Lightning Point

July 2020

Location: Lightning Point

Type: Habitat Restoration

Area: 40 acres

City: Bayou La Batre

County: Mobile

Main Agencies: Moffatt & Nichol, The Nature Conservancy, National Fish and Wildlife Foundation Gulf Environmental Benefit Fund

State/Province: Alabama

Country: United States

Construction of the Lightning Point Shoreline Restoration Project

Background

The Lightning Point area is located at the confluence of the Bayou La Batre navigation channel and the Mississippi Sound. The site had exhibited over 600 ft of shoreline retreat over the last 100 years and was selected for restoration by the National Fish and Wildlife Foundation Gulf Environmental Benefit Fund. The project was awarded to The Nature Conservancy and Moffatt & Nichol performed engineering services. Construction was completed in the summer of 2020, restoring approximately 40 acres of coastal wetlands and scrub shrub habitat with tidal creeks woven throughout, and protecting 1.5 miles of shoreline with 4,687 ft of segmented breakwaters.

Project Description

With the potential for individual storm events which exceed the design conditions and/or accelerated sea level rise projections, the Lightning Point Long-term Site Sustainability Plan was developed to support the long-term performance and sustainability of the restored area. The plan supports future adaptive management through thin-layer placement of beneficial use sediment to maintain the marsh platform, and addition of rip rap to increase the elevation of the existing breakwaters. The document is presented as a framework for beneficial use of sediment and is broken into six key steps for development and implementation with respective requirements and recommendations. The steps include preliminary design, engineering and design, regulations and permitting, construction, management and logistics, and monitoring. Fundamental information is provided within each step to provide the reader basic knowledge of the various practices and inform future project design. It is a living document that serves as the present-day basis for future adaptive management with the understanding that the document will evolve through time.

Findings

Adaptive management activities have not yet been implemented. The Nature Conservancy or other project proponent will keep the U.S. Army Corps of Engineers informed following project implementation and monitoring.

References

See the Lightning Point Long-term Site Sustainability plan for complete list of references

Points of Contact

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Main Agencies:

National Fish and Wildlife Foundation Gulf Environmental Benefit Fund
The Nature Conservancy
Moffatt & Nichol
The Alabama Department of Conservation and Natural Resources

Information on thin layer placement (TLP) case studies has been compiled as part of a DOTS/EWN project to provide a source of information, knowledge, and experience on TLP of sediment or dredged material in aquatic environments. The Thin Layer Placement Website and Map-Portal are funded by the US Army Engineer Research and Development Center (ERDC). POCs for the Thin Layer Placement Website and Map-Portal are:

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