



MRGO ECOSYSTEM RESTORATION

April 2013

U.S. ARMY CORPS OF ENGINEERS

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For nearly 45 years, the Mississippi River Gulf Outlet (MRGO) provided a shortened shipping route between the Port of New Orleans and the Gulf of Mexico. On June 5, 2008, the MRGO was de-authorized between the Gulf of Mexico and the Gulf Intracoastal Waterway (GIWW), and a rock closure structure was approved for construction in the vicinity of Bayou La Loutre in St. Bernard Parish, Louisiana. The channel was physically closed to shipping in July 2009.

The MRGO Ecosystem Restoration Plan was developed by the U.S. Army Corps of Engineers as a supplement to the MRGO Deep-Draft Deauthorization Report to Congress. The comprehensive ecosystem restoration plan is aimed at the restoration and conservation of estuarine habitat areas affected by the MRGO navigation channel. Section 7013 of the Water Resources Development Act (WRDA) of 2007 authorized the development of the plan, and a feasibility study, fully funded by the Federal government, was completed on 28 September 2012. Implementation of the recommended ecosystem restoration plan requires the signing of a cost-share agreement with the Corps' non-Federal sponsors, the State of Louisiana and the State of Mississippi.

The study area encompasses portions of southeast Louisiana and southwest Mississippi, including the Lake Borgne ecosystem and other areas affected by the MRGO navigation channel. In Louisiana, the study area includes Lake Maurepas, Lake Pontchartrain, Lake Borgne and Chandeleur Sound. In Mississippi, the study area includes portions of western Mississippi Sound, its bordering wetlands and barrier islands.

Project Features

Study area issues:

- *Decreased fresh water, sediment and nutrient inputs*
- *Hydrologic modifications*
- *Saltwater intrusion*
- *Wetland loss*
- *Ridge habitat degradation and destruction*
- *Retreating and eroding barrier islands*
- *Bank and shoreline erosion*
- *Tropical storms*
- *Subsidence*
- *Sea level rise*
- *Altered circulation and water quality*
- *Habitat change and loss*
- *Invasive species and herbivory*

Ecosystem restoration opportunities:

- *Freshwater, sediment, and nutrient introduction*
- *Wetland protection, restoration, and creation*
- *Shoreline protection*
- *Bank stabilization*
- *Ridge protection and restoration*
- *Barrier island protection and restoration*
- *Water control measures (gates, weirs, sills, plugs, fill areas)*
- *Hydrologic restoration*
- *Use of native vegetation*
- *Natural features for storm surge damage reduction*
- *Modifications to authorized projects*

Project Status

The Draft Feasibility Report, Draft Environmental Impact Statement and Draft Engineering Appendix were available for public review during December 2010 - March 2011. Meetings were held in January and February 2011 in Louisiana and Mississippi to allow for public review and comments on the draft reports. Substantial public comments were received during the public comment period. The project development team reviewed and responded to these comments, and a final report was developed. The Final Environmental Impact Statement and Feasibility Study report have undergone an internal review process and were available for a 40-day NEPA public review period. The Chief of Engineers approved the Feasibility Study report on 28 September 2012 and recommends implementation of the federally identified plan provided that a non-federal sponsor agrees to cost share in the plan in accordance with requirements of Section 103 of WRDA1986.

Federally Identified Plan (FIP)

The components of the FIP would produce 37,980 Annual Average Habitat Units (AAHUs) and restore and protect approximately 57,472 acres of habitat. Based on 2012 price levels, the Project First Cost of the FIP is estimated at \$3 billion. The total cost of the Monitoring and Adaptive Management Plan is \$190 million, including costs for potential

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adaptive management actions. The operation, maintenance, repair, replacement and rehabilitation (OMRR&R) costs for plan features are estimated at \$427 million.

The plan includes the following:

- Acreage broken down by habitat:
 - 14,123 acres of fresh and intermediate marsh
 - 32,511 acres of brackish marsh
 - 466 acres of saline marsh
 - 10,318 acres of cypress swamp
 - 54 acres of ridge habitat
- 71 miles of shoreline protection broken down by location:
 - 9.6 miles in Lake Pontchartrain
 - 31.2 miles in Lake Borgne
 - 24.4 miles along the MRGO
 - 5.8 miles of oyster reef restoration in the Biloxi Marsh

Recommendations of the FIP are divided into tiers based on the level of uncertainty regarding conditions for ecological success and long-term sustainability, and the need for additional study. Implementation of the FIP requires a non-Federal cost-share sponsor.

- Tier 1 includes features that have been developed to a feasibility level of detail and are not dependent on a freshwater diversion. Tier 1 features are recommended for construction through the WRDA 2007 Section 7013 authority.
- Tier 2 includes features with feasibility level detail that are dependent upon salinity conditions, but may be sustainable without the implementation of a freshwater diversion. If future conditions and further analysis indicate that favorable conditions for ecological success and long term sustainability exist (as defined in the adaptive management plan), then these projects may be constructed. Tier 2 features would be constructed through the WRDA 2007 Section 7013 authority.
- Tier 3A includes further study of the Violet, LA Freshwater Diversion under the WRDA 2007 Section 3083 authority.
- Tier 3B includes any features that are dependent on a freshwater diversion, and features in Tier 2 that future conditions and further analyses indicate are not sustainable without a freshwater diversion. Subsequent to the completion of Tier 3A, Tier 3B features would be constructed through the Section 7013 authority.

MRGO (MISSISSIPPI RIVER GULF OUTLET) ECOSYSTEM RESTORATION PLAN

Alternative Plan C



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