

# West Bay Watershed Wetland and Habitat Protection Brazoria and Galveston Counties, West Bay, Texas



Final Report

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A PROGRAM OF THE TCEQ



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## EXECUTIVE SUMMARY

Galveston Bay is the largest and most productive estuary in Texas, and second only to the Chesapeake Bay system among U.S. estuaries in fisheries productivity. Preserving wetlands and natural areas is critical to maintaining the water quality in this relatively pristine region, and to protecting valuable fish and wildlife habitat. Much of the wetland loss in the region and nearly all of the seagrass loss has occurred in and around West Galveston Bay (West Bay).

The West Bay Conservation Initiative is a concentrated effort in West Bay comprised of numerous conservation, restoration, and habitat protection projects supported by non-profit organizations, state and federal agencies, and private partners. The objective of the initiative is to protect and restore habitat and associated biological communities critical to the Galveston Bay ecosystem, including fringing intertidal and high marsh, tidal flats, freshwater wetlands, and coastal prairie.

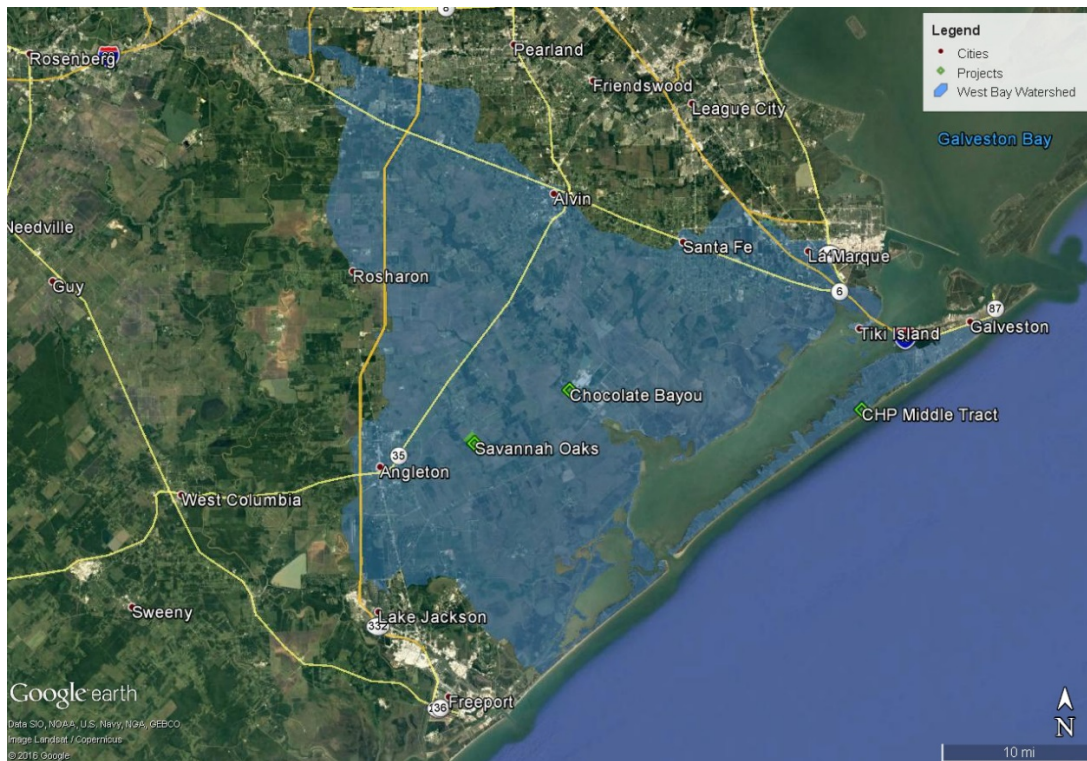
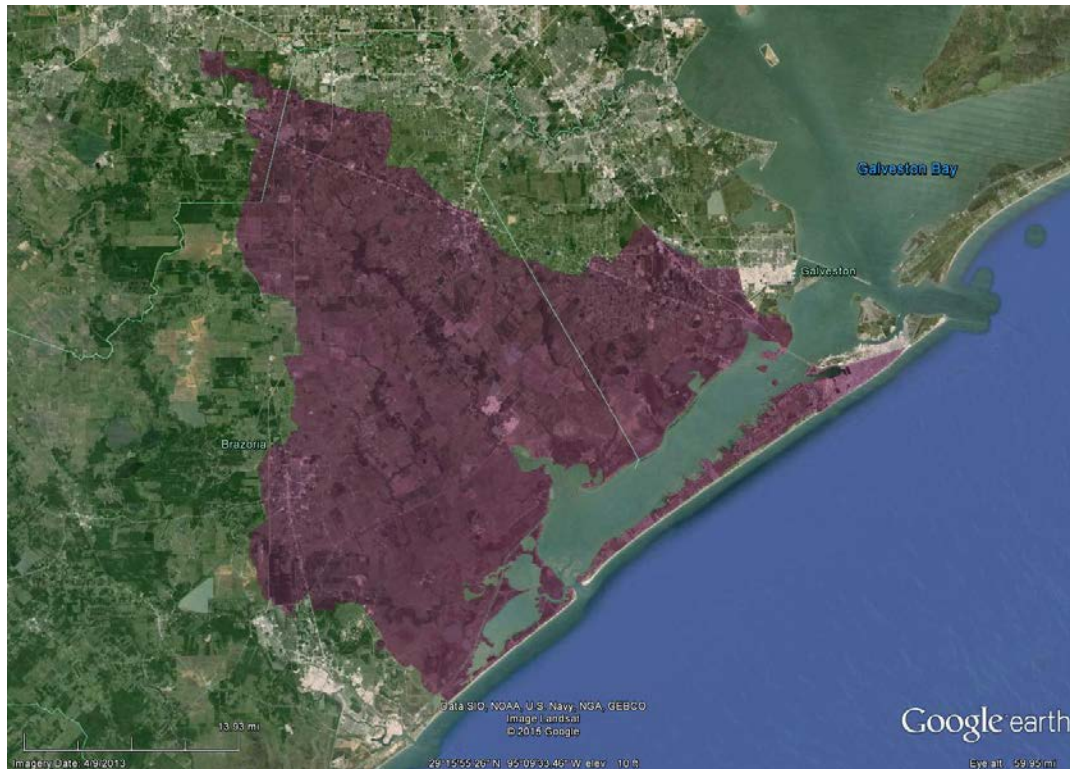


Figure 1: Completed projects in the West Bay Watershed

Through the West Bay Watershed Wetland and Habitat Protection grant through the Coastal Impact Assistance Program (CIAP), the Galveston Bay Estuary Program (GBEP) and its partners permanently protected 849.43 acres of coastal habitat from development. The goal of the project is to conserve wetlands and coastal natural areas in the West Bay watershed area by placing approximately 1,000 acres of coastal wetlands and other important habitats critical to water quality and habitat protection under long-term conservation. These properties include the Savannah Oaks rice farm (700-acre easement), Chocolate Bayou (102.734-acre acquisition), and the Settegast Coastal Heritage Preserve (CHP) middle tract (46.697-acre acquisition).

## INTRODUCTION



*Figure 2: West Galveston Bay Watershed*

The West Bay watershed is a highly biologically productive area. Because of its rich natural features and relatively high water quality, West Bay and its watershed support an abundance and diversity of fisheries and wildlife. Preserving wetlands and natural areas is critical to maintaining the water quality in this relatively pristine region, and to protecting valuable fish and wildlife habitat. The greater Galveston Bay watershed lost nearly 35,000 acres (20%) of its wetlands between 1950 and 1990, and 1800 acres (70%) of its seagrasses. Much of this wetland loss and nearly all of the seagrass loss occurred in and around West Bay. Recent studies indicate that the system continues to lose wetlands at a rapid rate. The Houston metropolitan area is expected to grow rapidly in coming decades, and subsequent wetlands and habitat loss is expected, including continued loss in the West Bay area. Increased urbanization will also likely impact water quality.

Habitat protection and restoration measures will protect or restore several biological communities critical to the Galveston Bay ecosystem including fringing intertidal and high marsh, tidal flats, freshwater wetlands, and coastal prairie. These ecosystem components provide nesting and foraging habitats for avian species; including protected migratory and endangered species; and commercially and recreationally important finfish and shellfish species. Combined with existing and ongoing coastal habitat restoration/protection efforts within the Lower Galveston Bay watershed, the West Bay Initiative will help protect the integrity of the entire coastal ecosystem.

## **PROJECT SIGNIFICANCE AND BACKGROUND**

Galveston Bay is the largest and most productive estuary in Texas, and second only to the Chesapeake Bay system among U.S. estuaries in fisheries productivity. Galveston Bay is the single defining geographic feature for the Houston metropolitan region, and serves as the foundation for its economy. Galveston Bay and its many waterways and diverse natural features afford an array of recreational opportunities for residents and visitors, and play an essential role in maintaining quality of life. Over five million people, or 75 percent of Texas' coastal population, reside in the five counties surrounding Galveston Bay. Human activities have significantly altered the ecosystem and affected its productivity, converting coastal wetlands to human uses, and fragmenting remaining coastal natural areas. The Houston metropolitan area is growing rapidly, and its population is expected to nearly double by 2035 (H-GAC, 2007). This growth will place increasing pressure on coastal natural resources, and likely result in additional coastal habitat loss and fragmentation. The U.S. EPA characterizes coastal wetland and associated habitat loss in Texas as severe (EPA, 1999), and this is a continuing concern because of the many important functions and values these features provide. Wetland loss in the Galveston Bay system is greater than in other areas of the state.

Many local scientists and resource managers believe that continued habitat loss poses the greatest single threat to the Galveston Bay ecosystem. GBEP's habitat loss studies primarily focus on wetlands. However, the bay system features a diversity of habitats, including extensive coastal prairie and woodland complexes that contribute to the health and productivity of the estuary, and provide many important functions and values to humans. The upland components of these habitat complexes receive limited regulatory protection, and are subject to significant loss and fragmentation. While minimal data exist on fragmentation and loss of these valuable upland features, the U.S. Fish and Wildlife Service (USFWS) reports that less than one percent remains of the once vast expanses of coastal prairie, and considers coastal prairie ecosystems to be "critically imperiled" (USFWS, 2000).

## METHODS

The West Bay Conservation Initiative is a concentrated effort in West Bay comprised of numerous conservation, restoration, and habitat protection projects supported by non-profit organizations, state and federal agencies, and private partners. The objective of the initiative is to protect and restore habitat and associated biological communities critical to the Galveston Bay ecosystem, including fringing intertidal and high marsh, tidal flats, freshwater wetlands, and coastal prairie.

Since 2011, the implementation has been carried out through the Conservation Assistance Program (CAP), a partnership between GBEP, the Galveston Bay Foundation (GBF), and Texas Coastal Partners. The goal of the CAP is to support regional efforts to preserve wetlands and important coastal habitats that protect the long-term health and productivity of Galveston Bay. This partnership assembled a work group to provide strategic guidance and technical expertise for the initiative. With the help and consensus of conservation partners, the CAP workgroup identifies conservation projects, develops funding strategies, works with landowners to negotiate conservation transactions, carries out due diligence, and finalizes purchase and transfers of title to the appropriate land conservation entity.

Project partners believe that it is essential to maintain geographic and mechanistic fluidity to achieve the goal of this project, rather than attempting to commit to individual tracts and types of agreements for two important reasons:

- 1) Conservation partners can approach landowners from a position of relative bargaining strength with funds in hand. Approaching landowners with the prospects of securing funds at some point many months in the future has proved to be an ineffective approach.
- 2) Even in cases where the landowners agree to wait several months or years on the availability of grant funds, these individuals are likely to be approached with purchase offers during the waiting period. The higher the offer and/or the longer it takes to secure funds for conservation purchase, the more likely the landowner is to accept other offers.

Project partners previously completed a habitat and land use assessment of the West Bay watershed to identify and prioritize key natural areas, and are actively pursuing conservation through a variety of mechanisms including:

- 1) Purchase of development rights (PDR);
- 2) Conservation easements; and
- 3) Fee simple purchase.

The GBEP works with the GBF through the CAP to conduct any transactions necessary for the conservation of targeted sites. The CAP workgroup also identifies other conservation organizations to hold fee title or hold conservation easements for target sites.

## PROJECT MILESTONES

In 2008, the GBEP secured \$2,000,000 from the GLO's CIAP funding to conserve properties in the West Bay watershed. Through the West Bay Watershed Wetland and Habitat Protection project (CIAP 2008), the GBEP and its partners permanently protected 849.43 acres of coastal habitat from development.

### *Savannah Oaks Conservation Easement*



*Figure 3: Savannah Oaks Conservation Easement signage*

Savannah Oaks Farm and Ranch, part of a fifth-generation family farm, is a rice farm situated at the convergence of Austin and Flores Bayous in Danbury, Texas. Its rice fields provide excellent wildlife habitat for a variety of shorebirds and waterfowl, including the mottled duck, an Audubon's Watch List species in decline.

The GBEP partnered with the Texas Farm and Ranch Lands Program and Ducks Unlimited to purchase a conservation easement for a 700-acre tract of land on the Savannah Oaks Farm and Ranch in Brazoria County, Texas. In December 2011, the West Bay Watershed Wetland and Habitat Protection project provided \$301,000 to purchase the conservation easement. Through this conservation easement, the landowners, Rody and Donna Kuchar, will maintain the property's current use as a working farm while preserving its wildlife values in perpetuity. The landowners and Ducks Unlimited, who are responsible for holding and monitoring the easement, are developing plans to further increase the property's wildlife value and reduce runoff pollution.

## *Chocolate Bayou Conservation Project*



*Figure 4: Chocolate Bayou Conservation Project signage*

Chocolate Bayou is one of the primary sources of freshwater for West Bay. Natural habitats found onsite include tidal marshes, freshwater wetlands, and coastal tallgrass prairie. Permanently protecting this tract of land will ensure that critical resources will remain for waterfowl, wading birds, and neotropical migrants as well as provide essential habitat for coastal fisheries including fish, crabs, and shrimp.

Identified by project partners in 2015, the Chocolate Bayou tract contains almost a half-mile of frontage along the tidally influenced Chocolate Bayou. The property is located less than three miles from the Brazoria National Wildlife Refuge and within an area rated as a high conservation priority by GBEP's CAP, which selects projects based on high quality habitat and importance to water quality for Galveston Bay.

On September 15, 2016, the West Bay Watershed Wetland and Habitat Protection project provided \$645,000 in CIAP funding to the GBF to purchase 102.734 acres on Chocolate Bayou in Brazoria County, Texas. GBF holds title to the property and will ensure long-term management.



## *Settegast Coastal Heritage Preserve Middle Tract*



*Figure 5: Coastal Heritage Preserve Middle Tract signage*

The CHP is the largest undeveloped, unfragmented tract of land on west Galveston Island. Acquiring parcels within the CHP project area contributes to ongoing efforts to maintain the physical and biological integrity of Galveston Island and the productivity of West Bay. The CHP is divided into four distinct tracts by roadways: the bay tract, the Marquette middle tract, the Marquette beach tract, and the Anchor Bay tract.

To date, approximately 600 acres of the 1,000-acre tract are permanently protected from development, including the entire 360 acres of the bay tract and 240 acres of the middle tract (includes acreage purchased through the West Bay Watershed Wetland and Habitat Protection project). In total, approximately \$8 million has been leveraged to the conservation community.

On December 8, 2016, the West Bay Watershed Wetland and Habitat Protection project provided \$1,051,000 in CIAP funding to the Artist Boat to purchase 46.697 acres of the CHP middle tract in Galveston County. Artist Boat holds title to the property and will ensure long-term management.

**DELIVERABLES:**

- Revised conservation easement for Savannah Oaks with required CIAP language - submitted April 25, 2013
- Maps of selected tracts - submitted February 6, 2014
- Final report - submitted February 2, 2017

Chocolate Bayou

- Willing seller letter - submitted March 1, 2016
- Appraisal - submitted February 29, 2016
- Survey - submitted August 9, 2016
- Legal documentation - submitted June 2, 2016
- Draft deed - submitted August 25, 2016
- Executed deed - submitted November 15, 2016
- Photograph of CIAP signage - submitted January 12, 2017

Settegast Coastal Heritage Preserve Mid-tract

- Willing seller letter - submitted August 10, 2016
- Appraisal - submitted October 11, 2016
- Revised appraisal - submitted November 18, 2016
- Survey - submitted September 23, 2016
- Legal documentation - submitted August 10, 2016
- Draft deed - submitted October 18, 2016
- Executed deed - submitted January 13, 2017
- Photograph of CIAP signage - submitted February 1, 2017

## **OBSTACLES**

The acreage protected was 150.57 acres less than the original goal. This was a result of increasing property values between the submittal of the grant proposal in 2008 and the execution of the contract in 2012. Since 2008, an economic recession, major changes in political leadership, and the Deepwater Horizon oil spill changed the way conservation took place in the watershed. In addition, two of the selected projects were fee simple acquisition, and only one was a conservation easement. Conservation easements can secure more acreage at a lower cost, but due to time restrictions, partners were unable to negotiate the terms of an easement before the expiration of CIAP funding.

## **LESSONS LEARNED**

The original proposal and contract were written to maintain geographic and mechanistic fluidity to achieve the goal of the project, rather than attempting to commit to individual tracts (see Methods section). As the federal awarding agency, USFWS required individual tracts to be identified for acquisition. Subsequently, the associated contracts required amendments. These newly required actions extended actions for months, and multiple projects (Austin Bayou Woods, Hitchcock Prairie) lost viability due to the delay in administrative functions.

The administrative changes above, in addition to last minute administrative changes to payment methodology and billing in 2016, caused the project to delay purchasing the remainder of the properties until December 2016, nearly four years after the project commenced.

For GBEP, an entity who supports land conservation but cannot hold land, the most important lesson learned is to develop proposals to be administered by third parties, and reduce administrative layers in land transactions. GBEP has served in that particular role (supporting and writing third party proposals) since 2010, after the GBEP's first CIAP pass-through grant for Starvation Gap.

Although the project successfully acquired land for conservation, the involvement of multiple agencies and associated requirements impacted negotiations between the landowners and conservation organizations.

**NEWS ARTICLES**

*(See following pages)*



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**FOR IMMEDIATE RELEASE**

**Galveston Bay Foundation Acquires Over 100 Acres  
of Coastal Habitat in Brazoria County**

***Land to be Preserved as Natural Habitat***

**Houston, TX – September 15, 2016** – Today, Galveston Bay Foundation (GBF) purchased more than 102 acres along Chocolate Bayou in Brazoria County, TX. The property will remain in an open and natural state forever due to GBF’s conservation efforts. Natural habitats found onsite include tidal marshes, freshwater wetlands, and coastal tallgrass prairie. The acquisition was made possible with the financial support of the Galveston Bay Estuary Program (GBEP), Texas General Land Office, US Fish and Wildlife Service.

“Permanently protecting this tract of land will ensure that critical resources will remain for waterfowl, wading birds, and neotropical migrants as well as provide essential habitat for coastal fisheries including fish, crabs, and shrimp,” said Bob Stokes, President of GBF.

Approximately \$675,000 of Coastal Impact Assistance Program and GBEP funding was utilized to acquire the Chocolate Bayou tract, which contains almost half a mile of frontage along the tidally influenced Chocolate Bayou. The property is located less than three miles from the Brazoria NWR and within an area rated as a high conservation priority by GBEP’s Conservation Assistance Program, which selects projects based on high quality habitat and importance to water quality for Galveston Bay. Chocolate Bayou is one of the primary sources of freshwater for West Galveston Bay.

Galveston Bay Foundation is an accredited land trust and has permanently protected more than 8,000 acres of coastal habitat within the Galveston Bay watershed. GBF protects land using traditional real estate acquisition methods and conservation easements, voluntary agreements with private landowners that restrict future land uses on their property. Conserving natural areas helps ensure clean air and water, food security, scenic landscapes and views, recreational opportunities, and habitat for local and migratory wildlife.

*\*This project was funded (in part) by a Financial Assistance Award from the U.S. Department of the Interior, U.S. Fish and Wildlife Service, Coastal Impact Assistance Program*









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## PRESS RELEASE

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FOR IMMEDIATE RELEASE  
DATE: DECEMBER 12, 2016

### **Accomplishment - The Sum of Small Steps**

**GALVESTON, TX December 12, 2016** – Will this matter a year from now? Or a decade? Or a century? You betcha! Artist Boat continues to work toward conserving Galveston Island’s remaining open space for future generations.

With closing pen in hand, Artist Boat is pleased to announce that another 47 acres were purchased for inclusion in the Coastal Heritage Preserve. The partnerships to achieve this conservation purchase were extensive! The purchase price was funded by a \$1,051,000 grant to the Galveston Bay Estuary Program/Texas Commission on Environmental Quality from the Coastal Impact Assistance Program (CIAP) of the U.S. Fish and Wildlife Service, administered by the Texas General Land Office, and via a third-party agreement between Artist Boat and the Galveston Bay Foundation. Administrative, due diligence, legal and transaction costs were funded by grants from Houston Endowment, Edward and Helen Oppenheimer Foundation, Partnership for Gulf Coast Land Conservation, and the Galveston Bay Estuary Program/Texas Commission on Environmental Quality.

The 47-acre parcel is part of the former Marquette development. The property is immediately adjacent to the Coastal Heritage Preserve. The purchase will build on conserving wetlands and important habitat critical to water quality that will sustain the health and resiliency of Galveston Island.

The Coastal Heritage Preserve is one of the largest un-fragmented, undeveloped properties of its kind remaining on Galveston Island. It is located roughly midway along the length of this 32-mile barrier island. The Coastal Heritage Preserve is also a critical piece of the West Bay Corridor Initiative, a multi-agency program to protect and restore critical habitats around Galveston’s West Bay, a project of the Hurricane Ike Long Term Recovery Plan and identified in the West Galveston Island Greenprint for Growth.

This purchase will enhance Artist Boat’s existing learning and environmental education programs while concurrently protecting the Island’s disappearing open space.

The competition for funding is intense. Island property values are high. Nonetheless, Artist Boat continues to persevere in making critical, small but significant steps in accomplishing the goal of conserving Galveston’s last remaining open spaces.

For more information contact: Executive Director Karla Klay at (409)-770-0722

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*Artist Boat is a non-profit organization dedicated to promoting awareness and preservation of coastal margins and the marine environment through the disciplines of the sciences and the arts.*