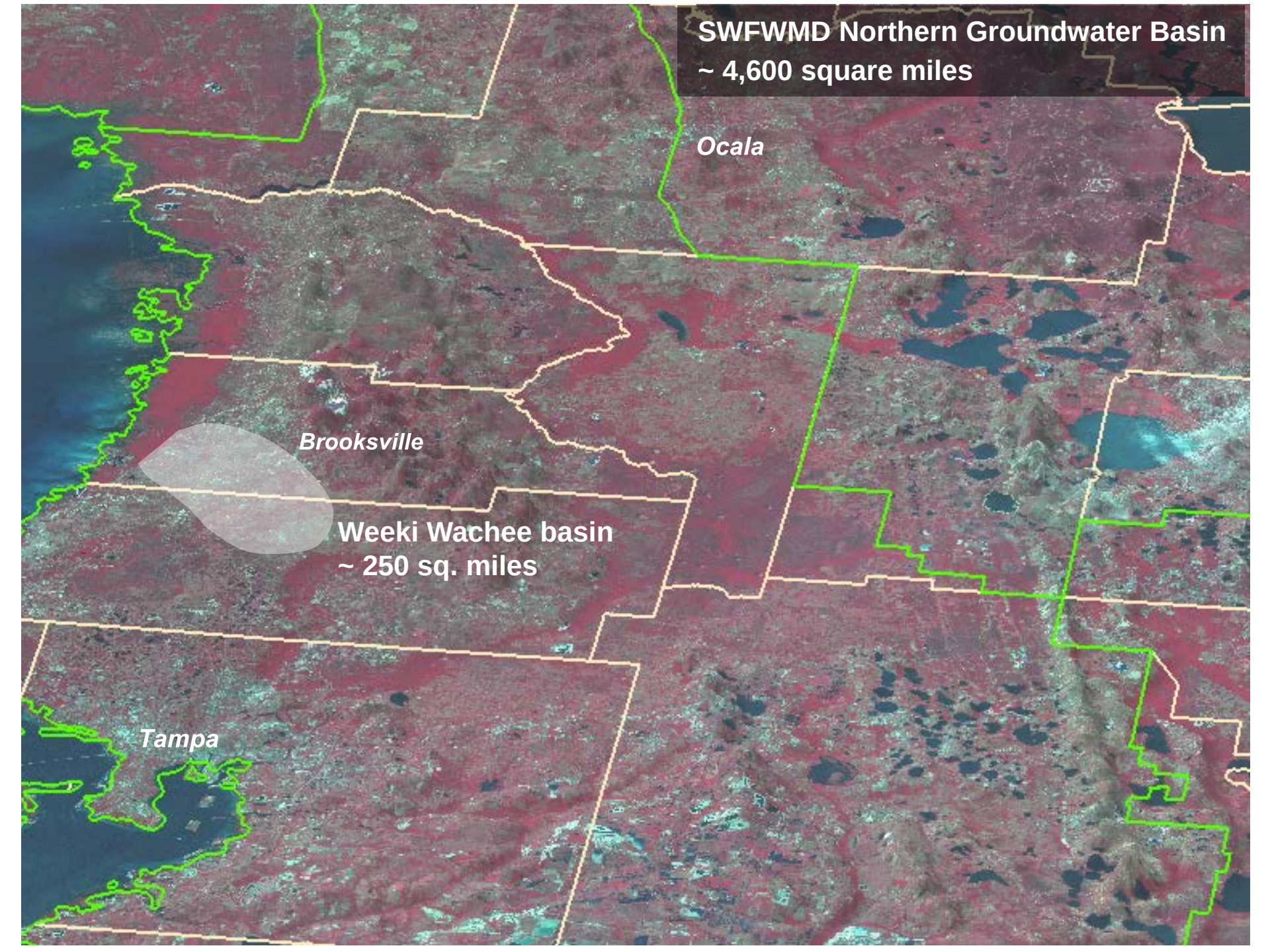


*Overview of the Hydrogeology
in the
Weeki Wachee Springs Basin*





A satellite map of the Southwest Florida Water Management District (SWFWMD) Northern Groundwater Basin. The map shows a large area of land with a green outline indicating the basin's boundary. County boundaries are marked with thin yellow lines. Major cities are labeled: Ocala in the north, Brooksville in the center, and Tampa in the southwest. A specific area within the basin is highlighted with a semi-transparent grey oval and labeled as the Weeki Wachee basin. The background is a satellite image showing land cover, water bodies, and urban areas.

SWFWMD Northern Groundwater Basin
~ 4,600 square miles

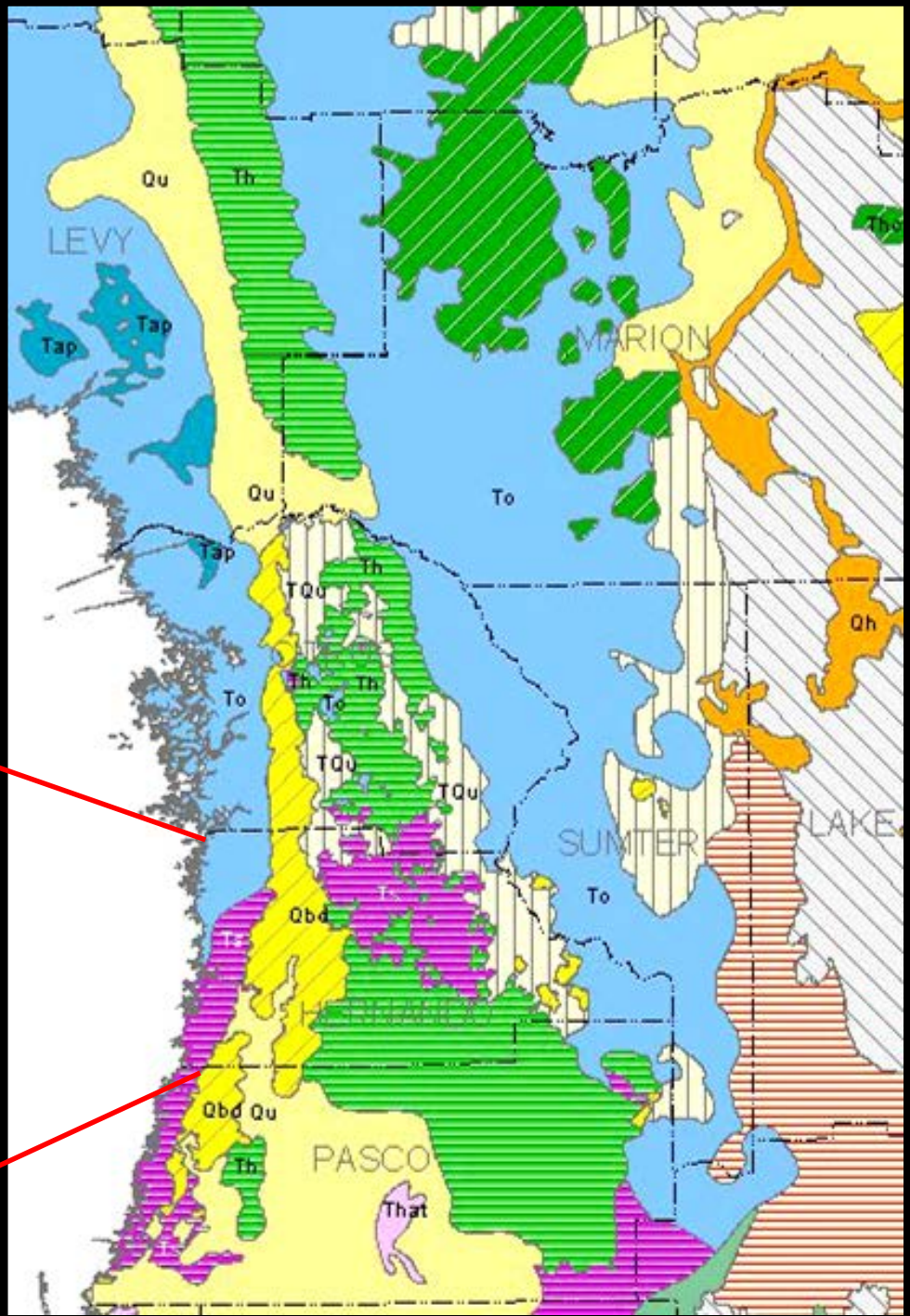
Ocala

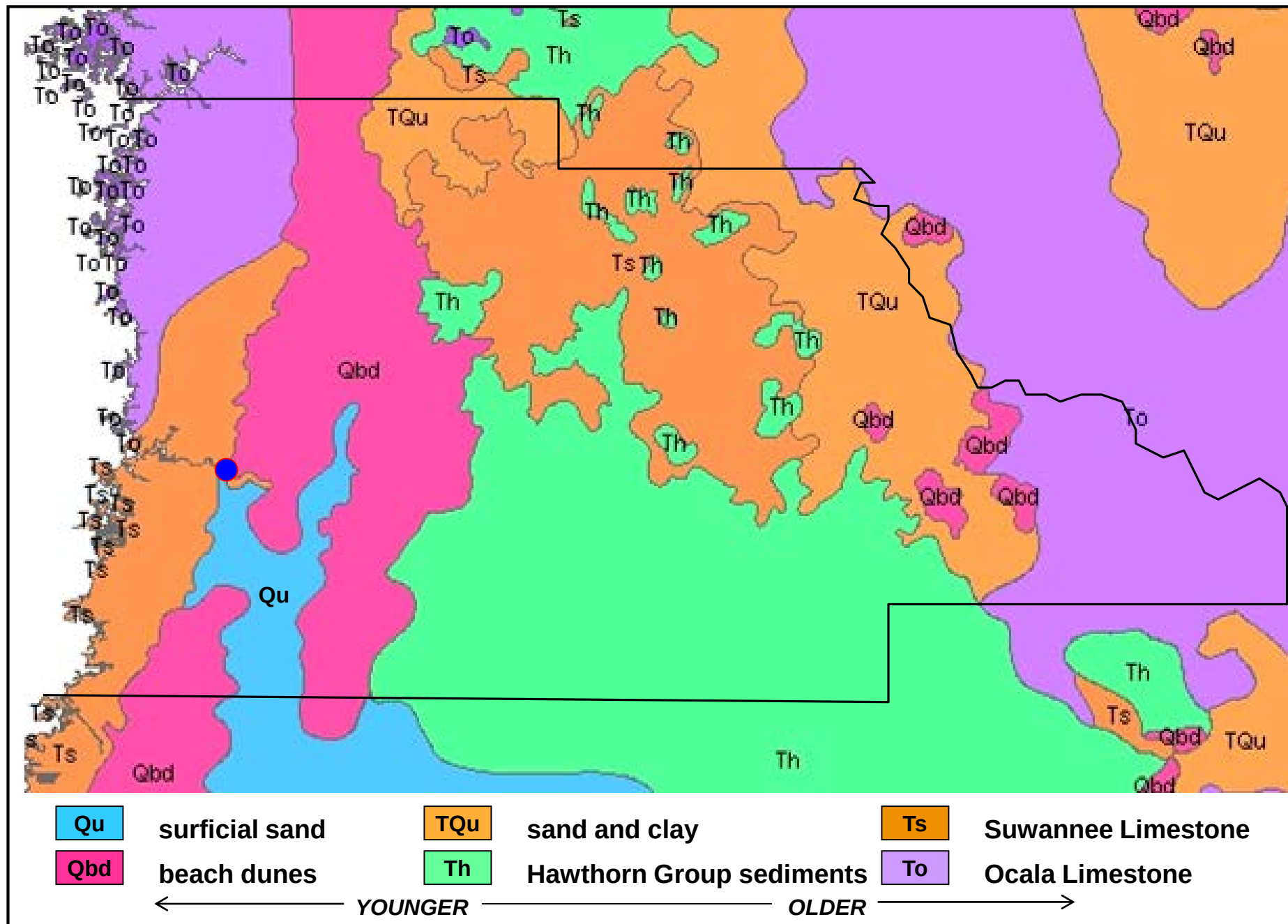
Brooksville

Weeki Wachee basin
~ 250 sq. miles

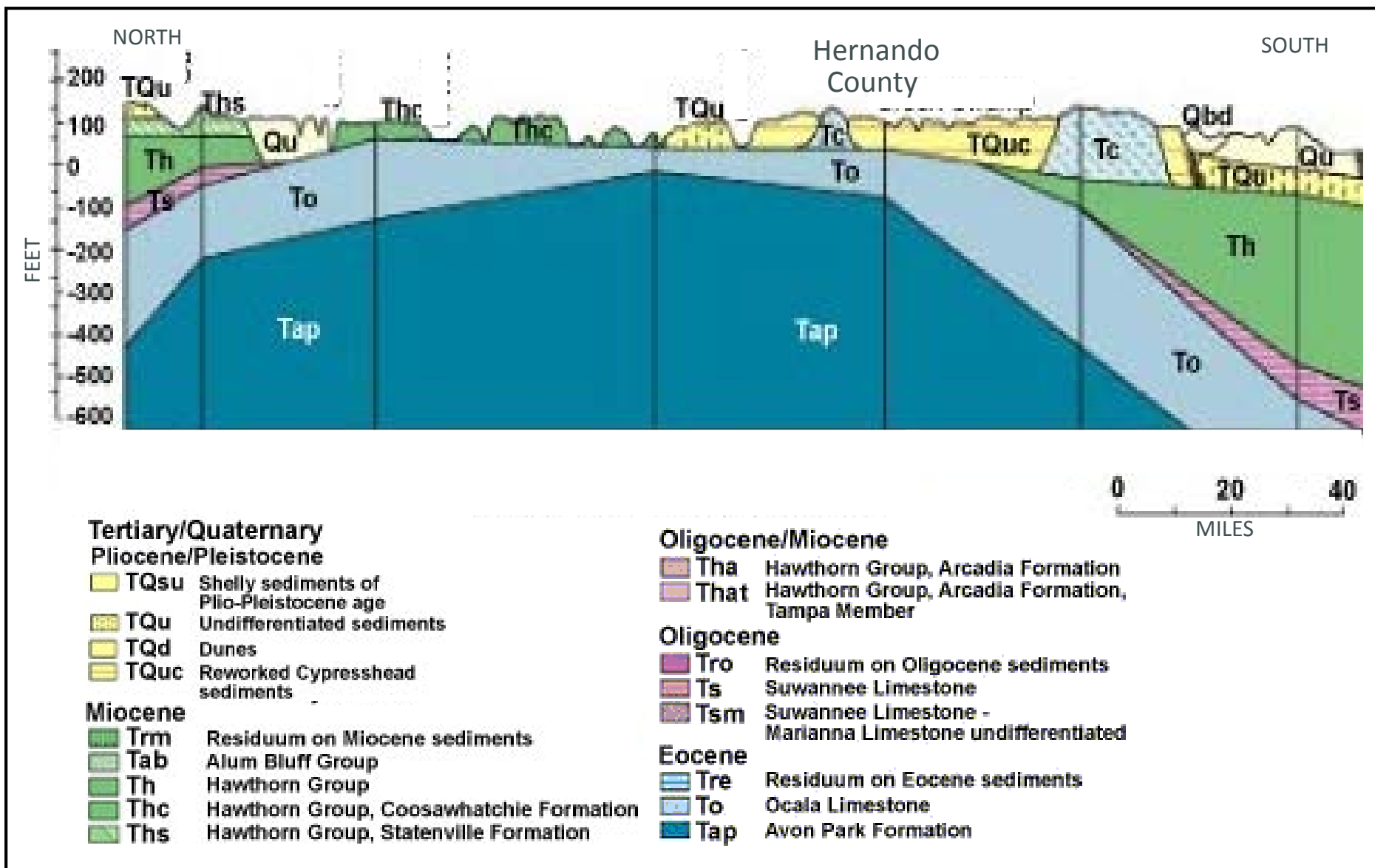
Tampa

Geologic map, northern SWFWMD area
(modified from, Florida Geological Survey 2001)



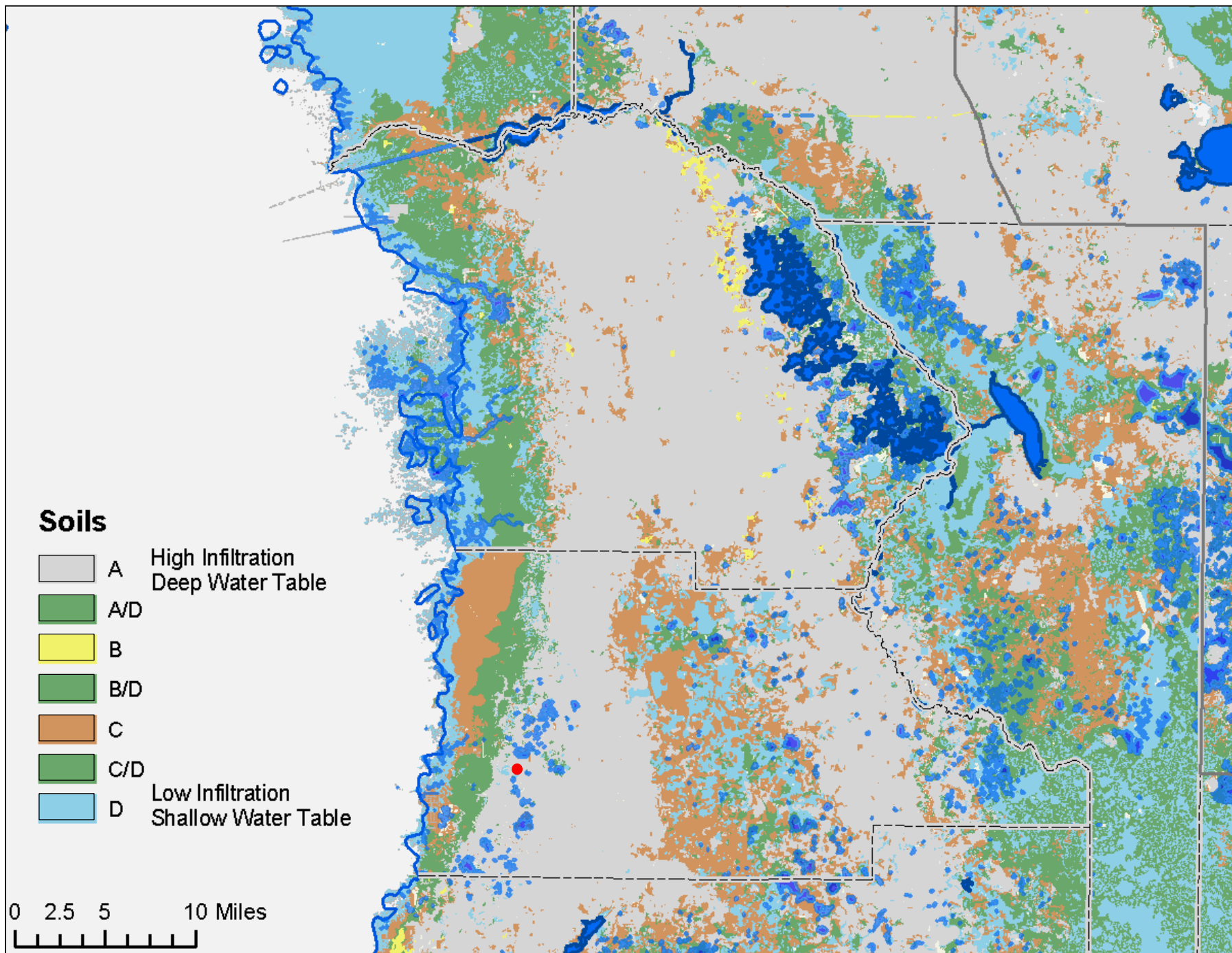
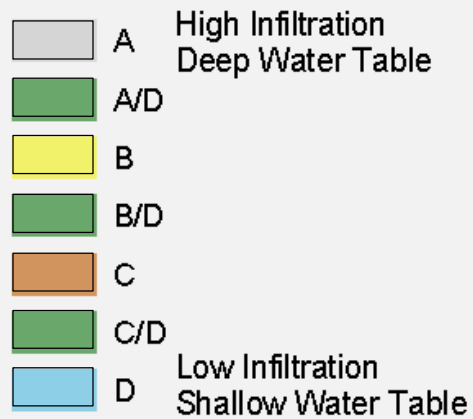


Near-surface geology across Hernando County (Fl. Geological Survey, 2001)



Representative geologic cross-section of north-central peninsular Florida

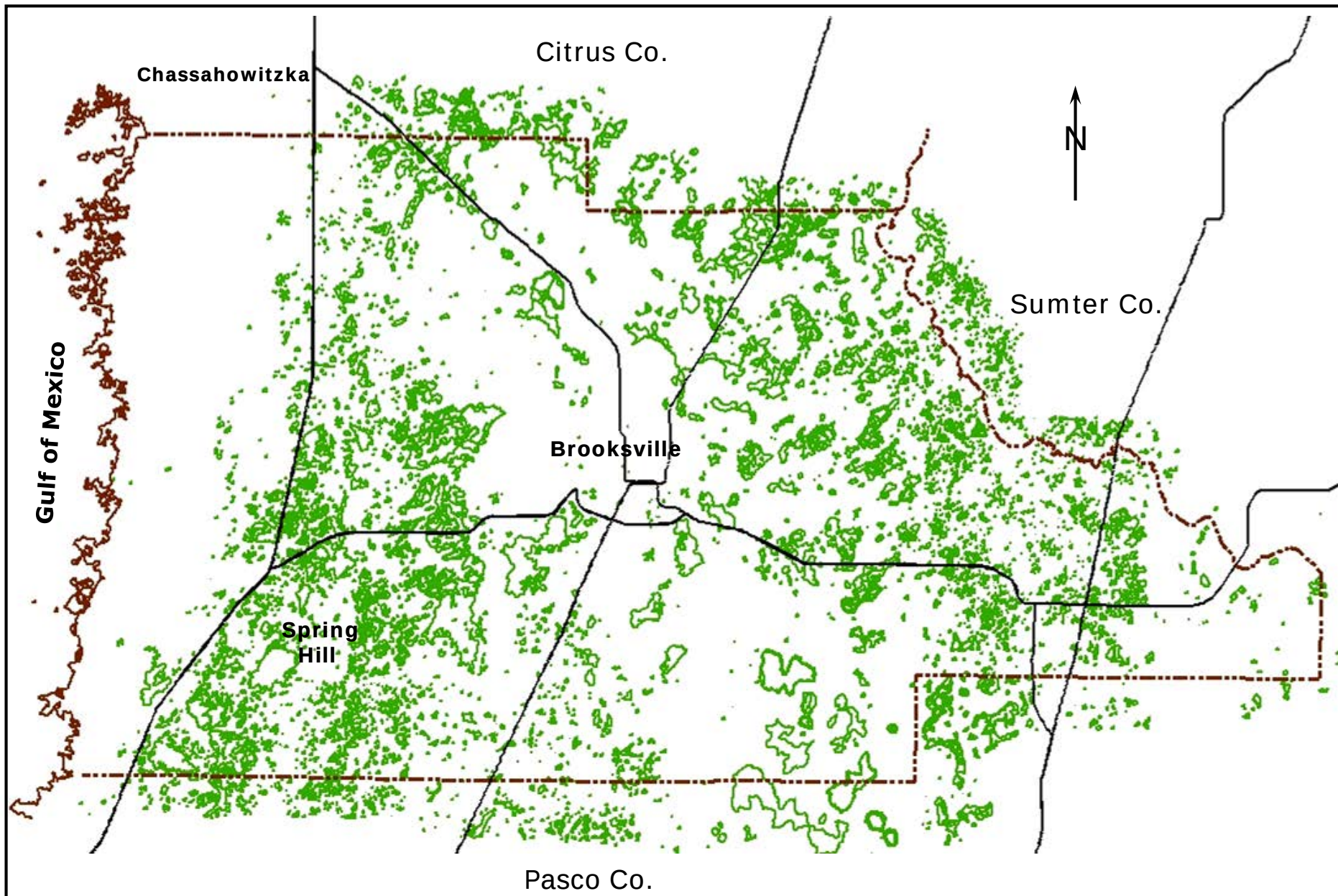
Soils



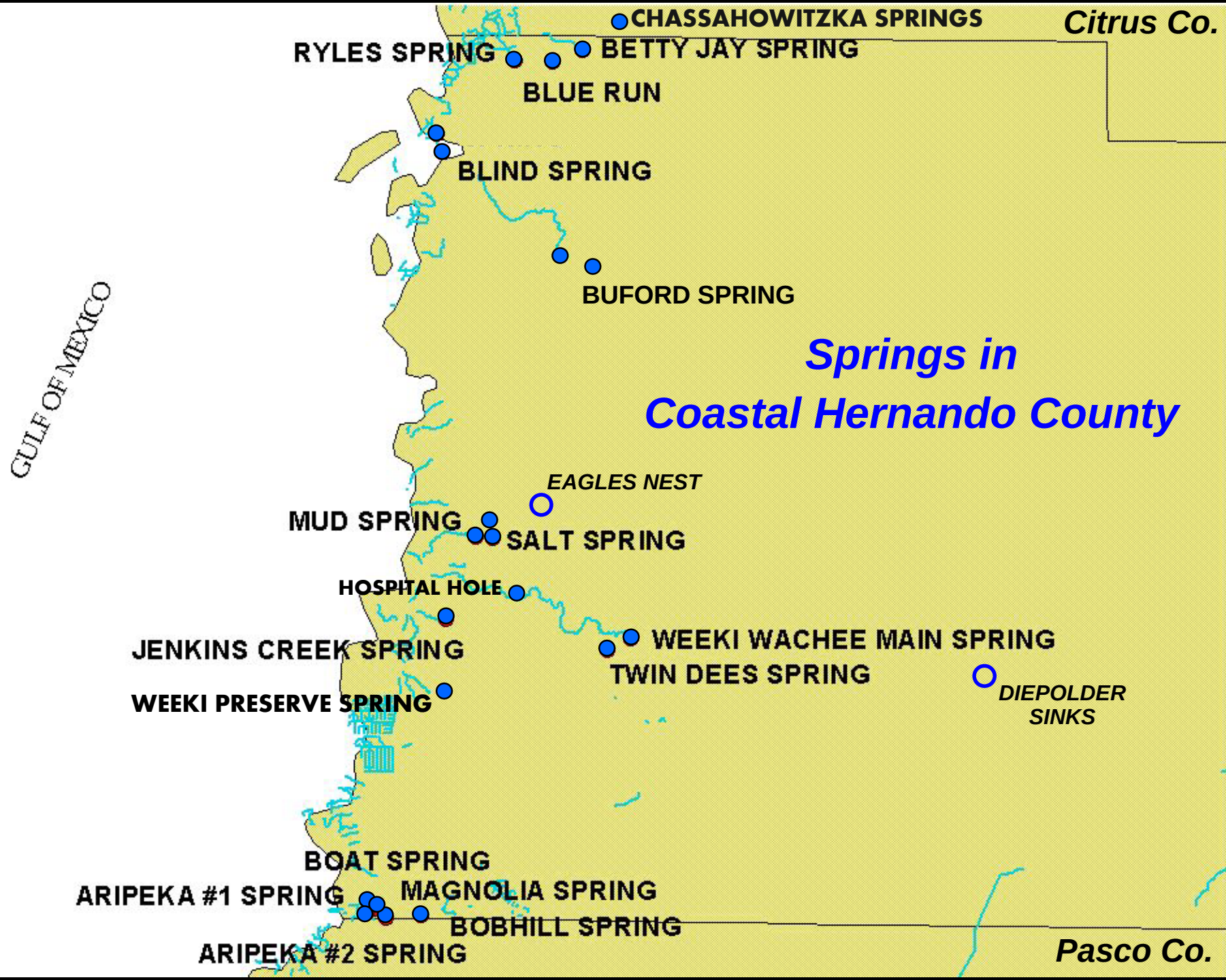


Peck Sink drain to the Upper Floridan aquifer





Closed depression topography across Hernando County





Cave conduits beneath Weeki Wachee Spring



KUR 2013

**Weeki Wachee
Spring**

**Composite map of cave
diagrams from diving
exploration surveys, 1995 to
2013**

(from Karst Underwater Research)

F-Well Room

**Twin Dees Spring
entrance**



September 2004 Potentiometric Surface of the Upper Floridan aquifer (elevations in feet above sea level)

5 miles

Weeki Wachee
Springs

Hernando Co.
Pasco Co.

10

20

30

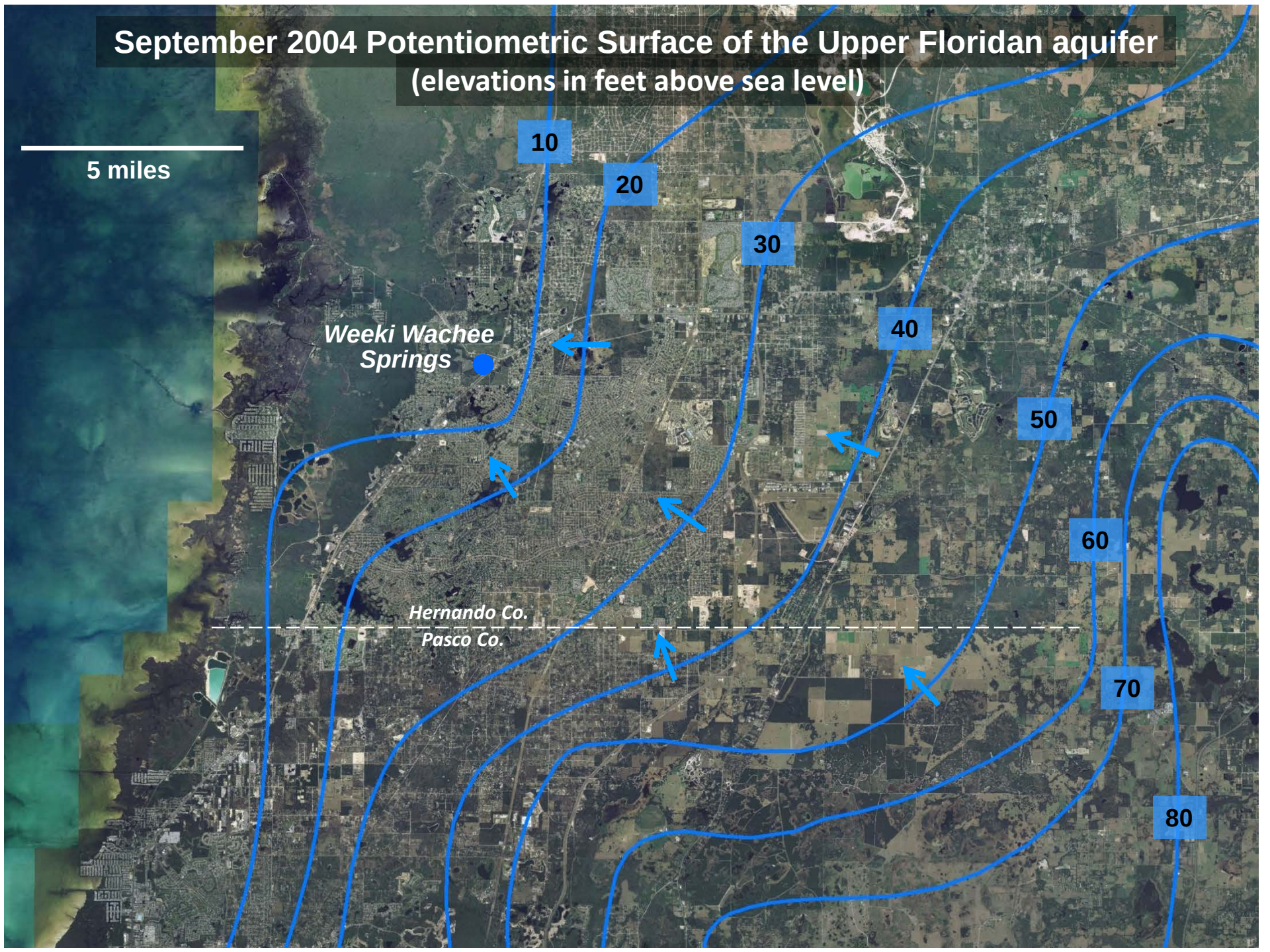
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50

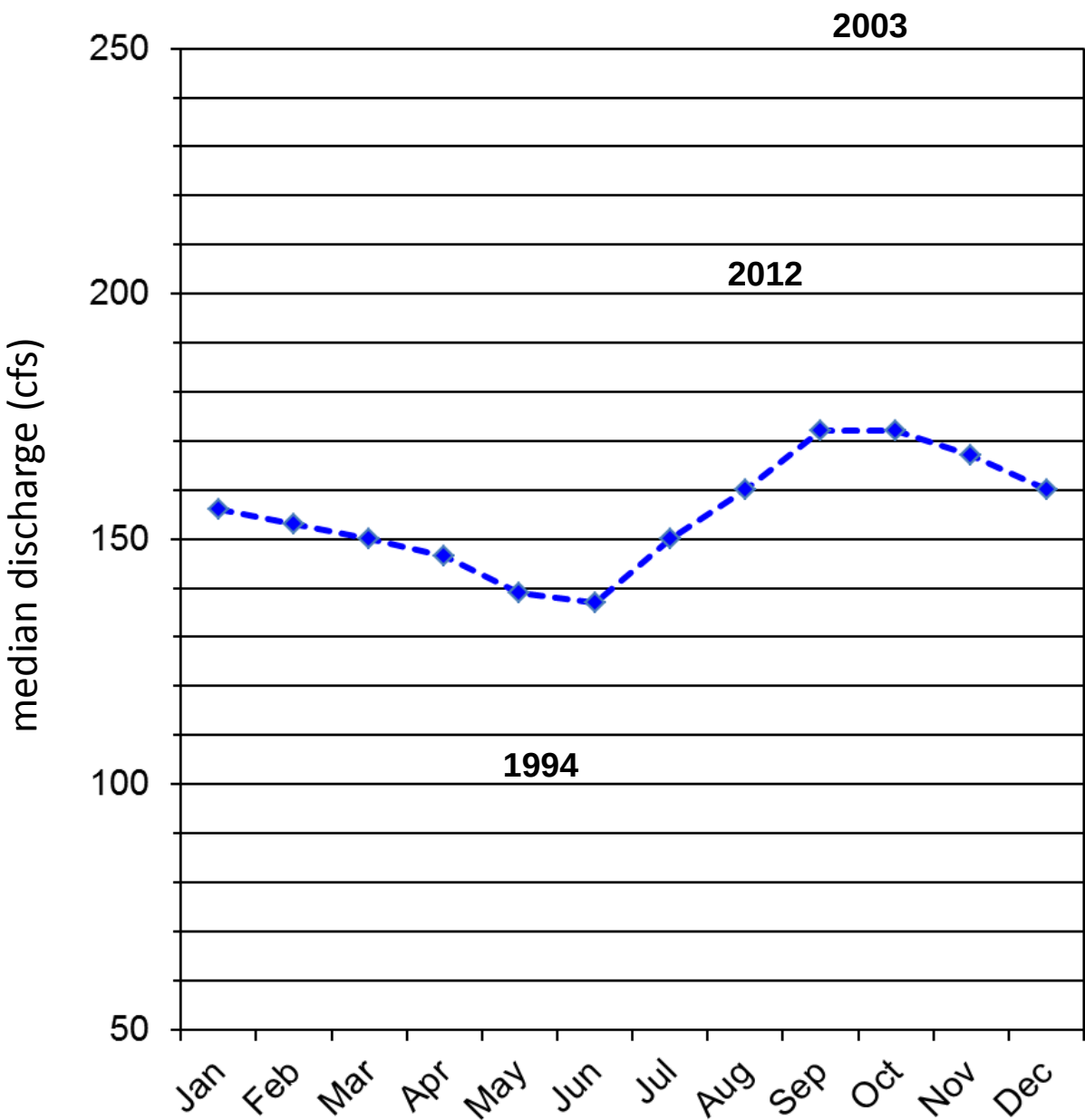
60

70

80



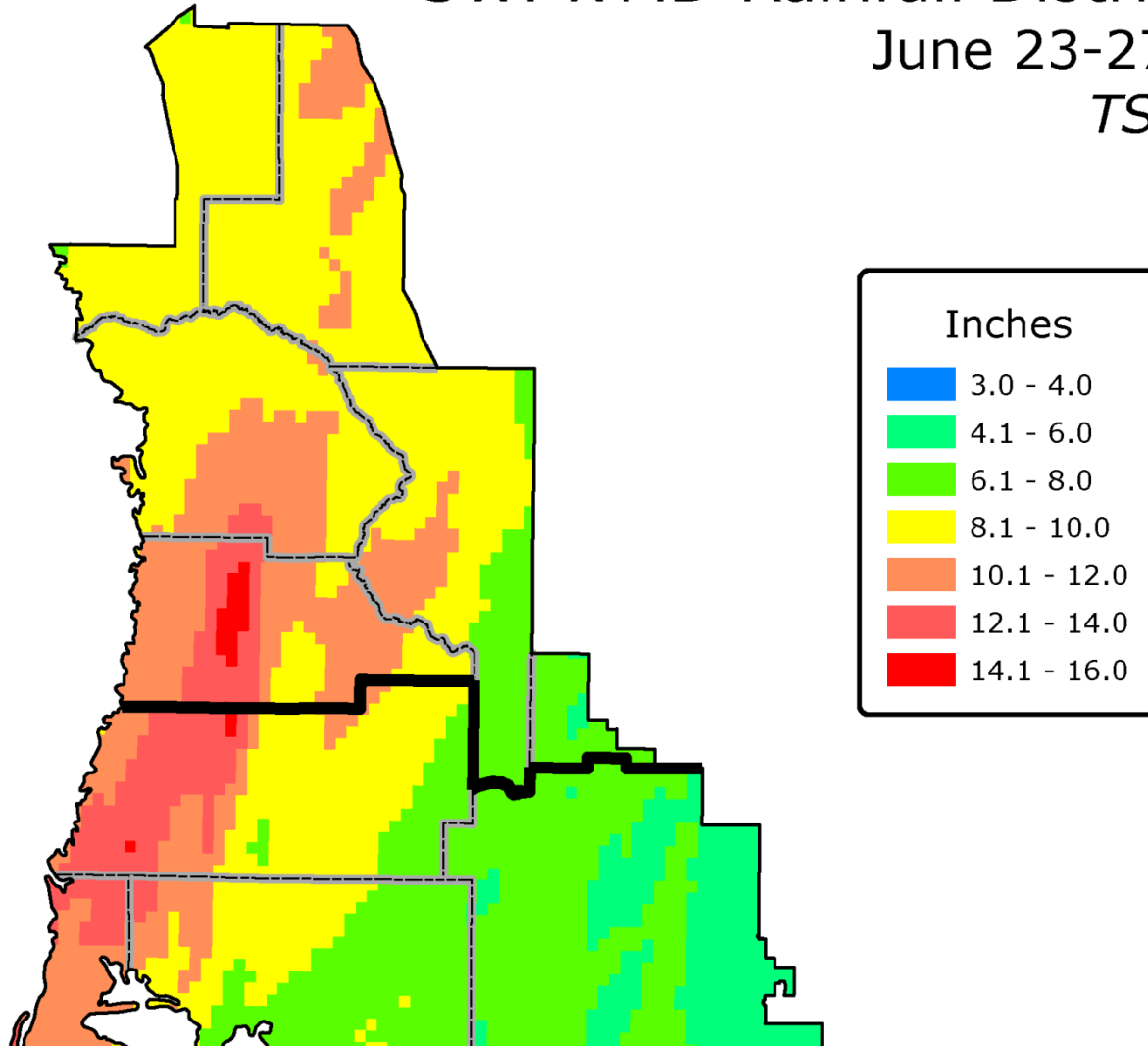
Weeki Wachee Spring discharge, 1993-2013
median values of USGS monthly means of daily estimates



SWFWMD Rainfall Distribution

June 23-27, 2012

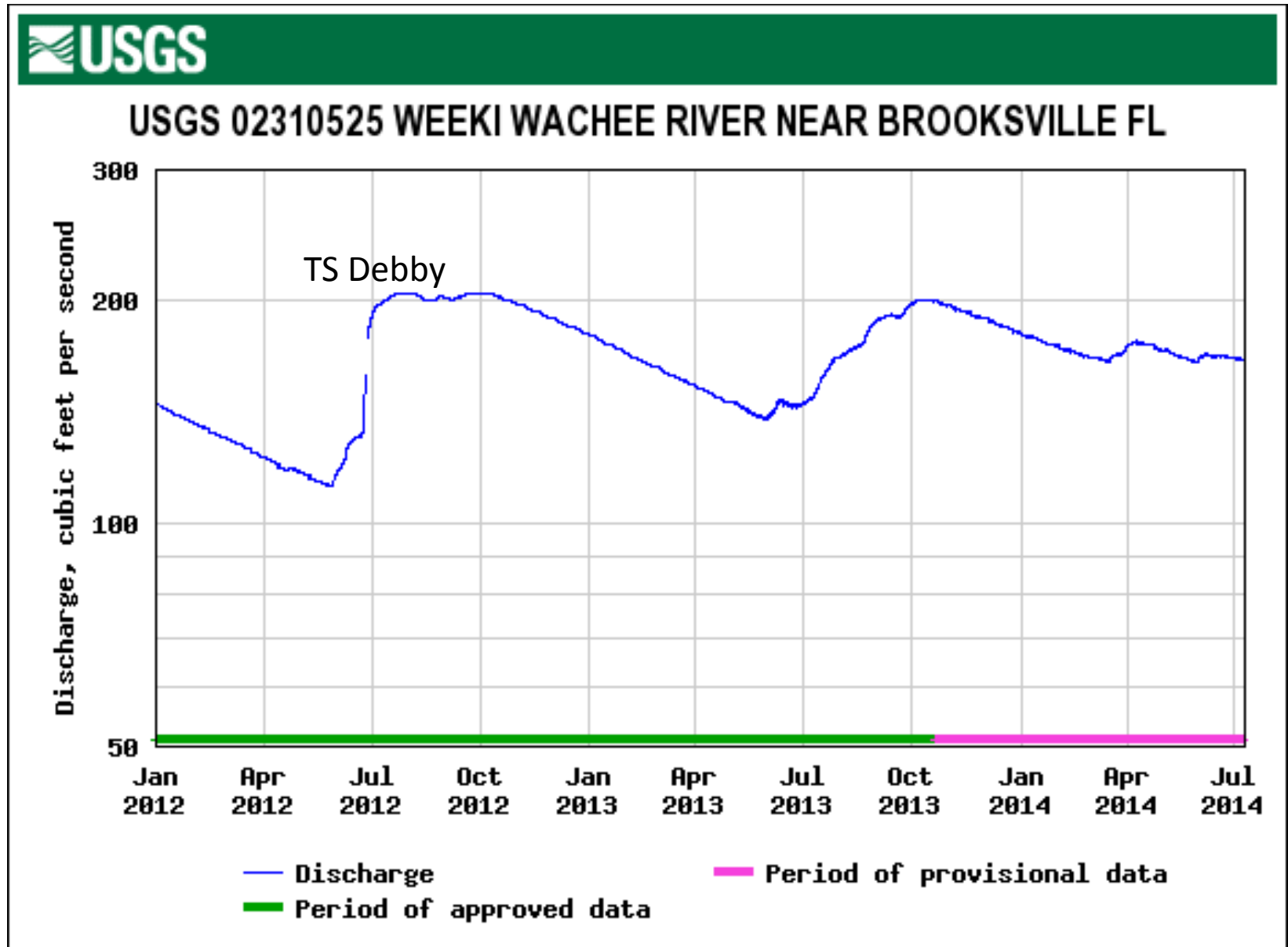
TS Debby



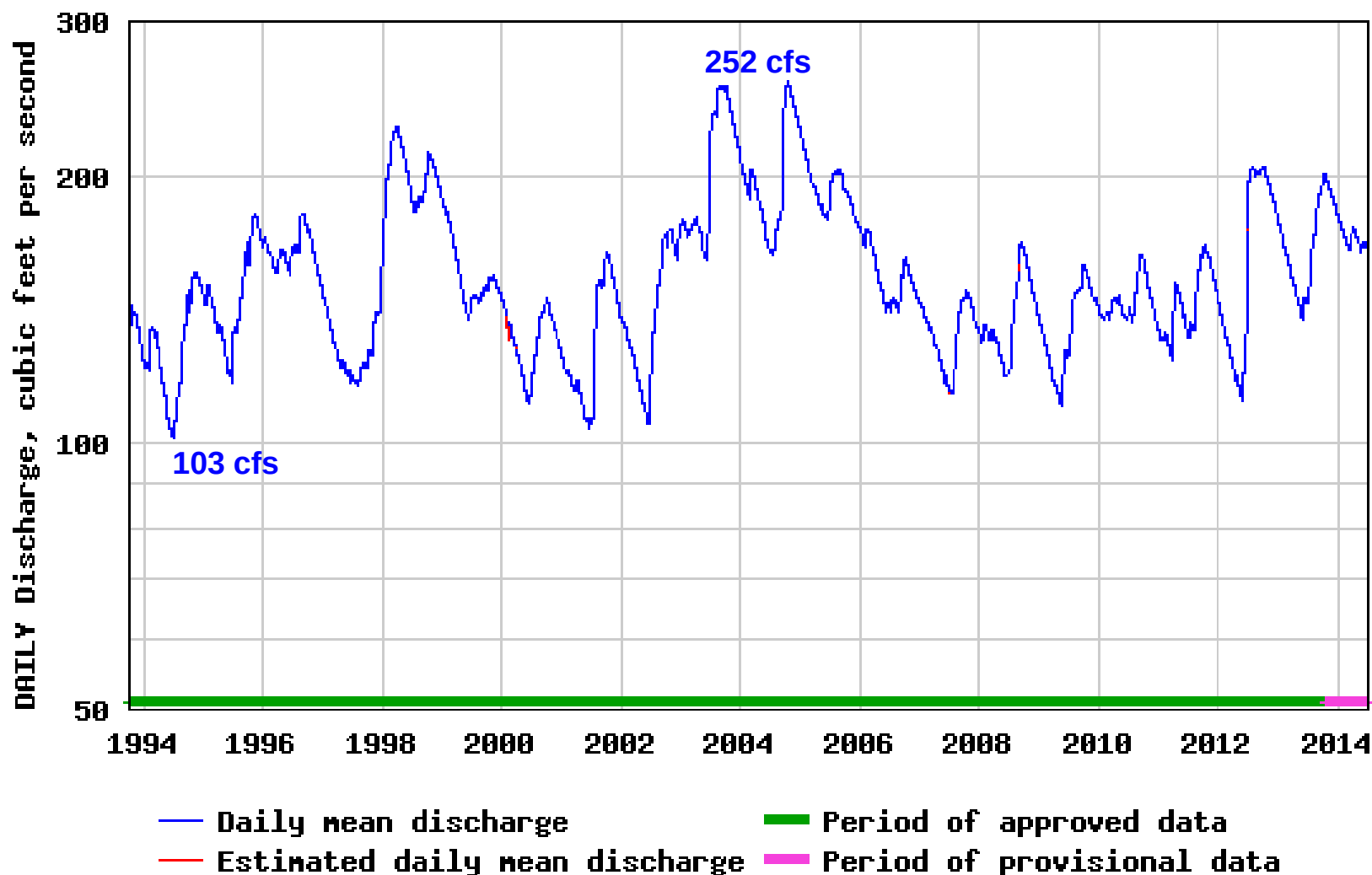
Hydrologic Data Section
Data Collection Bureau
Data source: Vieux, Inc.
Usage note: Provisional information only, subject to revision.

Southwest Florida
Water Management District

Discharge, cubic feet per second Most recent instantaneous value: **166 cfs**, 07-09-2014

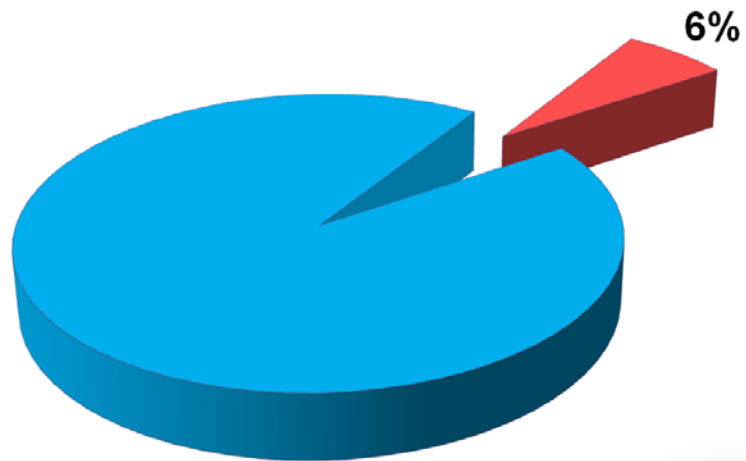


USGS 02310525 WEEKI WACHEE RIVER NEAR BROOKSVILLE FL



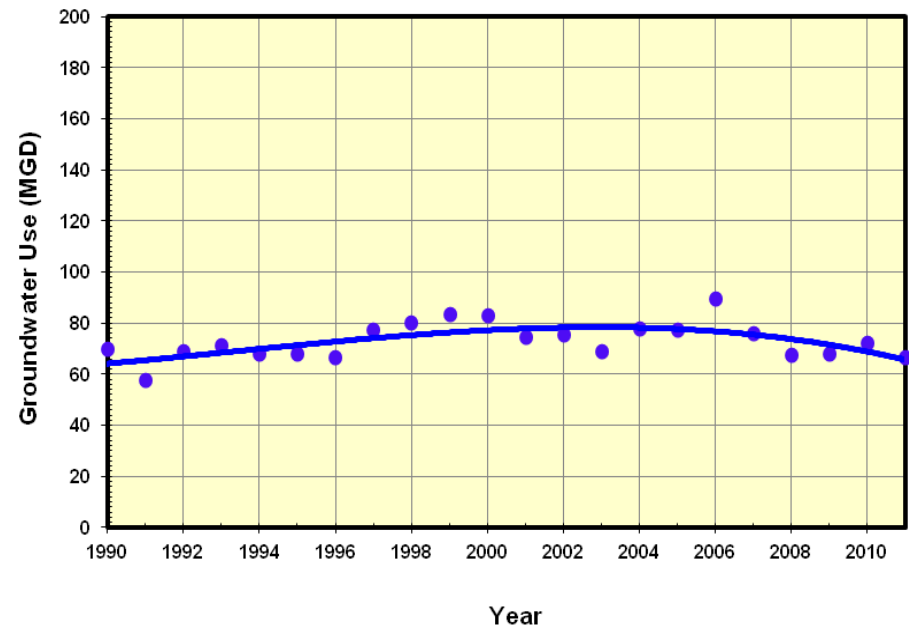
Annual average discharge 1931-2013 from Weeki Wachee Springs, **171 cfs**

Northern Basin - Groundwater Use as a Percent of Recharge

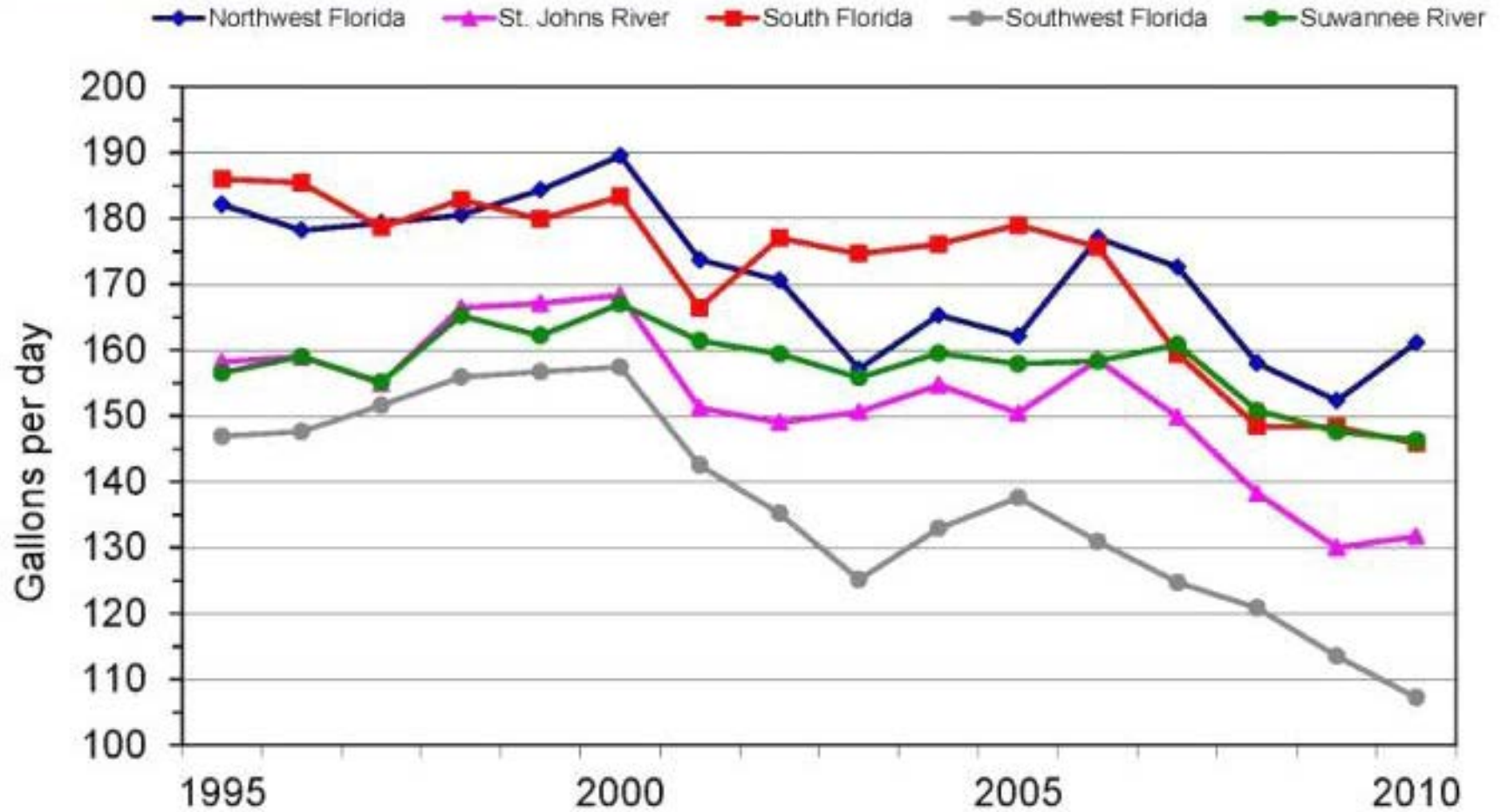


Pumping
Recharge

Citrus and Hernando County - Groundwater Use

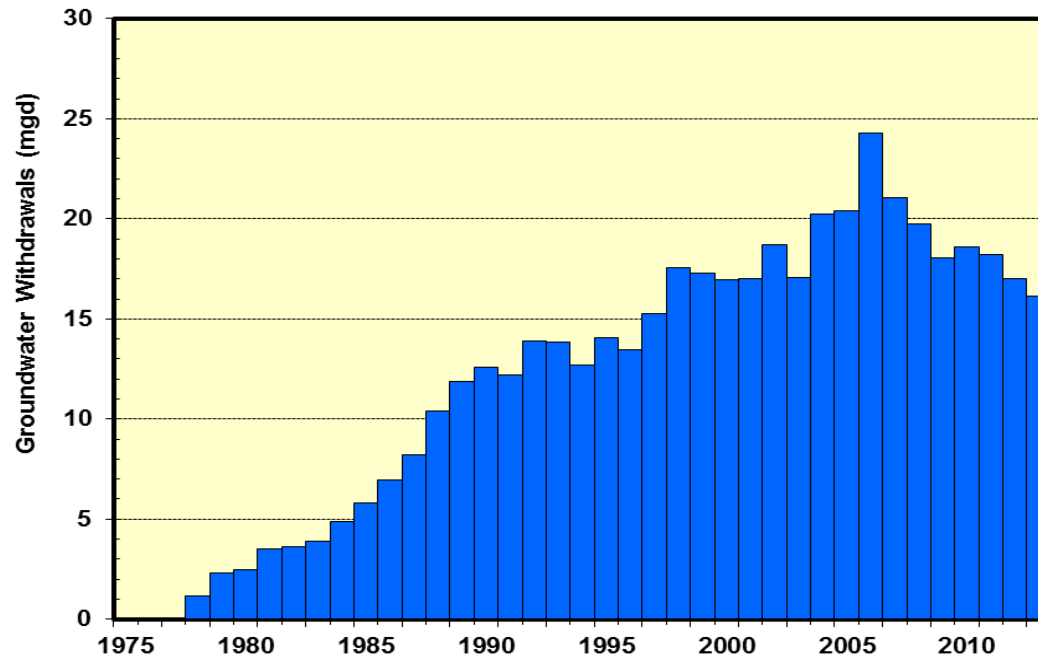


Gross Per Capita Water Use by WMD

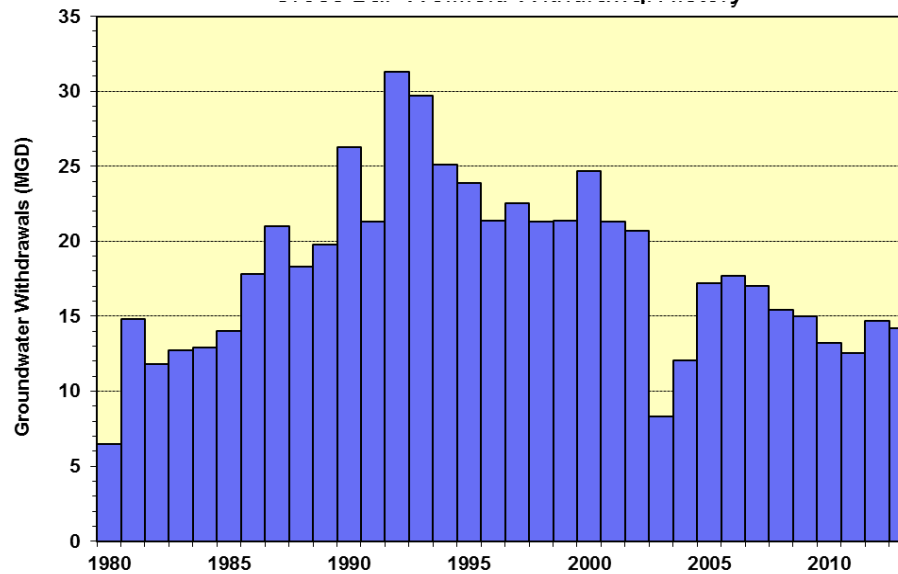


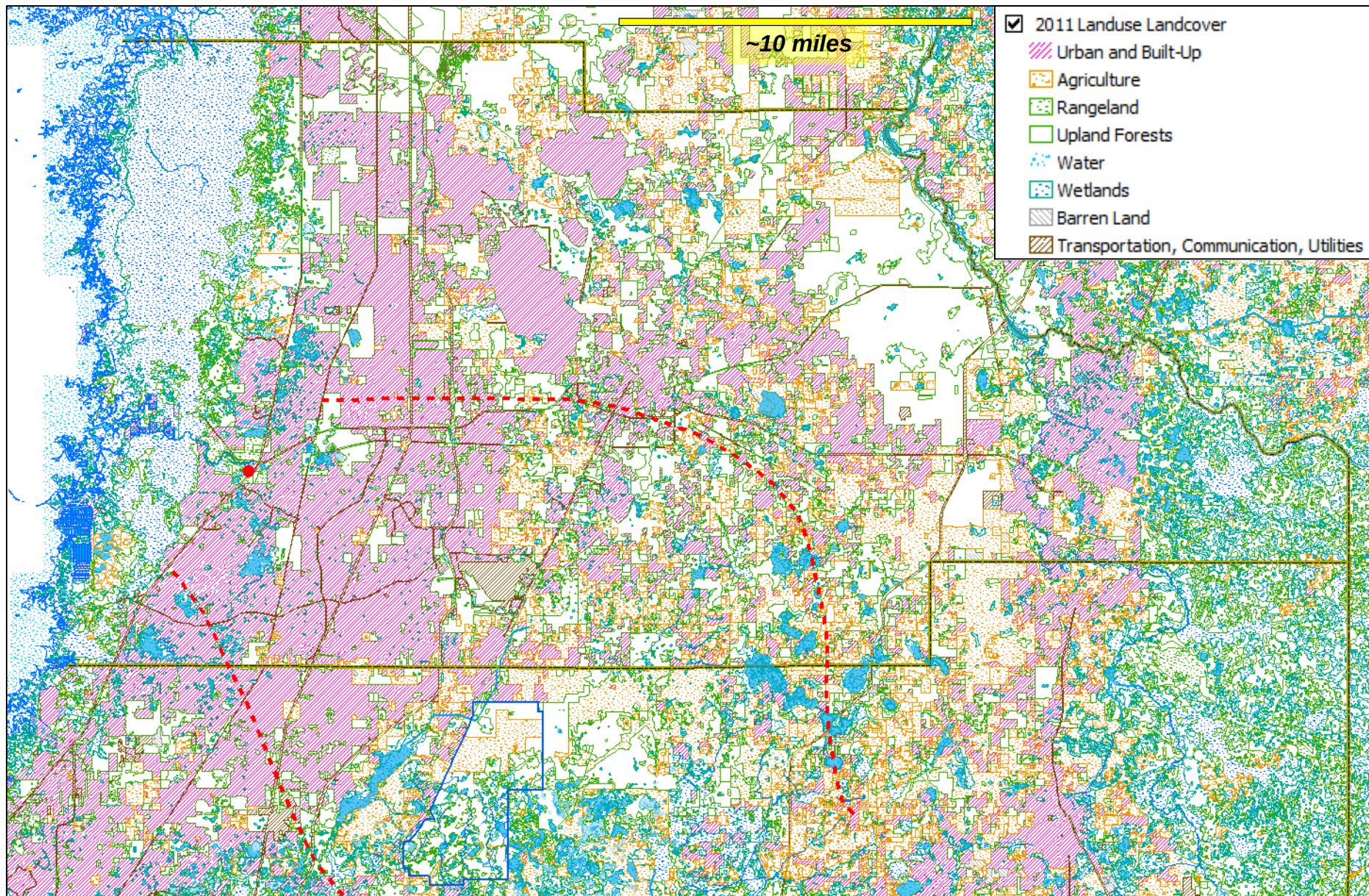
Source: University of Florida

West Hernando County - Public Supply Withdrawals



Cross Bar Ranch Well Field - Tampa Bay Water

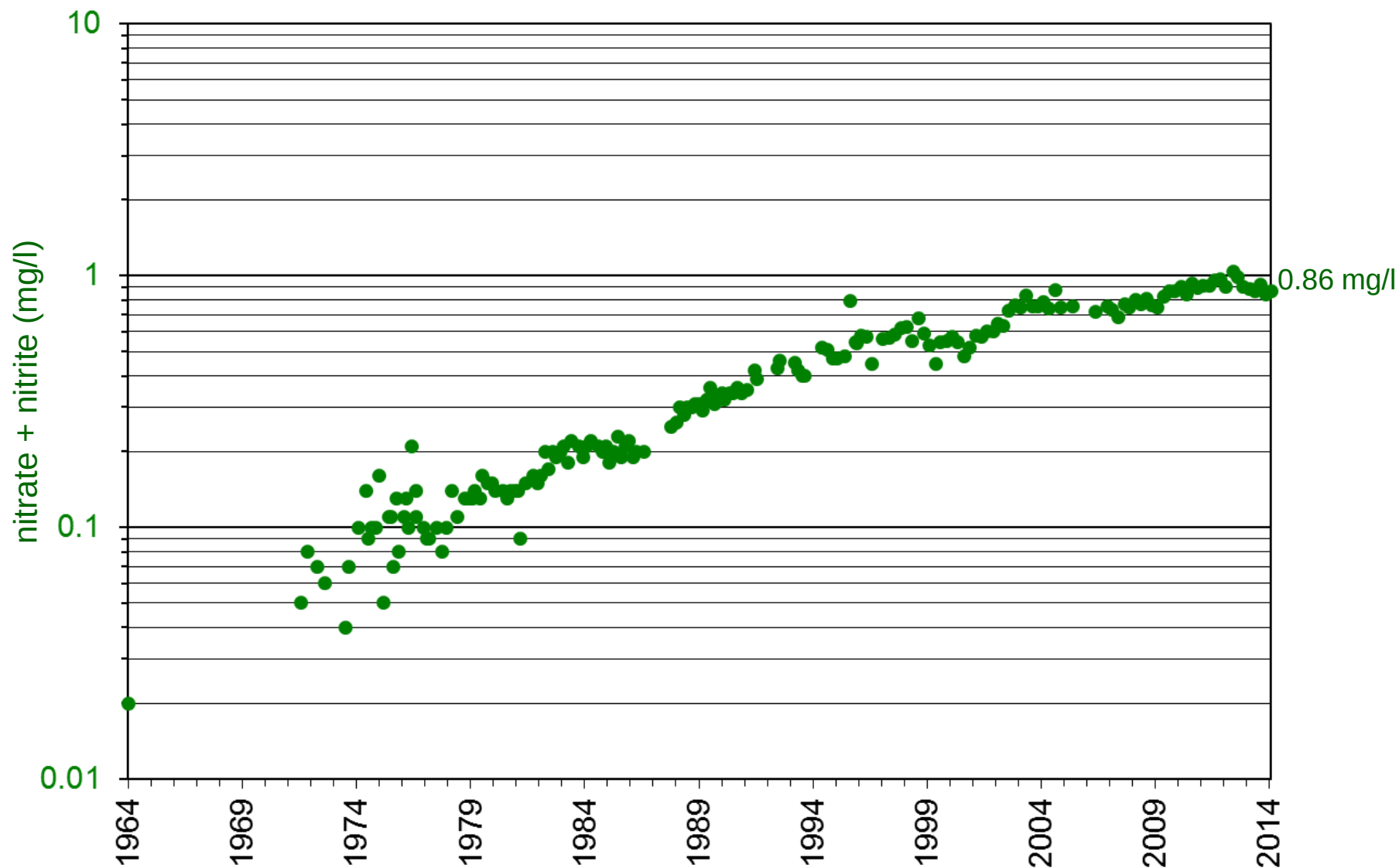




2011 Landuse/Landcover for Hernando Co. northern Pasco Co. and the Weeki Wachee Springs basin

Nitrate Concentrations at Weeki Wachee Spring, 1964 to 2014

(data sources, USGS, SWFWMD)



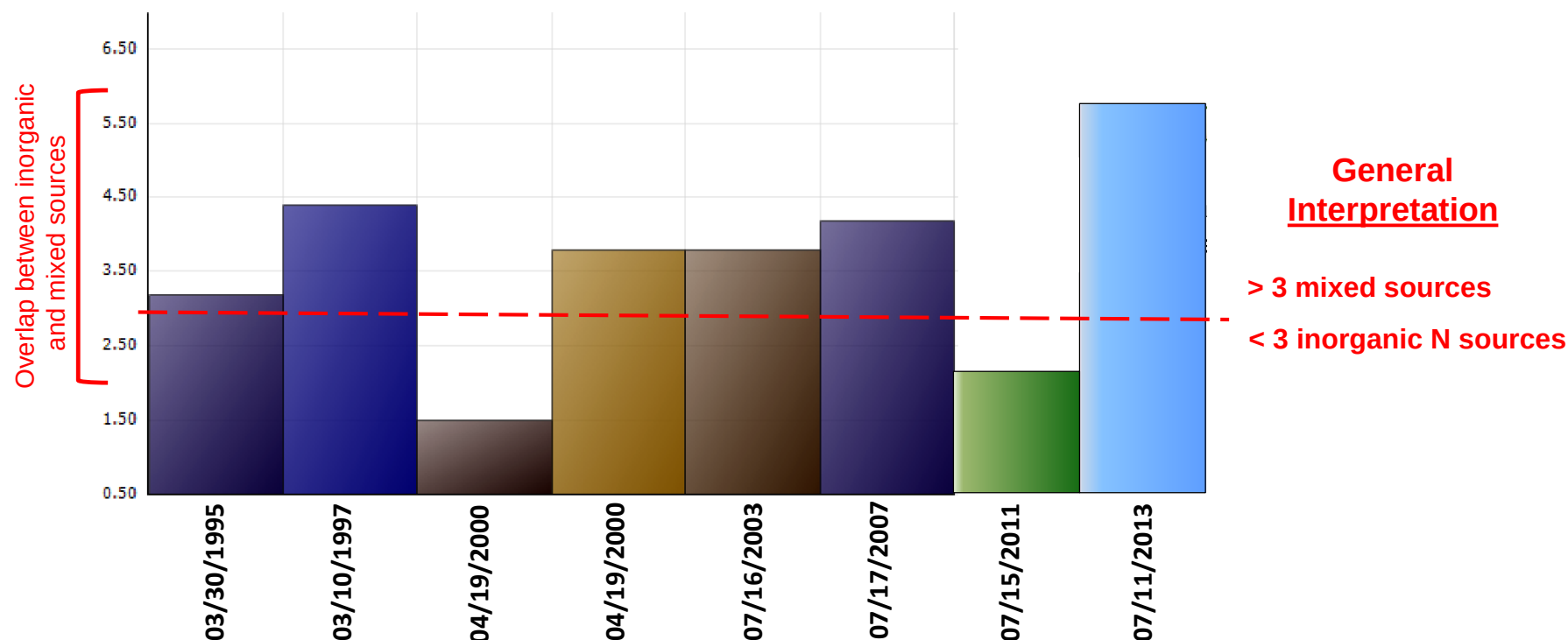
20919 WEEKI WACHEE SPRINGS NR BROOKSVILLE

Nitrogen15/Nitrogen14 Isotope Ratio

[<< Back to Search Results](#)

Chart Preview Daily Aggregate Data

If no data or dates display on the graph, select a smaller date range so they can be plotted. You can also view the data by clicking the Export Data button.



Historical nitrogen isotope ratio values of nitrate discharging from Weeki Wachee Spring

modified graph from the SWFWMD-WMIS Data Warehouse

interpretive references: SWFWMD/Jones et. al. 1998; USGS/Phelps 2004; McQuillan 2004

WaterMatters.org/Springs

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Home Page → Springs

[Springs Intro](#) [Learn About Springs](#) [Threats to Springs](#) [Protecting Springs](#) [Springs Experts](#) [Events](#) [Springs Resources](#)



RESTORING OUR SPRINGS!
WaterMatters.org/Springs
SOUTHWEST FLORIDA
WATER MANAGEMENT DISTRICT

Weeki Wachee Springs

[Weeki Wachee Springs](#) [Chassahowitzka Springs](#) [Crystal River/Kings Bay](#) [Rainbow Springs](#) [Homosassa Springs](#)

Springs in West-Central Florida

Florida has more than 1,000 springs — the largest concentration in the world. Within the Southwest Florida Water Management District, there are more than 150 springs.



Meet the Springs Team

Renewing Our Springs

Springs Dashboards
View at-a-glance data on the



Weeki Wachee Springs

Springshed Dashboard

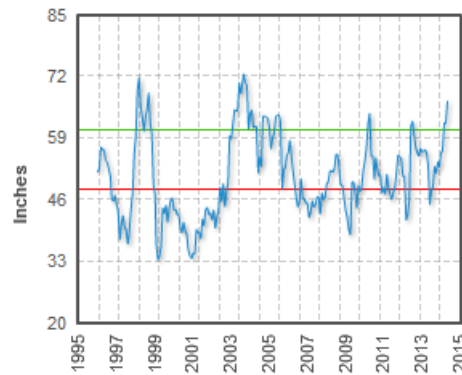
An at-a-glance view of recent water quality and flows, and contributing factors affecting the spring and downstream Weeki Wachee River.

Current Conditions

Historical Average Rainfall
for July: **8.64 in**

Actual Rainfall Received
for July: **0.00 in**

Springshed Region Rainfall



Data source: SWFWMD

Weeki Wachee River Stream Flow:
108 mgd (June 28)

No current data collection due to equipment damage from boat collision



Location



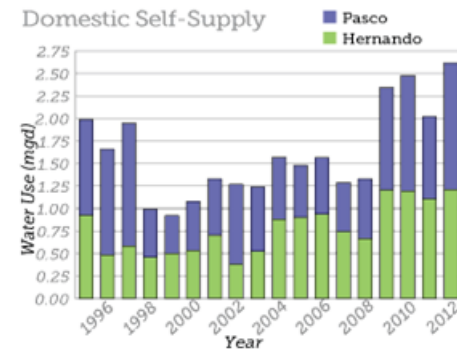
Underwater view of Weeki Wachee River looking upriver within Weeki Wachee Springs State Park. (Inset: State of Florida counties and Weeki Wachee Springshed location)

Weeki Wachee Springs



Characteristics

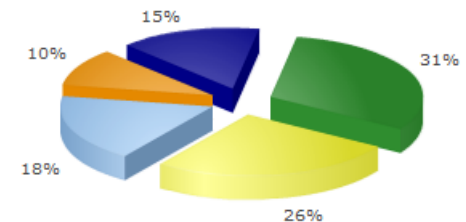
Springshed Water Use
(Hover to pause; click to advance.)

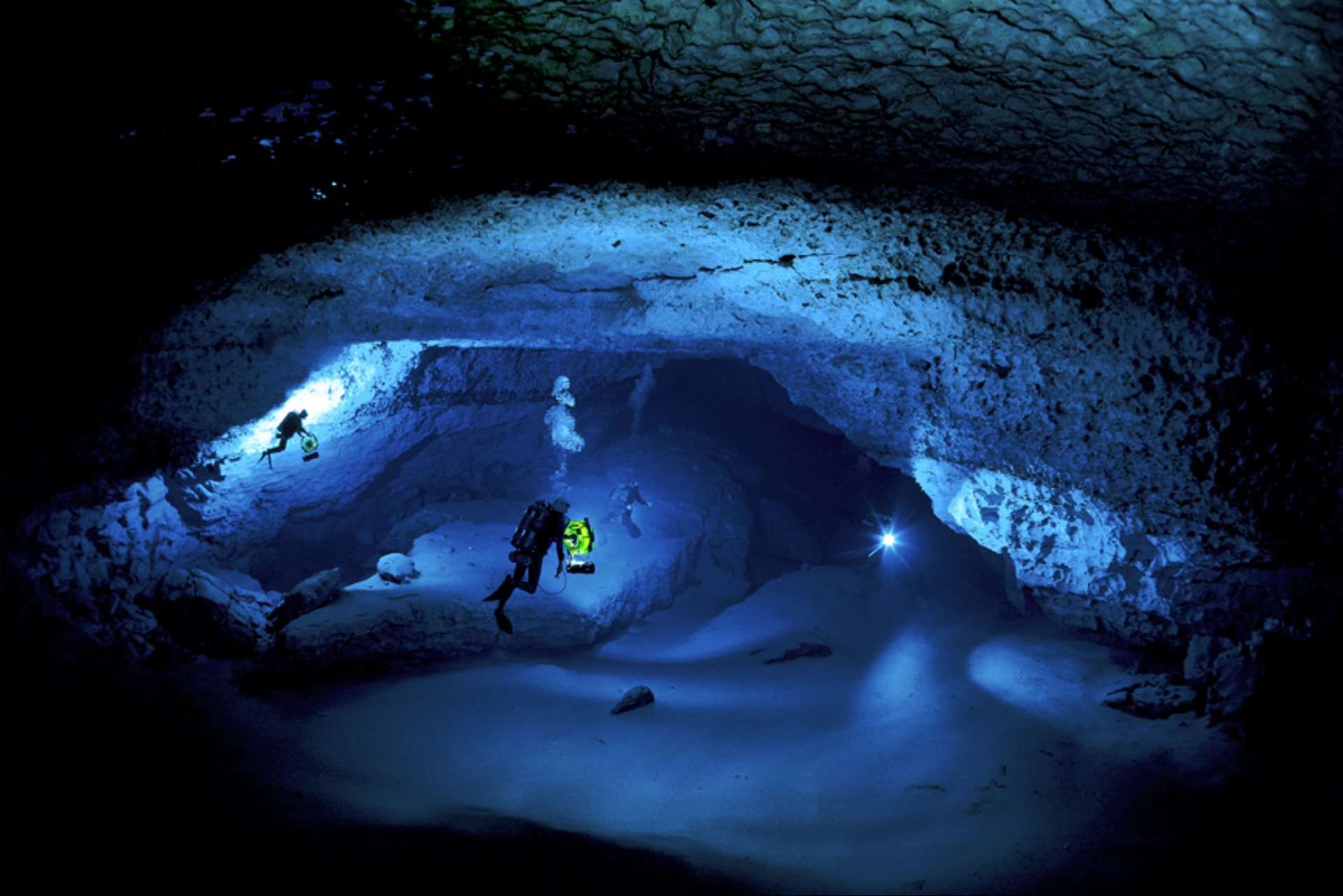


Data source: SWFWMD

Nitrate Loading

- Other
- Wastewater
- Fertilizer
- Cattle
- Poultry





Underwater cave beneath Diepolder sinks, Sandhill Scout Reservation
(photo by Wes Skiles, Karst Productions)