

# Flour Bluff ISD Invasive Species Removal

Final Report

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Prepared by:

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Submitted to:

Coastal Bend Bays & Estuaries Program
1305 N. Shoreline Blvd. Suite 205
Corpus Christi, TX 78401

The views expressed herein are those of the authors and do not necessarily reflect the views of CBBEP or other organizations that may have provided funding for this project.

# **Final Report:**

# Flour Bluff Independent School District (FBISD) Invasive Species Removal

# Contract No. 2422

### **Background**

Invasive woody species are known to occur on properties owned by Flour Bluff Independent School District (FBISD) and are detrimental to native plant and animal species. This includes Brazilian peppertree (*Schinus terrebinthifolia*) and white lead tree (*Leucana leucocephala*). Invasive plant species often out-compete native species and do not provide the quality habitat needed by native wildlife. Both Brazilian peppertree and white lead tree are aggressively growing invasive species and successfully removing them from a property requires both initial removal/herbicide treatment and the subsequent treatment of regrowth. Brazilian peppertree grows in dense thickets that are unusable to terrestrial wildlife. Contact with the oils of this tree is also known to cause dermatitis in humans, livestock, and wildlife.

The purpose of this project was to engage a contractor to perform removal/treatment of invasive species on a 51-acre property referred to as the FBISD Wetlands (Figure 1). The property is located at the intersection of Laguna Shores and Hustlin' Hornet. The treatment area was comprised of approximately 30 acres of the FBISD Wetlands.

Contractors were invited to submit bids through the State of Texas' website. Emails were also sent to local contractors involved in previous land clearing work for CBBEP. A pre-bid site visit occurred on July 16, 2024 and interested contractors were encouraged to meet on-site with Aaron Baxter (CBEPP) and Katie Doyle (FBISD). CBBEP ultimately received three bids from interested contractors (Attachment 1). Of the three submissions, BioTree Care was selected, as the lowest bidder, to conduct the removal of invasive species at the FBISD Wetlands property.





### **Objectives**

The project objectives included: 1) mechanical removal of invasive plant species, 2) spray application of herbicide to fresh cut stumps and invasive grasses, and 3) provide a summary report of removal/treatment activities.

### **Deliverables**

Pre-treatment Conference: A pre-treatment conference was held 8/27/2024 on the FBISD Wetlands property. Oscar Perez (BioTree Care), Katie Doyle (FBISD), and Aaron Baxter (CBBEP) were in attendance. During the meeting, all project specifics were discussed in detail including project tasks, deliverables, billing, and reporting. During the meeting, it was stressed that native plant species and the sensitive wetland habitats were to be avoided during any work in the project area. At the conclusion of the meeting, BioTree Care was given permission to begin work at the FBISD Wetlands.

Initial Treatment of Invasive Species: The mechanical removal of invasive species began on 9/3/2024 and ended on 9/16/2024. Larger woody invasives, such as saltcedar (*Tamarix* sp.), Brazilian peppertree, and white lead tree, were removed using a skid steer with a mulcher attachment (Figure 2) and/or chainsaws and were then immediately sprayed with herbicide (Triclopyr with surfactant and dye indicator) to maximize absorption into the plant tissue. Mulch was left in place, on-site as requested by FBISD. Invasive grasses were treated with herbicide (Glyphosate with dye indicator) using spray applicators. Care was taken to avoid sensitive wetland habitats and native species were intentionally left in place. Figure 3 shows before and after images of the work performed under this contract.



Figure 3. Before and after photos of the FBISD Wetlands property





Treatment of regrowth: After the intial removal of invasive species occurred, the area was monitored daily for regrowth. This task was performed by students and staff of FBISD, along with community volunteers. Students assisted in the removal of regrowth by mechanical removal (hand-pulling), while herbicide was applied by trained school district staff and adult volunteers. Table 1 shows the overall timeline for initial treatment, and retreatment, of the FBISD Wetlands property.

Date	Task	Personnel
9/3/2024	Initial Removal Initiated	BioTree Care
9/16/2024	Initial Removal Completed	BioTree Care
10/10/2024	Mechanical Removal of Regrowth	FBISD 6th grade students, Katie Doyle
10/15/2024	Herbicide Treatment of Regrowth	Rene Samson, Katie Doyle, Larissa Ford
11/23/2024	Herbicide Treatment of Regrowth	Katie Doyle
12/21/2024	Herbicide Treatment of Regrowth	Katie Doyle

Table 1. Timeline for removal and retreatment of invasive species at the FBISD Wetlands property

### Results

Prior to the initial removal and retreatments of invasive species at the FBISD Wetlands, the habitat was of low quality to native wildlife and dense stands of woody invasives restricted use of the property by FBISD students and staff. The two most important aspects of the FBISD Wetlands is to 1) provide native habitat for native wildlife, and 2) provide outdoor educational opportunities for students at FBISD. Figure 3 shows an aerial view captured after the initial removal activities concluded and shows the open spaces created by removal of dense stands of Brazilian peppertree and white lead tree. These open areas will allow for the expansion of native woody species, such as live oak, and the return of native herbs, forbs, and grasses.



Figure 3. Aerial view captured after the initial removal of invasive species from the FBISD Wetlands

Within a few weeks, native undergrowth species began to appear along with many pollinator insect species that rely on native grasses, herbs, and forbs to serve as food sources and host plants for their larvae. Figure 4 shows a newly emerged passionflower and a Gulf fritillary caterpillar, for which this plant species serves as a host.

Figure 4. Native passionflower and Gulf fritillary caterpillar at the FBISD Wetlands



Along with native plant species, native wildlife quickly returned to the newly accessible habitat and wildlife trail cameras were employed to capture the presence of native wildlife at the FBISD wetlands. Figure 5 shows just two examples of native wildlife use of the FBISD Wetlands, although the list of native species developed using the trail cameras also includes coyote, white-tailed deer, Virginia opossum, and raccoon.

Figure 5. Examples of native wildlife at the FBISD Wetlands (Bobcat and Javelina)





### Recommendations

While the project has achieved initial success in the removal of invasive plant species, and the subsequent return of native plant and animal species, it is imperative that continued treatments of invasive species occur to prevent this property from returning to its previous state. This will require committed efforts by FBISD students, staff, and their community volunteers. Flour Bluff ISD has indicated a long-term commitment to maintaining this property to ensure that it remains in a native state and free from invasive plant species. Efforts should be made to seek out dedicated funding towards the long-term maintenance of the FBISD Wetlands.

# **Attachment 1: Contractor Bid Packages for FBISD Invasive Species Removal**

Coastal Bend Bays & Estuaries Program – Invasive Plant Species Removal on Flour Bluff Independent School District Property

### SECTION 3 - BID SHEET

# Bid Sheet for Invasive Plant Species Removal on Flour Bluff Independent School District Property

This sheet must be filled out completely, either in ink or typewritten. A copy of the contractor's TDA Commercial Application License should be provided as a supplement to this bid sheet. Contractor may attach any additional supplemental information they feel is necessary.

Project No. CBBEP 2422

Contractor:

Project Name: Invasive Plant Species Removal on Flour Bluff ISD Property

Contact Information:

Bid Date:

		Contractor Price
	Item Description	BID
1	Invasive Plant Species Removal and Treatment (approx 30 acres)	\$ 33,000
	Includes cutting, mulching, and herbicide treatment	
+	TOTAL	\$ 33,000

Oscar Perez with BioTree Care, LLC	Arborist/Owner		
Printed Name	Title		
On for	07/16/2024		
Signature	Date		

The winning bidder must certify the minimum insurance coverages (in the amount of \$1,000,000) and provide proof of insurance upon request by the CBBEP.



# CERTIFIED

# The International Society of Arboriculture

Hereby Announces That

Oscar Perez

Has Earned the Credential

# ISA Certified Arborist ®

By successfully meeting ISA Certified Arborist certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council





30 May 2020 Issue Date 30 June 2026

TX-4625A

Expiration Date

Certification Number











# **CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY) 4/25/2024

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Coastal Bend Bays & Estuaries Program – Invasive Plant Species Removal on Flour Bluff Independent School District Property

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Project No. CBBEP 2422

Contractor:

Project Name: Invasive Plant Species Removal on Flour Bluff ISD Property

Contact Information:

Bid Date:

		Co Pri	ntractor ice
	Item Description		BID
1	Invasive Plant Species Removal and Treatment (approx 30 acres)	\$	39,802.12
	Includes cutting, mulching, and herbicide treatment		
	TOTAL	\$	39,802.12

Andrea (Andi) Binion	President
Printed Name	Title
Andi Binian	07/25/2024
Signature	Date

The winning bidder must certify the minimum insurance coverages (in the amount of \$1,000,000) and provide proof of insurance upon request by the CBBEP.

# Texas Historically Underutilized Business (HUB) Certificate



Certificate/VID Number: Approval Date: Scheduled Expiration Date: July 21, 2026

1822570774600 July 21, 2022

The Texas Comptroller of Public Accounts (CPA), hereby certifies that

# TRITON ENVIRONMENTAL SOLUTIONS LLC

has successfully met the established requirements of the State of Texas Historically Underutilized Business (HUB) Program to be recognized as a HUB. This certificate printed July 21, 2022, supersedes any registration and certificate previously issued by the HUB Program. If there are any changes regarding the information (i.e., business structure, ownership, day to day management, operational control, business location) provided in the submission of the business; application for registration/certification as a HUB, you must immediately (within 30 days of such changes) notify the HUB Program in writing. The CPA reserves the right to conduct a compliance review at any time to confirm HUB eligibility. HUB certification may be suspended or revoked upon findings of ineligibiliy.

> Statewide HUB Program Statewide Procurement Division

Note: In order for State agencies and institutions of higher education (universities) to be credited for utilizing this business as a HUB, they must award payment under the Certificate/VID Number identified above. Agencies, universities and prime contractors are encouraged to verify the company's HUB certification prior to issuing a notice of award by accessing the Internet (https://mycpa.cpa.state.bc.us/tpassc/mblsearch/index.jsp) or by contacting the HUB Program at 512-463-5872 or toll-free in Texas at 1-888-863-5881.

Coastal Bend Bays & Estuaries Program – Invasive Plant Species Removal on Flour Bluff Independent School District Property

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Robert Lane

TDA License No: 0318981

Project No. CBBEP 2422

Contractor:

Project Name: Invasive Plant Species Removal on Flour Bluff ISD Property

Contact Information:

Bid Date:

		Contractor Price
	Item Description	BID
1	Invasive Plant Species Removal and Treatment (approx 30 acres)	\$102,000.00
+	Includes cutting, mulching, and herbicide treatment	, , , , , , , , , , , , , , , , , , , ,
	TOTAL	\$102,000.00

Corey Gilliam	CFO
Printed Name	Title
	July 22, 2024
Signature	Date

The winning bidder must certify the minimum insurance coverages (in the amount of \$1,000,000) and provide proof of insurance upon request by the CBBEP.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED

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AUTHORIZED REPRESENTATIVE K andreas

Sean Andreas

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