

# The 303(d) Assessment Process and Water Quality Impairments in Austin

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# Federal Clean Water Act

**Section 303(d)** requires states to regularly identify water bodies that do not meet water quality standards.

**Section 305(b)** requires states to regularly identify the water quality status of all water bodies for which there is sufficient credible data.

TCEQ satisfies these requirements with the biennial “Texas Integrated Report”

[http://www.tceq.state.tx.us/waterquality/assessment/305\\_303.html](http://www.tceq.state.tx.us/waterquality/assessment/305_303.html)

# What is an impairment?

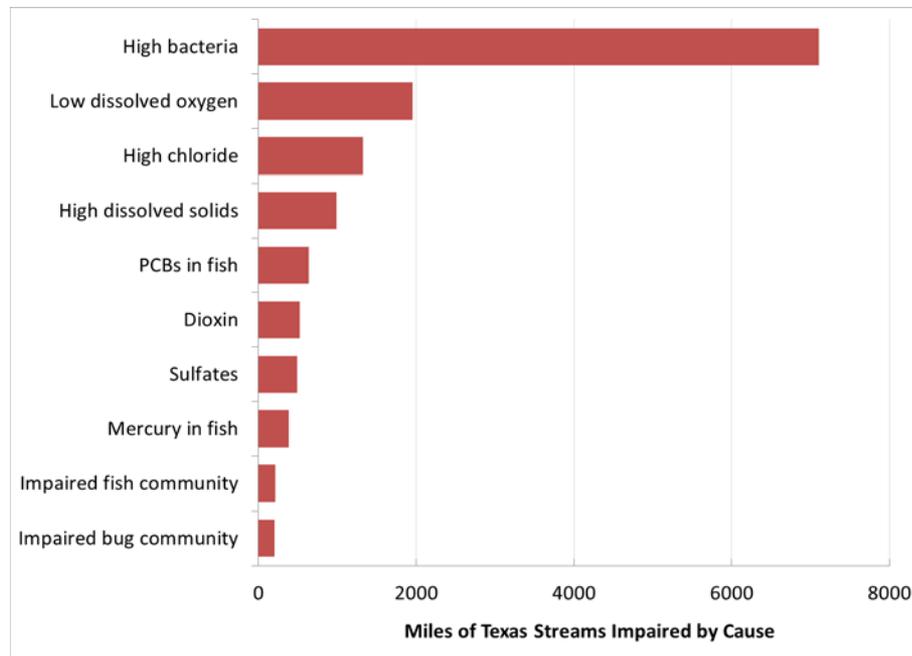
A water body is **impaired** if sufficient data demonstrates that a numeric or narrative criteria specific to a designated or presumed use is not achieved

“Uses” include contact recreation, aquatic life, domestic water supply, aquifer protection, etc.

# Impairments in Texas

TCEQ assesses 12% of 190,000+ miles of streams

- 56% meet all standards
- 7% were impaired but now meet standards
- 43% have impairments



# How TCEQ gets data for assessment

- Collection must comply with strict QA/QC
- TCEQ staff collect some data
- River authorities provide data through the Texas **Clean Rivers Program**
  - WPD provides data thru LCRA for inclusion
  - WPD currently submits data from:
    - Lake Long, Lady Bird Lake, Lake Austin
    - Barton Springs
    - Walnut, Onion, Bull and Barton creeks
    - Taylor South, Waller, Spicewood creeks (for TMDL support)

<https://cms.lcra.org/>

# What happens if a stream is impaired?

Option	Implication for a city like Austin
Do nothing	Exposes citywide stormwater MS4 permit to modification, does not protect citizens
Find the problem, fix it, monitor for at least 2 years	Distributed sources extremely difficult to find, leaves MS4 permit exposed to modification
Change designated use with Use Attainability Analysis	Will not fix all the problems, leaves MS4 permit exposed to modification
Watershed Protection Plan	Significantly more complicated public process, no guarantee of protection for MS4 permit
Total Maximum Daily Load (TMDL)	Removes liability from MS4, voluntary, changeable, no penalty for failure

# What is a Total Maximum Daily Load?

A **TMDL** is a scientifically-derived target for how much of a particular substance can be in a water body without causing that water body to exceed the water quality standard

<http://www.tceq.state.tx.us/waterquality/tmdl>

# What is an Implementation Plan?

An **I-Plan** is a set of voluntary strategies developed by stakeholders in the affected watershed to achieve the pollutant reductions outlined in the TMDL.

- developed by representative stakeholders
- facilitated by TCEQ staff or contractor
- 5 year planning period
- voluntary, no penalty if pollution not reduced

# Impairments in Austin

Water Body	Impairment	Status
Upper Lake Austin (1403)	dissolved oxygen	Related to Mansfield Dam, LCRA made modifications and are monitoring to validate improvement
Spicewood Tributary (1403J)	bacteria	TMDL approved and being implemented
Taylor Slough South (1403K)	bacteria	TMDL approved and being implemented
Walnut Creek (1428B)	bacteria	TMDL approved and being implemented
Gilleland Creek (1428C)	bacteria	TMDL approved and being implemented
Waller Creek (1429C)	bacteria	TMDL approved and being implemented
Upper Bull Creek (1403A)	dissolved oxygen	Related to groundwater discharge, WPD providing more diel data to validate problem at more representative monitoring location
Upper Onion Creek (1427)	sulfate	New listing, WPD investigating to identify potential source
Slaughter Creek (1427A)	bug community	TCEQ performed Use Attainability Analysis to change criteria, WPD coordinating with TCEQ to provide new data
Lower Waller Creek (1429C)	bug community	Waiting to evaluate changes after Waller Tunnel and surface restoration projects completed



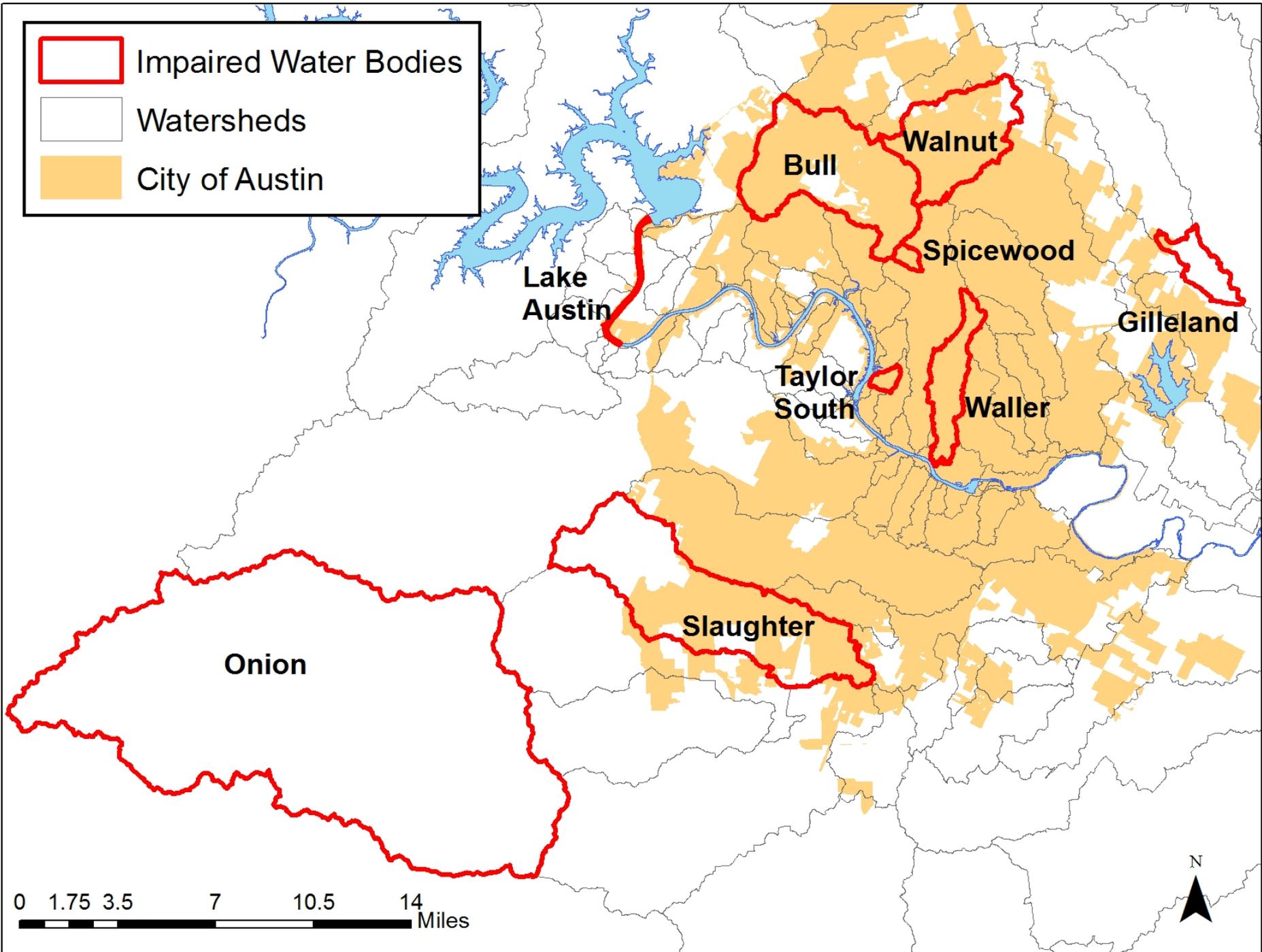
Impaired Water Bodies



Watersheds



City of Austin



Lake Austin

Bull

Walnut

Spicewood

Gilleland

Taylor South

Waller

Onion

Slaughter

0 1.75 3.5 7 10.5 14 Miles



# Impairments by Council District

<b>Impaired Water Body</b>	<b>Council Districts</b>
Bull Creek	6, 10
Gilleland Creek	1
Lake Austin	6
Slaughter Creek	2, 5, 8
Spicewood Springs	10
Taylor Slough South	10
Waller Creek	1, 3, 4, 7, 9, 10
Walnut Creek	6, 7, 10

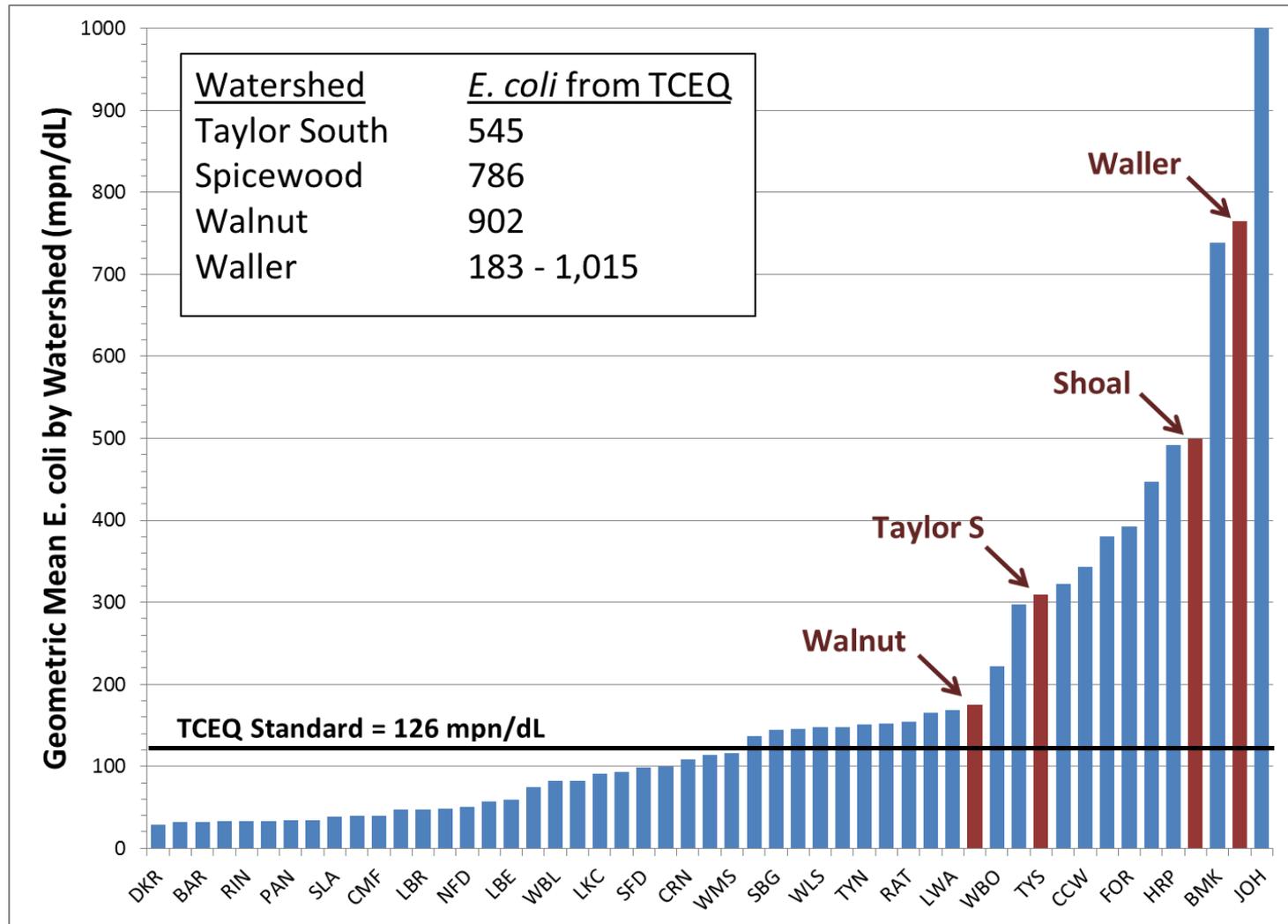
# Austin bacteria I-Plan

1. Protect and restore riparian areas
2. Maintain wastewater infrastructure
  - includes OSSF, adding public toilets
3. Improve domestic pet waste management
4. Conduct public outreach to engage citizens
  - includes the Environmental Commission
5. Improve management of stormwater

# Sources of Fecal Contamination

- Domestic animals (dogs, cats, chickens)
- Leaking wastewater infrastructure
- Wildlife (deer, bird, racoon, etc.)
- Humans defecating near creeks
- Failing homeowner septic tanks

# Bacteria is citywide problem



# Nutrient Criteria for Streams

- TCEQ has not yet developed numeric criteria for nutrients for freshwater streams
- Nutrients are a very significant problem for Austin's developing/developed streams



# More Information

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24-hour Environmental Hotline, 512-974-2550

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