Texas Commission on Environmental Quality
Total Maximum Daily Load Program

*Improving Water Quality in the Upper Trinity River*

# A TMDL Implementation Project for Bacteria

Bacteria concentrations are occasionally elevated in portions of the Upper Trinity River (Segment 0805) in Dallas. High concentrations of bacteria may pose a risk to people who swim or wade in them—activities called the "contact recreation use" in the state's standards for water quality.

Bacteria are commonly found in the intestines of warm-blooded organisms such as humans, livestock, poultry, cats, and dogs. These bacteria in water sometimes indicate the presence of disease-causing microorganisms.

To address these concerns, people who have a stake in the watershed worked with the TCEQ to develop a total maximum daily load (TMDL) and its implementation plan (I-Plan). A TMDL is like a budget—it determines the amount (or load) of bacteria a stream can receive and still support the recreational 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 and monitoring, and TMDLs by reading *Preserving and Improving Water Quality*, available on our website at <www.tceq.texas.gov/goto/tmdl/>.

## Project Watershed

The Upper Trinity River (Segment 0805) is located upstream of the confluence of the Cedar Creek Reservoir discharge canal in Henderson/Navarro County to the confluence of Elm Fork Trinity River in Dallas County. Segment 0805 is 100 miles long; its watershed is approximately 1,000 square miles.

The impairment of the contact recreation use applies to only two assessment units (AUs) of the segment.

- AU 805_04 is from the confluence of Cedar Creek with Segment 0805 upstream to its confluence with Elm Fork Trinity River.
- AU 805_03 is immediately downstream of AU 0805_04, from the confluence of Five-mile Creek with Segment 0805 upstream to its confluence with Cedar Creek.

The project watershed covers approximately 128 square miles in Dallas County. It is densely populated and includes the cities of Cockrell Hill, Dallas, Highland Park, and University Park.


## TMDL Development

The TCEQ initiated this project in October 2004. Historical data review and TMDL allocation tasks were completed by the Texas Institute for Applied Environmental Research (TIAER) in 2009. The TMDLs were adopted by TCEQ on May 11, 2011 and approved by EPA on August 3, 2011.

## I-Plan Development

The North Central Texas Council of Governments worked with stakeholders to convene a Coordination Committee to implement bacteria TMDLs and improve surface water quality throughout their region. The Implementation Plan for the Greater Trinity River Region was approved by TCEQ on December 11, 2013.

## Public Participation

In all its projects, the 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. The TCEQ solicits advice and comment from the public at meetings and through print and electronic media notices. Meetings about TMDLs and I-Plans are open to everyone.

## For More Information

Visit the project website at:
<www.tceq.texas.gov/waterquality/tmdl/nav/66-greatertrinitybacteria/>

or
<www.nctcog.org/envir/natural-resources/tmdl >

Or contact:
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## TMDL Adoption Dates

**TCEQ Adoption**: May 11, 2011
**EPA Region 6 Approval**: August 30, 2011

## I-Plan Approval Date

**TCEQ Approval**: December 11, 2013

## Project Highlights and Water Quality Status

- The TMDLs were adopted by TCEQ May 11, 2011 and approved by EPA on August 30, 2011.
- The Implementation Plan for the Greater Trinity River Region was approved by TCEQ December 11, 2013.
- The Coordination Committee meets annually to review the progress of the I-Plan. The I-Plan work groups meet periodically to discuss implementation strategies.
- The two AUs continue to be impaired for contact recreation; however, nominal improvements have been noted in the 2020 Texas Integrated Report when compared to the 2010 Texas Integrated Report. AU 0805_04 went from a geometric mean *E. coli* concentration of 214 colony-forming units per 100 milliliters (cfu/100 mL) to 193 cfu/100 mL. AU 0805_03 went from a geometric mean of 329 cfu/100 mL of *E. coli* to 203 cfu/100 mL.