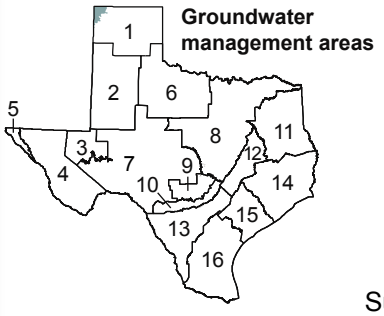
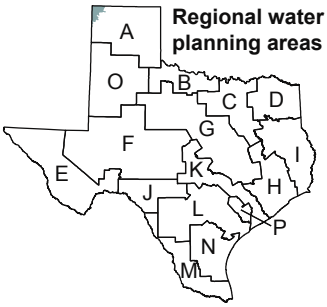
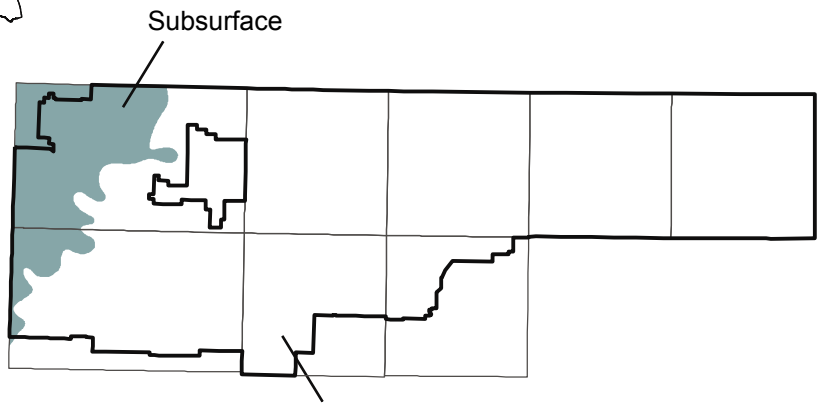
Rita Blanca Aquifer







The Rita Blanca Aquifer is a minor aquifer located in the northwest corner of the Texas Panhandle that underlies the Ogallala Aquifer. Groundwater occurs in the coarse-grained sand and gravel layers of the Lytle and Dakota formations as well as in the Exeter Sandstone and the Morrison Formation. The thickness of the aquifer is locally as much as 250 feet. In places, the Rita Blanca Aquifer is hydraulically connected to the Ogallala Aquifer and the underlying Dockum Aquifer. The total thickness of water yielding rocks in these places is accordingly much greater. Recharge to the aquifer occurs by leakage from the Ogallala Aquifer. Water quality in the aquifer is usually fresh but very hard. Some parts of the aquifer produce water that is slightly saline, which is unsuitable for irrigating most crops grown in the region. Irrigation accounts for most of the groundwater use from this aquifer, with Texline being the only community that uses the aquifer for municipal water supply. Water levels in municipal wells have historically remained stable, whereas water levels in irrigation wells have declined steadily. The Panhandle Regional Water Planning Group did not recommend any water management strategies to increase supplies from the Rita Blanca Aquifer.

Aquifer characteristics

- Area of aquifer: 922 square miles
- Availability: 5,419 acre-feet per year (2010 to 2060)
- Well yield: up to 600 to 800 gallons per minute
- Proportion of aquifer with groundwater conservation districts: 88 percent
- Number of counties containing the aquifer: 2

Groundwater supplies with implementation of water management strategies