



GALVESTON BAY FOUNDATION

PROTECT TODAY. PRESERVE TOMORROW.

West Galveston Bay Floating Nesting Platform Demonstration Project

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Problem | Expensive Bird Island Restoration



Jones Bay pre-construction. Photo Credit: GBF

Colonial waterbird populations, such as Least Terns and Black Skimmers, are in decline due to disappearing habitat.

Erosion, subsidence, sea level rise, human impact/land use change

Restoring the function of degraded/lost islands can be costly and require tons of material to elevate the island.

Dickinson Bay Island 2 (2022)

- \$20,603,770
- ~220,350 ft² of bird nesting habitat
- \$94 per ft² for bird nesting habitat

Jones Bay Site 2 Nesting Island (2025)

- \$308,680
- 1,175 ft² of bird nesting habitat
- \$263 per ft² of bird nesting habitat

Jones Bay Site 1 Nesting Island (2025)

- \$195,000
- 849 ft² of bird nesting habitat
- \$230 per ft² of bird nesting habitat



Solution | Artificial Bird Nesting Island

Artificial bird nesting islands are a cost-effective measure to supplement large-scale rookery island restoration for increasing colonial waterbird nesting habitat.

The **West Galveston Bay Floating Nesting Platform Demonstration Project** will be covered in crushed shell to imitate an ideal nesting beach and use social attraction methods (decoy birds/eggs and audio recordings of bird calls) to attract **Least Terns** and **Black Skimmers**.



Chincoteague Bay artificial bird nesting island; Photo credit: David Harp

West Galveston Bay Floating Nesting Platform Demonstration Project

- \$50,000.00
- Up to 1,024 ft² of bird nesting habitat
- \$49 per ft² of bird nesting habitat



Benefits | Demonstration Projects of Galveston Bay



Least tern with chicks. Photo Credit: Michael Libbe



Black Skimmer with chicks. Photo Credit: GBF

Species-specific Targeting

Social attraction methods used to attract **Least Terns** and **Black Skimmers** can be applied to other colonial waterbird species for future bird nesting platforms.

Resilient

Rise with the sea level rise.

Can be moored in locations safe from people, predators, and extreme weather.

Cost-effective Habitat Supplement

Bird nesting platforms are less expensive to construct than large-scale bird island restoration.



Modular & Scalable

Bird nesting platforms can be constructed in segments and at any preferred dimensions.

Monitoring & Adaptive Management

Lessons learned between demonstration projects will inform future nesting platforms projects.





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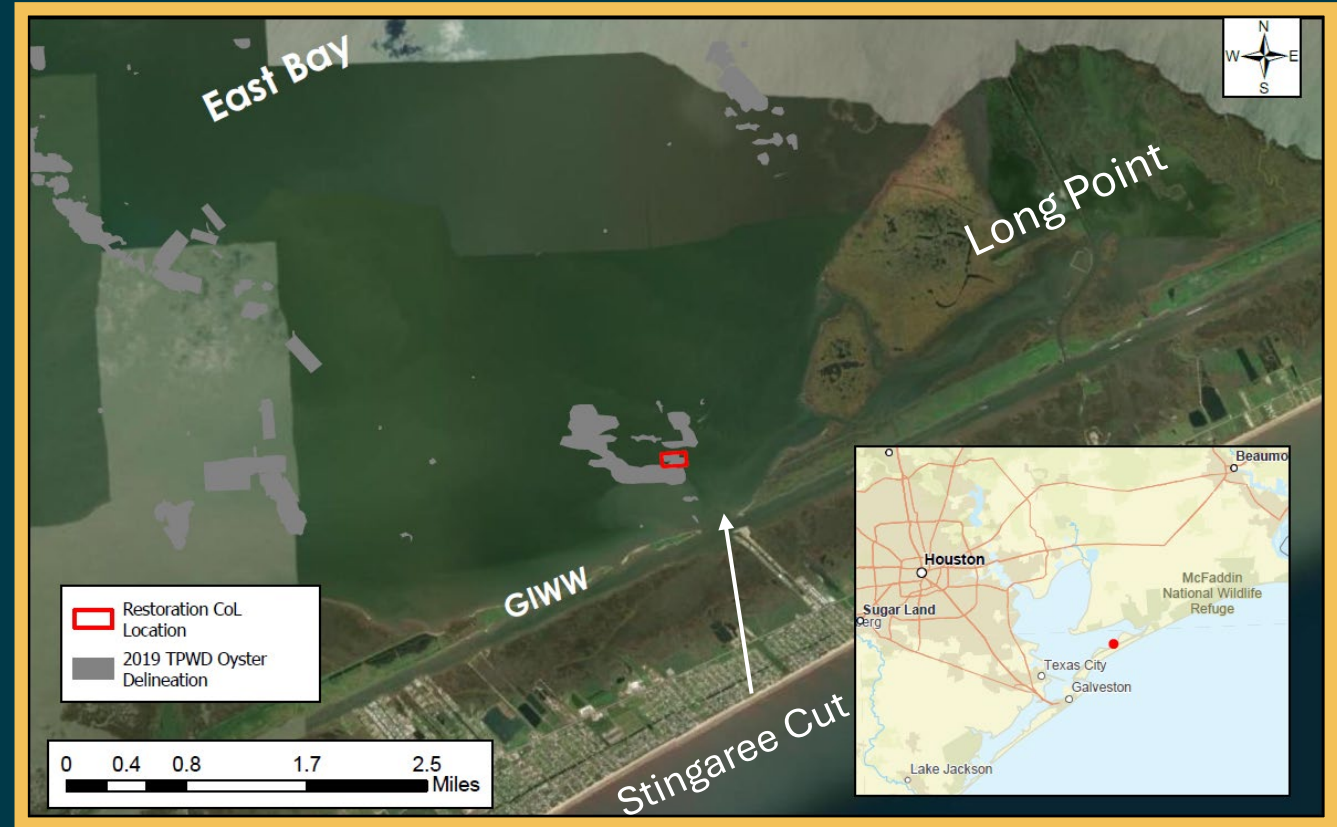
PROTECT TODAY. PRESERVE TOMORROW.

East Bay Oyster Reef Restoration: Engineering, Design, and Permitting

Sally Clark; Director of Habitat Restoration
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Oyster Restoration Benefits

- Galveston Bay has **lost over 60%** of its oyster reefs
- This project will provide 50% design for **10 acres** of oyster reef
- Cultch material may include **recycled oyster shell**
- CCA has pledged **\$950,000** for construction



Support the native oyster population

Provide habitat for fish, crabs, shrimp, invertebrates

Improve ecological resilience in East Bay

Enhance water quality

Project Overview

1

Site Investigations

Bathymetric, magnetometer, side scan sonar

2

Preliminary Engineering

Location, footprint, elevations, materials, quantities, constructability

3

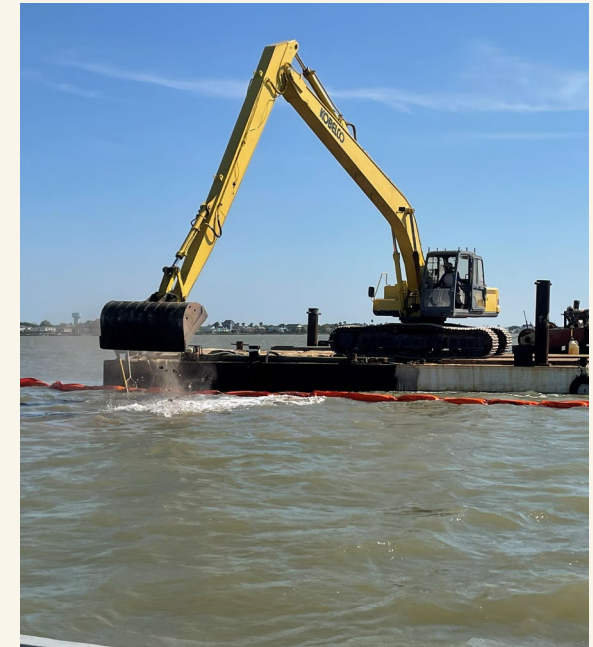
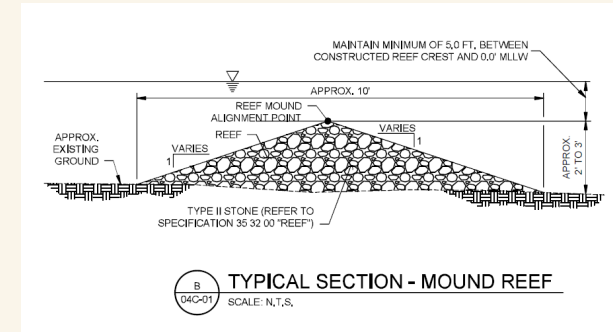
Regulatory Path

TPWD COL, GLO Surface Lease, USACE NWP, others

4

50% design package

Plans, permit drawings, opinion of probable cost



Total Cost: \$133,000



FY 2028 GBEP – NRU Proposal

GBEP investment moves a 10-acre restoration opportunity from **Concept** toward **Construction**



- **NRU FY 2028 Priorities addressed:**
 - Enhancement of existing or ongoing restoration efforts (east bay oyster reefs)
 - Benefits to native fish and wildlife
- **Living Resources Action Plans addressed:**
 - HC-2: Habitat Restoration
 - HC-3: Habitat Enhancement
 - SC-1: Native Species Management

Restoration of critical stopover habitat in High Island

Pete Deichmann
Land Conservation Director
Birds Houston



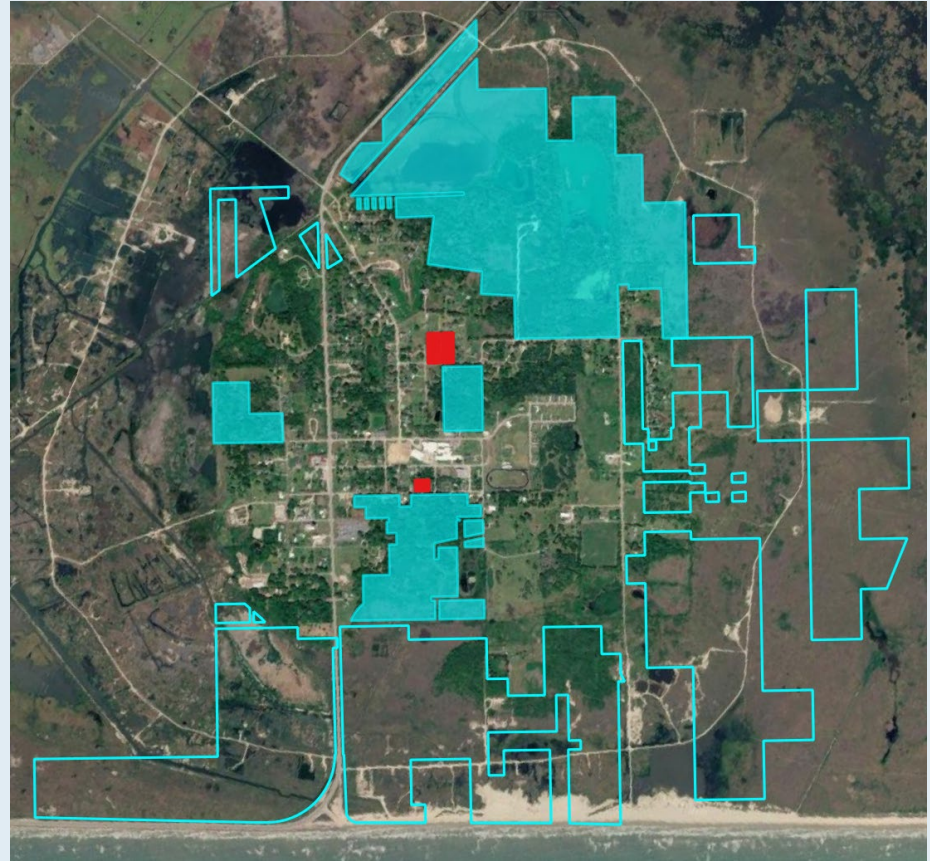
Birds
HOUSTON

EST 1969

→ Yes, we did!

Habitat Restoration

- Consistent management regime since 2013
 - 1 – Full time staff
 - 3 - Full time/seasonal technicians, Oct-April
 - 6 - Volunteer workdays, Oct-Mar
- Improvements to support efforts
 - 2019 - Coastal Operations Center (COOP)
 - 2019 - Cottage- additional housing
 - 2022 - +1 Full time staff
 - 2023 - Morse High Island Field Station
- Initial Treatment
 - Intensive, slow-moving
 - Supplement with contract work
 - Mechanical/chemical
- Follow-up treatment
 - Less intense, fast-moving
 - Mechanical/chemical
- Management Review
- “Rinse and repeat”



Expected outcomes

- Restore 10+ acres over 3 years
 - 3 seasonal technicians/yr
 - 2 wks contract work/yr



BUDGET	AMOUNT
Salary / Wages	\$45,000.00
Fringe Benefits	\$4,342.50
Supplies	\$1,500.00
Equipment	\$1,500.00
Contractual	\$48,000.00
Total Direct Cost	\$100,342.50
Total Indirect Cost	\$11,376.38
TOTAL	\$111,718.88

LEVERAGING	AMOUNT
Housing	\$179,820
Equipment Use	\$1,200
Volunteer Labor	\$73,238
TOTAL	\$254,258

Questions?



An aerial photograph of a bayou system winding through a suburban neighborhood. The bayou is surrounded by lush green trees and grass. In the background, a city skyline is visible under a hazy sky. A bridge crosses the bayou in the lower right corner.

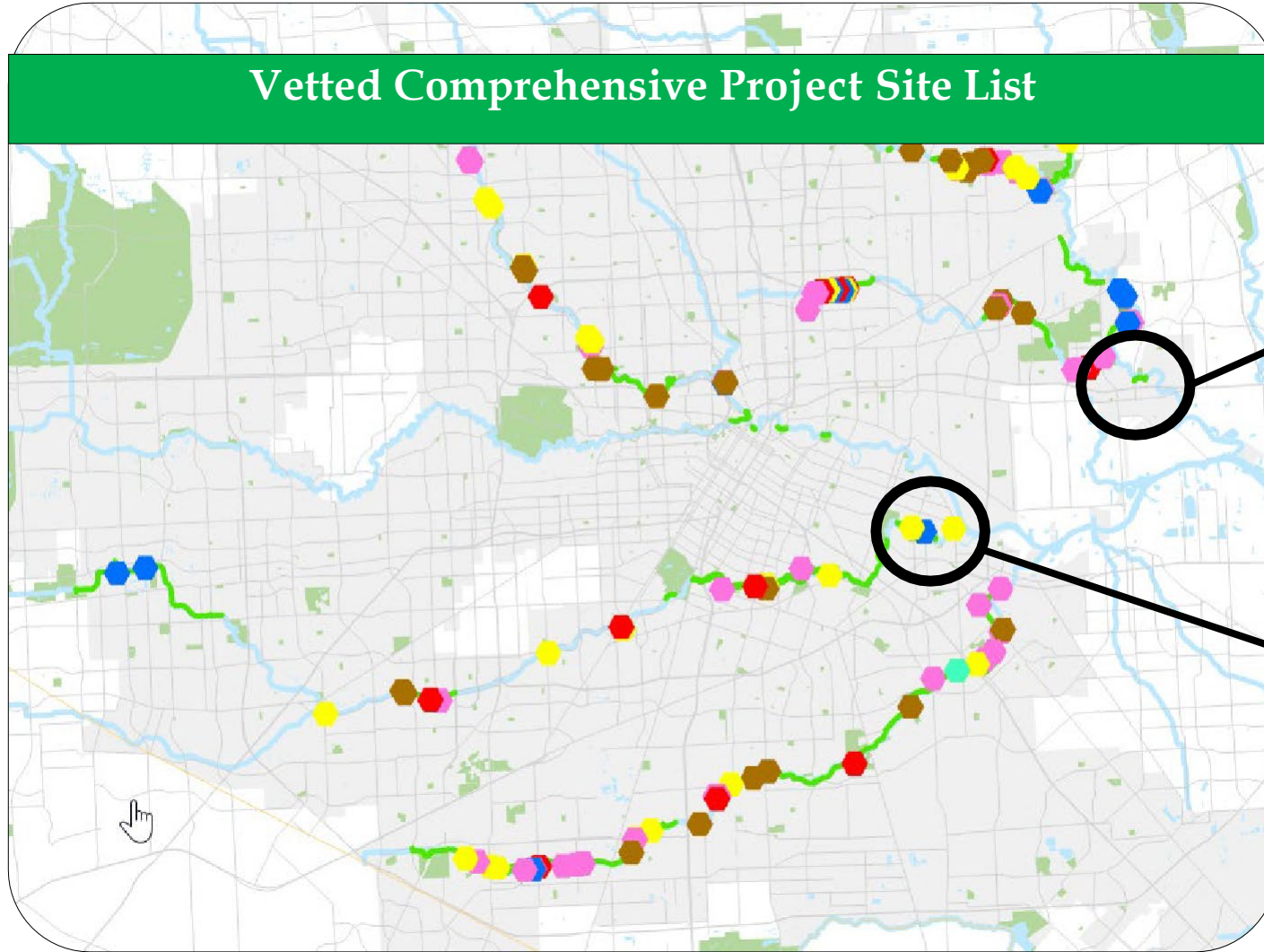
BAYOU GREENWAYS CONSERVATION PLAN - WETLANDS

HOUSTON PARKS BOARD
Marissa Llosa, Conservation Manager

SEPTEMBER 2026

BAYOU GREENWAYS | CONSERVATION PLAN

Vetted Comprehensive Project Site List



Thomas Bell Foster Tidal Wetland



Mason Park Stormwater Wetland

BAYOU GREENWAYS | PROPOSED PROJECT SITE CONDITIONS

Mason Park



Thomas Bell Foster Park



BAYOU GREENWAYS | PLAN OF ACTION

Pond Surfaces

Chemical Treatment for Algae

Mechanical removal of noxious species

Marsh Edges

Removal of wood encroachment

Herbicide treatment of cattails

Mechanical removal of noxious species

Supplemental planting

Surrounding Grassland Buffer

Herbicide treatment of noxious species

Reseeding area with HCFCD seed stock



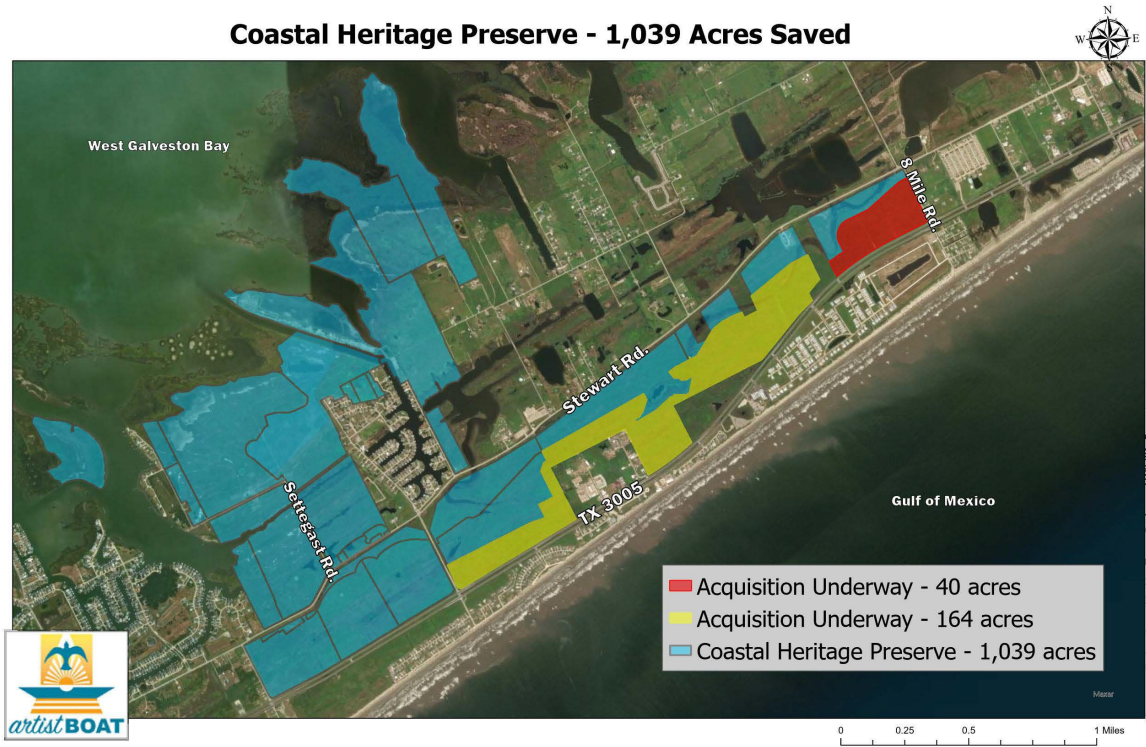
Artist Boat Coastal Heritage Preserve Land RESTORE Acquisition Project

TPWD: Savannah Horton, Coastal Ecologist,
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Artist Boat: Karla Klay, Executive Director,
executive.director@artistboat.org, 409-632-0388



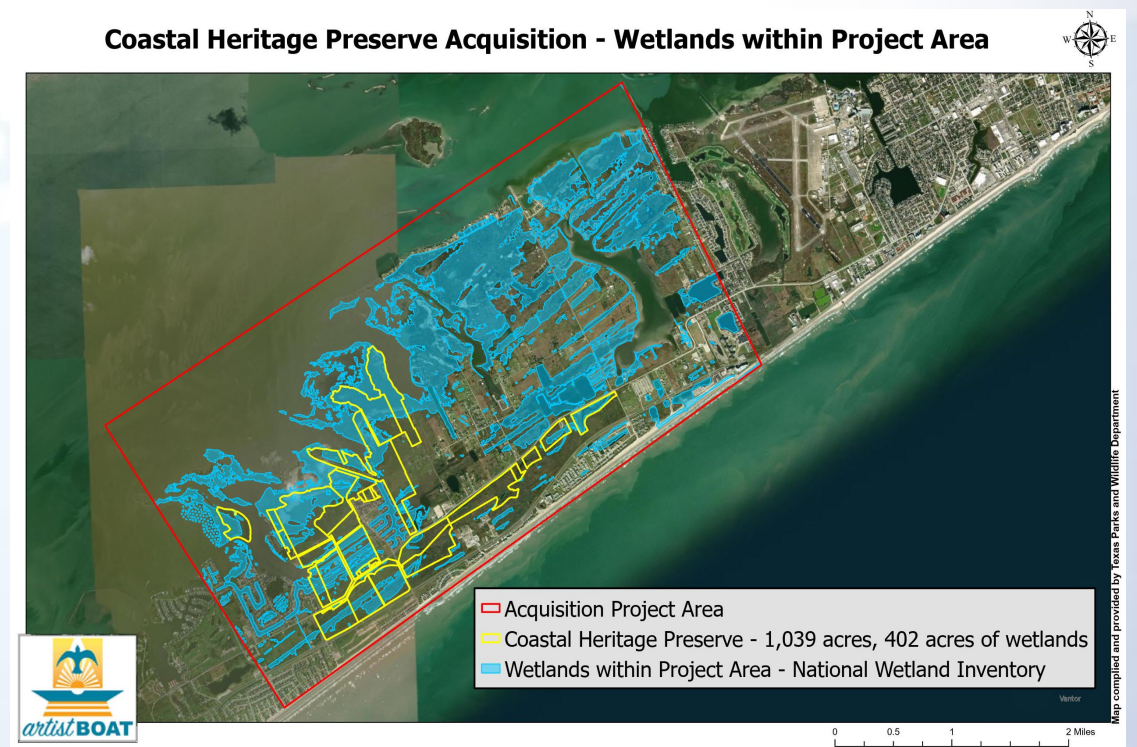
Current Coastal Heritage Preserve



Project Costs:

- \$6M from RESTORE
- Artist Boat will raise \$3,721,615 as leverage
- Total cost is \$9,721,615

Potential Coastal Heritage Preserve

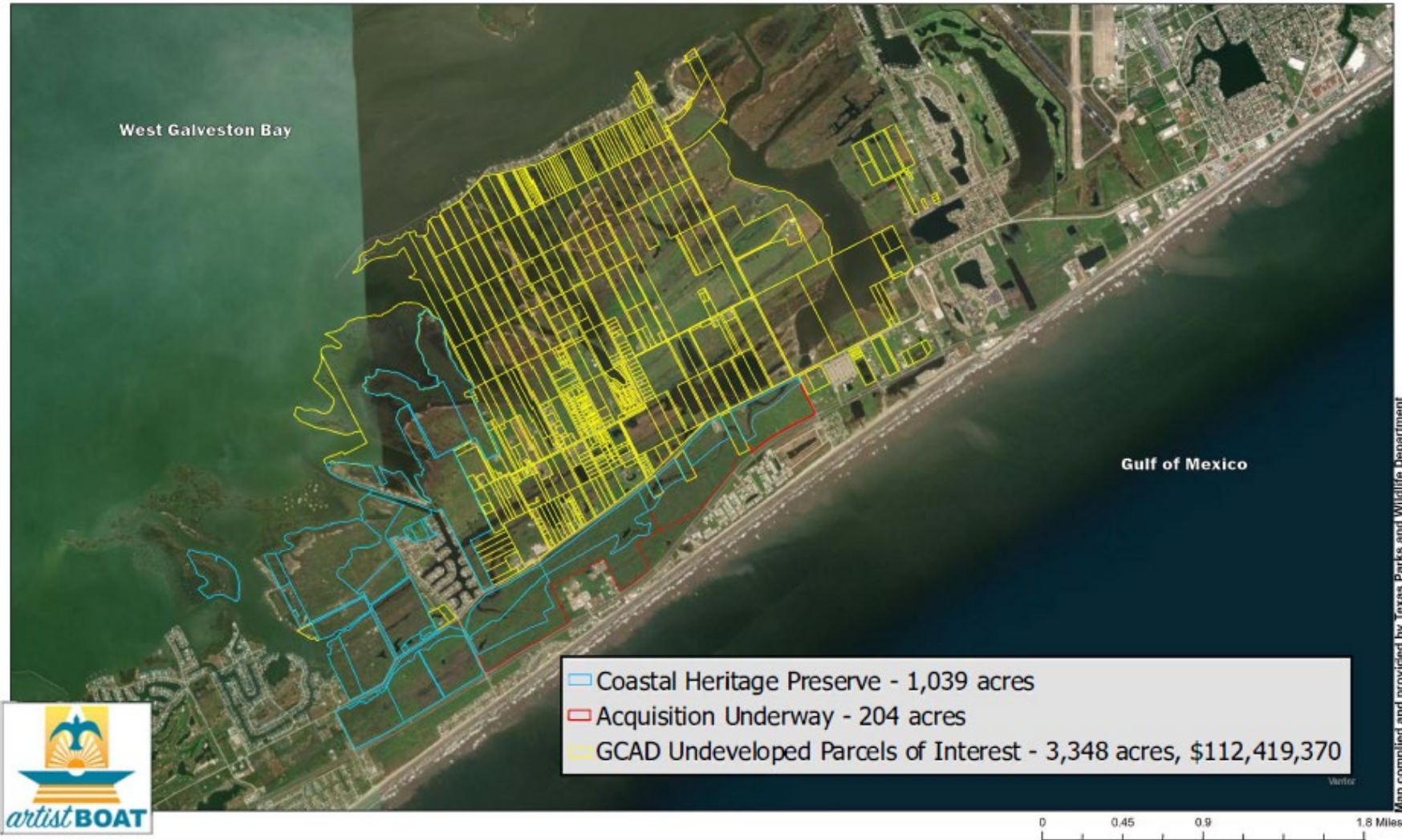


Goals and Timeline:

- Add 120-200 acres
- One-year planning phase (2027)
- Two years to acquire (2-4 tracts. 2028-2030)

Requesting \$200,000 from GBEP NRU

Potential Parcels of Interest (Galveston County Appraisal District)



Goals:

- 120-200 additional acres
- 2-4 tracts of land
- Addition of contiguous wetland/prairie habitats

Leveraging:

- RESTORE \$6,000,000
- Other Sources \$3,721,615
- CHP acquisitions: \$40,084,346.00

NRU and Galveston Bay Estuary Plan Priorities

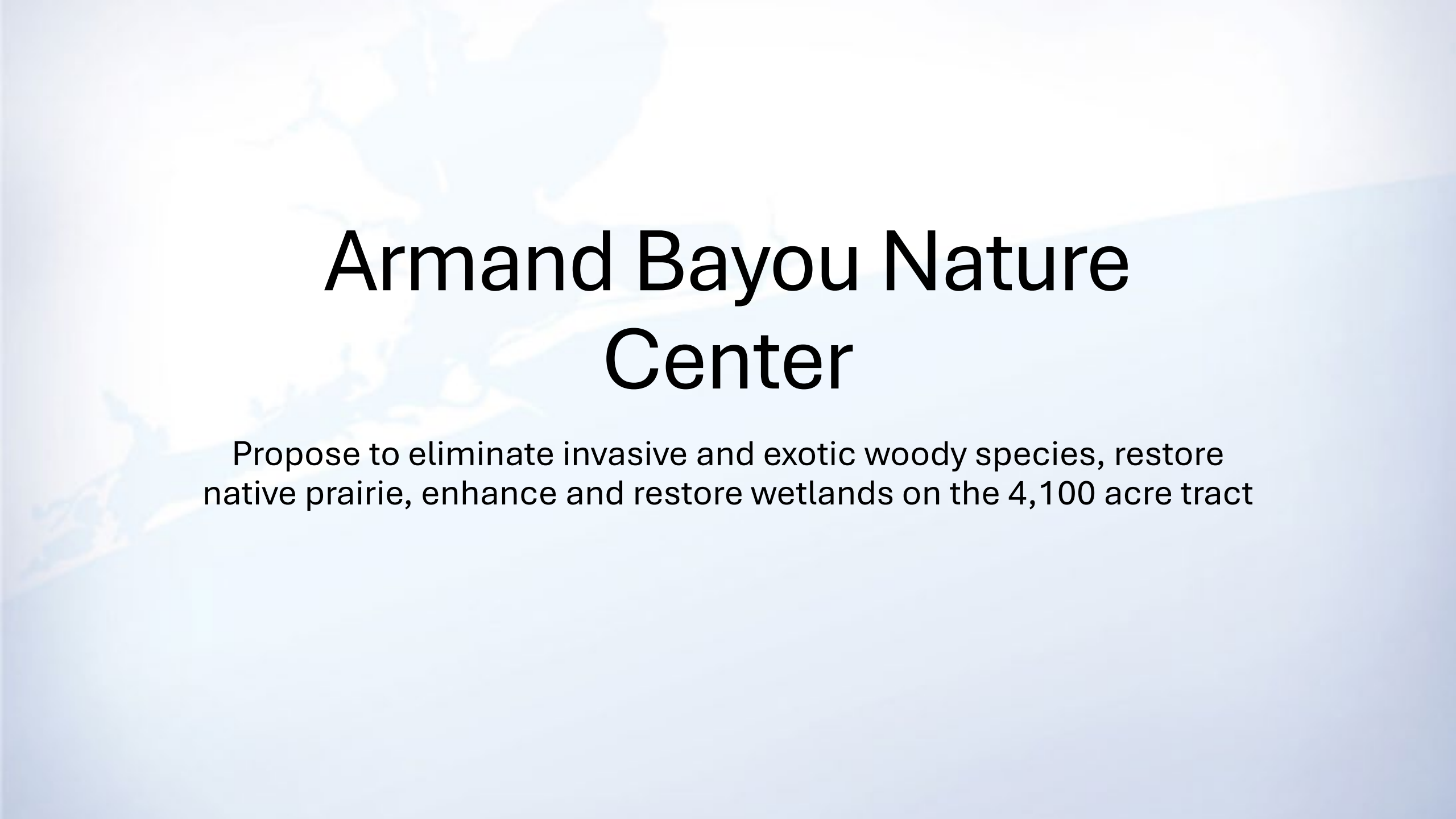
NRU:

- Habitat acquisition
 - 120-200 acres of coastal habitat (**HC1**)
- Project Urgency
 - Opportunity lost if not purchased by 2030 RESTORE deadline
- Enhancement of existing/ongoing conservation efforts (**HC3, SC1, SC2**)
 - Preserve actively managed for native species enhancement, restoration, and invasives control
- Benefit to native fish and wildlife
 - Property managed to support native fish and wildlife
- Brings funding, work leverage, or multiple goal benefits
 - **PPE (FWS13, SPO1, SPO2, PEA1, PEA2, PEA3, NPS-2):**
 - Empowers K-12 students/adults to positively impact their local environment
 - Connects new audiences to projects or the natural habitat
 - Opportunities for GBEP and partners to host workshops/networking
 - Conservation and environmental workforce development

Plan Alignments:

- RESTORE and NRDA DeepWater Horizon Restoration
- Texas Coastal Resiliency Master Plan Teir 1 Project
- West Bay Corridor Initiative
- West Galveston Island GreenPrint for Growth
- Galveston Bay Estuary Plan





Armand Bayou Nature Center

Propose to eliminate invasive and exotic woody species, restore native prairie, enhance and restore wetlands on the 4,100 acre tract

Prairie Restoration - Before

- Example of the project areas to be restored



Restored Wetland on Memorial Tract



Restored Prairie



- Next the Nature Center office. A wick was used to eliminate brush and woody species.