RESTORE-ING THE GULF COAST: IMPLEMENTING RESTORE ACT AND NRDA PROJECTS IN COASTAL LOUISIANA

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OUTLINE

- Louisiana’s disappearing coastline
- NRDA and RESTORE Act
- Implementing NRDA projects
  - Shell Island West Restoration
  - Chenier Ronquille Barrier Island Restoration
- Implementing RESTORE Act projects
  - Golden Triangle Marsh Creation
LOUISIANA’S COASTAL CRISIS

Causes

- Mississippi River channelization
- Sea level rise
- Subsidence
- Storms

1,900 square miles lost since the 1930s
Up to 4,120 square miles to be lost in the next 50 years

Credit: Louisiana Coastal Protection and Restoration Authority
LOUISIANA’S COASTAL CRISIS

- People
- Fisheries
- and bird habitat
- Commerce

- Over $120 billion in domestic goods and services pass through LA ports annually, as well as $36 billion internationally
- Infrastructure supports 90% of the nation’s OCS oil and gas

Credit: Louisiana Coastal Protection and Restoration Authority
NRDA RESTORATION AND RESTORE ACT – DEEPWATER HORIZON OIL SPILL

Natural Resource Damage Assessment (NRDA)

• Outer Coast Restoration Project (BP Settlement)
• Restore beach, dune, and marsh habitats to help compensate spill-related injuries to habitats and species
• Projects include:
  • Caillou Lake Headlands Barrier Island Restoration
  • Chenier Ronquille Barrier Island Restoration
  • North Breton Island Restoration
  • Shell Island Barrier Restoration
NRDA RESTORATION AND RESTORE ACT – DEEPWATER HORIZON OIL SPILL

RESTORE Act

• Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act
• Clean Water Act Penalties
• Louisiana Projects:
  • Bayou Dularge Ridge, Marsh, and Hydraulic Restoration
  • Biloxi Marsh Living Shoreline
  • Golden Triangle Marsh Creation Project
  • Mississippi River Reintroduction into Maurepas Swamp
  • West Grand Terre Beach Nourishment and Stabilization
NRDA AND RESTORE ACT

Louisiana Master Plan Program provides planning groundwork
SHELL ISLAND RESTORATION

Over 20 miles of pipeline

Borrow Area

Empire
SHELL ISLAND RESTORATION

Change in Current Speed (feet/s) at Year 0 Given Fully Excavated Scenario, Borrow Areas A, B, E Only

SHELL ISLAND RESTORATION

Erosion (-feet) & Deposition (+feet), Years 0-7 Given Fully Excavated Scenario, Borrow Areas A, B, E Only

Aerial Photograph: May-Aug. 2009 (http://datagateway.nrcs.usda.gov/)

LA-South NAD83 Northing (feet)

LA-South NAD83 Easting (feet)
SHELL ISLAND RESTORATION PROJECT
SHELL ISLAND RESTORATION PROJECT

Components:
• Emergency Berm (2010)
• Shell Island East Berm to Barrier (2013)
• Shell Island West NRDA (2016-2017)

Construction:
• Over 5 miles of barrier shoreline restored
• 9.3 million cubic yards of fill material dredged
  • Mississippi River borrow area (beach and dune)
  • Gulf of Mexico borrow area (back-barrier marsh)
• 1031 acres of habitat restored
• Approximate $116,000,000 construction cost
SHELL ISLAND RESTORATION PROJECT – EAST LOBE
CHENIER RONQUILLE BARRIER ISLAND RESTORATION PROJECT - NRDA

- Over 1.5 miles of barrier shoreline restored
- 3 million cubic yards of fill material dredged (Gulf of Mexico borrow areas)
- 518 acres of habitat restored
- Approximate $27,600,000 construction cost
GOLDEN TRIANGLE MARSH RESTORATION PROJECT - RESTORE ACT

- Objective: to restore and protect wetland, fish, and wildlife habitat and help maintain landscape integrity and enhance community resilience.
- RESTORE Plan: 600 acres
- Proposed funding for RESTORE construction: $50,000,000

Source: http://mississippiriverdelta.org/
GOLDEN TRIANGLE MARSH RESTORATION PROJECT - RESTORE ACT
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THANK YOU!

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