaland Headland"	CWPPRA	2007
BIMP 2009 Sand Fencing (LA-0246)	STATE	2009
Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration (BA-35) also known as "Bay Joe Wise"	CWPPRA	2009
Barataria Barrier Island Complex Project: Pelican Island and Pass (BA-38, part 2)	CWPPRA	2012
Emergency Berms W8, W9, W10	Berm Funds	2010-2011
	CWPPRA/	
Riverine Sand Mining/Scofield Island Restoration (BA-40)	Berm Funds	2013
Shell Island Restoration East Berm (BA-110)	Berm Funds	2013
Funded for Construction		
Chenier Ronquile Barrier Island Restoration (BA-76) (under construction)	NRDA	TBD
Shell Island Restoration West NRDA (BA-111) (under construction)	NRDA	TBD
Future Projects		
BBBS Restoration (BA-10)	LCA	TBD

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

Appendix D

Caernarvon & Davis Pond Operational Plans for 2017

Available Online (www.coastal.la.gov)

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Appendix E

Inventory of Non-State Projects

A. Parish CIAP Projects

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PARISH CIAP PROJECTS

Program	State Project Number (Federal)		Project Name		Project Type		Agency/Sponsor		Senate District		House District		Parish		Acres Benefited		Construction Completion Date		Feasibility Cost		Engineering, Design, & Landslide Cost		Construction Cost		Project Summary	Planning Unit
	BS-17	PO-39	PO-40	PO-41	PO-42	PO-43	PO-44	PO-45	PO-46	PO-48	PO-49	PO-51	PO-52	Lake Lery Rim Re-Establishment and Marsh Creation	MC	BOEMRE/FWS	1	103	SB.	300	Pending	N/A	\$497,417	\$8,188,293	The project proposes to dredge a waterway through Lake Lery historically used for navigation. The waterway is located approximately along the St. Bernard and Plaquemines Parish line. The project will utilize the dredged material and borrow areas in Lake Lery to create marsh in the open water areas north and east of the lake. It will also re-establish the lake rim by armorring the northern and eastern shoreline of Lake Lery using a rock dike.	1
CIAP																									The project location is within Livingston Parish, in the Maurepas Swamp of southeast Louisiana. The project area includes 2,590.4 contiguous acres of coastal wetland forest, specifically bald cypress-tupelo swamp, with roughly 200 acres fronting the western edge of Lake Maurepas.	1
CIAP																									The Amite River is located southwest of Lake Maurepas and east of I-10. The objective of this project is to allow floodwaters to introduce additional fresh water, nutrients, and sediment into the western Maurepas Swamp. The exchange of flow would occur during flood events on the river and from runoff of localized rainfall events, and would in turn provide nutrients and sediment to facilitate organic sediment deposition in the swamp, some fluctuation of water levels, improve biological productivity, and prevent further swamp deterioration.	1
CIAP																									Funds will be used so that the St. Bernard Parish Coastal Zone Management Plan may be updated.	1
CIAP																									This project involves the continuation of the rock shoreline protection project on the south shore of Lake Pontchartrain in St. Charles Parish. The project will consist of installing approximately 2,150 linear feet of rock dike on the existing shoreline and the construction of a 130-foot-long timber pile bridge at the mouth of Bayou LaBranche.	1
CIAP																									This project involves the continuation of rock shoreline protection project on the south shore of Lake Pontchartrain in St. Charles Parish. The project will consist of installing approximately 15,500 linear feet of rock dike.	1
CIAP																									This project will construct a wetland assimilation treatment plant which will collect wastewater from secondary treatment modules in Grand Point, Louisiana. It will pump the wastewater to the pond area that will discharge into seven acres of forested wetland areas that will directly affect 2,400 acres of wetlands.	1
CIAP																									The proposed project will consist of approximately 1,400 linear feet of shoreline protection extending in an easterly and westerly direction in St. John the Baptist Parish, where the Reserve Relieve Canal enters Lake Maurepas and entrance protection lining. The proposed feature consists of a foreshore rock dike with gaps for fish and public access to the lake shoreline.	1
CIAP																									This project includes the acquisition of a 27.2 acre parcel to preserve a sensitive wetland composed of pristine cypress swamp and bottomland hardwoods from future commercial or residential development. It is located between Bayou Lacombe and the Tammany Trace linear park south of U.S. 190 in Lacombe, Louisiana within the Bayou Lacombe watershed.	1
CIAP																									This project includes the acquisition of a 40 acre parcel composed of pine trees and mixed hardwoods with inclusion savannas, which lies between the I-12 Service Road and Bayou Liberty in Stidell, Louisiana. This project is to educate the public about the value of wetlands. Invasive plant species will be removed and nest boxes will be installed.	1
CIAP																									This project will include an upgrade of the existing wastewater treatment plant and construction of a discharge structure and piping system for wetland assimilation. It will construct 2.5 miles of force main for disbursement of treated effluent into 1.7 square miles of uninhabited wetland adjacent to the western border of the City of Mandeville.	1
CIAP																									The project is located in Tangipahoa Parish between Pass Manchac and the mouth of the Tangipahoa River. The goal of the proposed project is to construct approximately 12,000 linear feet of foreshore protection.	1

PARISH CIAP PROJECTS

Program	Project Name				Agency/Sponsor	Senate District	House District	Parish		Acres Benefited	Construction Completion Date	Feasibility Cost	Engineering, Design & Landrights Cost	Construction Cost	Project Summary	Planning Unit
	State Project Number (Federal)	Project Type	Project Name	Project Type												
CIAP	PO-53	Wetland Wastewater Assimilation Process Planning	PL	BOEMRE/FWS	18	58	SLda	N/A	2009	N/A	\$49,994	N/A	N/A	The study will develop a plan to allow wetland assimilation to provide tertiary treatment to wastewater while improving wetland quality. The study will analyze potential sites and set project goals. The final report will provide preliminary characterizations of the parish's wetland systems, their suitability for wastewater assimilation, an analysis of the wetlands's loading and assimilation capacities, and capabilities of the wetlands and preliminary engineering and cost analyses.	1	
CIAP	PO-70	Northshore Beach Marsh Creation/Restoration	MC	BOEMRE/FWS	11	90	STf	600	Pending	N/A	N/A	\$1,860,558	This project is located in the Pontchartrain Basin in St. Tammany Parish. Project features include approximately 600 acres of marsh creation via hydraulic dredging and placement of 2 million cubic yards of material. The likely borrow location is Lake Pontchartrain, the Highway 11 Canal, and Bayou Bonfouca and associated canals. The objectives of this project are to create approximately 600 acres of intermediate marsh, reduce erosion of adjacent interior marshes, and maintain and support the integrity of the Lake Pontchartrain shoreline.	1		
CIAP	PO-71	Waterline Booster Pump Station, East Bank	INF	BOEMRE/FWS	18	58	SLda	N/A	2011	N/A	N/A	\$265,100	The project would construct a water-line booster pump along LA Highway 44 in Convent, Louisiana in St. James Parish. The construction includes housing a 40 hp motor with a 1,100 gallon/minute high-service pump and connecting to the existing 10 inch PVC waterline at two locations in order to establish a loop and by-pass system. The station will have a metal building with a concrete floor to enclose the pump and electrical equipment.	1		
CIAP	BA-50	Bayside Segmented Breakwaters at Grand Isle	SP	BOEMRE/FWS	8	105	Jef	N/A	2012	N/A	\$307,709	\$2,989,653	The project is located in Jefferson Parish, Louisiana, along the bay side of Grand Isle, Louisiana. The purpose of this project is to reduce erosion on the bay side of Grand Isle. Twenty-four 300 foot breakwaters (approximately 1.5 miles) will be constructed on the back-bay side of Grand Isle.	2		
CIAP	BA-51	Goose Bayou Ridge Creation and Shoreline Protection	PL	BOEMRE/FWS	8	105	Jef	1,200	2011	N/A	\$165,935	N/A	This project located in Lafitte, Jefferson Parish Louisiana, will improve shoreline protection by creating over 8,000 linear feet of additional shoreline through the use sediment from the Mississippi River, and vegetative planting, along the west side of Goose Bayou. This project will help establish a wetland ridge which will function as habitat for native species of plants and animals.	2		
CIAP	BA-52	Lower Lafitte Shoreline Stabilization at Bayou Rigollettes	SP	BOEMRE/FWS	8	105	Jef	N/A	Pending	N/A	\$387,986	\$7,642,385	This project located within Lafitte, Louisiana will help protect the integrity of wetlands within the Barataria Basin and reduce saltwater intrusion and deterioration of interior marsh. Over 10,600 linear feet of foreshore rock revetment will be constructed, along with a water control structure in order to protect the interior marshes.	2		
CIAP	BA-53	Maritime Forest Ridge Restoration	VP	BOEMRE/FWS	20	54	Laf	60	N/A	N/A	\$700,000	N/A	Distributary ridges and chenier ridges along the coast of Louisiana are disappearing at an alarming rate. Projects such as these help establish ridge habitats and associated wetlands which are extremely important for millions of migrating Neotropical songbirds that cross the Gulf of Mexico, in addition to providing wetland habitat for coastal plant and animal species.	2		
CIAP	BA-54	Northwest Little Lake Marsh Creation and Enhancement	DM MC VP	BOEMRE/FWS	20	54	Laf	100	2011	N/A	\$222,430	\$2,209,910	This project, located in Lafourche Parish, will use dedicated dredge material to create 30-40 acres of wetlands in interior open water bodies (enhancing 70-100 acres of marsh) and plant 2 rows of smooth cordgrass along approx. 7,500 linear feet of the lake shoreline.	2		
CIAP	BA-56	Update of the Plaquemines Parish Coastal Management Plan	PL	BOEMRE/FWS	1	105	Plaq.	N/A	N/A	N/A	\$300,000	N/A	Funds will be allocated to the Parish so that they may update their coastal management plan.	2		
CIAP	BA-57	Tidewater Road Flood Protection	INF	BOEMRE/FWS	1	105	Plaq.	N/A	2010	N/A	N/A	\$3,364,310	Tidewater Road is subject to heavy inundation from directional winds that elevate tides over the roadway. Wetland loss in the area is severe, and along much of Tidewater Road's length there is open water in canals and ponds that abut the road shoulder. Tidewater Road is an important access point for the oil and gas industry. This project also proposes to create flood protection along the entire length of Tidewater Road.	2		

PARISH CIAP PROJECTS

Program			State Project Number (Federal)		Project Name		Project Type		Agency/Sponsor		Senate District		House District		Parish		Acre Benefitted		Construction Completion		Feasibility Cost		Engineering Design & Landright Cost		Construction Cost		Project Summary		Planning Unit	
CIAP	BA-59	Waterline Booster Pump Station, West Bank	INF	BOEMRE/ FWS	18	58	StLa	N/A	2009	N/A	N/A	N/A	\$256,700	This project would construct a waterline booster pump station in Welcome, Louisiana. The proposed site is located near Section 43, T-11-S, R-3-E, along LA Highway 18. The proposed construction includes the installation of a 40 hp electric motor with a 1,100 gpm high-service pump. The booster pump will be built along the existing waterline and be tied in at two places in order to establish a loop and by-pass system with 10-inch in-line valves. The station will have a metal building with a concrete floor to fully enclose and protect the pump and electrical equipment.													2			
CIAP	BA-61	West Bank Wetland Conservation and Protection	LA	BOEMRE/ FWS	18	58	StLa	235	N/A	2010	N/A	N/A	\$718,620	The St. James Parish Council would like to purchase several large tracts of existing wetlands to prohibit the destruction of, and aid in the protection of, the parish's coastal wetland areas. This project proposes to purchase approximately 235 acres of existing wetlands from the Bayou Chevreuil Land Co., LLC.													2			
CIAP	BA-62	West Bank Wastewater Assimilation Plant	MM	BOEMRE/ FWS	18	58	StLa	2,400	Pending	N/A	N/A	N/A	\$1,757,026	The St. James Parish Council plans to construct a wetland assimilation treatment plant on property owned by the Parish Council in Vacherie, Louisiana. The plant will collect wastewater from secondary treatment modules and pump the wastewater to a sediment pond area. The nine acre pond will discharge into 2,400 acres of forested wetland areas that will directly affect the swamp's composition and structure.													2			
CIAP	BA-63	Small Dredge Program	DM MC	BOEMRE/ FWS	20	54	Laf	175	2010	N/A	\$160,250	\$2,789,031	This program involves the use of a small dredge to hydraulically dredge borrow canals and other open water areas to restore approximately 175 acres of marsh apron along levees, cheniers and roadways in Lafourche Parish.													2				
CIAP	BA-64	Jump Basin Dredging and Marsh Creation	MC	BOEMRE/ FWS	1	105	Plaq	7	Pending	N/A	N/A	\$800,000	The proposed project is located in the Venice area of Plaquemines Parish, and more specifically in the Jump Basin Marina and along the west side of Tidewater Road. The proposed project would use material dredged from the marina to create marsh on the west side of Tidewater Road. Based on preliminary surveys, it is predicted that approximately 65,000 cubic yards of material could be dredged from the marina. Based on water depths in the target area, an initial estimate of 4 to 7 acres of marsh could be created.													2				
CIAP	BA-65	Fifi Island Restoration Extension	BI	BOEMRE/ FWS	8	105	Jef	6	Pending	N/A	\$208,251	\$2,338,605	The project is located at the eastern tip of Fifi Island, adjacent to Bayou Rigaud, on the northern side of Grand Isle. The project would provide approximately 2,200 linear feet of rock dike protection and create approximately 6 acres of marsh. Additionally, the project will provide protection to the bay side of Grand Isle.													2				
CIAP	NA	Culvert Installation Through Existing Berms and Board Roads	LA	BOEMRE/ FWS	18	58	StLa	N/A	Pending	N/A	N/A	\$90,686	The St. James Parish Council will install 24-inch plastic pipe through existing spoil banks and earthen berms to allow water exchange through these man-made barriers. The culvert installations will allow present ingress and egress into these areas to continue and enhance the water quality and nutrient exchange in the project area. It is estimated that approximately 100 sites would each need three sets of culverts to be installed along this 20 mile stretch of canal.													2				
CIAP	PO-90	West Lac Des Allemands Shoreline Protection	SP	BOEMRE/ FWS	18	58	StLo	N/A	Pending	N/A	\$507,369	\$3,313,183	The proposed project will consist of 7,535 feet of shoreline protection, extending from "Pleasure Bend" westward to Pointe Aux Herbes, along the western shore of Lac des Allemands, St. John the Baptist Parish, Louisiana. The proposed feature consists of foreshore rock dike with gaps for fish and public access to the lake shoreline.													2				
CIAP	CS-36	Shoreline Protection at Intracoastal Park	SP	BOEMRE/ FWS	27	36	Cal	3	Pending	N/A	N/A	\$1,000,000	This is a two phase project that is located on the south side of the Gulf Intracoastal Waterway at LA Highway 27 south. The goal of the project is to restore the existing rock-shoreline protection and stabilization for approximately 1,000 feet by placing cellular concrete block revetment along the existing shoreline.													4				
CIAP	CS-37	South GIWW Restoration	HR SP	BOEMRE/ FWS	30	36	Cal	2,500	Pending	N/A	\$83,074	\$525,459	This project features include the relocation of two existing water control structures (48 inch culverts) that are currently not functioning as designed; the installation of a new water control structure (two 36 inch culverts); and the refurbishment of three miles of adjacent levees.													4				

PARISH CIAP PROJECTS

Program	State Project Number (Federal)		Project Name		Agency/Sponsor	Senate District		House District		Parish	Acres Benefited	Construction Date	Feasibility Cost	Engineering Design & Landright Cost	Construction Cost	Project Summary	Planning Unit
	CS	ME	HR	SP		BOEMRE/ FWS	BOEMRE/ FWS	DM MC SP	PL								
CIAP	CS-41		Horseshoe Lake Marsh Restoration	HR SP	BOEMRE/ FWS	30	33	Cal.	1,200	Pending	N/A	\$350,000	\$1,650,000	The project is a 1,200 acre marsh restoration/protection project located in Calcasieu Parish, Louisiana, approximately 3.0 miles northwest of Hackberry. This project proposes four different components: 1. Two water control structures; 2. Four miles of new levee construction; 3. Repair of 1 mile of existing levee on the eastern and western boundaries; and 4. Placement of approximately four miles of rip rap rock dike along the Gulf Intracoastal Waterway (GIWW).			4
CIAP	CS-42		South Johnson Bayou Restoration	HR MM	BOEMRE/ FWS	25	47	Cam.	N/A	Pending	N/A	\$54,000	\$618,700	This proposal refers to the Chenier Plain portion of Coast 2050, Region 4, Johnson's Bayou Ridge mapping unit. The project features include the replacement of existing water control structures (two 24 inch culverts) that are currently not functioning as designed, and the refurbishment of one mile of adjacent levees.			4
CIAP	CS-43		Dreary Island Restoration	HR MM	BOEMRE/ FWS	25	47	Cam.	600	2012	N/A	\$48,000	\$514,850	This project features include: 1) the replacement of one existing 24 inch water control structure that is currently not functioning due to storm impacts and 2) the refurbishment of approximately 4,000 linear feet of adjacent levees. The new structures will reduce saltwater intrusion into the project area and restore historic salinity and hydrologic regimes. Without this project the 600-acre intermediate and brackish marsh will experience extensive interior marsh loss.			4
CIAP	CS-44		Rabbit Island	DM MC SP	BOEMRE/ FWS	25	47	Cal. Cam.	200	Pending	N/A	\$440,540	\$1,559,460	The project is located in the Calcasieu-Sabine Basin, in the West Cove of Calcasieu Lake. The goal of the project is to restore approximately 200 acres of pelican nesting and marsh habitat to Rabbit Island by adding sediment, through the beneficial use of sediment dredged from the Calcasieu Ship Channel, and 2,500 linear feet of small limestone shoreline protection to the west corner of Rabbit Island.			4
CIAP	CS-48		Bank Stabilization: Dugas Cut to Kelso Bayou	PL	BOEMRE/ FWS	25	47	Cam.	N/A	N/A	N/A	\$580,000	N/A	This project will provide the engineering and design in order to continue the construction of approximately two miles of rip-rap dike from Dugas Landing to Kelso Bayou and reclaim eroded channel bank utilizing spoil material from dredging activities when more funding becomes available to the parish.			4
CIAP	CS-50		East Little Pecan Bayou Restoration	HR	BOEMRE/ FWS	26	47	Cam.	1,500	2010	N/A	\$37,611	\$638,030	This project is located along Little Pecan Bayou in the south central portion of Cameron Parish. Project features include the installation of one bulkhead with four 48 inch water control structures at the location of an existing plug. The objective of the proposed project is to repair the water control structures so that pre-Hurricane Rita salinity and water levels can be restored to approximately 1,500 acres of marsh.			4
CIAP	CS-51		Little Chenier Road	HR INF	BOEMRE/ FWS	25	47	Cam.	N/A	2010	N/A	\$16,493	\$262,888	This project is located on the east end of Little Chenier Road and south of the Big Burn Marsh. Approximately 2,700 linear feet of roadway needs to be raised approximately two feet to an elevation of +4 feet NAVD, to prevent excessive flooding south of the Little Chenier Road by stopping water from overtopping the road during anomalously heavy rain events and flooding the marshes south of Little Chenier Road.			4
CIAP	CS-52		Clear Marais Bank Protection	SP	BOEMRE/ FWS	30	36	Cal.	1,500	Pending	N/A	\$175,000	\$1,825,000	The project is located north of the Gulf Intracoastal Waterway (GIWW) approximately 10 miles northwest of Hackberry in Calcasieu Parish, Louisiana. The goal of this project is to extend the rock armored shoreline stabilization by one mile adjacent to the GIWW to prevent continued erosion of the GIWW levee and to prevent the encroachment of the GIWW into the marshes north.			4
CIAP	ME-26		West Big Burn Bridge Restoration	HR MM	BOEMRE/ FWS	25	47	Cam.	10,000	2010	N/A	\$52,572	\$970,138	This proposal refers to the Chenier Plain portion of Coast 2050, Region 4, Big Burn mapping unit. Project features include the replacement of one existing water control structure (three 8-foot bays) that is currently not functioning as designed.			4
CIAP	ME-27		South Little Pecan Bayou Restoration	HR MM	BOEMRE/ FWS	25	47	Cam.	24,600	Pending	N/A	\$133,641	\$1,735,121	This proposal refers to the Chenier Plain portion of Coast 2050, Region 4, Little Pecan mapping unit. Project features include the replacement of three existing water control structures (three 4 inch culverts) that are currently not functioning as designed, one new water control structure (that includes three 48 inch culverts), and the refurbishment of portions of three miles of existing levees (adding in some locations 2 feet of material to return the levees to +3 feet NAVD).			4

PARISH CIAP PROJECTS

Program	State Project Number (Federal)		Project Name		Project Type		Agency/Sponsor		Senate District		House District		Parish		Aves Identified		Construction Completion		Feasibility Cost		Engineering Design & Landfills Cost		Construction Cost		Project Summary		Planning Unit	
	TV-50	CIAP	Henry Hub Access Improvements - Charlie Field Road Improvements	INF	BOEMRE/ FWS	26	49	Ver.	N/A	2012	N/A	\$87,270	\$442,000	This project provides for the widening and reconstruction of Charlie Field Road, a vital link between LA 14 and the Henry Hub, from LA Hwy. 14 to LA Hwy. 331 in eastern Vermilion Parish. The project will widen the existing 18-foot wide roadway to a 20-foot surface for approximately 4,100 feet to provide room for the truck traffic to utilize this stretch of the roadway to access the Henry Hub.											3b			
CIAP	TV-51	CIAP	Oyster Reef Parallel to Cheniere au Tigre	SP	BOEMRE/ FWS	26	47	Ver.	N/A	Pending	N/A	\$209,800	\$1,229,184	This project will create a one mile oyster reef 1,300 feet from shore by using approved available materials. Oyster spat are plentiful in this area; therefore, creating this base will establish a living sustainable reef. This project will reduce the shoreline loss rate by half. It will slow down wave energy, attract fish and shellfish habitat, slow coastal erosion, and increase recreational fishing opportunities.											3b			
CIAP	TV-53	CIAP	North Prong Schooner Bayou	FD SP	BOEMRE/ FWS	26	49	Ver.	N/A	2010	N/A	\$54,277	\$1,595,723	This project is located on the east bank of the North Prong of Schooner Bayou, from the GIWW to the Schooner Bayou Locks. With several breaches to contain, the project will employ culverts with flap gates to allow the freshwater flow to continue into the marshes to the east, while preventing uncontrolled saltwater intrusion into the Mermentau Basin.											3b			

Program: CIAP= Coastal Impact Assistance Program

Project Type: BI=Barrier Island, DM=Beneficial Use of Dredged Material, FD=Freshwater Diversion, HP=Hurricane Protection, HR=Hydrologic Restoration;

INF=Infrastructure; LA=Land Acquisition; MC=Marsh Creation; MM=Marsh Management; OM=Outfall Management; PA=Public Access; PL=Planning; SD=Sediment

Diversion; SN'=Sediment and Nutrient Trapping; SP=Shoreline Protection; YP=Vegetation Planting.

Agency/Sponsor: BOEMRE= Bureau of Ocean Energy Management, Regulation, and Enforcement; FWS= US Fish and Wildlife Service. The administration of CIAP was

transferred from BOEMRE to FWS on Oct. 1, 2011.

Parish: Asc.=Ascension, Asu.=Assumption, Cal.=Calcasieu, Cam.=Cameron, Ibe.=Iberia, Laf.=Lafayette, Laf.=Lafourche, Liv.=Livingston, Or.=Orleans, SIC.=St. Charles, SLa.=St. James, Slo.=St. John the Baptist, SM.=St. Mary, SMT.=St. Martin, ST.=St. Tammany, Tan.=Tangipahoa, Ter.=Terrebonne, Plaq.=Plaquemines, Ver.=Vermilion

Appendix E

Inventory of Non-State Projects

B. 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

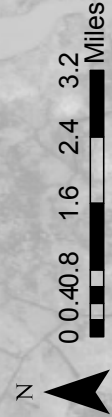
Sheet Pile

Control Structure

Flood Gate

Pump Station

Water Bodies

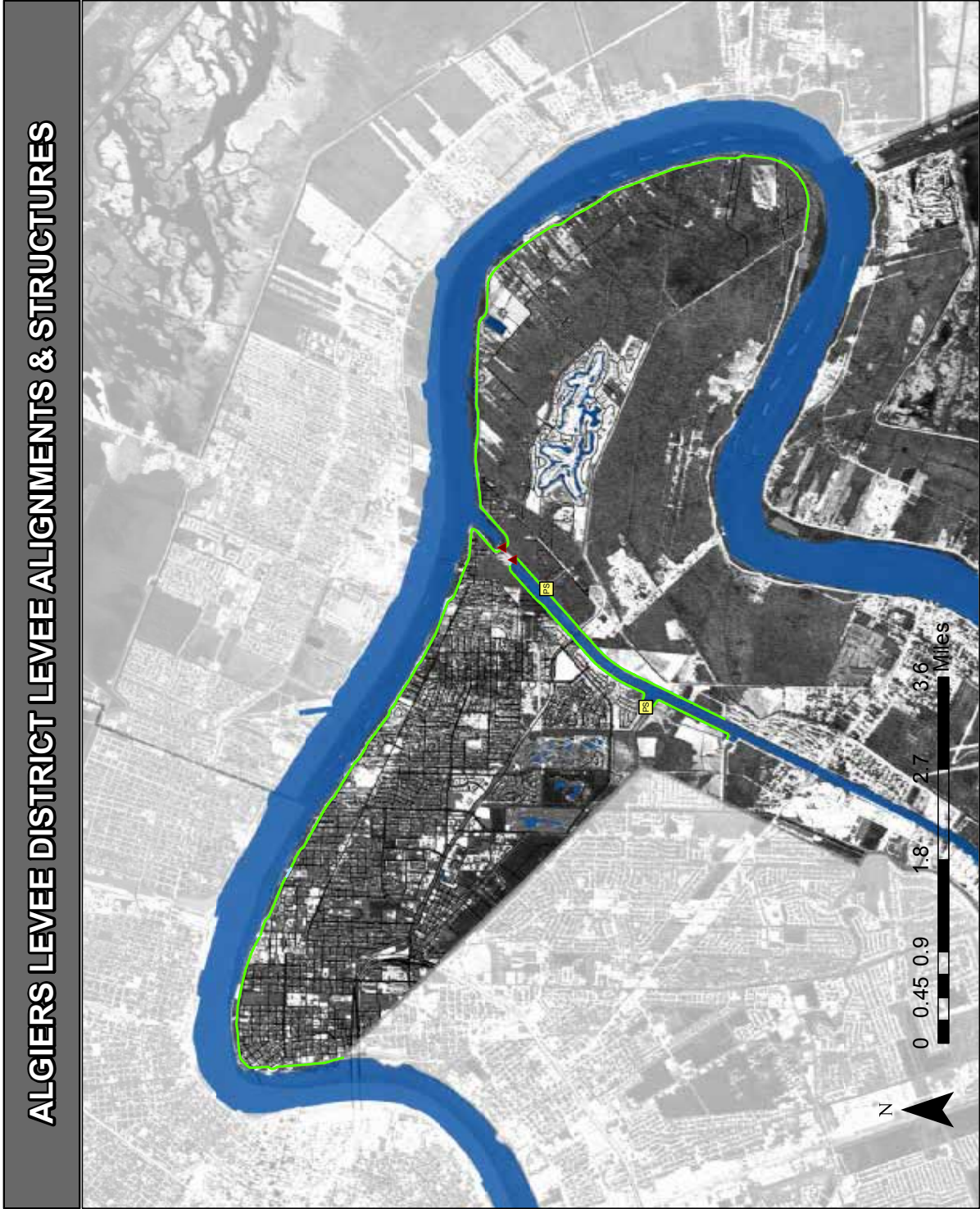


Map by: Louisiana Office of
Coastal Protection & Restoration

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

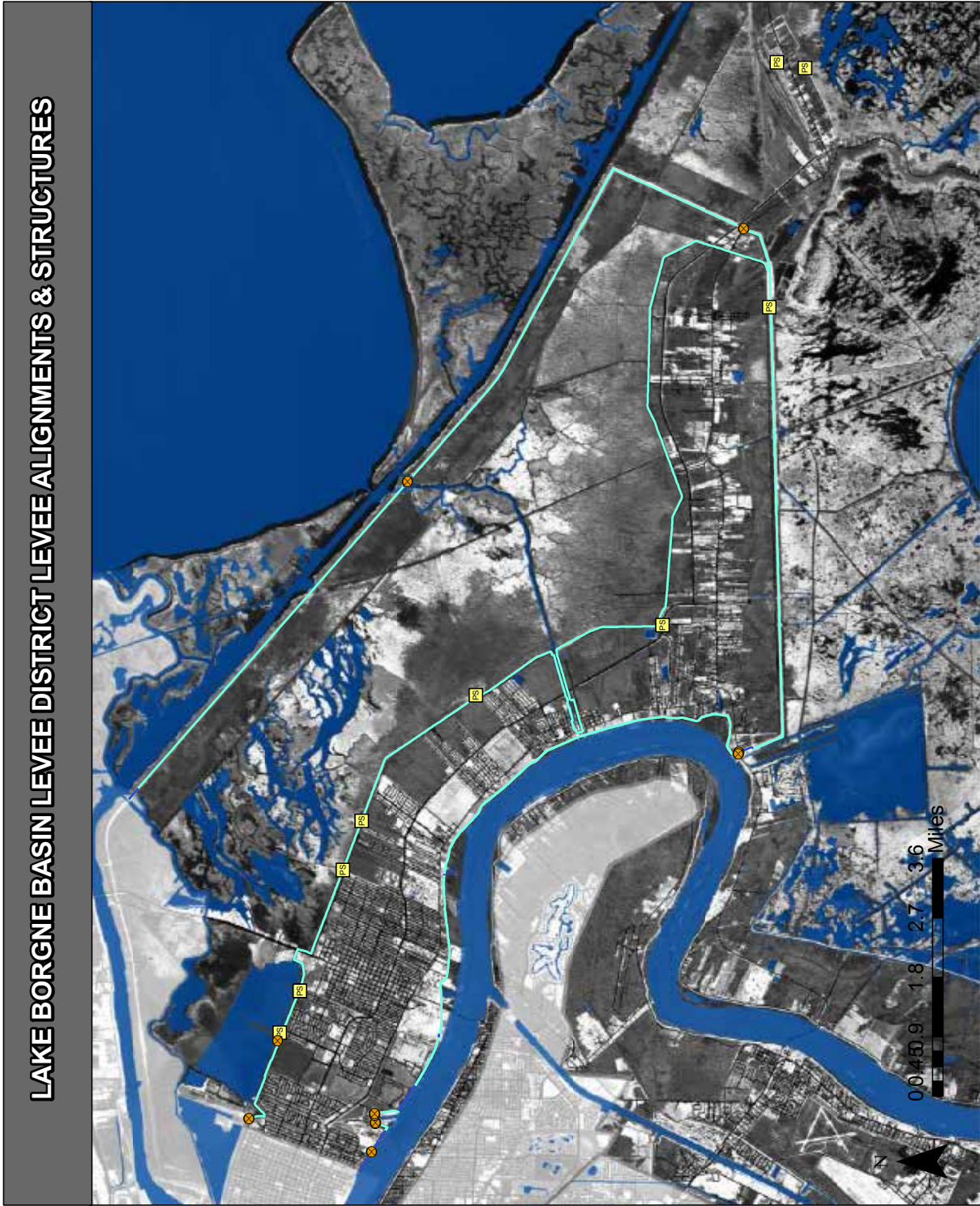


Map by: Louisiana Office of
Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR



- Legend
- Levee Construction Type

Earthen Levee

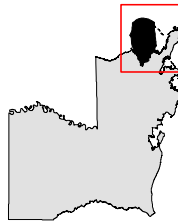
I-wall

Control Structure

Flood Gate

Pump Station

Water Bodies



Map by: Louisiana Office of
Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR



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

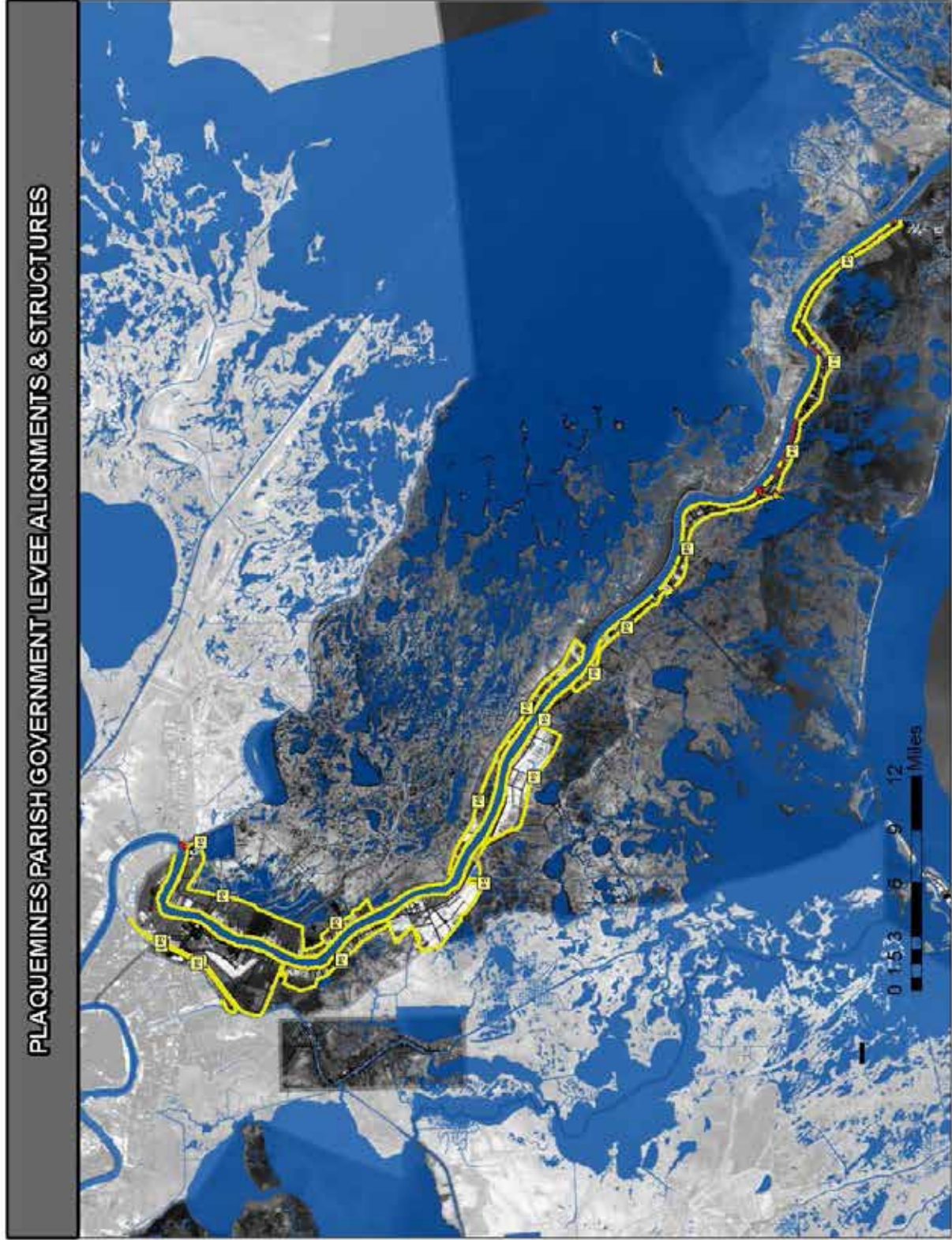


Map by: Louisiana Office of
Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR



- Legend**
- Levee Construction Type**
- Control Structure
 - Earthen Levee
 - I-Wall
 - Sheet Pile
 - T-Wall
 - Control Structure
 - Flood Gate
 - Pump Station
 - Water Bodies



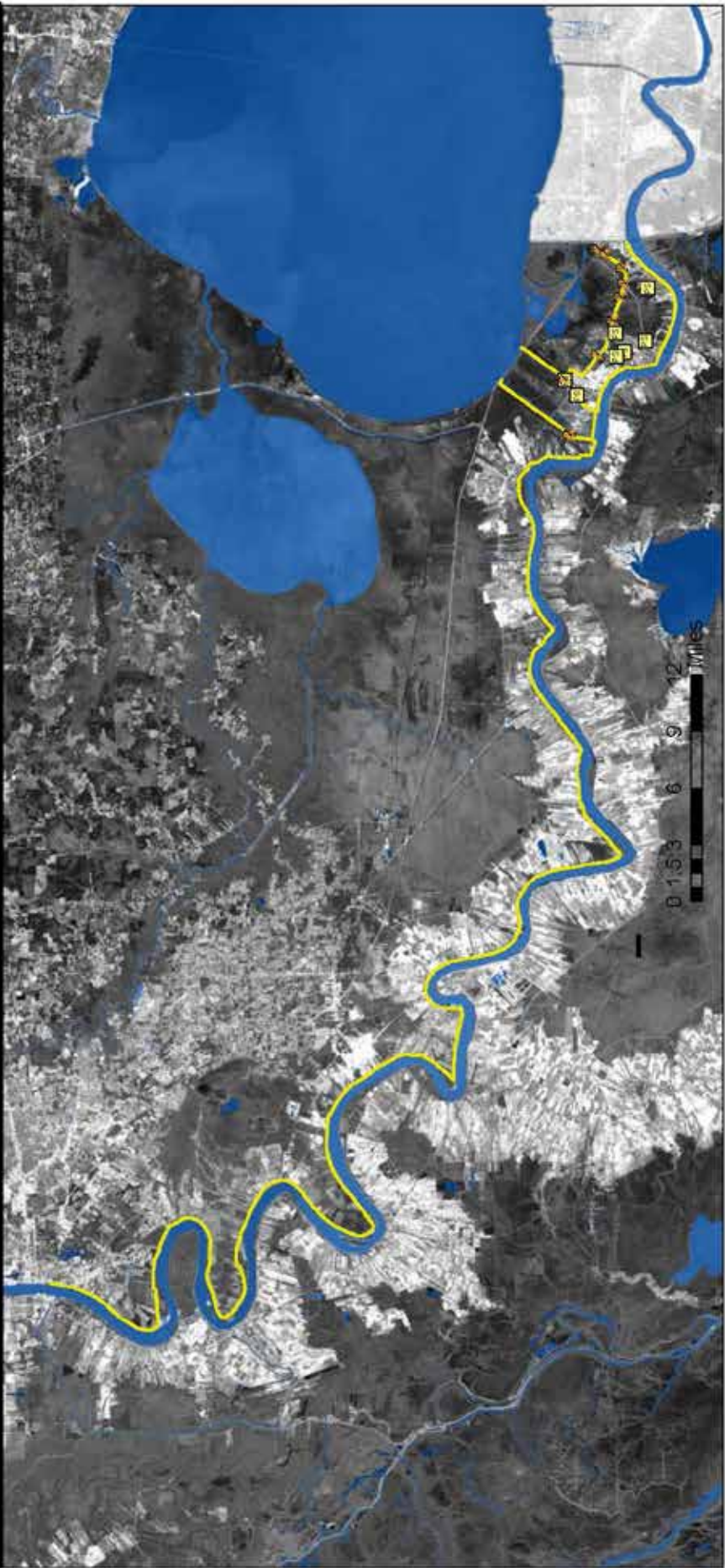
Map by: Louisiana Office of
Coastal Protection & Restoration

Date: April 28, 2009

Imagery: 2000 SPOT

Data Sources:
USACE
LA OCPR

PONTCHARTRAIN LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



Map by: Louisiana Office of
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Date: April 28, 2009
Imagery: 2000 SPOT
Data Sources:
USACE
LA OCPR



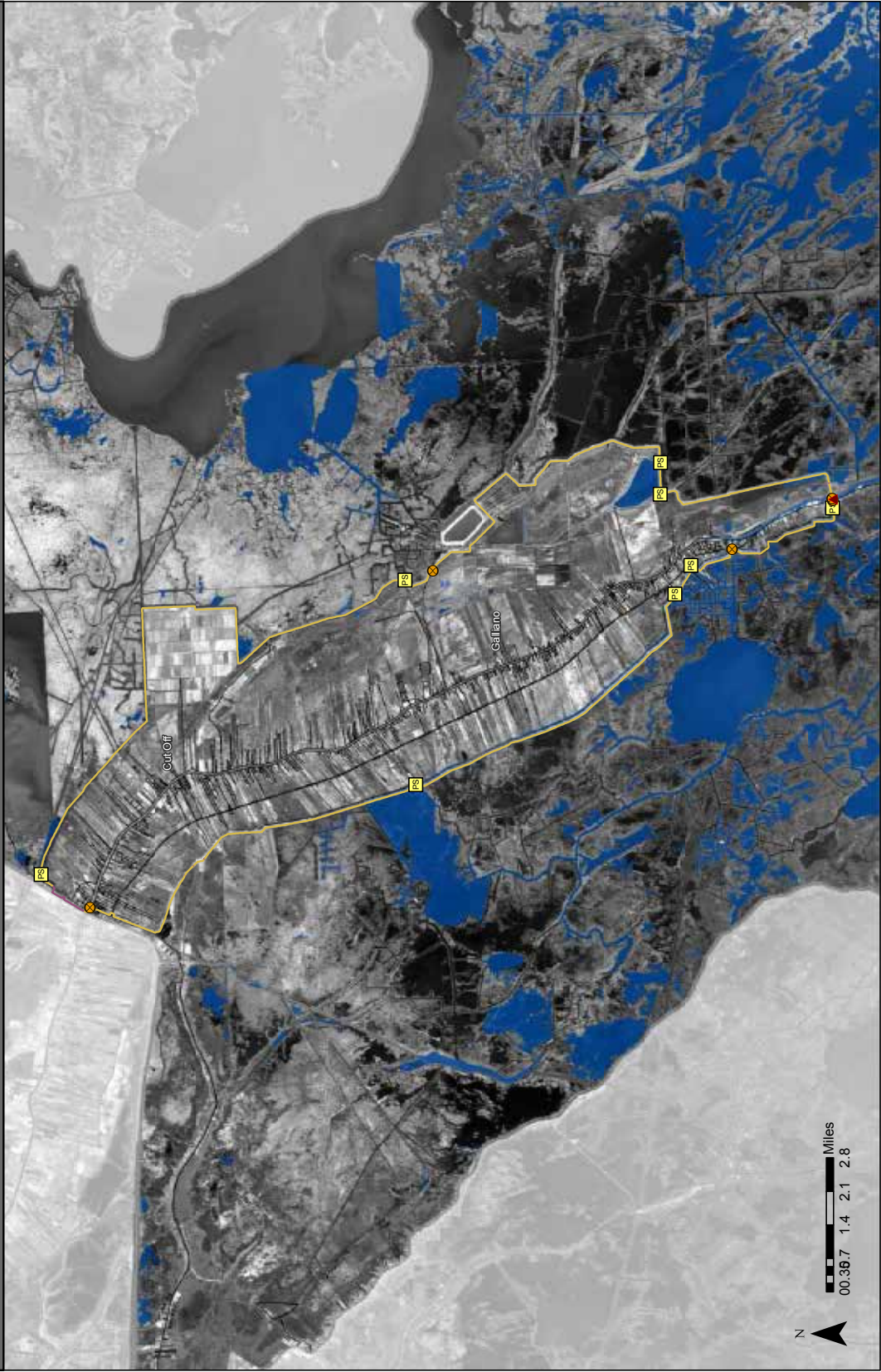
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Levee Construction Type

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



SOUTH LAFOURCHE LEVEE DISTRICT LEVEE ALIGNMENTS & STRUCTURES



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Miles

Legend

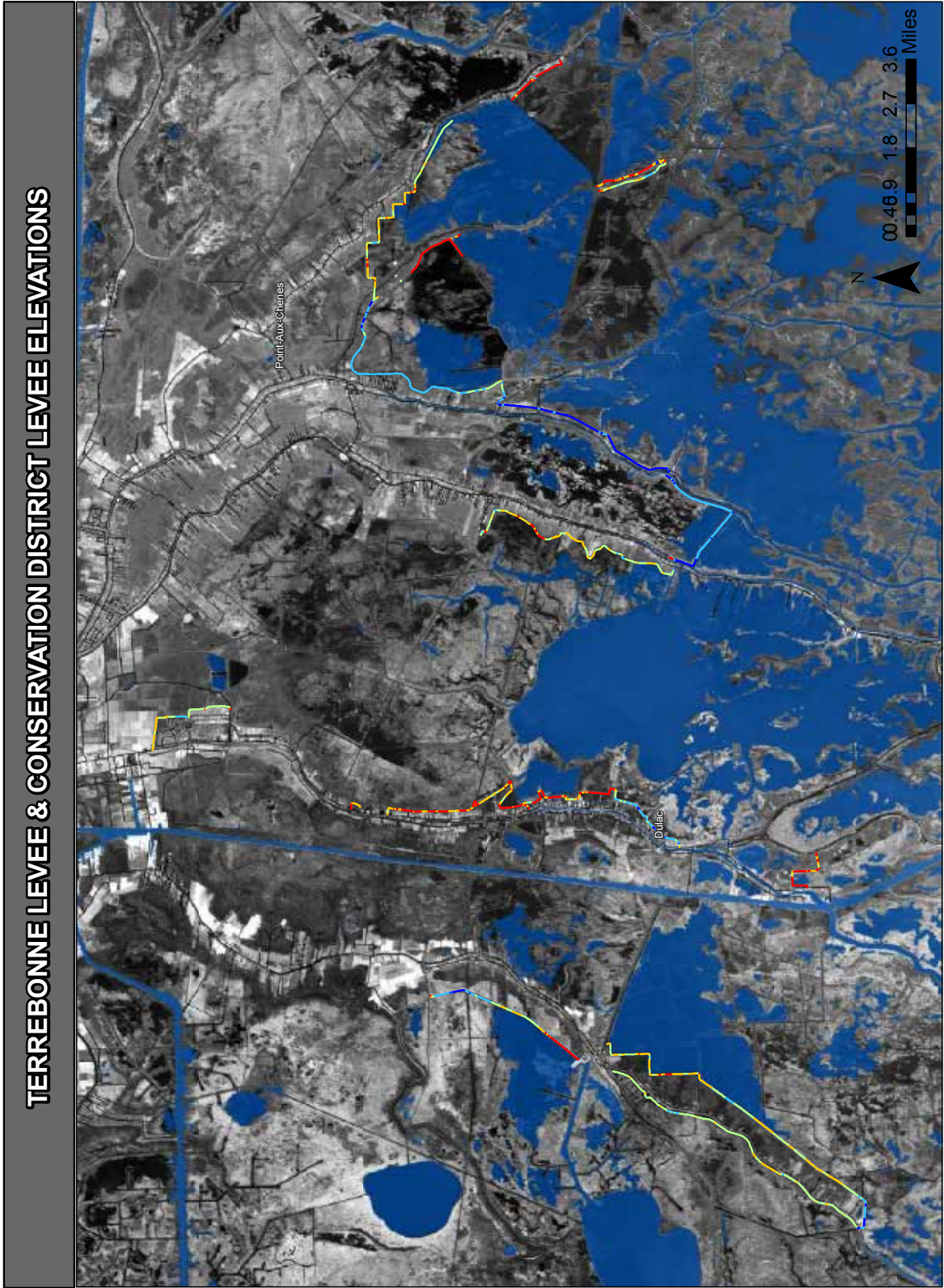
Levee construction types

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



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





Appendix E
Inventory of Non-State
Projects

**C. Projects and Project
Concepts in Coastal
Parish Master Plans**

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PROJECT CONCEPTS FROM COASTAL PARISH MASTER PLANS

Program		Local Project Number		Project Name		Project Type		Senate District		House District		Parish		Project Costs		Project Summary		Planning Unit
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 Perchant	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.		\$6,000,000 - \$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		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-Ostrea	RR	1		105		Plaq.		Not provided				Fort St. Phillip to Ostrea Lock Ridge Reforestation.		1
N/A		N/A		Ostrea-Bayou Lamoque	RR	1		105		Plaq.		Not provided				Ostrea 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		Videt	FD	1		103		SIB.		Not provided				Videt 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 Rigoliettes, 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 arm 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 Rigoliettes near Bayou Barataria	SP	8	105	Jef.						\$1,040,000	This project would protect the integrity of the north shoreline of Bayou Rigoliettes 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 Rigoliettes 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

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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 Leveille 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/ Rigoliettes 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

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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 200 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 Collete	DE	1	105		105		Plaq.		Not provided		Baptiste Collete 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 ad as another line of defense against storm surges caused by tropical storms and hurricanes.	4
N/A	N/A		South-West Shore Lake Decade	MC	20	51		Ter.				Not provided		Description not provided.	3a
N/A	N/A		East Island Dune and Marsh Restoration	BI	20	53		Ter.				Not provided		Description not provided.	3a
N/A	N/A		Marsh Creation to the North of Lost Lake	MC	20	51		Ter.				Not provided		Description not provided.	3a
N/A	N/A		West Shore Lake Decade	MC	20	51		Ter.				Not provided		Description not provided.	3a
N/A	N/A		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	N/A		North Shore Lake Mechant	MC	20	51		Ter.				Not provided		Description not provided.	3a
N/A	N/A		Marsh Creation East of Lake Boudreaux	MC	20	53		Ter.				Not provided		Description not provided.	3a

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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

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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	Carentou 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 Levees 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: 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 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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	Humble Canal Spillway	HR	25	47	Cam.					Not provided		Factsheet, economic benefit, construction cost breakdown available from Parish upon request.		4	
N/A	CPME11	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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	N/A	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
N/A	CPCS09		Calcasieu Ship Channel Marsh Creation	MC	25	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			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			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			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			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			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			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			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			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			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			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			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			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			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			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			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			Cam.			\$918,359,223	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.			4		
N/A	CPCS42		No Name Bayou Marsh Creation	MC	25	47			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			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			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			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			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			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			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			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			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			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			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			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			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			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			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			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			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			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			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
					MC	25	47	Cam.	Cam.	\$28,900,241	Factsheet, economic benefit, construction cost breakdown available from Parish upon request.						
N/A	CPCS61A	Vincent and Chinaberry Island Cameron Parish Marsh Creation	MC	25	47	Cam.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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.	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; MM=Marsh Management; MC=Marsh Creation; OM=Outfall Plaquemines, StB=St. Bernard, StC=St. Charles, StA=St. James, StU=St. Mary, StMT=St. Martin, StT=St. Tammany, Management; OT=other project types (infrastructure, etc.); PA=Public Access; PL=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.=Cacasiau, Cam.=Cameron, Ibe.=Iberia, Jef.=Jefferson, Laf.=Lafourche, Liv.=Livingston, Ori.=Orleans, Tan.=Tangipahoa, Ter.=Terrebonne, Ver.=Vermilion

Appendix E
Inventory of Non-State
Projects

**D. 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 2018 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 2018

Agency Priority	Department Priority	Agency Number	Project Request Title	Funding Source	(Year 1) FY2018	(Year 2) FY2019	(Year 3) FY2020	(Year 4) FY2021	(Year 5) Outlying Years	Total by Project
1 of 13	1 of 13	109	CPRA Projects	LAT	\$250,000					\$250,000
				FED	\$55,250,000					\$55,250,000
				NRR STAT DED	\$24,000,000					\$24,000,000
				CPR STAT DED	\$200,377,888					\$200,377,888
2 of 13	2 of 13	109	West Bank and Vicinity , New Orleans, LA Hurricane Protection (BA-66)	GO Bonds	\$0	\$50,000,000	\$50,000,000	\$50,000,000	\$1,350,000,000	\$1,500,000,000
3 of 13	3 of 13	109	Lake Pontchartrain, LA & Vicinity Hurricane Protection Project (PO-63)	GO Bonds	\$0	\$48,000,000	\$48,000,000	\$48,000,000	\$1,296,000,000	\$1,440,000,000
4 of 13	4 of 13	109	Morganza, LA to the Gulf of Mexico Hurricane Protection Project (TE-64)	GO Bonds	\$53,000,000	\$25,000,000	\$32,000,000	\$35,000,000	\$77,845,000	\$222,845,000
5 of 13	5 of 13	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	\$222,148,000	\$251,332,000
6 of 13	6 of 13	109	Lafitte Area Tidal Protection (BA-75)	GO Bonds	\$13,500,000	\$5,000,000	\$3,500,000	\$0	\$0	\$22,000,000
7 of 13	7 of 13	109	Western St. Charles Flood Protection	GO Bonds	\$5,100,000	\$0	\$0	\$0	\$0	\$5,100,000
8 of 13	8 of 13	109	Lockport to Larose Hurricane Protection Levee	GO Bonds	\$5,000,000	\$10,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$75,000,000
9 of 13	9 of 13	109	North Shore, Lake Pontchartrain Flood Protection (PO-74)	GO Bonds	\$5,000,000	\$0	\$0	\$0	\$0	\$5,000,000
10 of 13	10 of 13	109	St. Mary Backwater Flooding Protection (AT-024)	GO Bonds	\$5,000,000	\$60,000,000	\$60,000,000	\$0	\$0	\$125,000,000
11 of 13	11 of 13	109	Delcambre-Avery Canal Storm Surge Protection (TV-57)	GO Bonds	\$3,000,000	\$15,000,000	\$8,000,000	\$0	\$0	\$26,000,000
12 of 13	12 of 13	109	Southwest Coastal Louisiana Project (LA-20)	GO Bonds	\$1,050,000	\$17,500,000	\$17,500,000	\$17,500,000	\$1,133,340,600	\$1,186,890,600
13 of 13	13 of 13	109	South Central Coastal Plan (TV-54)	GO Bonds	\$5,000,000	\$34,347,317	\$34,347,317	\$34,347,317	\$1,952,897,049	\$2,060,939,000
TOTALS:					\$377,152,888	\$265,847,317	\$286,626,817	\$218,126,817	\$6,052,230,649	\$7,199,984,888





Coastal Protection and Restoration Authority
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