



HEMPHILL COUNTY
 Underground Water Conservation District
Conserving a Texas Oasis

our mission is to conserve and protect the groundwater resources of hemphill county by ensuring sustainable development through local management and the best available science.



DID YOU KNOW?

- Ground water is one of our nation’s most important natural resources, providing approximately 40 percent of the public water supply in the United States.
- Ground water is commonly an important source of surface water, such as our rivers, lakes and streams.

HEMPHILL COUNTY CAN BOAST BEING HOME TO A TRUE TEXAS OASIS. AMIDST THE DRY ROLLING HIGH-PLAINS OF TEXAS THE CANADIAN AND WASHITA RIVERS AND DOZENS OF CREEKS FLOW THROUGH OUR COUNTRY. HOWEVER, OUR ONLY SOURCE OF POTABLE WATER EXISTS BENEATH THE SURFACE IN THE OGALLALA AQUIFER.

History:

The Texas State Legislature in 1949

authorized the creation of groundwater conservation districts to perform certain prescribed duties, functions, and hold specific powers as set forth in what is now Chapter 36 of the Texas Water Code.

The Hemphill County Underground Water Conservation District was confirmed by local election held in Hemphill County on November 4, 1997 with **nearly 90% of citizens voting in favor.** The District’s Board of Directors is composed

HEMPHILL COUNTY UWCD ESTIMATED WATER USE WITHIN DISTRICT

Year	Aquifer	Municipal	Manufacturing	Power	Mining	Irrigation	Livestock	Natural Discharge	Total Use
2005	Ogallala	539	0	0	2,575	6,824	1,520	45,000	56,458

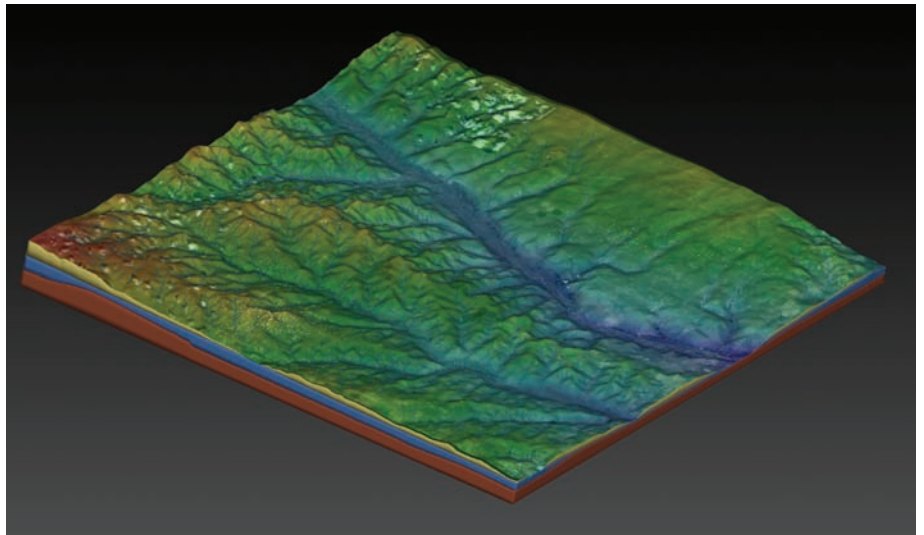
All use reported in acre-feet, hcuwcd management plan adopted July 2007

- Ground water accounts for an estimated 25 percent of the freshwater that exists, with the other 75 percent locked away in polar ice and glaciers. Rivers, lakes and soil moisture amounts to less than one percent of the world's freshwater.
- The speed of ground water flow can be as low as 1 foot per year, or even 1 foot per decade.
- Ground water systems can be a possible backup source of water during periods of drought.
- Irrigation water pumped from the Ogallala aquifer has made the High Plains one of our Nation's most important agricultural areas.
- Ground water pumping from this unconfined aquifer has resulted in the largest decrease in storage of any major aquifer in the United States.

Leey, William, Reilly, Thomas, Franke, O. Lehn. Sustainability of Ground Water Resources. US Geological Survey. Pubs.usgs.gov/circ/circ1186

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of five local citizens elected to serve staggered four-year terms, and is headquartered in Canadian, Texas.

Challenges:

The demand for increased agriculture, energy production, and growth of major metropolitan cities in Texas threaten our groundwater resources and our way of life. The Ogallala Aquifer is a **depleting resource that is slow to recharge**. Groundwater pumping can result in reduced river flows, lower lake levels, and reduced discharges to wetlands and springs, as well as decreased amounts of water storage. Such impacts may affect drinking water supplies, riparian areas, and critical aquatic habitats.

The health of our groundwater is largely influenced by **the balance of recharge and natural discharge** to our rivers, lakes and streams. Unless properly

managed, new development could significantly alter this balance.

What we are doing:

Hemphill County UWCD is committed to having the most up-to-date science and technology to direct us in our management decisions and water permitting programs. We have invested in a sophisticated 3-D groundwater flow model which is very important in determining groundwater availability.

Our goal is to allow for current and future water demands to be met with pumpage from the Ogallala Aquifer, while having a minimal impact on natural discharge flows within the county. The more we learn about our region's priceless resource – water – the more we understand ourselves, our community and can empower our future generations.