RECLAMATION
Managing Water in the West

Upper Red River Basin Study

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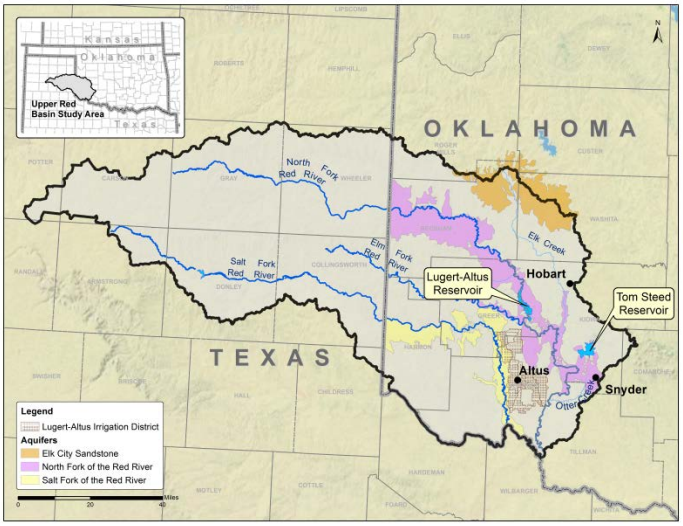

The Upper Red River Basin encompasses over 4,000 square miles and all or part of nine counties in southwest Oklahoma. The region includes tributaries to the Red River, the largest being the North Fork, the Salt Fork, and the Elm Fork of the Red River. The basin contains two Reclamation reservoirs, Tom Steed and Lugert-Altus Reservoirs. These two reservoirs provide 99 percent of the surface water supply sources in the study area to almost 45,000 people and irrigation water for 48,000 acres of land.

The water supply needs in the study area are both immediate and severe. This is due to water quantity and quality issues, as well as aging infrastructure. An extreme drought has stricken the area since 2011, and both Tom Steed and Lugert-Altus Reservoirs are at record lows. A large portion of the study area remains in exceptional drought. Groundwater depletions in the area are forecasted to be as high as 17,220 acre-feet per year by 2060, resulting in increased likelihood of localized impacts and potential effects on streamflow. Additionally, the 2012 Oklahoma Comprehensive Water Plan Update analysis identified six of the twelve subbasins within the study area as hot spot basins that have been forecasted to face significant water supply challenges within the next 50 years. These challenges prompted stakeholders to develop a Southwest Oklahoma Water Supply Action Plan (May 2014) that outlines short-, mid-, and long-term solutions in the area. Using the Southwest Action Plan as a guide, the Upper Red River Basin Study will:

- Characterize and quantify surface and groundwater resources;
- Conduct hydrologic investigations on the the North Fork Red River Alluvium and Terrace, Elk City Sandstone, and Salt Fork of the Red River Alluvium and Terrace to determine the amount of groundwater available for future appropriations;
- Develop a surface water allocation model to evaluate various water management options, including protecting the future water supply capabilities of Tom Steed and Lugert-Altus Reservoirs;
- Assess the current and future capability of existing infrastructure and operations to meet demands, including operational risks and reliability of the system; and
- Evaluate alternatives to address infrastructure and water supply issues facing the study area, both now and in the future.

Stakeholders, including the direct beneficiaries of both Tom Steed and Lugert-Altus Reservoirs, along with the tribal, agricultural, municipal, industrial, and domestic users of surface and groundwater supplies, will be engaged throughout the study.

The total estimated study cost is $1,435,500. Reclamation is providing $640,000 (45 percent) and the non-Federal partners (Oklahoma Water Resources Board, Mountain Park Master Conservancy District and Lugert-Altus Irrigation District) are providing $795,500 (55 percent) of the total study cost.