

Project #21: Alabama Point Seawall Repair

Project Description/Summary

- a) The purpose of this planning and implementation project is to rebuild the existing Alabama Point Seawall using a more resilient method of construction to protect both the tidally influenced marine environment and the recent improvements to the upland portion of the area. Implementation of this project on state-owned property will protect a unique and valuable public access point at Perdido Pass Seawall Park, a unit of Gulf State Park.

Activities also include the comprehensive administration of this grant, including, but not limited to, project development and oversight, contracting, and sub-recipient monitoring.

- a. **Need:** The current anchored steel sheet pile seawall suffers from extensive corrosion due to repeated exposure to air as a result of tidal fluctuations. This corrosion has led to the development of numerous holes in the sheets, permitting the loss of backfill behind the wall. It has also created voids that caused the surface improvements (e.g., asphalt parking area) to collapse, creating both hazardous conditions as well as the loss of access to the State waters for recreation and sightseeing. If no action is taken, the seawall will continue to deteriorate, putting public access improvements on the upland portion of the site in jeopardy, and providing less protection in the event of tropical storm events. This could potentially render the existing seawall completely useless and necessitate a complete rebuild, which, according to engineering estimates, could cost between \$7-\$12 million.

Purpose: The purpose of the proposed project is to rebuild the existing seawall using a more resilient method of construction for the tidally influenced marine environment and protect the recent improvements on the upland portion of the “seawall park”. The proposed skirt wall method of replacement will be significantly more resilient in the tidally influenced marine environment than the current seawall design. After the project is complete, all areas of the deteriorated steel sheet pile wall in the “splash zone” will be protected by the new concrete wall to eliminate further deterioration and erosion of upland material.

Objective: The overall objective of this project is:

- Perform a full-length underwater investigation and provide a report of the existing wall condition to accurately assess and record areas of the wall needing repair;
- Repair recorded areas of the wall with new concrete skirt to the correct height and depth; and
- Install riprap to properly toe into new bottom of skirt wall.

- b. This activity is located in the Gulf Coast region and will be carried out in the Perdido Pass/Alabama Point area in the City of Orange Beach in Baldwin County, Alabama.
 - c. This project is anticipated to begin on 7/1/2019 and end on 6/30/2021 (2 years).
 - d. The City of Orange Beach will implement this project.
- b) This project contributes to the overall economic and ecological recovery along the Gulf Coast by protecting vital coastal infrastructure and the prevention of future damage and degradation of upland improvements. In addition, this project supports ongoing tourism and recreation for the local community.

Eligibility and Statutory Requirements

This activity is located in the Gulf Coast Region and is eligible for Spill Impact Component funding under Category #5 – Improvements to or on State Parks located in coastal areas affected by the DWH oil spill (primary). Secondary activities include Category #6 - Infrastructure projects benefiting the economy or ecological resources, including port infrastructure; Category # 7 – Coastal flood protection and related infrastructure; and Category #10 - Promotion of tourism in the Gulf Coast Region, including recreational fishing.

Comprehensive Plan Goals and Objectives

This project is consistent with the following Comprehensive Plan goals:

- Goal 5: Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.

This project supports the following Comprehensive Plan objective:

- Objective 5: Promote Community Resilience – Build and sustain Gulf Coast communities' capacity to adapt to short- and long-term natural and man-made hazards, particularly increased flood risks associated with sea-level rise and environmental stressors. Promote ecosystem restoration that enhances community resilience through the re-establishment of non-structural, natural buffers against storms and flooding.

Major Milestones

- a) Milestone 1: Procurement of professional services
- b) Milestone 2: Complete pre-construction assessment including diving and video
- c) Milestone 3: Conduct preliminary engineering and design
- d) Milestone 4: Obtain needed permits

- e) Milestone 5: Final designs and specifications
- f) Milestone 6: Construction

Success Criteria/Metrics/Outcomes

The anticipated outcome of the Alabama Point Seawall Repair project will be:

- Complete seawall repairs necessary to protect the tidally influenced marine environment and infrastructure on the upland portion of the area.

Table 22. Proposed Projects Success Criteria/Metrics/Outcomes

Activity	Anticipated Project Success Criteria/Metrics	Short-term outcome	Long-term outcome
Design and engineer the construction of repairs to the Alabama Point Seawall	Completion of one pre-construction assessment and report Completed E&D Completed construction of seawall repairs	Protection for vital coastal infrastructure during hurricanes and other natural disasters Provides 25 short-term engineering and construction jobs	Greater community resiliency Increased tourism Extends the useful life of the seawall by an estimated 20 years

Monitoring and Evaluation

- a) Submission of engineering and design plan to ADCNR
- b) Provide evidence to ADCNR that all required permits were obtained (including SHPO)
- c) Submit results of bid process to ADCNR prior to awarding contracts
- d) ADCNR will conduct periodic onsite reviews
- e) Submission of quarterly and final reports
- f) Post construction monitoring as required

Best Available Science

A Best Available Science (BAS) review is required for programs and activities that would restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast. The primary focus of this project is to repair the Alabama Point Seawall, located at a State Park in a coastal area affected by the DWH oil spill; therefore, BAS does not apply.

Budget/Funding

- a) Estimated cost of the project and amount to be requested from Spill Impact Component Funds: \$2,562,640 (30-40% - Planning, 70%-60% - Implementation). While it is noted that funding available under a grant award cannot exceed the amount described in the SEP for this project, the percentages listed in this section are estimated and will be more clearly cultivated in the grant application.
- b) No other funding sources are anticipated at this time.

Partnerships/Collaboration (if applicable)

The City of Orange Beach will collaborate with the Alabama Department of Conservation & Natural Resources to implement this project.

Leveraged Resources (if applicable)

Not applicable at this time.

Funds Used As Non-Federal Match (if applicable)

Not applicable at this time.

Other

Not applicable at this time.



Figure 21. The Alabama Point Seawall project will be implemented in the City of Orange Beach in Baldwin County, Alabama.