CPRA-Parish Matching Opportunities Program Selection Amendment to The State of Louisiana's First Amended RESTORE Plan

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Executive Summary

The Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 ("RESTORE Act") requires the State of Louisiana, through the Coastal Protection and Restoration Authority ("CPRA"), to publish (i) a Multiyear Implementation Plan detailing its plan to expend funds under the Direct Component of the RESTORE Act, subject to review by the U.S. Department of Treasury ("Treasury"); and (ii) a State Expenditure Plan detailing its plan to expend funds under the Spill Impact Component of the RESTORE Act, subject to approval by the Gulf Coast Ecosystem Restoration Council ("RESTORE Council"). Because the activities eligible for funding under the Direct Component and Spill Impact Component are nearly identical, and the requirements for both the Multiyear Implementation Plan and the State Expenditure Plan are similar, the State of Louisiana has elected to combine these two plans into a single document entitled the State of Louisiana's RESTORE Plan ("RESTORE Plan" or the "Plan"), which is subject to amendment when new projects and programs are added.

The State's initial RESTORE Plan was approved by the CPRA Board for submission to Treasury on July 15, 2015 for expenditure of then-available Direct Component funds from the 2013 Transocean Deepwater Inc. ("Transocean") settlement.[1] On September 21, 2015, Treasury formally notified the State that Louisiana was the first state to have a Plan accepted by Treasury for expenditure of Direct Component funds. On April 4, 2016, the United States District Court for the Eastern District of Louisiana entered a final consent decree among the United States, the five Gulf Coast States and BP in MDL No. 2179 (United States District Court for the Eastern District of Louisiana) ("Consent Decree") in which BP agreed to pay $5.5 billion plus interest under the Clean Water Act for its role in the *Deepwater Horizon* oil spill. Eighty percent of these funds, or approximately $4.4 billion, will be deposited into the RESTORE Trust Fund in fifteen annual installments beginning no later than one year after entry of the Consent Decree on April 4, 2017, and ending by April 4, 2031, with a penalty interest payment being deposited in 2032. Entry of the BP Consent Decree also triggered the effective date of the Spill Impact Allocation Final Rule at 40 C.F.R. Part 1800, which allocates 34.59% of the total Spill Impact Component funds to the State of Louisiana.

On January 18, 2017, the CPRA Board approved the State's First Amended RESTORE Plan, which updated and amended the 2015 RESTORE Plan to describe how it intended to use both the then-available and estimated anticipated funds under the Direct Component, as well as the currently available and estimated anticipated funds from the Spill Impact Component, for a total of approximately $811.9 million over a 15 year period ending in 2031. The State's First Amended RESTORE Plan contained the same projects and programs as the 2015 State RESTORE Plan, but increased the funding for those

[1] The State's initial RESTORE Plan identified two projects and two programs for funding under the State's then-available Direct Component funds: the Houma Navigation Canal Lock Complex ($16 million), the Calcasieu Ship Channel Salinity Control Measures ($16 million), Adaptive Management ($2.4 million) and the CPRA-Parish Matching Opportunities Program (up to $3.9 million).

projects and programs, including increasing the amount available for the CPRA-Parish Matching Opportunities Program up to $100 million.[2] In March of 2017, CPRA announced that both Treasury and the RESTORE Council had approved the State's First Amended RESTORE Plan.

This CPRA-Parish Matching Opportunities Program Selection Amendment to the State of Louisiana's First Amended RESTORE Plan (the "RESTORE Parish Matching Amendment") proposes to update and amend the State's First Amended RESTORE Plan to identify those projects selected for funding under the first iteration of the CPRA-Parish Matching Opportunities Program. As described herein, CPRA intends to allocate a total of up to $100 million, over a 15 year period, from the Spill Impact Component of the RESTORE Act for project and program matching opportunities for eligible parishes (i.e. those identified in 33 U.S.C. §1321(t)(1)(D)(i)(II)) to conduct one or more eligible activities as defined by the RESTORE Act (i.e. those identified in 33 U.S.C. §1321(t)(3)(B)(i) and 33 U.S.C. §1321(t)(1)(B)). In order to structure this program in the most effective and efficient way possible, between 2015 and 2017, CPRA engaged in extensive outreach with the parishes to solicit feedback on the program and opened an initial $20 million project solicitation on July 3, 2017, in accordance with the terms of the State's First Amended RESTORE Plan. Accordingly, the projects selected for funding in this RESTORE Parish Matching Amendment include a total of approximately $20 million from the Spill Impact Component, in addition to CPRA's costs of approximately $1,284,842, including direct personnel and other project management and oversight costs and administrative costs, in identified expenditures as follows:

Parish	Project	Estimated Project Funding Need	Estimated Spill Impact Funding Request
Cameron	Construction of Rockefeller Shoreline Stabilization Project	$6,671,531	$6,848,575
Lafourche	Engineering and Design of Grand Bayou Freshwater Reintroduction Project	$412,722	$599,386
St. Bernard	Construction of Lake Lery Marsh Creation Project	$2,781,000	$2,997,843
St. Charles	Construction of Paradis Canal Gate	$2,540,724	$2,827,150
Tangipahoa	Engineering and Design and Construction of Manchac Landbridge Shoreline Protection Project	$3,000,000	$3,179,265
Vermilion	Engineering and Design and Construction of Freshwater Bayou Canal Shoreline Protection Project	$4,594,023	$4,832,623
0	**TOTAL**	$20,000,000	$21,284,842

[2] The State's First Amended RESTORE Plan identified the following projects and programs for funding over the duration of the 15-year BP payout: The Calcasieu Ship Channel Salinity Control Measures (~$260.4 million from the Direct Component); The Houma Navigation Canal Lock Complex (~$366 million from the Spill Impact Component); Adaptive Management (~$60.9 million from the Spill Impact Component); The CPRA-Parish Matching Opportunities Program (up to ~$100 million from the Spill Impact Component) ; and Contingency Funds (~$24.6 million from the Spill Impact Component). *Please see* the State's First Amended RESTORE Plan for additional information about the projects and programs included in that plan.

Public Participation Statement

This RESTORE Parish Matching Amendment to the State's First Amended RESTORE Plan was published and made available for public review and comment for a minimum of forty five (45) days, from February 21, 2018 – April 9, 2018, in a manner calculated to obtain broad-based participation from individuals, businesses, Indian tribes, and non-profit organizations in accordance with 31 C.F.R. 34.503(b)(4) and 34.503(g), and was adopted after consideration of all meaningful input from the public. Information summarizing the public input received during the public comment period is available in Appendix D-7.

As additional projects and programs, such as projects proposed under the CPRA-Parish Matching Opportunities Program, are proposed under the State's First Amended RESTORE Plan, or as allocations among projects and programs may be updated over time, the Plan will be amended. Amendments to the Plan will undergo the same procedure for public comment as outlined above.

Best Available Science[3]

Under 31 C.F.R. §34.503(d), each activity designed to protect or restore natural resources proposed for funding under the Spill Impact Component must be based on best available science. Under 31 C.F.R. 34.2, "best available science" is defined as "science that maximizes the quality, objectivity, and integrity of information, including statistical information; uses peer reviewed and publicly available data; and clearly documents and communicates risks and uncertainties in the scientific basis for such projects." Louisiana's Coastal Master Plan is required by law to be updated every five years in order to take into account the best available science and the ever-changing conditions on the ground. The Coastal Master Plan, on which the First Amended RESTORE Plan is based, is guided by a mission which is comprehensive in scope and based on a broad range of objectives, principles, decision drivers, metrics and constraints. (Coastal Master Plan pp. 44-63). This mission represents the result of a broad-based collaboration among local, state and national stakeholders and uses cutting edge technical analysis to "think big and evaluate the needs of the entire coast". (*Id.* at 45). Each of the projects selected for funding under the parish matching program, as identified in this RESTORE Parish Matching Amendment, is consistent with the goals and objectives of the State's Coastal Master Plan. Additionally, each project was selected based on specific selection criteria listed in the First Amended RESTORE Plan that is designed to help CPRA prioritize proposed activities for matching funds and to assess the ability of the parishes to implement the proposed projects. As such, each of the projects selected for funding is based on the best available science.

[3] Please *also see* the State's First Amended RESTORE Plan for additional information about the process for prioritizing and selecting projects for the plan.

State Certification of RESTORE Act Compliance, Conflicts of Interest and Financial Integrity

In accordance with the Section 5.2.2 of the RESTORE Council's SEP Guidelines, the State of Louisiana hereby certifies that all projects, programs, and activities included in this RESTORE Parish Matching Amendment are eligible activities as defined by the RESTORE Act and meet the requirements listed in Sections 4.1 and 4.1.1 of the SEP Guidelines. Additionally, the process used to verify that the projects, programs, and activities meet these requirements is described in Sections II, V and VI of the State's First Amended Plan, as well as this RESTORE Parish Matching Amendment. The State of Louisiana further certifies that issues crossing Gulf State boundaries have been evaluated to ensure that a comprehensive, collaborative ecological and economic recovery is furthered by this amendment. Likewise, the State hereby certifies that: (i) this RESTORE Parish Matching Amendment complies with the RESTORE Council's SEP Guidelines, (ii) all activities in this RESTORE Parish Matching Amendment contribute to the overall economic and ecological recovery of the Gulf Coast, and (iii) all activities will be carried out in the Gulf Coast Region in accordance with the requirements of 31 C.F.R. §§ 34.503(b)(5) and 34.203. The State also certifies that, pursuant to Section 4.2.2 of the SEP Guidelines and in accordance with 33 U.S.C. §1321(t)(3)(B)(ii)(I) and 31 C.F.R. § 34.503(f), no more than 25 percent of funding under the Spill Impact Component will be used to pay for infrastructure projects. Additionally, in accordance with 33 U.S.C. § 1321(t)(3)(B)(i)(III), the State of Louisiana certifies that this RESTORE Parish Matching Amendment takes into consideration the current Comprehensive Plan adopted by the RESTORE Council and is consistent with the goals and objectives of the Plan.

All conflicts of interest and financial integrity provisions provided for in Section VIII of the State's First Amended RESTORE Plan will also apply to this RESTORE Parish Matching Amendment.

The following are the project selections CPRA is adding as an amendment to the Parish Matching Program included in the State of Louisiana's First Amended RESTORE Plan.

The following information is proposed to replace the information pertaining to the CPRA-Parish Matching Opportunities Program on pages 25-26 and at Appendix D of the State's First Amended RESTORE Plan.

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CPRA-Parish Matching Opportunities Program – Spill Impact Component (see also Appendix D):

- Need: The CPRA recognizes (i) the importance of parish-state partnerships in working together to achieve comprehensive integrated coastal protection as identified in Louisiana's Coastal Master Plan, as well as (ii) the fact that because Louisiana's Coastal Master Plan is a resource-limited approach to coastal restoration and protection, it is not possible to include every beneficial project in the Coastal Master Plan.
- Purpose: This CPRA-Parish Matching Opportunities Program is designed to help coastal parishes who will receive RESTORE funds under the Direct Component prioritize Coastal Master Plan projects with those funds, while also recognizing and responding to the needs of parishes to implement projects that may not be specifically contained in the Coastal Master Plan but are nevertheless consistent[4] with the Coastal Master Plan and are included in Parish RESTORE Act Multiyear Implementation Plans. *See* La. R.S. 49:214.1 *et seq.*[5] This approach will allow the CPRA to connect large scale projects with strategic local projects in a way that can maximize efficiencies and the impact of RESTORE Act funds in accordance with La. R.S. 49:214.5.4(G).
- Objective: The CPRA intends to allocate a total of up to $100 million, over a 15 year period, from the Spill Impact Component of the RESTORE Act for project and program matching opportunities for eligible parishes (i.e. those identified in 33 U.S.C. §1321(t)(1)(D)(i)(II)) to conduct one or more eligible activities as defined by the RESTORE Act (i.e. those identified in 33 U.S.C. §1321(t)(3)(B)(i)).
- Funds Requested: The total funds that will be requested for the matching program are estimated to be up to approximately $100 million from the Spill Impact Component over a 15 year period, with an initial solicitation in the summer of 2017 of up to $20 million for parish matching projects. This RESTORE Plan will be updated and amended, as approved by the CPRA Board, as projects proposed under the CPRA-Parish Matching Opportunities Program are selected for funding. Any projects selected for funding under the CPRA-Parish Matching Opportunities Program as an amendment to this Plan will be subject to a forty five (45) day public comment period before their selection is finalized by CPRA. Funds will be formally requested from the RESTORE Council through the grant process after specific matching projects have been solicited, identified, publicly reviewed and selected and the amendment to this Plan including those specific projects has been approved by the RESTORE Council.
- Projected Start and Completion Dates: The projected start and completion dates will be determined based on the projects or programs selected.

[4] To be considered consistent with the goals and objectives of the Coastal Master Plan, the proposed project must strive to achieve one or more of the Coastal Master Plan's objectives and must not detrimentally affect, significantly diminish or otherwise conflict with integrated coastal protection projects or the benefits of projects intended to protect, conserve or enhance coastal areas. This consistency determination will be made by CPRA on a case by case basis and at the sole discretion of CPRA.

[5] This program is also included in the 2017 Coastal Master Plan at p. 130, and in the 2018 Annual Plan at p. 46.

Cameron Parish – Westward Expansion of the CWPRRA Rockefeller Refuge Shoreline Stabilization Project – Spill Impact Component (see also Appendix D-1):

- Need: This project is listed in the 2017 Coastal Master Plan as project 004.SP.05a and as part of the Parish Matching Program in the 2019 Annual Plan. The Cameron Parish shoreline along the southern boundary of the Rockefeller Wildlife Refuge (Rockefeller) has been experiencing a documented high rate of shoreline erosion. The originally deeded 86,000 acres of Rockefeller Refuge has been reduced to about 76,000 acres by coastal erosion. Historical estimates of long-term shoreline retreat range from 30 to 40 feet per year. Short-term events, such as Tropical Storm Frances in 1998, have caused more than 50 feet of erosion over the course of a few days. Rockefeller more recently completed a coastline survey and discovered an alarming beach erosion rate of 233.5 feet during a 278 day span from September 17, 2015 to June 21, 2016 which equates to an erosion rate of 306 feet per year for that time period (without any tropical systems of record).
- Purpose: The main purpose of the project is to provide shoreline protection along the southern boundary of the Rockefeller Wildlife Refuge (Rockefeller). Through previous efforts, CPRA teamed with the National Marine Fisheries Service (NMFS) to implement the Rockefeller Gulf Shoreline Stabilization Project (ME-18). The project intent is to halt erosion along an approximately 15,000 foot portion of the Refuge west of Joseph Harbor Bayou (Joseph Harbor) with this project in particular estimated to protect an estimated 6,000 linear feet of shoreline. The project is funded and authorized in accordance with the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) (16 U.S.C.A., Section 3951-3956). The construction phase is set to begin shortly. The proposed RESTORE project will build on the efforts of the CWPPRA project.
- Objectives: There are two phases to this project. Phase 1 consists of completion of engineering and design, including land rights, baseline data and monitoring plan development, and project administration. It is worth noting that the State of Louisiana's Department of Wildlife and Fisheries is the only landowner from whom it is necessary to obtain land rights and there are no private landowners involved in the construction of this project. Phase 2 consists of construction. With the requested funds, it is estimated that approximately 6,000 linear feet of shoreline will be protected. As such, for purposes of Section 4.1.1 of the RESTORE Council's State Expenditure Guidelines ("SEP Guidelines"), the primary eligible activity of the project is to provide restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region (Eligible Activity (1)).

  This project will contribute to the overall ecological and economic recovery of the Gulf by protecting an area that is experiencing one of the highest rates of shoreline erosion in coastal Louisiana.

  This project will be carried out in the Gulf Coast Region as defined in 31 C.F.R. § 34.2 because it is located in Cameron Parish which is in the coastal zone defined under section 304 of the Coastal

Zone Management Act of 1972 that border the Gulf of Mexico. (*See* Appendix D-6 for map for the approximate boundaries of the project influence area).

For the purposes of the RESTORE Act and Section 4.2.2 of the RESTORE Council's SEP Guidelines, this project is not considered an infrastructure project. CPRA is providing funding for engineering and design, as well as construction of this project. It is estimated that 10% of the total requested funds will be used for planning purposes and 90% will fund construction activities. Funding of post-construction activities, including without limitation, monitoring and operations and maintenance will be the responsibility of the Parish. It will be required that the engineer overseeing the design and construction of the project certify that the project is built to specification and the invoices are accurate. This process will allow CPRA to monitor and measure the success of this project.

Consistency with the goals and objectives of the Coastal Master Plan, as defined under the terms of the Parish Matching Program, was required for a project to be considered for the Parish Matching Program. Each project was also evaluated based on specific selection criteria to ensure that projects were selected under this program based on the best available science. As such, this project was selected based on the best available science for the Parish Matching Program.

- Funds Requested: The estimated cost of this project is $8,671,531. This estimate is based on recent bid information from the similar CWPPRA project. Cameron Parish Police Jury has pledged $2,000,000, including a portion of their RESTORE Act Direct Component funds. CPRA is requesting an estimated $6,671,531 in Spill Impact Component funding to complete the funding needs of this project. CPRA will also request an estimated $177,044 from the Spill Impact Component to cover costs incurred by CPRA to complete this project. In total, CPRA will request an estimated $6,848,575 in Spill Impact Component funding for this project. Including the CPRA costs, the project is estimated to cost $8,848,575.

  Currently, the Parish funds are pending. The requested RESTORE dollars will not be used as a non-federal match.
- High level milestones:
  1. Completion of land rights
  2. Baseline data and monitoring plan development
  3. Advertisement for Bids
  4. Award construction contract
  5. Issue Substantial Completion
- Measures of Success:
  1. Completion of engineering and design phase
  2. Awarding construction contract
  3. Construction mobilization
  4. Issuing Substantial Completion

- Measures of Ecosystem Benefits:
  1. Erosion control – linear feet of shoreline restored
- Estimated Start and Completion Dates:
  Project dates assume a start date of November 2018:
  Engineering and design start: December 2018
  Advertisement for Bids: February 2019
  Completion of Construction: April 2020

The project-specific information provided above will be provided to the RESTORE Council using the project information templates available on the Council's website, including the Project Narrative Template and Milestones Template.

Lafourche Parish – Grand Bayou Freshwater Reintroduction Project – Spill Impact Component (see also Appendix D-2):

- Need: This project is listed in the 2017 Coastal Master Plan as the Grand Bayou Hydrologic Restoration project (03a.HR.100) and as part of the Parish Matching Program in the 2019 Annual Plan. Due to altered hydrology in the area, the Terrebonne Basin in Lafourche Parish is experiencing land loss along with high rates of subsidence, which are estimated to be between 2.1 and 3.5 feet per century. Without restoration, this region will continue to see the breakup of marshes and the conversion of low salinity marshes to brackish and saline marsh. More than 16,000 acres of marsh have been lost in this area since 1949.
- Purpose: The main purpose of the project is to continue and complete engineering and design of a project that will ultimately increase the flow of fresh water down Grand Bayou Canal from the GIWW. Lafourche Parish has requested and received $79,870 in RESTORE Direct Component funding to begin engineering and design. The requested Spill Impact Component funds will allow for continuation and completion of the engineering and design. Construction of the designed project would help to lower salinities and add nutrients to the wetlands south of the GIWW along the east and west banks of Grand Bayou Canal. As such, for the purposes of Section 4.1.1 of the RESTORE Council's State Expenditure Guidelines ("SEP Guidelines"), the primary eligible activity of the project is to provide restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region (Eligible Activity (1)). This project also aims to protect ecologically important species by creating or improving habitat for rare species, species of concern, and threatened and endangered species; and provide storm surge reduction.

  Ultimately, the construction of this project will:
  - Increase the flow of fresh water from the GIWW into Grand Bayou Canal from approximately 600 cfs to 1,600 cfs;
  - Redirect much of the freshwater from Grand Bayou Canal into the marshes east and west of Grand Bayou Canal;

- Create approximately 112 acres of fresh marsh and nourish an additional estimated 14 acres of intermediate marsh west of Grand Bayou near Hwy 24.

- Objectives: This project consists of preliminary engineering and design, hydrologic modeling, and engineering and design, culminating with a complete bid package.

  This project will contribute to the overall ecological and economic recovery of the Gulf by increasing freshwater flow to help sustain marsh in an area that is experiencing one of the highest rates of land loss in Louisiana.

  This project will be carried out in the Gulf Coast Region as defined in 31 C.F.R. 34.2 because it is located in Lafourche Parish which is in the coastal zone defined under section 304 of the Coastal Zone Management Act of 1972 that border the Gulf of Mexico. (*See* Appendix D-2 for map for the approximate boundaries of the project influence area).

  For the purposes of the RESTORE Act and Section 4.2.2 of the RESTORE Council's SEP Guidelines, this project is not considered an infrastructure project. CPRA is providing funding for engineering and design of this project. It is estimated that 100% of the total requested funds will be used for planning purposes. It will be required that the engineer overseeing the design of the project certify that the invoices are accurate and that the work is being performed to standard. This process will allow CPRA to monitor and measure the success of this project.

  Consistency with the goals and objectives of the Coastal Master Plan, as defined under the terms of the Parish Matching Program, was required for a project to be considered for the Parish Matching Program. Each project was also evaluated based on specific selection criteria to ensure that projects were selected under this program based on the best available science. As such, this project was selected based on the best available science for the Parish Matching Program.
- Funds Requested: The estimated cost of the project is $687,869. Lafourche Parish has requested and received $79,870 and pledged $195,277 of their RESTORE Act Direct Component funds toward the completion of this project (for a total Parish contribution of $275,147). CPRA is requesting an estimated $412,722 in Spill Impact Component funding to complete the funding needs of this project. CPRA will also request an estimated $186,664 from the Spill Impact Component to cover costs incurred by CPRA to complete this project. In total, CPRA will request an estimated $599,386 in Spill Impact Component funding for this project. Including the CPRA costs, the project is estimated to cost $874,533.

  Currently, the Parish funds are pending. The requested RESTORE dollars will not be used as a non-federal match.
- High level milestones:
  1. Data Gap Analysis

2. Data Collection
3. Permitting
4. Design
5. Completion of design report

- Measures of Success:
  1. Completion of engineering and design phase
- Estimated Start and Completion Dates:
  Project dates assume a start date of November 2018:
  Engineering and design start: November 2018
  Permitting: May 2019 - January 2020
  Ready to Bid: February 2020

The project-specific information provided above will be provided to the RESTORE Council using the project information templates available on the Council's website, including the Project Narrative Template and Milestones Template.

St. Bernard Parish – Lake Lery Marsh Creation Project – Spill Impact Component (see also Appendix D-3):

- Need: This project is consistent with the goals and objectives of the 2017 Coastal Master Plan and is contained in the 2019 Annual Plan as part of the Parish Matching Program. The project is needed to avoid ongoing deterioration of area marsh and increased exposure of the adjacent ridge to open water. Saltwater intrusion, erosion, and subsidence have had a devastating impact on the wetlands surrounding Delacroix over the past century. Much of the shoreline along Lake Lery and the adjacent wetlands has rapidly degraded in recent years due to tropical weather events (2004, 2005, 2008, and 2012) and the *Deepwater Horizon* Oil Spill (2010). Wind-induced waves in the lake have accelerated the damage, converting healthy marsh to open water and exposing the historic ridge along Bayou Terre aux Boeufs to wave energy. The ridge and marshes along Bayou Terre aux Boeufs function as a storm surge barrier for residents and businesses outside of the Hurricane and Storm Damage Risk Reduction System. The ridge also supports fish and wildlife habitat near Delacroix, one of the most historic fishing communities in Louisiana.
- Purpose: The main purpose of the project is to build upon previously expended funds under the Coastal Impact Assistance Program (CIAP) by constructing the designed 39 acre marsh creation project. The restoration of marshlands is important in an area where the natural ecosystem has become severely damaged. The Lake Lery Marsh Creation Project will use dredged material from Lake Lery to restore adjacent marsh. St. Bernard Parish Government's CIAP grant award has already funded the engineering, design, and permitting of the project, leaving only the construction phase yet to be completed. This project is part of an ongoing phased approach to restore and protect the Lake Lery area.

This project will contribute to the overall ecological and economic recovery of the Gulf by helping prevent ongoing deterioration of healthy marsh into open water surrounding one of the most historic fishing communities in Louisiana.

- Objectives: This project consists of constructing approximately 39 acres of marsh. Specific project objectives include: (1) restoring natural ecosystems, fisheries, and marine and wildlife habitat; and (2) mitigating damage to fish, wildlife, and natural resources in the Delacroix community, which is located in the heart of the Gulf Coast region. As such, for purposes of Section 4.1.1 of the RESTORE Council's State Expenditure Guidelines ("SEP Guidelines"), the primary eligible activity of the project is to provide restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region (Eligible Activity (1)).

  This project will be carried out in the Gulf Coast Region as defined in 31 C.F.R. § 34.2 because it is located in St. Bernard Parish which is in the coastal zone defined under section 304 of the Coastal Zone Management Act of 1972 that border the Gulf of Mexico. (*See* Appendix D-3 for map for the approximate boundaries of the project influence area).

  For the purposes of the RESTORE Act and Section 4.2.2 of the RESTORE Council's SEP Guidelines, this project is not considered an infrastructure project. CPRA is providing funding for construction of this project. It is estimated that 100% of the total requested funds will be used for construction activities. Funding of post-construction activities, including without limitation, monitoring and operations and maintenance, will be the responsibility of the Parish. It will be required that the engineer overseeing the construction of the project certify that the project is built to specification and the invoices are accurate. This process will allow CPRA to monitor and measure the success of this project.

  Consistency with the goals and objectives of the Coastal Master Plan, as defined under the terms of the Parish Matching Program, was required for a project to be considered for the Parish Matching Program. Each project was also evaluated based on specific selection criteria to ensure that projects were selected under this program based on the best available science. As such, this project was selected based on the best available science for the Parish Matching Program.
- Funds Requested: The estimated cost of the project is $3,081,000. This estimate is based on probable construction costs from the designed project. St. Bernard Parish Government has pledged $300,000 of their RESTORE Act Direct Component funds. CPRA is requesting an estimated $2,781,000 in Spill Impact Component to complete the funding needs of this project. CPRA will also request an estimated $216,844 from the Spill Impact Component to cover costs incurred by CPRA to complete this project. In total, CPRA will request an estimated $2,997,844 in Spill Impact Component funding for this project. Including the CPRA costs, the project is estimated to cost $3,297,844.

The Parish Direct Component funds have been approved by Treasury. The requested RESTORE dollars will not be used as a non-federal match.

- High level milestones:
  1. Advertisement of bids
  2. Construction
  3. Project completion
- Measures of Success:
  1. Awarding construction contract
  2. Construction mobilization
  3. Issuing Substantial Completion
- Measures of Success of Ecosystem Benefits:
  1. Wetland restoration – acres restored
- Estimated Start and Completion Dates:
  Project dates assume a start date of November 2018:
  Advertisement for Bids: November 2018
  Construction begin: February 2019
  Completion of Construction: December 2019

The project-specific information provided above will be provided to the RESTORE Council using the project information templates available on the Council's website, including the Project Narrative Template and Milestones Template.

St. Charles Parish – Paradis Canal Gate – Spill Impact Component (see also Appendix D-4):

- Need: This project is contained in the 2017 Coastal Master Plan as part of 002.HP.06 and in the 2019 Annual Plan as part of the Parish Matching Program. The west bank of St. Charles Parish (west side of the Mississippi River) is outside of the U. S. Army Corps of Engineers' Hurricane Storm Damage Risk Reduction System (HSDRRS) and unprotected from storm surges associated with both hurricanes and high tide conditions. Existing levee projects adjacent to this area have the potential to act as a funnel, thereby increasing the storm surge elevations in the project area. As part of the St. Charles Parish West Bank Hurricane Protection Levee and the larger, regional project, the Upper Barataria Risk Reduction System, this proposed project is needed to help prevent backwater flooding within the Paradis Canal during heavy rain events and high tides.
- Purpose: The main purpose of the project is to provide flood protection for the residents, businesses, and industries of the west bank of St. Charles Parish. This flood protection serves to protect the sustainability of the coastal landscape, communities, and economic future of the area. It will also improve the Parish's resiliency during storm recovery. A secondary benefit is protecting habitats in the Paradis Swamp. Research has shown major flooding can negatively affect coastal habitats resulting in loss of wildlife and biodiversity, destruction of habitats, and decreases in available food in the ecosystem creating long-term impacts for surviving wildlife.

Additionally, inundation from waters with higher salinity from storm surges could result in damage to native vegetation.

- Objectives: Construction of the Paradis Canal Gate to prevent backwater flooding through the Paradis Canal opening in the West Bank Hurricane Protection Levee (WBHPL) project. Design has been completed to 70% to date. As part of the overall levee system, it is necessary to install the proposed Paradis Canal Gate located on the border of Paradis and Boutte, because without it the system is vulnerable to water rushing through leaving the possibility of the area to be inundated with high levels of water leading to flooding and potential economic losses. As such, for purposes of Section 4.1.1 of the RESTORE Council's State Expenditure Guidelines ("SEP Guidelines"), the primary eligible activity of the project is to provide coastal flood protection (Eligible Activity (7)). Construction of the Paradis Canal Gate is planned as part of Phase I of the four-phase WBHPL project. The WBHPL is a 33-mile earthen levee alignment that begins with the Sunset Levee on the western flank in Des Allemands and extends to the Davis Pond Freshwater Diversion West Guide Levee to the east in Luling. The WBHPL includes the proposed Paradis Canal Gate, which is necessary to address both the interior drainage and the resulting encapsulated wetlands ecosystem.

  Louisiana's Comprehensive Master Plan for a Sustainable Coast (2017 Master Plan) identifies communities that are susceptible to future flooding if no action is taken to protect them. Assuming a medium environmental scenario in the next 25 years, the town of Paradis is one of 10 communities considered to be "particularly vulnerable". For the same scenario in 50 years, Paradis is one of 11 communities that could be "dramatically changed". The Paradis Canal Gate is proposed to prevent devastating floods from making these predictions become a reality. Permits have been received from the U.S. Army Corps of Engineers, the Louisiana Department of Natural Resources and the Louisiana Department of Environmental Quality. Accordingly, this project will contribute to the overall ecological and economic recovery of the Gulf by protecting one of Louisiana's most vulnerable coastal communities.

  This project will be carried out in the Gulf Coast Region as defined in 31 C.F.R. § 34.2 because it is located in the Terrebonne Basin which is in the coastal zone defined under section 304 of the Coastal Zone Management Act of 1972 that border the Gulf of Mexico. (*See* Appendix D-5 for map for the approximate boundaries of the project influence area).

  For the purposes of the RESTORE Act and Section 4.2.2 of the RESTORE Council's SEP Guidelines, this project is considered an infrastructure project. CPRA is providing funding for construction of this project. It is estimated that 100% of these requested funds will go toward implementation. Funding of post-construction activities, including without limitation, monitoring and operations and maintenance, will be the responsibility of the Parish. It will be required that the engineer overseeing the construction of the project certify that the project is built to specification and the

invoices are accurate. This process will allow CPRA to monitor and measure the success of this project.

Consistency with the goals and objectives of the Coastal Master Plan, as defined under the terms of the Parish Matching Program, was required for a project to be considered for the Parish Matching Program. Each project was also evaluated based on specific selection criteria to ensure that projects were selected under this program based on the best available science. As such, this project was selected based on the best available science for the Parish Matching Program.

- Funds Requested: The engineering and design for the project (currently 70% completed) will be completed in July of 2018 using funds other than those being requested within this proposed Parish Matching Amendment. The estimated construction cost of the project is $5,081,448. This estimate is based on 70% design engineer's estimate of probable cost. St. Charles Parish will provide $390,284 through their RESTORE Act Direct Component funds, as well as $2,150,440 through a local dedicated millage for construction of this project. CPRA is requesting an estimated $2,540,724 in Spill Impact Component funding to complete the construction funding needs of this project. CPRA will also request an estimated $286,426 from the Spill Impact Component to cover costs incurred by CPRA to complete the construction of this project. In total, CPRA will request an estimated $2,827,150 in Spill Impact Component funding for the construction of this project. Including the CPRA costs, the project is estimated to cost $5,367,874.

  Currently, the Parish funds are pending. The requested RESTORE dollars will not be used as a non-federal match.
- High level milestones:
  1. Advertisement for Bids
  2. Award construction contract
  3. Issue Notice to Proceed
  4. Issue Substantial Completion
- Measures of Success:
  1. Awarding construction contract
  2. Construction mobilization
  3. Issuing Substantial Completion
- Estimated Start and Completion Dates:
  Project dates assume a start date of November 2018:
  Advertisement for Bids: December 2018
  Substantial Completion of Construction: October 2020

The project-specific information provided above will be provided to the RESTORE Council using the project information templates available on the Council's website, including the Project Narrative Template and Milestones Template.

Tangipahoa Parish – Manchac Landbridge (Rock Breakwater) Shoreline Protection Project – Spill Impact Component (see also Appendix D-5):

- Need: This project is listed in the 2017 Coastal Master Plan as Manchac Landbridge Shoreline Protection project (001.SP.01) and is contained in the 2019 Annual Plan as part of the Parish Matching Program. Tangipahoa Parish has lost approximately 55 acres of shoreline since 1989, increasing the vulnerability of the wetlands north of Pass Manchac. The Manchac Landbridge Shoreline Protection project, consisting of approximately 5,348 linear feet of rock breakwater, will strengthen the Lake Pontchartrain shoreline and decrease vulnerability of the wetlands north of Pass Manchac. It is estimated that this project will prevent the otherwise inevitable degradation of an estimated 250+ acres of marshland.
- Purpose: The main purpose of the project is to continue efforts of the CIAP program with the construction of the designed Manchac Landbridge (Rock Breakwater) Shoreline Protection project on the Lake Pontchartrain shoreline southwest of the Tangipahoa River and east of Pass Manchac. This project will preserve shoreline integrity and reduce wetland degradation from wave erosion along the shoreline of Lake Pontchartrain, benefitting surrounding shoreline habitat. As such, for purposes of Section 4.1.1 of the RESTORE Council's State Expenditure Guidelines ("SEP Guidelines"), the primary eligible activity of the project is to provide for the restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region (Eligible Activity (1)).
- Objectives: This project consists of updating engineering and design for the Manchac Landbridge Shoreline Protection project and construction of approximately 5,348 linear feet of rock breakwater along the Lake Pontchartrain shoreline.

  This project will contribute to the overall ecological and economic recovery of the Gulf by preventing shoreline erosion and reducing wetland degradation along the shoreline of Lake Pontchartrain.

  This project will be carried out in the Gulf Coast Region as defined in 31 C.F.R. § 34.2 because it is located in Tangipahoa Parish which is in the coastal zone defined under section 304 of the Coastal Zone Management Act of 1972 that border the Gulf of Mexico. (*See* Appendix D-4 for map for the approximate boundaries of the project influence area).

  For the purposes of the RESTORE Act and Section 4.2.2 of the RESTORE Council's SEP Guidelines, this project is not considered an infrastructure project. CPRA is providing funding for engineering and design, as well as construction of this project. It is estimated that 10% of the total requested funds will be used for planning purposes and 90% will fund construction activities. Funding of post-construction activities, including without limitation, monitoring and operations and maintenance, will be the responsibility of the Parish. It will be required that the engineer overseeing the design and construction of the project certify that the project is built to

specification and the invoices are accurate. This process will allow CPRA to monitor and measure the success of this project.

Consistency with the goals and objectives of the Coastal Master Plan, as defined under the terms of the Parish Matching Program, was required for a project to be considered for the Parish Matching Program. Each project was also evaluated based on specific selection criteria to ensure that projects were selected under this program based on the best available science. As such, this project was selected based on the best available science for the Parish Matching Program.

- Funds Requested: The estimated cost of the project is $3,491,871. Tangipahoa Parish has pledged $491,871 of their RESTORE Act Direct Component funds toward the completion of this project. CPRA is requesting an estimated $3,000,000 in Spill Impact Component funding to complete the funding needs of this project. CPRA will also request an estimated $179,266 from the Spill Impact Component to cover costs incurred by CPRA to complete this project. In total, CPRA will request an estimated $3,179,266 in Spill Impact Component funding for this project. Including the CPRA costs, the project is estimated to cost $3,671,137.

  Currently, the Parish funds are pending. The requested RESTORE dollars will not be used as a non-federal match.
- High level milestones:
  1. Environmental Review
  2. Preparation of construction plans and specifications
  3. Construction
- Measures of Success:
  1. Completion of environmental review
  2. Awarding construction contract
  3. Construction mobilization
  4. Project completion
- Measures of Success for Ecosystem Benefits:
  1. Erosion control –linear feet restored
- Estimated Start and Completion Dates:
  Project dates assume a start date of March 2018:
  Environmental review: March 2018
  Preparation of construction plans and specifications: May – July 2018
  Completion of bid: July – November 2018
  Construction: January 2019 – January 2020
  Project completion: February 2020

The project-specific information provided above will be provided to the RESTORE Council using the project information templates available on the Council's website, including the Project Narrative Template and Milestones Template.

Vermilion Parish – The Freshwater Bayou Canal Shoreline Protection Project – Spill Impact Component (see also Appendix D-6):

- Need: The Freshwater Bayou Canal Shoreline Protection Project is included in the State's 2017 Coastal Master Plan as the Freshwater Bayou Canal Shoreline Protection Project (004.SP.03) and is listed under the Restoration Projects for years 1-10. This project is also contained in the 2019 Annual Plan as part of the Parish Matching Program. The Freshwater Bayou (FWB) was authorized in 1960 for the U. S. Army Corp of Engineers to provide a navigational channel from the GIWW at Mile Marker 161, west of Harvey Lock, south approximately 23 miles to the Gulf of Mexico. During the late 1950's and early 1960's, navigational canals were constructed to facilitate access from the Gulf of Mexico for development of the offshore oil and gas industry. FWB's original authorized channel dimensions were 125' wide to -12' Mean Low Gulf (MLG) datum. The average channel width of FWB upon completion of the original construction was approximately 173'. Currently, the average channel width is over 600' and continuing to expand unabated in the unprotected areas. FWB is still used as a navigation channel for providing access to the Gulf of Mexico for large oil and gas offshore supply and commercial fishing vessels. These vessels are capable of creating large wakes (greater than 4') which are the main cause of erosion along FWB, particularly along the unprotected shoreline areas.
- Purpose: The main purpose of the project is to provide shoreline protection by constructing approximately 10,600-linear feet of foreshore rock dike along the eastern bank of Freshwater Bayou Canal to prevent further deterioration of shoreline areas and existing adjacent marsh. This will benefit the wetlands and ecosystems surrounding FWB by preventing further shoreline erosion and tidal scour, and reducing saltwater intrusion. The proposed foreshore rock dike is a concept that has been utilized throughout Coastal Louisiana as a method of preventing further erosion, particularly along navigation channels, and it has been proven to be effective at preventing further erosion in those areas. Examples of the benefits provided by shoreline protection are evident by previous projects constructed along FWB, which have prevented further erosion of the banks and further degradation of the interior marshes. The experience and behavior of the previous projects will also assist in developing and constructing the most cost effective and beneficial design. This project will connect to an existing shoreline protection project and provide protection for the proposed Cole's Bayou Marsh Restoration Project (TV-63) which is expected to begin construction within the next 1-2 years.
- Objectives: This project consists of design, permitting, bidding, and construction of a foreshore rock dike to stabilize and protect the FWB. As referenced above, this concept has been proven to be effective at preventing further erosion, as evident by previous projects constructed along FWB. As such, for purposes of Section 4.1.1 of the RESTORE Council's State Expenditure Guidelines ("SEP Guidelines"), the primary eligible activity of the project is to restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, and coastal wetlands of the Gulf Coast region. (Eligible Activity (1)). The experience and behavior of the previous projects will also assist in developing and constructing the most cost effective and beneficial

design. With the requested funds, it is estimated that 10,600-linear feet of shoreline will be protected.

This project will contribute to the overall ecological and economic recovery of the Gulf by preventing further shoreline erosion and tidal scour, and reducing saltwater intrusion in FWB.

This project will be carried out in the Gulf Coast Region as defined in 31 C.F.R. § 34.2 because it is located in the Teche-Vermilion Basin which is in the coastal zone defined under section 304 of the Coastal Zone Management Act of 1972 that border the Gulf of Mexico. (*See* Appendix D-1 for map for the approximate boundaries of the project influence area.)

For the purposes of the RESTORE Act and Section 4.2.2 of the RESTORE Council's SEP Guidelines, this project is not considered an infrastructure project. CPRA is providing funding for engineering and design, as well as construction of this project. It is estimated that 10% of the total requested funds will be used for planning purposes and 90% will fund construction activities. Funding of post-construction activities, including without limitation, monitoring and operations and maintenance, will be the responsibility of the Parish. It will be required that the engineer overseeing the design and construction of the project certify that the project is built to specification and the invoices are accurate. This process will allow CPRA to monitor and measure the success of this project.

Consistency with the goals and objectives of the Coastal Master Plan, as defined under the terms of the Parish Matching Program, was required for a project to be considered for the Parish Matching Program. Each project was also evaluated based on specific selection criteria to ensure that projects were selected under this program based on the best available science. As such, this project was selected based on the best available science for the Parish Matching Program.

- Funds Requested: The estimated cost of the project is $5,088,748. This estimate is based on recent bid information from the similar CWPPRA project. Vermilion Parish Police Jury has pledged $494,725 of parish RESTORE Act Direct Component funds. CPRA is requesting an estimated $4,594,023 in Spill Impact Component funding to complete the funding needs of this project. CPRA will also request an estimated $238,601 from the Spill Impact Component to cover costs incurred by CPRA to complete this project. In total, CPRA will request an estimated $4,832,624 in Spill Impact Component funding for this project. Including the CPRA costs, the project is estimated to cost $5,327,349.

  Currently, the Parish funds are pending. The requested RESTORE dollars will not be used as a non-federal match.
- High level milestones:
  1. Design
  2. Permitting

3. Bidding
4. Construction

- Measures of Success:
  1. Completion of engineering and design phase
  2. Awarding construction contract
  3. Construction mobilization
  4. Issuing Substantial Completion
- Measures of Success for Ecosystem Benefits
  1. Erosion control – linear feet restored
- Estimated Start and Completion Dates:
  Project dates assume a start date of November 2018:
  Engineering and design: November 2018-January 2020
  Permitting: May 2019 - January 2020
  Advertisement for Bids: February 2020 – April 2020
  Construction: May 2020 - April 2021

The project-specific information provided above will be provided to the RESTORE Council using the project information templates available on the Council's website, including the Project Narrative Template and Milestones Template.

CPRA-Parish RESTORE Act Matching Opportunities Program

The Coastal Protection and Restoration Authority ("CPRA") has elected to allocate an amount of up to $100 million, over a 15 year period, from the Spill Impact Component of the RESTORE Act for project and program matching opportunities for coastal parishes who are receiving RESTORE funds under the Direct Component (i.e. those parishes identified in 33 U.S.C. §1321(t)(1)(D)(i)(II)).

The total funds anticipated to be used for the CPRA-Parish Matching Opportunities Program are up to $100 million over a 15 year period, with an initial solicitation in the summer of 2017 of up to $20 million for parish matching projects. Because each project and each eligible parish has its own unique set of circumstances there will be no predetermined match percentage. However, the CPRA anticipates that it will offer a higher match percentage for those projects or programs that are proposed by an eligible parish for matching by state funds from the Spill Impact Component of the RESTORE Act if that project or program is identified in Louisiana's Coastal Master Plan in effect at the time of the proposal, and a lower match percentage for those projects that are not identified in the Master Plan but are consistent with the Master Plan. To be considered consistent with the goals and objectives of the Coastal Master Plan, the proposed project must strive to achieve one or more of the Coastal Master Plan's objectives and must not detrimentally affect, significantly diminish or otherwise conflict with integrated coastal protection projects or the benefits of projects intended to protect, conserve or enhance coastal areas. This consistency determination will be made by CPRA on a case by case basis and at the sole discretion of CPRA.

This matching program is designed to help parishes that receive RESTORE funds under the Direct Component prioritize Coastal Master Plan projects with those funds while also recognizing and responding to the needs of parishes to implement projects that may not be specifically contained in the Master Plan, but are nevertheless consistent with the Coastal Master Plan and are included in Parish RESTORE Act Multiyear Implementation Plans. This approach will also allow the CPRA to connect large scale projects with strategic local projects in a way that can maximize efficiencies and the impact of RESTORE Act funds.

Project Solicitation and Selection for a CPRA-Parish RESTORE Act Match

Proposals for matching funds under the Spill Impact Component should be no more than ten (10) pages in length (i.e., 7-8 page description and 2-3 pages for maps or diagrams).

Minimum Project Standards

In order to be eligible for submission to the state for funding under this program, each project or program proposed for matching funds must meet the following minimum project standards:

- Meet the requirements of the RESTORE Act;
- Be consistent with the objectives of the Comprehensive Master Plan for a Sustainable Coast; and

- Be included for funding with Direct Component funds in the parish's RESTORE Act Multiyear Implementation Plan if the project is selected for funding under this matching program.

Project Information

For each proposed project or program, the proposal must contain the following information:

(1) A narrative description indicating the need for, purpose, and objectives of the activity as well as a conceptual design and project area map;
(2) How the activity is eligible for funding under 31 C.F.R. §34.201 and meets or will meet all requirements of 31 C.F.R. §34.303;
(3) Location description and project or program area map;
(4) Budget, including: (i) total budget amount, (ii) the funds to be provided by the proposing parish and/or any third parties, and (iii) the amount the parish is requesting from CPRA;
(5) Project or program Milestones;
(6) Projected start and completion dates;
(7) Criteria the applicant will use to evaluate the success of each activity in helping to restore and protect the Gulf Coast Region impacted by the *Deepwater Horizon* oil spill; and
(8) A description of how the proposed activity relates or contributes to the selection criteria below.

Selection Criteria

The following criteria will be used by CPRA to prioritize proposed activities for matching funds under the RESTORE Act. Information about these criteria should be included in any proposal submitted for consideration for funding.

(1) Consistency with the objectives of the Comprehensive Master Plan for a Sustainable Coast and the provisions of La. R.S. 49:214.5.4(I) in effect at the time of the proposal;
(2) The ability of the project to restore and protect coastal habitats suitable for ecologically and commercially important species or its ability to reduce economic losses from storm surge;
(3) The relative merits of the proposed activity, including the scope of project benefits based on the information contained in the proposal;
(4) Synergy with other integrated coastal protection and restoration efforts;
(5) Feasibility and/or constructability of the proposed project; and
(6) Funds made available by the parish for the proposed activity.

Solicitation and Selection Process

Proposals for an initial solicitation of funding totaling up to $20 million for parish matching projects were solicited by CPRA from July 3, 2017 through August 31, 2017, with a two week extension provided until September 14, 2017 due to Hurricane Harvey. CPRA issued a solicitation for projects for the matching program through a formal announcement posted on CPRA's website and distributed via email to each eligible parish on July 3, 2017, with the solicitation period extended until September 14, 2017.

Subsequent rounds of matching program solicitations will be announced in the future with dates to be determined.

Once proposals were formally solicited and submitted to CPRA, a selection committee composed of CPRA staff evaluated the proposals using the criteria listed above. An amendment to the State's RESTORE Plan is now being proposed, subject to approval by the CPRA Board, with the projects selected for funding. The projects selected for funding under the Parish Matching Program as an amendment to this Plan are subject to a forty five (45) day public comment period before their selection will be finalized by CPRA and approved by the CPRA Board. CPRA will announce additional rounds of funding in the future for matching proposals.

APPENDIX D-1 – CAMERON PARISH – WESTWARD EXPANSION OF THE CWPRRA ROCKEFELLER REFUGE SHORELINE STABILIZATION PROJECT

Project Scope and Elements

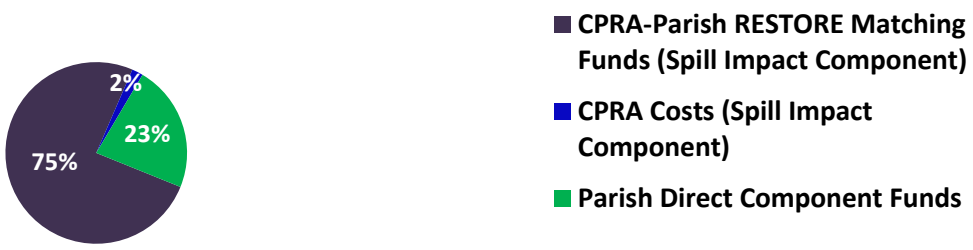
- The main purpose of the project is to provide shoreline protection along the southern boundary of the Rockefeller Wildlife Refuge by constructing 6,000 linear feet of reef breakwater with a lightweight aggregate (LWA) core located along the -3.0 ft. water bottom contour in order to halt shoreline erosion.
- The beach along Rockefeller shoreline mainly consists of exposed marine clays with a ridge of crushed shell above the water line that is backed by extensive and productive marsh. The area is exposed to waves and currents from the open Gulf of Mexico. High tides and/or storms, especially during winter cold fronts, produce considerable erosion.

Ecosystem Outcomes and Economic Impacts

- The originally deeded 86,000 acres of Rockefeller Refuge has been reduced to about 76,000 acres by coastal erosion. Historical estimates of long-term shoreline retreat range from 30 to 40 ft. per year.
- This project will preserve shoreline integrity and reduce wetland degradation from wave erosion, protecting marsh and nearshore habitat.

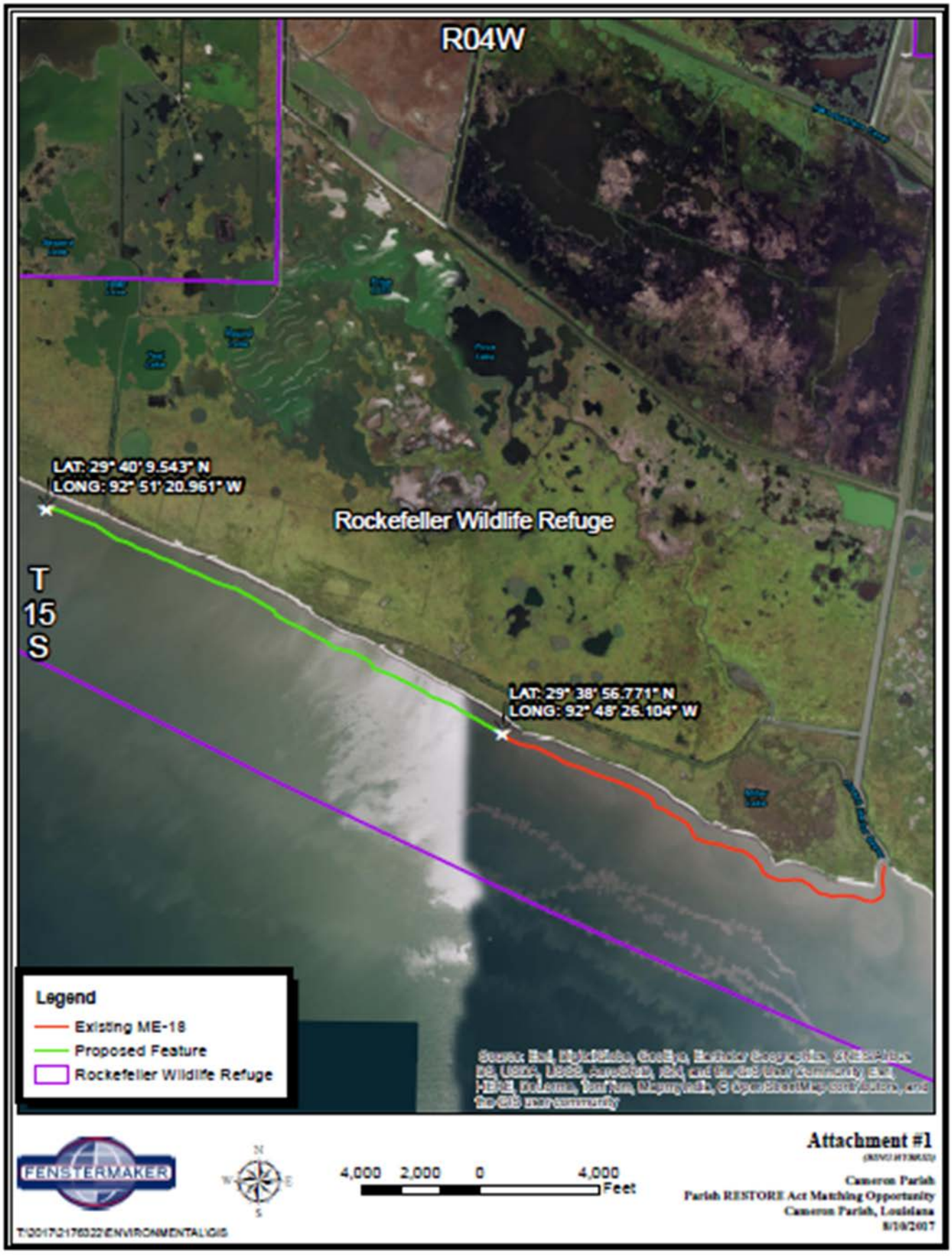
Costs

- CPRA-Parish RESTORE Matching Funds (Spill Impact): $6,671,531
- CPRA Costs (Spill Impact): $177,044
- Parish Direct Component Funds: $2,000,000
- Total Cost: $8,848,575



Project Timeline

Engineering and design start:	December 2018
Advertisement for Bids:	February 2019
Completion of Construction:	April 2020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LONG: 92° 51' 20.961" W
Rockefeller Wildlife Refuge
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Proposed Feature
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Attachment #1
Cameron Parish
Parish RESTORE Act Matching Opportunity
Cameron Parish, Louisiana
8/10/2017

APPENDIX D-2 – LAFOURCHE PARISH – GRAND BAYOU FRESHWATER REINTRODUCTION PROJECT

Project Scope and Elements

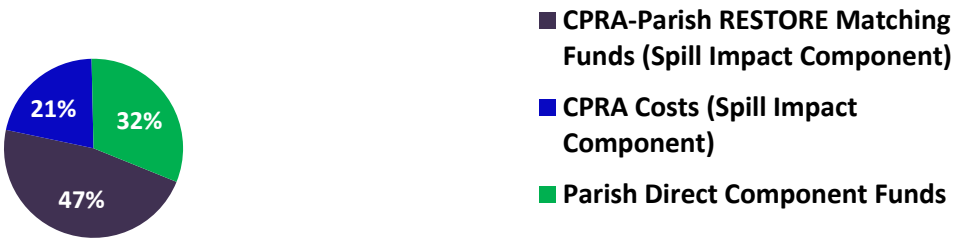
- The main purpose of the project is to continue and complete engineering and design of a project that will ultimately increase the flow of fresh water down Grand Bayou Canal from the GIWW from 600 cfs to 1600 cfs.
- The project will redirect much of the freshwater from Grand Bayou Canal into the marshes east and west of Grand Bayou Canal.

Ecosystem Outcomes and Economic Impacts

- Due to altered hydrology in the area, the Terrebonne Basin in Lafourche Parish is experiencing land loss along with high rates of subsidence, which are estimated to be between 2.1 and 3.5 feet per century.
- Without restoration, this region will continue to see the breakup of marshes and the conversion of low salinity marshes to brackish and saline marsh.
- This project will result in creation of 112 acres of fresh marsh and nourishing an additional 14 acres of intermediate marsh west of Grand Bayou near Hwy 24.

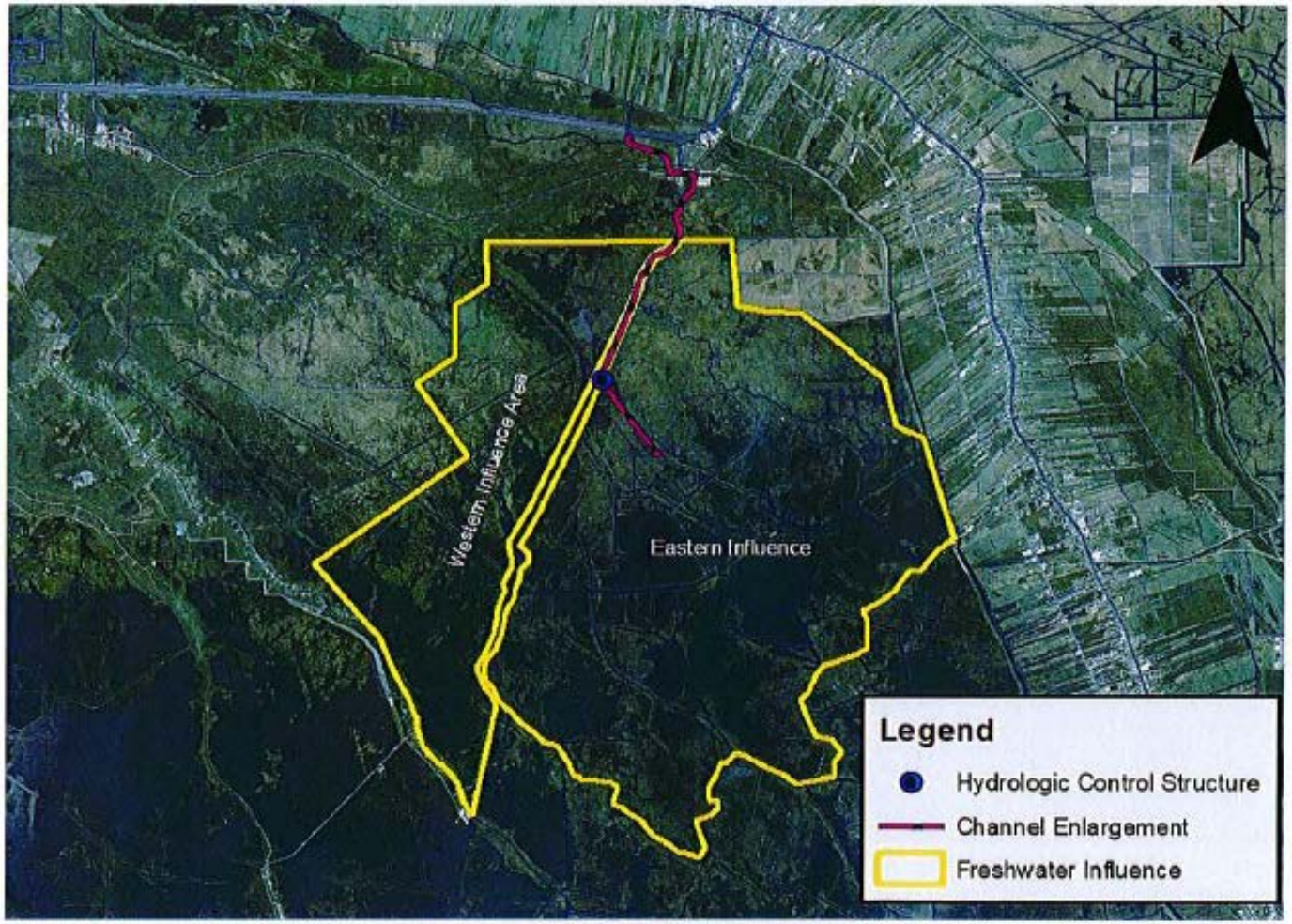
Costs

- CPRA-Parish RESTORE Matching Funds (Spill Impact): $412,722
- CPRA Costs (Spill Impact): $186,664
- Parish Direct Component Funds: $275,147
- Total Cost: $874,533



Project Timeline

Engineering and Design Start:	November 2018
Permitting:	May 2019 - January 2020
Ready to Bid:	February 2020



Grand Bayou Freshwater Reintroduction Project

APPENDIX D-3 – ST. BERNARD PARISH – LAKE LERY MARSH CREATION PROJECT

Project Scope and Elements

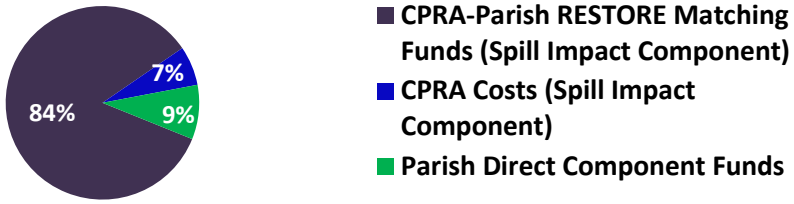
- The main purpose of the project is to build upon previously expended CIAP funds by constructing the designed 39 acre marsh creation project. The restoration of marshlands is important in an area where the natural ecosystem has become severely damaged.
- The Lake Lery Marsh Creation Project will use dredged material from Lake Lery to restore adjacent marsh as part of an ongoing phased approach to restore and protect the Lake Lery area.

Ecosystem Outcomes and Economic Impacts

- Saltwater intrusion, erosion, and subsidence have had a devastating impact on the wetlands surrounding Delacroix over the past century. Much of the shoreline along Lake Lery and the adjacent wetlands has rapidly degraded in recent years due to tropical weather events (2004, 2005, 2008, and 2012) and the Deepwater Horizon Oil Spill (2010).
- Without restoration, the ridge and marshes along Bayou Terre aux Boeufs that function as a storm surge barrier for residents and businesses outside of the Hurricane and Storm Damage Risk Reduction System will be further degraded.
- This project will result in creation of 39 acres of marsh while also supporting fish and wildlife habitat near Delacroix, one of the most historic fishing communities in Louisiana.

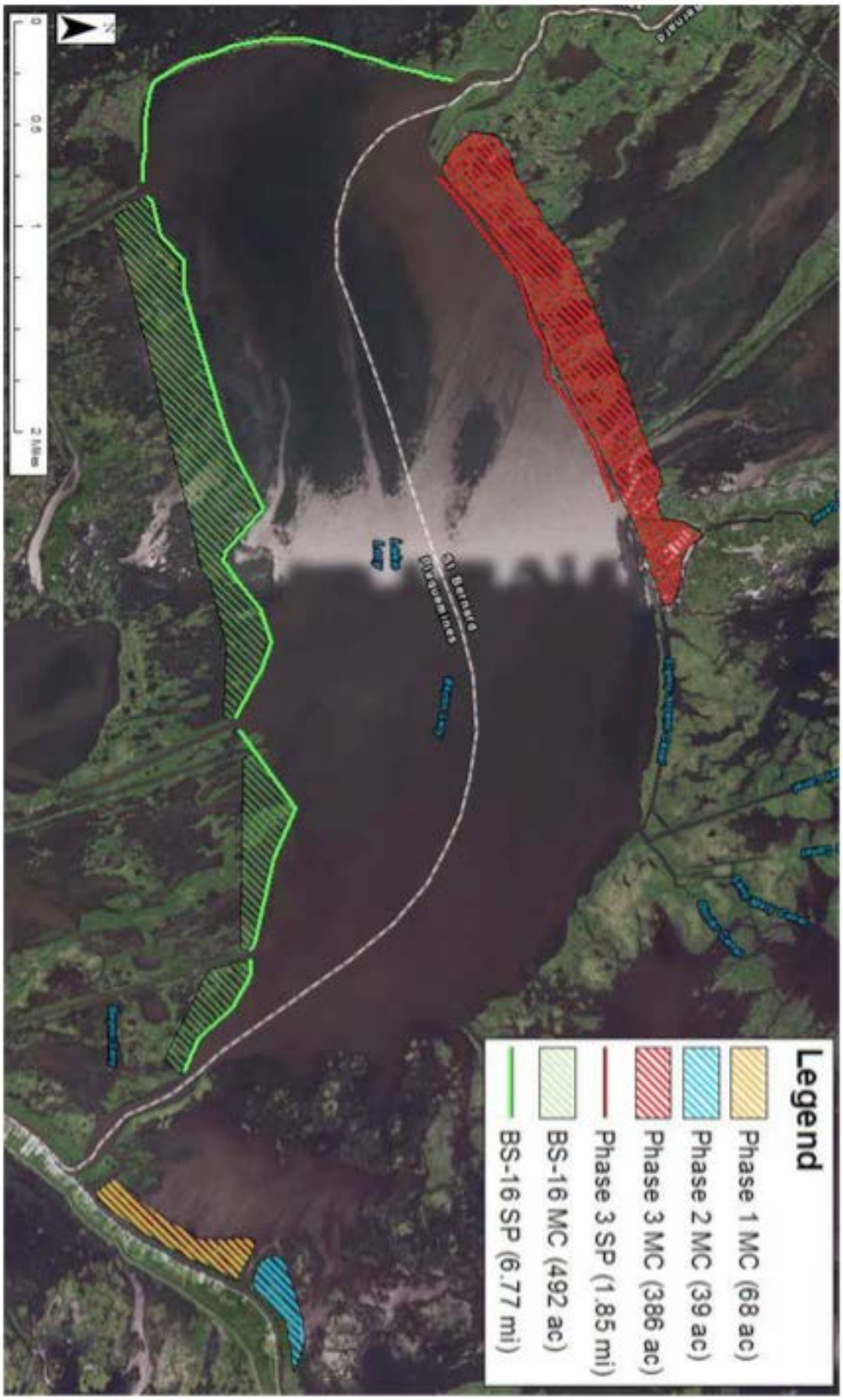
Costs

- CPRA-Parish RESTORE Matching Funds (Spill Impact): $2,781,000
- CPRA Costs (Spill Impact): $216,844
- Parish Direct Component Funds: $300,000
- Total Cost: $3,297,844



Project Timeline

Advertising for Bids:	November 2018
Permitting:	December 2018 - February 2019
Completion of Construction:	December 2019


Legend
Phase 1 MC (68 ac)
Phase 2 MC (39 ac)
Phase 3 MC (386 ac)
Phase 3 SP (1.85 mi)
BS-16 MC (492 ac)
BS-16 SP (6.77 mi)
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1
2 Miles
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APPENDIX D-4 – ST. CHARLES PARISH – PARADIS CANAL GATE

Project Scope and Elements

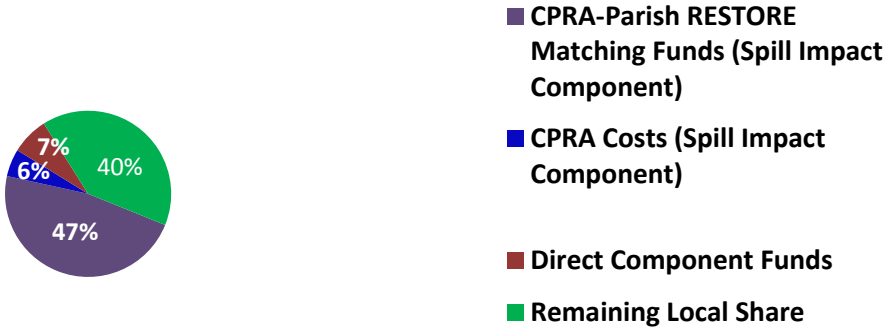
- The purpose of this project is to provide flood protection for the residents, businesses, and industries of the west bank of St. Charles Parish.
- The project will involve constructing a +14.5' flood control structure with a vertical gate, tie-ins to the existing levees, an extension of the access roadway from the Magnolia Ridge Pump Station and placement of 4" unreinforced concrete and sheet pile for erosion control and stability.
- The Paradis Canal Gate will prevent backwater flooding through the Paradis Canal opening in the West Bank Hurricane Protection Levee.

Ecosystem Outcomes and Economic Impacts

- Major flooding can negatively affect coastal habitats, resulting in loss of wildlife and biodiversity, destruction of habitats, and decreases in available food in the ecosystem. Additionally, inundation from waters with higher salinity from storm surges could result in damage to native vegetation.
- The proposed project will prevent backwater flooding within the Paradis Canal during heavy rain events and high tides. This will provide protection to properties on the west bank of St. Charles Parish valued at $12.5 billion, thus reducing future economic losses.

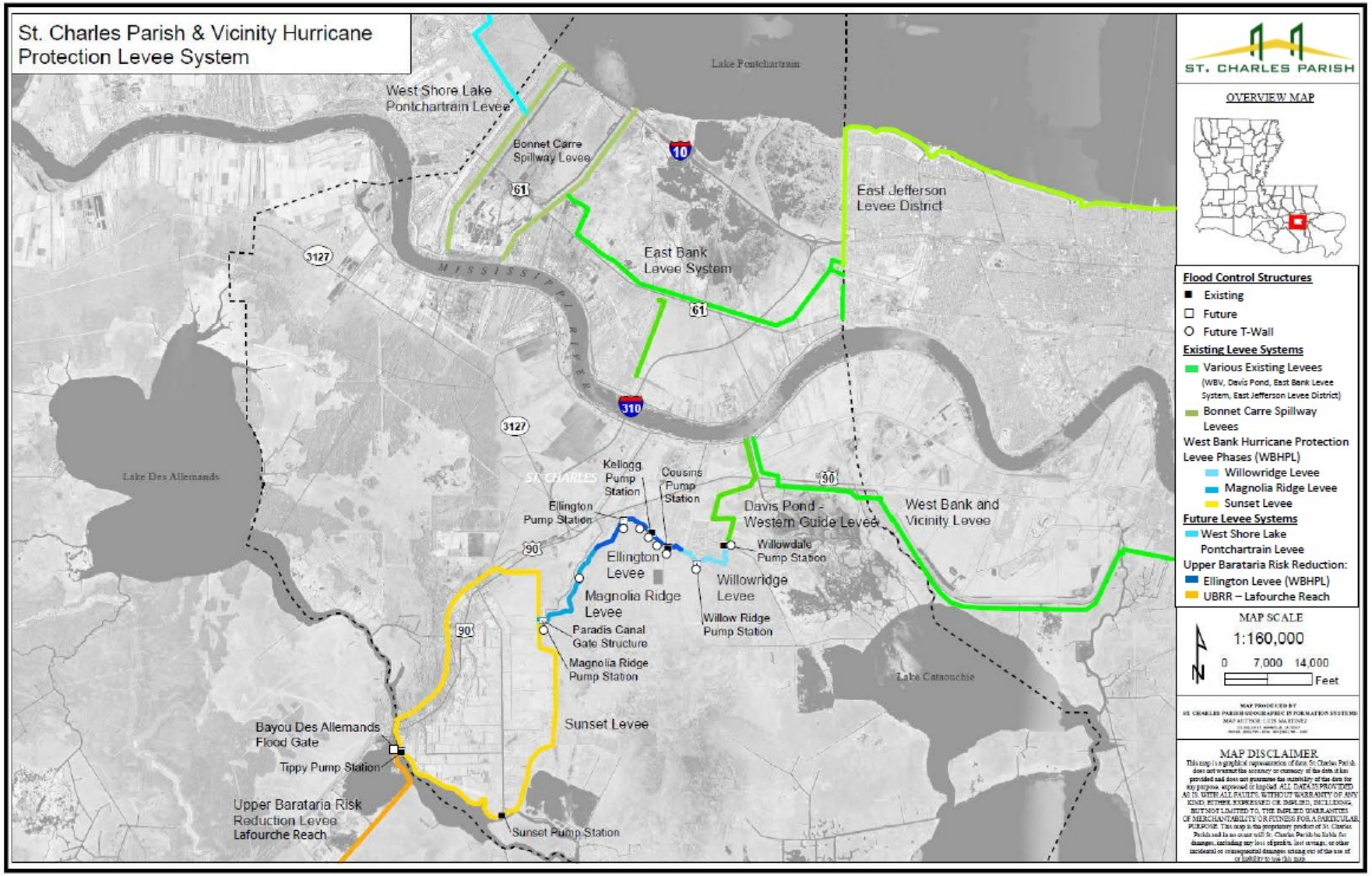
Costs

- CPRA-Parish RESTORE Matching Funds (Spill Impact): $2,540,724
- CPRA Costs (Spill Impact): $286,426
- Parish Direct Component Funds: $390,284
- Remaining Local Share: $2,150,440
- Total Cost: $5,367,874



Project Timeline

Start Date:	November 2018
Advertisement for Bids:	December 2018
Substantial Completion of Construction:	October 2020



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APPENDIX D-5 – TANGIPAHOA PARISH – MANCHAC LANDBRIDGE (ROCK BREAKWATER) SHORELINE PROTECTION PROJECT

Project Scope and Elements

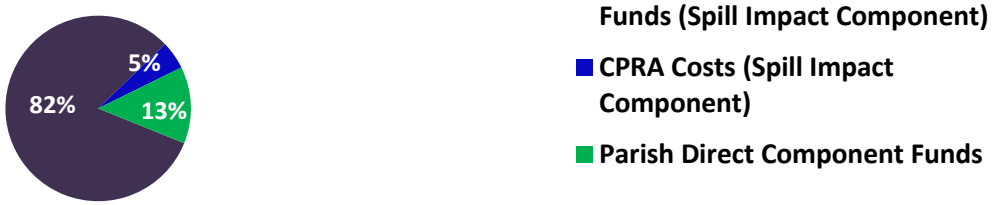
- The Manchac Landbridge Shoreline Protection project, consisting of 5,348 linear feet of rock breakwater, will strengthen the Lake Pontchartrain shoreline and decrease vulnerability of the wetlands north of Pass Manchac.
- The breakwater is designed to an elevation of +3.0 feet NAVD88. The breakwater crown is designed to a minimum width of 8 feet, and the base varies from 30 to 42 feet wide.

Ecosystem Outcomes and Economic Impacts

- Tangipahoa Parish has lost approximately 55 acres of shoreline since 1989, increasing the vulnerability of the wetlands north of Pass Manchac.
- This project will preserve shoreline integrity and reduce wetland degradation from wave erosion along the shoreline of Lake Pontchartrain, benefitting surrounding shoreline habitat.

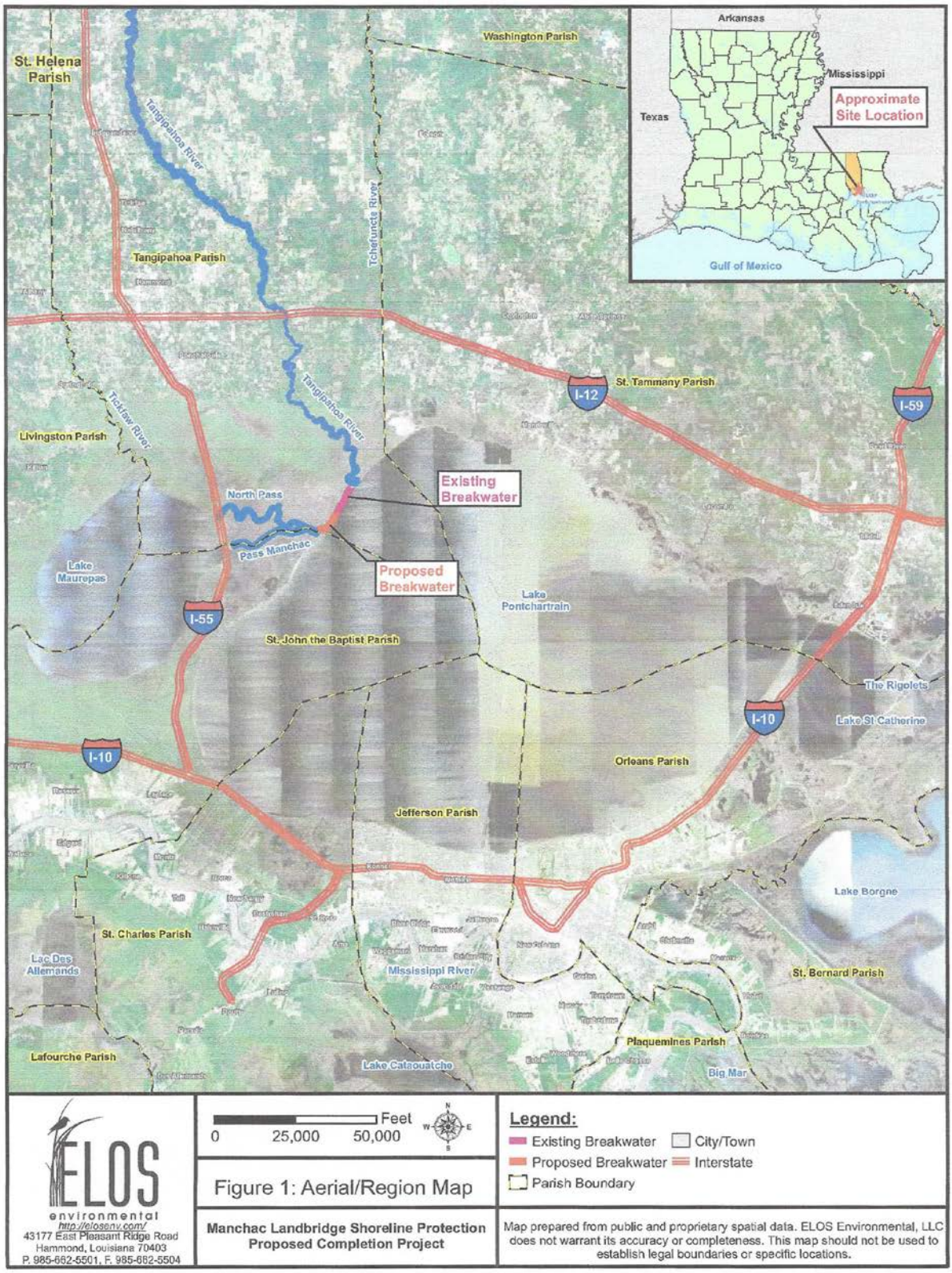
Costs

- CPRA-Parish RESTORE Matching Funds (Spill Impact): $3,000,000
- CPRA Costs (Spill Impact): $179,266
- Parish Direct Component Funds: $491,871
- Total Cost: $3,671,137



Project Timeline

Start Date:	March 2018
Environmental Review:	March 2018
Preparation of Plans and Specs:	May - July 2018
Completion of Bid Package:	July - November 2018
Construction:	January 2019 – January 2020
Project completion:	February 2020



ELOS environmental
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Hammond, Louisiana 70403
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Figure 1: Aerial/Region Map

Manchac Landbridge Shoreline Protection Proposed Completion Project

Map prepared from public and proprietary spatial data. ELOS Environmental, LLC does not warrant its accuracy or completeness. This map should not be used to establish legal boundaries or specific locations.

F:\KLE\Tangipahoa River Preliminary Studies and Plans\Breakwater\GIS Maps\Permit\Figure 1_Aerial/Region Map

APPENDIX D-6 – VERMILION PARISH – FRESHWATER BAYOU CANAL SHORELINE PROTECTION PROJECT

Project Scope and Elements

- The main purpose of the project is to provide shoreline protection by constructing approximately 10,600-linear feet of foreshore rock dike along the eastern bank of Freshwater Bayou Canal (FWB) to prevent further deterioration of shoreline areas and existing adjacent marsh.
- This project will connect to an existing shoreline protection project and provide protection for the proposed Cole's Bayou Marsh Restoration Project (TV-63) which is expected to begin construction within the next 1-2 years.

Ecosystem Outcomes and Economic Impacts

- The banks of FWB have experienced continuous erosion from large vessel wakes and tidal scour, increasing its width from 173' to over 600'. Without protection, the existing marshes along FWB are in danger of converting to open water.
- This shoreline protection project coupled with the Coles Bayou Marsh Restoration Project (TV-63) will protect and restore the valuable coastal habitats and resources adjacent to FWB and within the Coles Bayou Marsh Restoration Project Boundary.

Costs

- CPRA-Parish RESTORE Matching Funds (Spill Impact): $4,594,023
- CPRA Costs (Spill Impact): $238,601
- Parish Direct Component Funds: $494,725
- Total Cost: $5,327,349

Project Timeline

Start Date:	November 2018
Engineering and design:	November 2018 - January 2020
Permitting:	May 2019 - January 2020
Advertisement for Bids:	February 2020 - April 2020
Construction:	May 2020 - April 2021


INTRACOASTAL CITY
PROPOSED FWB BANK STABILIZATION
LITTLE VERMILION BAY
FRESHWATER BAYOU CANAL
FRESHWATER BAYOU LOCKS
GULF OF MEXICO

APPENDIX D-7 – PUBLIC COMMENT ON THE DRAFT RESTORE PARISH MATCHING AMENDMENT

During the public comment period, CPRA received two public comments. All public comments submitted during the public comment period were reviewed and considered by CPRA before preparing the final CPRA-Parish Matching Opportunities Program Selection Amendment to the State of Louisiana's First Amended RESTORE Plan. The public comments received are summarized below.

Comment: Commentor expressed strong support for the selection of Cameron Parish's Westward Expansion of the CWPPRA Rockefeller Refuge Shoreline Stabilization (ME-18) Project.

Comment: Commentor expressed strong support for CPRA's Parish Matching Program in general as an additional method for prioritizing and funding local projects that are consistent with the Coastal Master Plan and aiding eligible coastal parishes in maximizing their RESTORE Act Direct Component funds. Commentor also expressed specific support for Lafourche Parish's Grand Bayou Freshwater Reintroduction Project.