FISCAL 2026 WORK PLAN

SECTION 320

GALVESTON BAY ESTUARY PROGRAM

Revision 1.0

United States Environmental Protection Agency No. (CE-00655009)

Texas Commission on Environmental Quality Grant No. (332026)

A PROGRAM OF TCEQ

Texas Commission on Environmental Quality

P.O. Box 13088, Austin, Texas 78711-3088

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List of Abbreviations

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Table 1: Abbreviations List

Abbreviation	Name
§	Section
ACS	Access to Galveston Bay Ecosystem Information (Action Plan)
ARUs	Autonomous Recording Units
AU	Assessment Unit
Back the Bay	Galveston Bay Public Awareness and Education Campaign
BIG	Bacteria Implementation Group
BMPs	Best Management Practices
BPA	Bayou Preservation Association
CAP	Conservation Assistance Program
CCMP	Comprehensive Conservation and Management Plan
Coalition	Galveston Bay Coalition of Watersheds
CWA	Clean Water Act
DO	Dissolved Oxygen
DNA	Deoxyribonucleic Acid
eDNA	Environmental DNA
EIH	Environmental Institute of Houston
EPA	United States Environmental Protection Agency
ERAP	Estuary Resilience Action Plan
FLIR	Forward Looking Infrared
FTE	Full-time Equivalent
FWI	Freshwater Inflows (Action Plan)
FY	Fiscal Year
GBC	Galveston Bay Council
GBEP	Galveston Bay Estuary Program
GBF	Galveston Bay Foundation
GBP	*Galveston Bay Plan*
GBP, 2nd Edition	*Galveston Bay Plan, 2nd Edition*
GBRC	Galveston Bay Report Card
GOAA	Gulf of America Alliance
GSI	Green Stormwater Infrastructure
HARC/GTRI	Houston Advanced Research Center/GeoTechnology Research Institute
HC	Habitat Conservation (Action Plan)
H-GAC	Houston-Galveston Area Council
HPARD	City of Houston Parks and Recreation Department
K-12	Kindergarten through 12th Grade
M&R	Monitoring and Research (Subcommittee)
MTU	Michigan Technological University
N/A	Not Applicable
NbSI	Nature-based Stormwater Infrastructure
NEP	National Estuary Program
No.	Number (referring to grants, contracts, and amendments)
NPS	Nonpoint Source
NRU	Natural Resource Uses (Subcommittee)
PEA	Public Education and Awareness (Action Plan)
PHA	Public Health and Awareness (Action Plan)
PPE	Public Participation and Education (Subcommittee)

Abbreviation	Name
PS	Point Source (Action Plan)
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
RES	Monitoring and Research (Action Plan)
RMD	Regional Monitoring Database
SAP	*Charting the Course to 2015: Galveston Bay Strategic Action Plan*
SC	Species Conservation (Action Plan)
SJRWP	San Jacinto River Waste Pits Superfund Site
SPO	Stakeholder and Partner Outreach (Action Plan)
STEM	Science, Technology, Engineering, and Mathematics
TAMU	Texas A&M University
TAMUG	Texas A&M University at Galveston
TCEQ	Texas Commission on Environmental Quality
Texas AgriLife	Texas A&M AgriLife Extension Service
THEA	Texas Health and Environmental Alliance
TPWD	Texas Parks and Wildlife Department
Trash Bash®	River, Lakes, Bays N' Bayous Trash Bash®
TRI	Toxic Release Inventory
UHCL	University of Houston-Clear Lake
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WBP	Watershed-based Plan
WPP	Watershed Protection Plan
WSQ	Water and Sediment Quality (Subcommittee)

Section 1.0: Program Overview

The initial application of grant number (No.) CE-00655009 (Texas Commission on Environmental Quality Grant (TCEQ) grant No. 332026) will be for three years of time and one year of funding with the intent to request another year of time and funding each year for the next two years and extend the grant term to five years total through 8/31/2030. The Fiscal 2026 Work Plan (Revision 0.0) is the first request for funding for this grant. TCEQ has found this method is most effective for successful operation and coordination of the Galveston Bay Estuary Program (GBEP).

Galveston Bay is the largest and one of the most productive estuaries in Texas. It sits adjacent to one of the most heavily industrialized areas in the nation. The GBEP service area encompasses 5,000 square miles and 232 miles of estuarine shoreline along the upper Texas Coast and incorporates the five-county area bordering Galveston Bay: Liberty, Chambers, Harris, Galveston, and Brazoria counties.

GBEP was established in 1989 to provide comprehensive management of this vital resource. In 1990, GBEP began working with an expansive group of stakeholders to develop a comprehensive plan that would receive broad-based support from, and involvement by, federal and state agencies with jurisdiction in Galveston Bay, industries and businesses, local government officials, commercial and recreational anglers, conservation organizations, and citizens. In 1994, the *Galveston Bay Plan (GBP)*, the comprehensive conservation and management plan (CCMP), was completed, and in 1995, was approved by the governor of Texas and the United States Environmental Protection Agency (EPA) administrator. The initial effort was jointly funded by EPA, the Texas General Land Office, and TCEQ. The *GBP* identified 82 action items to protect and restore the health and productivity of the estuary while supporting continued economic growth and public use of Galveston Bay.

By 2005, progress had been made on all 82 actions originally identified in the *GBP*. However, funding limitations, population growth, changes as environmental regulatory programs progressed, and new issues had emerged over time. *Charting the Course to 2015: Galveston Bay Strategic Action Plan (SAP)*, was created to help focus and guide *GBP* implementation. The *SAP*, published in 2007, had three sections that highlighted the priority focus areas identified during a series of stakeholder meetings held in 2005 and 2006: ecosystem and human health, public participation and education, and monitoring and research. In each of the priority focus areas, the issues of greatest concern were characterized, and a series of associated goals and objectives were identified. The goals and objectives were designed to guide GBEP partners as they planned, funded, and implemented policies and programs.

To continue protection and conservation of the estuary, a second edition of the *GBP* was revised to focus on identifying new issues facing Galveston Bay that were not addressed by the 1995 plan or previous updates. Both versions of the CCMP address 17 priority issues. The *Galveston Bay Plan, 2nd Edition (GBP, 2nd Edition)* is organized under four plan priorities and 10 action plans. Many actions under the action plans from the *GBP* were combined or removed due to completion or changes in regulation, and the original 82 actions became 38 actions. The *GBP, 2nd Edition* was approved by TCEQ in March 2019 and by EPA in September 2021. An interim update to the *GBP, 2nd Edition* is currently in progress.

GBEP received a grant from EPA to begin implementing the *GBP* in 1995, which ran from fiscal 1995–1999. Subsequent grants have run from fiscal 2000–2003, 2004–2007, 2008–2010, 2011–2013, 2014–2016, 2017-2019, 2020-2022, and 2023-2025. All grants have closed out apart from grant No. CE-00655008 (fiscal 2023–2025), which will close out August 31, 2027.

Since 1999, GBEP and its partners have received 27 local, state, and national awards and recognitions for their partnerships and progress in implementing the *GBP* and preserving Galveston Bay for future generations.

Section 2.0: Introduction

GBEP, a non-regulatory program of TCEQ, is a partnership of local governments, business and industry, conservation organizations, bay user groups, and resource agencies. GBEP is charged with implementing the *GBP*, the CCMP for Galveston Bay. GBEP is part of TCEQ's Office of Water, Water Quality Planning Division. A program manager and staff of seven located in the Houston-Galveston area directly oversee the implementation of the GBP. Program staff responsibilities are as follows:

- Acquire, manage, and disperse funds to implement specific actions in the *GBP*.
- Provide for coordination and communication among state and federal resource agencies for many cross-jurisdictional issues.
- Coordinate, monitor, and track implementation activities of Galveston Bay Council (GBC) partners.
- Identify and communicate bay improvements to agencies, stakeholders, and the public.
- Conduct public outreach and education to increase awareness of Galveston Bay.
- Advocate conservation of the estuary.
- Maintain stakeholder involvement in the decision-making process through the GBC and its subcommittees.

Figure 1: Mottled duck with her brood using palustrine marsh in Galveston, Texas (photo courtesy of Texas Parks and Wildlife Department (TPWD)).

Section 2.1: Organizational Structure

GBEP has the primary responsibility for coordinating and administering the Fiscal 2026 Work Plan. Program staff and job descriptions are provided below.

Lisa Marshall, M.S., GBEP Program Manager: Responsible for the overall implementation of the *GBP, 2nd Edition*, including securing and managing funds to support operations, staff, and projects; coordinating the GBC and the Budget and Priorities Subcommittee; serving as grant project coordinator for GBEP; fostering stakeholder involvement to facilitate *GBP, 2nd Edition* implementation; managing program staff and operations to ensure efficient use of resources; and representing GBEP on national, state, and local boards and committees and at national and state conferences/events to garner federal and state support.

Christian Rines, M.S., Water and Sediment Quality (WSQ) coordinator: responsible for coordinating the implementation of the nonpoint source (NPS), point source (PS), and public health and awareness (PHA) actions in the *GBP, 2nd Edition*; facilitating the WSQ Subcommittee of the GBC; implementing specific stormwater, wastewater, septic systems, and seafood safety projects; and researching, evaluating, and reporting findings concerning scientific and technical issues impacting *GBP, 2nd Edition* implementation.

Lindsey Lippert, Natural Resource Uses (NRU) coordinator: responsible for coordinating the implementation of habitat conservation (HC), species conservation (SC), and freshwater inflows (FWI) actions in the *GBP, 2nd Edition*; facilitating the NRU Subcommittee of the GBC and the invasive species and oyster restoration workgroups of the NRU Subcommittee; implementing specific projects to conserve, restore, and enhance coastal habitat and native species populations, and manage and control invasive species; maintaining Legislative Budget Board and EPA Government Performance and Results Act performance measures; serving as a back-up budget liaison and bill analyst for the GBEP office; and researching, evaluating, and reporting findings concerning scientific and technical issues impacting *GBP, 2nd Edition* implementation.

Zoe Gapayao, Public Participation and Education (PPE) coordinator and Community Relations Specialist: responsible for coordinating the implementation of the stakeholder and partner outreach (SPO) and public education and awareness (PEA) actions in the *GBP, 2nd Edition*; facilitating the PPE Subcommittee of the GBC; building relationships and developing communication channels and dialogue with local government officials, private sector, and other outside organizations key to implementing the *GBP, 2nd Edition*; providing information to stakeholders, the public and media; overseeing the Galveston Bay Public Awareness and Education Campaign (Back the Bay); promoting special events and projects; and overseeing the websites of GBEP. The PPE coordinator also facilitates cross-sectoral learning of public relations and marketing activities for the Galveston Bay watershed; organizes and manages community relations events and the State of the Bay Symposium; and tracks emerging stakeholder community concerns/issues.

Jenelle Estrada, M.S., Monitoring and Research (M&R) coordinator: responsible for coordinating the monitoring and research (RES) and access to Galveston Bay ecosystem information (ACS) actions in the *GBP, 2nd Edition*; facilitating the M&R Subcommittee of the GBC; coordinating the regional monitoring program, including data management/reporting, and development and application of environmental indicators; coordinating *GBP, 2nd Edition* implementation tracking, and researching, evaluating, and reporting findings concerning scientific and technical issues impacting *GBP, 2nd Edition* implementation.

Hope Cole, M.M.R.M., Technical and Quality Program coordinator: responsible for serving as the quality assurance (QA) specialist; assisting with oversight of contract management, tracking, and execution; serving as budget liaison and backup grant project coordinator for GBEP; coordinating the development and submission of federal reports; identifying and tracking the evolution of issues affecting bay management; and researching policy, technical, and management results that pertain to Galveston Bay in collaboration with the NRU and WSQ coordinators.

Matthew Abernathy, M.M.R.M., Education and Outreach coordinator: responsible for handling GBEP outreach events; conducting educational presentations in schools and at events; assisting with the informational needs of the program; managing contracts; and assisting subcommittee coordinators in implementing *GBP, 2nd Edition* projects.

Alejandra Trevino, Administrative Assistant: responsible for travel coordination, vehicle and equipment maintenance and repairs, mail, correspondence, office safety, and general administrative support for GBEP.

Program Competency Demonstration

The following statements demonstrate GBEP's competency as a Continuing Environmental Program:

- Competency is demonstrated by TCEQ Quality Systems Audits conducted biennially by TCEQ QA Manager.
- Competency is demonstrated through EPA Quality Project and Program Management training taken by TCEQ GBEP staff. GBEP staff that review Quality Assurance Project Plans (QAPPs) or manage projects with QAPPs have taken this training and any new staff with QAPP-related responsibilities will be required to take this training. Certificates are available upon request.
- Competency is demonstrated through the EPA approved TCEQ Quality Management Plan[1] (Revision 30 approved December 2024, effective January 1, 2025-December 31, 2025) that GBEP operates under, which provides descriptions of the QA policies, including all the requirements described in the EPA Quality Assurance Project Plan (QAPP) Standard[2] (CIO 2105-S-02.1).
- The GBEP Program Manager and staff take many professional development training classes annually, which are available upon request.

[1] https://www.tceq.texas.gov/agency/qa/qmp
[2] https://www.epa.gov/system/files/documents/2024-04/quality_assurance_project_plan_standard.pdf

Section 2.2: Fiscal 2025 Leveraging, Travel, and Tech Transfer

Figures reported in Table 2 provide a mid-year estimate of leveraged funding reported by partners and grantees from September 2024–August 2025 (fiscal 2025). The numbers are subject to change as additional funding may be reported for the period.

Table 2: Fiscal 2025 Leveraging

EPA Funds to Program (Section (§) 320)	TCEQ State Allocation	Other Federal Funds*	Other State Funds and In-kind*	Local Government Funds and In-Kind*	Private funds and In-kind*
$850,000	$1,774,484	$14,182,674	$1,025,000	$54,000	$8,311,989
Total Fiscal 2025 Leveraging			$25,348,147		

*As Reported in fiscal 2024 National Estuary Program (NEP) Online Reporting Tool

Figures reported in Table 3 depict the travel expenses[3] and tech transfer descriptions from fiscal 2025. Red text indicates pre-travel estimates.

Table 3: Fiscal 2025 Travel and Tech Transfer

Event, Location, and Purpose	Date	Staff	EPA	TCEQ (State)
Fall EPA NEP Workshop Long Island, New York The conference provided the opportunity to learn, coordinate, and exchange information with other NEPs and federal program staff and allows GBEP to implement the succession plan.	December 11-15, 2024	Lisa Marshall Jenelle Estrada	$2,422.21	$270.00
Spring EPA NEP Workshop Washington D.C. This meeting provided NEP Directors a chance to exchange information and network.	March 24-26, 2025	Lisa Marshall	$1,854.54	$0.00
Gulf of America Alliance (GOAA) All Hands Meeting Biloxi, MS – May 2025 This meeting provides networking opportunities with other organizations and governmental agencies working for the environment and economic health of the Gulf of America.	May 5-8, 2025	Lisa Marshall	$0.00	$0.00
Galveston Bay Foundation (GBF) Conservation Committee Meetings Kemah, Texas GBF and partners meet to discuss conservation projects, management needs, and funding strategies for lands held by GBF. The committee also reviews bylaws and requirements needed to maintain GBF's Land Trust Alliance accreditation.	Quarterly	Lindsey Lippert	$0.00	$0.00
Houston-Galveston Area Council (H-GAC) Natural Resources Advisory Committee Meetings Houston, Texas (Hybrid) These meetings provide information on issues related to natural resource management of the region. The GBEP Program Manager is a non- voting member.	Quarterly	Lisa Marshall	$0.00	$0.00

[3] Travel is dependent on TCEQ management review and approval. Rates for fiscal 2025 are subject to change.

Event, Location, and Purpose	Date	Staff	EPA	TCEQ (State)
H-GAC River, Lakes, Bays N' Bayous Trash Bash® (Trash Bash®) Event Coordination Meetings Houston, Texas (Hybrid) The meetings provide regional coordination, site selection, training, outreach materials development and training, and organizational support for the regional Trash Bash® events.	Quarterly	Matthew Abernathy	$0.00	$0.00
University of Houston-Clear Lake (UHCL) Environmental Institute of Houston (EIH) Science Advisory Board Houston, Texas (Hybrid) The meetings provide updates from EIH staff and faculty on their research and educational initiatives. The GBEP Program Manager is a non-voting member.	Biannually	Lisa Marshall	$0.00	$0.00
H-GAC Bacteria Implementation Group (BIG) Houston, Texas (Hybrid) These meetings provide an update of implementation activities of the BIG Implementation Plan and present topics that are related to water quality.	Biannually	Lisa Marshall Christian Rines	$0.00	$0.00
Texas Watershed Coordinator Roundtable Meetings Variable location These meetings provide a forum for water professionals to establish and maintain dialogue between watershed coordinators, facilitate interactive solutions to common watershed issues faced throughout the state, and add to the fundamental knowledge conveyed at the short courses	Biannually	Lisa Marshall Christian Rines	$0.00	$0.00
Water Quality Planning Division (WQPD) Meeting Austin, Texas (Hybrid: one in-person in fiscal 2025) The WQPD meetings allow for sections and teams under the WQPD to share their updates and upcoming news. The WQPD Deputy Director and Assistant Deputy Director discuss their meetings and report on the past quarter's updates. These meetings allow GBEP staff to meet with other WQPD employees and network.	Quarterly	Lisa Marshall Matthew Abernathy Zoe Gapayao Jenelle Estrada Lindsey Lippert Christian Rines Alejandra Trevino	$0.00	$380.33
Social Science for Coastal Managers La Marque, Texas This meeting provided professional development and knowledge on using social science skills to better understand stakeholders, conduct effective surveys, and analyze data.	September 26, 2024	Matthew Abernathy Zoe Gapayao	$0.00	$40.00
Texas Association for Environmental Education Conference Waco, Texas This meeting provided the Education and Outreach coordinator with professional development opportunities related to the best management practices (BMPs) for environmental education in the state of Texas. This also provided networking opportunities with environmental education organizations from throughout the state.	October 3-6, 2024	Matthew Abernathy	$0.00	$626.68

Event, Location, and Purpose	Date	Staff	EPA	TCEQ (State)
Executive Women in Texas Government Austin, Texas A networking and educational event that promotes, supports, and mentors executive women in positions of Texas government.	December 15-16, 2024	Christian Rines	$0.00	$820.67
Citizens' Environmental Coalition (CEC) Houston, Texas The summit provided a networking event and forum that brought together environmental professionals and enthusiasts to foster dialogue, education, and collaboration on solutions to the health and environmental issues in the Houston region.	October 18, 2024	Zoe Gapayao	$0.00	$149.00
Black Farmers and Urban Growers Conference Houston, Texas This conference provided a networking opportunity to expand partnerships in the Houston area, particularly with those working towards sustainable food systems, regenerative agriculture, and soil health.	November 2, 2024	Zoe Gapayao	$0.00	$80.00
Bayou Preservation Association (BPA) Symposium Houston, Texas A networking event and forum that explored topics such as nature-based stormwater infrastructure (NbSI), low-impact development, conservation, and sustainable growth in the Greater Houston area.	November 7, 2024	Lisa Marshall Christian Rines	$0.00	$80.00
United States Army Corps of Engineers 2024 Stakeholder Partnering Forum Galveston, Texas This meeting provided a forum for partners along the Texas coast to discuss programs such as ecosystem restoration and flood risk management.	November 17, 2024	Zoe Gapayao	$0.00	$17.86
Water for Texas 2025 Conference Austin, Texas A conference that brought together industry experts, innovators, influencers, and leaders to discuss current and future Texas water issues.	January 27-29, 2025	Lisa Marshall Christian Rines	$0.00	$1,881.79
Texas Watershed Planning Short Course Bandera, Texas This training provided background information on the development and execution of Watershed Protection Plans (WPPs). This will be useful to GBEP staff that will work with entities to develop WPPs and develop mechanisms for the GBEP to track and assess implementation of the *GBP, 2nd Edition.*	January 27-30, 2025	Matthew Abernathy Jenelle Estrada	$0.00	$1,348.59
South Texas Coastal County Consortium Conference Refugio, Texas The M&R coordinator presented on the Galveston Bay Estuary Program at the 2nd Annual South Texas Coastal County Consortium Conference	February 28, 2025	Jenelle Estrada	$0.00	$95.00
TCEQ Commissioner's Agenda Austin, Texas The Program Manager presented the GBC member nominations to TCEQ	March 13, 2025	Lisa Marshall	$0.00	$216.34

Event, Location, and Purpose	Date	Staff	EPA	TCEQ (State)
Commissioners for approval of half of the members' new terms.				
Surface Water Quality Monitoring Partial Training Houston, Texas This workshop provided training on surface water quality monitoring issues and is an opportunity to network with other water quality specialists in the state.	March 17, 2025	Jenelle Estrada	$0.00	$250.00
Texas Plastic Pollution Symposium Houston, Texas The symposium focused on research, solutions, and public policy regarding plastic pollution around the state of Texas.	April 3, 2025	Matthew Abernathy Christian Rines	$0.00	$0.00
Texas Bays and Estuaries Meeting Corpus Christi, Texas (Hybrid) The 2025 Texas Bays and Estuaries Meeting brings together scientists, students, coastal managers, elected officials, and interested public to share research relevant to the bay, estuary, and nearshore environments of the Gulf of America.	April 23-24, 2025	Lisa Marshall Matthew Abernathy Zoe Gapayao Jenelle Estrada Lindsey Lippert Christian Rines	$0.00	$1,026.60
TCEQ Environmental Trade Fair and Conference San Antonio, Texas This Trade Fair and Conference provides an opportunity to highlight GBEP's operations and accomplishments to municipalities, other organizations, and other staff within TCEQ.	June 2-3, 2025	Matthew Abernathy	$0.00	$296.29
Summer Gulf Coast Joint Venture Mid Coast Team Meeting Victoria, Texas – June 2025 The meeting provides the NRU Subcommittee coordinator the opportunity to discuss conservation priorities for bird habitat along the coast in 16 counties from Galveston to Corpus Christi, Texas	July 9, 2025	Lindsey Lippert	$0.00	$240.00
Fiscal 2025 Travel and Tech Transfer Total			**$4,276.75**	**$7,819.15**

Section 2.3: Goals and Accomplishments Since Fiscal 2025 Work Plan Submission

GBEP partners made notable achievements in improving water quality, restoring wetlands, protecting unique habitats, and educating the public in fiscal 2025. These achievements are highlighted in the following sections. Ongoing and completed projects funded under previous Clean Water Act (CWA) § 320 grants can be reviewed through prior approved Work Plans on the GBEP website[4].

Improving and Protecting Water Quality: Supporting Core Clean Water Act Programs

In support of EPA's core CWA goals, GBEP has worked to build capacity of local stakeholders through watershed protection planning and implementation of water quality improvement projects. Through this effort in coordination with other water programs of TCEQ and local stakeholders, most of the impaired waters in the five-county region surrounding Galveston Bay have some level of watershed protection or improvement underway.

WPPs

Highland and Marchand Bayous WPP[5]

Highland and Marchand bayous have experienced periods of low dissolved oxygen (DO) and elevated bacteria levels, which can impact aquatic life and can be harmful to human health, respectively. All state assessments, now called the Texas Integrated Report of Surface Water Quality for Clean Water Act §305(b) and §303(d)[6] (Texas Integrated Report and 303(d) List), since 2002 have listed multiple assessment units (AUs) within Highland Bayou (2424A) and Marchand Bayou (2424C) as impaired for these constituents of concern. Texas A&M AgriLife Extension Service (Texas AgriLife) coordinated the creation of a characterization report and a stakeholder driven Draft WPP for Highland Bayou. However, the WPP only addressed the bacteria impairment. Guidance from EPA in 2018 indicated that the DO impairment and flow needed to be included for a WPP to meet all requirements for acceptance as a watershed-based plan (WBP). DO impairments and flow have now been addressed as well as three new AUs added to the WPP – Highland Bayou Diversion Canal (AU 2424G_01), Moses Bayou (AU 2431A_01), and Unnamed Tributary of Moses Lake (AU 2431C_01). This project resulted in the completion of the final WPP revisions which included finalizing load reductions, obtaining stakeholder approval, and submitting the WPP to EPA for consistency review. The final version of the Highland Bayou WPP was accepted by EPA on May 12, 2021.

Although the GBEP funded portion of the project ended March 31, 2021, implementation efforts continue through the Galveston Bay Coalition of Watersheds (Coalition), a partnership of local water quality professionals that seek to promote widespread community awareness and engagement in the protection and improvement of Highland Bayou and other Coalition watersheds. Texas AgriLife is utilizing current Coalition efforts in the state-funded, fiscal 2025 project, "Supporting Permeable Alternatives to Conventional Pavement in the Lower Galveston Bay Watershed", to bring together stakeholders and technical advisors from four watersheds with existing WPPs. The goal is to share ideas and resources and to implement local solutions identified in these plans, and to also inform future implementation and WPP development in the region. The Coalition continues to promote stakeholder awareness and engagement in the protection and improvement of Coalition watersheds with its current focus on stormwater management through NbSI, fats, oils, grease, and wipes in sanitary sewer systems, waterway trash and debris, and other strategies to improve water quality.

Double Bayou WPP[7]

The Double Bayou watershed, on the eastern shoreline of the lower Galveston Bay watershed, is hydrologically connected to Trinity Bay, a sub bay of the Galveston Bay estuary. The Double Bayou WPP was accepted in July 2016 in response to the West Fork of Double Bayou being listed on the

[4] https://gbep.texas.gov/work-plans/
[5] https://agrilife.org/highlandbayou/
[6] https://www.tceq.texas.gov/waterquality/assessment
[7] https://www.doublebayou.org/

2012 Texas Integrated Report and 303(d) List for elevated bacteria levels and low DO and the East Fork of Double Bayou being identified as a concern for near-nonattainment of water quality standards for elevated bacteria levels and as a water quality concern for low DO. From 2017-2021 GBEP funds supported water quality data analysis and implementation of the Double Bayou WPP through the state-funded, fiscal 2018 project, "Coordinating Implementation of a WPP for Double Bayou." This project monitored current water quality of DO and bacteria in the bayous and communicated water quality conditions to stakeholders to support adaptive management and expand public knowledge and participation in the Double Bayou watershed.

Through separate fiscal 2024 state funds, GBEP is supporting additional implementation efforts through the "Strategic Implementation of Green Infrastructure Best Management Practices in the Double Bayou Watershed" project. The goal of this project is to support continued implementation of the Double Bayou WPP, which is critical to the long-term success of the watershed-based NPS pollution management efforts. This project's objectives are to develop a bacteria source tracking assessment, establish a project specific watershed-based model, and conduct stakeholder outreach. The Double Bayou WPP implementation efforts are supported by increasing opportunities for adaptive management and decision making for NbSI BMPs in collaboration with stakeholders.

Clear Creek WPP[8]

The Clear Creek watershed is a subsidiary of the greater Galveston Bay watershed. Water quality issues impacting recreation, local economies, public health, and the environment have persisted in this watershed for years. Preliminary work in Clear Creek was completed as part of a total maximum daily load project, during which strong local support for full WPP development was expressed. The Clear Creek Watershed Partnership was created in 2021 to address elevated levels of fecal bacteria, low DO, and high nutrient concentrations threatening water quality. A TCEQ CWA §319(h) grant was matched with GBEP fiscal 2024 state funds to develop and implement an EPA nine-element WPP. The developed WPP was accepted by the EPA in July 2024 and NPS education and outreach implementation efforts continue in the watershed.

The goals of the GBEP funded portion of the project include:

- Stakeholder facilitation and WPP development (other than modeling and data assessment tasks requiring a QAPP).
- Outreach and education in the watershed, including NPS-oriented H-GAC workshops, outreach presence at local events, and support and coordination with partner agencies on joint outreach events.
- Supplemental outreach efforts in coordination with GBEP or its partners to forward *GBP, 2nd Edition* goals in the watershed.

In fiscal 2025, BPA is helping to implement and elevate the Clear Creek WPP through the GBEP funded project, Enhancing Clear Creek Watershed Protection and Galveston Bay Plan through Community Engagement and Monitoring (Fiscal 2025, CE-00655008). By focusing on pet waste education and Texas Stream Team monitoring, the project seeks to improve water quality, reduce pollution, and enhance the ecological health of the Clear Creek watershed and Galveston Bay by promoting watershed stewardship.

Greens Bayou WPP[9]

H-GAC is also currently working with TCEQ on a CWA §319(h) WPP development project for Greens Bayou which was initiated in December 2023 and will continue through August 2027. The effort will produce an EPA nine-element WPP and conduct NPS education and outreach elements during the project.

GBEP state funding under the "Watershed Protection Plan Development for Greens Bayou" project will be used to support the existing federal funding and local match for the project, as supplemental

[8] https://www.h-gac.com/watershed-based-plans/clear-creek
[9] https://www.tceq.texas.gov/waterquality/nonpoint-source/projects/greens-bayou-wpp-dev

local match. The intended use of the funds will be to cover stakeholder coordination, outreach and education, and support of GBEP programming and messaging.

Water Quality Improvement Projects

In addition, various WSQ projects are providing new insights into water quality improvements through reducing bacteria concentrations in the lower Galveston Bay watershed, making rapid methods used for the detection of human waste contamination in waterways a more routine methodology used by Galveston Bay water quality professionals, quantifying the distribution and concentration of microplastics in Galveston Bay and its tributaries in new targeted locations, evaluating the effectiveness of existing water quality BMPs, installing NbSI demonstration sites, assess the extent of hydrologic connectivity between aquifers and surface water in the San Jacinto River Waste Pits Superfund Site (SJRWP) and quantifying the concentration of persistent and emerging contaminants in surrounding water, and establishing new strategies to address water quality.

- Targeted Bacteria Monitoring (Fiscal 2020 CE-00655007, CE-00655008)
- Application of Rapid Methods of Microbial Source Tracking to Assess the Source of Fecal Contamination to Western Galveston Bay (Fiscal 2025, state-funded)
- Occurrence of Microplastics in Tributaries to Galveston Bay (Fiscal 2020, CE-00655007)
- Baseline Assessment of Microplastics in Galveston Bay (Fiscal 2021 CE-00655007, CE-00655008)
- Targeted Microplastics Monitoring in the Waters of Galveston Bay and its Tributaries (Fiscal 2024, CE-00655008)
- Evaluation of Green Infrastructure to Reduce Microplastic Pollution in Galveston Bay
- Green Stormwater Infrastructure (GSI) Demonstration Site Development for Greenspace Education in the Galveston Bay Watershed (Fiscal 2025, CE-00655008)

1. WSQ Goals

The WSQ Subcommittee also identified several focus priorities for fiscal 2026 project selection. These priorities include supporting management measures and WBPs, which are addressed through "Enhancing Clear Creek Watershed Protection and Galveston Bay Plan through Community Engagement and Monitoring" (Fiscal 2025, CE-00655008) and state-funded projects; monitoring and research that evaluates NbSI effectiveness, which is addressed through Evaluation of Green Infrastructure to Reduce Microplastic Pollution in Galveston Bay and "Supporting Permeable Alternatives to Conventional Pavement in the Lower Galveston Bay Watershed" (Fiscal 2025, state-funded); and evaluation and development of indicators and metrics of water (surface and ground) and sediment quality, which is addressed through Assessment of Coastal Groundwater Quality and Dynamics in San Jacinto River Waste Pit Superfund Site and "Application of Rapid Methods of Microbial Source Tracking to Assess the Source of Fecal Contamination to Western Galveston Bay" (Fiscal 2025, state-funded).

Habitat and Landscape-level Conservation: Conserve, Restore, and Enhance Important Coastal Habitats

The Texas coast features a wealth of coastal habitats that support a tremendous abundance and diversity of fish and wildlife. Although the habitat conservation efforts of GBEP and its partners are bay wide, distinctive consideration has been given to the West Bay watershed. Preserving wetlands and natural areas is critical to maintaining water quality and protecting valuable fish and wildlife habitat in this region.

Since 2000, GBEP and its partners created, protected, and enhanced 43,519 acres of important coastal habitats, leveraging $207,356,732 in local, industry, state, and federal contributions, a leveraging rate of $14.90 to every dollar received from EPA. During fiscal 2024, GBEP protected and enhanced 2,043 acres of wetlands and coastal habitats, and leveraged $25,330,763 in local, industry, state, and federal contributions.

As of March 2025, an additional 1,170 acres of coastal habitat have been conserved via land acquisition. Through acquisition and restoration initiatives currently in progress, GBEP and partners are positioned to conserve and/or enhance an additional 2,000 acres of coastal habitat by August 2025.

The Ninth Addition to the Coastal Heritage Preserve, Galveston Island, Texas (Galveston County, Texas)

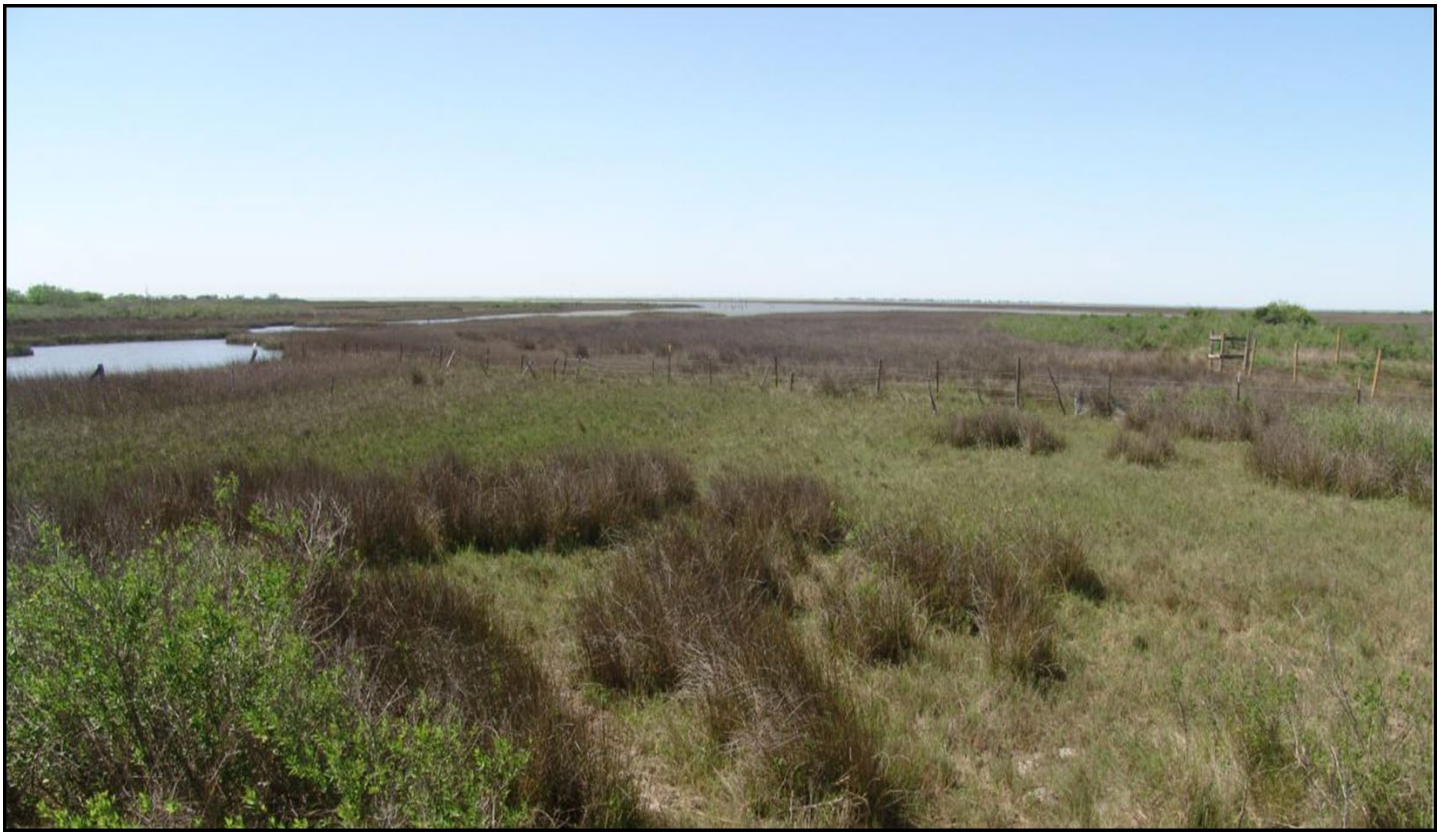

Figure 2: Estuarine wetlands at the Coastal Heritage Preserve (Galveston County, TX)

The state-funded project, "The Ninth Addition to the Coastal Heritage Preserve, Galveston Island, Texas," is located within the Gulf Coast Prairie and Marshes ecoregion on Galveston Island, Texas. Once covering most of the Texas coastal plain, 6.5 million acres, the coastal prairie is now a critically imperiled habitat and has been reduced to less than one percent of its original extent (USGS, 2000[10]). Remaining prairie remnants are usually found in small fragments. Threats to the habitat include industry, agriculture, urban land use, and fragmentation. Other threats include loss of natural processes such as fire and periodic grazing which has led to the degradation of prairie leaving it more susceptible to invasion from exotic plant species such as the Chinese tallow tree and Brazilian peppertree.

The objective of the project was to conserve in perpetuity approximately 141 acres of coastal habitats. Now completed, the purchased tracts were added to and are being managed as part of the 1,039-acre Coastal Heritage Preserve. In addition, a conservation easement was placed on the property to further secure permanent conservation. The acquired tract directly benefits and protects regularly flooded and irregularly flooded estuarine emergent marsh, regularly flooded and irregularly flooded estuarine salt flat, temporarily flooded freshwater emergent marsh habitat, temporarily flooded freshwater scrub shrub, upland coastal prairie, and open water habitats. The acquisition was completed on August 21, 2024. Additional work to promote controlled access and habitat management are in progress.

[10] https://pubs.usgs.gov/publication/fs01900

This project conserves breeding, nesting, foraging, roosting, and wintering habitats that benefit numerous coastal-dependent and migratory bird species including the mottled duck and sandhill crane. The project also protects coastal habitats that serve as breeding, nursery, juvenile, and foraging habitat to marsh resident fishery species.

Dickinson Bay Island II (Galveston County, Texas)

Figure 3: Dickinson Bay Bird Island II during construction (photo courtesy of HDR Engineering).

Part of the larger Texas Rookery Islands project, the purpose of "Dickinson Bay Island II" (state and externally funded) was to restore and protect bird species injured as a result of the Deepwater Horizon spill and included coordination with state and federal agency biologists and with non-governmental organization partners. Restoration activities at each rookery island will increase the amount of available nesting habitat by expanding the size of the island and enhancing habitat quality by establishing native vegetation. Habitat longevity will be increased by increasing the size of the island, establishing vegetation, and constructing protective features such as breakwaters or levees.

Dickinson Bay Bird Island II will benefit various colonial waterbirds, including brown pelicans, gulls, royal and sandwich terns, and wading birds such as great blue herons, roseate spoonbills, reddish egrets, great egrets, snowy egrets, tricolored herons, and black-crowned night herons.

2. NRU Goals

The NRU Subcommittee also identified several focus priorities for fiscal 2026 project selection. These priorities include habitat acquisition, which is addressed through the FY 2025 Conservation Assistance Program; and enhancement of existing or ongoing restoration/conservation efforts, which is addressed through "North Deer Island Erosion Control Phase One" (Fiscal 2026, state-funded). The priority to benefit native fish and wildlife, including federal and state listed species,

species of greatest conservation need, or nongame wildlife is addressed through Monitoring and Managing the Threatened Eastern Black Rails in the Galveston Bay Area and From Scat to Conservation: Community-based Engagement for Galveston Bay's Ghost Wolves.

Continue Building Regional Support for PPE

GBEP continued engaging communities with outreach and education through GBEP funded projects and partnering with stakeholders on various initiatives.

Examples of these activities include:

- Continued support for "Bay to Schools" (Fiscal 2024, CE-00655008) which has allowed GBF to employ interns to implement their programs in local school districts. Bay to Schools has so far reached over 2,287 students, 138 teachers, and 23 adults.
- Continued coordination with partner organizations for the Texas Plastic Pollution Symposium held at the Houston Zoo on April 3, 2025. The Symposium focused on projects, research, and communication on local trash, marine debris, and plastic pollution issues. This is in coordination with EPA's Trash Free Waters[11] initiative. The goal of the meeting was to update partners on regional efforts on litter and marine debris mitigation and to establish working groups for removal, research, and communication.
- GBEP staff engaged 260 individuals through presentations and 325 booth attendees at schools, colleges, and community events throughout the Houston-Galveston area to date in fiscal 2025.

Community Outreach Through Media

The Community Outreach project aims to bring awareness of conservation programs to the Houston-Galveston community through television and digital media platforms. To date, this project has produced three 30-second commercials[12] shown on KPRC, the local NBC affiliate, and interview segments aired on Houston Life, a daily afternoon talk show showcasing local news, events, and attractions. The seven key initiatives include the "White Oak Bayou Riparian Restoration Project" (Fiscal 2024, CE-00655008), "Trash Bash®" (Fiscal 2023, CE-00655008), "Tracking Perkinsus Marinus (Dermo) Infection in Sun-Cured Oysters" (Fiscal 2025, CE-00655008), "The Ninth Addition to the Coastal Heritage Preserve, Galveston Island, Texas" (Fiscal 2024, state-funded), "Drought and Water Conservation Outreach Campaign" (Fiscal 2024, CE-00655008), "Stopping Plastics and Litter Along Shorelines (SPLASh) in Houston's Bayous and Beyond" (Fiscal 2024, Infrastructure Investment And Jobs Act-funded), and "Targeted Microplastics Monitoring in the Waters of Galveston Bay and its Tributaries" (Fiscal 2024, CE-00655008).

River, Lakes, Bays, N' Bayous Trash Bash®

The 31st annual Trash Bash® was held in-person on March 29, 2025, to promote environmental stewardship to properly dispose of trash, chemicals, and pet waste. The preliminary numbers for 2025 indicate that 2,414 volunteers collected 38.69 tons of trash, 119 illegally dumped tires, and 0.4 tons of recyclable materials were removed from 58 miles of the Galveston Bay watershed. Since its inception, Trash Bash® has received 30 local, regional, state, and national awards and recognitions.

3. PPE Goals

The PPE Subcommittee also identified several focus priorities for fiscal 2026 project selection. These priorities include continuation or expansion of established education outreach or engagement programs, which is addressed through Trash Bash®; Partnering with new local entities or smaller nongovernmental organizations to reach new communities, which is addressed through City of Houston Nature Trails Master Plan; Connecting new audiences to existing/completed projects or the natural habitat, which is addressed through City of Houston Nature Trails Master Plan; opportunities

[11] https://www.epa.gov/trash-free-waters
[12] https://gbep.texas.gov/kprc

for GBEP and partners to host workshops/networking opportunities for stakeholders on key topics, which is addressed through Texas Envirothon.

Improving Resource Management through Targeted Research that Increases Ecosystem Understanding

Since the submission of the Fiscal 2025 Work Plan, two M&R projects made significant progress and provided new insights into components of the Galveston Bay ecosystem:

Monitoring Ecosystem Indicators for Science-Based Restoration and Enhancement of Pelagic Habitats of Galveston Bay

The goal of this project is to monitor the long-term spatial and temporal variation in zooplankton dynamics and to generate time series data in Galveston Bay for tracking ecosystem health. Monthly sampling has occurred from September 2022 to December 2024 and will continue into May 2025. Currently, there is time series data on temperature, salinity, chlorophyll a, and zooplankton community composition. Based on the preliminary analysis there is a slight positive correlation between salinity and community diversity and temperature and diversity. There is a slight negative correlation with density and diversity and salinity and chlorophyll a. Further statistical analysis will look deeper into these correlations and include the full dataset with future cruises. An oral presentation on the use of ecological indicators to assess estuarine ecosystems was given at the Regional Ecology and Evolution Symposium in 2024 to disseminate the recent progress of this project.

Long-term Monitoring of Living Shorelines

The goal of this project is to determine whether functional aspects of living shorelines restoration projects differ in comparison to unrestored natural marsh reference sites and traditionally armored sites in Galveston Bay. Progress since the Fiscal 2025 Work Plan includes the completion of all imagery data collection. Now image processing is in the beginning stages to determine the best methodology to measure and compare shorelines. Once the method is finalized, it will be applied across the images using image software. Microbial soil analysis has been completed. Sediment texture analysis is in progress and will be completed in April 2025. Benthic macroinvertebrate and microplastic specimen sorting is almost complete with only a few samples left. The Final Report is due in May 2025 and statistical analyses are ongoing as datasets are completed.

4. M&R Goals

The M&R Subcommittee also identified several focus priorities for fiscal 2026 project selection. These priorities included meaningful and effective monitoring of existing, past, and new projects, which is addressed through Monitoring to Assess Long-Term Restoration Success in Galveston Bay Wetlands; baseline assessments for large-scale, man-made changes to Galveston Bay; and assessment, exposure, and response to stressors including: species of greatest conservation need; contract recreation standards; environmental parameters; emerging contaminants; and legacy contaminants, which is addressed through Developing Molecular Tools for Demographics and Distribution of Galveston Bay Estuary System Sea Turtles.

Section 2.4: Strategic Action Plan Goals to Focus on in Fiscal 2026

GBEP will focus on implementing EPA Strategic Action Plan Objective 5.2: Protect and Restore Waterbodies and Watersheds through implementing the following goals of the *GBP, 2nd Edition*:

- Reducing NPS pollution (NPS-1, NPS-2, NPS-3 NPS-4).
- Reducing public health risk by improving regional contact recreation risk awareness and contact recreation safety (PS-2, PS-3).
- Conserving, restoring, and enhancing vital habitats in the lower portion of the Galveston Bay watershed (HC-1, HC-2, HC-3).
- Sustaining and restoring native species populations (SC-1, SC-2).
- Increasing a sense of responsibility in the health of Galveston Bay (SPO-1, SPO-2, SPO-3).
- Ensuring the public receives the knowledge necessary to preserve Galveston Bay (PEA-1, PEA-2, PEA-3).
- Increasing understanding of biological stressors in the Galveston Bay ecosystem (RES-1).
- Increasing understanding of physical stressors in the Galveston Bay Ecosystem (RES-3)
- Conducting research on ecosystem service and coastal resilience (referring to the ability to withstand coastal impacts, and capacity to bounce back from coastal disasters) (RES-7, RES-8).
- Increasing opportunities to access monitoring and research information (ACS-1, ACS-2).

Fiscal 2026 Expected Outcomes

- Increase the public's awareness of their connection to and effect on the Galveston Bay ecosystem.
- Increase the exchange of scientific information among research scientists, natural resource managers, stakeholders, and the public.
- Increase implementation of ongoing WBP efforts in the watershed.
- Increase coordination of marine debris and plastic pollution reduction efforts throughout the region.
- Increase education opportunities on land management practices to urban and suburban landowners and practitioners to improve soil health and reduce stormwater runoff and NPS pollution in the watershed.
- Increase understanding of the types, quantities, and spatial distribution of microplastics in Galveston Bay and its tributaries and the impacts of NbSI in reducing microplastics runoff.
- Improve the knowledge of regional developers, industry professionals, residents, and homeowner associations by providing NbSI demonstration sites necessary for these groups to implement practices that will lead to a reduction of bacteria, nutrient loads, and sediment in stormwater runoff.
- Improve knowledge of the hydrologic connectivity between aquifers and surface water in the SJRWP and the concentrations of persistent and emerging contaminants in surface and groundwater in areas surrounding the SJRWP.
- Acquire land or development rights to preserve habitats vital to the health of the Galveston Bay watershed.
- Restore habitat form and function where they have been lost or degraded.
- Support projects that sustain and restore native species populations.
- Increase public knowledge and education about the importance of Galveston Bay watershed and estuary by providing science, technology, engineering, and mathematics (STEM) training to teachers and young professionals as well as help facilitate future Galveston Bay estuary-related careers on environmental education.
- Increase awareness of water conservation throughout the City of Houston, methods of implementing water conservation strategies, and how it benefits the region.
- Reduce the amount of trash in our waterways by promoting environmental stewardship using hands-on education and public outreach.
- Engage local communities to expand conservation education opportunities.

- Initiate an update of the Regional Monitoring Database (RMD), containing datasets related to Galveston Bay conservation and management.
- Improve knowledge of spatial and temporal variations in the distribution of sea turtles in Galveston Bay.
- Improve knowledge of coastal management strategies and differences in long-term ecosystem service provision.

Fiscal 2026 Expected Outputs

- Continue the update of the *GBP, 2nd Edition*.
- Continue maintenance of the RMD, containing datasets related to Galveston Bay conservation and management.
- Continue maintaining GBEP and Back the Bay websites.
- Host a two-day symposium for bay user groups and partners to share results of projects, research, and collaborations.
- Initiate a project to quantify persistent and emerging contaminants in surface and groundwater surrounding the SJRWP and map how they move through the system.
- Initiate a project to determine the effectiveness of NbSI in reducing microplastics runoff.
- Continue a project to implement and elevate the Clear Creek WPP through outreach and monitoring efforts.
- Continue a tertiary assessment of the types, quantities, and spatial distribution of microplastics in Galveston Bay and its tributaries.
- Continue to provide workshops and grant applications for improved wastewater infrastructure throughout the applicable community.
- Continue outreach on reducing NPS pollution by providing implementation resources for existing WBPs.
- Complete the design and construction of two NbSI demonstration sites on the Houston Community College Katy Campus.
- Complete a soil health project to host two workshops and one field day in the Galveston Bay watershed.
- Conserve and protect 2,500 acres of habitat.
- Restore and enhance 75 acres of habitat.
- Initiate a project to encourage education and engagement in the conservation of Ghost Wolves.
- Continue a project to evaluate habitat BMPs for the benefit of Black rails.
- Continue a project to track coastal habitat project implementation in the Galveston Bay watershed.
- Complete an assessment of population dynamics and physical stressors on sea turtle populations and productivity in Galveston Bay.
- Initiate a project to provide STEM training to teachers and young professionals.
- Continue implementing Back the Bay.
- Continue to participate in the coordination of Trash Bash®.
- Continue developing resources to address engagement barriers in Houston-Galveston communities.
- Continue expanding partnership engagement for conservation.
- Continue to engage local communities to ensure a healthy bay by translating the Galveston Bay Report Card (GBRC) into Vietnamese and engaging with the local Southeast Asian community.
- Complete engagement of local communities to expand the GBRC audience.
- Complete a project to host partner workshops and provide environmental education opportunities focused on native prairies.
- Initiate an assessment of spatial and temporal variations of 6 P-Phenylenediamine and 6 P-Phenylenediamine-Quinone in Galveston Bay.

- Continue an assessment of spatial and temporal variations in the abundance and distribution of zooplankton, including eastern oyster larvae, in Galveston Bay.
- Complete an assessment of the effects of erosion control structures on shoreline marsh species populations and how functional aspects of living shorelines restoration projects differ in comparison to unrestored marsh and traditionally armored sites.
- Initiate an assessment on the effectiveness of long-term restoration sites in Galveston Bay.
- Initiate an assessment on the prevalence of Dermo in commercial and retail oysters.
- Development of oyster shell recycling BMPs for restoration in Galveston Bay.

Estuary Resilience Action Plan Implementation

The Galveston Bay Estuary Resilience Action Plan[13] (ERAP) is a stakeholder-driven report with the purpose of assessing a series of coastal resilience criteria against the goals, objectives, and actions in the *GBP, 2nd Edition*, and provide adaptation/mitigation recommendations for implementers of the *GBP, 2nd Edition*. This report was developed in coordination with subject matter experts and members of the GBC and its subcommittees through a series of workshops with questions and discussion topics. The ERAP was formally approved by the EPA in July 2023.

Stakeholders identified and defined 11 estuary stressors affecting coastal resilience that Galveston Bay is facing now or will face in the future:

- Changes to Land Use and the Built Environment (infrastructure)
- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Ocean Acidification
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Stakeholders also identified and defined eight adaptation actions that can be taken to improve coastal resilience in Galveston Bay Communities:

- Stakeholder Outreach: Education
- Stakeholder Outreach: Alerts/Risk
- Monitoring
- Implementation of WBPs
- Preservation/Conservation/Restoration
- Research
- Promote Water Conservation and Reuse
- Promote Native Habitat

Adaptation actions and associated stressors are identified under individual project details for new and ongoing projects in Section 3.2 and Section 4.2.

"Powering the Great American Comeback" Pillars

On February 4, 2025, EPA Administrator Lee Zeldin announced the agency's Powering the Great American Comeback Initiative, to achieve the agency's mission while energizing the greatness of the American economy. This plan outlines the agency's priorities under the leadership of President Trump and Administrator Zeldin. The newly announced Powering the Great American Comeback initiative consists of five pillars that will guide the EPA's work over the first 100 days and beyond.

[13] https://gbep.texas.gov/wp-content/uploads/2024/08/AS-494-EstuaryResilienceActionPlanFinal.pdf

Pillars implemented are identified under individual project details for new and ongoing projects in Section 3.2 and Section 4.2.

- Pillar 1: Clean Air, Land, and Water for Every American
- Pillar 2: Restore American Energy Dominance
- Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership
- Pillar 4: Make the United States the Artificial Intelligence Capital of the World
- Pillar 5: Protecting and Bringing Back American Auto Jobs

The Federal Fiscal 2025-2028 CWA § 320 NEP Guidance further outlines areas of special interest developed by EPA's Office of Water. The following is a list of current areas of special interest:

- Reduce Nutrient Pollution to Protect Water Quality and Public Health
- Make Investments to Address Recurring Extreme Weather Events and Increase Resilience
- Engage All Communities
- Reduce Trash

CWA benefits used in the NEP Online Reporting Tool are identified under individual project details for new and ongoing projects in Section 3.2 and Section 4.2. CWA benefits include the following:

Coastal Resilience, Erosion Control, Flood Control, Improve or Protect Water Quality, Improve/Increase Educational or Recreational Opportunities, Increase or Protect Water Quantity, Protect or Preserve Open Space, Protect/Improve/Provide Habitat for Birds, Protect/Improve/Provide Habitat for Fish/Shellfish, Protect/Improve/Provide Habitat for Other Wildlife, Restore Natural Hydrology.

TCEQ Goal, Objective, and Strategy

TCEQ Goal 1: Assessment, Planning, and Permitting

To protect public health and the environment by accurately assessing environmental conditions, by preventing or minimizing the level of contaminants released to the environment through regulation and permitting of facilities, individuals, or activities with potential to contribute to pollution levels.

Objective 1.1: Reduce Toxic Releases

Decrease the amount of toxic chemicals released into the environment via air, water, and waste pollutants in Texas by at least two percent as comparing the current Toxic Release Inventory (TRI) values to the previously reported TRI reporting year values and reduce air, water, and waste pollutants through assessing the environment.

- Outcome Measure 1.1 oc 10: Number of acres of habitat created, restored, and protected (through implementation of Estuary Action Plans).

Strategy 1.1.2: Water Resource-Assessment and Planning

Develop plans to ensure an adequate, affordable supply of clean water by monitoring and assessing water quality and availability.

- Output Measures 1.1.2 op 1: Number of surface water assessments.

Section 2.5: Fiscal 2026 Federal and State Funding

This request is for funding in the amount of $850,000 (federal) and $850,000 (state) for a total equaling $1,700,000. The match ratio for this grant is 50/50. Full-time equivalent (FTE) for the grant is seven. Tables 4 and 5 provide funding and budget details.

Table 4: Fiscal 2026 Funding and FTE Summary

Program Element	Division	§320	Direct Match	Total	FTEs
GBEP Program Implementation	Water Quality Planning	$850,000	$850,000	$1,700,000	7
	Total	**$850,000**	**$850,000**	**$1,700,000**	**7**

Table 5: Fiscal 2026 Budget Detail

Budget Detail-see also Fiscal 2026 Federal Projects	§320	Direct Match	Total
01-Salaries (excludes Fringe and Indirect)[14]	$227,320	$0*	$227,320
02-Contracts*	$5,150	$393,322*	$398,472
03-Travel/Training	$3,726	$3,726	$7,452
04-Other	$452,729	$452,729	$905,458
05-Supplies	$223	$223	$446
06-Equipment	$0	$0	$0
07-Construction	$0	$0	$0
Total Direct Costs	**$689,148**	**$850,000**	**$1,539,148**
Fringe (35.87%)*	$81,540	$0*	$81,540
Indirect (34.89%)*	$79,312	$0*	$79,312
Total	**$850,000**	**$850,000**	**$1,700,000**

Project Schedule

The execution of the tasks associated with the Fiscal 2026 Work Plan will occur over a 36-month period, which is anticipated to begin September 1, 2025, and end August 31, 2028. The exact start date of the Fiscal 2026 Work Plan and all due dates for deliverables are contingent upon the actual date the grant funds are awarded, and contracts are executed.

The projects outlined in the Fiscal 2026 Work Plan were developed by the NRU, WSQ, PPE, and M&R subcommittees, balanced by the Budget and Priorities Subcommittee, and submitted to the GBC for approval. The GBC approved the projects listed in the Fiscal 2026 Work Plan at the October 16, 2024 quarterly meeting.

The project scopes of work will be submitted to TCEQ QA Officer to determine which projects in the Fiscal 2026 Work Plan will require a QAPP. Under the authority granted by EPA to TCEQ to approve QAPPs for GBEP, GBEP staff and their project partners will develop QAPPs for projects determined by TCEQ and EPA to require QAPPs. QAPPs will be developed in accordance with EPA QAPP requirements, EPA document IT/IM Directive Standard.

Fiscal 2026 Planned Travel

Travel/Registration for GBEP Program Manager and one staff member to attend the Fall NEP Tech Transfer meeting in Mobile, Alabama, and Travel/Registration for GBEP Program Manager to attend Spring EPA NEP workshop in Washington, D.C.

The Fall and Spring NEP meetings are an important forum for sharing information and improving communication between the NEPs, and will focus on the demonstration of successful estuary

[14] Due to TCEQ system requirements, direct match for salaries, fringe, and indirect (indicated by the asterisks) are allocated under 02-Contracts.

improvements. Attendance of meetings provides the Program Manager and staff the opportunity to obtain information regarding national trends in water quality monitoring and improvement, habitat protection and restoration, living resources management and monitoring, and public engagement. Participation in the ANEP Board meeting will allow the Program Manager the opportunity to coordinate and exchange information with Directors from other NEPs. Knowledge and information gained from these events will be shared with GBEP staff and division management upon return.

Attendance of NEP meetings is a requirement of the Fiscal 2025-2028 Clean Water Act Section 320 NEP Guidance under Section IV, Part D.

Travel/Registration for GBEP Program Manager and one staff member to attend the GOAA conference in Mobile, Alabama.

TCEQ and GBEP staff represent Texas' interests in GOAA teams. Participation in this event partially fulfills the commitment under the GOAA Action Plan to continue the effort of developing a collaborative framework for understanding and improving water quality in the Gulf. This framework facilitates Texas' ability to protect water quality along the coast through increased coordination among state participants. Additionally, staff participation in the development of priorities and projects for each of the teams will allow GBEP/TCEQ's perspective to be included. Attending the GulfCon 2026 meeting will allow staff to gain information on relevant scientific projects in the Gulf states; that knowledge can be used to better understand coastal issues related to WQPD's programs.

Table 6: Fiscal 2026 Planned Travel Expense Estimates

Event	Number of Staff	Transportation-Airfare	Lodging	Per Diem	Registration Cost	Total
Fall NEP Meeting	2	$1,833	$820	$562	$750	$3,965
Spring NEP Meeting	1	$870	$900	$276	$250	$2,296
GOAA GulfCon 2026	2	$250	$410	$281	$250	$1,191
Totals	**5**	**$2,953**	**$2,130**	**$1,119**	**$1,250**	**$7,452**

Associates cost under travel include Travel costs include transportation and airfare, lodging, per diem (subsistence), and event registration. Estimates presented are based on prior year's travel to similar events and consistent with 2 CFR 200.475[15] and 2025 United States General Services Administration rates.

[15] https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-E/subject-group-ECFRed1f39f9b3d4e72/section-200.475

Section 3.0: Fiscal 2026 Projects

Section 3.1: Fiscal 2026 Projects – Summary

Purple text indicates change from Revision 0.0 of Fiscal 2026 Work Plan.

Table 7: Fiscal 2026 Federal Projects

Project Name	Fiscal Year(s)	§320 (F)	Match (S)	Total	Status
Administrative					
Salaries, Fringe, and Indirect	*2026*	*$388,172*	*$388,172*	*$776,344*	*Annual*
Travel, Training and Registration	*2026*	$3,726	$3,726	$7,452	*Annual*
Outreach Supplies	*2026*	$223	$223	$446	*Annual*
GBEP Website Domain Name Registration	*2026*	$75	$75	$150	*Annual*
1. GBEP Website Hosting and Maintenance (Fiscal 2026-2028) (02-Contracts)	2026-2028	$5,150	$5,150	$10,300	Annual
2. State of the Bay Symposium	2026	$12,500	$12,500	$25,000	New
3. Regional Monitoring Database (Phase IV)	2026-2027	$82,814	$82,833	$165,647	New
WSQ					
4. Assessment of Coastal Groundwater Quality and Dynamics in San Jacinto River Waste Pit Superfund Site	2026	$49,988	$49,988	$99,976	New
5. Evaluation of Nature-Based Stormwater Infrastructure to Reduce Pollution in Galveston Bay	2026-2027	$100,000	$100,000	$200,000	New
NRU					
6. FY 2025 Conservation Assistance Program	2025-2026	$24,103	$24,084	$48,187	Ongoing
7. Monitoring and Managing the Threatened Eastern Black Rails in the Galveston Bay Area	2025-2026	$7,923	$7,924	$15,847	Ongoing
8. From Scat to Conservation: Community-based Engagement for Galveston Bay's Ghost Wolves	2026	$6,300	$6,300	$12,600	New
PPE					
9. Texas Envirothon	2026	$45,486	$45,486	$90,972	New
10. City of Houston Nature Trails Master Plan	2026	$45,000	$45,000	$90,000	New
11. River, Lakes, Bays 'N Bayous Trash Bash® (Fiscal 2026)	2026	$5,000	$5,000	$10,000	New
M&R					
12. Monitoring to Assess Long-Term Restoration Success in Galveston Bay Wetlands	2025-2026	$23,627	$23,626	$47,253	Ongoing
13. Developing Molecular Tools for Demographics and Distribution of Galveston Bay Estuary System Sea Turtles	2026	$49,913	$49,913	$99,826	New
Fiscal 2026 TOTAL		**$850,000**	**$850,000**	**$1,700,000**	

Section 3.2: Fiscal 2026 Projects – Detail

Purple text indicates change from Revision 0.0 of Fiscal 2026 Work Plan.

Section 3.2.1: Administrative Projects for Fiscal 2026

1. GBEP Website Hosting and Maintenance (Fiscal 2026-2028)

Grantee/Contractor: Wilkins Group

CCMP Actions Implemented: SPO-1, SPO-2, SPO-3

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by supporting stewardship programs and volunteer opportunities for stakeholders; supporting and promoting events that facilitate stakeholder and partner involvement; supporting the Back the Bay campaign and other regional initiatives; and ensuring local governments are knowledgeable about key estuary issues, common interests, and new information as it becomes available.

CWA Benefits: Improve/Increase Educational or Recreational Opportunities.

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $10,300 ($5,150 Federal, $5,150 State) (02-Contracts)

Total Project Budget:			**$27,592**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)	*$8,646*		
Fiscal 2027 (planned)	*$8,646*		
Fiscal 2026	$10,300		
Fiscal 2023-2025			
Totals:	$27,592	$0	$0

Milestones: Not Applicable (N/A)

Project Period: September 2025 – August 2028

Status: Annual project.

Objective(s): Support or maintain two websites for public participation, education, and outreach.

Project Description: This project provides support for two websites maintained by GBEP:

- Tasks for the GBEP[16] website include hosting, maintenance, and updates as needed throughout the year.
- Tasks for the Back the Bay[17] website include hosting, maintenance, updates as needed throughout the year, and domain name registration.

Partners and Their Role(s): N/A

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

[16] www.gbep.texas.gov
[17] www.backthebay.org

Outputs/Deliverables: N/A

Long-term Outcomes: N/A

2. State of the Bay Symposium

Grantee/Contractor: Moody Gardens Hotel and Convention Center

CCMP Actions Implemented: SPO-1, SPO-2, SPO-3, SPO-4

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by supporting stewardship programs and volunteer opportunities for stakeholders; supporting and promoting events that facilitate stakeholder and partner involvement; supporting the Back the Bay campaign and other regional initiatives; and ensuring local governments are knowledgeable about key estuary issues, common interests, and new information as it becomes available.

CWA Benefits: Improve/Increase Educational or Recreational Opportunities.

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $25,000 ($12,500 Federal, $12,500 State)

Total Project Budget:			**$25,000**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$25,000		
Fiscal 2023-2025			
Totals:	$25,000	$0	$0

Milestones: Symposium will be held February 24-25, 2026

Project Period: September 2025 – August 2026

Status: New project.

Objective(s): To provide stakeholders with understanding of Galveston Bay and associated habitats.

Project Description: The State of the Bay Symposium is a 2-day opportunity for stakeholders to interact and share environmental policy and management successes, report the latest monitoring and research findings, and illuminate the challenges facing Galveston Bay. The 12th State of the Bay Symposium will be held on February 24-25, 2026, at Moody Gardens Hotel and Convention Center in Galveston, Texas.

Partners and Their Role(s): TCEQ ERD and the symposium planning workgroup. The workgroup will meet throughout 2025 to discuss the symposium theme, speakers, call for abstracts, promotional materials, events, and the agenda. The workgroup is composed of individuals from each subcommittee and the GBC, along with GBEP staff.

Public/Stakeholder Event Engagement: Yes

The State of the Bay Symposium is initiated by GBEP and will be advertised by TCEQ's External Relations Department (ERD). TCEQ, GBEP, and partners will advertise the symposium through

newsletters and social media. GBEP and TCEQ will be the prominent logos displayed on symposium materials and the agenda. The symposium will feature bird-focused presentation sessions that Houston Audubon will be moderating, and their logo will be displayed in that section of the agenda. The evening reception (independent of the State of the Bay Symposium) will be sponsored by GBF, so their logo will be displayed on a poster outside of the reception. All materials displayed and/or distributed will comply with the terms and conditions of the TCEQ Contract, EPA Grant No. CE-00655009, and EPA General Terms and Conditions[18]. An approximate percentage distribution of attendees is 20% federal government, 30% state and local government, 20% academia, 20% nonprofit organizations, and 10% public participants. GBEP will not be preparing proceedings or analysis to disseminate information back to the community. Registration fees for the 2026 symposium are to be decided on by ERD and will be similar to registration fees for the previous symposium which were as follows: early registration $125, regular registration $199, student registration $60. Registration costs are to recoup additional TCEQ expenditures on the symposium, and not to generate income.

Outputs/Deliverables: N/A

Long-term Outcomes: The exchange of scientific information among research scientists, natural resource managers, stakeholders, and the public.

3. Regional Monitoring Database (Phase IV)

Grantee/Contractor: Houston Advanced Research Center/Geotechnology Research Institute (HARC/GTRI)

CCMP Actions Implemented: ACS-1, ACS-2

EPA "Powering the Great American Comeback" Pillars Implemented: The proposed project implements "Pillar 1: Clean Air, Land, and Water for Every American" by supporting tracking the status and trends of environmental and stressor indicators of Galveston Bay ecosystem health and expanding the dissemination of easy-to-access Galveston Bay monitoring and research.

CWA Benefits: Improve/Increase Educational or Recreational Opportunities.

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $165,647 ($82,814 Federal, ($82,833 State)

Total Project Budget:			**$281,123**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$165,647	$113,112	$2,364
Fiscal 2023-2025			
Totals:	$165,647	$113,112	$2,364

Milestones: Final Report anticipated May 2028.

Project Period: September 2025 – May 2028

Status: New project.

[18] https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2023-or-later

Objective(s): This project will update and expand the functionality of the Galveston Bay RMD, an interactive, web-based data portal through which users can view and download Galveston Bay watershed environmental data.

Project Description: This project will update, expand, and maintain the RMD, an interactive web-based portal providing quality-assured data related to the conservation and management of Galveston Bay. The updated RMD will allow users to view, explore, and download expanded data along with updated data already contained in the RMD. Additionally, this project will update and create new interactive tools to visualize the information. HARC/GTRI will gather and update environmental datasets related to the lower Galveston Bay watershed in cooperation with federal, state, and local governments; universities; and research organizations in support of the Regional Monitoring Plan detailed in *GBP, 2nd Edition*.

Partners and Their Role(s): HARC/GTRI will perform the tasks necessary to update and enhance the RMD. HARC/GTRI will consult with local stakeholders for input and feedback throughout the process.

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- Datasets and metadata due September 2027.
- Maintenance Task Report due September 2027.
- Final Report due May 2028.

Long-term Outcomes: Dissemination of data related to the conservation and management of Galveston Bay.

Section 3.2.2: WSQ Projects For Fiscal 2026

4. Assessment of Coastal Groundwater Quality and Dynamics in San Jacinto River Waste Pit Superfund Site

Grantee/Contractor: Texas A&M University at Galveston (TAMUG)

CCMP Actions Implemented: NPS-1, NPS-2, PHA-2, FWI-2, SPO-2, RES-2, RES-3, RES-5, ACS-2

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by implementing WBPs with local partners and stakeholders; supporting NPS education and outreach campaigns; improving regional contact recreation safety by implementing WBPs; supporting research to understand the annual and seasonal freshwater inflow needs for Galveston Bay; supporting workshops and events that facilitate stakeholder and partner involvement; and conducting physical and geochemical stressor monitoring and research. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with a local public university (TAMUG) to improve water quality in the Galveston Bay watershed.

CWA Benefits: Coastal Resilience, Improve or Protect Water Quality, Improve/Increase Educational or Recreational Opportunities.

ERAP Adaptation/Mitigation Actions Addressed: Monitoring. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters

- Warmer Winters

Fiscal 2026 Budget: $99,976 ($49,988 Federal, $49,988 State)

Total Project Budget:			**$99,976**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$99,976		
Fiscal 2023-2025			
Totals:	$99,976	$0	$0

Milestones: Final Report anticipated May 2028.

Project Period: September 2025 – May 2028

Status: New project.

Objective(s): The project aims to (1) assess the extent of hydrologic connectivity between aquifers and surface water in the SJRWP site, (2) quantify the concentration of persistent and emerging contaminants in pore water, surface water, and private well water in areas surrounding SJRWP, and (3) educate well owners and stakeholders regarding groundwater pollutants associated with SJRWP and their wells' susceptibility to contamination.

Project Description: The SJRWP was established in 1965 as a series of unlined waste lagoons containing highly toxic and persistent contaminants from paper mill waste materials. Sediment and water samples from the 1990s revealed elevated levels of contaminants of concern, including dioxins, polychlorinated biphenyls, and heavy metals, in the shallow groundwater and sediments surrounding the pits. This led to the listing of the pits and surrounding contaminated sediments on the National Priorities List.

The overarching goal of this project is to assess hydrogeological connectivity in a tidal estuary associated with a Superfund site and its effects on contaminant transport. To achieve this goal, the project will conduct field studies in three steps. First, radionuclide tracers will be used to characterize groundwater-surface water dynamics by identifying groundwater discharge hotspots and quantifying groundwater exchange with aquifers. Next, the project will quantify the concentrations of organic contaminants and heavy metals in groundwater (pore, shallow, and deep) in areas surrounding the SJRWP. By combining the hydrogeological assessment and groundwater contaminant concentration, the team will be able to model and predict subsurface contaminant transport in the area. Lastly, the project aims to identify at least 30 well owners in the vicinity of the SJRWP through email, in-person meetings, and door-to-door canvassing.

Partners and Their Role(s): TAMUG will assess the hydrogeological connectivity of surface and groundwaters surrounding the SJRWP and quantify persistent and emerging contaminants in obtained water and biota samples. THEA will be responsible for coordinating communication and disseminating the project's results with private well owners and stakeholders associated with the SJRWP.

Public/Stakeholder Events: Yes

SJRWP in-person meetings will be initiated by Texas Health and Environmental Alliance (THEA). THEA will host at least two free meetings at a local community center to share the results and discuss prevention strategies for addressing any specific contaminants identified in the well water with private well owners and stakeholders associated with the SJRWP. THEA, GBEP, and partners will advertise the meeting through email. Meeting materials will display the logos of THEA, TAMUG, TCEQ, GBEP, and any additional external partners contributing to the project. All materials displayed and/or distributed will comply with the terms and conditions of the TCEQ Contract, EPA Grant No. CE-00655009, and EPA General Terms and Conditions[19]. An approximate percentage distribution of

[19] https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2023-or-later

attendees is 10% federal government, 15% state and local government, 10% academia, 10% nonprofit organizations, 55% public participants. Proceedings (meeting summaries and lists of attendees) will be submitted to GBEP with quarterly PRs. The meetings will be free of charge, and no income will be generated.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- QAPP due 60 days prior to the scheduled initiation of environmental data operations.
- Groundwater-surface water interaction data and hotspots map due February 2028.
- Surface and groundwater contaminant concentration data due March 2028.
- Subsurface contaminant transport model due April 2028.
- Well Owner Outreach and Education Task Report due April 2028.
- Final Report due May 2028.

Long-term Outcomes: Increase the understanding of coastal groundwater quality and contaminant transport in the Galveston Bay ecosystem and educate stakeholders on the potential impacts of the SJRWP on well water quality and public health.

5. Evaluation of Nature-Based Stormwater Infrastructure to Reduce Pollution in Galveston Bay

Grantee/Contractor: H-GAC

CCMP Actions Implemented: NPS-1, NPS-3, PS-1, PHA-4, PHA-5, RES-6

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by implementing WBPs with local partners and stakeholders; supporting NPS education and outreach campaigns; hosting NPS events to enhance technical understanding and expand the use of BMPs; implementing education campaigns with Phase I and Phase II Municipal Separate Storm Sewer Systems; improving regional contact recreation safety by implementing WBPs; improve the safety of human finfish and shellfish consumption from Bay waters by implementing WBPs; and evaluating the effectiveness of BMPs to address NPS and PS pollutants and improve water quality. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with the local council of governments (H-GAC) to improve water quality in the Galveston Bay watershed.

CWA Benefits: Flood Control, Improve or Protect Water Quality, Increase or Protect Water Quantity, Protect/Improve/Provide Habitat for Birds, Protect/Improve/Provide Habitat for Fish/Shellfish, Protect/Improve/Provide Habitat for Other Wildlife.

ERAP Adaptation/Mitigation Actions Addressed: Monitoring. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $200,000 ($100,000 Federal, ($100,000 State)

Total Project Budget:			**$221,928**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$200,000	$16,960	$4,968
Fiscal 2023-2025			
Totals:	$200,000	$16,960	$4,968

Milestones: Final Report anticipated May 2028.

Project Period: September 2025 – May 2028

Status: New project.

Objective(s): To provide critical data on baseline microplastics loading in lower Galveston Bay watersheds and quantify the treatment potential of NbSI projects to reduce microplastic loading in surface waters from stormwater runoff.

Project Description: This project will provide critical data on baseline microplastic loading in lower Galveston Bay watersheds and quantify the treatment potential of different NbSI projects to reduce microplastic loading by (1) monitoring background levels of microplastic pollution in major contributing waterways to Galveston Bay, and (2) determining the treatment potential of various NbSI installments for removing microplastic pollution from stormwater. Comparative statistics of microplastic concentrations among the contributing drainages will be investigated to identify the sub-watersheds with the largest microplastic pollution, and greatest treatment potential for consideration for installment of additional NbSI projects.

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Partners and Their Role(s): H-GAC will perform the tasks necessary for sample collection and data analysis. The Harris County Flood Control District will provide storm event data and facilitate access to flood control facilities and rights-of-way for sample collection. UHCL will assist with the laboratory processing and enumeration of microplastic samples.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- QAPP due 60 days prior to the scheduled initiation of environmental data operations.
- Project database due March 2028.
- Final Report due May 2028.

Long-term Outcomes: Results of the study will recommend priority watersheds for future NbSI projects to reduce microplastic concentrations and improve stormwater quality flowing into Galveston Bay.

Section 3.2.3: NRU Projects for Fiscal 2026

6. FY 2025 Conservation Assistance Program

Grantee/Contractor: GBF

CCMP Actions Implemented: HC-1, SC-1

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by acquiring land or development rights to preserve habitats vital to the health of the Galveston Bay watershed and supporting efforts to sustain and restore native species populations.

CWA Benefits: Coastal Resilience, Flood Control, Improve or Protect Water Quality, Improve/Increase Educational or Recreational Opportunities, Increase or Protect Water Quantity, Protect or Preserve Open Space, Protect/Improve/Provide Habitat for Birds, Protect/Improve/Provide Habitat for Fish/Shellfish, Protect/Improve/Provide Habitat for Other Wildlife.

ERAP Adaptation/Mitigation Actions Addressed: Preservation/Conservation/Restoration. Stressors addressed:

- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Population Increase

- Sea Level Rise and Subsidence
- Warmer Summers

Fiscal 2026 Budget: $48,187 ($24,103 Federal, $24,084 State)

Total Project Budget:			**$230,000**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$48,187		
Fiscal 2023-2025		$130,013	$51,800
Totals:	$48,187	$130,013	$51,800

Milestones: Annual reports anticipated August 2026 and August 2027.

Project Period: September 2024 – August 2026

Status: Ongoing. Contract was executed on November 26, 2024, with an effective date of September 1, 2024. The fiscal 2025 Annual Work Plan was approved on January 14, 2025. The first Conservation Assistance Program (CAP) workgroup meeting was held on February 21, 2025.

Objective(s): To support stakeholder efforts to preserve wetlands, prairies, and other important coastal habitats to protect the long-term health and productivity of Galveston Bay.

Project Description: The CAP was initiated in 2011 and has been reauthorized in several phases through 2025. This contract includes funding to continue the program and build upon successful land conservation efforts in the Galveston Bay watershed and complete the ongoing projects underway.

Growth and development in the lower Galveston Bay watershed are accelerating land use changes from traditional open space, agricultural, and recreational uses toward residential and commercial uses. This trend threatens the health of our ecosystems surrounding Galveston Bay and associated waterways by reducing parcel sizes and permanently altering the landscape of the region. Additionally, land prices are continuing to rise as the availability of land is reduced and demand increases. Purchasing ecologically significant parcels of land at today's prices will help us maximize the availability of federal and state conservation funding sources.

The overall goal of the CAP is to support GBEP and its partners' efforts to preserve wetlands and other important coastal habitats to protect the long-term health and productivity of Galveston Bay.

The CAP will continue to accomplish these goals by:

- Identifying priority conservation properties with the help and consensus of conservation partners.
- Building funding strategies through grant identification, grant writing, and fundraising.
- Collaborating with willing sellers to negotiate fee simple or conservation easement transactions.
- Facilitating legal, title, and other due diligence transaction support.
- Finalizing the sale and transfer of title to a third-party organization or government entity.

Partners and Their Role(s): The CAP workgroup is comprised of an expansive group of federal, state, local, and non-governmental organization resource managers.

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- Annual Work Plans until contract expiration.
- 2,000 acres of coastal habitat placed under permanent conservation.
- Annual reports due August 2026 and August 2027.

Long-term Outcomes: Permanent conservation of coastal habitat and preservation of important hydrologic and water quality functions in lower Galveston Bay.

7. Monitoring and Managing the Threatened Eastern Black Rails in the Galveston Bay Area

Grantee/Contractor: Texas A&M University (TAMU)

CCMP Actions Implemented: HC-2, HC-3, SC-1, SC-2, RES-1, RES-3

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by restoring habitat form and function where they have been lost or degraded; enhancing existing habitats to increase overall function and productivity; supporting efforts to sustain and restore native species populations; and conducting biological and physical stressor monitoring and research. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with the regional public university (TAMU) to improve habitat and water quality in the Galveston Bay watershed.

CWA Benefits: Coastal Resilience, Protect or Preserve Open Space, Protect/Improve/Provide Habitat for Birds.

ERAP Adaptation/Mitigation Actions Addressed: Monitoring. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $15,847 ($7,923 Federal, $7,924State)

Total Project Budget:			**$174,235**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$15,847		
Fiscal 2023-2025		$138,388	$20,000
Totals:	$15,847	$138,388	$20,000

Milestones: Final Report anticipated May 2027.

Project Period: September 2024 – May 2027

Status: Ongoing. Contract was executed on August 26, 2024, with an effective date of September 1, 2024. The Draft QAPP was submitted on January 21, 2025, and is under review. The unmanned aerial vehicle and associated supplies have been purchased in anticipation of initiation of environmental data operations.

Objective(s): To evaluate habitat management techniques and response effects on Black rail populations, as well as conducting mark-recapture studies and fecal metagenomics to understand their diet.

Project Description: The project aims to study and conserve the Black rail (*Laterallus jamaicensis*), a threatened species heavily reliant on high salt marsh habitats. The research involves using Autonomous Recording Units (ARUs) and a Forward Looking InfraRed (FLIR)-equipped drone to evaluate habitat management techniques and response effects on Black rail populations, as well as conducting mark-recapture studies and fecal metagenomics to understand their diet. The research will be conducted at multiple sites within the Galveston Bay watershed.

After consultation with appropriate refuge personnel, ARUs will be deployed to determine when Black rails recolonize an area after treatments at sites within broader management goals. A FLIR-equipped drone will also be used to survey for Black rails in control and treatment areas. Additionally, habitat (such as above-ground biomass) and landscape-level metrics (such as patch size) will be examined to further refine the understanding of how habitat quality influences Black rail occupancy. During the non-breeding season, rope-drags will be conducted at selected locations to determine if Black rails are present. Individuals that flush will be banded, measured, and any fecal material present will be collected and analyzed to quantify the diet.

Partners and Their Role(s): USFWS will assist with selection of study sites on USFWS-managed properties, will provide housing for field techs during field season, and will also assist with field work and will oversee some habitat enhancement activities. TPWD will provide access to Galveston Island State Park. Houston Audubon will provide access to properties on Bolivar Peninsula. Ducks Unlimited will be responsible for habitat enhancement and restoration (funded through other external grants).

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- QAPP due 60 days prior to the scheduled initiation of environmental data operations.
- Survey, Mark-Recapture, and Statistical Analysis Task Reports due February 2027.
- Final Report due May 2027.

Long-term Outcomes: Inform fire BMPs, agricultural BMPs, and facilitating marsh migration for supporting Black Rail populations.

8. From Scat to Conservation: Community-based Engagement for Galveston Bay's Ghost Wolves

Grantee/Contractor: Michigan Technological University (MTU)

CCMP Actions Implemented: HC-1, SC-1, SPO-1, SPO-2, SPO-3, SPO-4, PEA-1, PEA-2, PEA-3, RES-1

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by acquiring land or development rights to preserve habitats vital to the health of the Galveston Bay watershed; supporting efforts to sustain and restore native species populations; supporting stewardship programs and volunteer opportunities for stakeholders; supporting events that facilitate stakeholder and partner involvement; and supporting programs in Galveston Bay to engage the public in a dialogue about key issues.

CWA Benefits: Improve/Increase Educational or Recreational Opportunities, Protect or Preserve Open Space, Protect/Improve/Provide Habitat for Other Wildlife.

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $12,600 ($6,300 Federal, $6,300 State)

Total Project Budget:			**$12,600**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$12,600		
Fiscal 2023-2025			
Totals:	$12,600	$0	$0

Milestones: Final Report anticipated November 2026.

Project Period: September 2025 to November 2026

Status: New project.

Objective(s): To support stakeholder efforts to develop and promote a community-based initiative to couple citizen science with novel noninvasive genomic tools to determine how environmental conditions preserve the Ghost Wolves in the Galveston Bay ecosystem.

Project Description: This project aims to continue developing a community engagement component to engage stakeholders in implementing Scat-Track, a community-based program for collecting noninvasive genetic data, throughout the lower Galveston Bay Watershed. This program will feature online portals for reporting results and interactive learning, which will also support classroom education. While data collection is being funded through other sources, the overarching goal is to couple citizen science with novel noninvasive genomic tools to determine how environmental conditions preserve the endangered red wolf deoxyribonucleic acid (DNA) found in coyotes (locally called Ghost Wolves) in the Galveston Bay ecosystem.

Public/Stakeholder Events: Yes

Scat-Track workshops will be initiated by MTU and Princeton University through the Gulf Coast Canine Project[20]. MTU will host at least one free workshop at a local venue to share externally funded research and educate and train stakeholders on Scat Track. MTU, Princeton University, GBEP, and partners will advertise the workshops through email and newsletter. Workshop materials will display the logos of MTU, Princeton University, TCEQ, GBEP, and any additional external partners contributing to the project. All materials displayed and/or distributed will comply with the terms and conditions of the TCEQ Contract, EPA Grant No. CE-00655009, and EPA General Terms and Conditions[21]. An approximate percentage distribution of attendees is 10% federal government, 30% state and local government, 30% academia, 25% nonprofit organizations, and 5% public participants. Proceedings (workshop summaries and lists of attendees) will be submitted to GBEP with quarterly PRs. The workshops will be free of charge, and no income will be generated.

Partners and Their Role(s): Princeton University will assist in the genetic component (e.g., DNA sequencing, analysis), funded though outside sources. The Artist Boat and other local, state, and nonprofit landowners will assist in the site selection and coordination of local education and outreach events.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- List of Scat-Track partners engaged.
- List of Scat-Track workshops and community engagement events.
- Final Report due November 2026.

Long-term Outcomes: Increased awareness of and participation in the conservation of Ghost Wolves in the lower Galveston Bay watershed.

[20] https://www.gulfcoastcanineproject.org/
[21] https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2023-or-later

Section 3.2.4: PPE Projects for Fiscal 2026

9. Texas Envirothon

Grantee/Contractor: UHCL

CCMP Actions Implemented: SPO-1, SPO-2, PEA-2, PEA-3

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by supporting stewardship programs and volunteer opportunities for stakeholders; supporting and promoting events that facilitate stakeholder and partner involvement; and supporting programs the that change behaviors and attitudes in Galveston Bay through adult education and kindergarten through 12th grade (K-12) Galveston Bay estuary-related curricular materials for regional use. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with the local public university (UHCL) to preserve Galveston Bay through engaging with local communities.

CWA Benefits: Improve/Increase Educational or Recreational Opportunities

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education. Stressors Addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $90,972 ($45,486 Federal, $45,486 State)

Total Project Budget:			**$90,972**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$90,972		
Fiscal 2023-2025			
Totals:	$90,972	$0	$0

Milestones: Final Report anticipated August 2027.

Project Period: September 2025 – August 2027

Status: New project.

Objective(s): To host the three-day Texas Envirothon program and support the selected teachers and students participating in the project by providing workshops, training, and supplies.

Project Description: The Texas Envirothon is a yearly environmental education competition for high school students held in April. The program prioritizes critical thinking and problem solving and is focused on producing environmentally literate community members and leaders. Teachers attend two free of charge workshops delivered by UHCL in partnership with GBF, whose logos will be displayed on workshop materials. Teachers will implement training and skills into their classes to assist their students in mastering the Envirothon learning objectives. EIH provides support and reference materials throughout the students' training. Participating schools are from across Texas, with a majority from Houston, Galveston, and Baytown. The competition will be hosted in the Greater Houston Area in 2027.

Partners and Their Role(s): UHCL EIH will conduct teacher training workshops with participating teachers and school administrators. Environmental scientists from UHCL, Texas A&M Forest Service,

TPWD, United State Department of Agriculture-Natural Resource Conservation Service, as well as representatives from Soil and Water Conservation Districts and local industry, volunteer their time to present at the teacher workshops as well as at the Texas Envirothon. These volunteers will also help create and grade the student field tests and help judge the oral presentations. A representative from GBF will present on water quality and estuarine health at the teacher workshop.

Public/Stakeholder Events: Yes

Texas Envirothon and associated teacher workshops will be initiated by UHCL in partnership with GBF. UHCL, GBF, GBEP, and partners will advertise the workshops through email, newsletter, and word of mouth. Workshop materials will display the logos of UHCL, GBF, TCEQ, GBEP, and any additional external partners contributing to the project. All materials displayed and/or distributed will comply with the terms and conditions of the TCEQ Contract, EPA Grant No. CE-00655009, and EPA General Terms and Conditions[22]. An approximate percentage distribution of attendees is 0% federal government, 0% state and local government, 80% academia, 10% nonprofit organizations, and 10% public participants. Proceedings (workshop summaries and list of attendees) will be submitted to GBEP with quarterly PRs. The workshops will be free of charge, and no income will be generated.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- Final Report due August 2027.

Long-term Outcomes: Continued environmental education experiences for students and professional development opportunities for teachers statewide.

10. City of Houston Nature Trails Master Plan

Grantee/Contractor: City of Houston Parks and Recreation Department (HPARD)

CCMP Actions Implemented: SPO-1, PEA-1

EPA "Powering the Great American Comeback" Pillars Implemented: The proposed project implements "Pillar 1: Clean Air, Land, and Water for Every American" by supporting stewardship programs and volunteer opportunities for stakeholders and supporting programs in Galveston Bay to engage the public in a dialogue about key issues. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with local government (City of Houston) to improve habitat and water quality in the Galveston Bay watershed.

CWA Benefits: Coastal Resilience, Erosion Control, Flood Control, Improve/Increase Educational or Recreational Opportunities, Protect or Preserve Open Space, Protect/Improve/Provide Habitat for Birds, Protect/Improve/Provide Habitat for Other Wildlife

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education, Preservation/Conservation/Restoration, Promote Native Habitat. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

[22] https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2023-or-later

Fiscal 2026 Budget: $90,000 ($45,000 Federal, $45,000 State)

Total Project Budget:			**$90,000**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$90,000		
Fiscal 2023-2025			
Totals:	$90,000	$0	$0

Milestones: Final Report anticipated August 2027.

Project Period: September 2025 – August 2027

Status: New project.

Objective(s): To understand the existing trail systems, to develop consistent approaches to design, construction, and maintenance of nature trails, and to develop a pathway for stewardship groups to partner with HPARD for ongoing maintenance and engagement.

Project Description: The City of Houston Nature Trails Master Plan will provide guidance and strategies for developing and enhancing a well-maintained and utilized nature trail system throughout Houston's Nature Preserves. The plan will be developed with local communities and partners with a focus on minimal impacts to natural habitats and wildlife found within the city's natural areas. It will guide standards and practices that can be implemented throughout Houston to improve and encourage access to natural habitat, enhance visitor experience, and promote the unique ecological diversity found throughout the city.

Partners and Their Role(s): Partners for this project include city departments, such as the City of Houston Planning Department, and outside organizations that have an interest in nature trails throughout Houston. HPARD will reach out to non-profit and community partners to join in the planning committee to work with consultants in the development of the Nature Trails Master Plan.

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- Final Report due August 2027.

Long-term Outcomes: Increased access to safe recreational opportunities for City of Houston communities.

11. River, Lakes, Bays 'N Bayous Trash Bash® (Fiscal 2026)

Grantee/Contractor: H-GAC

CCMP Actions Implemented: PEA-2, PEA-3, SPO-1, SPO-3

EPA "Powering the Great American Comeback" Pillars Implemented: The proposed project implements "Pillar 1: Clean Air, Land, and Water for Every American" by supporting stewardship programs and volunteer opportunities for stakeholders and supporting programs in Galveston Bay to engage the public in a dialogue about key issues; continuing to expand and support the Back the Bay campaign and other regional initiatives; and supporting programs the that change behaviors and attitudes in Galveston Bay through adult education and K-12 Galveston Bay estuary-related curricular materials for regional use. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with the local council of governments (H-GAC) to improve water quality in the Galveston Bay watershed.

CWA Benefits: Improve or Protect Water Quality, Improve/Increase Educational or Recreational Opportunities, Protect or Preserve Open Space, Protect/Improve/Provide Habitat for Birds,

Protect/Improve/Provide Habitat for Fish/Shellfish, Protect/Improve/Provide Habitat for Other Wildlife, Restore Natural Hydrology.

ERAP Adaptation/Mitigation Actions Addressed: Stakeholder Outreach: Education. Stressors addressed:

- Chronic Higher Tides/Nuisance Flooding
- Increase in Extreme Events (coastal flooding/storm surge)
- Population Increase
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Warmer Winters

Fiscal 2026 Budget: $10,000 ($5,000 Federal, $5,000 State)

Total Project Budget:			**$10,000**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$10,000		
Fiscal 2023-2025			
Totals:	$10,000	$0	$0

Milestones: Trash Bash® events will occur between March and April of each year of the project.

Project Period: September 2025 to August 2027

Status: New project.

Objective(s): The goal of Trash Bash® is to promote environmental stewardship of the watershed through public education and to provide a means to clean up waterways in the Houston-Galveston area.

Project Description: Trash Bash® is a successful volunteer-based litter cleanup event that has been held at multiple sites in the Houston-Galveston area on an annual basis, with an average of over 4,000 volunteers annually. Since its inception in 1994, more than 117,000 volunteers have collected over 2,400 tons of trash, 22.53 tons of recycling, and 11,965 tires. Funding typically supports partial salary and fringe benefits of the H-GAC Trash Bash® coordinator position, supplies, outreach materials, and other planning and volunteer training expenses.

Partners and Their Role(s): Partners for this project include H-GAC, which organizes and coordinates the event, Gulf Coast Authority, which provides equipment and t-shirts for the event, the Texas Conservation Fund, which manages the funding, and private and corporate sponsorships.

Public/Stakeholder Events: Yes

Trash Bash® training workshops will be initiated by H-GAC and partners to train volunteers on the use of Trash Bash® educational materials. H-GAC, GBEP, and partners will advertise the workshops through flyers, email, and newsletter. Workshop materials will display the logos of H-GAC, TCEQ, GBEP, and any additional external partners contributing to the project. All materials displayed and/or distributed will comply with the terms and conditions of the TCEQ Contract, EPA Grant No. CE-00655009, and EPA General Terms and Conditions[23]. An approximate percentage distribution of attendees is 2% federal government, 15% state and local government, 3% academia, 30% nonprofit organizations, 50% public participants. Proceedings (workshop summaries and lists of attendees) will be submitted to GBEP with quarterly PRs. The workshops will be free of charge, and no income will be generated.

Outputs/Deliverables:

[23] https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2023-or-later

- Quarterly progress reports until contract expiration.
- List of Trash Bash® Volunteer Training workshops and number of volunteers engaged.
- Trash Bash® Steering Committee meeting agendas and meeting minutes due July 31 annually.
- Final Report due August 2027.

Long-term Outcomes: Reduce the amount of trash in our waterways by promoting environmental stewardship using hands-on education and public outreach.

Section 3.2.5: M&R Projects for Fiscal 2026

12. Monitoring to Assess Long-Term Restoration Success in Galveston Bay Wetlands

Grantee/Contractor: TAMUG

CCMP Actions Implemented: RES-7, RES-8, ACS-2

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by conducting research on ecosystem services and determine an economic valuation of bay resources; completing resiliency and acclimation studies to characterize the risks to coastal habitats; and expanding the dissemination of easy-to-access Galveston Bay monitoring and research. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with a local public university (TAMUG) to improve water quality in the Galveston Bay watershed.

CWA Benefits: Coastal Resilience, Erosion Control, Protect/Improve/Provide Habitat for Birds, Protect/Improve/Provide Habitat for Fish/Shellfish, Protect/Improve/Provide Habitat for Other Wildlife.

ERAP Adaptation/Mitigation Actions Addressed: Research. Stressors addressed:

- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Ocean Acidification

Fiscal 2026 Budget: $47,253 ($23,627 Federal, $23,626 State)

Total Project Budget:			**$151,161**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$47,253		
Fiscal 2023-2025		$103,908	
Totals:	$47,253	$103,908	$0

Milestones: Final Report anticipated February 2027.

Project Period: September 2024 – February 2027

Status: Ongoing. Contract was executed on August 26, 2024, with an effective date of September 1, 2024. Contract kickoff meeting was held on September 16, 2024. The Final QAPP was approved on February 25, 2025.

Objective(s): The overarching goal of this project is to assess the relationships between standard success metrics (plant cover), key restoration project design features, and ecosystem service provision in older (10+ year) restoration sites.

Project Description: As wetland restoration becomes an increasingly important part of effective and forward-looking coastal management strategies, it is vital that the best available science is used to

boost near-term and long-term restoration success. This project will perform a robust assessment of site design features that yield successful restoration of key ecosystem services, including carbon sequestration, and food web support. The results will generate scientific support for the design of future restoration projects and will ensure appropriate and efficient use of regional resources in ecosystem management.

Partners and Their Role(s): TAMUG will perform the tasks necessary to collect and analyze data for this project. TPWD will assist with permitting and site access.

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- QAPP due 60 days prior to the scheduled initiation of environmental data operations.
- Biological Sampling and Field Surveys Task Report due January 2027.
- Final Report due February 2027.

Long-term Outcomes: Provide insight into characteristics of successful wetland restoration sites to inform future coastal management strategies.

13. Developing Molecular Tools for Demographics and Distribution of Galveston Bay Estuary System Sea Turtles

Grantee/Contractor: TAMUG

CCMP Actions Implemented: RES-1, RES-3, ACS-1, ACS-2

EPA "Powering the Great American Comeback" Pillars Implemented: The project implements Pillar 1: Clean Air, Land, and Water for Every American by conducting biological and physical stressor monitoring and research; supporting tracking the status and trends of environmental and stressor indicators of Galveston Bay ecosystem health; and expanding the dissemination of easy-to-access Galveston Bay monitoring and research. The project also implements Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership by collaborating with a local public university (TAMUG) to improve water quality in the Galveston Bay watershed.

CWA Benefits: Coastal Resilience, Protect/Improve/Provide Habitat for Other Wildlife.

ERAP Adaptation/Mitigation Actions Addressed: Research. Stressors addressed:

- Increase in Extreme Events (coastal flooding/storm surge)
- Increasing Drought
- Increasing Inland Flooding (largely rain-based)
- Sea Level Rise and Subsidence
- Warmer Summers
- Warmer Waters
- Ocean Acidification

Fiscal 2026 Budget: $99,826 ($49,913 Federal, $49,913 State)

Total Project Budget:			**$99,826**
Grant No.	CE-00655009	CE-00655008	Additional State Funds
Fiscal 2028 (planned)			
Fiscal 2027 (planned)			
Fiscal 2026	$99,826		
Fiscal 2023-2025			
Totals:	$99,826	$0	$0

Milestones: Final Report anticipated August 2027.

Project Period: September 2025 – August 2027

Status: New project.

Objective(s): To develop and assess species-specific molecular tools to identify sea turtle presence/absence and habitat use.

Project Description: The project aims to evaluate the viability of environmental DNA (eDNA) to identify sea turtle presence/absence and habitat use. Current approaches to determine presence such as using stranding data and satellite tagging can be biased and inefficient. DNA from water samples from Galveston Bay will be compared to known sea turtle eDNA samples to try to detect specific species. Samples will be collected and compared across high and low flow currents and known sea turtle hot spots to evaluate the parameters under which eDNA is most effective for determining sea turtle presence/absence.

Partners and Their Role(s): The Gulf Center for Sea Turtle Research will provide turtles for DNA validation and Galveston Bay water samples.

Public/Stakeholder Events: There are no symposiums, conferences, or workshops associated with this project.

Outputs/Deliverables:

- Quarterly progress reports until contract expiration.
- QAPP due 60 days prior to the scheduled initiation of environmental data operations.
- Field data and eDNA data Task Reports due June 2027.
- Final Report due August 2027.

Long-term Outcomes: Knowledge on the efficacy of eDNA as a tool to assess presence/absence and qualitative abundance that can identify sea turtle critical habitat, abundance, and the severity of cold stun events.

Section 3.3: Fiscal 2026 Grant Budget Spreadsheets

Section 3.3.1: Fiscal 2026 Grant Budget by Category – Summary

Table 8: Fiscal 2026 Grant Budget Totals

Fiscal 2026 Grant Budget Totals	Project Number	Admin	WSQ	NRU	PPE	M&R	Total Costs	Combined Totals
01-Salaries (320)	96749	$227,320	$0	$0	$0	$0	$227,320	$227,320
01-Salaries (Direct Match)	05950	$0*	$0	$0	$0	$0	$0	
02-Contracts (320)	96749	$5,150	$0	$0	$0	$0	$5,150	$398,472
02-Contracts (Direct Match)[24]	05950	$393,322*	$0	$0	$0	$0	$393,322	
03-Travel (320)	96749	$3,726	$0	$0	$0	$0	$3,726	$7,452
03-Travel (Direct Match)	05950	$3,726	$0	$0	$0	$0	$3,726	
04-Other (320)	96749	$95,389	$149,988	$38,326	$95,486	$73,540	$452,729	$905,458
04-Other (Direct Match)	05950	$95,408	$149,988	$38,308	$95,486	$73,539	$452,729	
05-Supplies (320)	96749	$223	$0	$0	$0	$0	$223	$446
05-Supplies (Direct Match)	05950	$223	$0	$0	$0	$0	$223	
06-Equipment (320)	96749	$0	$0	$0	$0	$0	$0	$0
06-Equipment (Direct Match)	05950	$0	$0	$0	$0	$0	$0	
07-Construction (320)	96749	$0	$0	$0	$0	$0	$0	$0
07-Construction (Direct Match)	05950	$0	$0	$0	$0	$0	$0	
Total Direct Costs		**$824,487**	**$299,976**	**$76,634**	**$190,972**	**$147,079**	**$1,539,148**	**$1,539,148**
Fringe (35.87%) (320)	96749	$81,540	$0	$0	$0	$0	$81,540	$81,540
Fringe (35.87%) (Direct Match)	05950	$0*	$0	$0	$0	$0	$0	
Indirect (34.89%) (320)	96749	$79,312	$0	$0	$0	$0	$79,312	$79,312
Indirect (34.89%) (Direct Match)	05950	$0*	$0	$0	$0	$0	$0	
Fiscal 2026 Grant Total		**$985,339**	**$299,976**	**$76,634**	**$190,972**	**$147,079**	**$1,700,000**	**$1,700,000**

[24] Due to TCEQ system requirements, direct match for salaries, fringe, and indirect (indicated by the asterisks) are allocated under 02-Contracts.

Section 3.3.2: Fiscal 2026 Grant Budget by Category – Detail

Table 9: Fiscal 2026 Grant Budget by Category - Detail

Fiscal 2026 GBEP Budget Summary by Grant Budget Category	Grantee	Category (GBS)	§320	Direct Match[25]	Total Amount
01-Salaries			**$227,320**	**$0**	**$227,320**
Salaries for GBEP Staff Members	N/A	Admin	$227,320	$0*	$227,320
02-Contracts			**$5,150**	**$393,322**	**$398,472**
Direct Match for Salaries*	N/A	Admin	$0	$227,320*	$227,320
Direct Match for Fringe*	N/A	Admin	$0	$81,540*	$81,540
Direct Match for Indirect*	N/A	Admin	$0	$79,312*	$79,312
GBEP Website Hosting & Maintenance (Fiscal 2026-2028) (Hosting and Maintenance-BC 35)	Wilkins	Admin	$5,150	$5,150	$10,300
03-Travel			**$3,726**	**$3,726**	**$7,452**
Travel/Registration for GBEP Program Manager and one staff member to attend the Fall NEP Tech Transfer Meeting in Mobile, Alabama.	N/A	Admin	$1,982	$1,983	$3,965
Travel/Registration for GBEP Program Manager to attend Spring EPA NEP Workshop in Washington, D.C.	N/A	Admin	$1,148	$1,148	$2,296
Travel/Registration for GBEP Program Manager and one staff member to attend the GOAA conference in Mobile, Alabama.	N/A	Admin	$596	$595	$1,191
04-Other			**$452,729**	**$452,729**	**$905,458**
GBEP Website Hosting & Maintenance (Fiscal 2026-2028) (Domain Name Registration-BC 46)	Wilkins	Admin	$75	$75	$150
State of the Bay Symposium	Moody Gardens	Admin	$12,500	$12,500	$25,000
Regional Monitoring Database (Phase IV)	HARC/GTRI	Admin	$82,814	$82,833	$165,647
Assessment of Coastal Groundwater Quality and Dynamics in San Jacinto River Waste Pit Superfund Site	TAMUG	WSQ	$49,988	$49,988	$99,976
Evaluation of Nature-Based Stormwater Infrastructure to Reduce Pollution in Galveston Bay	H-GAC	WSQ	$100,000	$100,000	$200,000
FY 2025 Conservation Assistance Program	GBF	NRU	$24,103	$24,084	$48,187
Monitoring and Managing the Threatened Eastern Black Rails in the Galveston Bay Area	TAMU	NRU	$7,923	$7,924	$15,847
From Scat to Conservation: Community-based Engagement for Galveston Bay's Ghost Wolves	MTU	NRU	$6,300	$6,300	$12,600
Texas Envirothon	UHCL	PPE	$45,486	$45,486	$90,972
City of Houston Nature Trails Master Plan	HPARD	PPE	$45,000	$45,000	$90,000
River, Lakes, Bays 'N Bayous Trash Bash® (Fiscal 2026)	H-GAC	PPE	$5,000	$5,000	$10,000
Monitoring to Assess Long-term Restoration Success in Galveston Bay Wetlands	TAMUG	M&R	$23,627	$23,626	$47,253
Developing Molecular Tools for Demographics and Distribution of Galveston Bay Estuary System Sea Turtles	TAMUG	M&R	$49,913	$49,913	$99,826
05-Supplies			**$223**	**$223**	**$446**
PPE Supplies (Outreach Materials-BC 54)	TBD	Admin	$223	$223	$446
06-Equipment			**$0**	**$0**	**$0**
No Equipment Costs	N/A	N/A	$0	$0	$0
07-Construction			$0	$0	$0
No Construction Costs	N/A	N/A	$0	$0	$0
Total Direct Costs			**$689,148**	**$850,000**	**$1,539,148**
Fringe (35.87%)	N/A	Admin	$81,540	$0*	$81,540
Indirect (34.89%)	N/A	Admin	$79,312	$0*	$79,312
Fiscal 2026 Grant Total			**$850,000**	**$850,000**	**$1,700,000**

[25] Due to TCEQ system requirements, direct match for salaries, fringe, and indirect (indicated by the asterisks) are allocated under 02-Contracts.

Section 4.0: Ongoing Projects

Section 4.1: Ongoing Projects Under CE-00655009 – Summary

No projects are ongoing under CE-00655009.

Section 4.2: Ongoing Projects Under CE-00655009 – Detail

No projects are ongoing under CE-00655009.

Section 5.0: Completed Projects

Section 5.1: Projects Completed Under CE-00655009 – Summary

No projects have been completed under CE-00655009

Section 5.2: Projects Completed Under CE-00655009 – Detail

No projects have been completed under CE-00655009