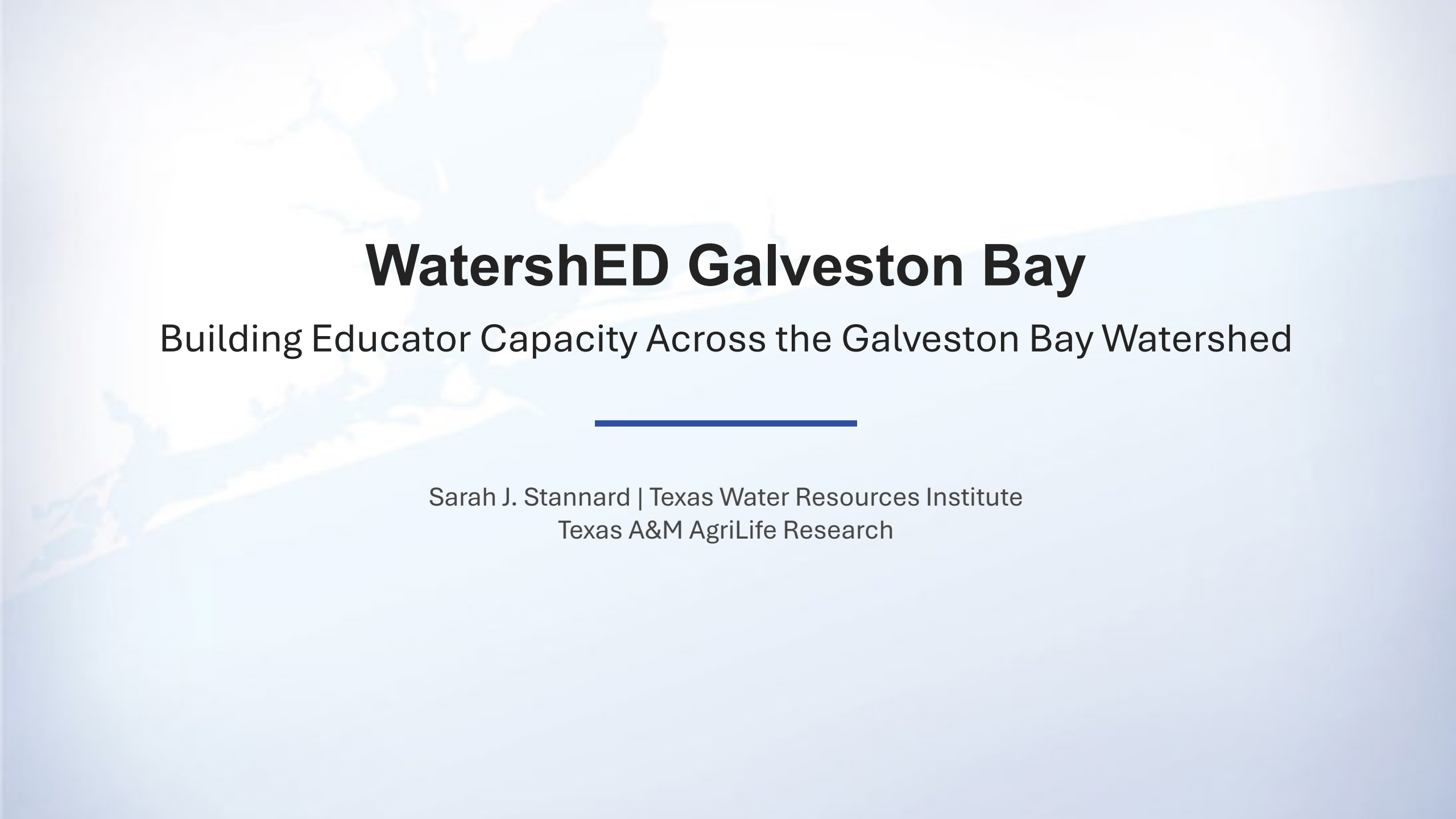




WatershED Galveston Bay

Building Educator Capacity Across the Galveston Bay Watershed

Sarah J. Stannard | Texas Water Resources Institute
Texas A&M AgriLife Research

Project Overview

Hands-on, place-based professional development with regionally adapted content and resources for formal and informal educators across the Galveston Bay watershed.

3

watershed regions

6

regional workshops

Target: 210+

educators

Sept. 2027 – May 2030 | 2 workshops per region

The first WatershED workshop reached capacity and generated a waitlist.

The Galveston Bay program expands that model across the watershed while tailoring workshop content and educator resources to each region.



WatershED Across the Galveston Bay Watershed



Upper watershed

2 workshops

Greater Houston

2 workshops

Coastal Galveston Bay

2 workshops

Regionalized content & resources

- Local watershed issues & case studies
- Region-specific field experiences
- Local partners & technical experts
- Regional stewardship opportunities
- Locally relevant educator resources

Content and educator resources will be developed and adapted for each region with local partners and technical experts.

The WatershED Multiplier Effect



Educators are the direct participants — not the endpoint.

6 regional workshops

hands-on, regionally adapted training



Target: 210+ educators

formal + informal educators



Educators take it outward

regional resources • partner connections • stewardship



Potential to reach thousands annually

students • families • communities

Citizen science • monitoring • stewardship • local organizations •
environmental careers

A faint, light blue map of the Lower Galveston Bay Region serves as the background for the slide. The map shows the coastline of the bay, including Galveston Island and the surrounding waterways.

Nature-based Stormwater Infrastructure (NbSI) Capacity Building Workshops for Lower Galveston Bay Region

Christie Taylor, GIFT Program Leader
Disaster Assessment and Recovery-Mitigation
Texas A&M AgriLife Extension Service

christina.taylor@ag.tamu.edu



Scope of Work

- Working with subcommittees input to identify communities and areas in existing WBPs to host workshops that support implementation of nature – based stormwater infrastructure.
- We've proposed 2-4 multi-prong workshop series. That first targets adult education and elected officials and decision makers, NGICP professional PDH hours, and final 7-12 grade student education.
- We've proposed 1-2 field days to include visits to sites in the targeted region(s) that showcase existing NbSI demonstration projects to potentially new audiences.



Plan and Subcommittee Priorities

- SPO2 Workshops and Events
- SPO4 Local Government Outreach
- PEA1 Key Issues Engagement
- PEA 2 Adult Education and Training
- PEA 3 High School Student Workshop Training
- NPS 1 Implementing WBPs
- NPS 2 NPS Education
- NPS 4 NPS Workshops and Speaking Engagements

PPE:

- Opportunities to host workshops /networking events to provide technical assistance to local leadership.
- Workforce Development
- Empowering K-12 /adult education to positively impact their community through environmental education and scientific literacy
- Connecting new audience to existing on the ground projects

WSQ:

- Supporting management measures and watershed-based plans through adaptive management, workforce development, and technical assistance.

Budget: Total Request \$88,031

Budget Category	Cost for Work to be Performed
Salary / Wages (3 staff)	\$50,545.00
Fringe Benefits (18.9% plus 1272 ins.)	\$12,726.00
Travel (3 staff multiple trips)	\$1,336.00
Supplies	\$1,665.00
Equipment	\$0.00
Contractual	\$0.00
Construction	\$0.00
Other (venue costs, speaker stipends)	\$3,800.00
Total Direct Cost	\$70,072.00

Distribution Base Amount (identify Base type below)	\$ 69,072
Indirect Cost Rate for Reimbursement	26%
Total Indirect Costs	\$ 17,959

Coordination of the 2028 River, Lakes, Bays 'N Bayous Trash Bash®



Contact: Kendall Guidroz
Kendall.Guidroz@h-gac.com

FY 2028 Proposal Provides Support for the 34th River, Lakes, Bays 'N Bayous Trash Bash®

Request Amount: \$15,011.40

Total Event Cost: \$80,000+

- FY28 PPE Priority: Empowering K-12 students and/or adults to positively impact their local environment through increased scientific literacy and community projects
- PPE Subcommittee Priorities
 - SPO-1 (Stewardship Programs & Volunteer Opportunities)
 - SPO-2 (Workshops & Events)
 - SPO-3 (Support Regional Initiatives)
 - PEA -1(Key Issue Engagement)
 - PEA-2 (Adult Education)

Budget Category	Cost for Work to be Performed
Salary / Wages	\$6,281.19
Fringe Benefits (46.94%) ²	\$2,948.39
Travel	\$325.00
Supplies	\$300.00
Equipment	\$0.00
Contractual	\$0.00
Construction	\$0.00
Other	\$2,319.65
Total Direct Cost	\$12,174.23
Indirect Cost	\$2,837.17
Total Cost	\$15,011.40

FY 2028 Proposal Provides Support for the 34th River, Lakes, Bays 'N Bayous Trash Bash®

- Five Steering Committee Planning Meetings
- Maintenance of Educational Exhibits
 - Posters, Pledges, Displays, and Instruction Guide
- Volunteer Engagement & Data Collection
 - Train interested volunteers to collect more in-depth data at sites (STOP method)
- Results Reporting
 - Direct reporting to participants
 - Expanded results
 - Actionable steps for volunteers





Project Summary

- Comprehensive media campaign to increase public awareness, education, and stewardship of the Galveston Bay watershed.
- The campaign will highlight up to five GBEP-funded projects and deliver conservation messaging across the Houston region.
- Featured projects will be highlighted through a *Houston Life* segment, a 30-second commercial, and digital banner advertising, with content distributed through television, digital streaming, web, and YouTube.
- The campaign will be amplified through social media promotion, partner outreach, and performance tracking.

A Proven Partnership

- **UHCL**

- Coordination
- Social media amplification
- Partner engagement
- Metrics tracking

- **KPRC**

- Broadcast and digital content development
- Regional media distribution

- **GBEP**

- Project selection
- Campaign messaging

- **Project Partners**

- Content expertise
- Conservation messaging

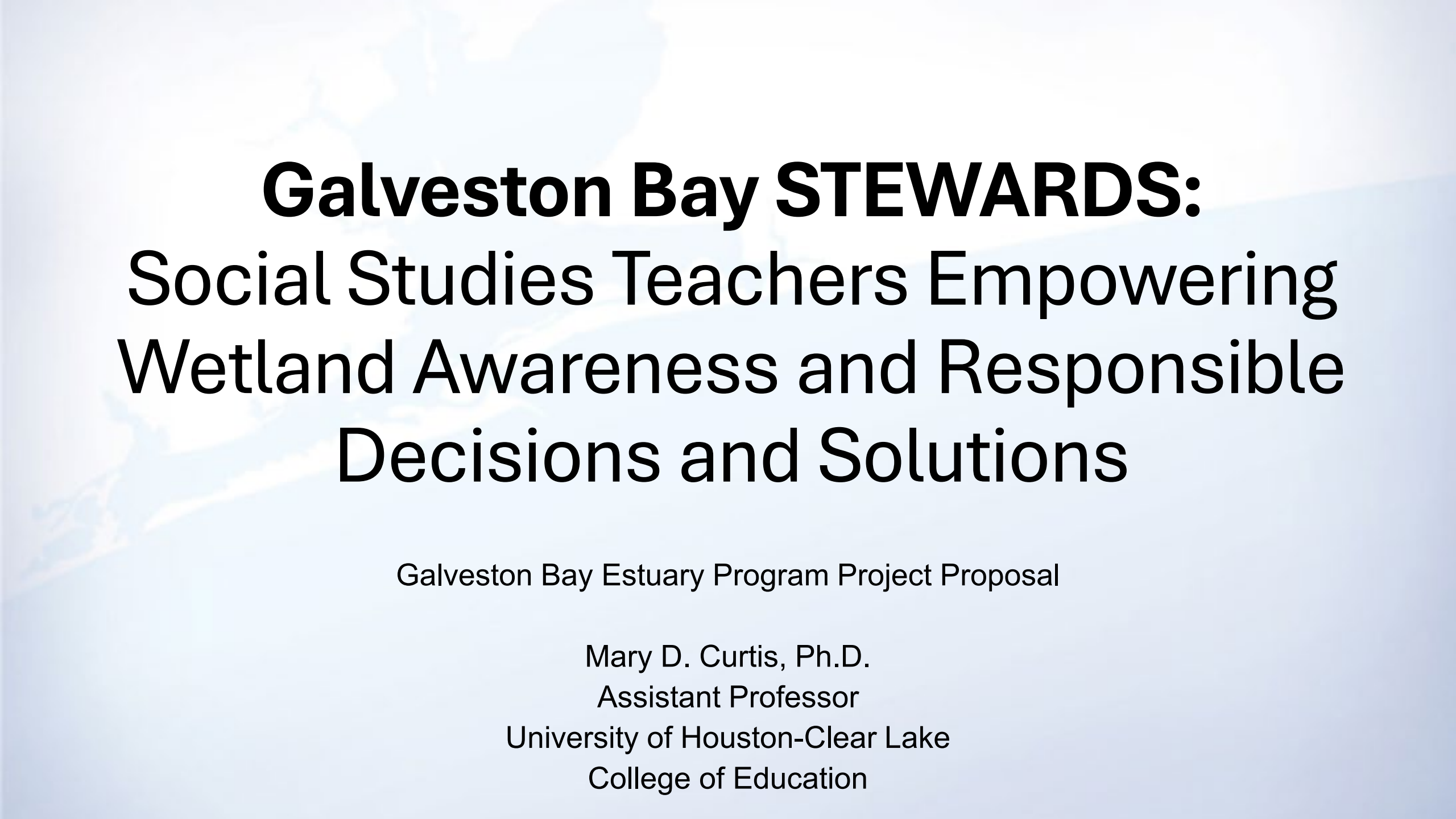
Expected Outcomes

- *Awareness* of Galveston Bay Plan conservation priorities.
- *Visibility* for GBEP-funded projects and partners.
- *Engagement* with new and underserved audiences.
- *Participation* in stewardship and conservation activities.
- *Return on investment* through regional media exposure.

Galveston Bay Plan and PPE Subcommittee Priorities

Building on a successful, previously funded initiative, this project leverages local media to increase public awareness of conservation efforts throughout the Galveston Bay watershed.

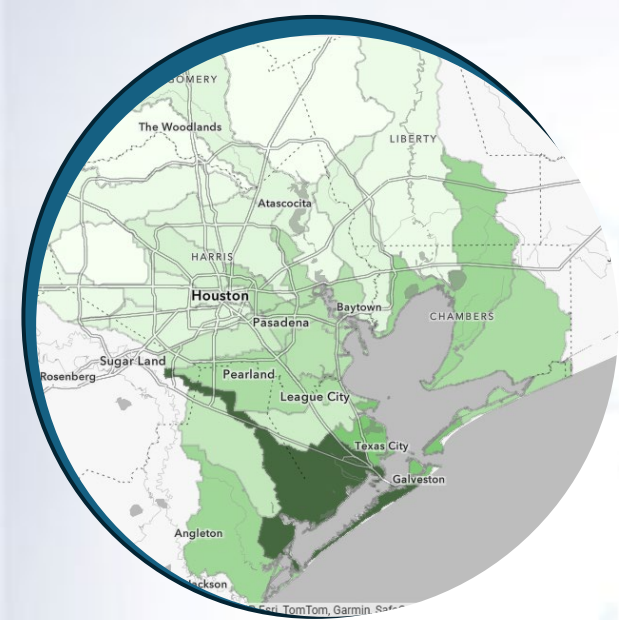
- SPO-1 Stewardship Programs and Volunteer Opportunities
- SPO-3 Support Regional Initiatives
- PEA-1 Key Issue Engagement
- PEA-2 Adult Education
- PEA-3 Kindergarten to 12th Grade (K-12) Education Efforts
- PPE: Connecting new audiences to existing/completed on-the-ground projects in the watershed.
- PPE: Empowering K-12 students and/or adults to positively impact their local environment through increased scientific literacy and community projects.

A faint, light blue map of Galveston Bay and the surrounding coastal area serves as the background for the slide. The map shows the intricate waterways and landmasses of the region.

Galveston Bay STEWARDS: Social Studies Teachers Empowering Wetland Awareness and Responsible Decisions and Solutions

Galveston Bay Estuary Program Project Proposal

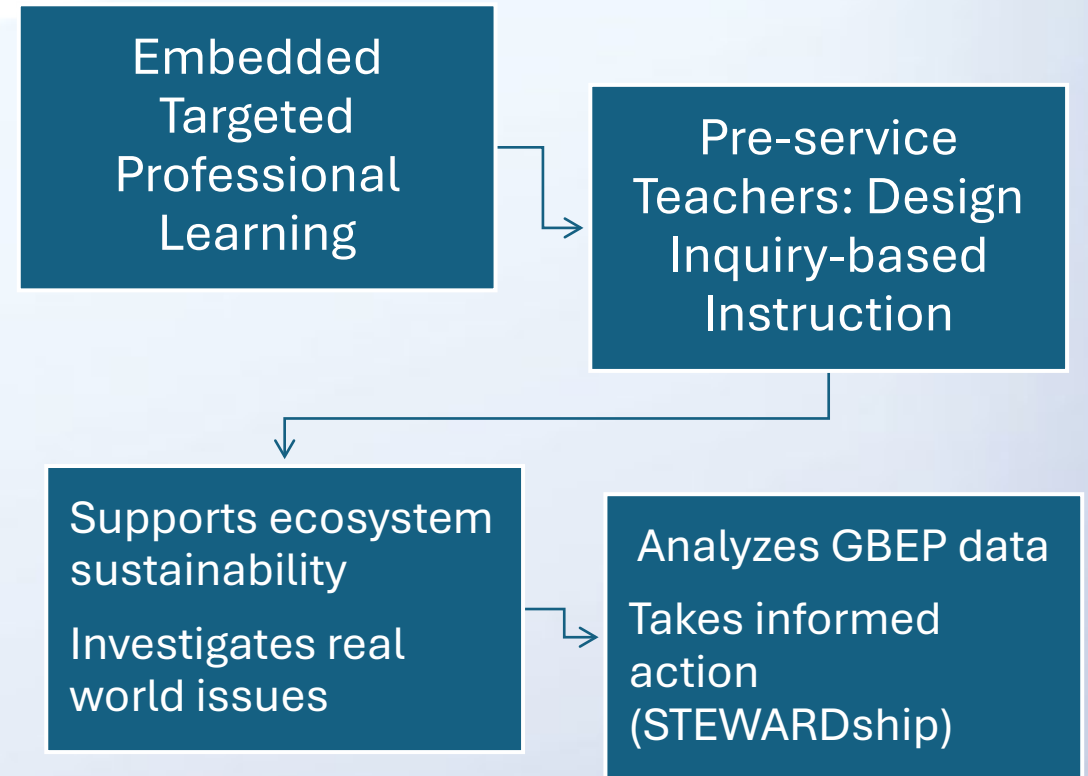
Mary D. Curtis, Ph.D.
Assistant Professor
University of Houston-Clear Lake
College of Education



Galveston Bay STEWARDS Project Summary

Purpose:

To prepare future pre-service elementary teachers as data-literate civic educators who use GBEP environmental data and inquiry-based social studies instruction to promote environmental stewardship and informed decision-making.



Building Capacity to Back the Bay

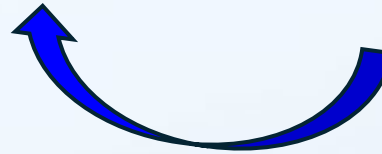


Current Social Studies Methods Course Includes:

- Data Visualization
- Human-environment Interaction
- Citizenship and Stewardship
- Interdisciplinary Inquiry-based Instruction

GB STEWARDS!

- Galveston Bay Region = “My Community”
- Co-curricular Experiences
- Place-based Pre-Service Teacher Education
- Enhance Science & Geography Literacy
- Exposure: Regional Data & Resources via NRU Galveston Bay Habitat Project database
- Real World Issues (e.g., pollution, habitats, etc.)
- New Audiences for GBEP & Partners
- Authentic and Relevant Community Connections



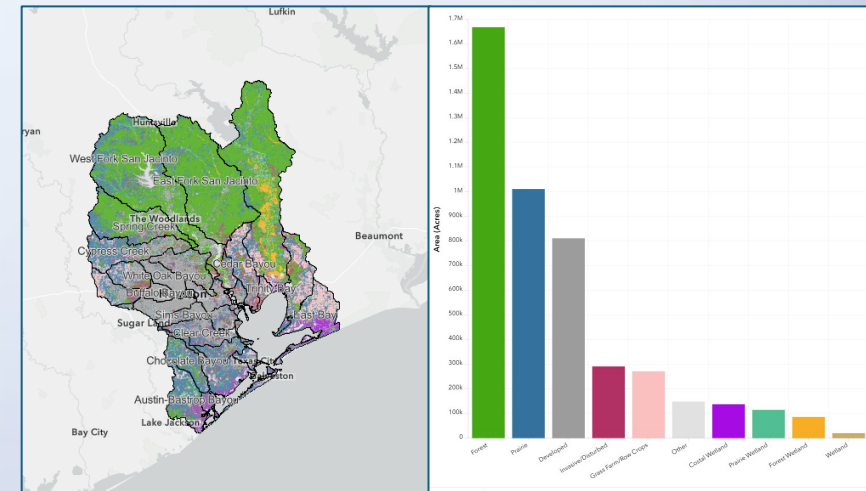
Project Timeline (12 months – AY 2026-2027)

STEP 1: Design Course with Three Workshops (NRU Database)

STEP 2: Pre-service Teacher Instructional Design with In-service Teacher Co-Curricular Collaboration

STEP 3: Dissemination: UHCL Greater Houston STEM Conference; State/National Conference

STEP 4: Final Report



Project Impact & Budget Support

Elementary education represents a particularly urgent point of intervention for attitudes development (e.g., citizenship, stewardship, and community engagement).

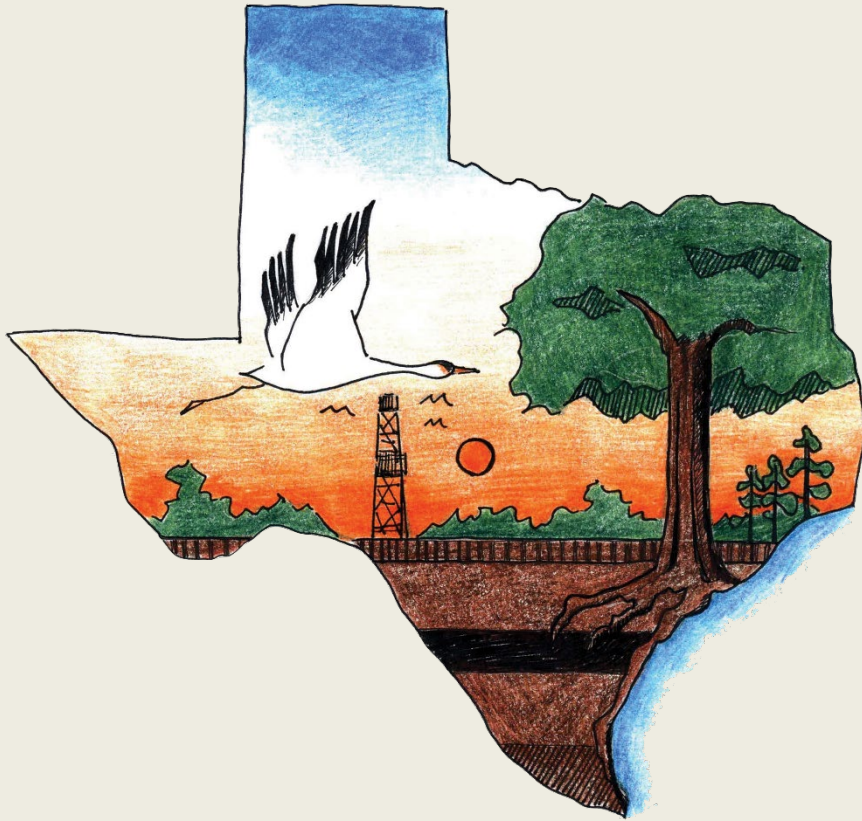
Impact:

Fall 2027: Up to 73 Pre-service EC-6 educators

First Year Teaching: Up to 100 students

Potential Impact: 7,300 elementary students and their families

	Budget Category	Cost for Work to be Performed
Direct Cost	Salary / Wages	\$14,694
	Fringe Benefits	\$2,571
	Travel	\$9,300
	Supplies	\$14,180
	Equipment	\$0.00
	Contractual (Project Evaluation)	\$4,410.00
	Construction	\$0.00
	Other (In-service Teacher Stipends)	\$6,450
	Total Direct Cost	\$51,605
Indirect Cost	Distribution Base Amount (identify Base type below)	\$ 51,605
	Indirect Cost Rate for Reimbursement	% 50.0
	Total Indirect Costs	\$ 24,553
	Maximum Authorized Reimbursement (Direct and Indirect Costs)	\$ 76,158



UHCL

**Environmental Institute
of Houston**

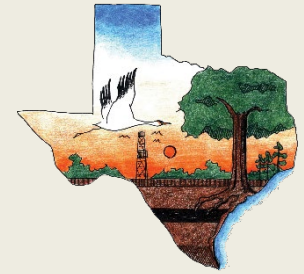
Building Teacher Capacity for Texas Envirothon

Wendy Reistle: reistle@uhcl.edu

Project Summary



Environmental Institute
of Houston



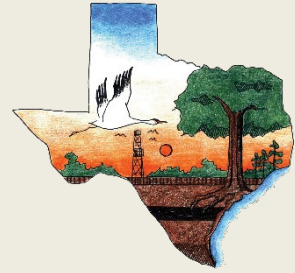
- ***Texas Envirothon*** is an environmental education program for 9th – 12th graders prioritizing critical thinking and problem-solving skills.
- ***Review and update*** Texas Envirothon curriculum and resources to ensure they are fully accessible and are in line with other States. Curriculum topics are Aquatics, Forestry, Wildlife, Soils and Land Use.
- ***Deliver*** two ***4-day*** teacher ***workshops*** in 2028 and 2029.
- ***Partner*** with GBF, Texas A&M Forestry Service, TPWD, and H-GAC to deliver workshop programming. Field trips and a “mock” field test will be part of the experience.
- ***Teachers will be fully supported***, receiving all needed materials, overnight accommodations at UHCL, and a stipend.



Project Goals



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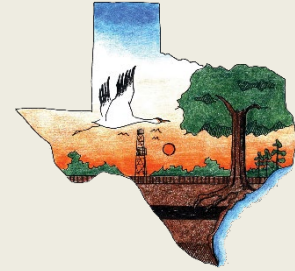


- ***Expand the Texas Envirothon program*** to include more schools.
- ***Recruit and support*** local classroom science teachers representing diverse communities in the local Houston/Galveston area.
- ***Expand and update*** curriculum materials and resources.
- ***Prepare students*** for environmental careers and stewardship.
- ***Improve*** environmental science education statewide

Project Timeline



Environmental Institute
of Houston



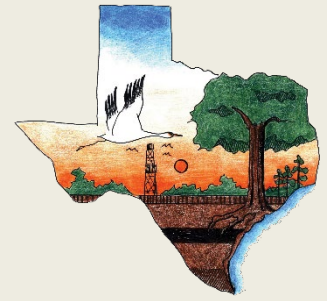
- **Fall 2027:** Curriculum revision begins
- **Summer 2028:** First 4-day teacher workshop
- **Summer 2029:** Second 4-day teacher workshop
- **Fall 2029:** Project Completion



Galveston Bay Plan and PPE Subcommittee Priorities



Environmental Institute
of Houston



The Texas Envirothon program is a continuation of an established environmental educational program. Since 2001, EIH has been facilitating the Texas Envirothon, and we remain committed to its continuation and expansion into new schools.

- ***Continuation*** or expansion of **established adult education programs** with key issue engagement.
- ***Empower*** K-12 students and educators.
- ***Connecting*** new audiences to natural habitats.
- ***Hosting*** teacher workshops/networking opportunities on key topics.
- ***Support*** conservation workforce development.