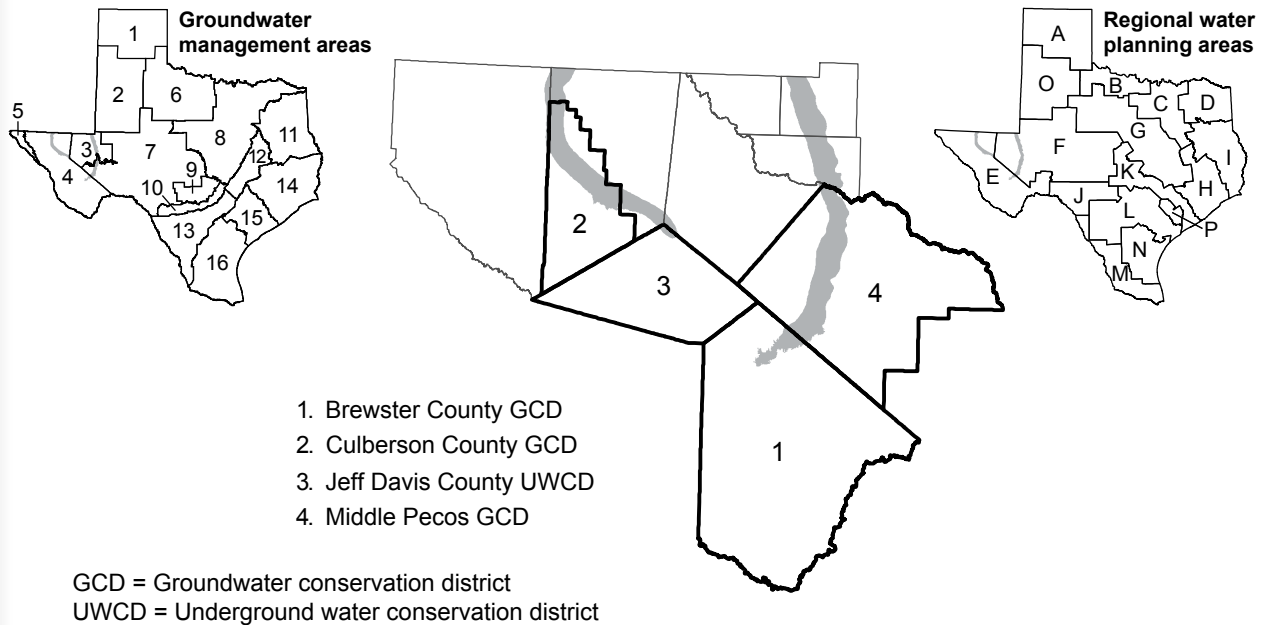


Capitan Reef Complex Aquifer



The Capitan Reef Complex Aquifer is a minor aquifer located in Culberson, Hudspeth, Jeff Davis, Pecos, Reeves, Ward, and Winkler counties. It is exposed in mountain ranges of Far West Texas and elsewhere occurs in the subsurface. The aquifer is composed of up to 2,360 feet of massive, cavernous dolomite and limestone. Water bearing formations include the Capitan Limestone, Goat Seep Limestone, and most of the Carlsbad facies of the Artesia Group, including the Grayburg, Queen, Seven Rivers, Yates, and Tansill formations. Water is contained in solution cavities and fractures that are unevenly distributed within these formations. Overall, the aquifer contains water of marginal quality, yielding small to large quantities of slightly saline to saline groundwater. Water of the freshest quality is located near areas of recharge where the reef rock is exposed in several mountain ranges. Water from the Capitan Reef Complex aquifer is thought to contribute the base flow for San Solomon Springs in Reeves County. Most of the groundwater pumped from the aquifer in Texas is used for oil reservoir water-flooding operations in Ward and Winkler counties. A small amount is used for irrigation of salt tolerant crops in Pecos, Culberson, and Hudspeth counties. Water levels have declined in some areas over the last 70 years as a result of localized production. The Far West Texas Regional Water Planning Group recommends several water management strategies for the Capitan Reef Complex Aquifer, including the redevelopment of an existing well field, desalination, and transport to El Paso County.

Aquifer characteristics

- Area of aquifer: 1,842 square miles
- Availability: 52,150 acre-feet per year (2010 to 2060)
- Well yield: highly variable, typically range from 400 to 1,000 gallons per minute
- Proportion of aquifer with groundwater conservation districts: 60 percent
- Number of counties containing the aquifer: 8

Groundwater supplies with implementation of water management strategies

