



PLAN PROGRESS

The Atchafalaya Master Plan has progressed throughout the summer, moving from foundational planning into project evaluation. The Plan Development Team (PDT) has established goals and objectives, refined the candidate project list, and calibrated and validated the hydrologic and hydraulic models that help describe how water and sediment move through the Atchafalaya River System. The team has used these models to establish Without Project conditions, which provide the point of comparison for evaluating how candidate projects change system dynamics. Candidate project model runs are now underway, and the team is beginning to assess how those projects support the Plan's objectives.

OUTREACH AND ENGAGEMENT

Brian Lezina and Michael Coulon gave a presentation at the April CPRA Board Meeting to provide an update on the planning effort, describe how the PDT is approaching project identification and evaluation, and provide examples of key issues and proposed solutions. You can view the slides [here](#) or watch the presentation [here](#) (28:40).

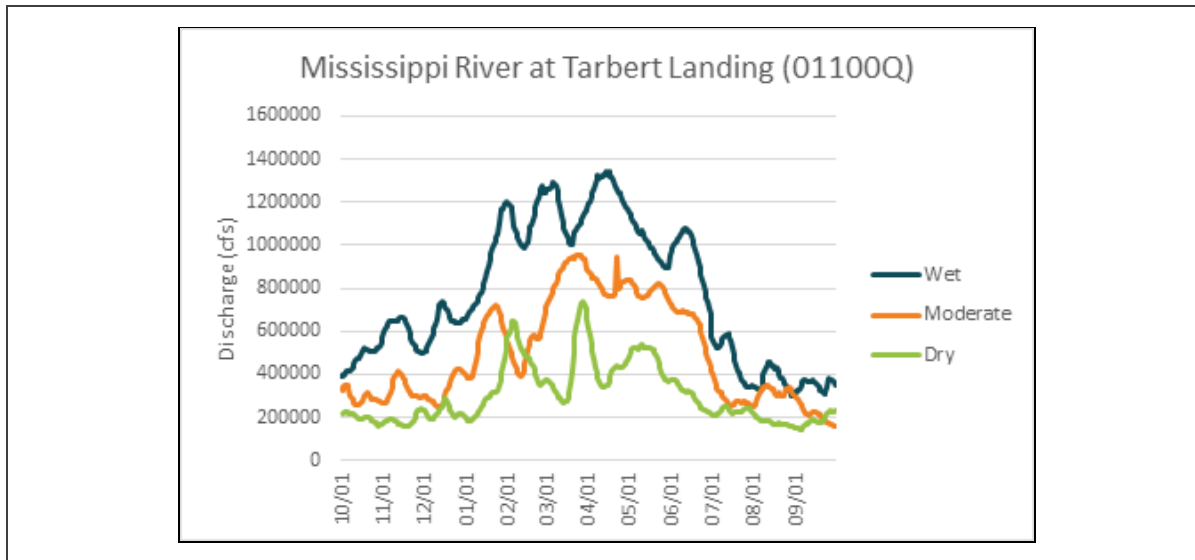


UNDERSTANDING THE SCIENCE

The Plan is being developed using the best available science and local expert feedback. Modeling and technical analysis help the PDT understand how the system works today and how it may respond to future conditions and proposed projects. Because modeling is

a key part of the Plan, upcoming newsletters will explain part of the modeling process and how those modeling results will be used to evaluate candidate projects.

A key component of modeling project effects is defining the environmental conditions that will be used in project evaluation. The Atchafalaya River System is strongly influenced by changes in river flow from year to year, so the Plan uses past water years to represent a range of possible conditions. A water year is a 12-month period used to track water conditions. It runs from October 1 to September 30 and is named for the year it ends. The team selected years that represent dry, moderate, and wet river flows. River flows from these years can then be combined with precipitation data to model hydrology. The discharge hydrograph at Tarbert Landing shows how these three water years differ and illustrates the range of hydrologic conditions being used in the modeling.



The Plan also evaluates different sea level rise conditions looking 25 years into the future. These are based on regionally adjusted NOAA scenarios used in the 2023 Coastal Master Plan: current sea level, +0.217 meters of sea-level rise from the NOAA Intermediate scenario, and +0.328 meters of sea level rise from the NOAA Intermediate High scenario.

Modeling multiple scenarios helps the PDT evaluate how candidate projects may perform under both current and potential future conditions that could affect inundation, salinity, habitat, and overall project performance in the Basin.

CANDIDATE PROJECT SPOTLIGHT

Henderson Lake Flow Improvements

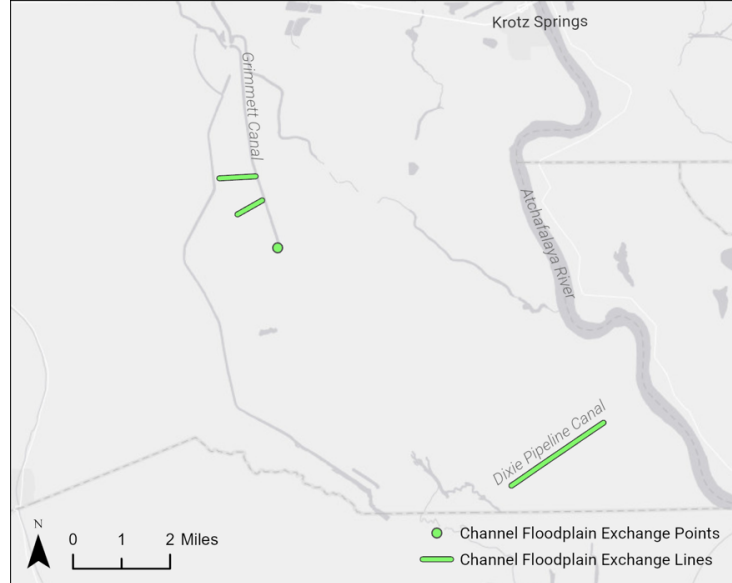
The Issue:

The Henderson Lake Swamp is a large area of freshwater southwest of Krotz Springs. Water levels in the swamp rise as flows increase through the Atchafalaya River, eventually draining southward when water levels recede. However, water can become trapped behind spoil banks and other barriers, leading to stagnation and reduced water quality.

The Project:

The Henderson Lake Flow Improvement project is a channel floodplain exchange project intended to increase the flow of water from north to south by creating gaps in the elevated banks along the Dixie Pipeline Canal and Grimmer Canal. This project builds upon the successes of the Henderson Lake Dixie Pipeline Spoil Bank Hydrologic Restoration (AT-0023) project by extending gaps farther eastward along the Dixie Pipeline Canal. In these areas, dredged material placed along the canals currently restricts flow through the

system and contributes to stagnant water conditions. By improving hydrologic connectivity and reducing stagnation, the project aims to improve water quality and support aquatic habitat conditions within the project area.



Drone imagery of the Dixie Pipeline Canal, looking eastward. At the bottom of the image, you can see existing cuts from AT-0023. The candidate project proposes to extend the channel floodplain exchange eastward. (Photo Credit: CPRA)

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