



EDWARDS-TRINITY (HIGH PLAINS) AQUIFER

The Edwards-Trinity (High Plains) Aquifer is a minor aquifer that underlies southern and eastern counties in the High Plains Water District. It lies directly beneath the Ogallala Aquifer, and the two blend in some areas where the formation does not have a confining clay layer. Water from this aquifer can be used by agriculture operations and municipal water supplies, depending on quality and location. This aquifer is not as widely used as the Ogallala because of its depth and slightly lower water quality.

[Depth to Base]
121-415 ft

[Avg. Saturated Thickness]
79 ft

[Active Wells]
300

[Well Yield]
10-850 gpm

Water Levels

Water levels in this aquifer are declining in some areas of the district and rising in others. Higher declines are seen in areas where this aquifer is used for agriculture irrigation. For the latest water level measurements, check out map.hpwd.org.

Water Quality

The water quality of this aquifer varies by location, and is generally poorer quality than that of the Ogallala Aquifer. It tends to be slightly brackish, but it is still usable with little to no treatment in some locations. Total dissolved solids (TDS) range from 400 to 3,000 milligrams per liter (mg/L).

Recharge

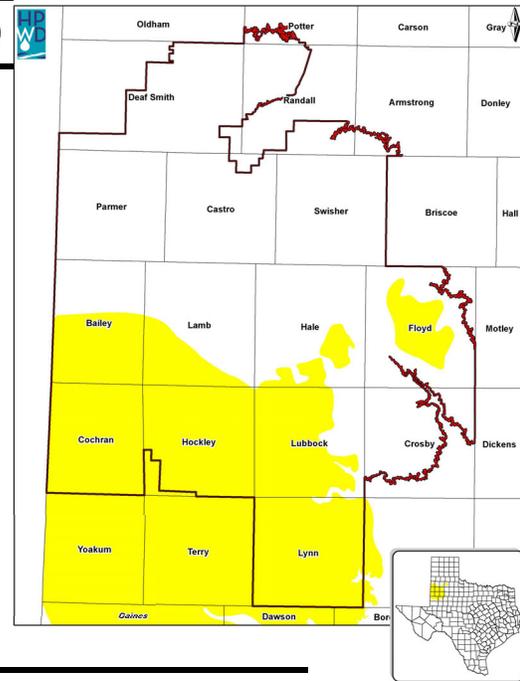
Recharge in this aquifer primarily occurs through downward leakage from the overlying Ogallala Aquifer. Most recharge occurs where lower permeability clay layers are missing or thin. The map attached to this informational sheet indicates the geological make up of this aquifer. The areas that lack the clay, or shale, layer is where recharge is more prevalent.

To view the depth to this formation and thickness in your area of interest, visit map.hpwd.org and use the Aquifer Tool for a virtual bore hole view of the aquifers at your area of interest.



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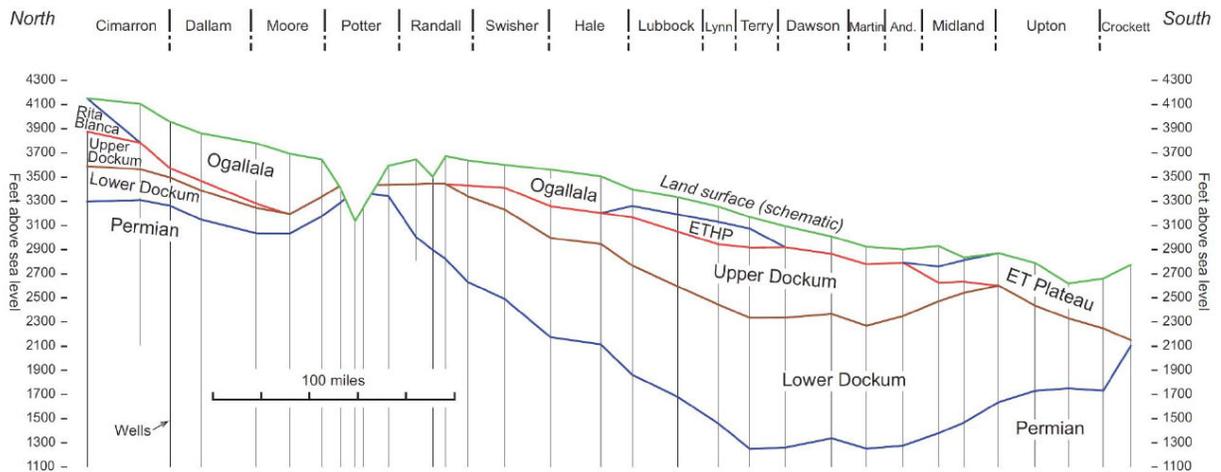
The Edwards-Trinity (High Plains) Aquifer does not underlie the entire High Plains Water District. Its use is confined to the southern-most counties in our service area, as well as Yoakum, Terry, Gaines and Dawson counties. Water quality and well yields are not consistent throughout the aquifer. Refer to the attached map to learn more about the variability in the geological layers found in this formation.



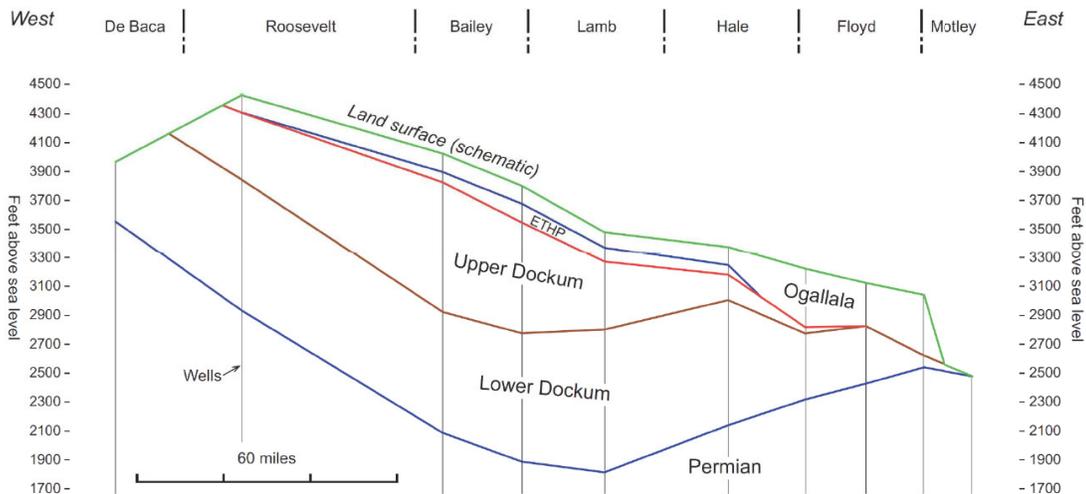
- HPWD Boundary
- Edwards-Trinity (High Plains) Aquifer

Cross Section of Local Aquifers

North-South regional cross section for the High Plains Aquifer System



East-West regional cross section for the High Plains Aquifer System



Source: High Plains Aquifer System Report, April 2015

The information on this fact sheet originates from data collected within the High Plains Water District and additional facts compiled from the Texas Water Development Board and U.S. Geological Survey reports.

EDWARDS-TRINITY (HIGH PLAINS)

This graphic depicts the different geological deposits that exist throughout this aquifer. The most productive regions of this aquifer are where Antlers Sand is present, however some areas of limestone will have channels of water that can be very productive.

