

The United States Geological Survey completes their study on groundwater in Highlands County
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As we walk along the earth's surface, we may not think about how much action is going on beneath us. Did you know that water is constantly moving and flowing into crevices and holes? The water that is stored underground is very important to us. We are fortunate to have such an amazing source of this life giving liquid in the form of the Floridan aquifer. This is one of the most productive aquifers in the world and it stretches about 100,000 square miles under four states including Florida, Alabama, Georgia and South Carolina.

Aquifers are critically important to all life. Most of our drinking water comes from Florida's aquifers. An aquifer is defined as an underground layer of permeable rock, sediment, or soil that yields water. The pore spaces in aquifers are filled with water and are interconnected, so that water flows through them. Basically an aquifer is an underground reservoir of water. Because of the groundwater, which is released from our aquifers, natural ecosystems, agriculture, outdoor recreation and human health are sustained.

There are three water bearing aquifers, in the subsurface underlying Highlands County – the surficial, intermediate and Floridan aquifers systems. Most of the water used in Highlands County, almost 90%, is withdrawn from the upper Floridan aquifer.

Recently a major groundwater study, the first in 50 years, was completed for Highlands County. The study was conducted by the United States Geological Survey (USGS), and funded by Highlands County, USGS, South West Florida Water Management District and the South Florida Water Management District.

The objective of the study was to determine the chemical quality and levels of the groundwater in Highlands County. This information is essential to develop and manage the water supply effectively. The study found that Highlands County appears to have sufficient groundwater resources of good chemical quality for present and future needs.

According to the study, groundwater withdrawals in Highlands County have increased from 37 million gallons/day (mgd) in 1965 to 107 mgd in 2005. This increase is due, in part, to the population growth, but is primarily the result of a large increase in agricultural activities.

The USGS study included sampling from both public and private wells throughout the County. The Highlands County Natural Resources Advisory Commission (NRAC) is working on developing a long-term groundwater monitoring program to detect trends in water quality or levels. The purpose of the plan is to identify potential problems early, before they become major, so corrective action can be taken with minimal cost and minimal impact on water users.

Florida is becoming more populated every day. As the recent study shows, the demand for water has tripled since 1965. Water is one of our most important natural resources and the Floridan Aquifer provides billions of gallons of water per day. It supplies almost all of the state's drinking water and feeds into over 600 natural springs. We are fortunate that this recent study has shown good news for Highlands County. As good stewards of our precious natural

resources, it is imperative that we continue with these types of studies and monitor the hydrogeology and groundwater of Highlands County to ensure our water stays clean and plentiful.