

# Improving Water Quality in Oso Bay

# A Project to Protect Recreational Uses

Water quality testing found that concentrations of bacteria are sometimes elevated in Oso Bay (Segment 2485). Bacteria from human and animal waste may indicate the presence of disease-causing microorganisms that pose a threat to people who swim or wade in the creek and bay—activities called "contact recreation" in the state's standards for water quality.

In response to these conditions, TCEQ developed a total maximum daily load (TMDL) for Oso Bay. The goal of a TMDL is to determine the amount (or load) of a pollutant that a body of water can receive and still support its beneficial uses. The allowable load is then allocated among categories of sources within the watershed.

Stakeholders are developing a plan to implement the TMDL (I-Plan) with measures that reduce pollution. The TMDL and I-Plan together are a road map for reducing bacteria loads and the risk to public health and for maintaining water quality in the future.

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

#### **Oso Bay Watershed**

The Oso Bay watershed drains an area of approximately 255 square miles and is located in the northern-most portion of the Nueces-Rio Grande Coastal Basin. The watershed is wholly contained within Nueces County. The bay is an enclosed, shallow body of water situated along the southern shore of Corpus Christi Bay, with a surface area of approximately seven square miles.

Oso Bay receives fresh water from Oso Creek, a stream whose flow is dominated by regulated discharges; Oso Bay exchanges saltwater with Corpus Christi Bay. Ecologically, Oso Bay provides habitat for many plants and animals, and plays an influential role in water purification and storm protection.

Corpus Christi is the only major metropolitan area within the watershed's boundaries. The only other large community within the watershed is Robstown. Economic activities in and around the bay include oil and gas refining and production, agriculture, manufacturing, and tourism.

#### **Project Development**

TCEQ initiated the TMDL project for Oso Bay in September 2004. The Center for Coastal Studies at Texas A&M University—Corpus Christi did most of the technical studies that supported development of the TMDL. Their work included collecting additional data, analyzing microbial data, developing a model for bacteria loading to the bay, and completing a technical report of their observations and conclusions.

In a separate but related project, TCEQ also developed a TMDL for bacteria concentrations in Oso Creek. Stakeholders are working with TCEQ to develop an I-Plan for both Oso Creek and Oso Bay.

# **Public Participation**

In all its projects, TCEQ seeks to gather opinion and information from people who represent government, regulated facilities, agriculture, business, environmental, and community and private interests in the watershed.

Staff from the Center for Coastal Studies at Texas A&M University-Corpus Christi are facilitating stakeholder participation in the I-Plan.

Nueces Bay

Corpus
Christi
Bay
Christi
Oso Creek

Oso
Bay
2485

 $<sup>^{1}\, \</sup>hbox{https://www.tceq.texas.gov/publications/gi/gi-351}$ 

# **For More Information**

Contact the project manager, or visit the project webpage at:

www.tceq.texas.gov/waterquality/tmdl/67-osobaybacteria.html

#### **TCEQ Project Manager**

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# **Oso Bay TMDL Dates**

TCEQ Adoption: August 22, 2007 EPA Region 6 Approval: June 6, 2008

#### **I-Plan Date**

**Start Date:** September 1, 2013 **Projected TCEQ Approval**: 2022

# **Highlights**

- The Commission adopted the Oso Bay TMDL on August 22, 2007. EPA approved it on June 6, 2008.
- In summer 2014, the Center for Coastal Studies at Texas A&M University—Corpus Christi began working with stakeholders to develop an I-Plan for both Oso Bay and Oso Creek.

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