



Improving Water Quality in Oyster Creek A Project to Protect Recreational Uses

In 2006, portions of Oyster Creek (Segments 1109 and 1110) were identified as not meeting state water quality standards for contact recreation due to elevated levels of indicator bacteria. High concentrations of bacteria, which are found in both human and animal waste, may indicate a health risk to people who swim or wade in the water body—activities called “contact recreation” in the state’s standards for water quality.

To address these concerns, people who have a stake in the watershed are working with TCEQ to develop total maximum daily loads (TMDLs) and its implementation plan (I-Plan). A TMDL is like a budget—it determines the amount (or load) of bacteria the creek can receive and still support the contact recreation use. The allowable load is then allocated among categories of sources within the watershed. The I-Plan outlines the measures that will be used to reduce pollution.

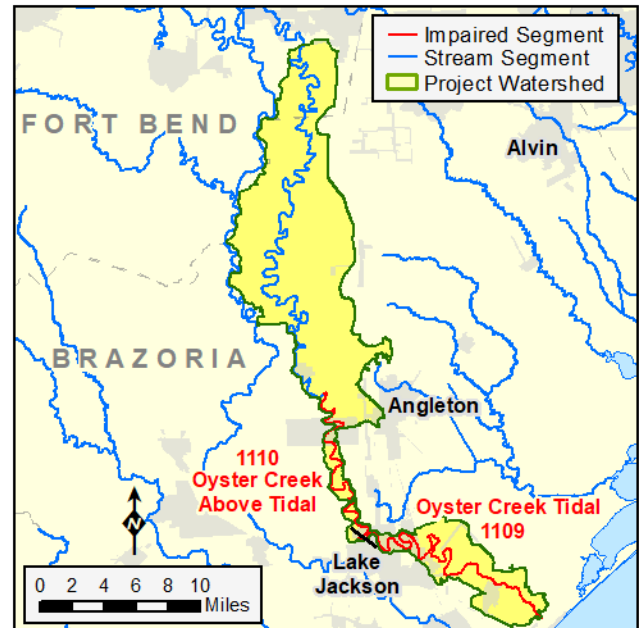
Learn more about water quality standards, monitoring, and TMDLs by reading [Preserving and Improving Water Quality](#)¹, available on our website and in print.

The Oyster Creek Watershed

The Oyster Creek watershed lies in southeast Texas within the Houston Area. The 95-mile creek originates in southeastern Fort Bend County and travels southward through central Brazoria County before turning southeastward at the city of Lake Jackson. From there, Oyster Creek meanders and broadens across the Texas coastal plain before terminating at the Gulf Coast Intracoastal Waterway (ICWW) near the cities of Brazosport and Surfside Beach. The watershed includes portions of Fort Bend and Brazoria counties.

Oyster Creek Above Tidal (Segment 1110) has had significant hydrologic modifications. The northern portions of Oyster Creek near Interstate 69 in the city of Sugarland were cut off from the remaining portion by a diversion dam 1.1 mile upstream of State Highway 6. This diversion allowed for the ponding of irrigation water pumped from the Brazos River to support sugar production. The waters are now being used as amenity lakes for commercial and residential purposes. A separate diversion canal was completed in 1998 to prevent the flooding of the Sienna Plantation subdivision.

The Oyster Creek Above Tidal segment is approximately 70 miles in length and travels mostly south from Missouri City until it reaches the city of Lake



Jackson. Oyster Creek Above Tidal has three assessment units (AUs) Only the lower AU, 1110_01, is impaired for bacteria.

The Oyster Creek Tidal segment (1109) begins northwest of the city of Lake Jackson in Brazoria County and flows 25 miles southeastward to its confluence with the ICWW. There is only one AU for the segment, 1109_01, or the entire segment. The tidal segment has a watershed area of 29 square miles.

Agriculture and petrochemical production are the primary economic drivers in and near the watershed. Most of the population can be found in the upper portion of the watershed

Project Development

TCEQ began this project in 2016 as part of an assessment of the San Jacinto-Brazos Coastal Basin. The Houston-Galveston Area Council (H-GAC) is providing support for technical work and stakeholder engagement. H-GAC is developing a technical support document for the TMDLs based on their investigations.

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

Public Participation

In all its projects, TCEQ seeks to gather opinion and information from people who represent government, permitted facilities, agriculture, business, environmental, and community and private interests in the watershed. TCEQ solicits advice from the public at meetings and through print and electronic media notices.

The H-GAC worked with stakeholders to form a Coordination Committee that will advise TCEQ on TMDL development and guide development of the I-Plan.

For More Information

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

www.tceq.texas.gov/waterquality/tmdl/nav/114-oystercreek-bacteria

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TMDL Status

Start Date: September 2018

TCEQ Adoption:

EPA Region 6 Approval:

I-Plan Status

Start Date: September 2018

TCEQ Approval:

Project Highlights

- Public meetings began in 2018.
- The stakeholders formed a Coordination Committee to advise TCEQ on TMDL development and guide work on the I-Plan.
- H-GAC is developing a technical support document for the TMDLs based on their investigations.
- Stakeholders met with TCEQ and H-GAC on April 15, 2021 to discuss the TMDL review process and general timeline for completion of the technical support document and TMDL. They also discussed upcoming development of the I-Plan.

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