

RESTORE Council FPL 3 Proposal Document

General Information

Proposal Sponsor:

U.S. Department of Agriculture – Natural Resources Conservation Service

Title:

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection

Project Abstract:

The U.S. Department of Agriculture, on behalf of the federally-recognized Chitimacha Tribe of Louisiana, is requesting \$2.65M in Council-Selected Restoration Component funding for the proposed Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection project. This request includes planning funds as FPL Category 1. The project was a 2012 Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) nominee for Priority Project List 22. Through CWPPRA, the Natural Resources Conservation Service developed information for the nominee project. Project activities will support the primary RESTORE Comprehensive Plan goal to restore and conserve habitat through planning and technical assistance activities for the Cote Blanche Freshwater and Sediment Introduction, and Shoreline Protection Project. The proposed project, located in the Teche/Vermilion Basin in St. Mary Parish, Louisiana, consists of two components: freshwater and sediment introduction and shoreline protection. The freshwater and sediment introduction component includes channel improvement or enlargement and a structural feature to increase freshwater and sediment input from the Atchafalaya River into interior Cote Blanche Wetlands.

Project activities will optimize distribution of water and sediment to reduce emergent marsh loss and accelerate sediment accretion to promote land building in isolated marsh areas. When implemented, the project features will also provide a synergistic effect with two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project and Sediment Trapping at the Jaws. Project duration is 3 years.

FPL Category: Cat1: Planning Only

Activity Type: Project

Program: N/A

Co-sponsoring Agency(ies):

DOI/BIA

Is this a construction project?:

No

RESTORE Act Priority Criteria:

(I) Projects that are projected to make the greatest contribution to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region, without regard to geographic location within the Gulf Coast region.

(II) Large-scale projects and programs that are projected to substantially contribute to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast ecosystem.

(IV) Projects that restore long-term resiliency of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands most impacted by the Deepwater Horizon oil spill.

Priority Criteria Justification:

The proposed project directly supports three of the four RESTORE Council-identified priorities and supports the intent of the fourth priority criteria. The project: (1) will make significant contributions to the Teche/Vermilion Basin and the Gulf Coast ecosystems; (2) supports a large-scale CWPPRA ecosystem restoration program; and (3) restores long-term resiliency of the natural resources impacted by the Deepwater Horizon oil spill. Hydrologic restoration and shoreline protection projects in the Teche/Vermilion Basin are included in the Louisiana Coastal Master Plan and this project is supported by the Chitimacha Tribe of Louisiana and the St. Mary Parish Government.

Project Duration (in years): 3

Goals

Primary Comprehensive Plan Goal:

Restore and Conserve Habitat

Primary Comprehensive Plan Objective:

Restore , Enhance, and Protect Habitats

Secondary Comprehensive Plan Objectives:

Restore and Enhance Natural Processes and Shorelines

Secondary Comprehensive Plan Goals:

N/A

PF Restoration Technique(s):

Create, restore, and enhance coastal wetlands, islands, shorelines and headlands: Protect natural shorelines

Restore hydrology and natural processes: Restore hydrologic connectivity

Restore hydrology and natural processes: Restore natural salinity regimes

Location

Location:

The project is in the Teche/Vermilion Basin of St. Mary Parish, south of Franklin, Louisiana, in the interior marshes southwest of the GIWW and along portions of the northern shoreline of East Cote Blanche Bay and southeastern shoreline of West Cote Blanche Bay

HUC8 Watershed(s):

Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Atchafalaya)
Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Bayou Teche)
Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Vermilion)

State(s):

Louisiana

County/Parish(es):

LA - St. Mary

Congressional District(s):

LA - 3

Narratives

Introduction and Overview:

Louisiana wetlands, which account for 40 percent of the continental US coastal wetlands (Dahl 2000), are unique and vital ecological assets worth saving. The Louisiana coastal area has lost 1,900 square miles of land since 1932 due to multiple causes, including oil and gas development, navigation canals, land subsidence, river management, and sea level rise (Britsch and Kemp 1990; Couvillion et al. 2017; Turner and Cahoon 1987; Turner 1990). The study area, which includes portions of the Cote Blanche wetlands, has experienced significant wetland loss, both on its fringe (shoreline) and in interior portions. Shoreline erosion along East and West Cote Blanche Bays has been measured between 15 and 20 feet per year in some areas (Coast 2050), with loss rates as high as 28 feet per year (Hawkins and Aucoin 2014). Erosion appears to be the most severe along the northern shoreline of East Cote Blanche Bay near Marone Point. Shoreline protection will prevent interior areas of open water from being encroached upon by the advancing shoreline and becoming part of the bay.

The activities proposed herein includes only the Phase 1 planning, engineering, environmental compliance, and design of the project at a cost of \$2.65 million. The fully constructed project has the potential to restore/protect 763 acres of wetlands in the Teche/Vermilion Basin by increasing freshwater and sediment input from the Atchafalaya River via the Gulf Intracoastal Waterway (GIWW) into interior marshes and constructing shoreline protection (Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection Wetland Value Assessment 2012). This project, proposed on behalf of the Chitimacha Tribe of Louisiana, was originally a Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) nominee for Priority Project List (PPL) 22 in 2012. Through CWPPRA, the Natural Resources Conservation Service (NRCS) developed project information for the nominee project proposal. When implemented, the project will provide a synergistic effect with two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15). This proposal is seeking funding for planning and technical assistance (the planning, engineering, environmental compliance, and design) activities for the Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection project.

The project is in the Teche/Vermilion Basin in St. Mary Parish, Louisiana and consists of two components: freshwater and sediment introduction, and shoreline protection. The freshwater and sediment introduction component will include channel improvement or enlargement and a structural feature, to increase freshwater and sediment input from the GIWW into interior Cote Blanche wetlands. By increasing the net flow delivered to the project area's interior marshes, the project has the potential to optimize the distribution of water and sediment to further reduce emergent marsh loss and accelerate sediment accretion to promote land building in isolated marsh areas. The shoreline protection component includes construction of approximately 27,150 linear feet of shoreline protection of East Cote Blanche Bay. When implemented, the project would benefit a total of 11,217 acres of wetlands, including directly restoring/protecting 763 acres at a total cost of \$30.6 million, or an average of \$40,150 per acre restored/protected.

General description of the activity being proposed:

This request is for only Phase I of the project, which consists of planning, engineering, environmental compliance, and design, at an estimated to cost \$2.65 million. The Phase II (construction) of the project is estimated to cost \$28 million for a total of \$30.6 million. In this phase of the work, all data collection in support of engineering and design will be carried out to provide the information necessary to ensure that the project is constructible and feasible in terms of cost and environmental benefits. Data collection will include all survey (topographic/bathymetric), geotechnical and magnetometry data (location of possible oil/gas infrastructure), oyster assessments and preliminary land rights and cultural resources as it relates to project construction. This information will be

compiled, and a final design report will be produced as the final product of the project. The objective is to have a fully constructible (shovel-ready) project plan available to move to Phase II (construction).

The freshwater and sediment introduction component of the proposed project includes channel improvement or enlargement and a structural measure (a steel sheetpile plug with a boat passage bay to be constructed on one of the interior channels) to increase freshwater and sediment input from the GIWW into interior Cote Blanche Wetlands. This component will optimize the distribution through multiple avenues (water conveyances) to further reduce emergent wetland loss and accelerate sediment accretion to promote land building in isolated areas in the interior of the Cote Blanche Wetlands. By increasing the net flow of water into the project area's interior wetlands by 930 cubic feet per second (cfs), 10,722 acres of marsh would directly and indirectly benefit from this component, including 643 acres of wetlands to be directly benefited (449 acres created and 194 acres protected) by component features over the project life.

The shoreline protection component of the proposed project includes construction of approximately 27,150 linear feet of armored protection parallel to the northern shoreline of East Cote Blanche Bay. This component includes approximately 21,950 linear feet of shoreline protection, starting 3,300 feet west of Humble Canal and extending around Marone Point, and approximately 5,200 feet of protection east of the Humble Canal between existing shoreline protection segments. The total acreage directly and indirectly benefitting from the shoreline protection component of the project would be 495 acres, this includes 120 acres of wetlands that would directly benefit by eliminating shoreline erosion, and approximately 375 acres of wetlands that would indirectly benefit by the prevention of breaching of, and tidal exchange through, several natural bayous and open water ponds adjacent to the East Cote Blanche Bay shoreline.

Proposed Methods :

The primary goal of this project is to restore and protect habitat through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection in Cote Blanche Bay. When implemented, the proposed project has the potential to stabilize critical shoreline areas of the Cote Blanche Bay, prevent expansion of West Cote Blanche Bay, prevent wave erosion impacts to surrounding marsh, provide a barrier to the progression of saltwater intrusion into freshwater marsh, restore/protect habitat for fish, wildlife and waterfowl species, and support the multiple lines of defense strategy (Multiple Lines of Defense Strategy 2008) through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection in Cote Blanche Bay. In addition to supporting the Plan's primary goal, the project will also support several other Comprehensive Plan goals, including: Restore Water Quality; Replenish and Protect Living Coastal and Marine Resources; Enhance Community Resilience; and Restore and Revitalize the Gulf Economy.

Comprehensive Plan Objectives

The primary Comprehensive Plan Objective supported by the proposed project is to "Restore, Enhance, and Protect Habitats". When implemented, the project has the potential to achieve this objective by restoring/protecting coastal wetland habitat through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection features to reduce and/or eliminate further loss of wetland habitat due to erosion and other stressors.

In addition to supporting the primary objective, the project has the potential to support many of the remaining Comprehensive Plan objectives, including but not limited to the restoration of water resources by retarding saltwater intrusion into the interior wetlands and restoration of wetlands that filter chemicals and sediment from water. When implemented, the project would restrict such

constituents from entering the Cote Blanche Bay. In addition, it would replenish and protect healthy, diverse, and sustainable living coastal habitat beneficial to fish, terrestrial, semi-aquatic, and avian wildlife species. It would also maintain the existing shoreline of Cote Blanche Bay, preventing wave erosion impacts to surrounding marsh, and re-nourish wetlands in the area. Finally, the project would promote community resilience by supporting the multiple lines of defense strategy and the ongoing battle against coastal retreat, dampening storm surge, and providing vital protection to vulnerable inland areas of St. Mary Parish from storm surges associated with hurricanes. These anticipated results are based on well-established science and practices to improve the science-based decision-making processes used by the Council.

Wetland loss in the Cote Blanche Wetlands has been caused by several factors, of which unnatural water exchange, subsidence, storms, and wave energy are the most important factors. Historically, water slowly exited the Cote Blanche Wetlands through the meandering bayous and tidal channels which flow into the surrounding bays. During the 1950's and 1960's, oilfield activity intensified, resulting in the dredging of an extensive network of canals. These wide, deep channels penetrated the interior marsh and captured much of the flows historically carried by natural waterways. As a result, water now exits the marsh at a much faster rate, often causing erosion in interior areas where highly organic soils are found. Most of these canals have several branches which finger into the marsh and, through large spoil bank breaches, provide an unnatural, deep-water connection to the surrounding bays. This link exposes the organic substrate to a highly fluctuating, unnatural water regime resulting in export of organic material. This frequently occurs during winter frontal passages when unvegetated areas are rapidly dewatered as a result of strong north winds.

Increasing amounts of freshwater and sediment have been entering the project area from the Atchafalaya River via the GIWW and East Cote Blanche Bay. The GIWW carries huge volumes of freshwater to the west, "freshening" the project area and resulting in the conversion of what was brackish marsh in 1949 to fresh marsh by 1988 (Chabreck and Linscombe 1988). The enormous amount of sediment carried to the project area is evidenced by the delta formation and shallow water at The Jaws (Little Bay) near Bayou Mascot in the northeast corner of West Cote Blanche Bay. While the GIWW has freshened the project area, it also supplies significant quantities of freshwater and sediment available to be tapped to nourish the area. For several reasons, only a small portion is currently reaching the interior marshes where storm damage has occurred. Continuous stretches of spoil banks bordering some canals prevent the nourishing flows to the wetlands. Additionally, storms have blocked avenues that had previously allowed some low-level freshwater and sediment flows to interior marsh areas. In other areas, some flows that should be circulating through interior areas have been short-circuited back into the canal systems. The TV-4 project structures continue to function as intended; however, increasing sediment inputs through additional, more efficient paths would accelerate accretion and facilitate restoration of damaged interior marsh within the project's 10,722-acre interior wetlands.

Forming the northern boundary of East Cote Blanche Bay, the position and orientation of the proposed project shoreline places it squarely in the path of direct impact from wave energies generated in the Gulf of Mexico. Although the bay is very shallow, the miles of fetch length from the south and southwest allow uninterrupted impact from wave and tidal amplitudes commensurate with those striking the outer barrier island systems in the deltaic plain. This condition, combined with the lack of a somewhat hardened, naturally reworked shoreline configuration as typically found in more mineral soils, has contributed to serious loss of these marshes from years of erosion into the vulnerable organic habitat. The shorelines of East and West Cote Blanche Bays protect the marsh interior from wave energy. Without a protective rim, the adjacent marsh would quickly erode into shallow-water habitat unable to support emergent or submergent vegetation because of exposure to excessive wave energy. This project will provide shoreline protection along critical areas of East

Cote Blanche Bay.

The proposed project area experienced extensive damage from the major drought of 1999-2000, Hurricane Lili in 2002, and additional loss from Hurricane Rita in 2005. When implemented, the proposed project will provide a synergistic effect with two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04); and Sediment Trapping at the Jaws (TV-15) by extending shoreline protection around the entire northern shore of East Cote Blanche Bay and promoting sustainable restoration to thousands of acres of deteriorating marsh in St. Mary Parish. The proposed project will be completed upon receipt of funding and will incorporate consultations with the State of Louisiana Coastal Protection and Restoration Authority and other State and Federal agencies. Final design could result in the revision of project elements, which could impact the quantity of wetlands created/protected by the project as well as other potential environmental benefits.

Environmental Benefits:

General description of anticipated environmental benefits: By restoring/conserving coastal wetlands, the proposed project addresses a significant ecosystem issue, the loss of coastal wetlands in the Teche/Vermilion Basin. The importance of restoring this area is illustrated by the investment CWPPRA has made in the area. The Cote Blanche Hydrologic Restoration Project (TV-04), which is co-located with the proposed project, was constructed by CWPPRA in 1999, to reduce erosion of the Cote Blanche Wetlands. While TV-04 has helped reduce the rate of erosion experienced in the study area, the weighted average annual loss rate was still 9.3 feet per year across the entire proposed project shoreline as illustrated in by USGS analysis from 1998 to 2008. In addition, the interior Cote Blanche Wetlands have experienced erosion, as illustrated by the loss of 1,750 acres of emergent wetlands within the interior of the project area due to Hurricane Lili in 2002, and additional loss of wetlands from Hurricane Rita in 2005 (Barras et al. 2003). If left unchecked, the rapidly eroding shoreline along East Cote Blanche Bay will allow continued rapid conversion of interior wetlands to open bay, and increase tidal exchange with other small, heretofore protected, interior pond and stream systems. If this planning project is funded and restoration is achieved under a future FPL, it will restore, enhance and protect habitats, water resources, living coastal resources and shorelines. Finally, restoration of these wetlands will promote the Multiple Lines of Defense Strategy (2008) by serving as storm buffers against hurricanes and as flood risk management by storing excess floodwaters during high rainfall. It will replenish aquifers, purify waters, and provide a habitat for various wildlife and fish species. Louisiana's wetlands will continue to benefit humans by way of fisheries industries, fur harvesting, oyster production, recreation resources/ecotourism thus providing billions of dollars in revenues for our nation.

Environmental stressor(s) being addressed:

The ongoing Cote Blanche Bay shoreline retreat threatens St. Mary Parish by making community infrastructure (including roads, utilities, and commercial and industrial establishments) more susceptible to wave damage. The proposed project restores/protects a key feature (wetlands) in the multiple lines of defense strategy and enhances community resilience by reducing the vulnerability of St. Mary Parish communities, including the Chitimacha Tribe of Louisiana, and fishing industries, to shoreline retreat and storm surge. The project would protect the GIWW transportation corridor from exposure to open bay conditions and from increased wave energy generated by marsh fragmentation, and expansion of interior open water areas. In addition, the wetlands in the project area buffers the vulnerable Franklin and Baldwin municipal areas and the tribal lands of the Chitimacha Nation from storm impacts. Three archaeological sites have been identified within the Cote Blanche Wetlands and the proposed project has the potential to protect other cultural and natural resources of religious and cultural significance to the Chitimacha Tribe. The archaeological sites are each prehistoric shell middens, the significance of which will be determined prior to project

implementation.

By protecting and restoring the freshwater Cote Blanche wetlands, coastal erosion will be abated, and storm surges will be reduced in the Teche/Vermilion Basin. The project will also generate significant benefits to natural resources and natural resource dependent activities and industries, specifically those critical to the fishing and tourism industries.

Metrics:

Metric Title: PRM011 : Restoration planning/design/permitting - # E&D plans developed
Target: 1

Narrative: # of E&D Plans Developed – 1 (Preliminary Design Report). The primary goal of the preliminary engineering design task is to develop design parameters and permit parameters using existing data, numerical modeling, and preliminary data acquisition, for the design of each proposed project component. NRCS will contract portions of this work as determined during scope development, including but not necessarily limited to subtasks of alternatives analyses, modeling or other analytical tools to analyze coastal processes acting at the site to inform preliminary design development. A preliminary design report will be prepared at the end of the preliminary design phase. NRCS will review all contracted materials to ensure quality of findings and provide this report and all associated raw data to the council per the Data Management Plan. NRCS will then make any necessary adjustments to the final design of this project.

Metric Title: PRM013 : Restoration planning/design/permitting - # environmental compliance documents completed

Target: 5

Narrative: # Environmental Compliance documents completed – 5 (Environmental Assessment, Geotechnical Report, Magnetometer Survey Report, Cultural Resources Assessment and Oyster Impact Assessment). The Contracting Party shall collect the necessary data to facilitate a constructible and permittable project design. This may include, but is not limited to water level, water quality, salinity, waves, wind, tides; bathymetric, and magnetometer surveying services, geotechnical subsurface investigation; and cultural resources. The Contracting Party shall prepare the Data Collection Summary Report. Supporting information and data shall include, but not be limited to ownership, oyster lease, oil/gas activity, and existing contour maps; preliminary survey report; preliminary geotechnical report; existing adjacent marsh types/habitat maps; and, preliminary feasibility and risk assessment.

Risk and Uncertainties:

This is a planning, engineering, environmental compliance and design project. There are no anticipated risks associated with this planning project. If the project is constructed, the risk and uncertainty would be minimized by the fact that the science and practice of coastal ecosystem restoration in the area has similarly proven to be successful by two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15). Additionally, NRCS has completed construction of several other projects of its kind in other parts of the state, including TE-28 Brady Canal Hydrologic Restoration (Terrebonne Parish), TE-29 Penchant Basin Natural Resources Plan, Increment 1 (Terrebonne Parish) and South Lake Decade Freshwater Introduction (Terrebonne Parish) all of which have similar project features and goals. (See www.lacoast.gov for complete list of NRCS projects).

As such, risk and uncertainty associated with the proposed project is anticipated to be minimal and

should be limited to uncertainty associated with costs, obstacles in obtaining right-of-entry, and unforeseen events and circumstances that may impact operations. Although the project will be designed to restore/protect wetlands, it will not eliminate the threat of wetland loss in the project area; hurricanes, storms, frontal passages, subsidence, and other natural events will continue to cause erosion and loss of emergent wetlands.

Relative to implementation, there is a risk of not being able to secure funds to implement the project. There are various funding sources available; however, there are no commitments at this time for constructions. Throughout Gulf restoration, the approach of funding E&D only has been a common practice. This allows for better estimates for seeking funds for construction.

Monitoring and Adaptive Management:

Phase I (planning, engineering, environmental compliance, and design activities) as proposed under this submittal is projected to be completed within 3 years from receipt of funding from the RESTORE Council. Monitoring will consist of USDA's project oversight throughout the entire planning project. If eventually constructed, the project would be monitored through 1) post-construction surveys to document conditions; 2) the use of pre-construction, post-construction, and periodic infrared aerial photography to identify changes in land area; and 3) monitoring through the CWPPRA Coastwide Reference Monitoring System (CRMS) data. The success of the project will be measured by the acres of wetland restored/protected (763 acres), the cost of restoring/protecting the wetlands (\$30.6 million), the average cost per acre restored/protected (\$40,150), and the length of time required to build the project (three years for planning/design/construction from receipt of funding).

Data Management:

The data is currently free to use and available online. Adaptive management efforts should not be warranted and are not planned under this proposal.

Collaboration:

The proposed project will build upon several existing and proposed CWPPRA Projects. CWPPRA was passed in 1990 to address Louisiana's need for a restoration program. CWPPRA is authorized to plan, design, construct, maintain, and monitor coastal wetland restoration projects that provide for the long-term conservation of wetlands and their dependent fish and wildlife populations in coastal Louisiana. The five federal agencies have partnered with the State of Louisiana to cost share in the design and construction of coastal restoration projects. The CWPPRA Program receives approximately \$80 million in Federal funds annually, constructing several ecosystem restoration projects that built upon by the proposed project (i.e., Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15)).

Public Engagement, Outreach, and Education:

USDA has an established record of public outreach and of working with various stakeholders on restoration activities. To that end, USDA is committed to having meaningful stakeholder engagement as part of this project as well as future restoration activities. To accomplish this, a three-tiered approach to stakeholder engagement and collaboration will be used. This three-tiered approach will include working with: 1) public stakeholders; 2) government stakeholders, such as other federal and state agencies, and local governments; and 3) other Council Members.

Leveraging:

N/A

Environmental Compliance:

During this planning project, environmental assessment of potential actions taken during the Phase 2 (i.e., Implementation Phase) will be fully evaluated to ensure compliance with all relevant environmental laws/regulations/standards. Documentation of this evaluation will be produced as part of this proposed planning project.

Bibliography:

Barras, J., Beville, S., Britsch, D., Hartley, S., Hawes, S., Johnston, J., Kemp, P., Kinler, Q., Martucci, A., Porthouse, J., Reed, D., Roy, K., Sapkota, S., and J. Suhayda. 2003. Historical and projected coastal Louisiana land changes: 1978-2050: USGS Open File Report 03-334, 39 pp.

Britsch, L.D., and Kemp, E.B. 1990. Land loss rates: Mississippi River Deltaic Plain. Technical Report GL-90-2. US Army Engineer Waterways Experiment Station, Vicksburg, MS.

Chabreck, R.H. and G. Linscombe. 1988. Louisiana Coastal Marsh Vegetative Type Map. La. Department of Wildlife and Fisheries

Coastal Protection and Restoration Authority of Louisiana. 2012. Louisiana's Comprehensive Master Plan for a Sustainable Coast. Coastal Protection and Restoration Authority of Louisiana. Baton Rouge, LA. <http://coastal.la.gov/our-plan/2017-coastal-master-plan/>

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection Wetland Value Assessment. 2012. USDA Natural Resources Conservation Service. CWPPRA Wetland Value Assessment.

Couvillion, B.R., Beck, Holly, Schoolmaster, Donald, and Fischer, Michelle, 2017. Land area change in coastal Louisiana 1932 to 2016: U.S. Geological Survey Scientific Investigations Map 3381, 16 p. pamphlet.

Dahl, T.E. 2000. Status and trends of wetlands in the conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 82 pp.

Hawkins, M. and S. Aucoin 2014. 2014 Operations, Maintenance, and Monitoring Report for Cote Blanche Hydrologic Restoration (TV-04), Coastal Protection and Restoration Authority of Louisiana, Lafayette, Louisiana. 59 pp and Appendices.

Multiple Lines of Defense Strategy. 2008. Comprehensive Recommendations Supporting the Use of Multiple Lines of Defense Strategy to Sustain Coastal Louisiana. 2008 Report. (Version I) https://www.researchgate.net/publication/317350653_Comprehensive_Recommendations_Supporting_the_Use_of_the_Multiple_Lines_of_Defense_Strategy_to_Sustain_Coastal_Louisiana_2008_Report_Version_I_Multiple_Lines_of_Defense_Assessment_Team

Brady Canal Hydrologic Restoration (TE-28)
<https://www.lacoast.gov/new/Projects/Info.aspx?num=TE-28#gsc.tab=0>

Cote Blanche Hydrologic Restoration (TV-04).
<https://www.lacoast.gov/new/Projects/Info.aspx?num=TV-04#gsc.tab=0>

Penchant Basin Natural Resources Plan, Increment 1 (TE-29)
<https://www.lacoast.gov/new/Projects/Info.aspx?num=TE-34#gsc.tab=0>

Sediment Trapping at the Jaws (TV-15).
<https://www.lacoast.gov/new/Projects/Info.aspx?num=TV-15#gsc.tab=0>

South Lake Decade Freshwater Introduction (TE-39)
<https://www.lacoast.gov/new/Projects/Info.aspx?num=TE-39#gsc.tab=0>

20th Priority Project List Report

Louisiana Coastal Wetlands Conservation and Restoration Task Force

<https://www.mvn.usace.army.mil/Portals/56/docs/environmental/cwppra/PPL/20/PPL20mainreport.pdf>

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection Wetland Value Assessment. 2012. USDA Natural Resources Conservation Service. CWPPRA Wetland Value Assessment.

Turner, R.E., and D.R. Cahoon, eds. 1987. Causes of wetland loss in the coastal central Gulf of Mexico. Volume II: Technical Narrative. Final report submitted to Mineral Management Service, New Orleans, Louisiana. Contract No. 14-12-0001-30252. OCS Study/MMS 87-0120. 400 pp.

Turner, R.E. 1990. Landscape development and coastal wetland losses in the northern Gulf of Mexico. Amer. Zool. 30:89-105. U.S. Army Corps of Engineers. 2004. Louisiana Coastal Area (LCA), Louisiana: Ecosystem Restoration Study.
<https://www.mvn.usace.army.mil/Portals/56/docs/LCA/Main%20Report.pdf?ver=2016-07-01->

Budget

Project Budget Narrative:

The budget request for this program is \$2,650,000. 100% of the funds will be used for planning.

Total FPL 3 Project/Program Budget Request:

\$ 2,650,000.00

Estimated Percent Monitoring and Adaptive Management: N/A

Estimated Percent Planning: 100 %

Estimated Percent Implementation: N/A

Estimated Percent Project Management: N/A

Estimated Percent Data Management: N/A

Estimated Percent Contingency: 0 %

Is the Project Scalable?:

No

If yes, provide a short description regarding scalability.:

N/A

Environmental Compliance¹

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
National Environmental Policy Act	N/A	Will make use of the Council Categorical Exclusion for Planning.
Endangered Species Act	N/A	Note not provided.
National Historic Preservation Act	N/A	Note not provided.
Magnuson-Stevens Act	N/A	Note not provided.
Fish and Wildlife Conservation Act	N/A	Note not provided.
Coastal Zone Management Act	N/A	Note not provided.
Coastal Barrier Resources Act	N/A	Note not provided.
Farmland Protection Policy Act	N/A	Note not provided.
Clean Water Act (Section 404)	N/A	Note not provided.
River and Harbors Act (Section 10)	N/A	Note not provided.
Marine Protection, Research and Sanctuaries Act	N/A	Note not provided.
Marine Mammal Protection Act	N/A	Note not provided.
National Marine Sanctuaries Act	N/A	Note not provided.
Migratory Bird Treaty Act	N/A	Note not provided.
Bald and Golden Eagle Protection Act	N/A	Note not provided.
Clean Air Act	N/A	Note not provided.
Other Applicable Environmental Compliance Laws or Regulations	N/A	Note not provided.

¹ Environmental Compliance document uploads available by request (restorecouncil@restorethegulf.gov).

Maps, Charts, Figures

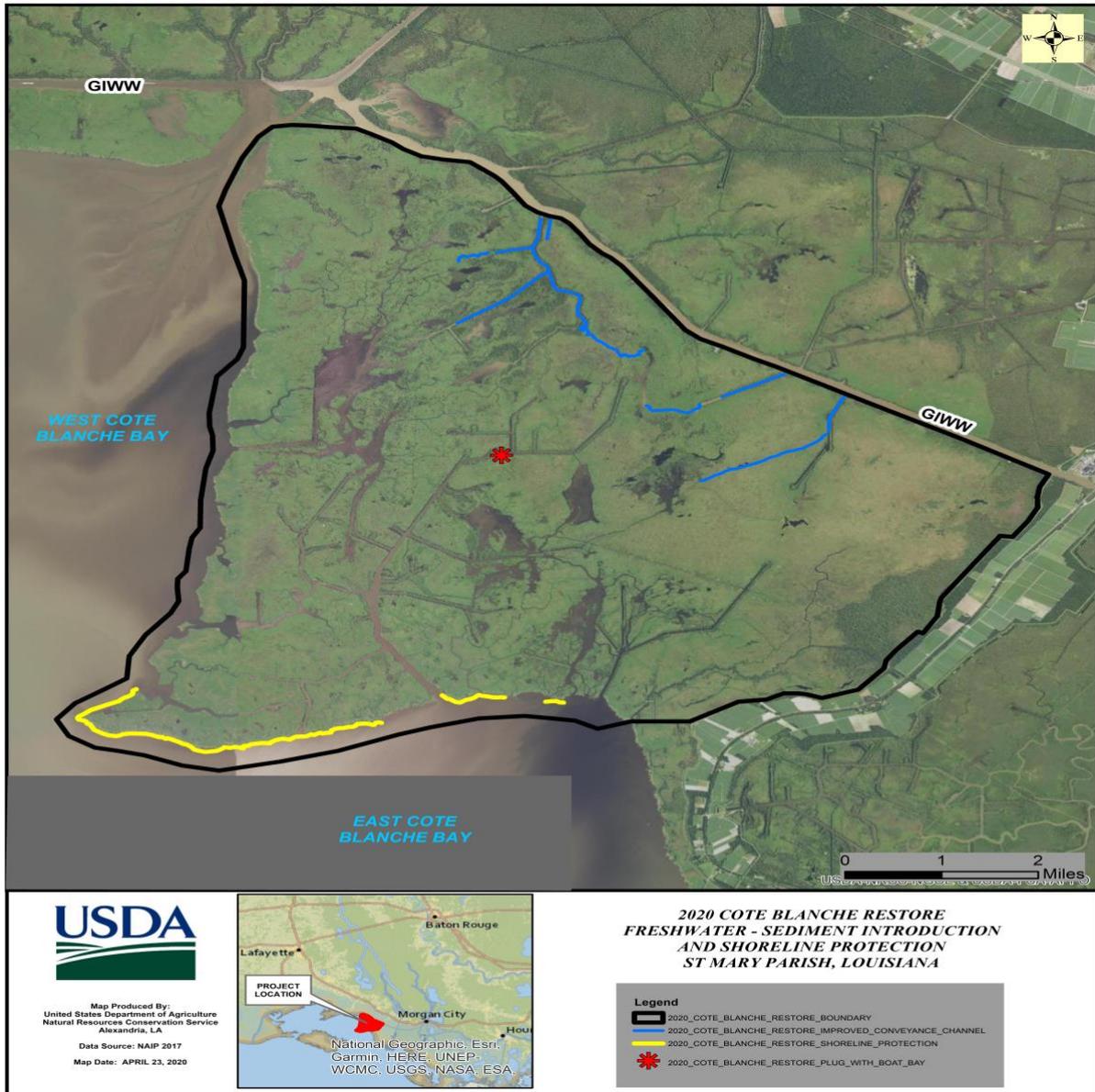


Figure 1 : Map showing project Location.

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General Information

Sponsor:

U.S. Department of Agriculture

Title:

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection

Project Abstract:

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FPL Category: Cat1: Planning Only

Activity Type: Project

Program: N/A

Co-sponsoring Agency(ies): DOI/BIA

Is this a construction project?: No

RESTORE Act Priority Criteria:

(I) Projects that are projected to make the greatest contribution to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region, without regard to geographic location within the Gulf Coast region.

(II) Large-scale projects and programs that are projected to substantially contribute to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast ecosystem.

(IV) Projects that restore long-term resiliency of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands most impacted by the Deepwater Horizon oil spill.

Priority Criteria Justification:

The proposed project directly supports three of the four RESTORE Council-identified priorities and supports the intent of the fourth priority criteria. The project: (1) will make significant contributions to the Teche/Vermilion Basin and the Gulf Coast ecosystems; (2) supports a large-scale CWPPRA ecosystem restoration program; and (3) restores long-term resiliency of the natural resources impacted by the Deepwater Horizon oil spill. Hydrologic restoration and shoreline protection projects in the Teche/Vermilion Basin are included in the Louisiana Coastal Master Plan and this project is supported by the Chitimacha Tribe of Louisiana and the St. Mary Parish Government.

Project Duration (in years): 3

Goals

Primary Comprehensive Plan Goal:

Restore and Conserve Habitat

Primary Comprehensive Plan Objective:

Restore , Enhance, and Protect Habitats

Secondary Comprehensive Plan Objectives:

Restore and Enhance Natural Processes and Shorelines

Secondary Comprehensive Plan Goals:

N/A

PF Restoration Technique(s):

Create, restore, and enhance coastal wetlands, islands, shorelines and headlands: Protect natural shorelines

Restore hydrology and natural processes: Restore hydrologic connectivity

Restore hydrology and natural processes: Restore natural salinity regimes

Location

Location:

The project is in the Teche/Vermilion Basin of St. Mary Parish, south of Franklin, Louisiana, in the interior marshes southwest of the GIWW and along portions of the northern shoreline of East Cote Blanche Bay and southeastern shoreline of West Cote Blanche Bay

HUC8 Watershed(s):

Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Atchafalaya)

Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Bayou Teche)

Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Vermilion)

State(s):

Louisiana

County/Parish(es):

LA - St. Mary

Congressional District(s):

LA - 3

Narratives

Introduction and Overview:

The activities proposed herein includes the planning, engineering, environmental compliance, and design of a project that has the potential to restore/protect 763 acres of wetlands in the Teche/Vermilion Basin by increasing freshwater and sediment input from the Atchafalaya River via the Gulf Intracoastal Waterway (GIWW) into interior marshes and constructing shoreline protection. Phase I of the project, which consists of planning, engineering, environmental compliance, and design, is estimated to cost \$2.65 million. The project, proposed on behalf of the Chitimacha Tribe of Louisiana, was a Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) nominee for Priority Project List (PPL) 22 in 2012. Through CWPPRA, the Natural Resources Conservation Service (NRCS) developed project information for the nominee project proposal. When implemented, the project will provide a synergistic effect with two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15). This proposal is seeking funding for planning and technical assistance (the planning, engineering, environmental compliance, and design) activities for the Cote Blanche Freshwater and Sediment Introduction, and Shoreline Protection Project.

Located in the Teche/Vermilion Basin in St. Mary Parish, Louisiana, this project consists of two components: freshwater and sediment introduction, and shoreline protection. The freshwater and sediment introduction component include channel improvement or enlargement and a structural feature, to increase freshwater and sediment input from the GIWW into interior Cote Blanche wetlands. By increasing the net flow delivered to the project area's interior marshes, the project has the potential to optimize the distribution of water and sediment to further reduce emergent marsh loss and accelerate sediment accretion to promote land building in isolated marsh areas. The shoreline protection component includes construction of approximately 27,150 linear feet of shoreline protection of East Cote Blanche Bay. When implemented, the project would benefit a total of 11,217 acres of wetlands, including directly restoring/protecting 763 acres at a total cost of \$30.6 million, or an average of \$40,150 per acre restored/protected.

General description of the activity being proposed:

Phase I of the project, which consists of planning, engineering, environmental compliance, and design, is estimated to cost \$2.65 million. When implemented, this project will directly restore/protect 763 acres of wetlands in the Teche/Vermilion Basin in south central coastal Louisiana by increasing freshwater and sediment flow into interior marshes and constructing shoreline protection on East Cote Blanche Bay. Phase I (planning, engineering, environmental compliance, and design) is estimated to cost \$2.65 million. The project, proposed on behalf of the Chitimacha Tribe of Louisiana, was a Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) nominee for Priority Project List (PPL) 22 in 2012 (and determined consistent with the 2012 Louisiana Coastal Master Plan).

The primary goal of this project is to restore and protect habitat through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection in Cote Blanche Bay. The proposed project has the potential to stabilize critical shoreline areas of the Cote Blanche Bay, prevent wave erosion impacts to surrounding marsh, provide a barrier to saltwater intrusion, restore/protect habitat, and support the multiple lines of defense strategy.

Located in the Teche/Vermilion Basin in St. Mary Parish, Louisiana, the project consists of two components: freshwater and sediment introduction, and shoreline protection. The freshwater and sediment introduction components include channel improvement or enlargement and a structural feature, to increase freshwater and sediment input from the GIWW into interior Cote Blanche wetlands. By increasing the net flow delivered to the project area's interior marshes, the project has

the potential to optimize the distribution of water and sediment to further reduce emergent marsh loss and accelerate sediment accretion to promote land building in isolated marsh areas. The shoreline protection component includes construction of approximately 27,150 linear feet of shoreline protection on East Cote Blanche Bay, a protective action with the potential to restore/protect 763 acres of wetlands in the Teche/Vermilion Basin.

When implemented, the project will provide a synergistic effect with two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15). We believe this design strategy completes work conducted in this coastal area under CWPPRA, potentially protecting and restoring the entire 30,000-acre project area. This proposal is seeking funding for planning and technical assistance (the planning, engineering, environmental compliance, and design) activities only, for the Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection Project.

Proposed Methods :

Comprehensive Plan Goals

The primary goal of this project is to restore and protect habitat through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection in Cote Blanche Bay. When implemented, the proposed project has the potential to stabilize critical shoreline areas of the Cote Blanche Bay, prevent expansion of West Cote Blanche Bay, prevent wave erosion impacts to surrounding marsh, provide a barrier to the progression of saltwater intrusion into freshwater marsh, restore/protect habitat for fish, wildlife and waterfowl species, and support the multiple lines of defense strategy through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection in Cote Blanche Bay. In addition to supporting the Plan's primary goal, the project will also support several other Comprehensive Plan goals, including: Restore Water Quality; Replenish and Protect Living Coastal and Marine Resources; Enhance Community Resilience; and Restore and Revitalize the Gulf Economy.

Comprehensive Plan Objectives

The primary Comprehensive Plan Objective supported by the proposed project is to "Restore, Enhance, and Protect Habitats". When implemented, the project has the potential to achieve this objective by restoring/protecting coastal wetland habitat through the introduction of freshwater and sediment from the GIWW and the placement of shoreline protection features to reduce and/or eliminate further loss of wetland habitat due to erosion and other stressors.

In addition to supporting the primary objective, the project has the potential to support many of the remaining Comprehensive Plan objectives, including but not limited to: the restoration of water resources by retarding saltwater intrusion into the interior wetlands and restoration of wetlands that filter chemicals and sediment from water. When implemented, the project would restrict such constituents from entering the Cote Blanche Bay. In addition, it would replenish and protect healthy, diverse, and sustainable living coastal habitat beneficial to fish, terrestrial, semi-aquatic, and avian wildlife species. It would also maintain the existing shoreline of Cote Blanche Bay, preventing wave erosion impacts to surrounding marsh, and re-nourish wetlands in the area. Finally, the project would promote community resilience by supporting the multiple lines of defense strategy and the ongoing battle against coastal retreat, dampening storm surge, and providing vital protection to vulnerable inland areas of St. Mary Parish from storm surges associated with hurricanes. These anticipated results are based on well-established science and practices to improve the science-based decision-making processes used by the Council.

Wetland loss in the Cote Blanche Wetlands has been caused by several factors, of which unnatural water exchange, subsidence, storms, and wave energy are the most important factors. Historically, water slowly exited the Cote Blanche Wetlands through the meandering bayous and tidal channels

which flow into the surrounding bays. During the 1950's and 1960's, oilfield activity intensified, resulting in the dredging of an extensive network of canals. These wide, deep channels penetrated the interior marsh and captured much of the flows historically carried by natural waterways. As a result, water now exits the marsh at a much faster rate, often causing erosion in interior areas where highly organic soils are found. Most of these canals have several branches which finger into the marsh and, through large spoil bank breaches, provide an unnatural, deep-water connection to the surrounding bays. This link exposes the organic substrate to a highly fluctuating, unnatural water regime resulting in export of organic material. This frequently occurs during winter frontal passages when unvegetated areas are rapidly dewatered as a result of strong north winds.

Increasing amounts of freshwater and sediment have been entering the project area from the Atchafalaya River via the GIWW and East Cote Blanche Bay. The GIWW carries huge volumes of freshwater to the west, "freshening" the project area and resulting in the conversion of what was brackish marsh in 1949 to fresh marsh by 1988 (Chabreck and Linscombe 1988). The enormous amount of sediment carried to the project area is evidenced by the delta formation and shallow water at The Jaws (Little Bay) near Bayou Mascot in the northeast corner of West Cote Blanche Bay. While the GIWW has freshened the project area, it also supplies significant quantities of freshwater and sediment available to be tapped to nourish the area. For several reasons, only a small portion is currently reaching the interior marshes where storm damage has occurred. Continuous stretches of spoil banks bordering some canals prevent the nourishing flows to the wetlands. Additionally, storms have blocked avenues that had previously allowed some low-level freshwater and sediment flows to interior marsh areas. In other areas, some flows that should be circulating through interior areas have been short-circuited back into the canal systems. The TV-4 project structures continue to function as intended; however, increasing sediment inputs through additional, more efficient paths would accelerate accretion and facilitate restoration of damaged interior marsh within the project's 10,722-acre interior wetlands.

Forming the northern boundary of East Cote Blanche Bay, the position and orientation of the proposed project shoreline places it squarely in the path of direct impact from wave energies generated in the Gulf of Mexico. Although the bay is very shallow, the miles of fetch length from the south and southwest allow uninterrupted impact from wave and tidal amplitudes commensurate with those striking the outer barrier island systems in the deltaic plain. This condition, combined with the lack of a somewhat hardened, naturally reworked shoreline configuration as typically found in more mineral soils, has contributed to serious loss of these marshes from years of erosion into the vulnerable organic habitat. The shorelines of East and West Cote Blanche Bays protect the marsh interior from wave energy. Without a protective rim, the adjacent marsh would quickly erode into shallow-water habitat unable to support emergent or submergent vegetation because of exposure to excessive wave energy. This project will provide shoreline protection along critical areas of East Cote Blanche Bay.

The proposed project area experienced extensive damage from the major drought of 1999-2000, Hurricane Lili in 2002, and additional loss from Hurricane Rita in 2005. When implemented, the proposed project will provide a synergistic effect with two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04); and Sediment Trapping at the Jaws (TV-15) by extending shoreline protection around the entire northern shore of East Cote Blanche Bay and promoting sustainable restoration to thousands of acres of deteriorating marsh in St. Mary Parish. The proposed project will be completed upon receipt of funding and will incorporate consultations with the State of Louisiana and other State and Federal agencies. Final design could result in the revision of project elements, which could impact the quantity of wetlands created/protected by the project as well as other potential environmental benefits.

Environmental Benefits:

General description of anticipated environmental benefits: By restoring/conserving coastal wetlands, the proposed project addresses a significant ecosystem issue, the loss of coastal wetlands in the Teche/Vermillion Basin. Louisiana wetlands, which account for 40 percent of the continental US coastal wetlands, are unique and vital ecological assets worth saving. The Louisiana coastal area has lost 1,900 square miles of land since 1932 due to multiple causes, including oil and gas development, navigation canals, land subsidence, river management, and sea level rise. (See Section 9.B for USGS Louisiana Coastal Land Loss Map.) The study area, which includes portions of the Cote Blanche wetlands, has experienced significant wetland loss, both on its fringe (shoreline) and in interior portions. Shoreline erosion along East and West Cote Blanche Bays has been measured between 15 and 20 feet per year in some areas (Coast 2050), with loss rates as high as 28 feet per year. Erosion appears to be the most severe along the northern shoreline of East Cote Blanche Bay near Marone Point. Shoreline protection will prevent interior areas of open water from being encroached upon by the advancing shoreline and becoming part of the bay.

The importance of restoring this area is illustrated by the investment CWPPRA has made in the area (see Section 9.A, Map of Authorized and Constructed CWPPRA Projects - Region 3). The Cote Blanche Hydrologic Restoration Project (TV-04), which is co-located with the proposed project, was constructed by CWPPRA in 1999, to reduce erosion of the Cost Blanche Wetlands. While TV-04 has helped reduce the rate of erosion experienced in the study area, the weighted average annual loss rate was still 9.3 feet per year across the entire proposed project shoreline as illustrated in by USGS analysis from 1998 to 2008. In addition, the interior Cote Blanche Wetlands have experienced erosion, as illustrated by the loss of 1,750 acres of emergent wetlands within the interior of the project area due to Hurricane Lili in 2002 (see Section 9.C, Increase in Open Water in Interior Cote Blanche Wetlands Due to Hurricane Lili), and additional loss of wetlands from Hurricane Rita in 2005. If left unchecked, the rapidly eroding shoreline along East Cote Blanche Bay will allow continued rapid conversion of interior wetlands to open bay, and increase tidal exchange with other small, heretofore protected, interior pond and stream systems. If this planning project is funded and restoration is achieved under a future FPL, it will restore, enhance and protect habitats, water resources, living coastal resources and shorelines. Finally, restoration of these wetlands will provide a multiple line of defense strategy by serving as storm buffers against hurricanes and as flood risk management by storing excess floodwaters during high rainfall. It will replenish aquifers, purify waters, and provide a habitat for various wildlife and fish species. Louisiana's wetlands will continue to benefit humans by way of fisheries industries, fur harvesting, oyster production, recreation resources/ecotourism thus providing billions of dollars in revenues for our nation.

Environmental stressor(s) being addressed:

The ongoing Cote Blanche Bay shoreline retreat threatens St. Mary Parish by making community infrastructure (including roads, utilities, and commercial and industrial establishments) more susceptible to wave damage. The proposed project restores/protects a key feature (wetlands) in the multiple lines of defense strategy and enhances community resilience by reducing the vulnerability of St. Mary Parish communities, including the Chitimacha Tribe of Louisiana, and fishing industries, to shoreline retreat and storm surge. The project would protect the GIWW transportation corridor from exposure to open bay conditions and from increased wave energy generated by marsh fragmentation, and expansion of interior open water areas. In addition, the wetlands in the project area buffers the vulnerable Franklin and Baldwin municipal areas and the tribal lands of the Chitimacha Nation from storm impacts. Three archaeological sites have been identified within the Cote Blanche Wetlands and the proposed project has the potential to protect other cultural and natural resources of religious and cultural significance to the Chitimacha Tribe. The archaeological sites are each prehistoric shell middens, the significance of which will be determined prior to project implementation.

By protecting and restoring the freshwater Cote Blanche wetlands, coastal erosion will be abated, and storm surges will be reduced in the Teche/Vermilion Basin. The project will also generate significant benefits to natural resources and natural resource dependent activities and industries, specifically those critical to the fishing and tourism industries.

Metrics:

Metric Title: PRM011 : Restoration planning/design/permitting - # E&D plans developed : Planning, Research, Monitoring

Target: 1

Narrative: # of E&D Plans Developed – 1 (Preliminary Design Report). The primary goal of the preliminary engineering design task is to develop design parameters and permit parameters using existing data, numerical modeling, and preliminary data acquisition, for the design of each proposed project component. NRCS will contract portions of this work as determined during scope development, including but not necessarily limited to subtasks of alternatives analyses, modeling or other analytical tools to analyze coastal processes acting at the site to inform preliminary design development. A preliminary design report will be prepared at the end of the preliminary design phase. NRCS will review all contracted materials to ensure quality of findings and provide this report and all associated raw data to the council per the Data Management Plan. NRCS will then make any necessary adjustments to the final design of this project.

Metric Title: PRM013 : Restoration planning/design/permitting - # environmental compliance documents completed : Planning, Research, Monitoring

Target: 5

Narrative: # Environmental Compliance documents completed – 5 (Environmental Assessment, Geotechnical Report, Magnetometer Survey Report, Cultural Resources Assessment and Oyster Impact Assessment). The Contracting Party shall collect the necessary data to facilitate a constructible and permissible project design. This may include, but is not limited to water level, water quality, salinity, waves, wind, tides; bathymetric, and magnetometer surveying services, geotechnical subsurface investigation; and cultural resources. The Contracting Party shall prepare the Data Collection Summary Report. Supporting information and data shall include, but not be limited to ownership, oyster lease, oil/gas activity, and existing contour maps; preliminary survey report; preliminary geotechnical report; existing adjacent marsh types/habitat maps; and, preliminary feasibility and risk assessment.

Risk and Uncertainties:

This is a planning, engineering, environmental compliance and design project. There are no anticipated risks associated with this planning project.

Monitoring and Adaptive Management:

Phase I (planning, engineering, environmental compliance, and design activities) as proposed under this submittal is projected to be completed within 3 years from receipt of funding from the RESTORE Council. Monitoring will consist of USDA's project oversight throughout the entire planning project.

Data Management:

The data is currently free to use and available online. Adaptive management efforts should not be warranted and are not planned under this proposal.

Collaboration:

The proposed project will build upon several existing and proposed CWPPRA Projects. CWPPRA was passed in 1990 to address Louisiana's need for a restoration program. CWPPRA is authorized to plan, design, construct, maintain, and monitor coastal wetland restoration projects that provide for the

long-term conservation of wetlands and their dependent fish and wildlife populations in coastal Louisiana. The five federal agencies have partnered with the State of Louisiana to cost share in the design and construction of coastal restoration projects. The CWPPRA Program receives approximately \$80 million in Federal funds annually, constructing several ecosystem restoration projects that built upon by the proposed project (i.e., Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15)).

Public Engagement, Outreach, and Education:

USDA has an established record of public outreach and of working with various stakeholders on restoration activities. To that end, USDA is committed to having meaningful stakeholder engagement as part of this project as well as future restoration activities. To accomplish this, a three-tiered approach to stakeholder engagement and collaboration will be used. This three-tiered approach will include working with: 1) public stakeholders; 2) government stakeholders, such as other federal and state agencies, and local governments; and 3) other Council Members.

Leveraging:

N/A

Environmental Compliance:

During this planning project, environmental assessment of potential actions taken during the Phase 2 (i.e., Implementation Phase) will be fully evaluated to ensure compliance with all relevant environmental laws/regulations/standards. Documentation of this evaluation will be produced as part of this proposed planning project.

Bibliography:

Louisiana's Comprehensive Master Plan for a Sustainable Coast

Effective: June 2, 2017

http://coastal.la.gov/wp-content/uploads/2017/04/2017-Coastal-Master-Plan_Web-Book_CFinal-with-Effective-Date-06092017.pdf

Budget

Project Budget Narrative:

The budget request for this program is \$2,650,000. 100% of the funds will be used for planning.

Total FPL 3 Project/Program Budget Request:

\$ 2,650,000.00

Estimated Percent Monitoring and Adaptive Management: N/A

Estimated Percent Planning: 100 %

Estimated Percent Implementation: N/A

Estimated Percent Project Management: N/A

Estimated Percent Data Management: N/A

Estimated Percent Contingency: 0 %

Is the Project Scalable?:

No

If yes, provide a short description regarding scalability.:

N/A

Environmental Compliance¹

Environmental Requirement	Has the Requirement Been Addressed?	Compliance Notes (e.g., title and date of document, permit number, weblink etc.)
National Environmental Policy Act	N/A	Will make use of the Council Categorical Exclusion for Planning.
Endangered Species Act	N/A	Note not provided.
National Historic Preservation Act	N/A	Note not provided.
Magnuson-Stevens Act	N/A	Note not provided.
Fish and Wildlife Conservation Act	N/A	Note not provided.
Coastal Zone Management Act	N/A	Note not provided.
Coastal Barrier Resources Act	N/A	Note not provided.
Farmland Protection Policy Act	N/A	Note not provided.
Clean Water Act (Section 404)	N/A	Note not provided.
River and Harbors Act (Section 10)	N/A	Note not provided.
Marine Protection, Research and Sanctuaries Act	N/A	Note not provided.
Marine Mammal Protection Act	N/A	Note not provided.
National Marine Sanctuaries Act	N/A	Note not provided.
Migratory Bird Treaty Act	N/A	Note not provided.
Bald and Golden Eagle Protection Act	N/A	Note not provided.
Clean Air Act	N/A	Note not provided.
Other Applicable Environmental Compliance Laws or Regulations	N/A	Note not provided.

¹ Environmental Compliance document uploads available by request (restorecouncil@restorethegulf.gov).

Maps, Charts, Figures

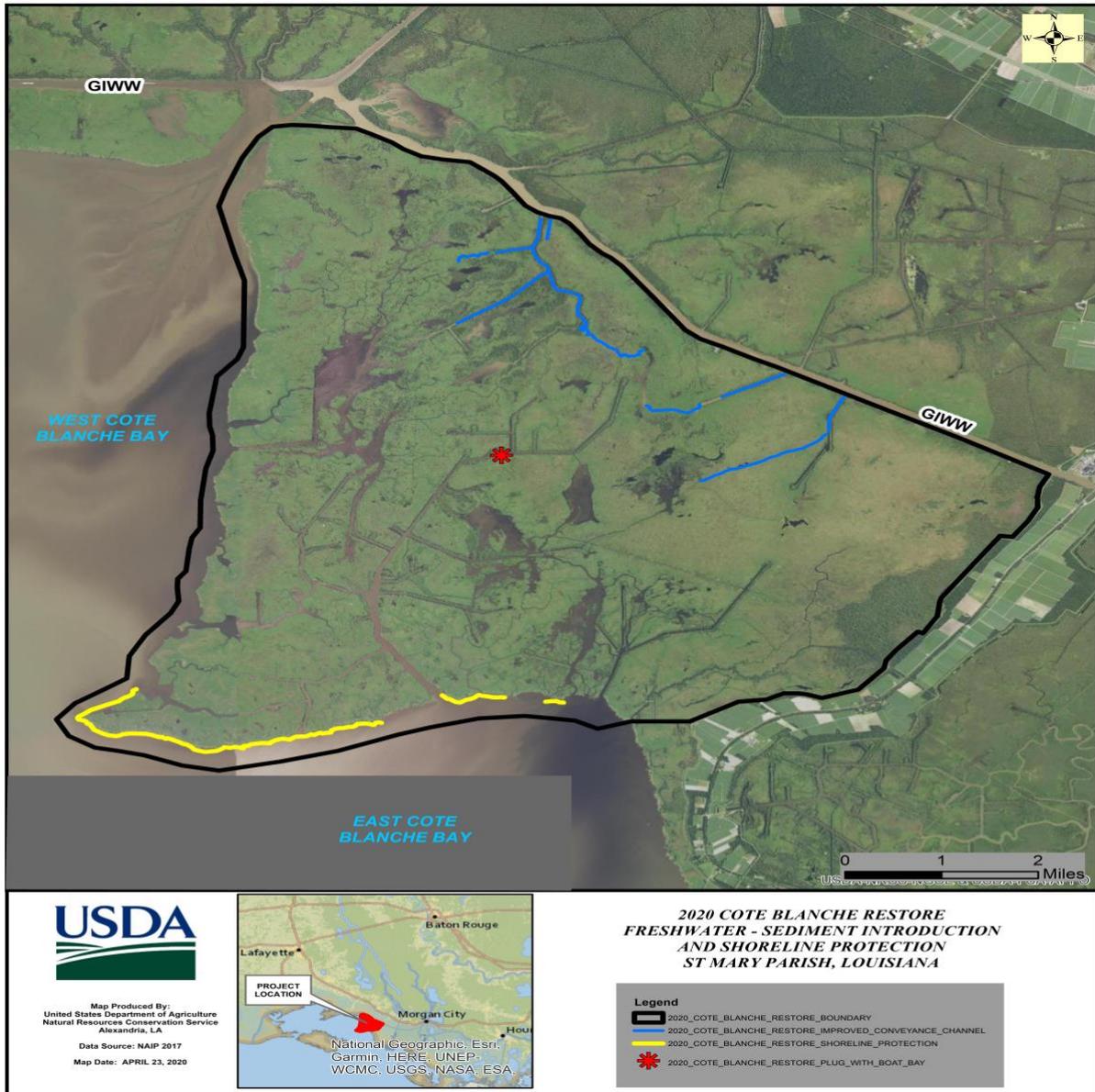


Figure 1 : Project Location

FPL 3b Internal Staff Review of Proposal Submitted 4/24/2020

Project/Program	Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection		
Primary Reviewer	John Ettinger	Sponsor	USDA
EC Reviewer	John Ettinger	Co-Sponsor	
1. Is/Are the selected Priority Criteria supported by information in the proposal?			Yes
Notes			
2. Does the proposal meet the RESTORE Act geographic eligibility requirement?			Yes
Notes			
3. Are the Comprehensive Plan primary goal and primary objective supported by information in the proposal?			Yes
Notes			
4. Planning Framework: If the proposal is designed to align with the Planning Framework, does the proposal support the selected priority approaches, priority techniques, and/or geographic area?			Yes
Notes			
5. Does the proposal align with the applicable RESTORE Council definition of project or program?			Yes
Notes			
6. Does the budget narrative adequately describe the costs associated with the proposed activity?			More information needed
Notes	Funds are not specifically requested for Project Management. Council staff recommend that the sponsor consider whether sufficient funding is incorporated into the request to cover management of the overall agreement, other general project management costs, agency overhead and Tribal indirect costs.		
7. Are there any recommended revisions to the selected leveraged funding categories?			Yes

Notes	The sponsor could consider referencing the associated CWPPRA projects (TV-04, TV-15) as "adjoining" or "builds on" forms of leveraging. Adjoining = Activities are proposed in a location that adjoins another existing or proposed project; Builds on other work = The project builds upon activities completed or ongoing as part of other projects or programs but is not captured by either of the other two types of leveraging.
8. Have three external BAS reviews been completed?	More information needed
Notes	Please see the external BAS review comments, and external reviews summary attached with these review comments.
9. Have appropriate metrics been proposed to support all primary and secondary goals?	Yes
Notes	
10. Environmental compliance: If FPL Category 1 has been selected for the implementation component of the project or program, does the proposal include environmental compliance documentation that fully supports the selection of Category 1?	N/A
Notes	Council staff recommends editing the environmental compliance checklist to indicate "Yes" for NEPA, then writing the following in the corresponding notes section: "In Category 1, this proposed activity involves only planning actions. These planning actions are covered by the Council's NEPA Categorical Exclusion for planning, research or design activities (Section 4(d)(3) of the Council's NEPA Procedures). Additional NEPA compliance will be required for Category 2 efforts."
11. Geospatial Compliance: Have the appropriate geospatial files and associated metadata been submitted along with a map of the proposed project/program area?	More information needed
Notes	The sponsor selected Atchafalaya, Bayou Teche, and Vermilion watersheds. The GIS project boundary submitted is only in the Bayou Teche watershed. Council staff recommends removing Atchafalaya and Vermilion from the watershed list.

FPL3b BAS Reviews Summary -- Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection

May 2020

The external Best Available Science reviews for the *Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection* proposal were mixed. All reviewers agree that the project has clearly defined goals and objectives. They also agree that the applicant identifies the likely environmental benefits of the project. Most reviewers make clear that this is likely a much needed project but that it lacks the inclusion of peer reviewed evidence to support it. Additionally, discussions of similar past activities either by the applicant, or in a regional context, would help to better contextualize the proposal.

All reviewers agree that the proposal is not comprehensively justified by peer reviewed and/or publicly available information. As Reviewer 1 writes: "This proposal cites the 'Louisiana's Comprehensive Master Plan for a Sustainable Coast' as the sole reference. While it is generally recognized that wetland restoration is an imminent problem to address in the State of Louisiana, how the proposed activity can be coupled with the two ongoing CWPPRA projects needs better clarification. For example, results from these projects would be useful to provide more context to the proposed work." Reviewers 2 and 3 mention that the peer reviewed Chabreck and Linscombe 1988 is cited in-text, but not listed in any Bibliographic list. Reviewer 2 points out that the proposal makes references to missing Sections 9B and 9C that seem to be lifted from a previous version of the proposal, and that though the proposal makes reference to using "well-established science and practices to improve the the science-based decision making processes used by the Council" it does not present evidence for these statements.

Reviewers 1 and 2 concur with the applicant that there is little risk inherent in a Planning project. Reviewer 3, however, would like to see more detailed discussion around possible risks that could interfere with project performance in addition to the included statement, "There are no anticipated risks associated with this project." They write: "There is no discussion related to potential negative impacts on natural resources, likely or potential reasons the project may not achieve its objective, the anticipated longevity of project benefits, risks described in cited sources, and uncertainties in the underlying science used to justify the project and/or methods."

Both Reviewers 1 and 3 ask for a more detailed methodology. Reviewer 1 writes that "[the] proposal states that the primary goal of developing design parameters and permit parameters using existing data, numerical modeling, and preliminary data acquisition. However, no information was provided where these existing data/model products are located." Reviewer 3 notes that "the text of the document does not detail the specific scientific measurements that would be utilized in the planning, research and monitoring effort." Reviewer 2, however, comments that "the objectives are straightforward, use standard methods and practices, and are consistent with other similar projects in the region."

All reviewers ask for more information regarding the experience of the applicant in implementing a project similar to the one being proposed. Related, they also note that the proposal does not also contain a discussion of past successes and failures of similar projects. Reviewer 2 adds that “there is no evaluation of the success of similar projects such as the two synergistic efforts this project would integrate with: CWPPRA TV-04 (1993) and TV-15 (2004), or any references to evaluation of how this project will integrate with the overall regional plan.” Reviewer 3 wonders about the details of the linkage between the applicant and the two nearby projects mentioned. They also note that a discussion of similar projects that never left the planning stage might help to frame a more detailed discussion of project risks.

All reviewers agree that the applicant identifies the likely environmental benefits and related stressors in the application. Reviewer 1 comments that the addition of past assessment and/or peer reviewed publications would better strengthen this section of the proposal. Reviewer 2 writes that “although widely known, those benefits and stressors are not described or supported by scientific works in the proposal.”

Reviewers 1 and 2 agree that the the project has measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal and objective. Reviewer 2 emphasizes that “the methods presented for the metrics proposed are standard, robust, and would produce an actionable plan for addressing marsh and shoreline resilience.” Reviewer 3 would like to see the inclusion of performance metrics in addition to deliverables.

Reviewer 1 notes that the proposal states that project data is free to use and available online but there is no information given as to how it can be accessed.

Reviewer 1 leaves us with this summary comment: “This proposal presents much needed work in project planning for restoring the wetland of coastal Louisiana due to its vulnerability to multiple environmental and anthropogenic stressors. To help to evaluate this project, more information is needed for the project background (with government or NGO led assessments as well as peer-reviewed publications), and more details are needed for the project metrics.”

RESTORE Council FPL 3b Best Available Science Review

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection

Best Available Science: These 4 factors/elements help frame the reviewer's answers to A, B and C found in next section:

Question 1. Have the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?

Comment Reviewer 1: *This proposal cites the "Louisiana's Comprehensive Master Plan for a Sustainable Coast" as the sole reference. While it is generally recognized that wetland restoration is an imminent problem to address in the State of Louisiana, how the proposed activity can be coupled with the two ongoing CWPPRA projects needs better clarification. For example, results from these projects would be useful to provide more context to the proposed work.*

Comment Reviewer 2: *The proposal builds on regional objectives outlined in the Louisiana Comprehensive Master Plan for a Sustainable Coast, and was previously nominated for a Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) project priority list. The project is integrated with other similar efforts under CWPPRA in the region.*

While well integrated from an agency perspective, the proposal is not well referenced, and seems to be cut and pasted without proof reading from other sources. Chabreck and Linscombe is the only peer reviewed work cited but it is not listed. References to Sections 9B and 9C I am assuming are related to sections in a different proposal but make no sense here. Coast 2050 is also cited but not listed or any link provided.

Comment Reviewer 3: *The proposal did not contain a full works cited listing of peer-reviewed publications, however, there were some in-text citations, such as "Chabreck and Linscombe 1988", that hinted the information came from appropriate sources. A full citation of the information used to formulate the scientific reasoning in the objectives section would be very helpful to frame up the impact of this work.*

USDA Response: The proposal will be amended to remove references to Sections 9B and 9C – this was inadvertently left in the document.

A bibliography page was included to add references for literature referenced on page 8.

Chabreck, R.H. and G. Linscombe. 1988. Louisiana Coastal Marsh Vegetative Type Map. La. Department of Wildlife and Fisheries

Coastal Protection and Restoration Authority of Louisiana. 2012. Louisiana's Comprehensive Master Plan for a Sustainable Coast. Coastal Protection and Restoration Authority of Louisiana. Baton Rouge, LA

<http://coastal.la.gov/our-plan/2017-coastal-master-plan/>

U.S. Army Corps of Engineers. 2004. Louisiana Coastal Area (LCA), Louisiana: Ecosystem Restoration Study.

<https://www.mvn.usace.army.mil/Portals/56/docs/LCA/Main%20Report.pdf?ver=2016-07-01->

Question 2. If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?

Comment Reviewer 1: *N/A. This is a project pertaining to the Gulf of Mexico region, so is the information support the proposal*

Comment Reviewer 2: *The proposal is within the context of previous and ongoing similar projects and coastal resilience planning in the region.*

Comment Reviewer 3: *The proposal directly pertains to the Gulf Coast area in Louisiana.*

USDA Response: N/A

Question 3. Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manner?

Comment Reviewer 1: *This proposal cites "Louisiana's Comprehensive Master Plan for a Sustainable Coast" as the sole reference. This reference has general background of what the State of Louisiana plans for the protecting and restoring its coast, more information is needed to illustrate the problems facing the proposed project location. More government/non-profit organization conducted assessments, peer-reviewed publications are needed.*

Comment Reviewer 2: *The proposal is not well referenced, and seems to be cut and pasted without proof reading from other sources. Chabreck and Linscombe is the only peer reviewed work cited but it is not listed. Refences to Sections 9B and 9C I am assuming are related to sections in a different proposal but make no sense here. Coast 2050 is also cited but not listed or any link provided. There are many other sources that could be referenced.*

Comment Reviewer 3: *As stated in the previous two sections, a Works Cited section only noted Louisiana's Comprehensive Master Plan for a Sustainable coast document.*

USDA Response: See above response (question #1).

Question 4. Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)

Comment Reviewer 1: *This proposal states that there are no anticipated risks associated with this planning project.*

Comment Reviewer 2: *Very little risk and uncertainty involved in this planning project. The objectives are straightforward, use standard methods and practices, and are consistent with other similar projects in the region.*

Comment Reviewer 3: *The proposal text weighs that this project is a planning effort containing the engineering, compliance and design scope of work. The authors did not detail any level of uncertainty or risk for the proposed project, only stated that “There are no anticipated risks associated with this project”.*

USDA Response: The original Army Corp proposal described the risks and uncertainties as follows:

Risk and Uncertainty - The science and practice of coastal ecosystem restoration in the area has proven to be successful by two existing CWPPRA projects: Cote Blanche Hydrologic Restoration Project (TV-04) and Sediment Trapping at the Jaws (TV-15). As such, risk and uncertainty associated with the proposed project is anticipated to be minimal and should be limited to uncertainty associated with costs, obstacles in obtaining right-of-entry, and unforeseen events and circumstances that may impact operations. Although the project will be designed to restore/protect wetlands, it will not totally eliminate the threat of wetland loss in the project area; hurricanes, storms, frontal passages, subsidence, and other natural events will continue to cause erosion and loss of emergent wetlands.

Perhaps this should be included after the statement about the Phase I (current proposal) to satisfy the reviewers.

Based on the answers to the previous 4 questions, and giving deference to the sponsor to provide within reason the use of best available science, the following three questions can be answered:

Question A. Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?

Comment Reviewer 1: *This proposal states that the primary goal of developing design parameters and permit parameters using existing data, numerical modeling, and preliminary data acquisition. However, no information was provided where these existing data/model products are located.*

Comment Reviewer 2: *No references provided. Appears well integrated with State and Federal agency projects and planning, but connections to sources mentioned in the proposal are missing.*

Comment Reviewer 3: *The applicant provided an argument for the project with information supported on CPRA's master plan and the other constructed CPRPRA-funded projects. Similarly, the proposed project mentions "Multiple Lines of Defense" without citing that body of work. It appears then that the project is written with publicly available information, without a deep dive into peer-reviewed information. As mentioned in a previous comment, more information for the works cited section is needed.*

USDA Response:

The document is indeed an adaptation of multiple documents developed in support of this project including the Wetland Value Assessment from the original CWPPRA project as well as a previous proposal drafted project consideration. To support this information, added citation of previous works is added to direct the reviewer to the proper referenced material.

Added the citation for Multiple Lines of Defense referencing the website that describes the strategy:

Multiple Lines of Defense Strategy. 2008. Comprehensive Recommendations Supporting the Use of Multiple Lines of Defense Strategy to Sustain Coastal Louisiana. 2008 Report. (Version I) https://www.researchgate.net/publication/317350653_Comprehensive_Recommendations_Supporting_the_Use_of_the_Multiple_Lines_of_Defense_Strategy_to_Sustain_Coastal_Louisiana_2008_Report_Version_I_Multiple_Lines_of_Defense_Assessment_Team

Reviewer #1 indicates that there is no information regarding modeling and data supporting project. Perhaps a reference to the Corps PPL20 TASK Force Meeting minutes which has the project fact sheets would satisfy this concern.

20th Priority Project List Report

Louisiana Coastal Wetlands Conservation and Restoration Task Force

<https://www.mvn.usace.army.mil/Portals/56/docs/environmental/cwppra/PPL/20/PPL20mainreport.pdf>

The reference to the Wetland Value Assessment project information sheet is:

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection Wetland Value Assessment. 2012. USDA Natural Resources Conservation Service. CWPPRA Wetland Value Assessment.

Question B. Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?

Comment Reviewer 1: *This proposal needs more publicly available information, including previous assessments and peer reviewed publications to present the context of the proposed work.*

Comment Reviewer 2: *The methods presented for the metrics proposed are standard, robust, and would produce an actionable plan for addressing marsh and shoreline resilience.*

Comment Reviewer 3: *The proposal does contain justification for the science to support the project.*

USDA Response: See question A response.

Question C. Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?

Comment Reviewer 1: *N/A. This proposal states that no anticipated risks are associated with this planning project.*

Comment Reviewer 2: *There is no evaluation of the success of similar projects such as the two synergistic efforts this project would integrate with: CWPPRA TV-04 (1993) and TV-15 (2004), or any references to evaluation of how this project will integrate with the overall regional plan. The proposal states: "These anticipated results are based on well-established science and practices to improve the science-based decision-making processes used by the Council." Just saying so (poorly) without providing evidence does not make it so.*

Comment Reviewer 3: *The application lacks a discussion on the risks and uncertainties needed in such a project, and only notes that there "Are no risks associated with a planning project". There is no discussion related to potential negative impacts on natural resources, likely or potential reasons the project may not achieve its objective, the anticipated longevity of project benefits, risks described in cited sources, and uncertainties in the underlying science used to justify the project and/or methods.*

USDA Response: Included references for locations for TV-04 and TV-15:

Cote Blanche Hydrologic Restoration (TV-04).

<https://www.lacoast.gov/new/Projects/Info.aspx?num=TV-04#gsc.tab=0>

Sediment Trapping at the Jaws (TV-15).

<https://www.lacoast.gov/new/Projects/Info.aspx?num=TV-15#gsc.tab=0>

Science Context Evaluation:

Question A. Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?

Comment Reviewer 1: *No information was provided in the proposal that the project sponsor has had experience in implementing such a project. More information from past experience is needed.*

Comment Reviewer 2: *The two projects mentioned CWPPRA TV-04 and TV-15 are not recent or current. Current CWPPRA projects are mentioned briefly but not referenced or presented in any way in the proposal. If this reviewer is relying only on the information provided in the proposal, the answer would be No. Given the State and Federal agencies involved, I suspect they have the experience necessary, although a vague need to subcontract the planning work is mentioned. Am I to rely on information outside of this proposal for the evaluation?*

Comment Reviewer 3: *The proposed project cites that there are nearby projects that can benefit from a project adjacent to the Cote Blanche restoration area, however, there is no direct discussion by the authors that they are responsible for those projects, or have planning and permitting experience to see a successful completion of this project.*

USDA Response: See above references for TV-04 and TV-15.

A description of the TV-04 and TV-15 projects and also a statement about how this project is synergistic with these projects.

Description of TV-04 Cote Blanche Hydrologic Restoration:

Construction of several oilfield canals altered the hydrologic regime of Cote Blanche project area marshes. The result has been an increase in water exchange between interior marsh areas and East and West Cote Blanche Bays that directly contributed to marsh deterioration and loss. In addition, shoreline erosion has been a major problem, and breaches along the shoreline have begun to provide additional exchange points between interior marshes and the bays.

Low-level weirs were constructed across seven major water exchange avenues in the Cote Blanche system. These passive weirs reduce the water exchange between the system's interior marsh and the outer bays, thereby preventing continued scouring of the marsh substrate and conversion to open water. The lower energy hydrologic regime also encourages accretion of available sediment. In addition, a PVC sheet-pile wall was constructed along 4,140 linear feet of shoreline between Jackson Bayou and the British American Canal to minimize wave-induced erosion.

The proposed project would expand upon the shoreline project and facilitate the peripheral control by introducing freshwater to the inside and allowing this water to flow through the

system and out of the TV-04 structures whereby reducing salinity and increasing sediment import.

Description of TV-15 Sediment Trapping at the Jaws:

Continuous wind and wave energy in the bay is preventing sediments from the Gulf Intracoastal Waterway from becoming marsh. In addition, these energies are causing a shoreline erosion rate of 15 feet/year. This project was authorized to reduce wave-induced shoreline erosion within the project area and promote the deposition of sediment by creating vegetated wetland terraces and reducing wave fetch, or the distance waves can travel unimpeded. Distributary channels will be dredged to deliver water and sediment to the project area.

One way to trap sediments is to build both vegetated terraces to dissipate wave energy and distributary channels to direct sediments to the project area. Low wave and current energy allow sediments to drop out of the water column, thereby accreting and allowing wetland vegetation to establish. This project calls for the dredging of a distributary channel system that will facilitate spreading the sediment load over a wide area. Dredge spoil will be used to create low elevation terraces along the landward flank of each dredged distributary to protect the depositional area associated with the channel landward of the terrace.

The proposed project would improve upon the trapping of suspended sediments moving from the Atchafalaya River via the GIWW by diverting some of the flow through the Cote Blanche wetlands.

Question B. Does the project/program have clearly defined goals objectives?

Comment Reviewer 1: *This proposal clearly defined project goals and objectives.*

Comment Reviewer 2: *The metrics and approach section of the proposal is perhaps the best written part. It is a straight-forward planning project using standard approaches. I'll leave it to others to comment on the cost.*

Comment Reviewer 3: *The project noted the 5 output deliverables: Environmental Assessment, Geotechnical Report, Magnetometer Survey report, Cultural Resources Assessment, and Oyster Impact Assessment.*

USDA Response: N/A

Question C. Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?

Comment Reviewer 1: *This proposal briefly shows what are going to be accomplished, but lacks details on how the two "Metric Tilters" are going to be accomplished. They need to provide more detailed methodology and/or past project experience relevant to this project.*

Comment Reviewer 2: *Since this is a planning and evaluation project, the methods justification is less critical than for an implementation project. The agency is well aware of the methods and quality control necessary to develop the planning and permitting for the project.*

Comment Reviewer 3: *The text of the document does not detail the specific scientific measurements that would be utilized in the planning, research and monitoring effort. The text mentions that the measures “may include, but is not limited to water level, water quality, salinity, waves, wind, tides, etc.*

USDA Response: Because this is a Phase 1 engineering and design proposal the metrics will involve all the data collection in support of the design which would include a design report consisting of topographic and bathymetric surveys, geotechnical analyses and magnetometer analyses (location of possible oil/gas infrastructure). This information will be compiled, and a final design report would be produced as the final product of the project. The objective is to have a fully constructible (shovel-ready) project plan available to move to Phase II (construction).

Question D. Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?

Comment Reviewer 1: *Environmental benefits were clearly defined in the proposal and the environmental stressors were also discussed, although more information from past assessments and/or peer-reviewed publications would be more useful to aid the evaluation of the background and project relevance.*

Comment Reviewer 2: *There are clear environmental benefits to developing this project, and it is integrated with regional planning, although there is not much to rely on for evaluation other than the reputation of the agency. The project being planned would address multiple stressors to coastal marshlands from both the river and the sea, natural and man-made. Although widely known, those benefits and stressors are not described or supported by scientific works in the proposal.*

Comment Reviewer 3: *Yes, the document noted that full implantation of the project would “enhance and protect habitats, water resources, coastal resources, and shorelines... buffers against hurricanes, flood risk, habitat for wildlife... oysters production”, etc. However, the scope of this project is of a planning, permitting, and design, so directly making these assertions are not directly within the scope of work (that is, at the end of the proposed project, there will be five deliverable outputs).*

USDA Response: Reference the Cote Blanche Wetland Value Assessment document (see above reference).

Question E. Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)

Comment Reviewer 1: *This proposal outlines two metrics 1) E&D plans development and 2) environmental compliance documents, both for planning, research and monitoring purposes.*

Comment Reviewer 2: *The metrics section is well written and compliant with RESTORE act data and quality control criteria.*

Comment Reviewer 3: *Metrics appear to be a deliverable of the planning project itself. The Metrics section of the document detail the end products (Plans) of the feasibility study, but there is no discussion of performance measures that demonstrate progress toward reaching the stated objectives for the proposed activity and are outcome-oriented to the extent possible.*

USDA Response: In this Phase I, an engineering and design report will be generated that will provide all the design metrics necessary to fulfill the design including survey data (topographic/bathymetric), geotechnical data, magnetometer data. This information will be necessary to accomplish the goal of construction after which the monitoring metrics can be described as follows:

The project would be monitored through: 1) post-construction survey to document conditions; 2) the use of pre-construction, post-construction, and periodic infrared aerial photography to identify changes in land area; and 3) monitoring through the CWPPRA Coastwide Reference Monitoring System (CRMS) data. The success of the project will be measured by the acres of wetland restored/protected (763 acres), the cost of restoring/protecting the wetlands (\$30.6 million), the average cost per acre restored/protected (\$40,150), and the length of time required to build the project (three years for planning/design/construction from receipt of funding).

Question F. Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)

Comment Reviewer 1: *N/A. This is planning project and has no anticipated risks.*

Comment Reviewer 2: *The long-term resiliency benefits of moving this project forward are clear, even if not supported by external references in the proposal.*

Comment Reviewer 3: *The application lacks a discussion on the risks and uncertainties needed in such a project, and only notes that there "Are no risks associated with a planning project".*

There is no discussion related to potential negative impacts on natural resources, likely or potential reasons the project may not achieve its objective, the anticipated longevity of project benefits, risks described in cited sources, and uncertainties in the underlying science used to justify the project and/or methods.

USDA Response: See Risk and Uncertainty statement above.

Question G. Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socioeconomic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)

Comment Reviewer 1: *N/A. This is planning project and has no anticipated risks.*

Comment Reviewer 2: *This is a planning and design project. Question "G" does not really apply.*

Comment Reviewer 3: *No, there is no discussion of short-term risks, nor scientific uncertainties.*

USDA Response: See above information on Risk and Uncertainties.

Question H. Does the project/program consider recent and/or relevant information in discussing the elements above?

Comment Reviewer 1: *N/A There is no recent or relevant information on risks.*

Comment Reviewer 2: *Not relevant.*

Comment Reviewer 3: *No, without discussion of short-term risks and scientific uncertainties, there is also no discussion of recent publications or information to mitigate risks or otherwise address the risk.*

USDA Response: See above information on Risk and Uncertainties.

Question I. Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)

Comment Reviewer 1: This proposal did not include past successes and failures of similar efforts.

Comment Reviewer 2: See other comments. The two related projects CWPPRA TV-04 and TV-15 are mentioned but no indication of success, failure, cost effectiveness, etc. are provided. I can find that documentation, evaluation, and science elsewhere for these and other projects, but no references or summaries are provided in the proposal to evaluate.

Comment Reviewer 3: No. The project did not appear to evaluate the similar projects (permitting, planning, design) that were either not completed or were never implemented after the Phase I planning effort.

USDA Response: See references to TV-04 and TV-15 projects. Information provided on these projects should satisfy this concern.

Question J. Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement as defined by the RESTORE Act)

Comment Reviewer 1: *This proposal states that the data is currently free to use and available online but did not specify where, and adaptive management efforts are not planned under this proposal.*

Please summarize any additional information needed below:

This proposal presents much needed work in project planning for restoring wetland of coastal Louisiana due to its vulnerability to multiple environmental and anthropogenic stressors. To help to evaluate this project, more information is needed for the project background (with government or NGO led assessments as well as peer-reviewed publications), and more details are needed for the project metrics.

Comment Reviewer 2: *As a planning and design project, these are straight forward and listed adequately under the “Metrics” section of the proposal.*

Please summarize any additional information needed below:

The proposal is vague, repetitive, and missing connections. In an effort by this reviewer to try to clarify and evaluate the validity of the proposed effort, a search turned up a proposal from the Army Corp of Engineers in 2014 to the RESTORE Council that is essentially the same project, but well written, well referenced and documented. It has the references and figures cited in this proposal but not found here. This proposal seems a hasty and lazy attempt to put that project forward.

If my review is limited to the submitted document and not the reputation of the agencies, the previously available and unreferenced proposal or background, I cannot say that it is well supported by the best available science. If the science that was previously used to develop the project (as found by this reviewer) but not presented here is allowable as part of my review, then the project would get high marks.

Comment Reviewer 3: *No, this proposal did not detail a strategy to measure success – only that these metrics will be developed in the planning phase of the project.*

Please summarize any additional information needed below:

This project is likely a needed project, and the both the TV-04 and TV-15 projects can benefit the proposed location, and vice versa. However, there is a disconnect in how this planning project will directly result in the aforementioned wildlife and shoreline protection benefits, as the outputs will be environmental permits and planning documents alone.

USDA Response: Addressed above in the provided material.

Gulf Coast Ecosystem Restoration Council

FPL 3b Internal Best Available Science Review Panel Summary

July 2020

Introduction

On Tuesday, June 30, and Wednesday July 1, 2020 the RESTORE Council convened the Funded Priorities List (FPL) 3b Internal Best Available Science (BAS) Review Panel. The purpose of this internal panel was to use Council member-agency expertise to address external BAS review comments provided for FPL 3b submitted project/program proposals, and potentially identify project/program synergies not identified prior to proposal submission. The ultimate goal of the panel was to provide Council members with substantive best available science content to inform their decision-making.

The internal panel was convened via webinar with representatives from each of the Council's eleven member agencies present. Each BAS Panel member was provided the following:

- 1) Full FPL 3b proposals
- 2) 3 external BAS reviews for each proposal
- 3) Summary of external BAS reviews for each proposal
- 4) Proposal Sponsor's response to the BAS reviews summary
- 5) Any proposed revisions to the proposal

Proposal sponsors provided a brief synopsis of their proposal to the panel, a summary of comments made in external reviews, and discussed their proposed response to the external reviews. Council staff then solicited feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns. Council staff also solicited feedback on any existing or future synergies with other Gulf restoration activities. The proceedings of the meeting for this proposal are summarized below.

Sponsor: USDA

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Address references that were not properly cited or included.

- Although panelists felt the addition of the Bibliography helped to address this BAS concern, panelists also felt that inclusion of the references within the text

of the narrative would further strengthen the proposal, and better address this concern.

- USDA agrees to revise the proposal to include additional in-text citations.

References: Justify the proposal throughout using additional peer-reviewed references:

- Panelists suggest sources of additional scientific evidence that may be useful for further strengthening the proposal.
- USDA agrees to consider additional references for inclusion in the proposal.

References: Include citation of the information used to formulate the scientific reasoning in the objectives section.

- Panelists suggest sources of additional scientific evidence that may be useful for further strengthening the proposal.
- USDA agrees to consider additional references for inclusion in the proposal.

Lessons learned: Add evaluation of similar efforts.

- Panelists suggest sources of additional scientific evidence that may be useful for further strengthening the proposal.
- USDA agrees to consider additional references for inclusion in the proposal.

Comment: Describe how project data metrics will be achieved.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Comment: Provide more detailed discussion around possible risks and uncertainties.

- Although panelists feel the revisions helped to address this BAS concern, the panelists raise additional strategies for addressing risks, such as looking to past successes and lessons learned from implementation of similar projects in the area of Cote Blanche.
- One panelist also questions whether there is a risk of funding a planning project without existing implementation funds, and asks whether implementation risks should be considered at this stage.
- USDA agrees to consider additional references and discussion of risks and uncertainties, such as securing implementation funds, for inclusion in the proposal.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.



SCIENCE EVALUATION

Bucket 2: Comprehensive Plan Component

Proposal Title: Cote Blanche Freshwater and sediment Introduction and Shoreline Protection
Location (If Applicable): Other
Council Member Bureau or Agency: U.S. Department of Agriculture
Type of Funding Requested: Planning / Implementation

Reviewed by: Reviewer 1
Date of Review: April 30, 2020

Best Available Science:

These 4 factors/elements help frame the reviewer's answers to A, B and C found in next section:

Question 1.	
Have the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?	Need more information
Comments:	
This proposal cites the "Louisiana's Comprehensive Master Plan for a Sustainable Coast" as the sole reference. While it is generally recognized that wetland restoration is a imminent problem to address in the State of Louisiana, how the proposed activity can be coupled with the two ongoing CWPPRA projects needs better clarification. For example, results from these projects would be useful to provide more context to the proposed work.	

Question 2.	
If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?	Choose an item.
Comments:	
N/A. This is a project pertaining to the Gulf of Mexico region, so is the information supportint the proposal.	

Question 3.	
Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manner?	Need more information
Comments:	
This proposal cites “Louisiana’s Comprehensive Master Plan for a Sustainable Coast” as the sole reference. This reference has general background of what the State of Louisiana plans for the protecting and restoring its coast, more information is needed to illustrate the problems facing the proposed project location. More government/non-profit organization conducted assessments, peer-reviewed publications are needed.	

Question 4.	
Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)	Yes
Comments:	
This proposal states that there are no anticipated risks associated with this planning project.	

Based on the answers to the previous 4 questions, and *giving deference to the sponsor to provide within reason the use of best available science*, the following three questions can be answered:

Question A	
Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?	Need more information
Comments:	
This proposal states that the primary goal of developing design paramters and permit parameters using existing data, numerical modeling, and preliminary data acquisition. However, no information was provided where these existing data/model products are located.	

Question B	
Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?	Need more information
Comments:	
This proposal needs more publicly available information, including previous assessments and peer-reviewed publications to present the context of the proposed work.	

Question C	
Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?	Choose an item.
Comments:	
N/A. This proposal states that no anticipated risks are associated with this planning project.	

Science Context Evaluation:

Question A	
Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?	Need more information
Comments:	
No information was provided in the proposal that the project sponsor has had experience in implementing such a project. More information from past experience is needed.	

Question B	
Does the project/program have clearly defined goals objectives?	Yes
Comments:	
This proposal clearly defined project goals and objectives.	

Question C	
Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?	Need more information
Comments:	
This proposal briefly shows what are going to be accomplished, but lacks details on how the two "Metric Tilters" are going to be accomplished. They need to provide more detailed methodology and/or past project experience relevant to this project.	

Question D	
Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?	Need more information
Comments:	
Environmental benefits were clearly defined in the proposal and the environmental stressors were also discussed, although more information from past assessments and/or peer-reviewed publications would be more useful to aid the evaluation of the background and project relevance.	

Question E	
Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)	Yes
Comments:	
This proposal outlines two metrics 1) E&D plans development and 2) environmental compliance documents, both for planning, research and monitoring purposes.	

Question F	
Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)	Choose an item.
Comments:	
N/A. This is planning project and has no anticipated risks.	

Question G	
Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)	Choose an item.
Comments:	
N/A. This is planning project and has no anticipated risks.	

Question H	
Does the project/program consider recent and/or relevant information in discussing the elements above?	Choose an item.
Comments:	
N/A There is no recent or relevant information on risks.	

Question I	
Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)	No
Comments:	
This proposal did not include past successes and failures of similar efforts.	

Question J	
Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)	Need more information
Comments:	
This proposal states that the data is currently free to use and available online but did not specify where, and adaptive management efforts are not planned under this proposal.	



Please summarize any additional information needed below:
This proposal presents much needed work in project planning for restoring wetland of coastal Louisiana due to its vulnerability to multiple environmental and anthropogenic stressors. To help to evaluate this project, more information is needed for the project background (with government or NGO led assessments as well as peer-reviewed publications), and more details are needed for the project metrics.



SCIENCE EVALUATION

Bucket 2: Comprehensive Plan Component

Proposal Title: Cote Blanche Freshwater and sediment Introduction and Shoreline Protection
Location (If Applicable): Other
Council Member Bureau or Agency: U.S. Department of Agriculture
Type of Funding Requested: Planning / Implementation

Reviewed by: Reviewer 2
Date of Review: Click here to enter text.

Best Available Science:

These 4 factors/elements help frame the reviewer's answers to A, B and C found in next section:

Question 1.	
Have the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?	Need more information
Comments:	
<p>The proposal builds on regional objectives outlined in the Louisiana Comprehensive Master Plan for a Sustainable Coast, and was previously nominated for a Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) project priority list. The project is integrated with other similar efforts under CWPPRA in the region.</p> <p>While well itegrated from an agency perspective, the proposal is not well referenced, and seems to be cut and pasted without proof reading from other sources. Chabreck and Linscombe is the only peer reviewed work cited but it is not listed. Refences to Sections 9B and</p>	

9C I am assuming are related to sections in a different proposal but make no sense here. Coast 2050 is also cited but not listed or any link provided.

Question 2.

If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?

Yes

Comments:

The proposal is within the context of previous and ongoing similar projects and coastal resilience planning in the region.

Question 3.

Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manner?

No

Comments:

The proposal is not well referenced, and seems to be cut and pasted without proof reading from other sources. Chabreck and Linscombe is the only peer reviewed work cited but it is not listed. References to Sections 9B and 9C I am assuming are related to sections in a different proposal but make no sense here. Coast 2050 is also cited but not listed or any link provided. There are many other sources that could be referenced.

Question 4.

Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)

Yes

Comments:

Very little risk and uncertainty involved in this planning project. The objectives are straightforward, use standard methods and practices, and are consistent with other similar projects in the region.

Based on the answers to the previous 4 questions, and *giving deference to the sponsor to provide within reason the use of best available science*, the following three questions can be answered:

Question A	
Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?	Need more information
Comments:	
No references provided. Appears well integrated with State and Federal agency projects and planning, but connections to sources mentioned in the proposal are missing.	

Question B	
Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?	Yes
Comments:	
The methods presented for the metrics proposed are standard, robust, and would produce an actionable plan for addressing marsh and shoreline resilience.	

Question C

Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?	Need more information
<p>Comments:</p> <p>There is no evaluation of the success of similar projects such as the two synergistic efforts this project would integrate with: CWPPRA TV-04 (1993) and TV-15 (2004), or any references to evaluation of how this project will integrate with the overall regional plan. The proposal states: "These anticipated results are based on well-established science and practices to improve the the science-based decision making processes used by the Council." Just saying so (poorly) without providing evidence does not make it so.</p>	

Science Context Evaluation:

Question A	
Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?	Need more information
<p>Comments:</p> <p>The two projects mentioned CWPPRA TV-04 and TV-15 are not recent or current. Current CWPPRA projects are mentioned briefly but not referenced or presented in any way in the proposal. If this reviewer is relying only on the information provided in the proposal, the answer would be No. Given the State and Federal agencies involved, I suspect they have the experience necessary, although a vague need to subcontract the planning work is mentioned. Am I to rely on information outside of this proposal for the evaluation?</p>	

Question B	
Does the project/program have clearly defined goals objectives?	Yes
Comments:	

The metrics and approach section of the proposal is perhaps the best written part. It is a straight forward planning project using standard approaches. I'll leave it to others to comment on the cost.

Question C	
Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?	Yes
Comments:	
Since this is a planning and evaluation project, the methods justification is less critical than for an implementation project. The agency is well aware of the methods and quality control necessary to develop the planning and permitting for the project.	

Question D	
Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?	Yes
Comments:	
There are clear environmental benefits to developing this project, and it is integrated with regional planning, although there is not much to rely on for evaluation other than the reputation of the agency. The project being planned would address multiple stressors to coastal marshlands from both the river and the sea, natural and man-made. Although widely known, those benefits and stressors are not described or supported by scientific works in the proposal.	

Question E	
Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)	Yes
Comments:	

The metrics section is well written and compliant with RESTORE act data and quality control criteria.

Question F	
Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)	Yes
Comments:	
The long-term resiliency benefits of moving this project forward are clear, even if not supported by external references in the proposal.	

Question G	
Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)	No
Comments:	
This is a planning and design project. Question "G" does not really apply.	

Question H	
Does the project/program consider recent and/or relevant information in discussing the elements above?	No
Comments:	
Not relevant	

Question I	
Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)	No
Comments:	
See other comments. The two related projects CWPPRA TV-04 and TV-15 are mentioned but no indication of success, failure, cost effectiveness, etc. are provided. I can find that documentation, evaluation, and science elsewhere for these and other projects, but no references or summaries are provided in the proposal to evaluate.	

Question J	
Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)	No
Comments:	
As a planning and design project, these are strighthforward and listed adequately under the "Metrics" section of the proposal.	



Please summarize any additional information needed below:
<p>The proposal is vague, repetitive, and missing connections. In an effort by this reviewer to try to clarify and evaluate the validity of the proposed effort, a search turned up a proposal from the Army Corp of Engineers in 2014 to the RESTORE Council that is essentially the same project, but well written, well referenced and documented. It has the refences and figures cited in this proposal but not found here. This proposal seems a hasty and lazy attempt to put that project forward.</p> <p>If my review is limited to the submitted document and not the reputation of the agencies, the previously available and unreferenced proposal or background, I cannot say that it is well supported by the best available science. If the science that was previously used to develop the project (as found by this reviewer) but not presented here is allowable as part of my review, then the project would get high marks.</p>



SCIENCE EVALUATION

Bucket 2: Comprehensive Plan Component

Proposal Title: Cote Blanche Freshwater and sediment Introduction and Shoreline Protection
Location (If Applicable): Other
Council Member Bureau or Agency: U.S. Department of Agriculture
Type of Funding Requested: Planning / Implementation

Reviewed by: Reviewer 3
Date of Review: May 9, 2020

Best Available Science:

These 4 factors/elements help frame the reviewer's answers to A, B and C found in next section:

Question 1.	
Have the proposal objectives, including proposed methods, been justified using peer reviewed and/or publicly available information?	Need more information
Comments:	
The proposal did not contain a full works cited listing of peer-reviewed publications, however, there were some in-text citations, such as "Chabreck and Linscombe 1988", that hinted the information came from appropriate sources. A full citation of the information used to formulate the scientific reasoning in the objectives section would be very helpful to frame up the impact of this work.	

Question 2.	
If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?	Yes
Comments:	
The proposal directly pertains to the Gulf Coast area in Louisiana.	

Question 3.	
Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manner?	No
Comments:	
As stated in the previous two sections, a Works Cited section only noted Louisiana's Comprehensive Master Plan for a Sustainable coast document.	

Question 4.	
Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)	No
Comments:	
The proposal text weighs that this project is a planning effort containing the engineering, compliance and design scope of work. The authors did not detail any level of uncertainty or risk for the proposed project, only stated that "There are no anticipated risks associated with this project".	

Based on the answers to the previous 4 questions, and *giving deference to the sponsor to provide within reason the use of best available science*, the following three questions can be answered:

Question A	
Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?	Need more information
Comments:	
The applicant provided an argument for the project with information supported on CPRA’s master plan and the other constructed CPRPRA-funded projects. Similarly, the proposed project mentions “Multiple Lines of Defense” without citing that body of work. It appears then that the project is written with publicly available information, without a deep dive into peer-reviewed information. As mentioned in a previous comment, more information for the works cited section is needed.	

Question B	
Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?	Yes
Comments:	
The proposal does contain justification for the science to support the project.	

Question C	
Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?	Need more information
Comments:	
The application lacks a discussion on the risks and uncertainties needed in such a project, and only notes that there “Are no risks associated with a planning project”. There is no discussion related to potential negative impacts on natural resources, likely or potential reasons the project may not achieve its objective, the anticipated longevity of project benefits, risks described in cited sources, and uncertainties in the underlying science used to justify the project and/or methods.	

Science Context Evaluation:

Question A	
Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?	No
Comments:	
The proposed project cites that there are nearby projects that can benefit from a project adjacent to the Cote Blanche restoration area, however, there is no direct discussion by the authors that they are responsible for those projects, or have planning and permitting experience to see a successful completion of this project.	

Question B	
Does the project/program have clearly defined goals objectives?	Yes
Comments:	
The project noted the 5 output deliverables: Environmental Assessment, Geotechnical Report, Magnetometer Survey report, Cultural Resources Assessment, and Oyster Impact Assessment.	

Question C	
Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?	No
Comments:	
The text of the document does not detail the specific scientific measurements that would be utilized in the planning, research and monitoring effort. The text mentions that the measures "may include, but is not limited to water level, water quality, salinity, waves, wind, tides, etc."	

Question D	
Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?	Yes
Comments:	
Yes, the document notes that full implementation of the project would “enhance and protect habitats, water resources, coastal resources, and shorelines... buffers against hurricanes, flood risk, habitat for wildlife... oysters production”, etc. However, the scope of this project is of a planning, permitting, and design, so directly making these assertions are not directly within the scope of work (that is, at the end of the proposed project, there will be five deliverable outputs).	

Question E	
Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)	No
Comments:	
Metrics appear to be a deliverable of the planning project itself. The Metrics section of the document detail the end products (Plans) of the feasibility study, but there is no discussion of performance measures that demonstrate progress toward reaching the stated objectives for the proposed activity and are outcome-oriented to the extent possible.	

Question F	
Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)	No
Comments:	
The application lacks a discussion on the risks and uncertainties needed in such a project, and only notes that there “Are no risks associated with a planning project”. There is no discussion related to potential negative impacts on natural resources, likely or potential reasons the project may not achieve its objective, the anticipated longevity of project benefits, risks described in cited sources, and uncertainties in the underlying science used to justify the project and/or methods.	

Question G	
Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)	No
Comments:	
No, there is no discussion of short-term risks, nor scientific uncertainties.	

Question H	
Does the project/program consider recent and/or relevant information in discussing the elements above?	No
Comments:	
No, without discussion of short-term risks and scientific uncertainties, there is also no discussion of recent publications or information to mitigate risks or otherwise address the risk.	

Question I	
Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)	No
Comments:	
No. The project did not appear to evaluate the similar projects (permitting, planning, design) that were either not completed or were never implemented after the Phase I planning effort.	

Question J	
Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)	No
Comments:	
No, this proposal did not detail a strategy to measure success – only that these metrics will be developed in the planning phase of the project.	



Please summarize any additional information needed below:
This project is likely a needed project, and the both the TV-04 and TV-15 projects can benefit the proposed location, and vise versa. However, there is a disconnect in how this planning project will directly result in the aforementioned wildlife and shoreline protection benefits, as the outputs will be environmental permits and planning documents alone.