



## Little River, San Gabriel River, and Big Elm Creek Watershed Characterization for Future Watershed Protection Plan Development

<b>Water Body</b>	Little River, San Gabriel, and Big Elm Creek
<b>Location</b>	Bell and Milam counties
<b>River Basin</b>	Brazos River (12)
<b>Contractor</b>	Texas Water Resources Institute (TWRI)
<b>Project Period</b>	June 9, 2015 - August 31, 2018
<b>Project Total</b>	\$542,018 (Federal 60% and Local Match 40%)

### Background

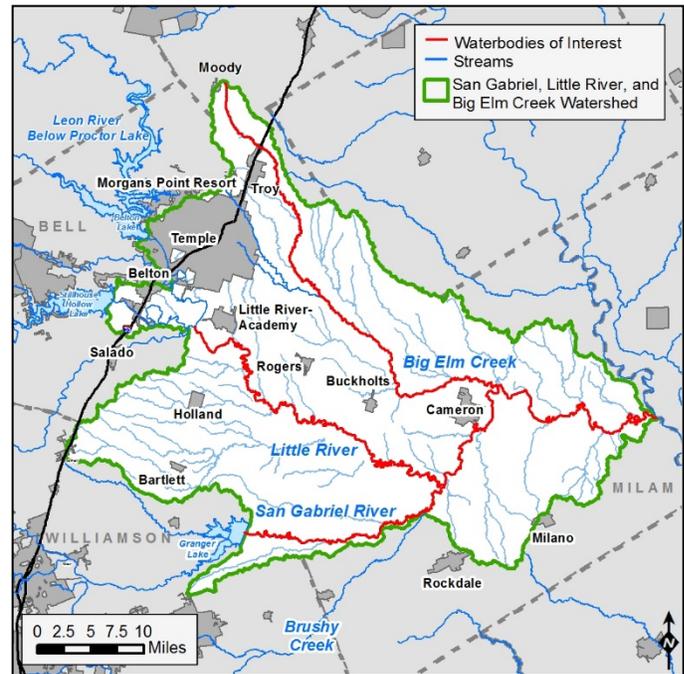
The Little River flows southeast of Temple and Belton until it joins with the Brazos River. Major tributaries of the Little River are the San Gabriel River below Lake Granger and Big Elm Creek. These water bodies have concerns for chlorophyll-a, nitrate, depressed dissolved oxygen, orthophosphorus, and total phosphorus. Big Elm Creek is listed on the 303(d) list as impaired for excessive levels of bacteria. The design and implementation of non-point source management measures is necessary to reduce these pollutants.

### Project Description

This project includes the creation of a stakeholder group to develop goals for addressing the water quality impairments and concerns in the watersheds. Education and outreach programs will be implemented throughout the watershed to educate stakeholders on pollutant contributions and mitigation techniques. A watershed characterization will be completed using water quality data, geographic information systems analysis, and load duration curves to determine the load reductions needed to meet water quality standards. Suggested best management practices (BMPs) will be determined through the evaluation of existing management and the watershed characterization results. Implementation of the suggested BMPs will be determined by the opportunity for BMPs in an area and areas with prioritized needs. This project will provide information to develop a watershed protection plan in the future.

### Current Status

Water quality monitoring is complete and TWRI has determined pollutant load reductions necessary to meet water quality standards.



### Public Participation

Education and outreach programs are being scheduled for stakeholders. Stakeholder meetings will occur in the final months of the project. More information can be found at <http://littleriver.tamu.edu/>

### For More Information

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## Project Highlights

- 07/2015 – Post Award Meeting held.
- 09/2015 – Acquired Data QAPP was approved.
- 09/2015 – Riparian Education training held.
- 12/2015 – Monitoring QAPP was approved.
- 12/2015 – Routine water quality monitoring began.
- 03/2016 – Water quality monitoring data submitted to TCEQ.
- 05/2016 – Lonestar Healthy Streams program held.
- 06/2016 – Water quality monitoring data submitted to TCEQ.
- 07/2016 – Stakeholder awareness evaluation mailed to over 1,800 stakeholders.
- 09/2016 – Water quality monitoring data submitted to TCEQ.
- 12/2016 – Water quality monitoring data submitted to TCEQ.
- 03/2017 – Water quality monitoring data submitted to TCEQ.
- 04/2017 – Watershed Inventory complete.
- 06/2017 – GIS analysis complete.
- 06/2017 – Water quality monitoring data submitted to TCEQ.
- 06/2017 – Lonestar Healthy Streams program held.
- 10/2017 – Water quality monitoring data submitted to TCEQ.
- 12/2017 – Water quality monitoring data submitted to TCEQ.
- 02/2018 – Water quality monitoring complete.
- 03/2018 – Water quality monitoring data submitted to TCEQ.
- 06/2018 – Education and Outreach event held.
- 09/2018 – Load Duration Curve Analysis complete.
- 09/2018 – Management Strategy Evaluation complete.
- 09/2018 – Final Project Report complete.