Potentiometric Surface Mapping Program

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Purpose of the Maps

- Assess changes in groundwater storage and determine regional flow directions and hydraulic gradients of the major aquifer systems
- Comparison of potentiometric maps over several years can reveal long-term changes in aquifer storage from groundwater withdrawals
- Analyses of potentiometric surfaces can help with drought, saltwater-intrusion, subsidence, and well-interference assessments
- Assist in state-level planning and groundwater use management policy development; and water-supply managers for both planning and development
Cone of depression in Georgetown Cty - Crouch Branch Aquifer
GEO-0383 Daily Average Water Levels

Aquifer: Crouch Branch
Elevation: 9 ft
Depth: 560 ft
Screen: 530-550 ft

2 ft/year
New Crouch Branch Well – 640 ft
McQueen Branch Aquifer

2016 map: Cone defined by only 1 well
Upper Floridan – early Oligocene/late Eocene; Parkers Ferry/Ocala Formation
Middle Floridan – middle Eocene; Santee Formation
Gordon – early Eocene/late Paleocene; Congaree/Fishburne/Williamsburg Formations (often contains lower part of Santee Formation in coastal areas)
Correcting for tidal effects in Upper Floridan aquifer
Water-level trends in U/M Floridan and Gordon aquifer
GOAL = 2 Maps
Map of Upper and Middle Floridan
Map of Gordon
Groundwater Data Availability

http://www.dnr.sc.gov/water/hydro

National Groundwater Monitoring Network Data Portal

https://cida.usgs.gov/ngwmn/