
Strengthening Coastal Resilience: Texas Sea Grant Initiatives

Resilient Communities and Economies



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Background: National Sea Grant College Program

- 1966: National Sea Grant College and Program Act signed by President Lyndon B. Johnson
- Sea Grant became a Federal-University partnership program that brings science together with communities for solutions that work.
- 1970: Sea Grant became part of NOAA



Image: thenatureofcities.com

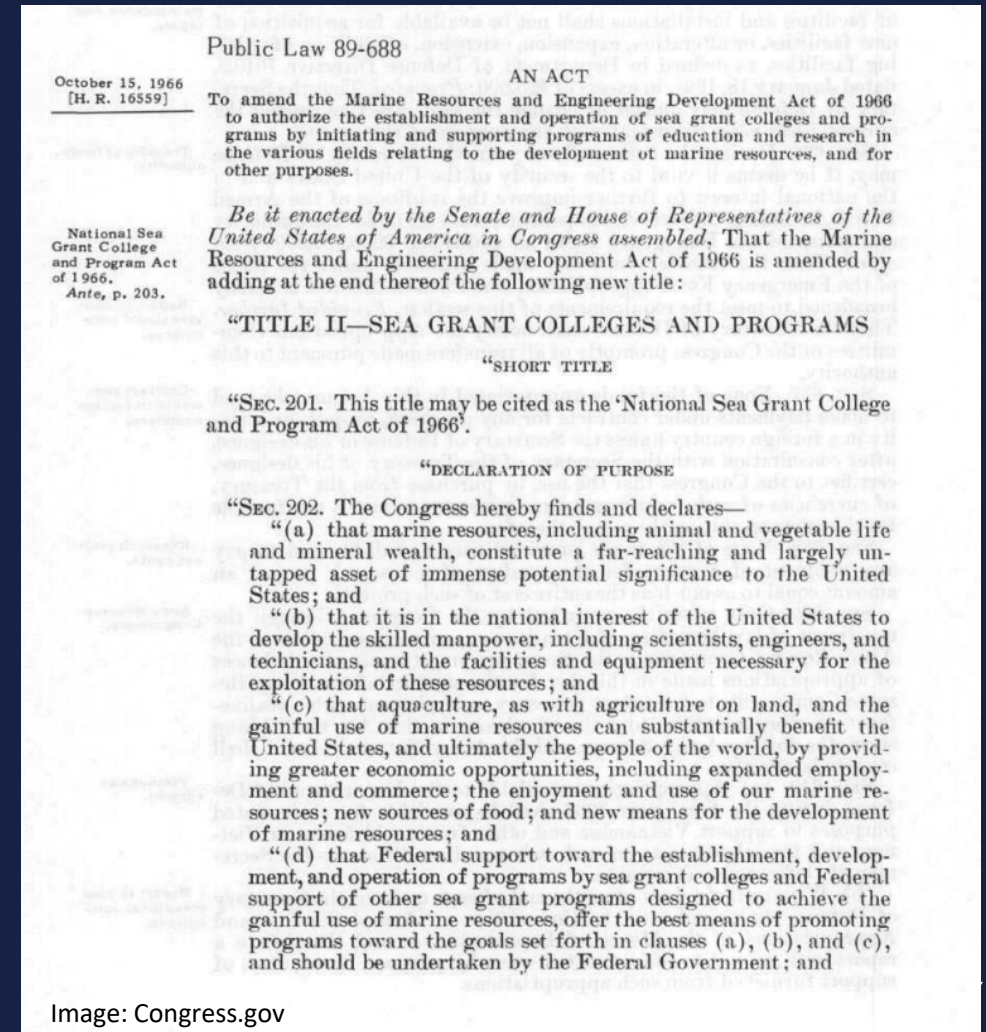
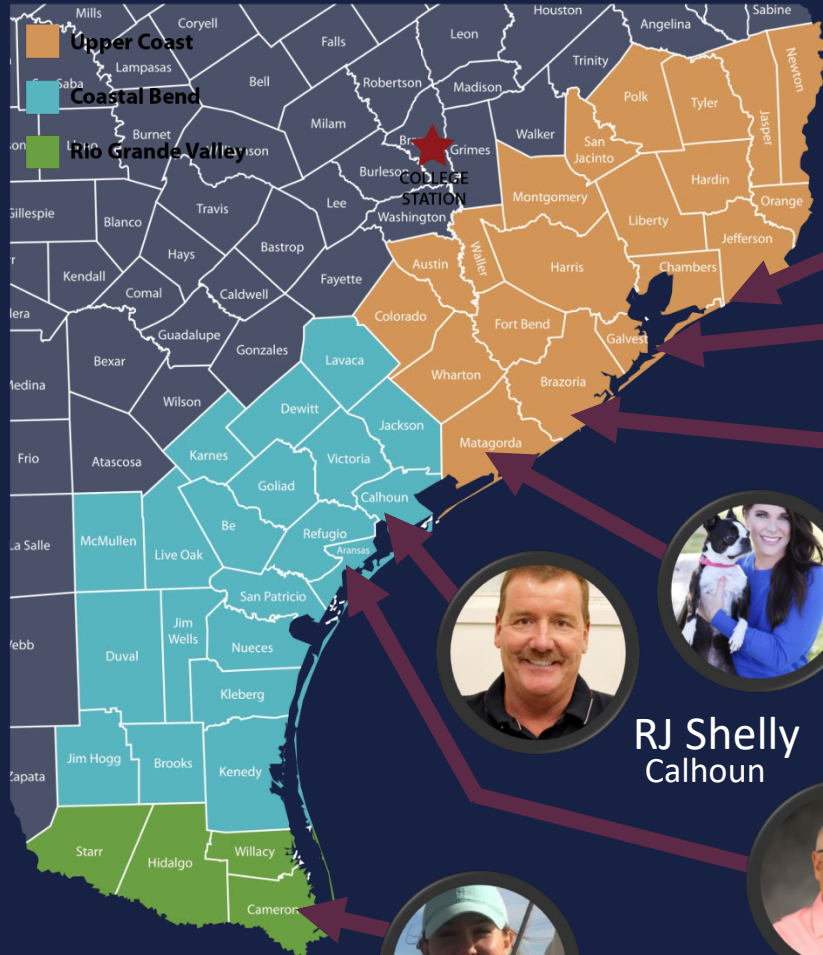


Image: Congress.gov

Sea Grant is a Federal-University partnership program that brings science together with communities for solutions that work.



Texas Sea Grant Extension Team- County Agents



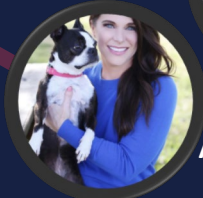
Nikki Fitzgerald
Chambers & Jefferson



Brandi Keller
Galveston



John O'Connell
Brazoria



Amy Nowlin
Matagorda



RJ Shelly
Calhoun



Pat Cruz
Aransas



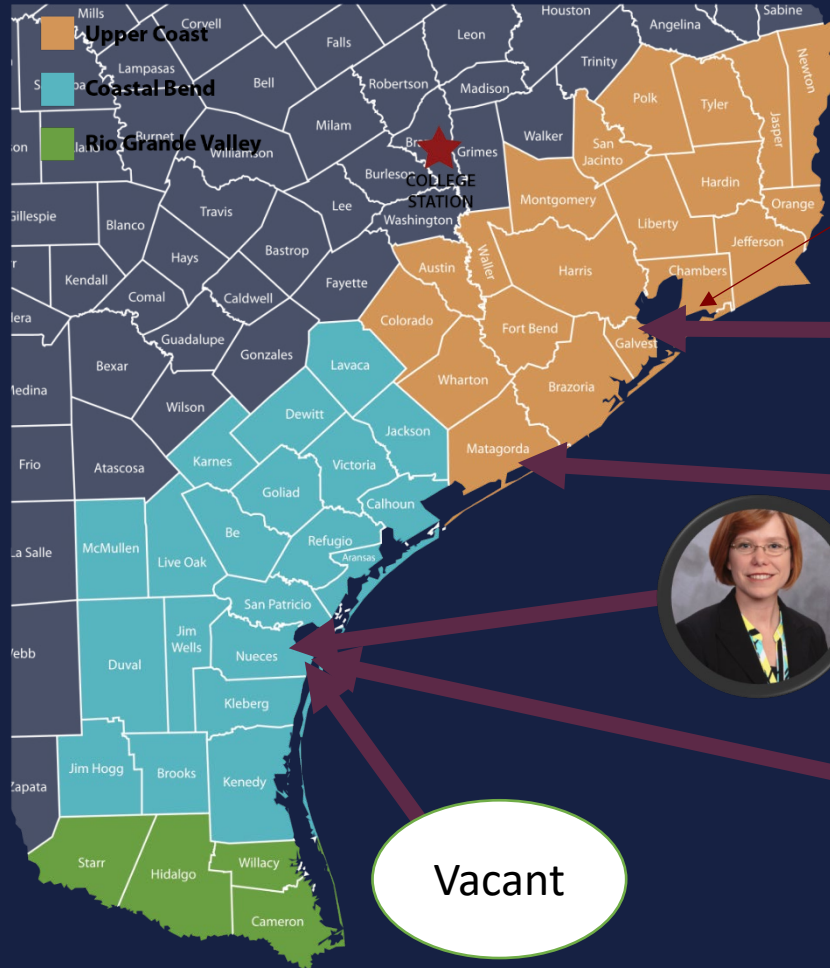
Sara Stewart
Cameron

Coastal and
Marine
County
Agents

TEXAS A&M
AGRI LIFE
EXTENSION



Texas Sea Grant Extension Team- Specialists



Vacant

Clean Marina Extension
Specialist

Madgellen Cleary
Coastal Resilience



Mario Marquez
Aquaculture



April Taylor
Coastal Resilience



Alexis Sabine
Recreational Fisheries



Vacant

Return 'Em Right Outreach
Coordinator,

Extension Specialists

Definitions

Extension

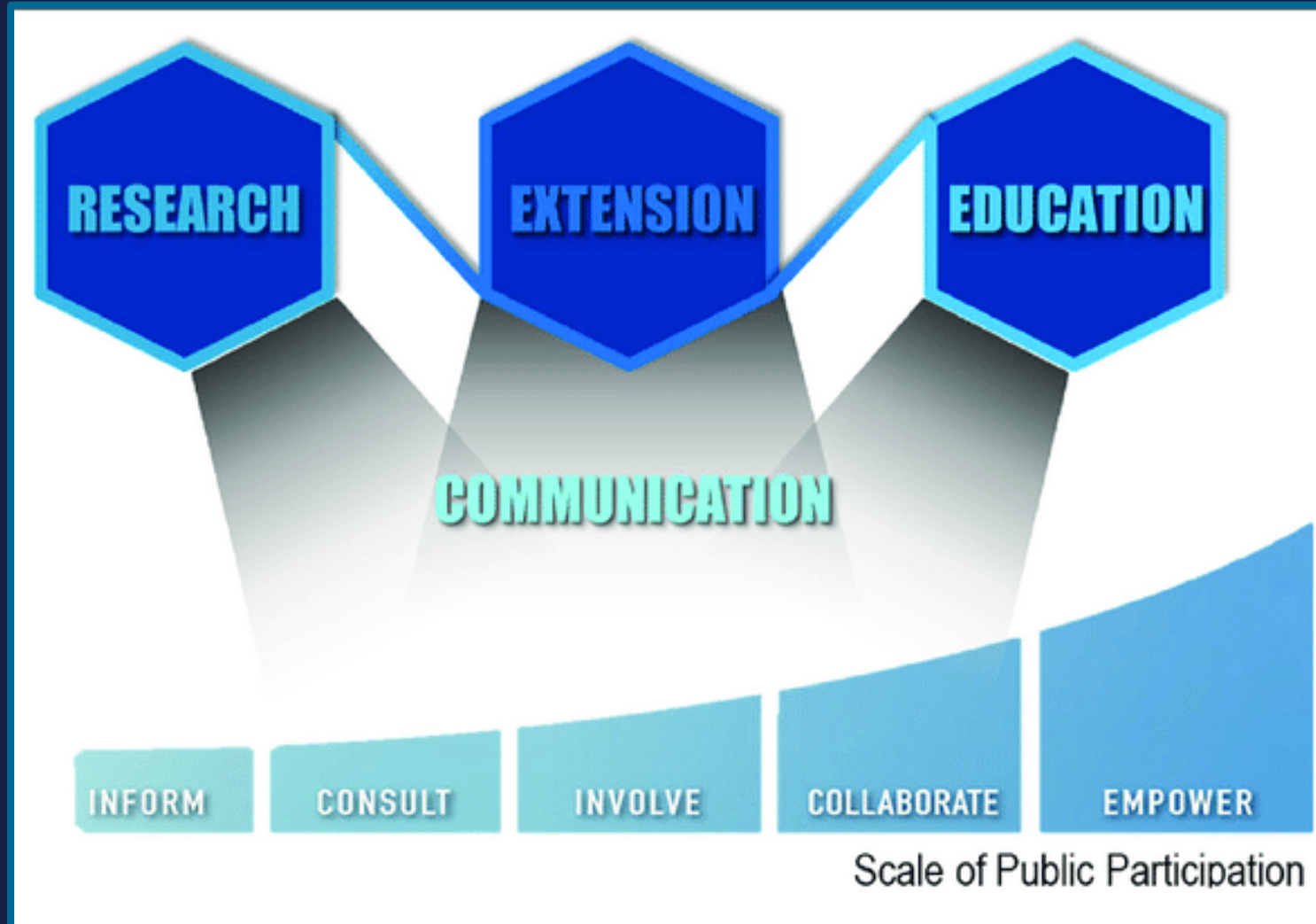
Sustained interaction with specific audiences using education techniques to **transfer** science-based information or skills that **inform** decision-making and/or **change** behavior.

Extension is achieved through outreach and engagement.



Extension workshop in Alaskan community; credit S. Sempier.

Sea Grant Integrated Research Strategy



Source: Jones, Briggs, Krepp, & Rohring (2021). Strategies for Successful Research to Application Projects: A Case Study of the National Sea Grant College Program. *Frontiers in Marine Science*. 7. 10.3389/fmars.2020.610954.



Where does Texas Sea Grant Fit into hurricane preparedness?



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Homeowner Handbook

- We have updated the new version
- Involved new partners:
 - GLO
 - Water Development board.
- This is in an app form too.



TEEX Disaster Training Classes



Resilient Communities
& Economies

TEXAS SEA GRANT NEWS

Calhoun County Disaster Management Training Series

Sea Grant
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TEXAS A&M ENGINEERING
TEEX
EXTENSION SERVICE

A series of training courses for systems managers and employees to prevent, protect and mitigate against, respond to, and recover from threatened or actual natural disasters, human-caused, and technological disasters affecting their facilities and systems.

- **July 10-11:** Water & Wastewater Utilities
- **October 2-3:** Public Services
- **December 4-5:** Healthcare Organizations within the Community Infrastructure
- **April 2-3, 2025 :** Electric Power Systems

All four courses must be completed in order to earn a certificate.



[TX.AG/DISASTERTRAININGS](https://tx.ag/disastertrainings)

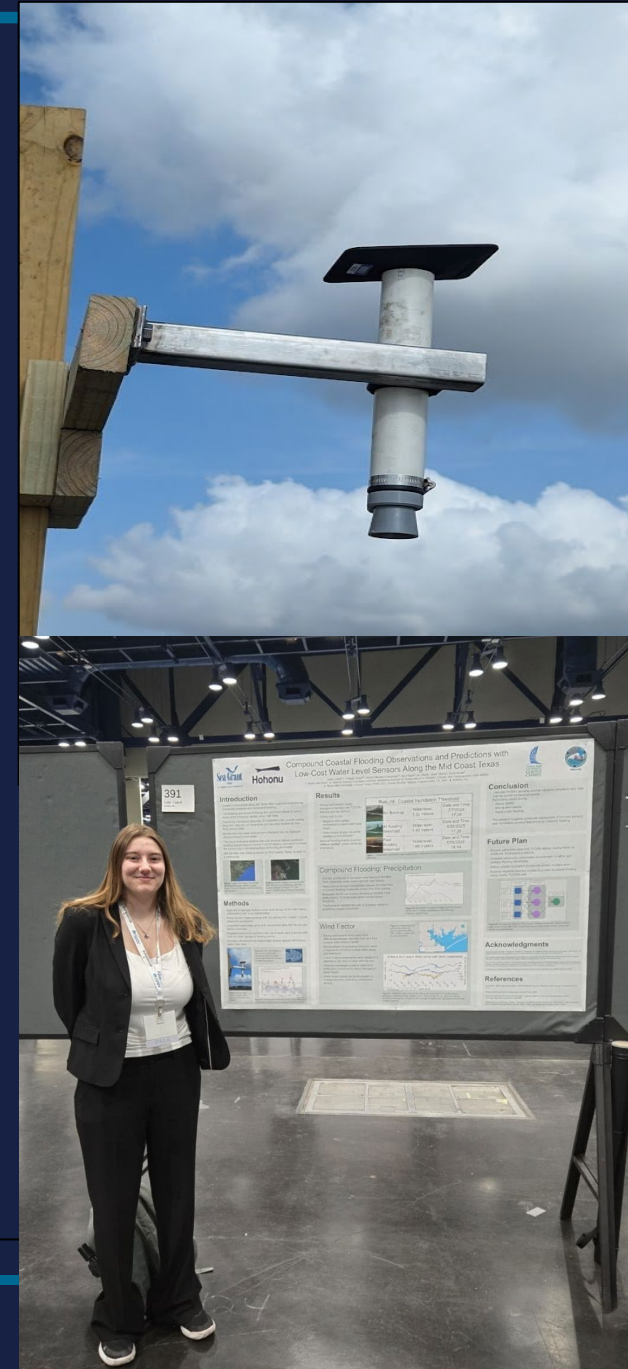


Calhoun County Agriculture Auditorium
311 Henry Barber Way,
Port Lavaca, TX.

Low Cost Water Level Sensors in Texas

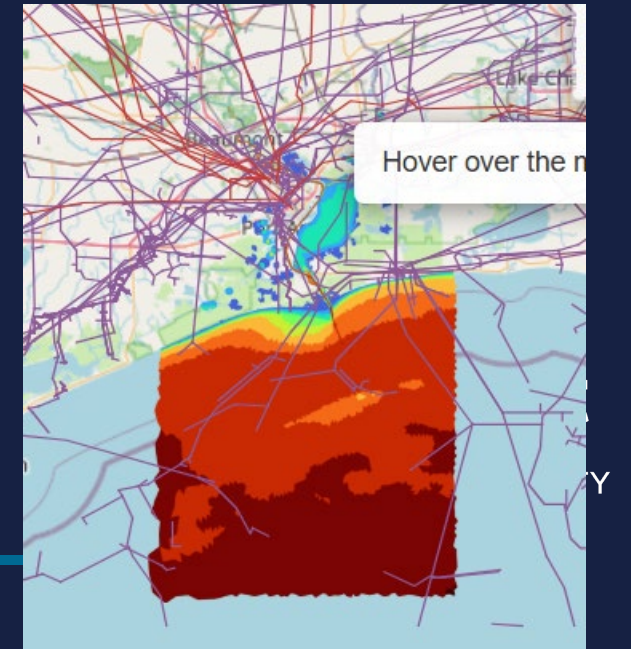
Juliet Cattell^{1,2}, Philippe Tissot^{2,3}, Hector Marrero-Colominas^{2,3},
April Taylor¹, RJ Shelly¹, Brian Glazer⁴, Kevin Mukai⁴

1. Texas Sea Grant
2. Artificial Intelligence for the Environmental Sciences (AI2ES)
3. TAMU-CC, Conrad Blucher Institute
4. Hohonu, Inc



Assessment tool for Energy and Water infrastructure

- The U.S. Gulf Coast and Texas in particular are home to extensive oil and gas facilities that play paramount roles in the nation's energy supply and regional economies. While the businesses owning this infrastructure have robust safety and risk assessment plans in place for averting major industrial disasters, they are dependent on regional infrastructure and human sources for continuity of operations during and after natural disasters.
- This joint effort by UT Arlington, Lamar University, Texas Sea Grant, Texas A&M AgriLife Extension, and NOAA aims to improve the combined resilience of the energy and water infrastructure along the Texas coast through broad collaboration with regional stakeholders and by employing the climate-informed risk assessment framework.



Clean Coast Texas

An Initiative of the Texas Coastal Nonpoint Source Pollution Program

Helping communities to facilitate incentive-based programs and projects to protect and restore water quality, natural habitats, and shorelines.

We can help with:

- Technical Assistance for Community Planning
- Implementing Stormwater Best Management Practices
- Testing and Monitoring Water Quality of local waterways
- Coordination Across Jurisdictions
- Identify and Apply for Funding


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Southern Regional Climate Center




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Events coming up on Texas Sea Grant

SAVE THE DATE

Gulf Resilience Community of Practice



November 16-18, 2026
Lamar University | Beaumont, Texas

The Gulf Resilience Community of Practice meets for its 16th year to connect extension, outreach and education professionals with community leaders to help coastal communities adapt to shifting challenges.

SEEKING:
SPONSORS | ABSTRACTS | AWARD NOMINATIONS



TX.AG/COP2026

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What is a Community of Practice?

What is a Community of Practice?

- A group of professionals who aim to achieve common outcomes

What is the Gulf Resilience Community of Practice?

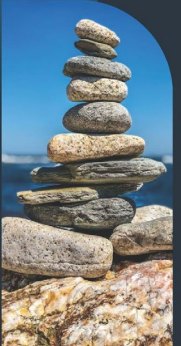
- A network of outreach, education, and extension professionals and local community officials from Gulf states working together to:
 - Explore the latest science related to coastal hazards in the Gulf region.
 - Learn how coastal communities can adapt to future change.
 - Share lessons learned around adaptation.

Annual Meetings and Webinars





**CLIMATE & RESILIENCE
COMMUNITY
OF PRACTICE**



2022 Webinar

MENTAL WELLNESS & CONNECTEDNESS DURING TOUGH TIMES

Are you stressed or feeling overwhelmed? Wondering how to take care of your own mental health and be there for your loved ones and/or your colleagues? You are not alone. Join us as we explore the importance of wellness in tough times and help us brainstorm which mental health topics our Community of Practice should address moving forward.

20 JANUARY 2022
10 AM - 11 AM CENTRAL
VIRTUAL WEBINAR



DR. MICHELLE KREHBIEL
Youth Development
Specialist & Associate
Professor, University of
Nebraska Lincoln Extension

REGISTER HERE:

<https://usm.edu/zoom.us/join/17ZAsdOlsqjwHdGsmnYsog72TY3E8r1OpPL>

Spirit of Community Award

- Established in 2012
- Recognizes communities and individuals who are taking steps to enhance resilience.



Spirited of Champion Awards



(Photo by Louisiana Sea Grant)



MAKE AN IMPACT

Support the
partnerships
shaping the
Gulf's future.

For 16 years, the Gulf Resilience Community of Practice
has united Gulf Coast professionals and community leaders to
share science-based solutions that strengthen coastal resilience.

With your sponsorship, we can continue connecting the people,
partnerships, and knowledge that help Gulf communities prepare
for tomorrow's challenges.

\$150 | Community Supporter

\$500 | Coastal Partner

\$1,000 | Resilience Sponsor

\$3,000 | Gulf Champion

\$5,000 | Coastal Leader

\$8,000 | Presenting Sponsor



**INQUIRE
TODAY**



tx.ag/SponsorCoP2026



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Questions



Contact Information

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Coastal Resilience Specialist

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