

EESI Briefing: Climate Adaptation Programs Across Agencies

Cathleen B. Berthelot

Senior Policy Manager

Restore the Mississippi River Delta

ABOUT US

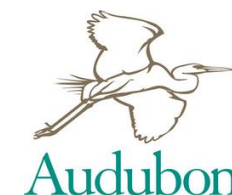
Restore the Mississippi River Delta is working to secure a just, climate-resilient coast where people and nature thrive. As our region faces the crisis of land loss and climate change, we seek to advance an equitable, safer and flourishing coast for Louisiana's communities, ecosystems and economy. We 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 Pontchartrain Conservancy.

We have been working together for almost 12 years and are at an exciting time for our work as major sediment diversions advance towards construction and the state is building restoration projects at an unprecedented pace. In 2021 the MRD underwent a strategic planning process to consider what our work together will look like in the future, with a focus on equity and climate resilience.

National partners:



Local partners:



RESTORE
THE MISSISSIPPI RIVER DELTA

Louisiana Coastal Land Loss: *Over 2,000 square miles lost since 1932*





WHAT WE KNOW

Louisiana is in the midst of a land loss crisis that without action could claim another 2,250 sq. miles within the next 50 years



WHAT'S AT STAKE

A LIVING SANCTUARY

for some of the most
productive wildlife and
fishery habitats in the
country

AN ECONOMIC ENGINE

that feeds and fuels our
nation, and a portal
connecting us to the rest of
the world

A NATURAL LINE OF DEFENSE

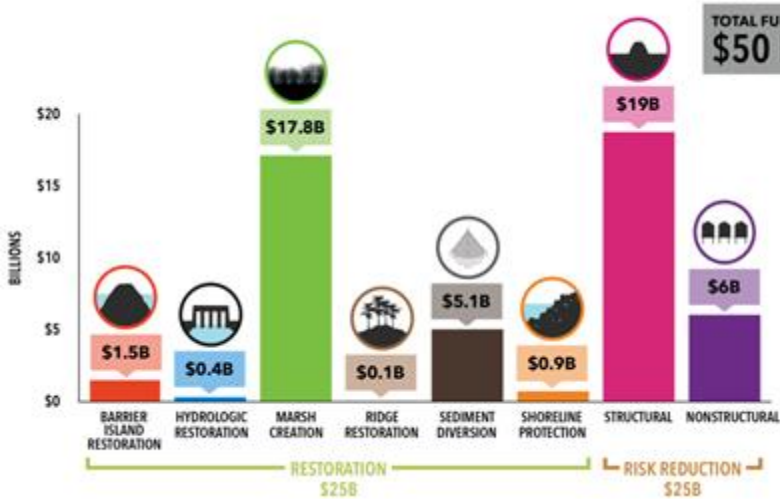
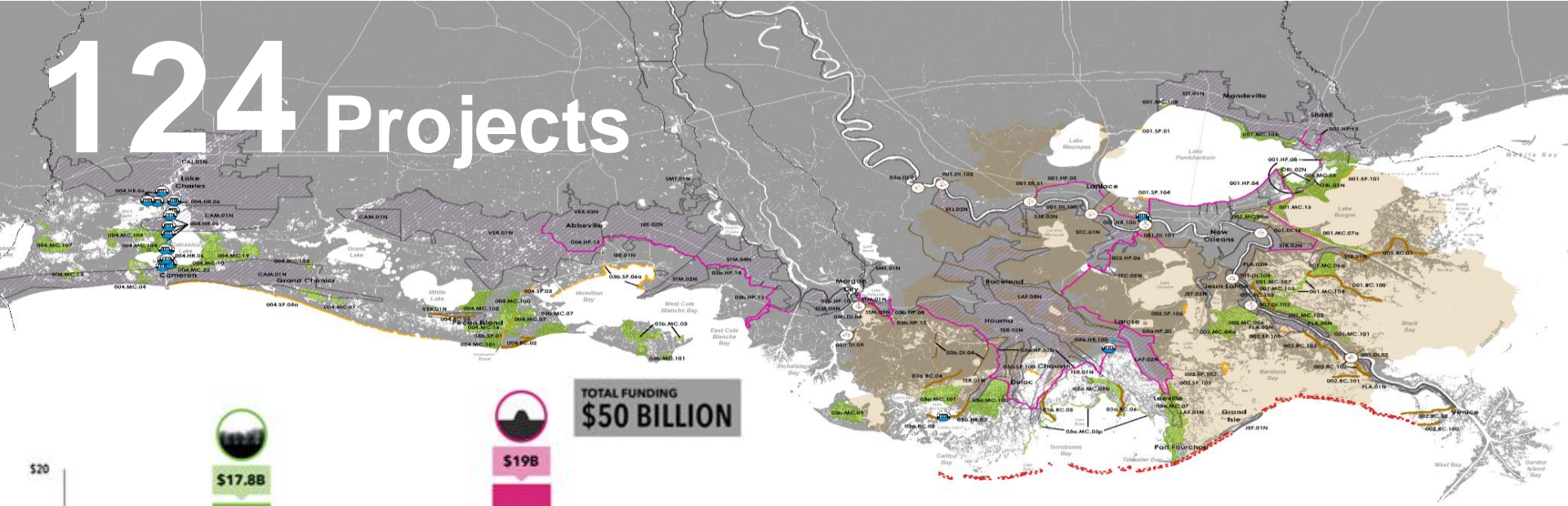
for our region's
communities

HOME

to more than 2 million
people across coastal
Louisiana

A Comprehensive Plan for Louisiana's Coast

124 Projects



\$150B
Flood Damage
Reduction

802m²
Land Created

Coastal Restoration Toolbox

Sediment
Diversion



Shoreline
Protection



Ridge
Restoration



Marsh
Creation



Hydrologic
Restoration



Bank
Stabilization



Oyster
Barrier Reef



Barrier Island
Restoration



Whose Funds?



CPR Trust Fund

- State Mineral
- State Surplus (most)
- GOMESA
- CWPPRA Reimbursement
- Interagency Transfers



NRDA



NFWF

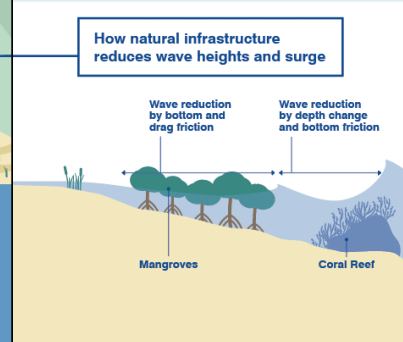
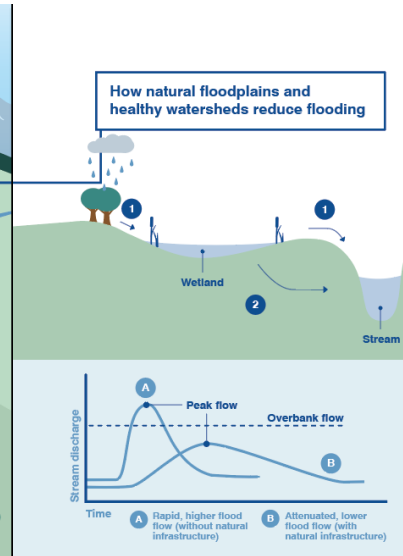
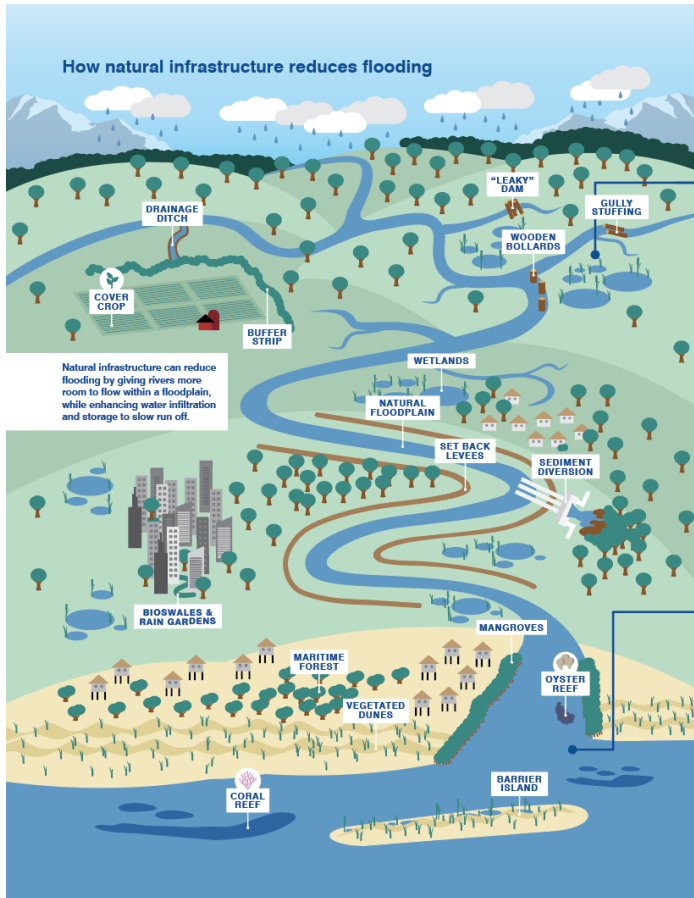


RESTORE 1



RESTORE 2 & 3

Why natural infrastructure?



Natural Infrastructure Examples and Benefits

Barrier islands: offshore sand islands that absorb wave energy to reduce erosion.

Bioswales and rain gardens: low-lying vegetated areas that slow and cleanse urban runoff.

Cover crops: planted agricultural fields to increase soil permeability and slow surface runoff.

Curved drainage ditch: meandering agricultural drainage ditch that mimics small streams to slow velocity of water and support growth of wetlands.

Double U drainage ditch: a two-tiered drainage ditch that captures sediment, removes nutrients and supports wetland growth.

Floodplain restoration: Restoration approach that puts the stream channel and floodplain at or near historical elevations and locations, benefiting water quality, increasing absorption and providing wildlife habitat.

Gully stuffing: logs and woody debris placed in ditches, gullies or channels to slow the flow of water and trap sediment.

Leaky dams: woody debris placed across a stream or channel that allows fish passage, provides habitat, and disperses and slows flow of water.

Mangroves: coastal shrubs/trees with dense roots and stems that reduce wave energy and height, trap storm debris and slow inland transfer of water.

Maritime forests: dense coastal vegetation that reduces wind and wave energy and captures debris to buffer inland areas from storm damages.

Oyster, shellfish, and coral reefs: function like submerged breakwaters to buffer coastal areas from waves and reduce erosion, while oyster and shellfish reefs improve water quality.

Sediment Diversion: strategically placed and managed structures that reconnect rivers to wetlands and deliver sediment, freshwater and nutrients to build and maintain coastal land.

Set-back levees: levees built well beyond the river to allow natural floodplain flooding and store water, slow stream velocity, and reduce downstream flood height.

Vegetated Dunes: vegetated mounds or ridges adjacent to beaches or on barrier islands that trap and stabilize sand and absorb storm surge and waves.

Wetlands: act as sponges by slowing and absorbing water to reduce flood heights and storm surge velocity and height.

Wood bollards: wooden structures or tree stumps placed in streams to decrease stream velocity near river banks and reduce erosion of banks.



Cathleen B. Berthelot
cberthelot@edf.org
202-580-5184

