



MAUREPAS SWAMP

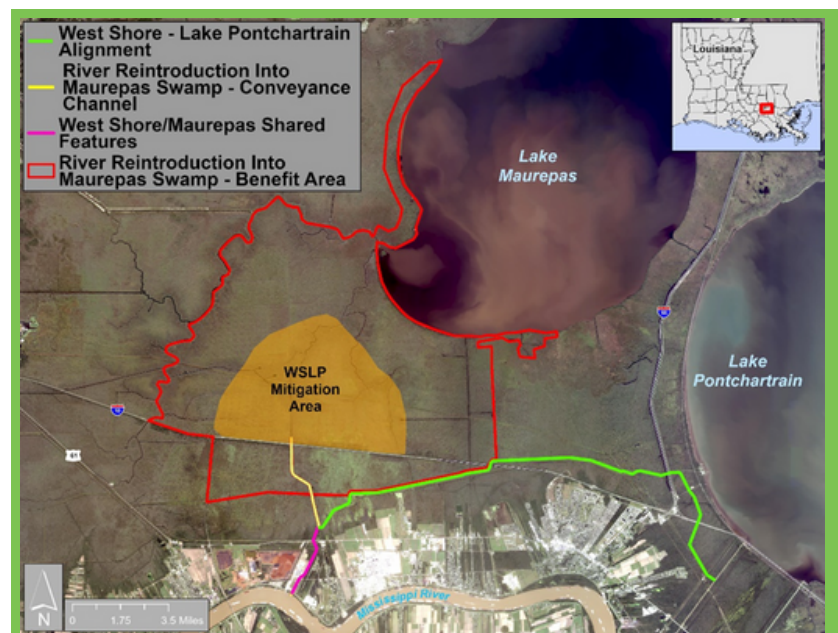
Located directly west of Lake Pontchartrain, the Maurepas Swamp is a prime example of Louisiana's iconic swamp habitat, providing a home to a wide range of wildlife species. As one of the largest forested wetlands in the nation, the Maurepas Swamp presents a wealth of eco-tourism and recreational opportunities, including fishing, hunting, birding, kayaking and more for local residents and out-of-state visitors alike.

As levees were constructed along the Mississippi River decades ago, the swamp was slowly cut off from a freshwater supply that provided it with nutrients, oxygen and sediment. This hydrologic isolation of the swamp from the river has led to continuing swamp degradation, which has been exacerbated by past high salinity in the Pontchartrain Basin and destructive logging practices.



RIVER REINTRODUCTION INTO MAUREPAS SWAMP PROJECT

The River Reintroduction into Maurepas Swamp project (MSP) will divert fresh water from the Mississippi River back into the swamp through a 5.5 mile controlled-flow diversion. The project will improve the health of the cypress-tupelo swamp through the addition of much-needed nutrients and the flushing of stagnant, low-oxygen water. Additional benefits are anticipated from the delivery of fine river sediment and from the ability to freshen the swamp if salinity rises to unhealthy levels for the trees.



PROJECT DETAILS

- The MSP is projected to benefit about 45,000 acres of wetlands, or around one-third of the Maurepas Swamp. Approximately 9000 of these acres are being used by the US Army Corps of Engineers (USACE) as swamp mitigation for the West Shore Lake Pontchartrain (WSLP) project.
- A gated intake structure on the Mississippi River near Garyville, LA, will control the flow of river water into a conveyance channel that extends from the river to the Maurepas Swamp, ending just north of Interstate 10.
- The diversion's maximum flow is 2,000 cubic feet per second and it is expected to run less than 6 months annually.
- This is the first time the USACE has used a CPRA-constructed restoration project as mitigation.
- This unique approach to mitigation was supported by the USACE due to the WSLP and MSP projects sharing features and boundaries.
- The current estimate for construction of the MSP is \$300 million.
- The Maurepas Swamp aids in protecting communities from storm surge in St. John the Baptist, St. James, Ascension and Livingston Parishes.

TIMELINE

2012 and 2017

MSP is selected for inclusion in CPRA's Coastal Master Plans

April 2022

USACE recommends the MSP for use as a swamp mitigation feature for the WSLP project

January 2023

USACE formally selects the MSP as swamp mitigation for the WSLP project, allowing construction of both projects to begin concurrently

2024

Anticipated start of construction

2028

Anticipated completion of construction

PROJECT MONITORING

CPRA consulted with a technical advisory group (TAG) composed of some of the country's leading swamp ecologists to develop performance measures to assess how the Maurepas Swamp responds to the river reintroduction. Mitigation success criteria were also developed by the USACE, with significant input by CPRA and the TAG. These criteria will assess the smaller, approximately 9000-acre area that is being used for WSLP swamp mitigation.

Monitoring includes assessments of forest integrity, water quality, surface elevation, sediment delivery and salinity, with a concentration of data collection within the mitigation area. Data collected before and after diversion operations begin will be used to gauge overall project and mitigation success during the 50-year project life.



Freshwater Input to the Basin

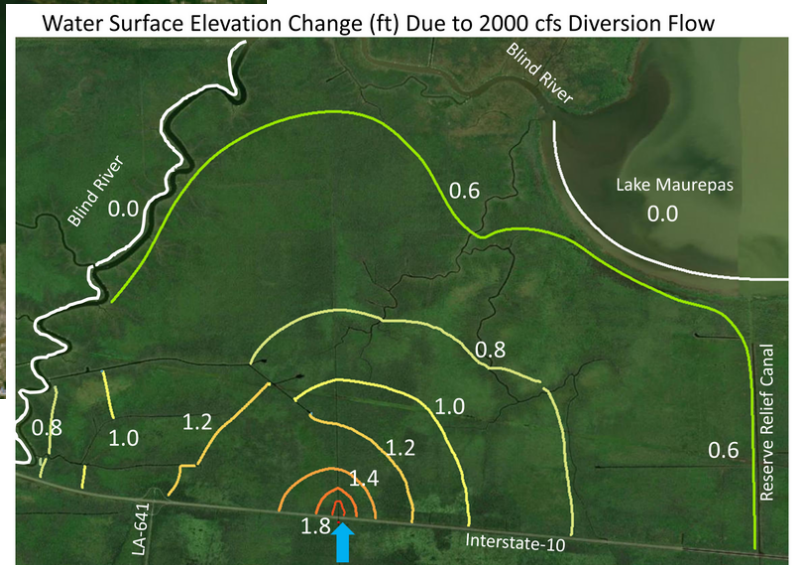
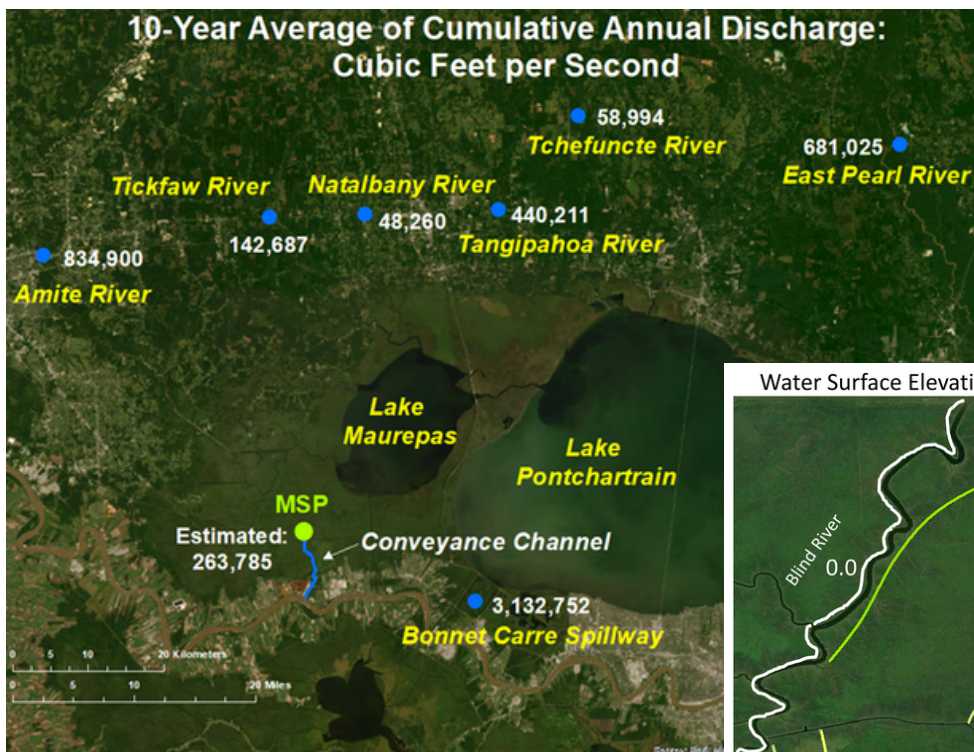
The Basics

The River Reintroduction into Maurepas Swamp project will reconnect the Mississippi River with the degrading swamp, improving swamp hydrology and tree health. Up to 2,000 cubic feet per second (cfs) of river water will enter a gated intake structure on the Mississippi River near Garyville, Louisiana. This water will then travel along a 5.5 mile conveyance channel before discharging into the swamp. Diversion operations are currently planned to occur in two pulses during the first six months of the year, when the Mississippi River flow is typically highest.

Freshwater Input

- The diversion is predicted to discharge less than 5% of the total fresh water entering the Pontchartrain Basin and less than 0.5% of the average Mississippi River flow.
- Average daily discharge for the diversion is estimated to be about 723 cfs, or a total annual discharge of 263,785 cfs.
- Although the input of river water to the project area will be minimal, the benefits to the Maurepas Swamp are expected to be substantial. Fresh water will revitalize trees, creating a more thriving habitat for wildlife and fisheries.

The anticipated discharge from the MSP into the Pontchartrain Basin is small compared to the current freshwater inputs (left). Water elevation during operations will quickly decrease with distance from the diversion outfall, with no increase in water elevation in Lake Maurepas or the Blind River (below).



FAQ

How will construction be funded?

The MSP will be constructed using RESTORE (Deepwater Horizon oil spill settlement funds) and other State funding sources. The current design estimate puts the project construction cost at around \$300 million. Under provisions in the RESTORE Act, some Deepwater Horizon oil spill funds will be used to provide cost share as mitigation for the \$760 million WSLP project.

What effect will the river water have on Lake Maurepas and Blind River?

Hydrodynamic modeling has demonstrated that the reintroduction of river water should not impair the water quality or increase the water levels of Lake Maurepas or Blind River. The project is designed to maximize the forest's benefits from fresh water, nutrients, oxygen, and fine sediments by increasing the retention time of fresh water in the swamp.

What is the significance of the USACE using the MSP as mitigation for the WSLP project?

CPRA's partnership with the USACE marks the first time that a CPRA-constructed restoration project is being used as mitigation for a flood protection project. This partnership will allow for concurrent construction of the adjacent projects, which share some project features. Additionally, WSLP construction impacts to Maurepas Swamp habitat are being mitigated for within the Maurepas Swamp, making this an ideal arrangement.

What is the overall construction schedule for this project?

Construction of the MSP project will begin in 2023 and is anticipated to take approximately 4 years to complete.

How will you tell if the project is benefiting the swamp?

CPRA has worked with leading Louisiana swamp ecologists and the USACE in the development of performance measures. Monitoring will be conducted during the construction period to determine baseline swamp conditions and will continue for 50 years after the start of diversion operations to ensure that the expected project benefits are attained.

What emergency plans will CPRA have in place if there is a spill in the Mississippi River upstream of the MSP?

CPRA is developing an emergency operations plan that will be completed prior to the start of diversion operations. The Louisiana Department of Health and Hospitals' Lower Mississippi River Water Works Warning Network alerts downstream water intakes along the River of any spills. CPRA and our diversion operators are included on their emergency call list.

Is CPRA concerned about contaminants in the Mississippi River?

The Louisiana Department of Environmental Quality (LDEQ) is responsible for monitoring and assessing the quality of the state's water bodies. The lower Mississippi River is NOT listed as an impaired water body for swimming and boating or fish and wildlife propagation. For more information, visit www.deq.louisiana.gov/.

For more information about the MSP, visit

<https://coastal.la.gov/news/maurepas/>

ASK THE EXPERTS

The MSP Technical Advisory Group (TAG) consists of some of the country's leading swamp ecologists, including Ken Krauss, Gary Shaffer, Richard Keim and Jim Chambers, who have over 100 years of swamp ecology research combined. The TAG was assembled to assist CPRA with developing project performance measures and an operations plan, as well as aiding in answering swamp ecology technical questions.

Gary P. Shaffer, Ph.D., Professor, Department of Biological Sciences, Southeastern Louisiana University

Q: Gary, what do you expect to see a few years after the diversion is turned on?

A: "I expect an increase in canopy cover as the trees put on more leaves and wood. Also natural seedling regeneration should occur for the first time in decades so the forests will become denser and their soils will become stronger."

Ken Krauss, Ph.D., Research Ecologist, USGS Wetland and Aquatic Research Center

Q: Ken, what makes this project so unique?

A: "What makes it unique is that it is a large river diversion into a submerging freshwater swamp forest. Something on this scale has never been done before!"

Richard Keim, Ph.D., Professor, School of Renewable Natural Resources, Louisiana State University

Q: Richard, The swamp is flooded and we are going to put more water into it? How is this going to help?

A: "The water in the swamp is the wrong kind of water. It's nutrient deprived, stagnant, and overall not good for swamp health and growth. The river water is going to mimic seasonal flooding, providing nutrient-laden flowing water and restoring more natural swamp processes."