

## Beneficial Use of Dredged Material

### Section 1122 of the Water Resources Development Act of 2016

#### Pilot Project Proposal Form

Point of Contact: Jared Harris, Mississippi Department of Marine Resources,  
[jared.harris@dmr.ms.gov](mailto:jared.harris@dmr.ms.gov), 228-523-4053

**1. Name and Location of the proposed project:**

Deer Island Lagoon Project; Biloxi, MS

**2. Purpose of the proposed project:**

- (a) *Reducing storm damage to property and infrastructure* – The Deer Island Restoration Project, a Federally funded project in the Mississippi Coastal Improvements Program, included filling of the west end breach, the restoration of the southern shoreline, and strategic vegetation plantings. Importantly, and relevant to this pilot project proposal, the Deer Island Restoration Project included the construction of a 1 million cubic yard capacity lagoon (Figure 1) specifically designed for the beneficial use placement of fine-grained dredged material from Federally-authorized navigation channels. Placement of dredged material into the lagoon will protect and restore Deer Island, one of the most important properties in the Mississippi Coastal Preserves Program, as well as provide protection for the City of Biloxi from storm events.
- (b) *Protecting, restoring, and creating aquatic ecosystem habitats* – As one of the most important properties in the Coastal Preserves Program, restoration of Deer Island to its 1850's footprint is part of a multiple-project, joint effort to restore marsh along the Mississippi Coast for environmental benefit. In a previous marsh restoration project (Section 204 Aquatic Ecosystem Restoration Project; USACE Mobile, MDMR, and Biloxi Port Commission), an approximate 45-acre marsh site was created by placement of material from the Federal Biloxi Navigation Channel. Placement of future maintenance material into the lagoon would accomplish the same goal of marsh restoration, except at a scale of approximately 100 acres. This marsh would also prevent further retreat of the earthen berm created in the Deer Island Restoration Project.
- (c) *Stabilizing stream systems and enhancing shorelines* – Placement of Federal maintenance material into the lagoon would add structural integrity to the island as well as the earthen sand berm created by the Deer Island Restoration Project.

- (d) *Promoting recreation* – As a nearshore island, Deer Island provides many opportunities for public recreation. Creation of an additional 100 acres of marsh would serve to enhance the public benefit of Deer Island.
- (e) *Supporting risk management adaptation strategies* – Though much of Deer Island has endured through catastrophic storm events over the last century including Hurricanes Camille, Ivan, and Katrina, the storms have destroyed forested areas, significantly eroded the sandy shorelines, and left elevations too low to support marsh vegetation. Filling of the lagoon would provide 100 acres of marsh to mitigate against future storm events.

**3. Description of the proposed project, including more detail on how material will be used beneficially to meet project purposes identified in 2 above:**

Restored marshes protect shorelines from wave energy while also performing environmental functions, such as increasing water quality, promoting settlement of suspended particulates, and providing habitat to various species of birds, fish, crustaceans, and other invertebrates. The primary objective of the Deer Island Lagoon project is to beneficially use dredged material in a cost-effective manner while enhancing the local ecosystem on Deer Island. This project provides a unique opportunity to restore previously eroded portions of the island by placement of dredged material from the Federal Biloxi Channel, including East, West, and Lateral Access Channels. The Deer Island Lagoon, an approved USACE disposal area (EA-Beneficial Use of Dredged Material and Maintenance Dredging, Biloxi Harbor Federal Navigation Project, MS – November 2011) is an approximately 100-acre site with more than 1 million cubic yards of capacity. The location of shoaling and the Federal Standard has prevented material from being placed in the lagoon. Moving forward, if selected as a pilot project, O&M material from the Federal Biloxi Navigation Channel should be placed into this site until it reaches capacity.



**Figure 1. Deer Island Lagoon with Deer Island Aquatic Ecosystem Restoration site on the right**

- 4. The name of all non-federal interests planning to act as the sponsor, including any non-federal interest that has contributed to, or is expected to contribute toward the non-federal share of the proposed beneficial use project:**

Mississippi Department of Marine Resources  
Mississippi Department of Environmental Quality

- 5. List the authorized U.S. Army Corps of Engineers (Corps) water resources development project(s) that the proposed beneficial use project is associated with:**

Biloxi Harbor Federal Navigation Project  
Deer Island Aquatic Ecosystem Restoration Project  
Deer Island Restoration Project (MSCIP)

- 6. Provide an estimate, to the extent practicable, of the total beneficial use project cost, and the federal and non-federal share of those costs:**

Cost Apportionment			
Deer Island Lagoon Beneficial Use Site			
Project Components	Federal	Non-Federal	Total
Construction of Beneficial Use Facility Containment*	\$ -	\$ -	\$ -
LERR, Engineering and Permitting**	\$ -	\$ -	\$ -
Dredging and Disposal of Dredged Sediments into Beneficial Use Site***	\$ 855,000	\$ -	\$ 855,000
Maintenance of Beneficial Use Facility	\$ -	\$ 250,000	\$ 250,000
			\$ 1,105,000
* The construction of the beneficial use site (lagoon) was previously completed as part of the USACE MSCIP Deer Island Restoration Project.			
** Land acquisition will not be required while engineering and permitting has been completed.			
*** The costs above the federal standard include 15,000 lf of dredge pipeline, 24" booster pump and marsh buggies.			

**7. Describe, to the extent practicable, an estimate of the anticipated monetary and non-monetary benefits of the proposed beneficial use project with regard to the environmental, economic, and social benefits of the project:**

**Environmental:** *The proposed project has been permitted for use as a beneficial use site. No additional permitting or NEPA analysis is expected.*

*Ecological, Cultural and Aesthetic Resources and Benefits:* The Deer Island Coastal Preserve is comprised of 650 acres and follows the beach on Deer Island. Adjacent waters of the Mississippi Sound are designated critical habitat for Gulf Sturgeon. Most of the lands are owned, managed, and monitored by MDMR. Habitat within the preserve is comprised of Mississippi Sound sand bottoms, barrier island pond/lagoon complex, polyhaline marsh, mesohaline marsh, slash pine maritime forest, and relic dune scrub. This habitat provides a feeding, nesting, and wintering area for migratory birds, including brown pelican and cormorant.

*Threatened and endangered species, historic and culturally significant resources:* The preserve also supports the great blue heron rookery and a number of rare and endangered species including piping plover, brown pelican, sharp-shinned hawk, American kestrel, merlin, snowy plover, American oystercatcher, least tern, and southern red cedar. Other species know to utilize the island include nesting sea turtles, ospreys, and bald eagles

*Potentially contaminated sediments or Hazardous, Toxic, or Radioactive Waste concerns at or adjacent to the project area:* All Federally dredged material that would be placed into the Project is tested according to the Inland Testing Manual. All non-federal material placed into the site is tested according the Dredged Material Evaluation Checklist and submitted to MDEQ for a suitability determination.

*Contribution to local, state or Federal restoration plan(s):* This Project will contribute significantly to the Mississippi Department of Marine Resources Master Plan for the Beneficial Use of Dredged Material for Coastal Mississippi by restoring Deer Island. It also presents an opportunity to beneficially use dredged material consistent with federal standards and programs such as Engineering with Nature (EWN).

**Economics:**

*Change in labor distribution, income and employment within the region as a result of the project:* In alignment with Executive Order 12898 Environmental Justice for Low Income and Minority Populations and Executive Order 13045 Protection of Children from Environmental Health Risks and Safety Risks, this Project will not disproportionately impact minority or low-income populations or children.

**8. Describe if local support exists for the proposal:**

Local support does exist for the Deer Island Lagoon project. Several marsh restoration projects have already been completed at Deer Island.

**9. Statement of the non-federal interest's financial ability to provide a share of the project costs:**

Mississippi Department of Marine Resources - attached  
Mississippi Department of Environmental Quality - attached



**STATE OF MISSISSIPPI**

Phil Bryant  
Governor

**MISSISSIPPI DEPARTMENT OF MARINE RESOURCES**

Joe Spraggins, Executive Director

March 9, 2018

U.S. Army Corps of Engineers  
Directorate of Civil Works  
Operations and Regulatory Community of Practice  
ATTN: CECW-CO-OD  
441 G Street NW  
Washington, DC 20314

Please be advised of the intent of the Mississippi Department of Marine Resources to submit a proposal to the U.S. Army Corps of Engineers for consideration under its beneficial use of dredged material pilot program pursuant to Section 1122 or WRDA 2016.

Based on what is known about the pilot program, the Mississippi Department of Marine Resources supports the Deer Island Lagoon Project and would like to proceed to the next step to determine if it is feasible for this agency to participate based on our available resources and agency goals.

Sincerely,

  
Joe Spraggins

Executive Director



STATE OF MISSISSIPPI  
PHIL BRYANT  
GOVERNOR  
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY  
GARY C. RIKARD, EXECUTIVE DIRECTOR

March 12, 2018

U.S. Army Corps of Engineers  
Directorate of Civil Works,  
Operations and Regulatory Community of Practice  
ATTN: CECW-CO-OD  
441 G Street NW  
Washington, DC 20314

Please be advised that the Mississippi Department of Environmental Quality (MDEQ) fully supports the MS Department of Marine Resources proposal to the U.S. Army Corps of Engineers for consideration under its beneficial use of dredged material pilot program pursuant to Section 1122 of WRDA 2016.

This letter should not be construed as an obligation on the part of MDEQ to implement the project, but rather a notice of our interest, capability, and desire to advance this project, with an ultimate goal of bringing the project to construction.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Wells".

Chris Wells  
Chief of Staff  
Director, Office of Restoration