



## **THE BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT STRIVES TO PROTECT GROUNDWATER RESOURCES IN BRAZORIA COUNTY**

The mission of the Brazoria County Groundwater Conservation District (BCGCD) is to maintain the quality and availability of Brazoria County's groundwater resources for current users and future generations.

Groundwater is one of Brazoria County's most precious resources and represents an important contributor to the county's water supply. Because it is such a valuable resource, groundwater must be protected to ensure that it will always be available to residential, agricultural, municipal, and industrial water users.

The BCGCD was created by the Texas legislature in 2003 and approved by the Brazoria County voters in 2005. The BCGCD's five-member elected board of directors proactively work with groundwater users in the district to address issues such as how to most efficiently use groundwater, control and prevent waste, control and prevent subsidence, and address drought conditions. A proactive approach to managing groundwater issues is more cost effective than waiting to solve problems in the future.

In carrying out its mission, the BCGCD provides several services. It conducts research in groundwater availability, quality, and use in Brazoria County, and develops approaches for addressing any identified issues before they become problems. The BCGCD is actively involved with Groundwater Management Area 14, the State Regional Water Planning Group that includes Brazoria County. As part of the State Water Plan, this group is responsible for evaluating population projections and water demand projections within their region to identify Texans who will not have enough water in times of drought and to recommend strategies and projects that could be implemented to obtain more water. The BCGCD is also collaborating efforts with the United States Geological Survey (USGS) to monitor groundwater wells within Brazoria County to collect data regarding static water levels in the aquifer, saltwater intrusion, subsidence and water quality. The BCGCD is also currently participating with other local entities in the Brazosport Water Authority regional water study for the purpose of evaluating the future water needs for the County and considering future water sources.

To keep County residents informed regarding water conservation, harvesting and generation, the BCGCD web page offers information on these topics. The BCGCD's web page address is [www.bcgroundwater.org](http://www.bcgroundwater.org). Alternate water sources and conservation can help supplement and decrease the demand for groundwater. The topics now found on the District's web page, and a brief description, are as follow:

### **Water Conservation**

Water is a limited resource that requires careful and proactive management. Water conservation, sound management strategies, and adequate investment in a range of solutions are essential to meet the water demands of Brazoria County's growing population, while protecting its natural resources.

### **Subsidence**

Subsidence is the sinking of the land surface due to withdrawal of groundwater. As the water from the clay formations in the subsurface is removed by pumping, it allows the clays to compact under the weight of the overlying formations resulting in a reduction of the surface elevations. Subsidence can result in increase flooding and damage to drainage systems and other man-made structures

### **Rainwater Harvesting**

Rainwater harvesting is the gathering and storing of rainwater for later use in landscaping and for other purposes, including drinking water. Rainwater collected from the roofs of houses or from specially prepared areas of ground, can make an important contribution to drinking water.

### **Brush Control**

The USDA Natural Resources Conservation Service (NRCS) estimated that brush in Texas uses over 3.5 trillion gallons of water annually. Control of brush presents a viable option for increasing the availability of water allowing the County to meet its future needs.

### **Recharge**

Artificial recharge is a process by which excess surface water, or previously used water, is directed into the ground to replenish an aquifer. When water is proactively returned to the ground and put into storage, it helps to ensure a sustainable groundwater supply.