Modification of Davis Pond Diversion



January 2013

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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 coast-wide 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 Modification of Davis Pond Diversion project is a restoration feature project that would optimize the operations of the existing diversion structure for the purpose of decreasing the rate of wetland loss and maintaining habitat quality. The project was authorized under the Water Resources Development Act of 2007 - Section 7006(e)(1)(C) and the State of Louisiana's Coastal Protection and Restoration Authority (CPRA) is the cost-share partner in the development and implementation of this project.

Project Location

The project focuses on the existing Davis Pond Diversion located at on the west bank of the Mississippi River, upstream from New Orleans, two miles below the community of Luling, Louisiana.

Project Goals

The goal of the Modification of Davis Pond Diversion project is to identify changes in the operation of the existing diversion structure to increase wetland creation and restoration outputs for this structure.

Objectives

The objectives of the Modification of Davis Pond Diversion project, with respect to the study area, include the following:

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- 1) Decrease the rate of land loss, and where possible, increase wetland acreage over the 50 year period of analysis.
- 2) Increase the geographic extent and distribution of Davis Pond freshwater, sediment, and nutrients throughout the study area over the 50-year period of analysis.
- 3) Create a salinity transition that supports a healthy and diverse estuarine system throughout the study area over the 50-year period of analysis.

Project Features

Construction of the Mississippi River levee system has effectively stopped annual flooding that, in the past, nourished surrounding wetlands with sediments, nutrients and freshwater. The Davis Pond diversion structure, constructed in 2002 in the upper Barataria Basin, has a maximum operating capacity of 10,650 cubic feet per second (cfs) of water. The structure has been operated as a salinity management feature, with freshwater introductions from the Mississippi River ranging from 1,000 cfs up to 10,650 cfs and averaging 6,000 cfs. This restoration feature study would assess changes in the operation of the Mississippi River & Tributaries (MR&T) Davis Pond Freshwater Diversion project to increase wetland creation and restoration outputs.

Project Status

The project was initiated with the signing of the Feasibility Cost Share Agreement on June 5, 2009. Hydraulics and Hydrology (H&H) modeling was completed in December 2011. The PDT was close to selecting a recommended plan and the scheduled study completion date was November 2013, upon signature of a Chief of Engineers Report.

By request of the State of Louisiana's Coastal Protection and Restoration Authority in October 2012, the feasibility study for this project has been suspended.

Anyone seeking additional information on the Modification of Davis Pond Diversion project can visit the Louisiana Coastal Area program website at <u>www.lca.gov</u>.