



# Biloxi Marsh Living Shoreline



## Project Scope & Elements

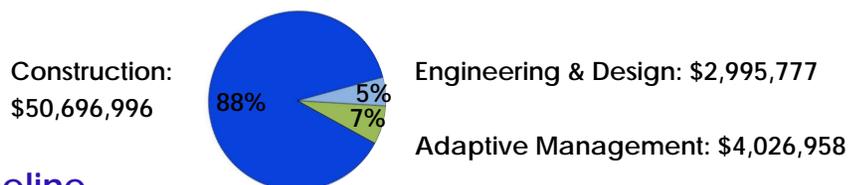
- ▶ The purpose of this project is to create bioengineered, marsh-fringing oyster reefs to promote the formation of self-sustaining living shoreline protection structures.
- ▶ Adjacent to the complementary CIAP Living Shoreline Demonstration project and the Nature Conservancy's Lake Fortuna and Eloi Bay reefs, this project will fill in the gaps of the area's existing Living Shoreline Demonstration project.
- ▶ The project is estimated to create approximately 47,000 feet of oyster barrier reef along the eastern shore of Biloxi Marsh to provide oyster habitat, reduce wave erosion, and prevent further marsh degradation.

## Ecosystem Outcomes & Economic Impacts

- ▶ The Biloxi Marshes, approximately 49,000 hectares of brackish and salt marshes, have been greatly impacted by shoreline erosion from wind-driven waves.
- ▶ The Living Shoreline project will provide first and foremost, needed protection for the Biloxi marshes, an important storm buffer for New Orleans and secondly, provide habitat and a variety of ecosystem services.
- ▶ LA is a national leader in oyster landings with over \$35M in annual dockside sales.<sup>1</sup>
- ▶ Eastern oysters and their reefs are a key species in LA's coastal ecosystem due to the resulting ecosystem benefits, such as:<sup>2</sup> enhance water quality via filtering; nutrient loading, eutrophication, and hypoxia mitigation;<sup>3</sup> provision of nursery habitat for many fish and shellfish species, enhancing local productivity; and likely enhances recreational fisheries due to the abundant and concentrated prey resources for predatory fishes such as flounder, drum, and speckled trout.<sup>4</sup>
- ▶ The Biloxi Marsh Oyster Reefs should greatly enhance the productivity of local oyster stocks, which is particularly important as the area is less prone to oyster-damaging Mississippi River flooding. The Biloxi Marsh reefs, therefore, could supply recruits to expedite recovery of oyster grounds damaged by floods or other disturbances, thus improving the resiliency of the system as a whole.

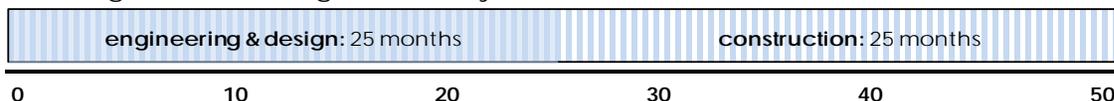
## Cost

**Estimated Total Cost** = **Estimated Project Cost** + **Adaptive Management**  
 \$57,719,731 = \$53,692,773 + \$4,026,958



## Implementation Timeline

- ▶ Contingent on funding availability.



<sup>1</sup> LDWF 2013

<sup>2</sup> Coen et al. 2007

<sup>3</sup> Wall et al. 2011

<sup>4</sup> Soniat et al. 2007; Plunket and La Peyre 2005; Schyphers et al. 2011

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