Texas Commission on Environmental Quality
Nonpoint Source Program
GI-558

Lower Laguna Madre/Brownsville Ship Channel Watershed Protection Plan Development

River Basin: Bays and Estuaries
Water Body: Lower Laguna Madre Watershed (Segments 2491, 2494A, 2493, 2492, 2492B, and 2494C)
Location: Cameron County

Background

The Lower Laguna Madre Watershed is between the watersheds of the Arroyo Colorado and Rio Grande River. The watershed includes the City of Brownsville and numerous townships in the surrounding area. Most of the watershed drains to the Brownsville Ship Channel and then to the Lower Laguna Madre. In 2016, a watershed partnership and stakeholders began working toward developing a Watershed Protection Plan (WPP) to address water quality issues, starting with a watershed characterization project. Water quality was monitored bi-monthly at three sites in the eastern part of the watershed to address data gaps. Two concurrent projects are working to complete the watershed characterization.

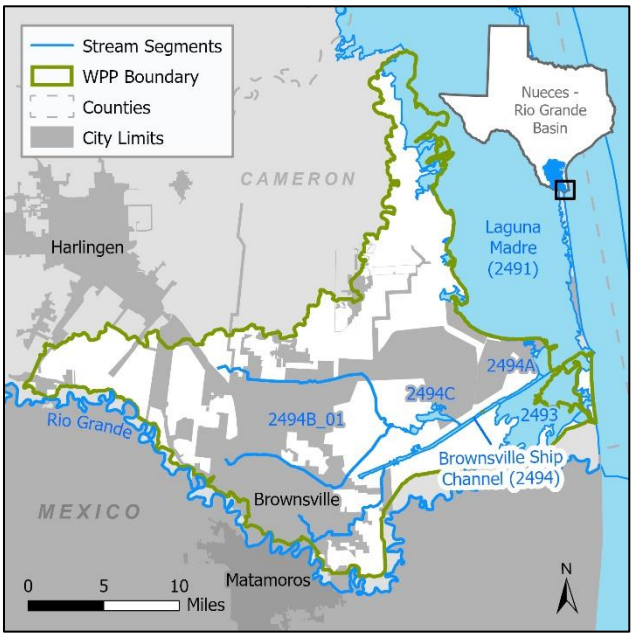
Project Descriptions

September 2017 – February 2022
University of Texas Rio Grande Valley (UTRGV) is collecting data required to complete the characterization, including water quality samples and flow measurements from the main tributaries draining to Brownsville Ship Channel at four sites, including San Martin Lake. Two new sites in the western portion of the Ship Channel will be sampled. UTRGV will also delineate drainage patterns in the watershed and sub watersheds.

With these data, UTRGV will develop a model to simulate existing and future pollutant contributions to the Ship Channel and Lower Laguna Madre by sub watershed. The model will identify the sources of pollutants, quantify reductions needed to meet water quality standards and prioritize watershed management measures.

UTRGV assigned a Watershed Coordinator to facilitate stakeholder input and involvement in WPP development, which will include a public education component on WPPs and watersheds to cultivate involvement.

November 2019 – August 2022
UTRGV will continue data collection at the four selected tributary sites and continue modeling efforts. UTRGV will build a physical watershed model and use it to provide local education and outreach. They are holding ongoing stakeholder meetings to gain local support and involvement in the WPP development.



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For More Information

TCEQ NPS Program
nps@tceq.texas.gov

UTRGV Project Manager
Ahmed Mahmoud
ahmed.mahmoud@utrgv.edu

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