



→ Jamie M. Bartel, PG
GHD Senior Project Manager

Environmental assessment and restoration of Rabbit Island

→ Louisiana Gulf Coast

Welcome

Background

- Coastal Louisiana has been substantially impacted by a range of natural and anthropogenic hazards.
- Rabbit Island, the only significant brown pelican habitat in western Louisiana, has undergone critical habitat loss for over a decade.



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Rabbit Island washing away

- Low elevation subject to wind-driven waves and tidal effects.
- Land area reduced from 200 acres to 30 acres
- Nearly half of the brown pelican eggs laid each year lost to tidal flooding.
- Island could no longer provide critical colonial-nesting waterbird habitat.



Charting a new path for the island

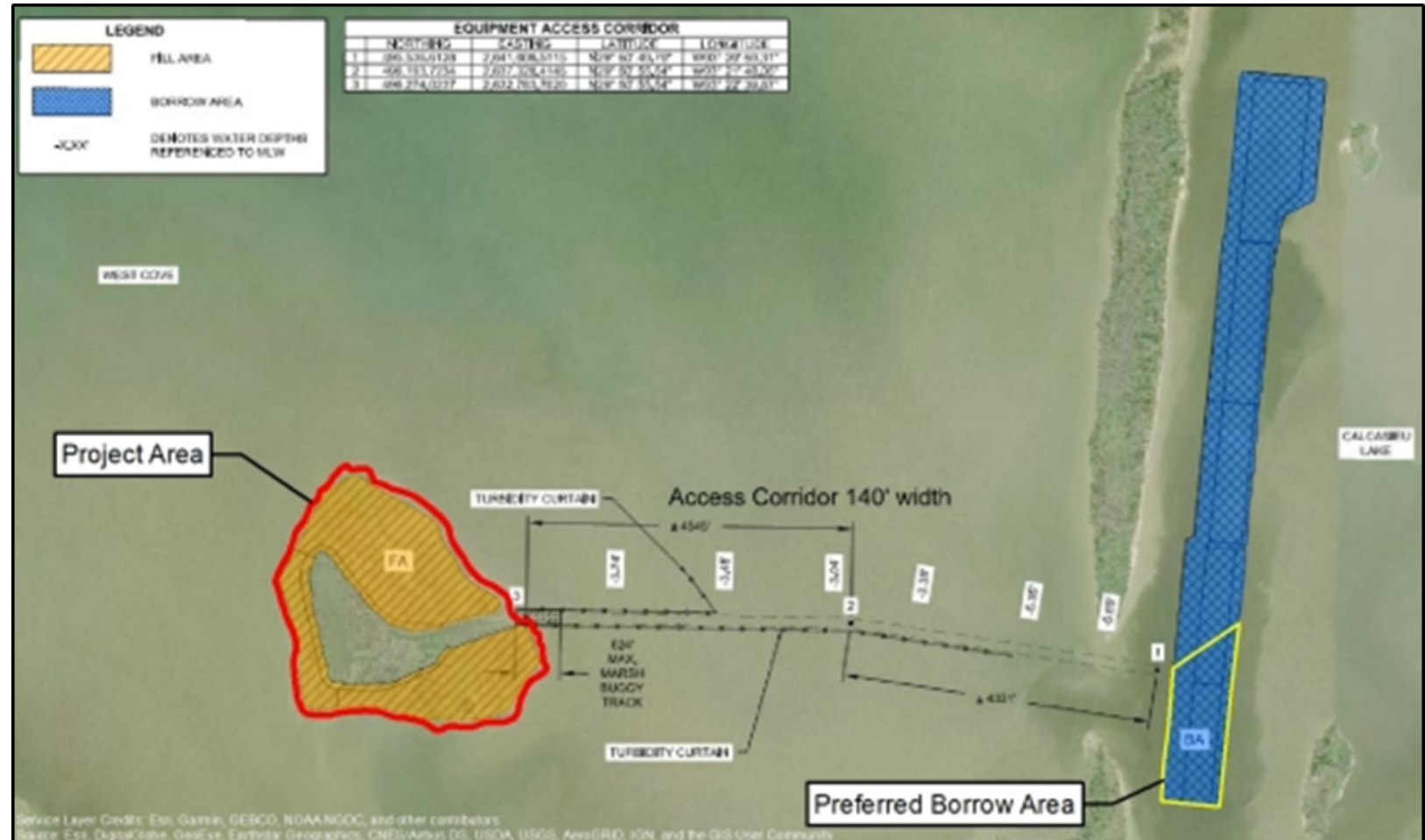
Goals: Restore and mitigate threats to birds, address habitat loss and alteration, and detrimental changes to bird habitat vegetative structure.

Resource Evaluation: Implementation of Best Management Practices to ensure negligible effects, or only short-term, minor effects would occur (during construction).



Project design features

- Restore 87.8 acres of the island's original 200-acre footprint to include:
 - raising the island elevation in contained fill areas
 - varying elevations for avian nesting and reduction in impacts
 - providing clay and sand berm stability against wave action



Project design features – Final detail



Construction complete in 2021

- The 102-acre restoration of Rabbit Island utilized sediment dredged from the Calcasieu Ship Channel.
- Vegetative plantings of grasses and shrubs further enhanced nesting habitat for Brown Pelicans, egrets, herons, ibis, terns, and other colonial nesting water birds.



What would it have been without restoration?

This comparison photo shows Rabbit Island before (above) a land restoration project began in 2020 and after (below) land had been added thanks to dredging and construction.



Summary and Conclusions

- Rabbit Island's first nesting season following restoration far exceeded expectations. While roughly 370 nests were anticipated for the 2021 season, state agencies observed approximately 6,100 nests on the island, including 1,150 Brown Pelican nests.
- Had this restoration of Rabbit Island not taken place when it did, Rabbit Island would continue to lose land over time, resulting in it being neither feasible nor cost effective to restore at a later date, potentially resulting in the permanent loss of the only significant brown pelican rookery in western Louisiana. This would result in the continued loss of colonial waterbird nesting and brooding habitat.
- **A win for the Louisiana coast!!!!!!**

Questions

→ Jamie M. Bartel, PG
jamie.bartel@ghd.com



*** Thank You**