



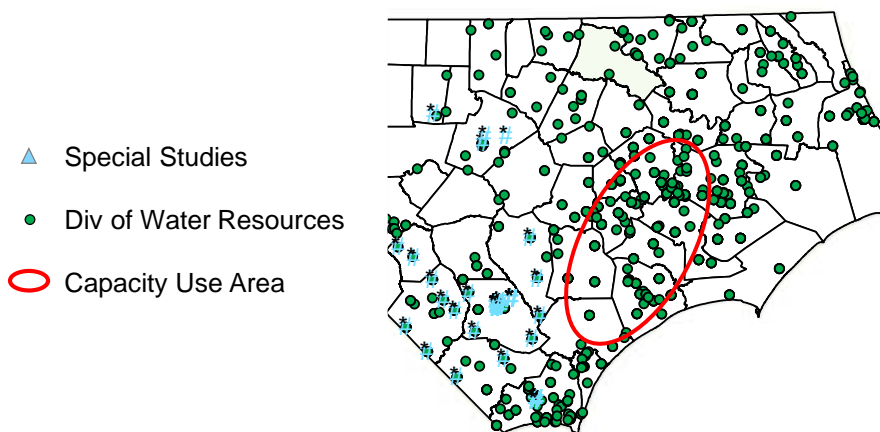
Amy Keyworth, DWR
Groundwater Data and DWR



Groundwater Data

- Special water quality studies
 - Piedmont-Mountains REP
 - Southern Coastal Plain
 - Isolated Wetlands Hydrologic Connectivity
- Water level monitoring network – state wide
- Contamination monitoring and investigations
- Permitted facilities
 - Water quality protection – e.g. CAFO, UIC, Non-discharge
 - Water withdrawals – e.g. CCPCUA, large users

Groundwater Data



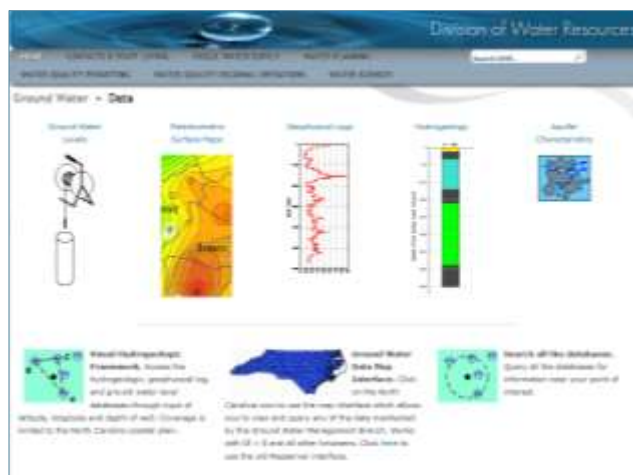
Groundwater Data

- Water level monitoring network
 - Drought management
 - Saltwater intrusion
 - Central Coastal Plain Capacity Use Area

- *DWR Website – Groundwater Management Branch*

<http://www.ncwater.org/?page=357>

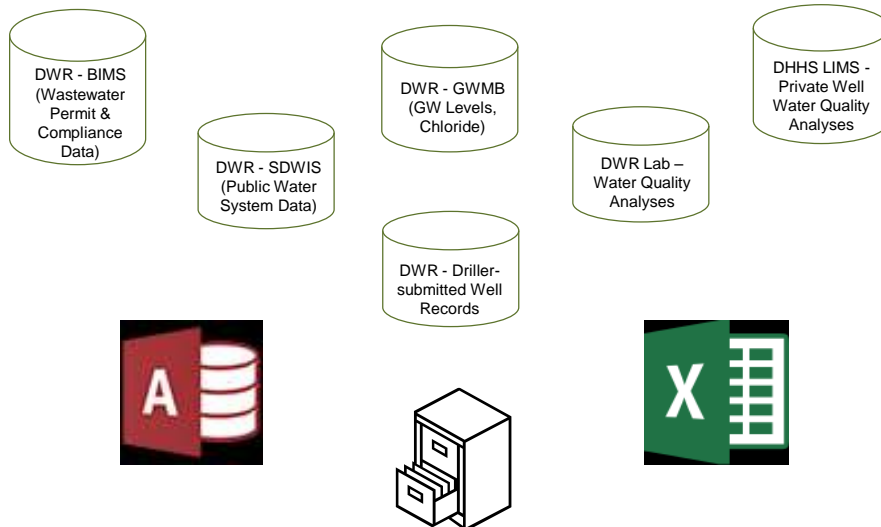
- GW Levels
- Potentiometric Maps
- Geophysical Logs
- Hydrogeology
- Aquifer Characteristics



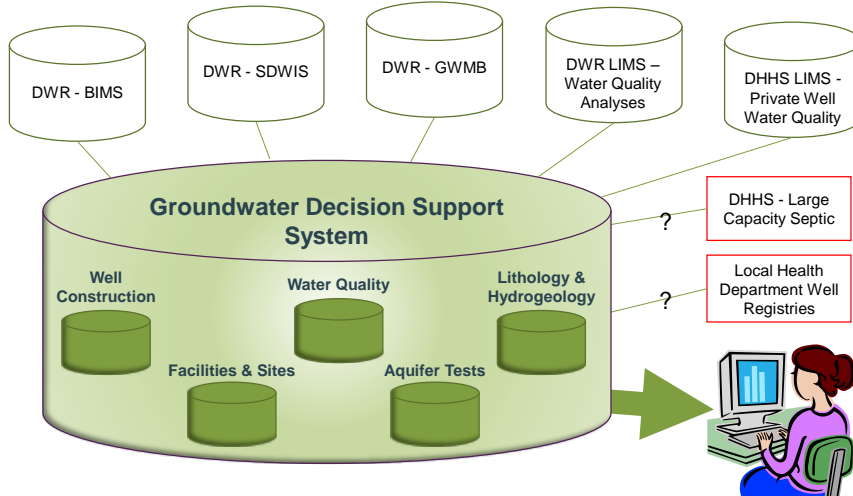
Groundwater Data Management Program Assessment

Department	DIVISION	SECTION	DATABASE
Health and Human Services	Public Health	Environmental Health	On-Site Water Protection Private Well Program
		State PH Lab	
		Java Development Section	GWSSS
Environmental Quality	Water Resources	Public Water Supply	SDWIS - Safe Drinking Water Information System
		Water Planning Section	CCPCUA (Central Coastal Plain Capacity Use Area)
		Water Quality Regional Operations	BIMS - Basinwide Information Management System
			GW-1 - Well Construction Records
			Ambient Monitoring/Resource Evaluation Program

NC Groundwater Data Management (2013)

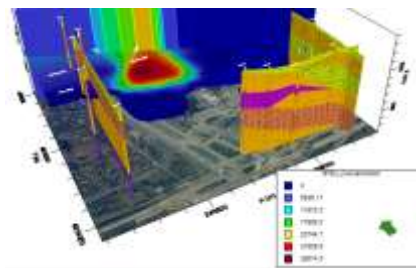
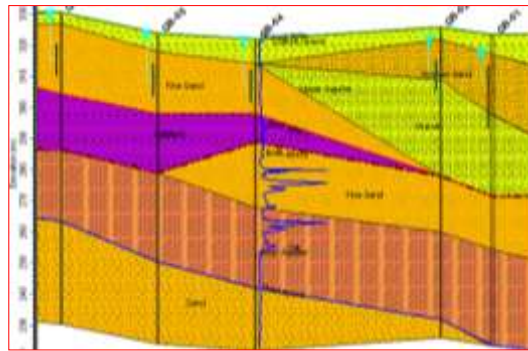
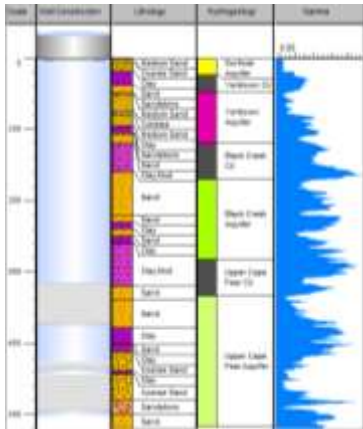


NC Groundwater Data Management: with GWDSS

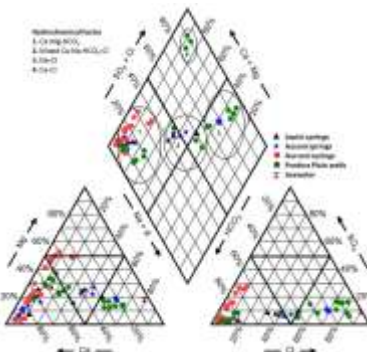
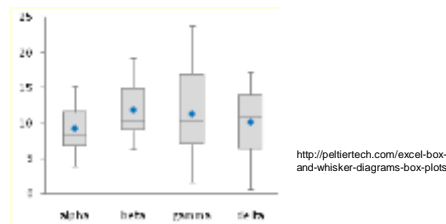


Improved Decision-Making by Data Integration e.g. Private Drinking Water Well Education Act

Hydrogeologic Analysis



Water Quality Analysis



http://file.scirp.org/Html/1-9401578_22721.htm

- Piper, Durov Diagrams, Ternary
- Pie, Stiff, and Radial Diagrams
- X-Y Scatter and Time Series Graphs
- Frequency Histograms
- Box and Whisker (+ time series)
- Geothermometer, Gignenbach Triangle
- Meteoric Water Line
- Quantile Plots
- Detection Summary
- Langelier-Ludwig, Wilcox Plots, Schoeller