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Issue: Nomenclature of Florida's aquifer systems

Background: Standardization of names for Florida's principal aquifer systems have been in place since 1986 based on work of a 14-member "ad hoc" committee (and sub-committees) that met several times over a two year period. The committee included representation from all water management districts, the state university system, the US Geological Survey, environmental consultants, Florida Department of Environmental Regulation and the Florida Geological Survey. Nomenclature of Florida's principal aquifer systems were adopted by the committee, whereby the named units (i.e., hydrostratigraphic units or HSUs) reflected mappable bodies of rock and sediment that could be uniquely grouped based on their hydrogeological properties.

As Florida's need for additional groundwater resources intensified, characterization and exploration of less productive or lesser known aquifers continued. Emerging inconsistencies in the naming of local and regional aquifer and confining (low permeability) units presented challenges in modeling, especially across large areas of the state. Recognizing a need to refine nomenclature to focus on all strata capable of producing water to a well for public or private supply, a second "ad hoc" committee was formed in 2003. Its composition included the same agency representation, including the Florida Department of Environmental Protection, with a total of 40 participants. After much debate, the committee nominally revised HSUs for principal aquifer systems and opted not to address sub-regional HSUs.

This year, the US Geological Survey published a report titled "Revised Hydrogeologic Framework of the Floridan Aquifer System in Florida and Parts of Georgia, Alabama, and South Carolina" by Williams and Kuniansky (2015). While this report considered input from Florida agencies, it offers new nomenclature and aquifer characterizations that are not aligned with conceptualizations within some Florida agencies. Significant resources have been invested by these agencies toward characterization and application of Florida HSUs. Release of the USGS report demonstrates that nomenclatural inconsistencies continue, which yield conflicting interpretations that may present further challenges in protection of Florida's groundwater resources.

To date, no formal process exists to define and adopt new HSUs in Florida. In fact, it does not even exist at a national level. ***Florida needs a consistent and uniform classification of HSUs.***

Path forward: The Florida Geological Survey (FGS), a Division of the Florida Department of Environmental Protection, will continue to communicate with stakeholders including water management districts to establish this uniformity and a procedure for future naming of HSUs. Once a baseline of nomenclature including sub-regional units and a process is established, we envision the FGS leading a standing committee. Membership of the committee would include one representative from the FGS, a DEP regulatory program, each of the water management districts and perhaps other entities. The committee's charge would be to consider formal adoption of future HSUs per a set of criteria that respect existing principal aquifer names as well as Florida's complex and subtle hydrogeologic setting. As a first step, the FGS will request HSU nomenclature currently in use by each water management district.