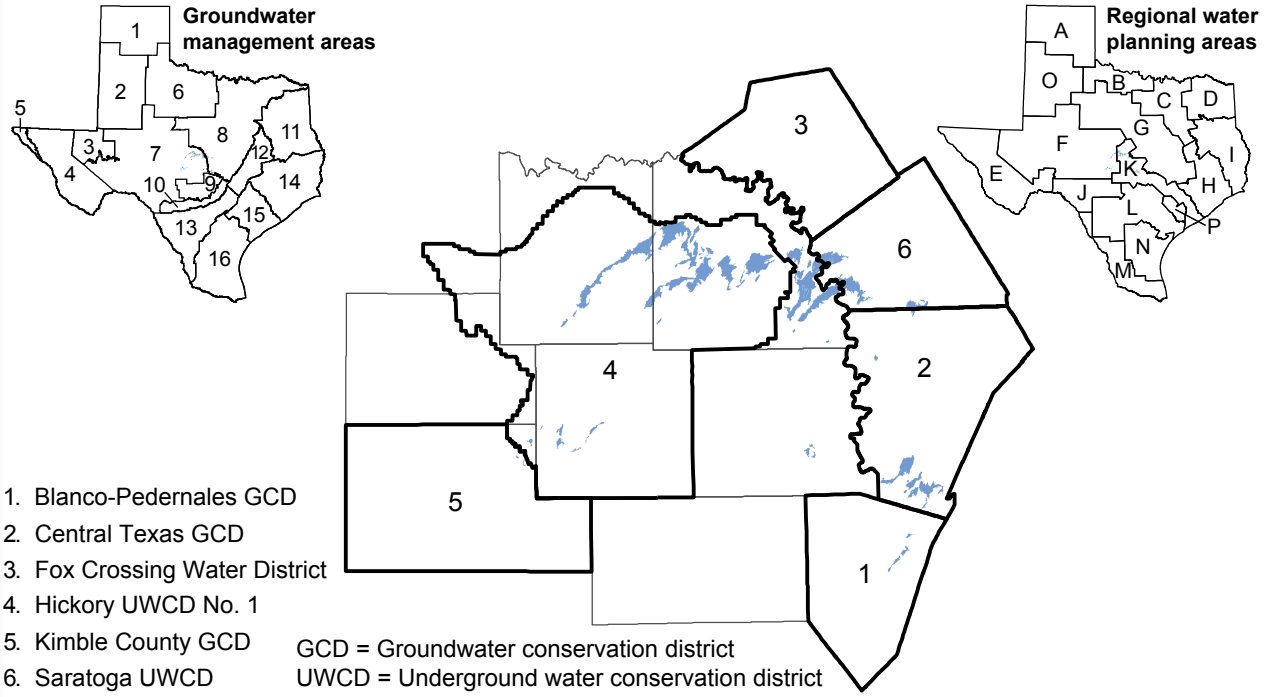
Marble Falls Aquifer



The Marble Falls Aquifer occurs in several separated outcrops along the northern and eastern flanks of the Llano Uplift region of Central Texas. The subsurface extent of the aquifer is unknown. Groundwater occurs in fractures, solution cavities, and channels in the limestone of the Marble Falls Formation of the Bend Group. The aquifer is highly permeable in places, as indicated by wells that yield as much as 2,000 gallons per minute. Maximum thickness of the formation is 600 feet. Where underlying beds are thin or absent, the Marble Falls Aquifer may be hydraulically connected to the Ellenburger-San Saba Aquifer. Numerous large springs issue from the aquifer and provide a significant part of the baseflow to the San Saba River in McCulloch and San Saba counties and to the Colorado River in San Saba and Lampasas counties. Because the limestone beds comprising this aquifer are relatively shallow, the aquifer is susceptible to pollution by surface uses and activities. For example, wells in Blanco County have produced water with high nitrate concentrations. In the subsurface, groundwater becomes highly mineralized; however, the water produced from this aquifer is suitable for most purposes. Water from the aquifer is applied to municipal, agricultural, and industrial uses. The planning groups recommend drilling new wells in Burnet County as a water management strategy using the Marble Falls Aquifer.

Aquifer characteristics

- Area of aquifer: 214 square miles
- Availability: 22,637 acre-feet per year (2010 to 2060)
- Well yield: generally less than 100 gallons per minute, but some as high as 2,000 gallons per minute
- Proportion of aquifer with groundwater conservation districts: 78 percent
- Number of counties containing the aquifer: 8

Groundwater supplies with implementation of water management strategies