





Project Kickoff: Costal Management Program 27 Project of Special Merin-Lower Laguna Madre ~~Edition~~ Hydrodynamic Characterization

Cameron County, Texas (project lead) and RATES, Inc. are proud to announce the kickoff of Coastal Management Program Cycle 27- Project of Special Merit CMP27, Lower Laguna Madre Hydrodynamic Characterization, funded by the Texas General Land Office. This data collection project will augment the Lower Rio Grande Valley’s expanding RATES’ River and Estuary Observatory Network (REON) and fill data gaps, with respect to Lower Laguna Madre’s 3- dimensional circulation patterns and coastal boundary conditions, in coast wide programs including: TCEQ Watershed Protection Plans; TWDB-Integrated Flooding Framework; TWDB-Freshwater Inflows; and TWDB- Flood Infrastructure Fund; and USACE Coastal Resiliency efforts. Advances in these programs, made possible through this project, will enable informed decision processes, and thus ensure the resiliency of Lower Laguna Madres ecosystems services for example: coastal storm protection; maritime transportation; and valuable recreational and commercial fishery.

Data collection activities will include a combination of continuous and event based (quarterly) data collection programs to determine LLM hydrodynamics as a function of seasonal variability and episodic events. Both programs will measure water velocities and water (quality) using Acoustic Doppler Current Profilers (ADCPs) and Conductivity Temperature Depth (CTD) sensors. Continuous monitoring will be conducted at four (4) established NOAA tide stations a two (2) newly installed Real-Time-Hydrologic-System (RTHS). Six (6) quarterly sampling events will involve vessel-based surveys to characterize the spatial and seasonal variability of hydrodynamic parameters.

This CMP-27 PSM provides funding to operate the monitoring systems for 18 months. Continuation of this monitoring program is pending stakeholder support and identification of future funding sources.

**Rates’s Principal Investigator**

Christopher Fuller, Ph.D.

Chief of Operations

Research Applied Technology Education Services, Inc.-Rio Grande Valley

(RATES-RGV)

P.O. Box 697

Edinburg, TX 78540

Mobile: 518-570-4078

email: cfuller@office.ratesresearch.org

**Rates’s Project Manager**

Skyler LeVrier

Project Engineer

Research Applied Technology Education Services, Inc.-Rio Grande Valley

(RATES-RGV)

P.O. Box 697

Edinburg, TX 78540

Mobile: 361-739-0314

email: slevrier@office.ratesresearch.org

**CMP27 Partners**

TWDB, Texas Water Development Board

TGLO, Texas General Land Office

TCEQ, Texas Commission on Environmental Quality

USACE, United States Army Core of Engineers

USGS, United States Geological Survey

NOAA, National Oceanic and Atmospheric Administration

Cameron and Willacy Counties