Restoring the Northern Tip of Mon Louis Island

Strengthening the Shoreline and Expanding Wetland Marsh

Community Meeting
April 11, 2016
St. Rose of Lima Church
Mon Louis Island

A project of the Mobile Bay National Estuary Program Management Conference with funding from the National Fish & Wildlife Foundation Gulf Environmental Benefit Fund
Agenda

Background 2009-2013

Overview of the Tip Restoration Project

• *Purpose, Goals, Objectives*
• *Shoreline Footprints and Coastal Processes*
• *Assessing the Alternatives for Shoreline Protection*
• *Where’s the suitable fill for the Marsh?*

Dredging the Mouth of the Fowl River Channel

The Design Strategy

The Projected Timeline
The Tip of Mon Louis Island
Restoration Project
November, 2013

**Purpose**
Reduce the risk of harm to natural resources affected by the oil spill.

**Goals**
- Restore critical fish and wildlife habitat
- Provide protection against storms

**Objectives**
- Stabilize 1000+ linear feet of shoreline
- Protect 8 acres of tidal marsh
- Create 4+ acres of tidal marsh
Shoreline Footprints

1852 U. S. Coast Survey

1889 Reference Map

2015 Google Maps
Shoreline Footprints

**LEGEND**
- Green: 1979 Shoreline
- Yellow: 1997 Shoreline
- Red: 2006 Shoreline
- Blue: 2011 Shoreline
Hydrographic and Topographic Surveys

Coastal Processes Evaluation
Alternative Shoreline Stabilization Measures

Stabilization Concepts Evaluated:

- Continuous Rock Dike Breakwater
- Segmented Rock Dike Breakwaters
- Continuous Oyster Break™ Breakwater

The Decision: Continuous Rock Dike Breakwater

- “Tried and true” measure for stabilizing shorelines in areas of high wave energy.
- Demonstrated longevity and durability.
- Aesthetics and public acceptance.
Studying the Options for Marsh Fill Material
Sources of Fill Material

Fill material not suitable – too silty, prohibitive project time delays
- Fowl River navigation channel
- Mobile County Pioneer Road Dredge Storage Site

Fill material suitable – prohibitive cost or permitting difficulties
- Alabama State Docks – Theodore Industrial Channel Site
- Blakely Island
- Vibracore locations SVB-7, 8, 9, and 10
Combine MUI Restoration with Channel Maintenance Funding?
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Advantages:

• Mobilize one dredge for marsh creation fill and for channel maintenance dredging (cost savings).

• Environmental regulatory clearances already exist for Fowl River Open Water Disposal Area.

• Potential impacts of open water borrow area “hole” (water quality and wave climate) can be avoided by replenishment with channel sediments.

• Navigation channel maintenance coordinated with hazard mitigation and habitat creation.
Application for Supplemental Funding ($800,000) through AL Deepwater Horizon Incident Grant

Design Strategy
<table>
<thead>
<tr>
<th>Tentative Timeline Forward</th>
<th>Completion</th>
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</thead>
<tbody>
<tr>
<td>Breakwater/Dredging Bid Opening:</td>
<td>April 21, 2016</td>
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<tr>
<td>Notice to Proceed</td>
<td>End of May, 2016</td>
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<tr>
<td>Construction (180 days)</td>
<td>November, 2016</td>
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<tr>
<td>Mobilization</td>
<td>June, 2016</td>
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<tr>
<td>Breakwater Construction</td>
<td>August, 2016</td>
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<tr>
<td>Marsh fill/Dredging</td>
<td>September, 2016</td>
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<tr>
<td>Navigation/Fowl River Dredging</td>
<td>November, 2016</td>
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<tr>
<td>Marsh Planting (Volunteers?)</td>
<td>March, 2017</td>
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<tr>
<td>Monitoring</td>
<td>Ongoing</td>
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More Information?

Mobile Bay National Estuary Program

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