

**Report to Congress for Future Water Resources Development (WRRDA 7001) Submission
Package**

Proposal Name: Barataria Basin Ridge and Marsh Restoration Program

Submission Date: 08/10/2017

Proposal ID Number: 7280e4c7-3504-4c75-98ee-fe5d376ad819

Purpose of Proposal: The Barataria Basin Ridge and Marsh Restoration Program (BBRMRP) will restore and sustain the Barataria Landbridge and the adjacent marsh to protect all adjoining parishes and restore the basins estuaries. This program will consist of a feasibility study to evaluate the restoration projects and sediment sources, and design of these restoration projects and water control structures, and finally reconnecting this historic and geomorphologically important land mass, rebuilding the backbone of the Barataria Basin. This restoration program will not only rebuild and renourish the marsh and ridges from Lafourche Parish (East), Jefferson Parish (center), and Plaquemines Parish (west). BBRMRP will not only protect the basins fisheries, wildlife, and coastal oil infrastructure, but will restore the natural line of defense to all northern parish residents, businesses, industry, and large portion of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS). This program will study and develop a plan to restore shorelines, marshes and ridges to build a sustainable and resilient basin from the many natural causes and manmade alterations that have caused extensive erosion in this deltaic system: Sea Level Rise, Subsidence, Invasive Species, Levees, Saltwater Intrusion. Language from Section 4013 on Coastal Resiliency of WRDA 2014 (Section 4014(b)), exactly states the purpose of this BBRMRP: "give priority to projects in communities the existence of which is threatened by rising sea level, including projects relating to shoreline restoration, tidal marsh restoration, dunal habitats to protect coastal infrastructure, reduction of future and existing emergency repair costs, and projects that use dredged materials;". One Mission of the Corps is to restore, create, enhance or preserve tens of thousands of acres of wetlands annually. This program would meet the Corps mission by restoring one of the US's most valuable and quickly vanishing coasts.

1. Administrative Details

Proposal Name: Barataria Basin Ridge and Marsh Restoration Program

by Agency: Jefferson Parish

Locations: LA

Date Submitted: 08/10/2017

Confirmation Number: 7280e4c7-3504-4c75-98ee-fe5d376ad819

Supporting Documents

File Name	Date Uploaded
WRDA Ltr of Support-LafourcheParish.pdf	08/10/2017
WRDA Ltr of Support-PlaqueminesParish.pdf	08/10/2017
edf-new-orleans-coastal-risk-fact-sheet.pdf	08/10/2017
BBRMRP-Program Area.pdf	08/10/2017
WRDA Ltr of Support-JeffersonParish.pdf	08/10/2017

2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.

Sponsor	Letter of Support
Jefferson Parish (Primary)	As the primary sponsor, Jefferson Parish Coastal Zone Management would like to provide this letter as a statement of support for the WRDA 7001 Project Submittal: Barataria Basin Large-Scale Ridge and Marsh Restoration Program. This project is necessary to fully restoring the marsh and ridges of Barataria Land Bridge and surround marshes that protect nearby municipalities, important commercial and recreational fisheries and oil and gas infrastructure. If you have any questions, please contact me at (504)736-6653, or leaverill@gmail.com.
Lafourche Parish	Lafourche Parish Coastal supports the continued coastal Restoration of Marsh and Ridges in the mid to lower Barataria Basin. Lafourche has already financially supported the the Long Distance Pipeline Project Phase 1 completed 2016.
Plaquemines Parish	Plaquemines Parish supports marsh and ridge restoration projects that restore the middle of the Barataria Basin within the next decade. These projects protects municipalities along the Mississippi River including Belle Chase. Plaquemines Parish has already financially contributed and scene results of connecting a sediment pipeline with the Barataria Basin marsh.

3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.

Feasibility Study

4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.

The Barataria Basin Ridge and Marsh Restoration Program (BBRMRP) will restore and sustain the Barataria Landbridge and the adjacent marsh to protect all adjoining parishes and restore the basins estuaries. This program will consist of a feasibility study to evaluate the restoration projects and sediment sources, a design of these restoration projects and water control structures, and finally reconnecting this historic and geomorphologically important land mass, rebuilding the backbone of the Barataria Basin. This restoration program will not only rebuild and renourish the marsh and ridges from Lafourche Parish (East), Jefferson Parish (center), and Plaquemines Parish (west). BBRMRP will not only protect the basins fisheries, wildlife, and coastal oil infrastructure, but will restore the natural line of defense to all northern parish residents, businesses, industry, and large portion of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS). This program will study and develop a plan to restore shorelines, marshes and ridges to build a sustainable and resilient basin from the many natural causes and manmade alterations that have caused extensive erosion in this deltaic system: Sea Level Rise, Subsidence, Invasive Species, Levees, Saltwater Intrusion. Language from Section 4013 on Coastal Resiliency of WRDA 2014 (Section 4014(b)), exactly states the purpose of this BBRMRP: "give priority to projects in communities the existence of which is threatened by rising sea level, including projects relating to shoreline restoration, tidal marsh restoration, dunal habitats to protect coastal infrastructure, reduction of future and existing emergency repair costs, and projects that use dredged materials;". One Mission of the Corps is to restore, create, enhance or preserve tens of thousands of acres of wetlands annually. This program would meet the Corps mission by restoring one of the US's most valuable and quickly vanishing coasts.

5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	Non-Federal	Total
Study	\$2,000,000	\$1,000,000	\$3,000,000
Construction	\$250,000,000	\$0	\$250,000,000

Explanation (if necessary)

This BBRMRP is a large scale restoration program, and it is difficult at this time to estimate the construction of this programs many projects.

6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.

The BBRMRP will extensively provide both monetary and nonmonetary benefits, by rebuilding the marsh between Gulf of Mexico and the new HSDRRS System. Without this marsh buffer the Gulf of Mexico will be on the shoreline of the new federal levee system, therefore, this marsh restoration program will reduce storm surge and directly protect human lives, homes, businesses, navigation and important regional industries. Jefferson Parish is currently putting together a white paper detailing the importance of the Barataria Basin to its neighboring parishes, states, and the nation as a whole. We will provide this document by September 15th, to further detail the BBRMP benefits. Attached is study developed by The Environmental Defense Fund in collaboration with GNO, Inc., with an excerpt below: "Land Loss > Total physical damage in the New Orleans region could be as high as \$1.7 billion in 50 years > 40% of statewide business replacement costs from land loss in New Orleans region > 76% of statewide residence replacement costs from land loss in New Orleans region > Physical damage leads to annual losses of 9,000 jobs, \$568 million in wages and \$1.7 billion in output > 42% of statewide employment impacts from land loss in New Orleans > Damage in New Orleans contributes to business impacts in other regions Storm Damage > New Orleans region has a long history of hurricanes inflicting substantial damage because of its proximity to the coast, dense population and infrastructure, and extremely low elevation > Even with the recently upgraded levee system and other hurricane protection measures, risk remains and is expected to grow in a future without action > City of New Orleans levees predicted to fail > \$130 billion in total replacement costs (92% of statewide replacement costs from New Orleans region) > Physical damage leads to \$11.6 billion lost labor productivity, \$26 billion lost output equivalent to 44% of annual labor productivity in New Orleans"

7. Does local support exist? If 'Yes', describe the local support for the proposal.

Yes

Local Support Description

This Restoration Program will study projects in not only Jefferson Parish, but also Plaquemines and Lafourche Parish. This important restoration program will protect the Greater New Orleans municipalities both urban and rural from future storm surge and storms by restoring the natural buffer of marsh and ridges. I have attached an article developed by the EDF, and published by GNO, Inc. that support coastal restoration in the mid and lower Barataria Basin as they reduce salt water intrusion, and tidal exchange.

8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?

Yes

Other Non-Federal Sponsors Letter(s) of Support

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WRDA Ltr of Support_LafourcheParish.pdf



4876 Highway 1 • Mathews, LA 70375
P.O. Box 425 • Mathews, LA 70375
985.537.7603 • 800.794.3160 • Fax 985.532.8292

James B. Cantrelle, Parish President

Lafourche Parish Office of Coastal Zone Management

August 9, 2017

Nick Sims
US Army Corps of Engineers
New Orleans District
7400 Leake Avenue
New Orleans, LA
70118

Dear Mr. Sims:

Lafourche Parish Coastal Zone Management would like to provide this letter as a statement of support for Jefferson Parish's WRDA 7001 Project Submittal: Barataria Basin Large-Scale Ridge and Marsh Restoration Program. This project is necessary to fully restore the marsh and ridges of the Barataria Land Bridge and surround marshes that protect nearby municipalities, important commercial and recreational fisheries and oil and gas infrastructure.

If you have any questions, please contact me at 985-493-6616, or voisinam@lafourchegov.org.

Sincerely,

Amanda M. Voisin, CFM
CZM Administrator
Lafourche Parish Government

James B. Cantrelle	Parish President	James Bourgeois	District 5
Jerry Jones	District 1	Corey Perrillieux	District 6
Luci Spósito	District 2	Armand Autin	District 7
Michael Gros	District 3	Jerry LaFont	District 8
Aaron "Bo" Melvin	District 4	Daniel Lorraine	District 9

Other Non-Federal Sponsors Letter(s) of Support

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WRDA Ltr of Support_PlaqueminesParish.pdf

Plaquemines Parish Government

Parish President
Amos Cormier

COASTAL ZONE MANAGEMENT

8056 Hwy. 23, Suite 200
Belle Chasse, Louisiana 70037
(504) 297-5629
Fax (504) 297-5539

Council Members

District 1 - John L Barthelemy Jr.
District 2 - William "Beau" Black
District 3 - Kirk M Lepine
District 4 - Irvin Juneau Jr.
District 5 - Benedict "Benny" Rousselle
District 6 - Charlie Burt
District 7 - Audrey Trufant-Salvant
District 8 - Jeff E Edgcombe
District 9 - Nicole Williams

August 9, 2017

Nick Sims
US Army Corps of Engineers
New Orleans District
7400 Leake Avenue
New Orleans, LA 70118

RE: Letter of Support

Plaquemines Parish Coastal Zone Management would like to provide this letter as a statement of support for Jefferson Parish's WRDA 7001 Project Submittal: Barataria Basin Large-Scale Ridge and Marsh Restoration Program. This project is necessary to fully restoring the marsh and ridges of Barataria Land Bridge and surround marshes that protect nearby municipalities, important commercial and recreational fisheries and oil and gas infrastructure.

If you have any questions, please contact me at 504-297-5629 or email vfrellich@ppgpov.net.

Sincerely,



Vincent Frelich
Director of Coastal Zone Management

Additional Proposal Information

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edf_new_orleans_coastal_risk_fact_sheet.pdf

Regional Impacts of Coastal Land Loss: New Orleans Region



Louisiana is facing a coastal land loss crisis — nearly two thousand square miles of land has been lost over the last 100 years, and an equal amount could potentially be lost over the next 50 years. Businesses, homes, infrastructure and whole communities could be lost or suffer severe economic damages in a ‘future without action’ — a term used by state planners that means a future in which no coastal restoration projects or protection are completed. If nothing is done to address Louisiana’s land loss problem, significant economic losses will be experienced at the national, state and regional levels through flooding and destruction of buildings, roads and railways, as well as the impact to jobs and disruption of the flow of commerce connected to Louisiana’s coast.

The accompanying report *Regional Impacts of Coastal Land Loss and Louisiana’s Opportunity for Growth* released in March 2017 by LSU’s Economics & Policy Research Group and Environmental Defense Fund looks in detail at the five southern regions of the state to quantify the economic impact of land loss in Louisiana as well as the economic opportunity of pursuing the state’s Coastal Master Plan. This fact sheet highlights results from the New Orleans region.

New Orleans Overview

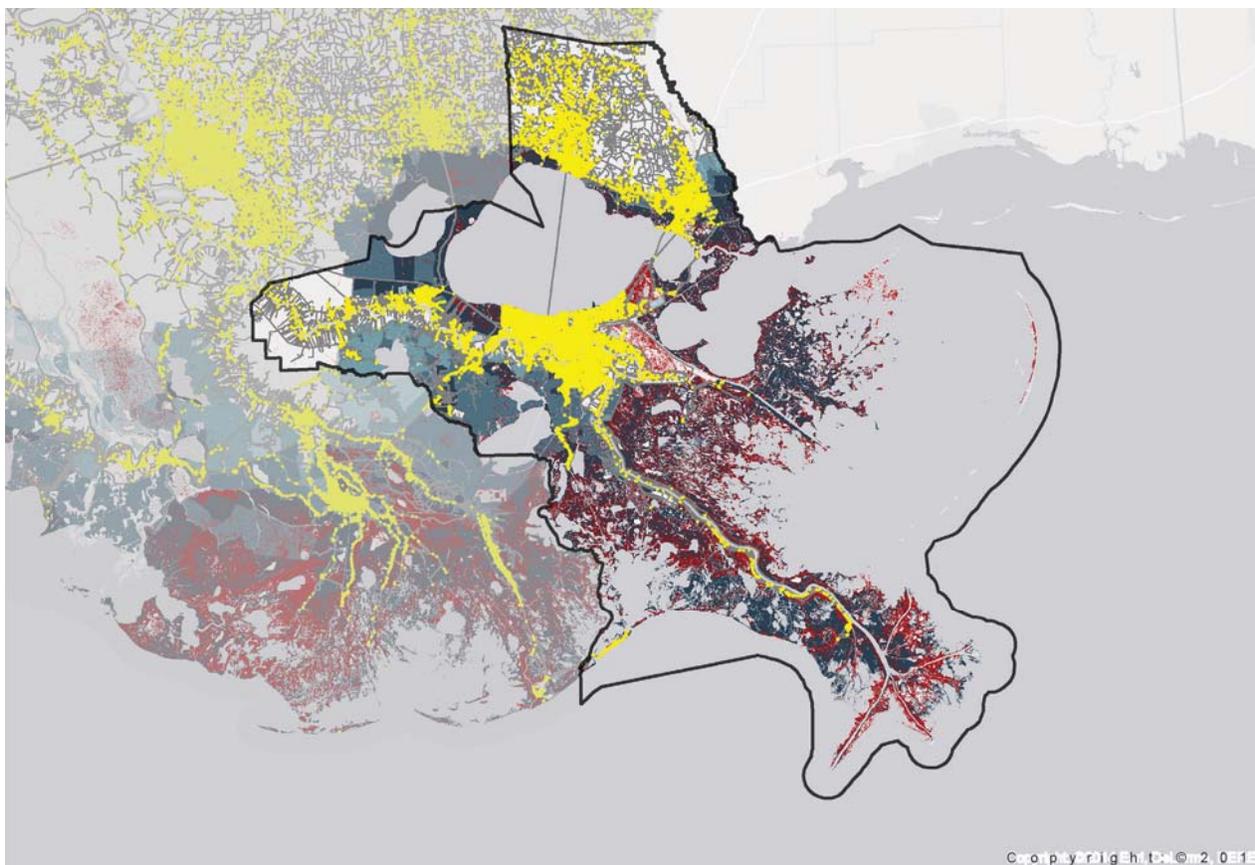
- ▶ New Orleans Region includes:
 - ▶ Parishes: Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, and St. Tammany
 - ▶ Cities: New Orleans, Slidell, Covington, LaPlace
 - ▶ 36,000 businesses and 537,000 jobs
- ▶ New Orleans supports 25% more jobs than Baton Rouge and more than 5 times as many jobs as Houma
- ▶ Tourism an important industry — 60% of statewide tourism spending in New Orleans

Land Loss

- ▶ Total physical damage in the New Orleans region could be as high as \$1.7 billion in 50 years
 - ▶ 40% of statewide business replacement costs from land loss in New Orleans region
 - ▶ 76% of statewide residence replacement costs from land loss in New Orleans region
- ▶ Physical damage leads to annual losses of 9,000 jobs, \$568 million in wages and \$1.7 billion in output
 - ▶ 42% of statewide employment impacts from land loss in New Orleans
 - ▶ Damage in New Orleans contributes to business impacts in other regions

Storm Damage

- ▶ New Orleans region has a long history of hurricanes inflicting substantial damage because of its proximity to the coast, dense population and infrastructure, and extremely low elevation
- ▶ Even with the recently upgraded levee system and other hurricane protection measures, risk remains and is expected to grow in a future without action
- ▶ Case study storm with the biggest impact: Eastern Storm
 - ▶ City of New Orleans levees predicted to fail
 - ▶ \$130 billion in total replacement costs
 - 92% of statewide replacement costs from New Orleans region
 - ▶ Physical damage leads to \$11.6 billion lost labor productivity, \$26 billion lost output
 - Equivalent to 44% of annual labor productivity in New Orleans



May key: yellow represents current location of businesses, red represents land loss in 50 years from 2012 less optimistic scenario, and blue represents flooding from a 100-year storm after the land loss shown in red.

While the economic risks our coastal land loss pose to the Greater New Orleans region are undoubtedly the existential threat of our generation, the jobs created through restoring our coast provide significant economic returns for our parishes and communities. However, these jobs represent more than just paychecks: they illustrate an unprecedented opportunity for the workforce, businesses, and universities of Southeast Louisiana to emerge as a hub of water management expertise, and export our lessons learned nationally and internationally.

— **Michael Hecht**
President and CEO, Greater New Orleans, Inc.

This fact sheet is one of a series that identifies economic costs, in a future without coastal protection and restoration, to five regions: Baton Rouge, Houma, Lafayette, Lake Charles, and New Orleans. For more details on economic risks facing these regions under different land loss and storm scenarios, please see the full report: *Regional Impacts of Coastal Land Loss and Louisiana's Opportunity for Growth* (available on the websites below). That report also identifies the jobs, wages, and economic growth supported at the state level by investing in coastal restoration. By investing in the coast and implementing the Coastal Master Plan, Louisiana has a compelling opportunity to reduce potential losses, while also boosting the state's economy.

Environmental Defense Fund (edf.org), a leading international nonprofit organization, creates transformational solutions to the most serious environmental problems. EDF links science, economics, law and innovative private-sector partnerships. Connect with us on EDF Voices, Twitter and Facebook.

Based in the **E. J. Ourso College of Business at Louisiana State University**, the **Economics & Policy Research Group** (EPRG) is an applied economics research unit of the Department of Economics focused on advancing the scientific knowledge base on topics relevant to Louisiana's economy. LSU EPRG aims to contribute advances to the general body of economics research, inform public decision making, support economic development, and promote a strong, resilient Louisiana economy accessible to all Louisiana residents.
business.lsu.edu/eprg

For more information, contact:

Elizabeth Van Cleve, Environmental Defense Fund, 202-553-2543, evancleve@edf.org
Alison Satake, LSU Media Relations, 225-578-3870, asatake@lsu.edu

Full report can be downloaded at the following site: edf.org/LSU-report

Map Document

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BBRMRP_Program Area.pdf



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Primary Sponsor Letter of Support

(As uploaded)

WRDA Ltr of Support_JeffersonParish.pdf



JEFFERSON PARISH

DEPARTMENT OF PUBLIC WORKS

MICHAEL S. YENNI
PARISH PRESIDENT

Lauren E. Averill, P.E.
JOSE A. GONZALEZ, P.E.
DIRECTOR
Coastal Zone Coordinator

August 9, 2017

Lauren E. Averill, P.E.
Jefferson Parish Coastal Zone Management
200 Derbigny St.
Gretna, LA 70053

Nick Sims
US Army Corps of Engineers
New Orleans District
7400 Leake Avenue
New Orleans, LA 70118

Dear Mr. Sims,

As the primary sponsor, Jefferson Parish Coastal Zone Management would like to provide this letter as a statement of support for the WRDA 7001 Project Submittal: Barataria Basin Large-Scale Ridge and Marsh Restoration Program. This project is necessary to fully restoring the marsh and ridges of Barataria Land Bridge and surround marshes that protect nearby municipalities, important commercial and recreational fisheries and oil and gas infrastructure.

If you have any questions, please contact me at (504)736-6653, or leaverill@gmail.com.

Sincerely,

Lauren E. Averill, P.E.
Jefferson Parish Coastal Zone Management
CZM Coordinator