

Eighty percent of the groundwater used in Texas is for agricultural irrigation for crops; drinking water and industrial uses fall close behind. While the water keeps coming through the tap and irrigation spouts, Texans need to protect and conserve groundwater resources that remain.

Groundwater is water stored beneath the earth's surface in aquifers. Within aquifers, water fills pore spaces, such as voids in sand, gravel or soil, and rock fractures. Aquifers are geological formations that can store, transmit and yield water to a well or spring. Groundwater can be either fresh or brackish (salty).

Texas aquifers are remarkably diverse in geologic structure, the amount of water they store, the amount of the water that can be taken from them and replenished and the rate at which water moves through the aquifer. Statewide, groundwater comes from some 32 Texas aquifers. According to the Texas Water Development Board, nine aquifers supply about 97 percent of the groundwater Texans use.

Most aquifers are recharged naturally by surface water from precipitation, streams and rivers. This water enters the aquifer by percolating down from the soil surface or through the permeable soil in the stream or river bed. The recharge rate varies greatly depending on the size of soil and rocks that are on and under the ground surface. Some aquifers receive little or no recharge.

Groundwater is and will continue to be a major source of water for Texas. However, in many parts of the state, more groundwater is being used than replenished. Over pumping can occur when water is withdrawn from an aquifer faster than it recharges. The consequences of over pumping include progressively higher water costs, water quality degradation and possible water depletion.

To address this problem, the Texas Legislature has provided a way for groundwater resources to be managed and protected locally, through the creation of groundwater conservation districts (GCDs). A GCD is a local unit of government authorized by the Texas Legislature and ratified at the local level to manage and protect groundwater resources. Most districts work to prevent waste, collect data, educate people about water conservation and prevent irreparable harm to the aquifer.

Not all groundwater problems are caused by over pumping. Pollutants dumped on the ground or into storm drains or landfills can leach into the soil and work their way down into the aquifer. Movement of water within the aquifer can spread the pollutant over a wide area, making the groundwater unusable.

Remember: what you do affects the quality and quantity of the water you drink and use. By keeping that in mind, you are helping protect groundwater resources now and in the future. Help save Texas water and make every drop count.

