

Consideration of a Statewide Percentile Ranking Index for Groundwater Resources

SNW Pilot Study map proposal

- Upper Floridan aquifer levels

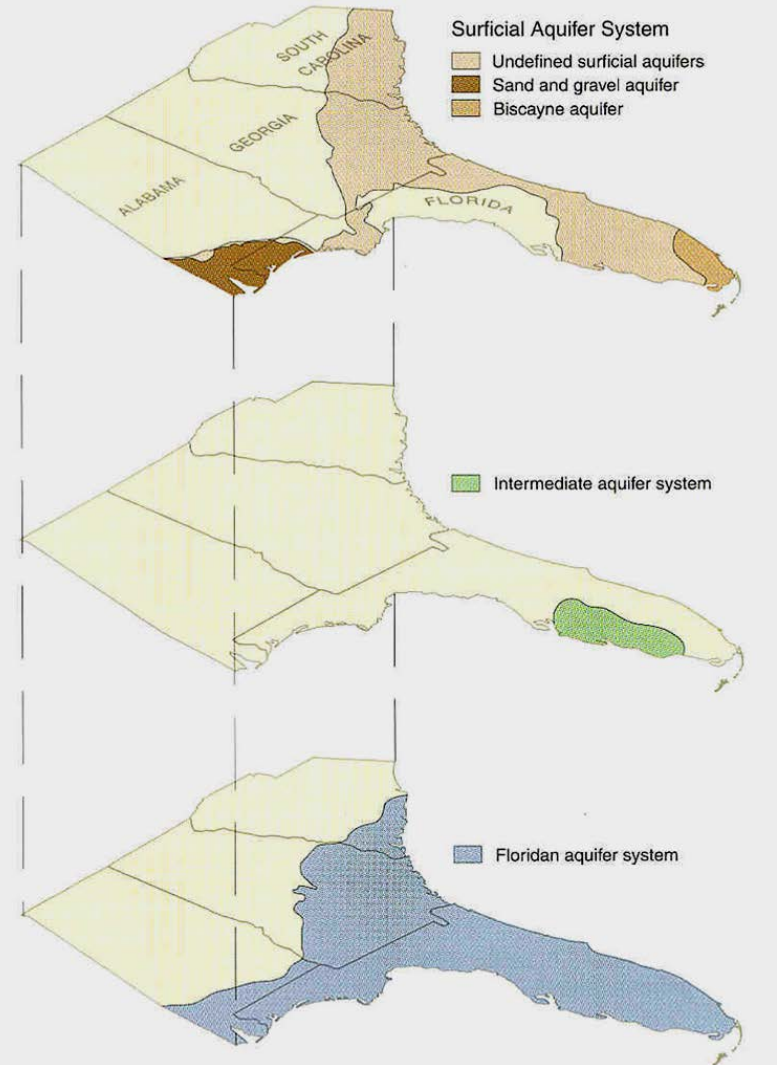
Inclusion of other principal aquifers

- significance for water supply
- data availability

NWFWMD - sand-and gravel aquifer

SFWMD - Biscayne aquifer

- surficial and intermediate aquifers



Approximate extents of principal aquifers used as a primary groundwater source (from Marella 1999)

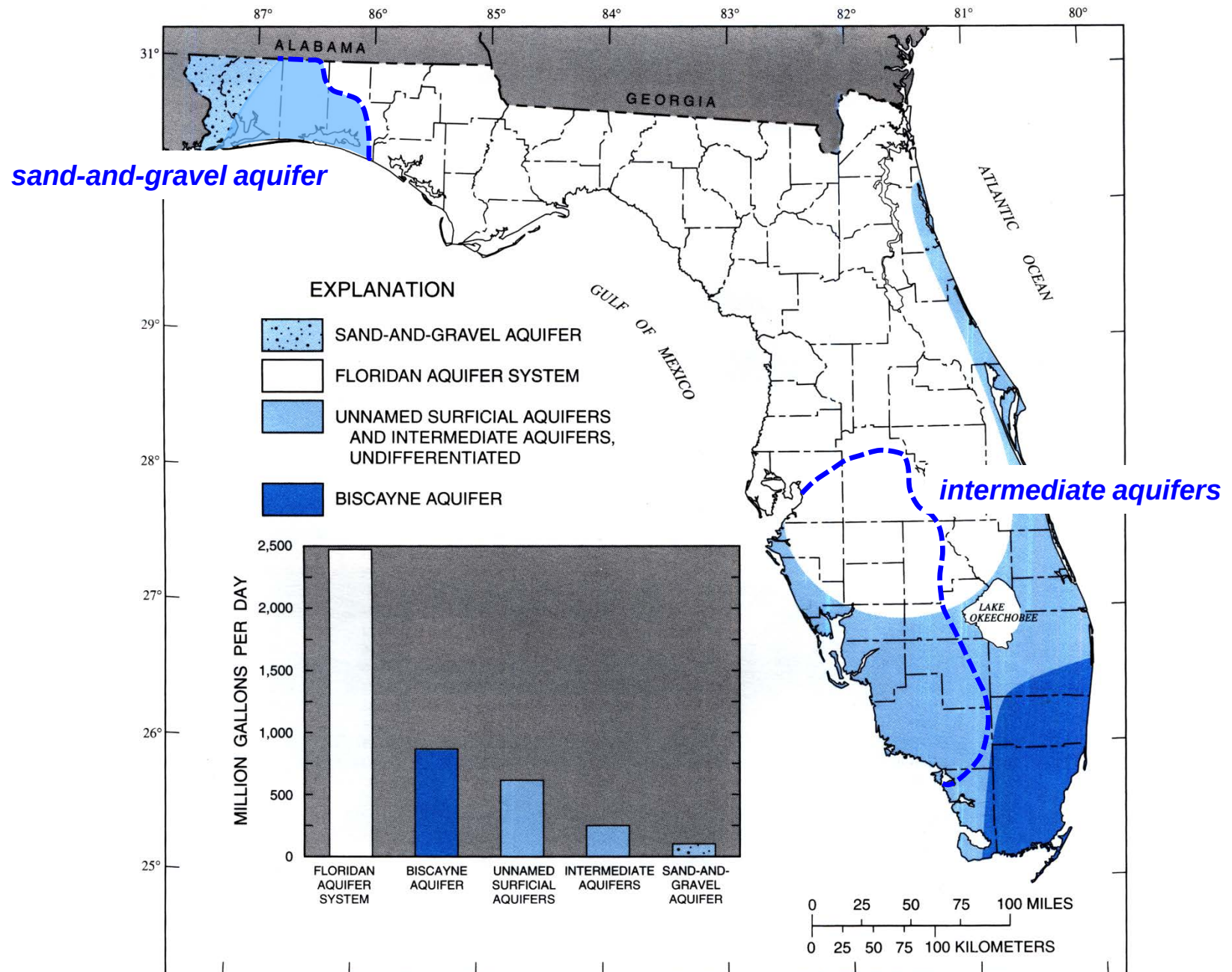
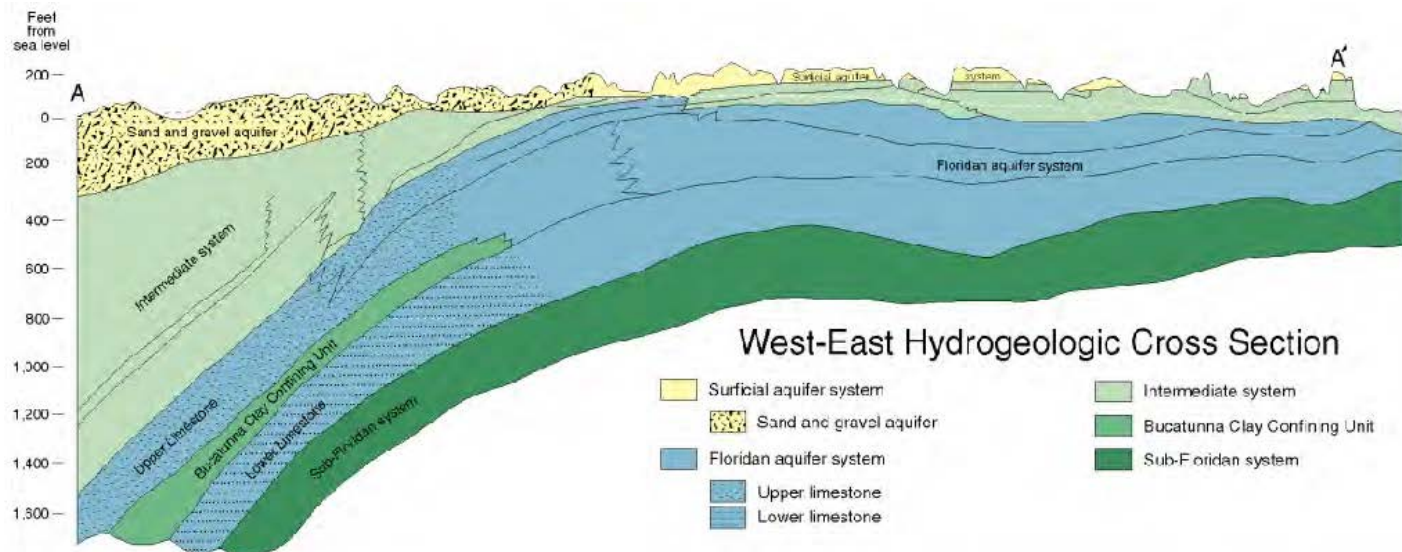
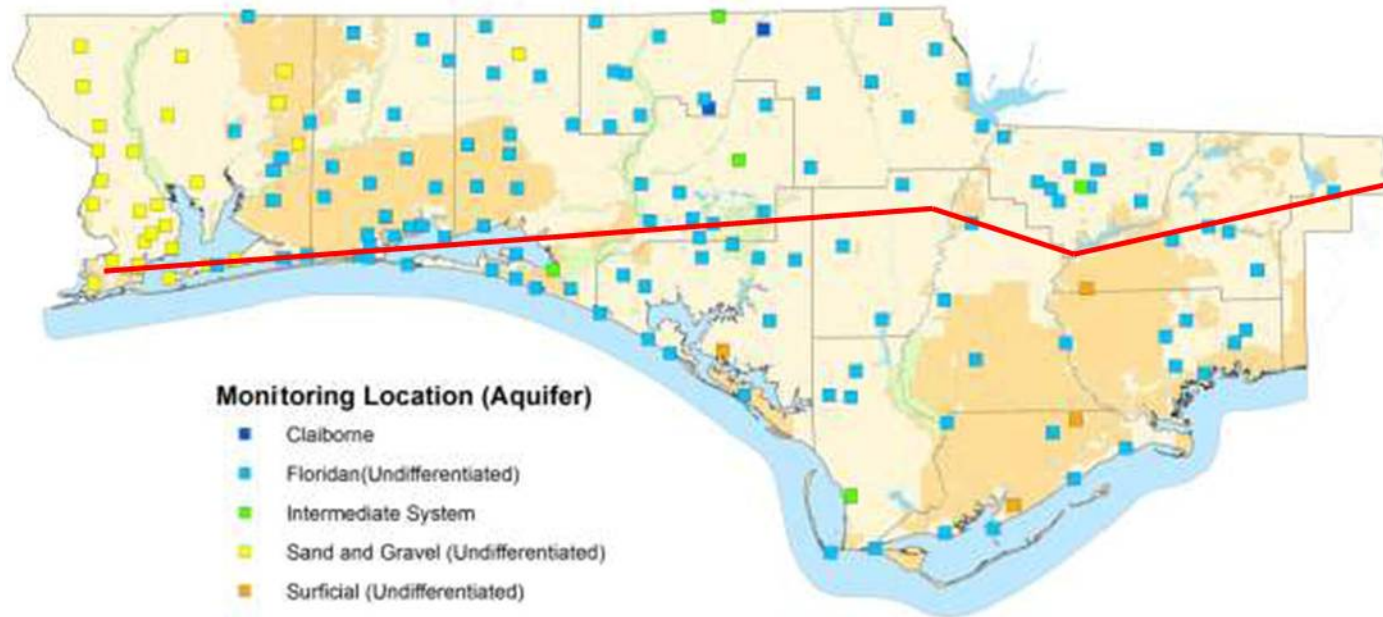
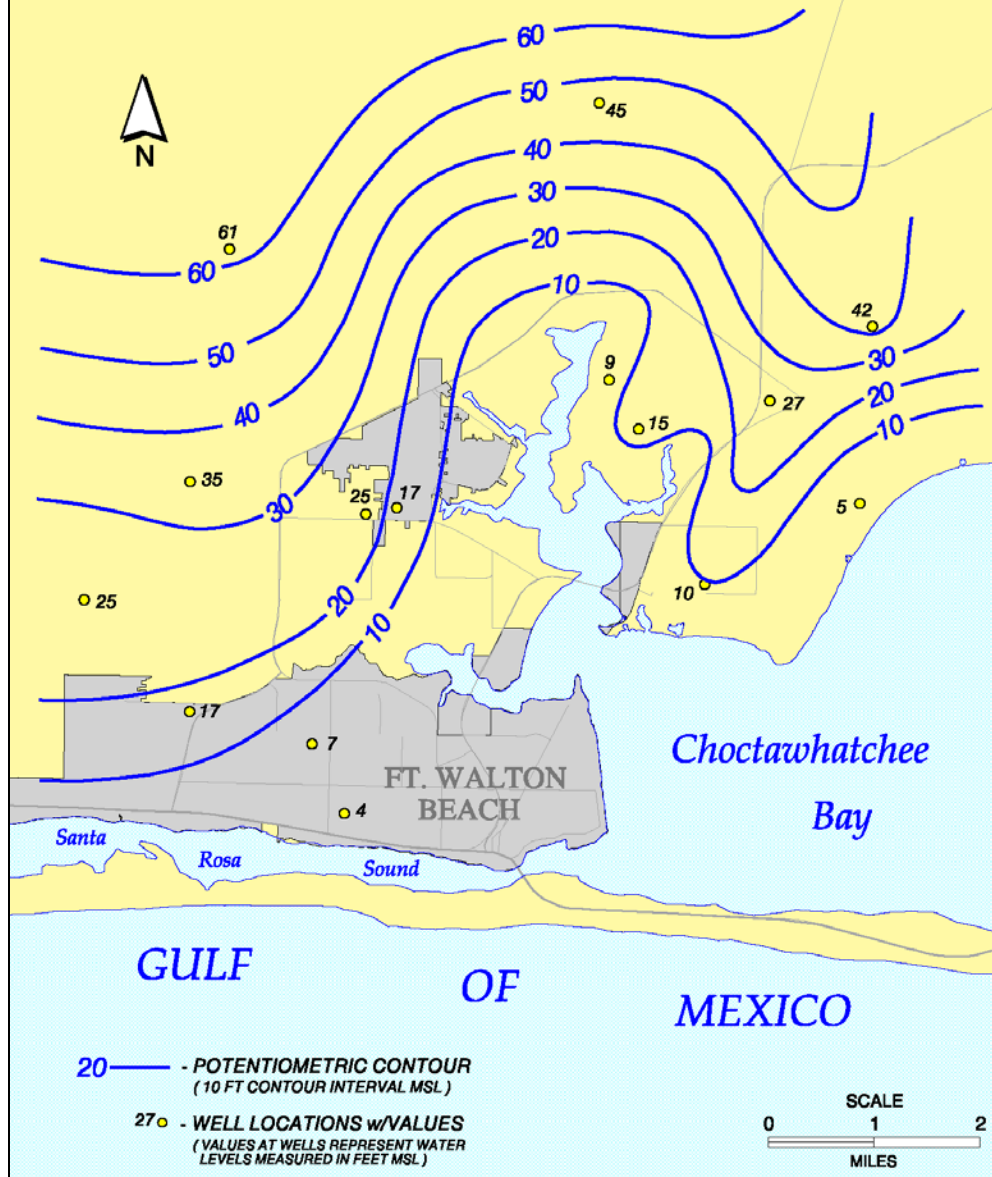


Figure 2. NFWFMD Quarterly Ground Water Level Network

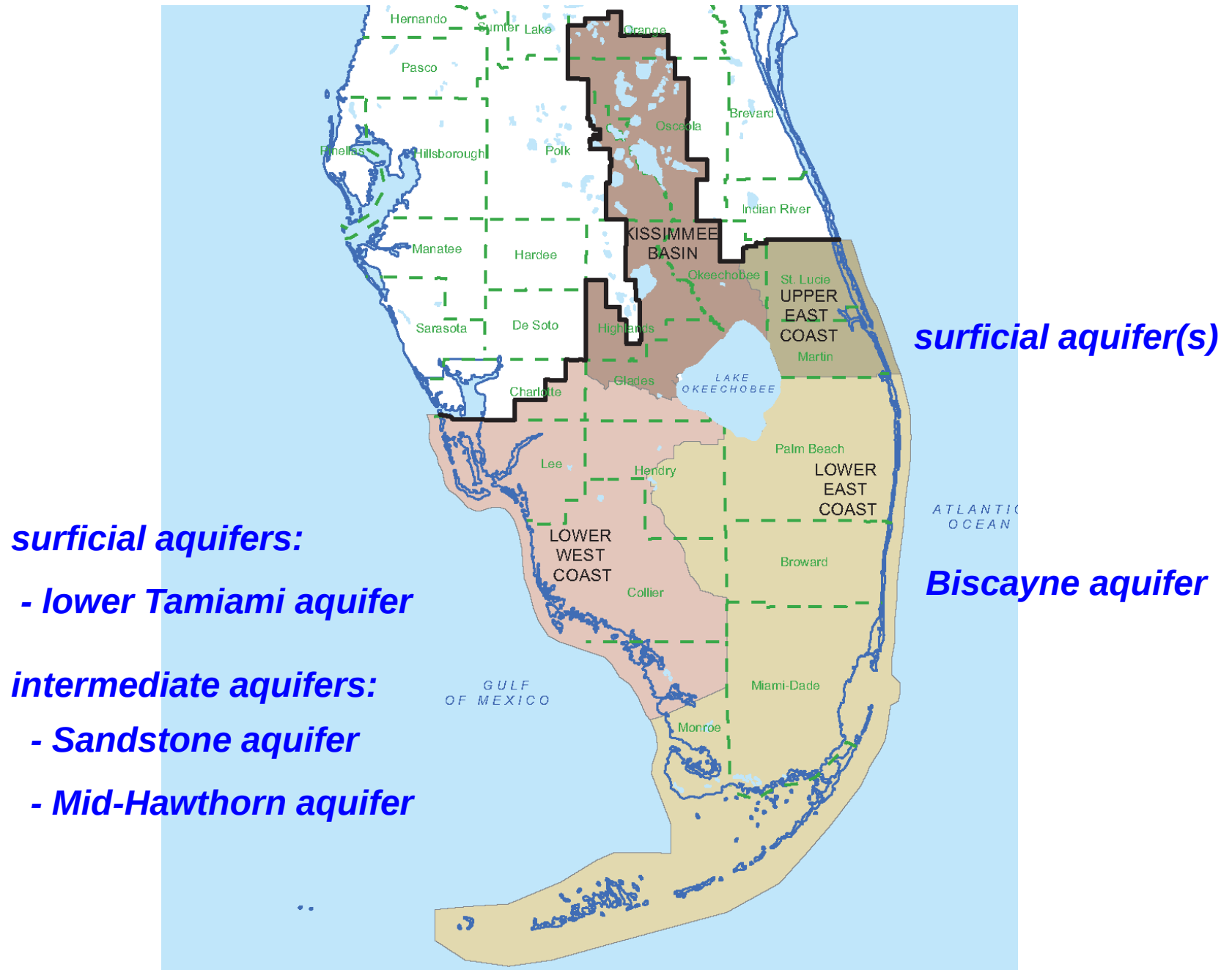


POTENTIOMETRIC SURFACE OF THE COASTAL SAND-AND-GRAVEL
AQUIFER IN SOUTHERN OKALOOSA COUNTY, SEPTEMBER 2003



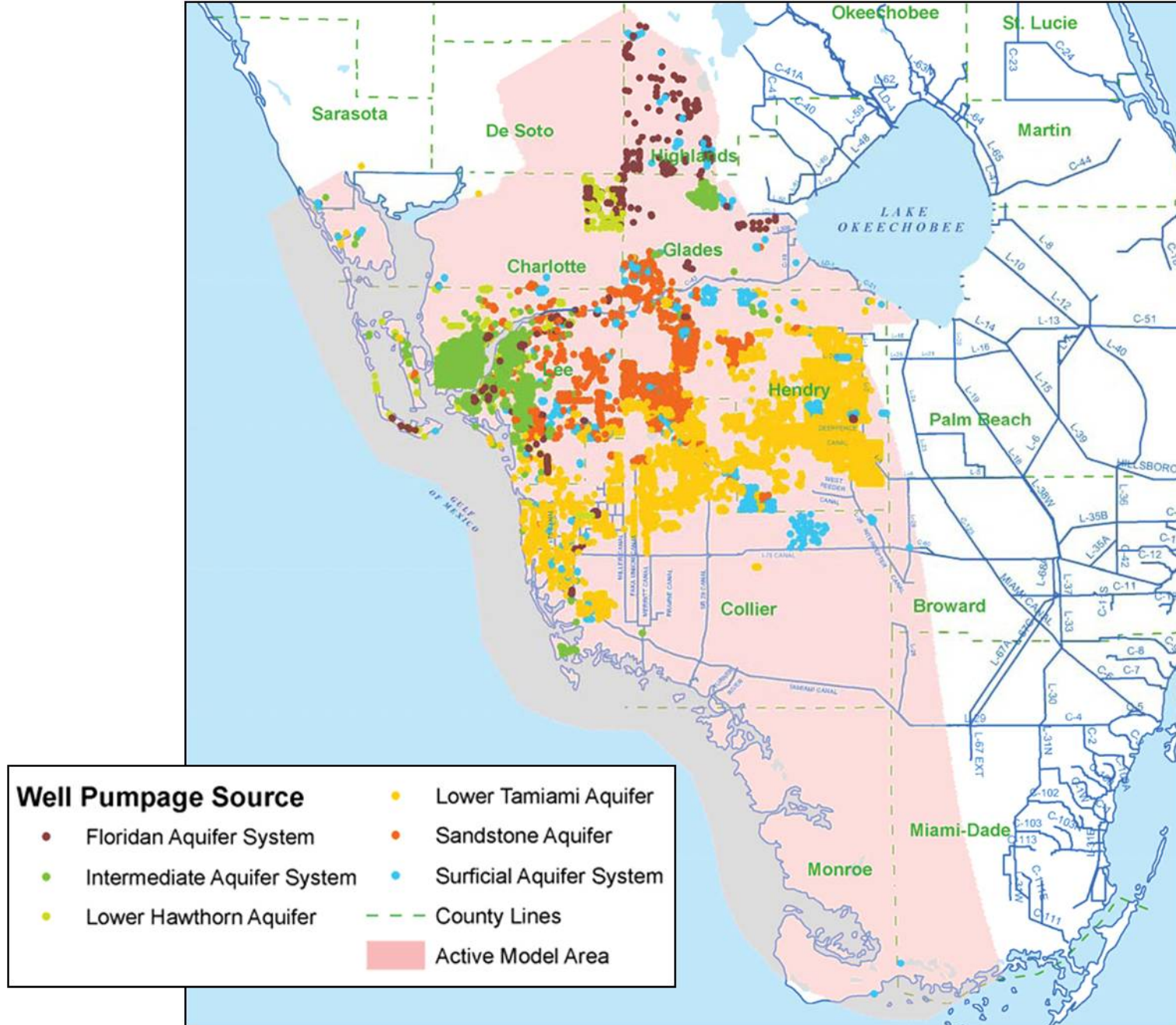
from NFWMD Water Resources Technical File Report 04-10, Figure 4

SFWMD Water Supply Planning Units



Series		Geologic Unit		Lithology	Hydrogeologic unit		Approximate thickness (feet)
HOLOCENE TO PLEISTOCENE		UNDIFFERENTIATED		Quartz sand, silt, clay, and shell	SURFICIAL AQUIFER SYSTEM	WATER-TABLE / BISCAYNE AQUIFER	20-300
		TAMIAMI FORMATION		Silt, sandy clay, micritic limestone, sandy, shelly limestone, calcareous sandstone, and quartz sand		CONFINING BEDS	
				LOWER TAMIAMI AQUIFER			
MIOCENE AND LATE OLIGOCENE		HAWTHORN GROUP	PEACE RIVER FORMATION	Interbedded sand, silt, gravel, clay, carbonate, and phosphatic sand	INTERMEDIATE AQUIFER SYSTEM OR CONFINING UNIT	CONFINING UNIT	250-750
			ARCADIA FORMATION	Sandy micritic limestone, marlstone, shell beds, dolomite, phosphatic sand and carbonate, sand, silt, and clay		SANDSTONE AQUIFER	
				CONFINING UNIT		MID-HAWTHORN AQUIFER	
EARLY OLIGOCENE		SUWANNEE LIMESTONE		Fossiliferous, calcarenitic limestone	FLORIDAN AQUIFER SYSTEM	 LOWER HAWTHORN PRODUCING ZONE	0-300
						UPPER FLORIDAN AQUIFER (UF)	100-700
		LATE	OCALA LIMESTONE	Chalky to fossiliferous, calcarenitic limestone		MIDDLE CONFINING UNIT	500-1,300
EOCENE		MIDDLE	AVON PARK FORMATION	Fine-grained, micritic to fossiliferous limestone, dolomitic limestone, dolostone, and anhydrite/ gypsum		MF	0-400
			?	OLDSMAR FORMATION			LOWER FLORIDAN AQUIFER
		EARLY				BF	200-700
PALEOCENE		CEDAR KEYS FORMATION		Dolomite and dolomitic limestone			
				Massive anhydrite beds		SUB-FLORIDAN CONFINING UNIT	1,200?

Figure 8. Relationship of Hydrogeologic Units in South Florida to Geologic Units and Their Lithology (Reese and Richardson 2004). *Geologic Units are missing in some areas.



from: A Density- Dependent Groundwater Flow Model of the Lower West Coast Floridan Aquifer System
Florida Atlantic University Department of Geosciences, April 21, 2008

Agreement on the feasibility of producing a statewide PRI map for groundwater

- Selection of aquifers needs to be based on data availability**

- What aquifers, in addition to the Upper Floridan aquifer?**

sand-and-gravel aquifer, western panhandle

surficial/Biscayne aquifers, southeastern peninsula

surficial/intermediate aquifers, southwestern peninsula

- Data processing and analysis?**

- How to represent different aquifers on a statewide map?**