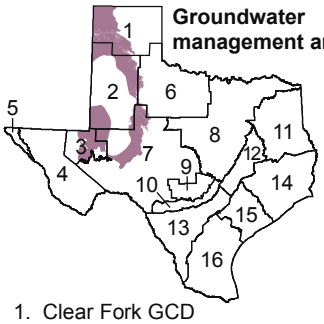
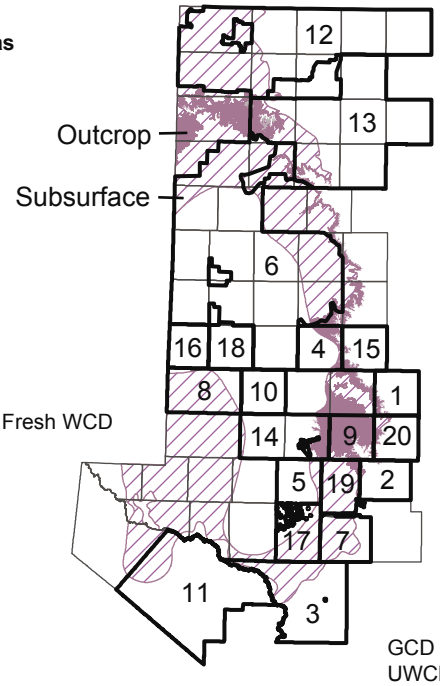
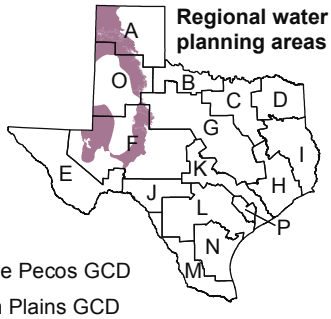
Dockum Aquifer



1. Clear Fork GCD
2. Coke County UWCD
3. Emerald UWCD
4. Garza County Underground and Fresh WCD
5. Glasscock GCD
6. High Plains UWCD No.1
7. Irion County WCD
8. Llano Estacado UWCD
9. Lone Wolf GCD
10. Mesa UWCD





11. Middle Pecos GCD
12. North Plains GCD
13. Panhandle GCD
14. Permian Basin UWCD
15. Salt Fork UWCD
16. Sandy Land UWCD
17. Santa Rita UWCD
18. South Plains UWCD
19. Sterling County UWCD
20. Wes-Tex GCD

GCD = Groundwater conservation district
UWCD = Underground water conservation district
WCD = Water conservation district

The Dockum Aquifer is a minor aquifer found in the northwest part of the state. It consists of sand and conglomerate interbedded with layers of silt and shale. The water quality in the aquifer is generally poor-with fresh water in outcrop areas in the east to brine in the western subsurface portions of the aquifer—and very hard. Naturally occurring radioactivity from uranium present within the aquifer has resulted in gross alpha radiation in excess of the state's primary drinking water standard. Radium-226 and -228 also occur in amounts above acceptable standards. Groundwater from the aquifer is used for irrigation, municipal water supply, and oil field water-flooding operations, particularly in the southern High Plains. Water level declines and rises have occurred in different areas of the aquifer. The planning groups recommend several water management strategies that use the Dockum Aquifer, including new wells, desalination, and reallocation.

Aquifer characteristics

- Area of outcrop: 3,519 square miles
- Area in subsurface: 21,992 square miles
- Availability: 406,138 acre-feet per year (2010) to 248,720 acre-feet per year (2060)
- Well yield: varies widely (0.5 to 2,500 gallons per minute), but generally low throughout
- Proportion of aquifer with groundwater conservation districts: 55 percent
- Number of counties containing the aquifer: 46

Groundwater supplies with implementation of water management strategies