



## Improving Water Quality in Four Austin Area Streams

# A TMDL Project to Protect Recreational Uses

The city of Austin is located in central Travis County, on the Colorado River. Since 2006, elevated bacteria concentrations have been found in four of the city's streams. 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, the TCEQ developed a total maximum daily load (TMDL) to improve water quality in the creeks. A TMDL is like a budget—it determines the amount (or load) of a pollutant that a body of water can receive and still support its assigned uses. The allowable load is then allocated among categories of sources within the watershed.

At the same time, residents worked together with the TCEQ to develop an implementation plan (I-Plan) for the TMDLs. These plans explain the measures that will be used to reduce bacteria in the streams and improve the safety of recreation. People who represent the various community interests that have a stake in changes to the watersheds, as identified by Austin citizens, led development of the I-Plan.

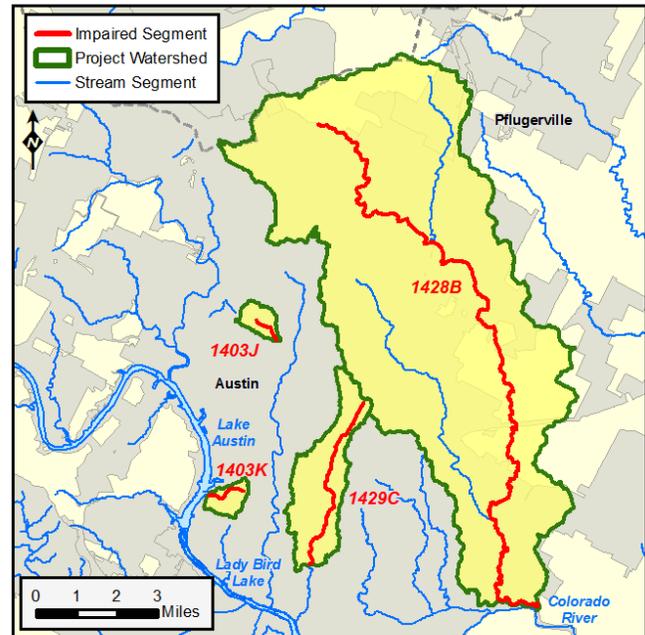
Learn more about water quality standards, monitoring, and TMDLs by reading *Preserving and Improving Water Quality*, available on our website at [www.tceq.texas.gov/goto/tmdl/](http://www.tceq.texas.gov/goto/tmdl/).

### Project Watersheds

The watersheds that make up this project include Waller Creek, Walnut Creek, Spicewood (tributary of Shoal Creek), and Taylor Slough South.

**Waller Creek (1429C):** Waller Creek, with a drainage area of six square miles, upstream of the Waller Creek Tunnel, is strongly influenced by runoff from the immediate downtown area. It flows through several neighborhoods, the University of Texas Campus, and the downtown business district, ending in Lady Bird Lake. The Austin Water Utility maintains a wastewater collection system in the Waller Creek watershed. Wastewater collector pipes run the length of the creek, crossing it many times. One of the monitoring sites for this stream is located at Shipe Park in a residential neighborhood.

**Walnut Creek (1428B):** This creek flows from northern Austin to the Colorado River. It is naturally flowing most of the time, and drains about 43 square



miles. Development in the upper section of the watershed has been faster and denser than in the lower section.

**Spicewood Tributary (1403J):** This small tributary of Shoal Creek is in northwest Austin. It is heavily influenced by stormwater runoff from Spicewood Springs Road and other adjacent neighborhood streets, and perhaps by the single-family residences along the creek. Wastewater pipes in the wastewater collection system run the length of the tributary. The Spicewood Spring is at a higher elevation and is not affected by water quality in the stream.

**Taylor Slough South (1403K):** This stream is about a mile long, with a watershed of about half a mile. It flows through the central-west part of the city and into Lake Austin. Wastewater collection pipes also cross under Taylor Slough. Multiple wastewater pipes parallel and cross the creek immediately upstream of Reed Park, which maintains a swimming pool and restrooms. A monitoring site is located immediately downstream of the park. Some sections of the creek, which lies entirely within the Edwards Aquifer recharge zone, become dry for part of the year.

## Project Development

Work on this project began in fall 2012. TCEQ staff developed a draft version of the TMDLs, which was submitted for public comment in July and August of 2014. Meanwhile, stakeholders developed a draft implementation plan. Staff members who represent the City of Austin took an active role in all aspects of the project.

The Coordination Committee held regular meetings to guide development of the plan. This diverse group of people was chosen to represent the community during early public meetings about the project.

The TMDLs and the implementation plan were adopted and approved by the TCEQ commissioners in January 2015. The stakeholders will implement their plan over three to five years.

## 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 these stakeholders at meetings and through print and electronic media notices.

The Center for Public Policy Dispute Resolution coordinated public participation in development of this TMDL and its implementation plan. The City of Austin is coordinating participation now that the plan is being implemented, which included a check-in meeting in May 2016. The TCEQ followed this with an annual update meeting in October 2016.

## For More Information

E-mail us at [tmdl@tceq.texas.gov](mailto:tmdl@tceq.texas.gov) or call us at 512-239-6682. Visit the project website at:

<[www.tceq.texas.gov/waterquality/tmdl/101-austinbacteria](http://www.tceq.texas.gov/waterquality/tmdl/101-austinbacteria)>

## TMDL Dates

**Start Date:** September 2012

**TCEQ Adoption:** January 21, 2015

**EPA Region 6 Approval:** March 18, 2015

## I-Plan Date

**TCEQ Approval:** January 21, 2015

## Highlights

- Stakeholders formed a Coordination Committee to organize their activities.
- The Coordinating Committee submitted a draft I-Plan to the TCEQ for review in December 2013.
- TCEQ staff completed a draft of the TMDLs.
- The public comment period for the draft implementation plan and TMDLs was July 18 through August 18, 2014.
- The commission adopted the TMDLs and approved the implementation plan on January 21, 2015. The EPA approved the TMDLs in March 2015.

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