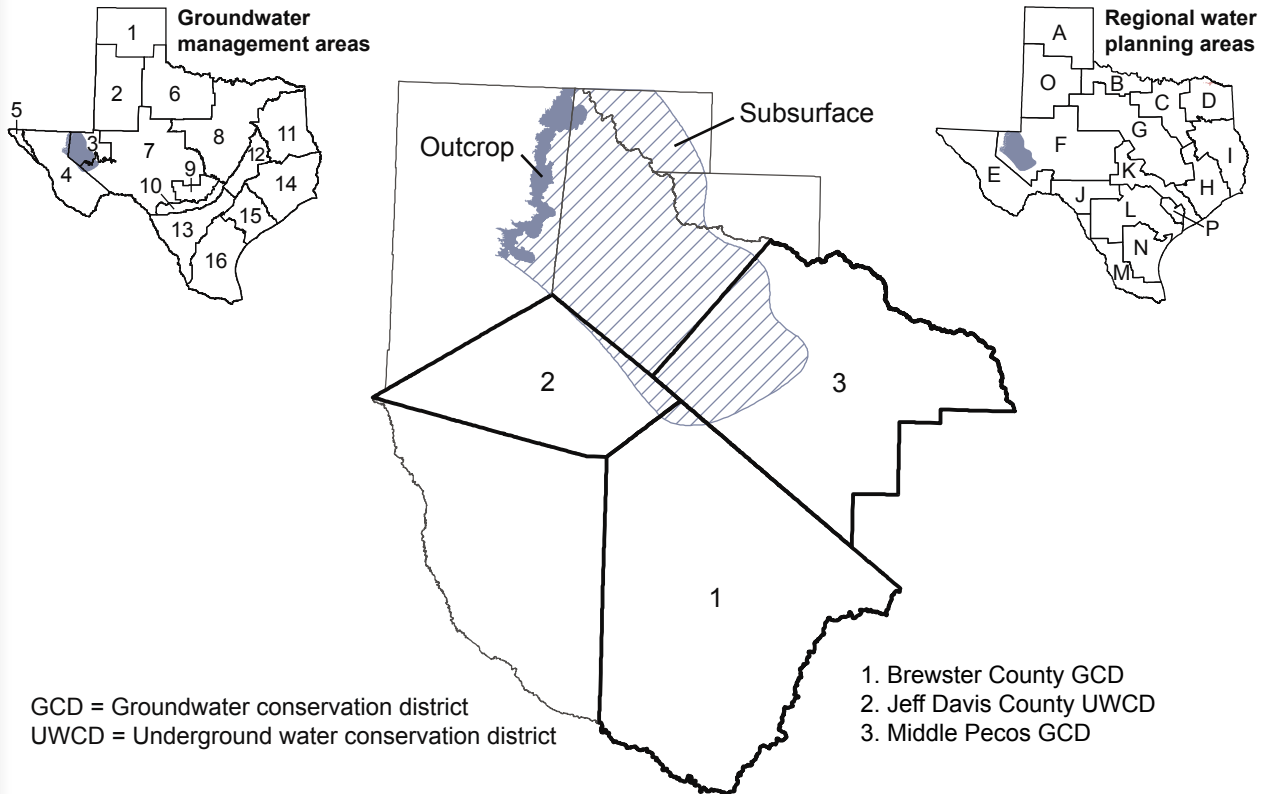


Rustler Aquifer



The Rustler Aquifer is a minor aquifer located in Culberson, Jeff Davis, Loving, Pecos, Reeves, and Ward counties. The aquifer consists of the carbonates and evaporites of the Rustler Formation. The Rustler Formation is 250 to 670 feet thick beneath outcrop areas and extends into the subsurface toward the center of the Delaware Basin to the east. Groundwater occurs in partly dissolved dolomite, limestone, and gypsum. Most of the water production comes from fractures and solution openings in the upper part of the formation. Recharge takes place by cross-formational flow from deeper aquifers and percolation of surface water through the formation's outcrop. Discharge is predominantly to pumping wells and by flow into overlying aquifers. The water is generally brackish, with concentrations of total dissolved solids ranging between 500 and 4,600 milligrams per liter. The poor quality water is used primarily for irrigation, livestock, and for water-flooding operations in oil-producing areas. Fluctuations in water levels over time most likely reflect long-term variations in water use patterns. The planning groups did not propose any water management strategies for the Rustler Aquifer.

Aquifer characteristics

- Area of outcrop: 309 square miles
- Area in subsurface: 4,860 square miles
- Availability: 2,492 acre-feet per year (2010 to 2060)
- Well yield: widely variable, ranging from 7 to 4,400 gallons per minute
- Proportion of aquifer with groundwater conservation districts: 26 percent
- Number of counties containing the aquifer: 7

Groundwater supplies with implementation of water management strategies

