



Improving Water Quality in the Lampasas and Navasota River Basins

Evaluating Water Quality for Recreational Uses

High concentrations of bacteria such as *E. coli* and fecal coliform, which are found in both human and animal waste, may indicate a health risk to people who swim or wade in a water body—activities called “contact recreation” in the state’s standards for water quality.

In 2008, the TCEQ found that concentrations of bacteria exceeded the criteria to protect the safety of contact recreation in two tributaries of the Navasota River and a segment of the Lampasas River.

Because the impairments to the recreational use were identified based on a relatively small number of water samples, the TCEQ’s TMDL Program led an intensive sampling and analysis project for the three streams. Bacteria, flow, and field data were collected to assess the extent of bacteria loadings. The goal of the project was to determine the most appropriate strategy for managing bacteria concentrations in the streams.

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/waterquality/>.

Project Watersheds

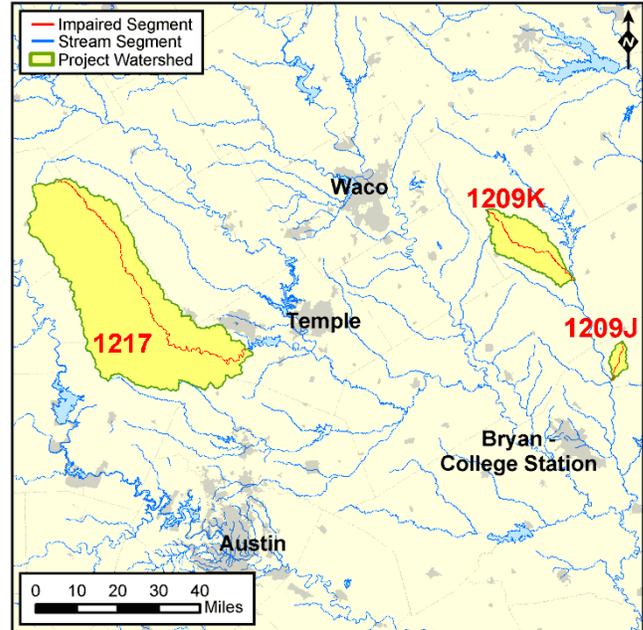
The Navasota and Lampasas Rivers are part of the larger Brazos River Basin. Three segments, all in largely rural areas, were included in the project:

- Shepherd Creek, Segment, 1209J
- Steele Creek Segment, 1209K
- the Lampasas River Above Stillhouse Hollow Reservoir, Segment 1217

Shepherd Creek is located primarily in Madison County. Steele Creek flows through Robertson and Limestone counties. Both of the creeks are tributaries of the Navasota River.

The Navasota River is 125 miles long, crossing Limestone County and serving as the county line between Leon and Robertson, Madison and Brazos, and Brazos and Grimes counties before reaching its mouth on the Brazos River in southwestern Grimes County.

Madison County has undulating terrain, Segment 1209J flows across its northeastern corner into Segment 1209, the Navasota River Below Lake Limestone. In Limestone County, Segment 1209K flows across level to rolling terrain in the southern part of the county. It continues across the flat to gently rolling terrain in the north-



eastern corner of Robertson County, where it merges with Segment 1209.

The Lampasas River rises in eastern Mills County and flows southeast for 75 miles through western Hamilton, eastern Lampasas, northeastern Burnet, and western Bell counties. Segment 1217, the Lampasas River Above Stillhouse Hollow Reservoir, flows from the origin of the river in Mills County downstream to Bell County.

Segment 1217 crosses gentle to high rolling prairie, wooded areas, and steep slopes with limestone benches. In Lampasas County, the segment overlies the Trinity Group aquifer. Segment 1217 ends at the western end of Stillhouse Hollow Reservoir in Bell County, which is on the Balcones Escarpment.

Project Development

The TCEQ began this project in March 2009, through an intergovernmental agreement with the Texas Institute of Applied Environmental Research (TIAER). TIAER collected samples over a two-year period.

Sampling was initiated in September 2009 and completed in August 2011. The data were then added to the TCEQ SWQMIS database. Subsequently, Segment 1217 was removed from the 303(d) list in 2010. The Standards Work Group is reviewing the use and associated

criteria for Segments 1209J and 1209K. Contact the Standards Group at standards@tceq.texas.gov or 512-239-6682 to ask about the status of their analyses.

Public Participation

The TCEQ coordinated activities in the Lampasas watershed with staff at the Texas AgriLife Blackland Research and Extension Center, which is working on a watershed protection plan with stakeholders of the Lampasas River Watershed Partnership.

For More Information

Contact the project manager, or visit the project website:

< www.tceq.texas.gov/waterquality/tmdl/93-lampasasnavasota-bacteria.html >

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Project Status

Start Date: March 2009

End Date: August 2011

Project Highlights

- The TCEQ began this project in March 2009 through an intergovernmental agreement with the Texas Institute of Applied Environmental Research (TIAER).
- Sampling was initiated in September 2009 and was completed in August 2011.
- All the data were submitted and added to the TCEQ SWQMIS database for review of the impairment status by the Surface Water Quality Monitoring Team.
- Segment 1217 was removed from the 303(d) list in 2010.
- The Standards Work Group is reviewing the use and associated criteria for Segments 1209J and 1209K. Contact the Standards Group at standards@tceq.texas.gov or 512-239-6682 to ask about their analyses.

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