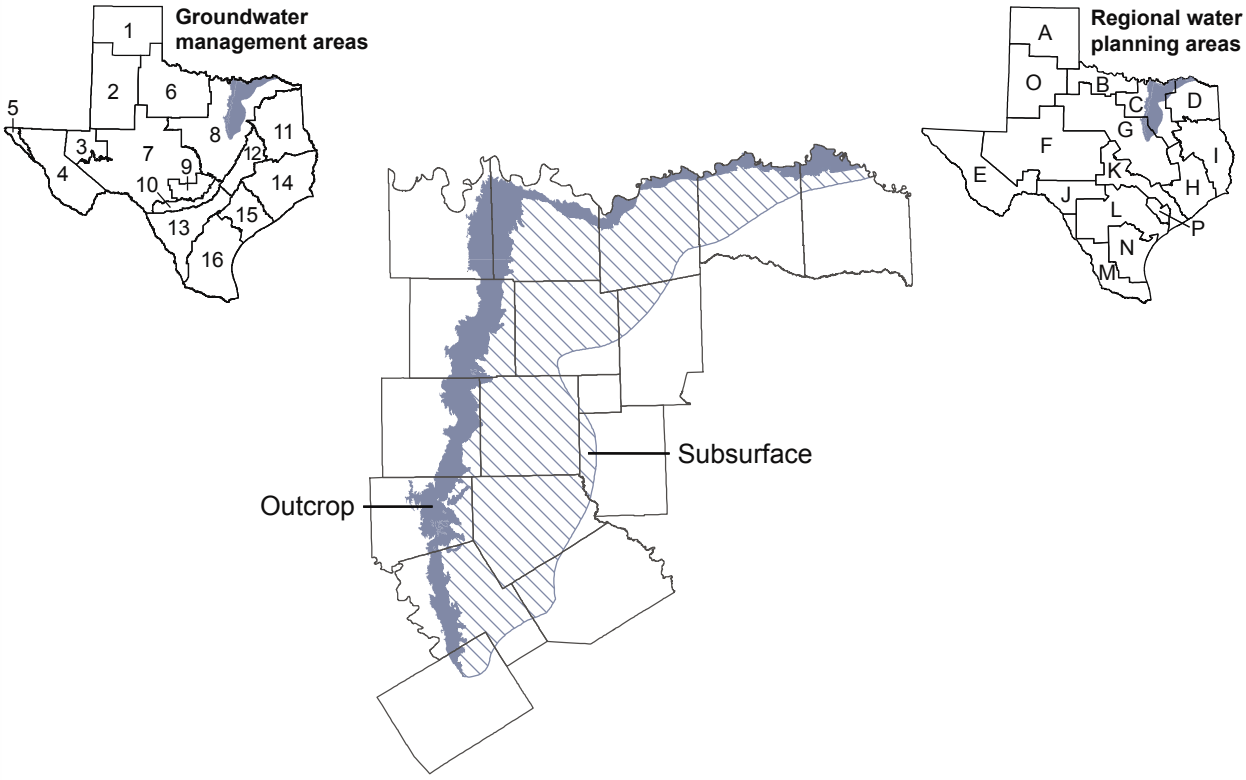
Woodbine Aquifer



The Woodbine Aquifer is a minor aquifer located in northeast Texas. The aquifer consists of sandstone interbedded with shale and clay that form three distinct water bearing zones. Water quality and yield varies with depth in the aquifer. The Lower Woodbine typically yields the most water, while the Upper Woodbine yields limited water that tends to be very high in iron. In general, water quality is fresh in the lower two zones to a depth of 1,500 feet below land surface. Water at depths below 1,500 feet contains total dissolved solids in excess of secondary drinking water standards. The aquifer provides water for municipal, industrial, domestic, livestock, and small irrigation supplies. Large water level declines, due to heavy municipal and industrial pumpage in the Sherman-Denison area of Grayson County, have moderated in the past decade as suppliers have switched to surface water. The planning groups recommend several water management strategies that use the Woodbine Aquifer, including the construction of new wells, more pumping in existing wells, supplemental wells to maintain current supplies, overdrafts, and reallocation.

Aquifer characteristics

- Area of outcrop: 1,557 square miles
- Area in subsurface: 5,766 square miles
- Availability: 37,712 acre-feet per year (2010) to 38,072 acre-feet per year (2060)
- Well yield: relatively low, yields of 10 to 700 gallons per minute
- Proportion of aquifer with groundwater conservation districts: 0 percent
- Number of counties containing aquifer: 17

Groundwater supplies with implementation of water management strategies