



Protecting our bays and estuaries

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Lamar Peninsula Whooping Crane Habitat Enhancements

A Project of the
Coastal Management Program
Contract No. 19-057-000-B091

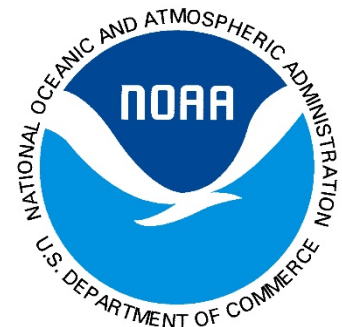
Revised Final Report
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A REPORT FUNDED BY A TEXAS COASTAL MANAGEMENT PROGRAM GRANT
APPROVED BY THE TEXAS LAND COMMISSIONER PURSUANT TO NATIONAL
OCEAIC AND ATMOSPHERIC ADMINISTRATION

AWARD NO. NA18NOS419053



Project Background:

In May of 2012 Coastal Bend Bays & Estuaries Program (CBBEP) purchased some 178 acres in the subdivision of Holiday Beach on Lamar Peninsula, Aransas County, Texas. This purchase was funded through a Section 6 Grant CBBEP received through Texas Parks & Wildlife Department. The purpose of the acquisition was to conserve occupied habitat for the endangered Whooping Crane. The 178-acre tract is divided into two separate tracts. For the purpose of this report the 71-acre tract will be referred to as “Tract A” the 106-acre tract will be referred to as “Tract B”. Maps of the tracts have been included as reference in this report.

When CBBEP purchased the tracts, the habitats were in good to moderate condition. It was apparent that some vehicular access controls and habitat enhancements would be necessary at some point. CBBEP, with some secured stewardship funds provided by the Whooping Crane Conservation Association (WCCA), began looking at opportunities to leverage funds to a more comprehensive habitat enhancement project.

At the time of the submission of the funding request to the Texas General Land Office – Coastal Management Program the Holiday Beach area of Lamar Peninsula had also just be devastated by Hurricane Harvey. CBBEP decided to focus on three tasks for the project. Each task is further described in the remainder of this report.

Task 1: Bollard Installation:

From a financial aspect this was the largest part of the project. CBBEP looked at vehicular access from available aerial imagery. Using that imagery and from our knowledge of the properties CBBEP identified areas of both Tract A and Tract B that needed some vehicular access control structures installed to reduce impacts of unauthorized vehicular access to the CBBEP owned properties.

CBBEP compiled some estimates of how many bollards it would take to properly secure portions of the properties that were most heavily accessed. It was determined that Tract B was more frequently accessed by vehicles than Tract A.

Through a competitive bidding process CBBEP identified a qualified contract to install the bollards. The method of driving posts by a track mounted hydraulic hammer was the accepted method of installation. CBBEP contractor, Copano Bay Excavation, installed approximately 637 bollards to help reduce vehicular access to the properties. Vehicular access was the leading factor in any decline of habitat on the properties. Over time and through the ebb and flow of tide cycles the ruts on the properties will eventually revegetate.

Task 2: Brush Treatment and Debris Removal

Debris Removal: For this task CBBEP included the debris removal portion of the project in the same bid solicitation as the bollard installation. Copano Bay Excavation preformed the debris removal. The project budget only allowed for 5 days of debris removal. It was decided to focus on some hand picking and use of low impact tracked machines to focus on concentrated debris fields. This effort was able to collect and dispose of some of the larger items that had been found

on the property. During this project CBBEP became aware of some additional funds that would become available to help remove the remaining debris from the properties.

Brush Treatment: The habitat enhancement through brush treatment was completed on some 22 acres of Tract A. CBBEP hired Triton Environmental Solutions to conduct the brush treatments in the sensitive habitat area of Tract A. Species that were targeted were woody vegetation species that had encroached into high marsh habitat consisting of a plant community containing gulf cordgrass (*spartina spartinae*) and sea oxide daisy (*borrichia frutescens*). An assessment of the plants to be treated was made by the contractor and CBBEP. It was determined that the industry approved method of 'cut stump' spray method would be the most successful application for the plants found in the treatment area. The herbicide triclopyr (Remedy) at 25% herbicide to volume with a paraffin oil as a surfactant was the herbicide used for the treatment. This method of treatment is promoted by the Brush Busters program which is a cooperative effort of Texas Agrilife Research and Extension Service.

Task 3: Education and Outreach-

To highlight the conservation efforts of the endangered Whooping Crane; more specifically the migratory flock that winters at the Aransas National Wildlife Refuge and on surrounding properties CBBEP wanted to develop an interpretive sign that could be viewed from the roadside by the public. CBBEP hired Snyder and Associates out of Corpus Christi, Texas to assist in the development of the layout for the interpretive sign. CBBEP collaborated with the International Crane Foundation on language that would go on the sign. A habitat cross section was included on the sign to show the importance of the different habitats utilized by Whooping Cranes.

Once design of the sign was complete and approved by all participating entities CBBEP had the image sent to IZone to produce the high-quality laminate sign that is designed to last over 20 years in an outdoor environment. Once received CBBEP staff built a frame and mounted the sign to the existing bollards along Palmetto Point road in the Holiday Beach subdivision of the Lamar Peninsula.

Please see the attached photo exhibits and maps showing all three tasks of the project.



PHOTOGRAPHIC PROGRESS REPORT

LAMAR PENINSULA WHOOPING CRANE HABITAT ENHANCEMENTS

Coastal Management Program (CMP) Cycle 23, National Oceanic and Atmospheric
Administration (NOAA) Award No. NA 18NOS4190153 and Texas General Land Office (GLO)
Grant No. 19-057-000-B091

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Property boundary marked by Surveyor. PVC marker installed to delineate future bollard line.



Contractor with some equipment used in the debris removal effort



Ingress / egress route from debris removal area



utility trailer used to haul debris



Section of a deck resting on top of a boat trailer. Items were removed as part of the debris removal effort



Example of what area of fringe marsh looked like with a section of roof over the vegetation



Bare ground in a vegetated high marsh area. Section of roof was covering the vegetation





Roll off container with example of debris removed from Tract A







Debris removed from Tract A





Laborers working in Tract A removing debris

Debris Removal Map

Legend

- ★ ACCESS POINT
- Holiday Beach





Copano Bay Excavation Using Hydraulic hammer to install bollards



Line of bollards along the edge of Palmetto Point Road on Tract B. Bollard line measured approximately 2900 ft.



Installed bollard and temporary CMP acknowledgment sign in the background



Driving Posts

2900 LF Bollard Line

Legend

- Bollard Segment 1
- CBBEP Newcomb Bend Palmetto Tract

Channelview Rd

Swedish Dr

Northwest Dr

Palmetto Point Rd

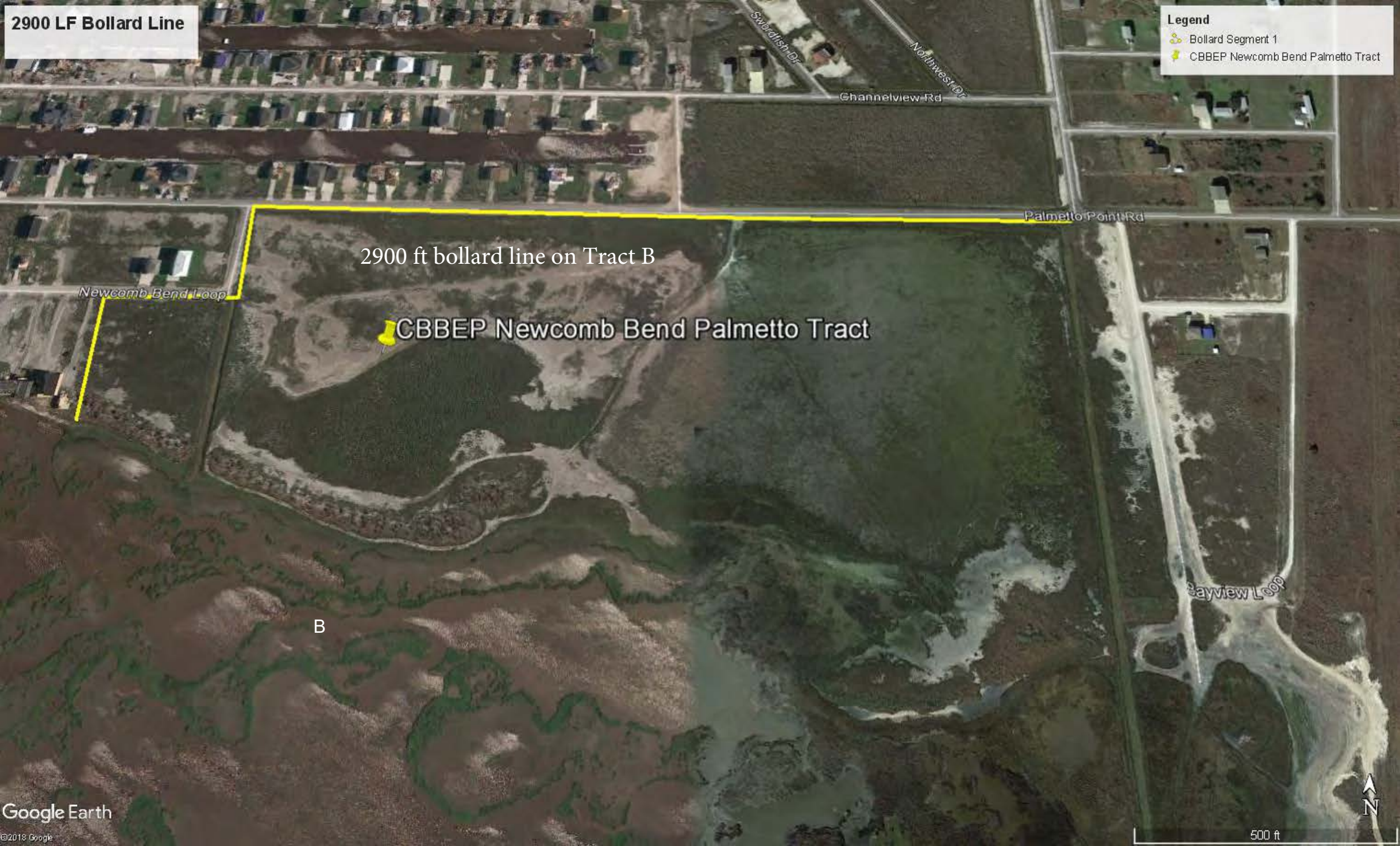
2900 ft bollard line on Tract B

Newcomb Bend Loop

CBBEP Newcomb Bend Palmetto Tract

Bayview Loop

B



Bollard Segment: Tract A

Approximately 370 ft

Legend

- Holiday Beach
- Holiday Beach - Northwest Drive
- Tract A- Bollard Segment



Bollard Segment

CBBEP Tract A

Holiday Beach

Belaire Dr

Starfish Dr

W Pin Oak Ln

W Live Oak Ln

W Misty Oak Ln

W Royal Oak Ln

W Club Oak Ln

Northwest Dr

Kingfish Dr

1000 ft



Holiday Beach Brush Treatment

- Legend**
- 📌 Brush Treatment
 - 🟥 Brush Treatment Area
 - 📍 Feature 1
 - 📍 Holiday Beach
 - 🚤 Rockport Fishing Charter



Holiday Beach Invasive Species Control
Site Visit January 29, 2020



Holiday Beach Invasive Species Control
Site Visit January 29, 2020



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Site Visit January 29, 2020



Holiday Beach Invasive Species Control
Site Visit January 29, 2020



Holiday Beach Invasive Species Control
Baccharis halimifolia
February 28, 2020
March 6, 2020



Holiday Beach Invasive Species Control
Baccharis halimifolia
February 28, 2020
March 6, 2020



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February 28, 2020
March 6, 2020



Holiday Beach Invasive Species Control
Prosopis glandulosa
March 10, 2020



Holiday Beach Invasive Species Control
Prosopis glandulosa
March 10, 2020



Holiday Beach Invasive Species Control
Prosopis glandulosa
March 10, 2020



Holiday Beach Invasive Species Control
Prosopis glandulosa
March 10, 2020



Holiday Beach Invasive Species Control
Prosopis glandulosa
March 10, 2020



Holiday Beach Invasive Species Control
Post Treatment
March 10, 2020



Holiday Beach Invasive Species Control
Post Treatment
March 10, 2020



Holiday Beach Invasive Species Control
Post Treatment
March 10, 2020



Holiday Beach Invasive Species Control
Post Treatment
March 10, 2020



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Post Treatment
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Holiday Beach Invasive Species Control
Post Treatment
March 10, 2020



**Interpretative Sign Install
Tract B September 28, 2020**







Whooping Crane Conservation

Did you know hundreds of acres have been conserved in and around the Holiday Beach Subdivision of the Lamar Peninsula? These conserved habitats are favored by Whooping cranes and include coastal prairie and both palustrine (freshwater) and estuarine (saltwater) wetlands. Coastal Bend Bays & Estuaries Program along with organization and agency partners, as well as private land owners, have all participated to help conserve these acres for future generations of both people and Whooping cranes.

Status
Endangered since 1967 due to habitat loss and over-hunting

Life Span
Up to 25 years in the wild

Habitat
Wetlands

Migration
Migrate from Texas to the Arctic

Estuarine Wetlands




The last naturally occurring Whooping crane population migrates over 2,500 miles from their breeding grounds in western Canada to winter on the coastal wetlands in southeastern Texas. The survival of this critical population depends on securing freshwater from the Guadalupe River basin and conserving wetland habitats along the Texas Gulf Coast.

They travel as a single pair, family group, or in small flocks and sometimes accompany sandhill cranes. They migrate during daylight hours and make regular stops along the way. By December, all have reached the coast. By December, all have reached the coast. By December, all have reached the coast.



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Whooping cranes are the tallest bird in North America, standing nearly five feet tall, with a seven foot wingspan. Their downy white body feathers are accented by jet-black wing tips visible only when the wings are extended, and a crescent of black feathers with a patch of red skin on the head. Their bills are dark olive-gray and become lighter during the breeding season. In the fall, juveniles have a rusty brown plumage with some white adult feathers just beginning to appear. By the time they depart the Texas coast in the spring the juveniles are white.

Threats to Whooping cranes include loss or deterioration of critical wetland habitat - including reduced fresh water on wintering grounds in Texas, sea level rise, low genetic diversity, power line collisions, predation, disturbance at nest sites, illegal shootings.

Status
Endangered since 1967 due to habitat loss and over-hunting

Life Span
Up to 25 years in the wild



Height
Five feet

Weight
Between 14-16 pounds

Clutch Size
1-3 eggs

Behavior
Will mate for life


Estuarine Wetlands

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They travel as a single pair, family group, or in small flocks and sometimes accompany satellite cranes. They migrate during daylight hours and make regular stops along the way. By December, all or nearly all have reached the marshes in and around Aransas where they feed on blue crabs, waterhens, crayfish, frogs, large insects and acorns moisted during the prescribed burns. As spring arrives and the days get warmer and longer, the cranes prepare for the trip back to Wood Buffalo National Park by increasing their food intake to fatten up for the long return flight.

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A grant project of the Texas General Land Office,
Texas Coastal Management Program
and the Coastal Coordination Advisory Committee



Texas General Land Office
George P. Bush, Commissioner

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