

Technical Announcement: USGS Issues Revised Framework for Hydrogeology of Floridan Aquifer

Released: 4/21/2015 9:58:48 AM

Contact Information:

U.S. Department of the Interior, U.S. Geological Survey
Office of Communications and Publishing
12201 Sunrise Valley Dr, MS 119
Reston, VA 20192

[Jon Campbell](#)

Phone: 703-648-4180

[Eve Kuniansky](#)

Phone: 678-924-6621

USGS scientists have updated the hydrogeologic framework for the Floridan aquifer system that underlies Florida and parts of Georgia, Alabama, and South Carolina.

The Floridan aquifer system is the principal source of freshwater for agricultural irrigation, industrial, mining, commercial, and public supply in Florida and southeast Georgia. The extensive underground reservoir currently supplies drinking water to about 10 million people residing across the area as well as 50% of the water that is used for agricultural irrigation in the region.

By describing the hydrologic and geologic setting of an aquifer, a hydrogeologic framework enables appropriate authorities and resource managers to monitor an aquifer more accurately, improving their ability to protect these critical resources and determine the near- and long-term availability of groundwater.

As the first update of the framework for the aquifer in over 30 years, the revision incorporates new borehole data into a detailed conceptual model that describes the major and minor units and zones of the system. Its increased accuracy is made possible by data collected in the intervening years by the USGS; the Geological Surveys of Alabama, Florida, Georgia, and South Carolina; the South Florida, Southwest Florida, St Johns River, Suwannee River, and Northwest Florida Water Management Districts; and numerous other state and local agencies.

The USGS is releasing two reports as part of its current assessment of

groundwater availability of the Floridan aquifer system.

The first report documents the revised framework.

[Williams, L.J., and Kuniandy, E.L., 2015, Revised hydrogeologic framework of the Floridan aquifer system in Florida and parts of Georgia, Alabama, and South Carolina](#): U.S. Geological Survey Professional Paper 1807, 140 p., 23 pls.

The second report provides datasets that describe the surfaces and thicknesses of selected hydrogeologic units of the Floridan aquifer system. The data depict the top and base of the aquifer system, its major and minor hydrogeologic units and zones, geophysical marker horizons, and the altitude of the 10,000-milligram-per-liter total dissolved solids boundary that defines the approximate fresh and saline parts of the aquifer system.

[Williams, L.J., and Dixon, J.F., 2015, Digital surfaces and thicknesses of selected hydrogeologic units of the Floridan aquifer system in Florida and parts of Georgia, Alabama, and South Carolina](#): U.S. Geological Survey Data Series 926, 24 p.

The USGS is undertaking a series of regional groundwater availability studies to improve our understanding of groundwater availability in major aquifers across the Nation. [Regional groundwater availability studies](#) are currently underway to document the supply and demand of this important natural resource for the United States. To find out more about other related groundwater science activities, please visit the [USGS Groundwater Resources Program website](#).