



## Improving Water Quality in Tres Palacios Creek A Project to Protect Recreational Uses

Since 2006, bacteria concentrations in Tres Palacios Creek (Segment 1501) have regularly been found at high levels. High concentrations of bacteria, which are found in both human and animal waste, may indicate a health risk to people who swim or waded in the water body—activities called “contact recreation” in the state’s standards for water quality.

In response to these conditions, people who have a stake in the watershed worked with TCEQ to develop a total maximum daily load (TMDL) and a plan to implement it. A TMDL is like a budget—it determines the amount (or load) of bacteria that the creek can receive and still support safe recreation. The allowable load is then allocated among categories of sources within the watershed. The implementation plan (I-Plan) outlines the measures that will be used to reduce pollution.

Learn more about water quality standards, monitoring, and TMDLs by reading [Preserving and Improving Water Quality](#)<sup>1</sup>, available on our website and in print.

### The Tres Palacios Creek Watershed

The Tres Palacios Creek watershed is 268.5 square miles in area and is located along the Texas Gulf Coast midway between the cities of Victoria and Houston. The creek flows into Tres Palacios Bay, and then into Matagorda Bay. Segment 1501 is the portion of Tres Palacios Creek that is influenced by tidal action, meaning the tidal segment receives freshwater inflows from the watershed and saline water from Tres Palacios Bay.

### Project Development

TCEQ began this TMDL project in 2014. The Texas Water Resources Institute (TWRI) provided support for the technical work as well as stakeholder engagement.

The tasks of TWRI personnel included compiling and analyzing all available bacteria data and considering sources of the bacteria and their relative contributions, along with stakeholder outreach and development. TWRI staff, with the help of the Texas Institute for Applied Environmental Research (TIAER), completed a technical report of their investigations and a draft TMDL report. At the same time the TMDL was being completed, stakeholders developed the TMDL I-Plan, which guides efforts to improve water quality. The TWRI watershed coordinator continues to work with



stakeholders annually to review progress on the I-Plan and produce a status report, which is published on the project webpage.

### Public Participation

In all its TMDL projects, TCEQ gathers opinions and information from people who represent government, permitted facilities, agriculture, business, environmental, and community and private interests in the watershed.

TWRI coordinated public participation in this project, including public meetings, which began in July 2015. A Coordination Committee was formed that represented the various stakeholder groups in the watershed. Along with the help of an agricultural work group, the committee decided on the best management measures to reduce bacteria in Tres Palacios Creek. TWRI continues to work with stakeholders to coordinate implementation of the TMDLs.

<sup>1</sup> <https://www.tceq.texas.gov/publications/gi/gi-351>

### For More Information

Contact one of the people listed below, or visit the project webpage:

[www.tceq.texas.gov/waterquality/tmdl/nav/trespalacios/108-trespalaciosbacteria](http://www.tceq.texas.gov/waterquality/tmdl/nav/trespalacios/108-trespalaciosbacteria)>

#### **TCEQ Project Manager**

Nicole Reed, TMDL Program

512-239-3182

[Nicole.Reed@tceq.texas.gov](mailto:Nicole.Reed@tceq.texas.gov)

#### **TWRI Watershed Coordinator**

Michael Schramm

[michael.schramm@ag.tamu.edu](mailto:michael.schramm@ag.tamu.edu)

### TMDL Status

**Start Date:** 2014

**TCEQ Adoption:** January 24, 2018

**EPA Region 6 Approval:** March 29, 2018

### I-Plan Status

**Start Date:** 2015

**TCEQ Approval:** January 24, 2018

### Project Highlights

- Public meetings began in July 2015. Stakeholders formed a coordination committee and an agricultural work group to advise TCEQ on the TMDL and develop the I-Plan.
- TWRI and TIAER completed a technical report on their investigations and a draft of the TMDL.
- The Coordination Committee, with support from TWRI, completed a draft I-Plan in September 2016.
- The TWRI watershed coordinator met with stakeholders in October 2020 to review implementation progress and develop a status report of implementation, which is posted on the project webpage.

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