CMP CYCLE 27

Lower Laguna Madre Hydrodynamic Characterization of Cameron County

Contract #22-131-005-D411

Texas General Land Office Coastal Management Program

Building Regional Coastal Resilience

- Protect coastal resources
- Improve water quality
- Reduce flood risk
- Support sustainable economic growth
- Use science and technology to inform decisions

$35M

in grant funding secured supporting regional resilience initiatives

THE STAKES

Why This Project Matters

The Lower Laguna Madre supports:

- Commercial & recreational fisheries
- Tourism
- Navigation
- Coastal communities
- Wildlife habitat
- Regional economy

Current challenges:

- Water quality impairments
- Flooding
- Storm surge
- Altered salinity
- Habitat degradation
- Limited long-term hydrodynamic data

Project Overview

Goal

Develop one of the first long-term hydrodynamic monitoring networks for the Lower Laguna Madre.

Project components

Monitoring network

Technology

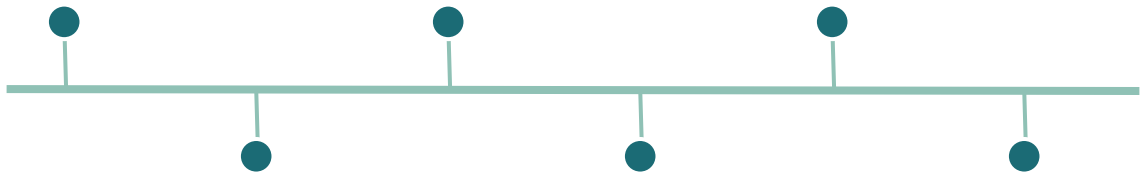
Progress

Impact

Monitoring Network

120+

miles of lagoon monitored



Stations distributed across the length of the lagoon, from the northern reaches to Port Isabel and South Padre Island.

Technology

What we measure:

Water movement

Water level

Water quality

Weather conditions

Together, these observations show how water moves throughout the Lower Laguna Madre.

WHERE WE STAND

Progress Update

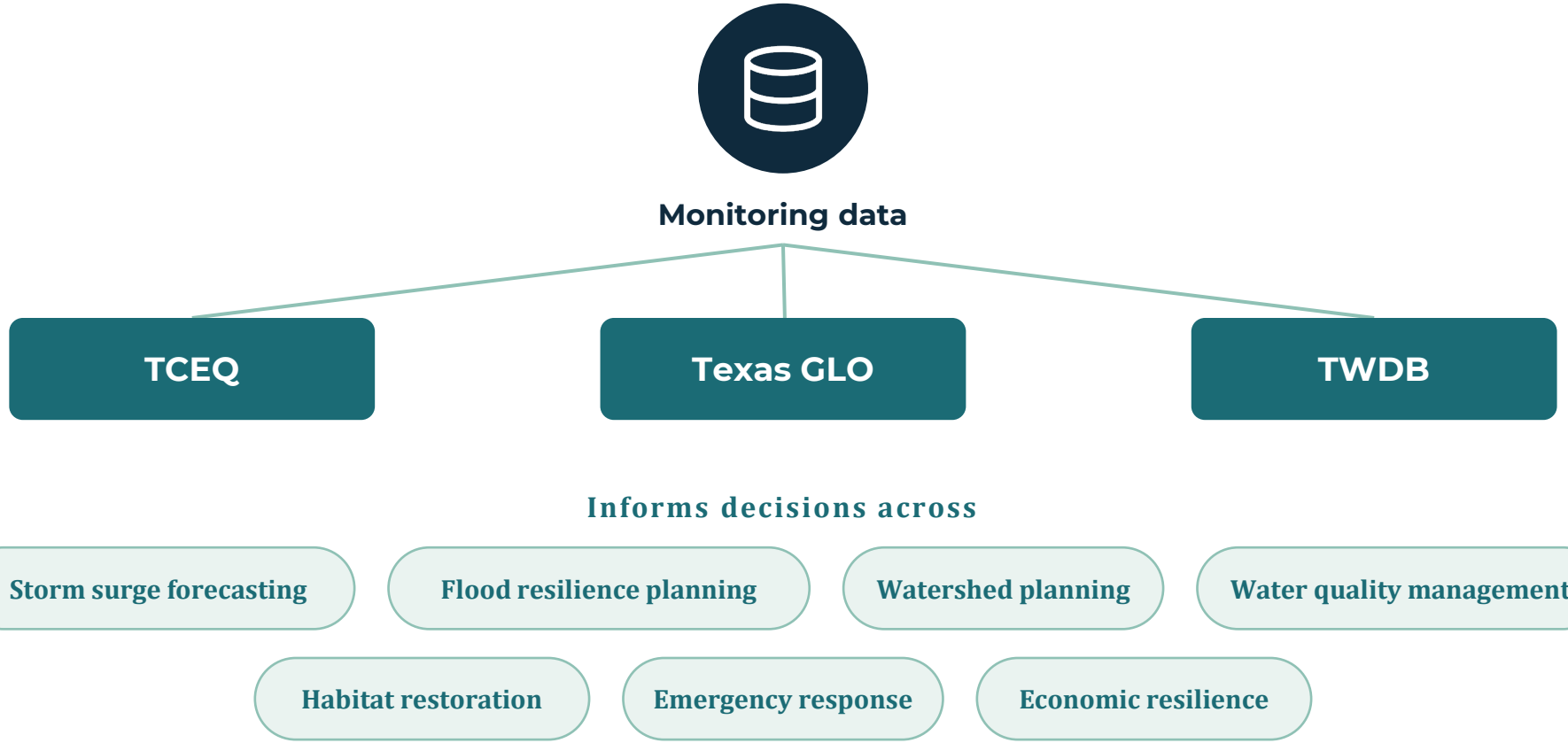
Quarterly surveys

Five of six surveys completed. Final survey scheduled before project completion.

Quarter 3 of 6 • Completion anticipated March 2027

JAZA	Online
ADTH	Online
BLM2	Online
BLM1	Offline — data logger theft
RISJ	Awaiting TCOON ladder repairs
BRSA	Pending NOAA platform availability

Turning Data into Decisions



THE BOTTOM LINE

Project Impact

Supports navigation & water management

Improves coastal flooding modeling

Protects fisheries & coastal habitats

Supports smarter infrastructure investments

Building the scientific foundation for resilient economic growth across the Lower Rio Grande Valley.

Challenges & Lessons Learned

Challenges encountered:

- Marine biofouling
- Equipment theft
- NOAA platform access limitations
- Routine maintenance requirements
- Data management needs

Our response:

- Copper anti-fouling systems
- Improved QA/QC
- Strong agency partnerships
- Adaptive maintenance schedules

FALL 2026

Upcoming Stakeholder Workshops

Oct 6, 2026
Data Literacy & WQData Live Training

Oct 27, 2026
Partnership & Regional Monitoring Coordination

Nov 4, 2026
Funding & Long-Term Sustainability

Workshop outcomes

- Demonstrate live data tools
- Improve regional data sharing
- Identify overlapping monitoring efforts
- Explore co-funding opportunities
- Develop future grant proposals
- Build long-term partnerships

HOW YOU CAN HELP

Opportunities for the Economic Council

Regional partnerships

Data-sharing initiatives

Workforce development

Funding partnerships & industry engagement

Letters of support

The ask: help us secure the long-term sustainability of this monitoring network.

Looking Ahead

CMP 27 establishes the foundation for a long-term regional coastal observing network.

Thank You

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