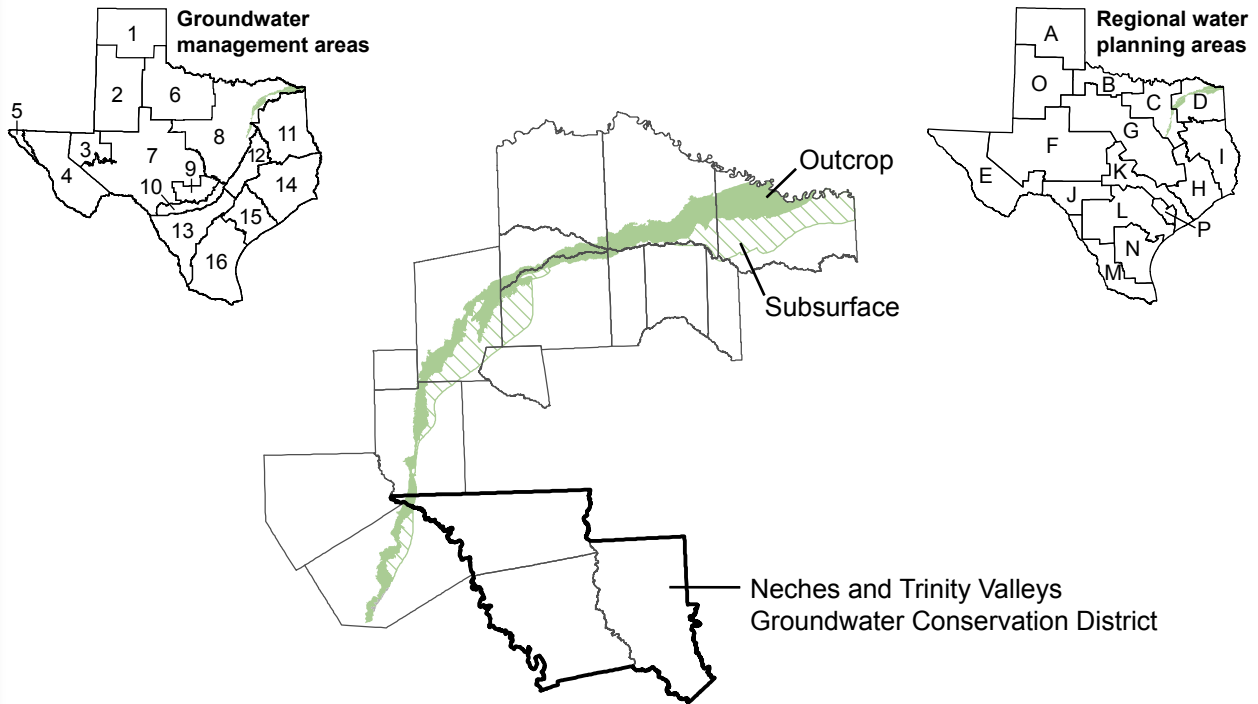


Nacatoch Aquifer



The Nacatoch Aquifer is a minor aquifer that occurs in a narrow band across northeast Texas. The aquifer consists of the Nacatoch Formation, which is composed of sequences of sand separated by impermeable layers of mudstone or clay. The aquifer also includes a hydraulically connected cover of alluvium that reaches up to 80 feet thick along major drainages. Groundwater in this aquifer is usually under artesian conditions except in shallow wells where the Nacatoch Formation outcrops and water table conditions exist. Groundwater generally moves to the south in the northern part of the aquifer and to the east in the western part of the aquifer. The Mexia-Talco Fault Zone generally forms the downdip limit of the aquifer. The quality of groundwater in the aquifer is generally alkaline, high in sodium bicarbonate, and soft. Total dissolved solids increase in the subsurface part of the aquifer and are significantly higher downdip of the Mexia-Talco Fault Zone. Water from the aquifer is extensively used for rural domestic and livestock purposes. The City of Commerce historically pumped the greatest amount from the Nacatoch Aquifer but has converted to surface water and no longer produces much water from the aquifer. This has resulted in the stabilization of declining water levels that had developed around Commerce in Delta and Hunt counties. The Northeast Texas Regional Water Planning Group recommends a new and supplemental groundwater wells in the Nacatoch Aquifer as a water management strategy.

Aquifer characteristics

- Area of outcrop: 889 square miles
- Area in subsurface: 936 square miles
- Availability: 10,453 acre-feet per year (2010 to 2060)
- Well yield: generally less than 50 gallons per minute and rarely exceeds 500 gallons per minute
- Proportion of aquifer with groundwater conservation districts: 0.5 percent
- Number of counties containing the aquifer: 15

Groundwater supplies with implementation of water management strategies

