| RESTORE ACT Direct Component Multiyear Plan Matrix — Department of the Treasury    |                                                                                     |                            |                                                                                                                   |                                       |                                       |                        |                                                                                                        | OMB Approval No. 1505-0250 |                                                                          |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------------|
| Applicant Name:                                                                    | Lafourche Parish                                                                    |                            |                                                                                                                   |                                       |                                       |                        |                                                                                                        |                            |                                                                          |
| 1. MULTIYEAR PLAN VERSION (INITIAL OR AMENDMENT NUMBER): Amendment #1              |                                                                                     | 2a. DATE OF INITIAL MI     | 2a. DATE OF INITIAL MULTIYEAR PLAN ACCEPTANCE (mm/dd/yyyy): 2/18/2016 2b. DATE OF LAST MULTIYEAR PLAN ACCEPTANCE: |                                       |                                       |                        |                                                                                                        | 2/18/2016                  |                                                                          |
| 3. CUMULATIVE DIRECT COMPONENT ALLOCATION AVAILABLE FOR DISTRIBUTION TO APPLICANT: |                                                                                     |                            | \$2,294,860.69 4. TOTAL ALLOCATIONS PLUS KNOWN FUNDS NOT YET DEPOSITED IN TRUST FUND FOR DIRECT COMPONENT:        |                                       |                                       |                        |                                                                                                        |                            | \$8,779,970.72                                                           |
| 5. Primary Direct Component Eligible                                               |                                                                                     |                            | 8. Estimated Total Funding Contributions For Proposed Activity(ies)(refer to Instructions)                        |                                       |                                       |                        | 9. Proposed Start Date                                                                                 | 10. Proposed End Date      |                                                                          |
| Activity Further Described in Application (Static Field)                           | 6. Activity Title (Static Field)                                                    | 7. Location (Static Field) | 8a. Direct Component<br>Contribution                                                                              | 8b. Other RESTORE Act<br>Contribution | 8c. Other Third Party<br>Contribution | 8d. Total Contribution | mm/dd/yyyy                                                                                             | mm/dd/yyyy                 | 11. Status (refer to Instructions)                                       |
| Planning assistance                                                                | Barataria Marsh Creation & Ridge Restoration                                        | Lafourche Parish (see map) | \$434,760.00                                                                                                      |                                       |                                       | \$434,760.00           | 07-2016                                                                                                | 07-2017                    | Initial MYP Activity – grant<br>awarded                                  |
| Planning assistance                                                                | Grand Bayou Freshwater<br>Reintroduction                                            | Lafourche Parish (see map) | \$79,870.00                                                                                                       |                                       |                                       | \$79,870.00            | 07-2016                                                                                                | 07-2017                    | Initial MYP Activity – grant<br>awarded                                  |
| Planning assistance                                                                | West Belle Pass Marsh<br>Creation                                                   | Lafourche Parish (see map) | \$360,860.00                                                                                                      |                                       |                                       | \$360,860.00           | 01-2019                                                                                                | 01-2021                    | Initial MYP Activity - start<br>and end dates revised in<br>amendment #1 |
| Planning assistance                                                                | Catfish Lake Marsh Creation                                                         | Lafourche Parish (see map) | \$177,930.00                                                                                                      |                                       |                                       | \$177,930.00           | 01-2019                                                                                                |                            | Initial MYP Activity - start<br>and end dates revised in<br>amendment #1 |
| Planning assistance                                                                | Bayou L'Ourse to Leeville<br>Marsh Creation                                         | Lafourche Parish (see map) | \$270,550.00                                                                                                      |                                       |                                       | \$270,550.00           | 01-2019                                                                                                |                            | Initial MYP Activity - start<br>and end dates revised in<br>amendment #1 |
| Planning assistance                                                                | Grand Bayou Freshwater<br>Reintroduction - Phase II and<br>Phase III                | Lafourche Parish (see map) | \$195,277.00                                                                                                      | \$412,722.00                          |                                       | \$607,999.00           | 01-2019                                                                                                | 01-2021                    | Amendment #1 - New<br>Activity                                           |
|                                                                                    |                                                                                     |                            |                                                                                                                   |                                       |                                       | \$0.00                 |                                                                                                        |                            |                                                                          |
|                                                                                    | 12. ESTIMATED TOTAL FUNDING CONTRIBUTIONS FOR ACTIVITY(IES) (refer to Instructions) |                            | \$1,519,247.00                                                                                                    | \$412,722.00                          | \$0.00                                |                        | Please note: Grant awards may reflect non-material changes in proposed dates and<br>estimated funding. |                            |                                                                          |

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 1505-0250. Comments concerning the time required to complete this information collection, including the time to review instructions, search existing data resources, gathering and maintaining the data needed, and completing and reviewing the collection of information, should be directed to the Department of the Treasury, Office of Gulf Coast Restoration, 1500 Pennsylvania Ave., NW, Washington, DC 20220.

# RESTORE ACT Direct Component Multiyear Plan Narrative Department of the Treasury

OMB Approval No. 1505-0250

Directions: Use this form for the Initial Multiyear Plan and any subsequent amendments to an accepted Multiyear Plan. For amendments, include only new and/or materially modified activities.

| Multiyear Plan Version (Initial or Amendment Number): | Amendment #1 |
|-------------------------------------------------------|--------------|
| Date of Initial Multiyear Plan Acceptance:            | 02/18/2016   |
| Date of Last Multiyear Plan Revision Acceptance:      | 02/18/2016   |

| Eligible Applicant Name:                                                                                                   | Lafourche Parish          |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------|--|--|--|--|
| Name and Contact Information of the Person to be contacted (POC) on matters concerning this Multiyear Implementation Plan: |                           |  |  |  |  |
| POC Name:                                                                                                                  | Amanda Voisin             |  |  |  |  |
| POC Title:                                                                                                                 | Coastal Zone Manager      |  |  |  |  |
| POC Email:                                                                                                                 | voisinam@lafourchegov.org |  |  |  |  |
| POC Phone:                                                                                                                 | 985-493-6616              |  |  |  |  |

## NARRATIVE DESCRIPTION:

1. A description of each activity, including the need, purpose, objective(s), milestones and location. Include map showing the location of each activity.

As an update to Lafourche Parish's initial RESTORE Act Multiyear Plan which was accepted by Treasury on 2/18/2016, the following three projects were updated to include new proposed start and end dates of January 1, 2019 through January 31, 2021, for which an application has not yet been submitted to Treasury: West Belle Pass Marsh Creation, Catfish Lake Marsh Creation, and the Bayou L'Ourse to Leeville Marsh Creation projects. Additionally, the following project has been added in the amended multiyear plan:

Grand Bayou Freshwater Reintroduction Project - Phase II and Phase III

#### Description:

The Grand Bayou Freshwater Reintroduction Project consists of the following three planning phases: Phase I project was included in Lafourche Parish's initial multiyear plan and funded by Treasury at \$79,870 for the creation of a preliminary engineering and design report that will identify project areas or components that are most feasible, and outline a recommended path forward for project implementation. Phase II is to create a modeling technical report that will describe the study methodology, assumptions, model development and results. Phase III is to complete 100% engineering and design package that will finalize construction plans and specifications and complete bid documents. The primary goal of this underlying restoration project is to increase the flow of freshwater from the Atchafalaya River down Grand Bayou Canal via the Gulf Intracoastal Waterway (GIWW). The future construction phase is to increase the flow of freshwater from the GIWW into Grand Bayou Canal from approximately 600 cubic feet per second to 1,600 cubic feet per second; redirect much of the freshwater from Grand Bayou Canal into the marshes east and west of Grand Bayou Canal; create 112 acres of fresh marsh; and nourish an additional 14 acres of intermediate marsh west of

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Grand Bayou Canal near Highway 24. The completion of Phase II and Phase III engineering, design, and permitting activities are required to advance the project toward implementation.

#### Need:

To complete Phase II and Phase III engineering and design, and permitting activities to advance the project toward implementation. Without restoration, this region will continue to see the breakup of marshes and the conversion of low salinity marshes to brackish and saline marsh. More than 16,000 acres of marsh have been lost in this area since 1949, and a significant amount of this land loss may be attributed to direct removal and altered hydrology from canal dredging. Altered hydrology remains a current cause of land loss along with high rates of subsidence, which are estimated to be between 2.1 and 3.5 feet/ century (LCWCRTF 1999). Because of the high number of canals that have been dredged in the area, high salinity Gulf waters move rapidly northward into the marshes within the project area from Lake Felicity and Lake Raccourci. The amount of high salinity waters moving north is increasing as the marshes continue to breakup and disappear. The only freshwater input to this area originates from the GIWW along the northern project boundary. The freshwater inflow from the GIWW is restricted by the small cross-section of the channel north of the Highway 24 Bridge that could be dredged and the cross-section of the channel for several thousand feet south of that bridge. There is also a restriction (earthen plug) in Margaret's Bayou, which prevents freshwater from moving east from Grand Bayou into the broken marshes. The wetland loss currently experienced in this area jeopardizes natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands and it makes nearby communities more susceptible to flooding from storm events. This project requires additional data collection and hydrologic analysis, as well as initial permitting to coordinate with agency and flood protection authority representatives.

#### Purpose:

The purpose of this project is to complete engineering, design, and permitting activities to advance the project toward implementation.

# Objectives of Phase II and Phase III:

Phase II is to create a modeling technical report that describes the study methodology, assumptions, model development and results. The following activities will be undertaken during this Phase:

- -Conduct hydrologic modeling: This will include development of model scenarios needed for delineation of marsh areas of interest, hydraulic boundaries, and proposed dredging and spoil placement and to identify water control structures.
- -Review existing models, data, and recommend additional data collection to support modeling: This will include obtaining further relevant studies, models, topographic, and monitoring data, data gap analysis, and develop a data collection plan based on project needs and existing data.
- -Develop model geometry: This will update model geometry and topography and preform preliminary test simulations
- -Review existing monitoring data and develop boundary conditions for the model: This will include obtaining and reviewing data from applicable data sources.
- -Conduct calibration and verification of the system-wide model: This will include performing calibration and verification simulations.
- -Perform model scenarios: This will establish base conditions and evaluate changes in the water level, velocity, and salinity in the study area and extract predicted values of these variables at several points of interest in the system
- -Prepare output charges, figures, and tables of water levels and salinity changes: This will provide time-series charts, maps, animations, and tables reporting on the studied variables.
- -Create modeling technical report: The report will describe the study methodology, assumptions, model development and results.

Phase III is to complete 100% engineering and design package that will finalize construction plans and specifications and complete bid documents. The following activities will be undertaken during this Phase:

- -Prepare 30% design package: This will include estimated construction cost and duration, permit drawings and application submittal, and ongoing agency coordination.
- -Prepare 95% design package: This will include preliminary construction plans and specifications.

-Complete 100% engineering and design package: This will finalize construction plans and specifications and complete bid documents.

#### Milestones:

- 1. Modeling Technical Report
- 2. 30% Design Package
- 3. 95% Design Package
- 4. 100% Engineering and design package

### Location:

Phase II and Phase III planning activities will be conducted within the Gulf Coast Region of Lafourche Parish. The underlying restoration project will also be completed within the Gulf Coast Region of Lafourche Parish.

2. How the applicant made the multiyear plan available for 45 days for public review and comment, in a manner calculated to obtain broad-based participation from individuals, businesses, Indian tribes, and non-profit organizations, such as through public meetings, presentations in languages other than English, and postings on the Internet. The applicant will need to submit documentation (e.g., a copy of public notices) to demonstrate that it made its multiyear plan available to the public for at least 45 days. In addition, describe how each activity in the multiyear plan was approved after consideration of all meaningful input from the public and submit documentation (e.g., a letter from the applicant's leadership approving submission of the multiyear plan to Treasury or a resolution approving the applicant's multiyear plan).

The draft multiyear plan was made available for public review and comment over a period of forty-five (45) days in a manner calculated to obtain broad-based participation from individuals, businesses, Indian tribes, and non-profit organizations in accordance with 31 C.F.R. §§34.303(a)(8) and 34.503(g). Public comments on the draft multiyear plan were accepted from May 22, 2018-July 8, 2018, and from February 28, 2018 to April 15, 2018, by both email and regular mail. Comments were accepted by Amanda Voisin, CZM Administrator, via email to <a href="mailto:voisinam@lafourchegov.org">voisinam@lafourchegov.org</a> or regular mail to: Lafourche Parish Government, Office of Coastal Zone Management, RE: MYIP Amendment Comments, 2876 Hwy 1, Mathews, LA 70375. A second public notice period was needed due to a correction that needed to be made to the amended matrix and narrative. The detail narrative remained the same for both comment periods.

The draft multiyear plan was made available on the Lafourche Parish website (http://www.lafourchegov.org) with explicit instructions regarding how to submit public comments. In addition, the draft multiyear plan was presented to the Lafourche Parish Council on February 27, 2018. A hard copy of the amendment was available for viewing at the Lafourche Parish Government Complex in Mathews, LA.

No public comments were received during the comment period.

The Lafourche Parish Council adopted Resolution No. 18-131 on May 8, 2018 to approve the Lafourche Parish Implementation Plan. The Lafourche Parish Coastal Zone Manager submitted the multiyear plan to Treasury for acceptance on July 25, 2018.

3. How each activity included in the applicant's multiyear plan matrix meets all the requirements under the RESTORE Act, including a description of how each activity is eligible for funding based on the geographic location of each activity and how each activity qualifies for at least one of the eligible activities under the RESTORE Act.

The Grand Bayou Freshwater Reintroduction Project Phase II and Phase III consist of planning activities. Phase II consists of creating a modeling technical report that describes the study methodology, assumptions, model development and results, and Phase III consists of completing 100% engineering and design package that will finalize construction plans and specifications and complete bid documents. This project can be reasonably identified with an eligible activity under 31 CFR § 34.201(j): Planning Assistance for the eligible activity of Restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region [31 CFR § 34.201(a)]. The completion of Phase II and Phase III will advance the project towards implementation. The underlying restoration project is to increase the flow of freshwater from the GIWW into Grand Bayou Canal from approximately 600 cubic feet per second to 1,600 cubic feet per second; redirect much of the freshwater from Grand Bayou Canal into the marshes east and west of Grand Bayou Canal; create 112 acres of fresh marsh; and nourish an additional 14 acres of intermediate marsh west of Grand Bayou Canal near Highway 24. Phase II and Phase III planning activities will be conducted within the Gulf Coast Region of Lafourche Parish. The underlying restoration project will also be completed within the Gulf Coast Region of Lafourche Parish.

| 4. Criteria the applicant will use to evaluate the success of the activities included in the multiyear plan matrix in helping to restore and protect the Gulf Coast Region impacted by the Deepwater Horizon oil spill.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The success of the planning project is 100% completion of engineering and design package, finalize construction plans and specifications and complete bid documents that will advance the project toward implementation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5. How the activities included in the multivear plan matrix were prioritized and list the criteria used to establish the priorities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5. How the activities included in the multiyear plan matrix were prioritized and list the criteria used to establish the priorities.  This project was selected based on years of ongoing work and public engagement and represent key elements of the State's Coastal Master Plan efforts. The Grand Bayou Freshwater Reintroduction project is consistent with the 2017 Coastal Master Plan, as well as the eligibility requirements detailed in the RESTORE Act. On December 13, 2017, the parish was notified by CPRA that it was selected for funding of \$412,722 under the CPRA RESTORE Act Parish Matching Program for engineering and design of the Grand Bayou Freshwater Reintroduction project. The completion of the engineering, design, and permitting activities will advance the project toward implementation. This project will significantly contribute to restoring the natural resources, ecosystems, economies, and communities of Lafourche Parish residents, as well as residents of the entire state of Louisiana and the Gulf Coast. |
| 6. If applicable, describe the amount and current status of funding from other sources (e.g., other RESTORE Act contribution, other third party contribution) and provide a description of the specific portion of the project to be funded by the RESTORE Act Direct Component.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Lafourche Parish intends to use this Restore Act Direct Component funding as cost share match to available funding from the Louisiana Coastal Protection and Restoration Authority (CPRA). The total estimated cost of the project is \$687,869. Phase 1 costs of the project included in the Lafourche Parish initial multiyear plan and grant award is \$79,870. Phases II & III will costs an additional \$607,999 to complete. Lafourche Parish has pledged an additional \$195,277 of parish RESTORE Act Direct Component funds totaling \$275,147 towards this project. CPRA is requesting \$412,722 in RESTORE Spill Impact Component funding towards engineering and design of this project. Lafourche Parish may increase its contribution of RESTORE Act Direct Component funds as needed to accomplish this project as funds become available to the Parish.  Future phases (i.e., construction) will be funded from future increments of RESTORE Act funding allocations, as well as                                                                |
| the applications for CPRA for the construction phase of this project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

