

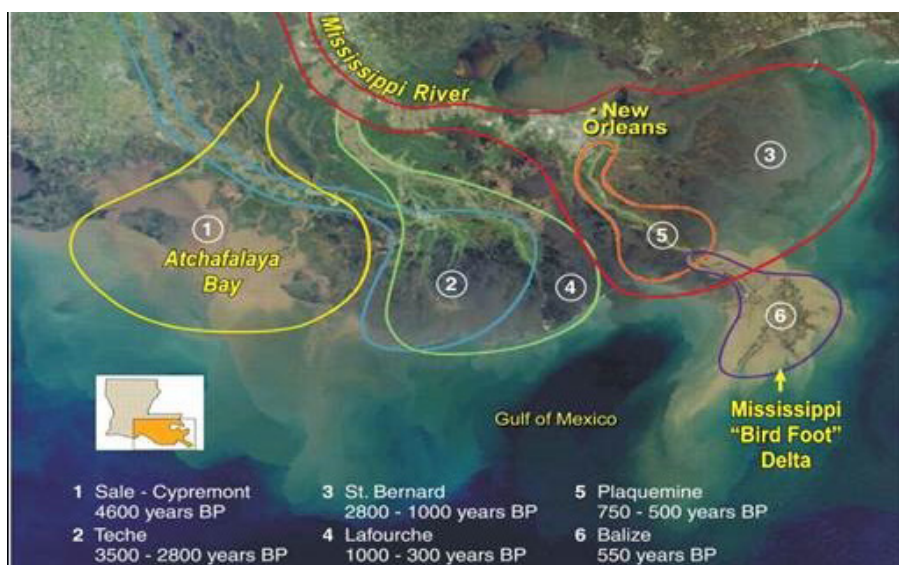
RESTORE

THE MISSISSIPPI RIVER DELTA



Coastal Land Loss and Restoration

Coastal Louisiana's wetlands are disappearing at an astonishing rate: a football field of land vanishes into open water every 100 minutes. Since the 1930s, Louisiana has lost over 2,000 square miles of land, an area roughly the size of Delaware.



The Delta

For 7,000 years, the Mississippi River snaked across southern Louisiana, depositing fresh water and sediment drained from 41% of the continental United States across its delta. As sediment accumulated, plant communities began to develop, trapping more sediment and building land. The river frequently changed course, building land in sections called 'delta lobes.' As land continued to build, the river's path to the Gulf of Mexico became longer. Eventually the river carved a new path to the Gulf, abandoning its old route and building a new lobe elsewhere on the coast. These abandoned lobes gradually sank and eroded. Productive estuaries formed, and barrier islands marked the delta's former boundaries. These wetlands have long protected our communities from storm surge and hurricanes.



The Challenges

A variety of complex man-made and natural causes have contributed to Louisiana's coastal land loss crisis.

- **River levees** Levees cut the tie between the sediment-filled Mississippi River and its delta. Instead of being deposited in nearby wetlands, much of the sediment in the river is wasted – lost out of the mouth of the river into the Gulf.
- **Subsidence** Land sinks and disappears below sea level as soft soils compact.
- **Industrial activities** The vast network of oil and gas exploration canals and shipping channels along the coast allow salt water to penetrate deep into the wetlands, destroying the freshwater ecosystem built by the river.
- **Hurricanes** Over the past century, hurricanes have destroyed hundreds of square miles of coastal wetlands. The loss of protective wetlands has worsened the impacts of hurricanes.
- **Climate change** Scientists estimate that sea levels could rise between three and six feet by 2100. Combined with subsidence, Louisiana is experiencing high relative sea level rise, which is contributing to some of the fastest land loss in the world.

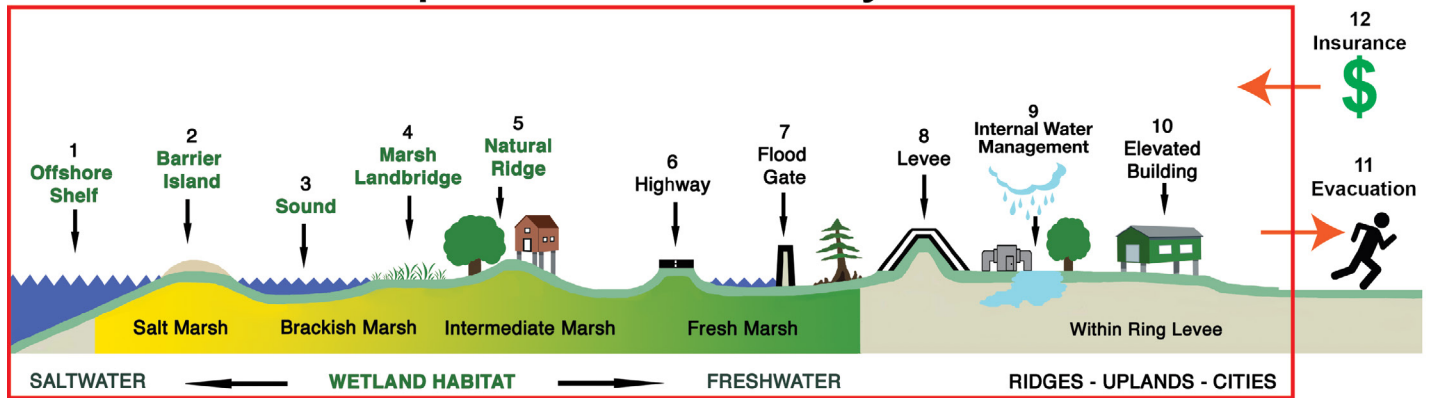
Restoration Solutions

Because there is no single cause of land loss, there is no single solution. Instead, we need a variety of restoration projects, working together, to maintain existing land, rebuild land that has been lost, and sustain land into the future.

This suite of restoration solutions must include:

- Reconnecting the river to its delta through land-building sediment diversions,
- Strategic use of dredged sediments to build and sustain wetlands and barrier islands, and
- Improved water management in low-lying areas.

Multiple Lines of Defense System



Coastal restoration projects must be combined with traditional flood protection strategies, such as levees and floodwalls, and community resiliency measures, like home elevation. Together, these solutions provide multiple levels of protection for our communities.

Coastal Master Plan

These restoration solutions are outlined in Louisiana's Coastal Master Plan, the state's blueprint for coastal restoration and protection efforts. Developed by the Coastal Protection and Restoration Authority (CPRA), the master plan includes a mix of risk reduction and restoration projects across the coastal zone. It is updated every six years to reflect the latest science and modeling. The 2017 master plan demonstrates what spending \$50 billion over 50 years on coastal protection and restoration can accomplish.



As the delta disappears, so does the natural protection it provides. We have to act now to correct the damage. There are many ways to help save our coast. From volunteering to contacting your elected officials to attending public meetings and other events, you have the power to make a difference in restoring coastal Louisiana. Join us!

WHO WE ARE Restore the Mississippi River Delta is working to protect people, wildlife and jobs by reconnecting the river with its wetlands. As our region faces the crisis of threatening land loss, we offer science-based solutions through a comprehensive approach to restoration. We are composed of conservation, policy, science and outreach experts from Environmental Defense Fund, National Audubon Society, the National Wildlife Federation, Coalition to Restore Coastal Louisiana and Lake Pontchartrain Basin Foundation.

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