



Medium Diversion at White Ditch

July 2013

U.S. ARMY CORPS OF ENGINEERS

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The Louisiana Coastal Area (LCA) program focuses on critical, near-term ecosystem restoration projects and studies, as approved in the Water Resources
Development Act of 2007.
The program goal is to slow the current trend of coastwide wetland loss and resource degradation.

Several restoration techniques are employed in this program, including river diversions, marsh creation and barrier island restoration. Overall, the program is focused on a systematic approach to coastal restoration using larger projects to restore natural features and ecosystem processes.



The Medium Diversion at

White Ditch project is a sediment diversion project identified in the LCA program. It was authorized under the Water Resources Development Act of 2007 - Section 7006(e)(3)(A). The Coastal Protection and Restoration Authority of Louisiana (CPRA) is the cost-share partner in the development and implementation of this project.

Project Location

The Medium Diversion at White Ditch project is located approximately six miles upstream from Myrtle Grove, on the east bank of the Mississippi River in Plaquemines Parish, Louisiana. Additional analysis is currently underway to evaluate other locations, both upstream and downstream of the 2010 recommended location, for the diversion structure on the Mississippi River that have better potential for sediment delivery.

Project Goals

The project goal is to restore and maintain ecological integrity, including habitats, communities, and populations of native species, and the processes that sustain them by reversing the trend of degradation and deterioration to the area between the Mississippi River and the River aux Chenes ridges.

Objectives

The purpose of the feature is to provide additional freshwater, nutrients, and fine sediment to the area between the Mississippi River and the River aux Chenes ridges. Specific objectives include:





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- Maintain the current area of marsh habitat, of all types (41,206 acres), which provide life requisite habitat conditions for native coastal marsh fish and wildlife.
- Restore adequate freshwater and nutrient inputs into the project area such that sustainable areas of fresh, intermediate, brackish and saline marsh are present, and existing areas of marsh acres are maintained.
- Restore sediment inputs into the project area equivalent to an average of approximately 1,300,000 cubic yards of sediment per year.

Project Features

The feasibility study recommends the construction of a 35,000 cfs diversion on the Mississippi River with a conveyance channel to be constructed in the vicinity of Phoenix, Louisiana, coupled with marsh creation and outfall management features. Currently, additional sediment and hydrodynamic modeling is underway that will help refine the exact placement for the diversion structure since suspended sediment loads in the Mississippi River vary widely based on location. Properly locating the structure will vastly improve benefits to the project area and will help ensure that the diversion functions as intended. This project will improve habitat function by creating and nourishing approximately 20,315 acres of fresh, intermediate, brackish and saline wetlands, and is forecast to achieve no-netloss of wetlands in the project area. The plan will also will decrease wetland vulnerability to damage from tropical storms. The introduction of additional freshwater, sediments and nutrients would facilitate organic sediment deposition, improve biological productivity and prevent further deterioration of area marshes.

Regardless of the final location for the diversion structure, the project will operate at up to 35,000 cfs during the months of March and April only. This operational plan coincides with generally higher suspended sediment concentrations in the river during spring floods and helps reduce potential impacts to fisheries in the surrounding estuary.

Project Status

The Medium Diversion at White Ditch Chief of Engineers Report was signed December 30, 2010. The Preconstruction Engineering and Design (PED) Project Management Plan was approved by CPRA in August 2011, which outlines additional modeling and evaluation activities to determine the best location for the diversion structure on the Mississippi River. Once a final location is selected (expected in August 2013), additional PED activities such as detailed plans and specifications can begin.

Anyone seeking additional information on the Medium Diversion at White Ditch project can visit the Louisiana Coastal Area program website at www.lca.gov or the New Orleans District LCA website at www.mvn.usace.army.mil/Missions/Environmental/LouisianaCoastalArea/CriticalNearTermProjects/Medium DiversionatWhiteDitch.aspx.