

SUWANNEE RIVER WATER MANAGEMENT DISTRICT

MEMORANDUM

TO: Governing Board

FROM: Robbie McKinney, Hydrologic Program Manager, Office of Water Resources

THRU: Hugh Thomas, Executive Director

DATE: July 31, 2025

RE: July 2025 Hydrologic Conditions Report

RAINFALL

- Districtwide average rainfall for the month was 6.61", which was about 14 percent lower than the 1932-2024 average of 7.70" (Table 1, Figure 1). The 12-month period ending July 31 reflected a Districtwide rainfall deficit of 1.85", which was an increase to the 0.96" deficit seen at the end of June. District counties ranged from 4" to over 11" of rainfall on average, with parts Levy and Dixie counties receiving more than 12" of rainfall (Figure 2).
- Overall, a 12-month rainfall deficit was present in 4 of the basins, with the Waccasassa Basin showing an increase in surplus by the end of July (Figure 3). Areas of 12-month surpluses greater than 14" were represented in the Waccasassa Basin, while sections with deficits greater than 14" were observed in the Aucilla, Suwannee, and Santa Fe basins. The Waccasassa Basin transitioned from a 3-month deficit to surplus, while the Coastal, Santa Fe, and Suwannee basins saw decreased deficits by the end of July (Figure 4). Over the past 3 months, the Coastal, Suwannee, and Waccasassa basins showed portions with surpluses greater than 5", while areas with greater than 7" of rainfall deficits were scattered throughout 4 of the river basins.

SURFACE WATER

- **Rivers:** Many of the river gages in Figure 5 finished the month in the normal (25th – 75th percentile) range, with gages on the Santa Fe River (Worthington and Ft. White), Steinhatchee, and Withlacoochee (Pinetta) showing flows in the below normal (10th – 25th percentile) category. Additionally, gages in the Santa Fe Basin (Graham and New River), St. Marys (North Prong and Macclenny), and South Georgia (Ochlocknee, Little River, and Alapaha) also had below normal flows at the end of the month (Figure 6). Other monitored river gages saw normal flows to begin and end July.
- **Lakes:** Water levels increased at a majority of the monitored lakes in the District this month (Figure 7). The median increase in stage across all measured lakes was about 0.1, with 11 of the monitored lakes ending the month of July below their respective long-term average. Governor Hill Lake represented the largest water level increase in July with a rise of around 0.5' since last month.
- **Springs:** Flow measurements were made at 22 springs in July by the U.S. Geological Survey (USGS), District staff, and contractors. Fanning Springs saw flows in both the below normal and normal ranges in July (Figure 8). Manatee Springs, on the other hand, had normal range of flows throughout the month (Figure 9).

GROUNDWATER

Upper Floridan Aquifer (UFA) levels across the District ranged from extremely low (<10th percentile) to extremely high (>90th percentile) levels this month (Figure 10). Overall, groundwater levels decreased by a median of about 0.3' since the end of June and ended July with a Districtwide average around the 49th percentile.

Each of the index wells except for Jasper, Mayo, Perry, Lake Butler, High Springs, and Cross City were higher than its respective historical monthly average level at the end of the month (Figure 11). Long-term District UFA well levels ended July in the low, normal, or high categories (Figure 12a). Each of the monitored long-term wells with records that extend back to at least 1964 showed mostly decreasing water levels this month relative to last month (Figure 12b).

CLIMATE AND DROUGHT OUTLOOK

El Niño Southern Oscillation neutral conditions are currently present and favored through the late summer (56% chance from August to October) with increased chances of La Nina in the fall and winter 2025-26 but remaining comparable to ENSO-neutral probabilities.

The NOAA three-month seasonal outlook suggests above normal temperatures along with above normal precipitation within the District from August through October 2025.

The U.S. Drought Monitor report released on Thursday, August 7th, shows parts of Jefferson, Madison, Hamilton, Alachua, and Bradford counties with Abnormally Dry (D0) conditions.

CONSERVATION

Water conservation continues to be necessary to sustain healthy groundwater levels and flows in District springs and rivers. All users are urged to eliminate unnecessary uses. Landscape irrigation during Daylight Saving Time (March 9, 2025, to November 2, 2025) is limited to twice per week based on a District water conservation rule that applies to residential landscaping, public or commercial recreation areas, and businesses that are not regulated by a District-issued water use permit. Information about SRWMD's year-round conservation measures is available at <http://www.srwmd.org/index.aspx?NID=337>.

ACKNOWLEDGMENTS

The Hydrologic Conditions Report is a monthly combined effort between the Offices of Water Resources and Hydrologic Data Services data collection and review programs. Acknowledgment is made to the following staff for their contributions to the timely production of this report:

- Data Collection: Matthew Jordan, Christian Holton, Dylan Mock, Morgan Pearson, Kevin Posada, and Vince Robinson
- QA/QC and Reporting: Susie Hetrick, Robbie McKinney, Brandi Sistrunk, and Mitch Valerio
- Administrative Support/Document Preparation/IT: Paul Buchanan, Bo Cameron, Tyler Jordan, Andrew Neel, and Ashley Kirby

This report is compiled in compliance with Chapter 40B-21.211, Florida Administrative Code, using rainfall (gage-adjusted radar-derived estimates), groundwater (122 wells), surface water (35 stations), and general information such as drought indices and forecasts. Data are provisional and updated as revised data become available. Data are available at <http://www.mysuwanneeriver.com/507/Water-Data-Portal> or upon request.

Table 1: Nexrad Monthly Rainfall Totals by County (inches)

County	July 2025	July Average*	Month % of Normal	Total Last 12 Months	Annual % of Normal*
Alachua	8.04	7.36	109%	48.54	92%
Baker	5.57	7.24	77%	49.27	93%
Bradford	7.93	7.41	107%	46.24	89%
Columbia	5.51	7.18	77%	50.30	95%
Dixie	7.78	9.19	85%	57.39	99%
Gilchrist	6.98	7.98	88%	53.04	97%
Hamilton	4.94	6.59	75%	47.64	92%
Jefferson	4.10	7.19	57%	47.21	84%
Lafayette	6.31	8.14	78%	57.90	105%
Levy	11.11	8.52	130%	61.24	109%
Madison	4.03	6.85	59%	49.32	92%
Suwannee	5.85	7.23	81%	53.22	100%
Taylor	6.01	8.31	72%	52.43	92%
Union	6.18	7.37	84%	49.68	94%

*Based on PRISM LT81 monthly rainfall averages by county (1927-2023)

July 2025 District Average	6.61
July Long-Term Average (1932-2024)	7.70
Historical 12-month Average (1932-2024)	54.76
Past 12-Month Total	52.91
12-Month Rainfall Surplus/Deficit	-1.85

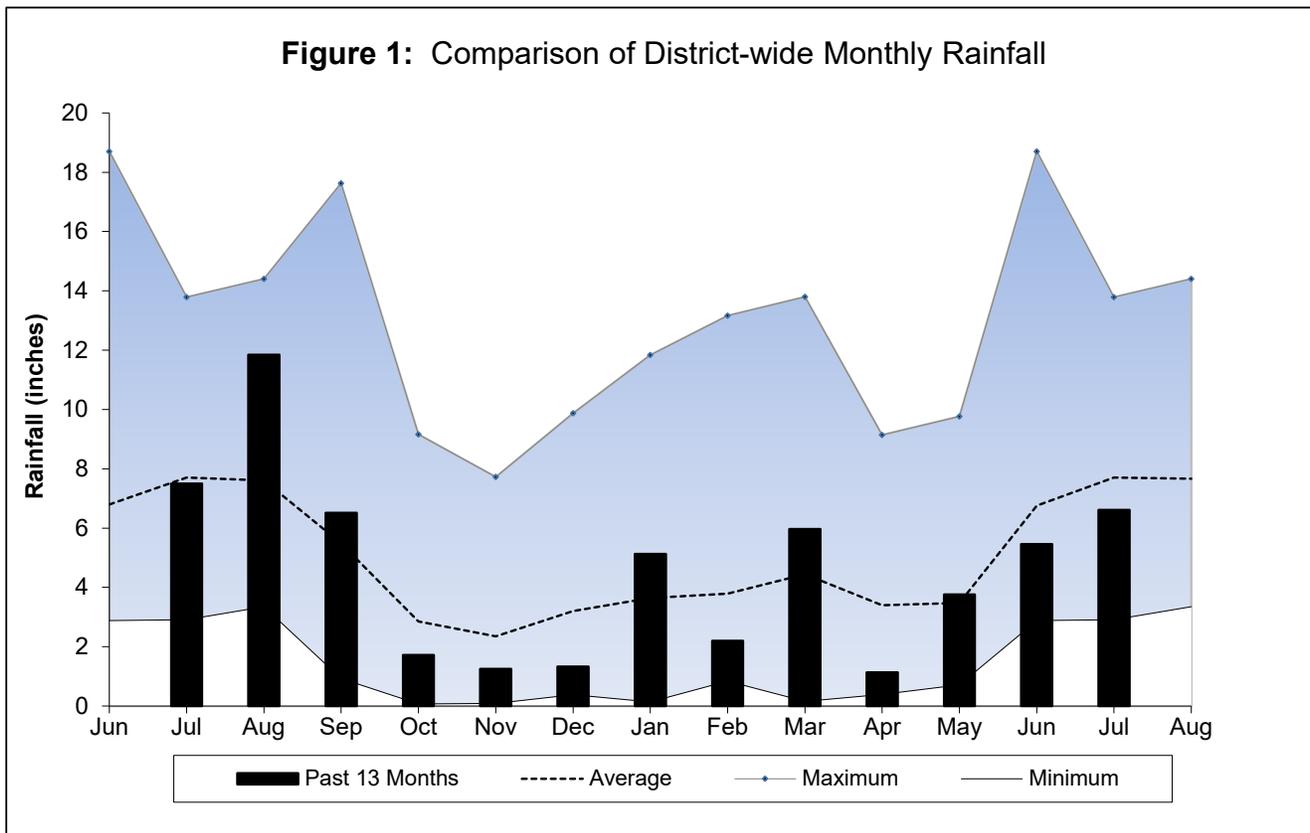


Figure 2: July 2025 SRWMD Gage-adjusted Radar Rainfall

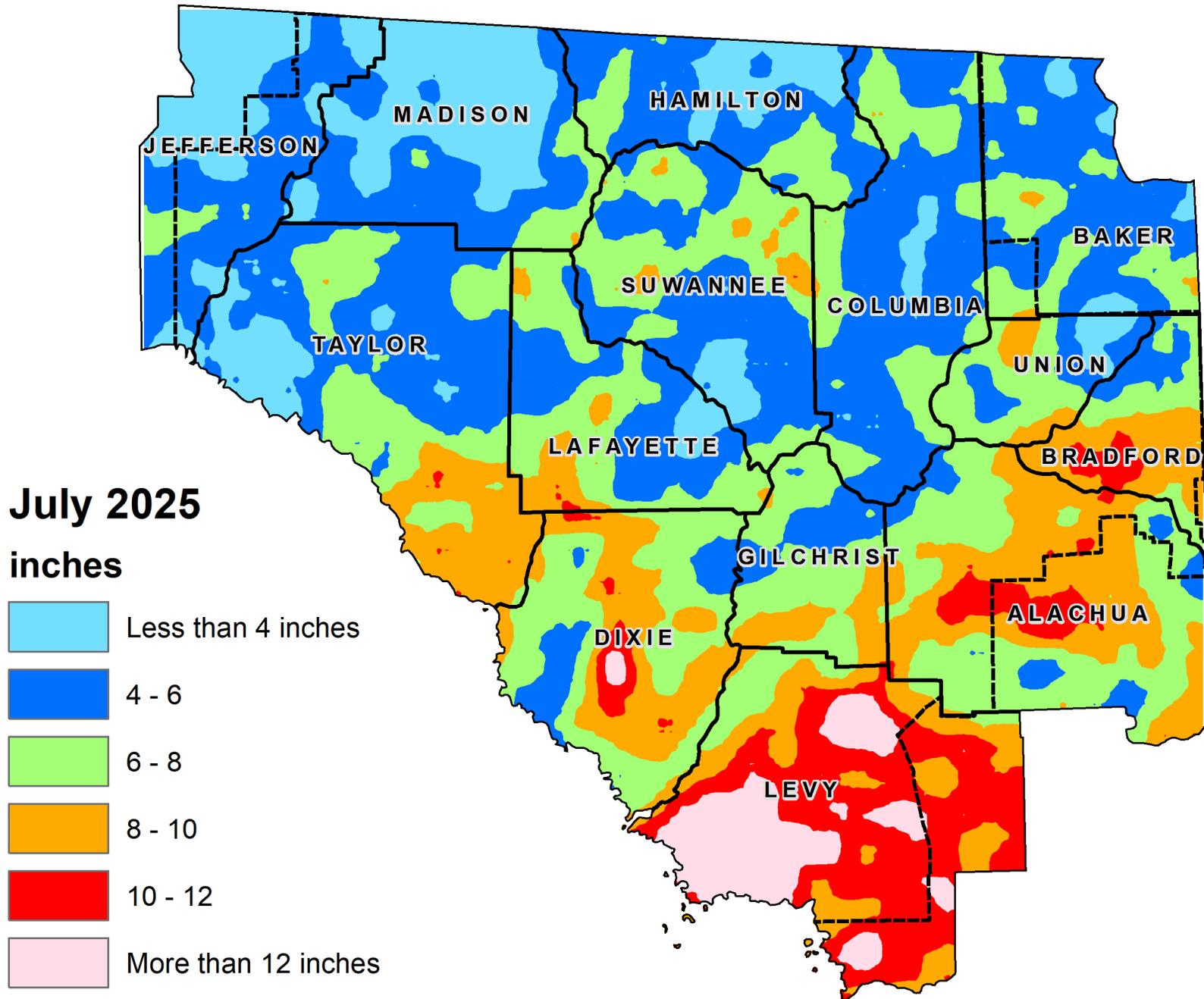


Figure 3: 12 - Month Rainfall Surplus/Deficit by River Basin through July 31, 2025

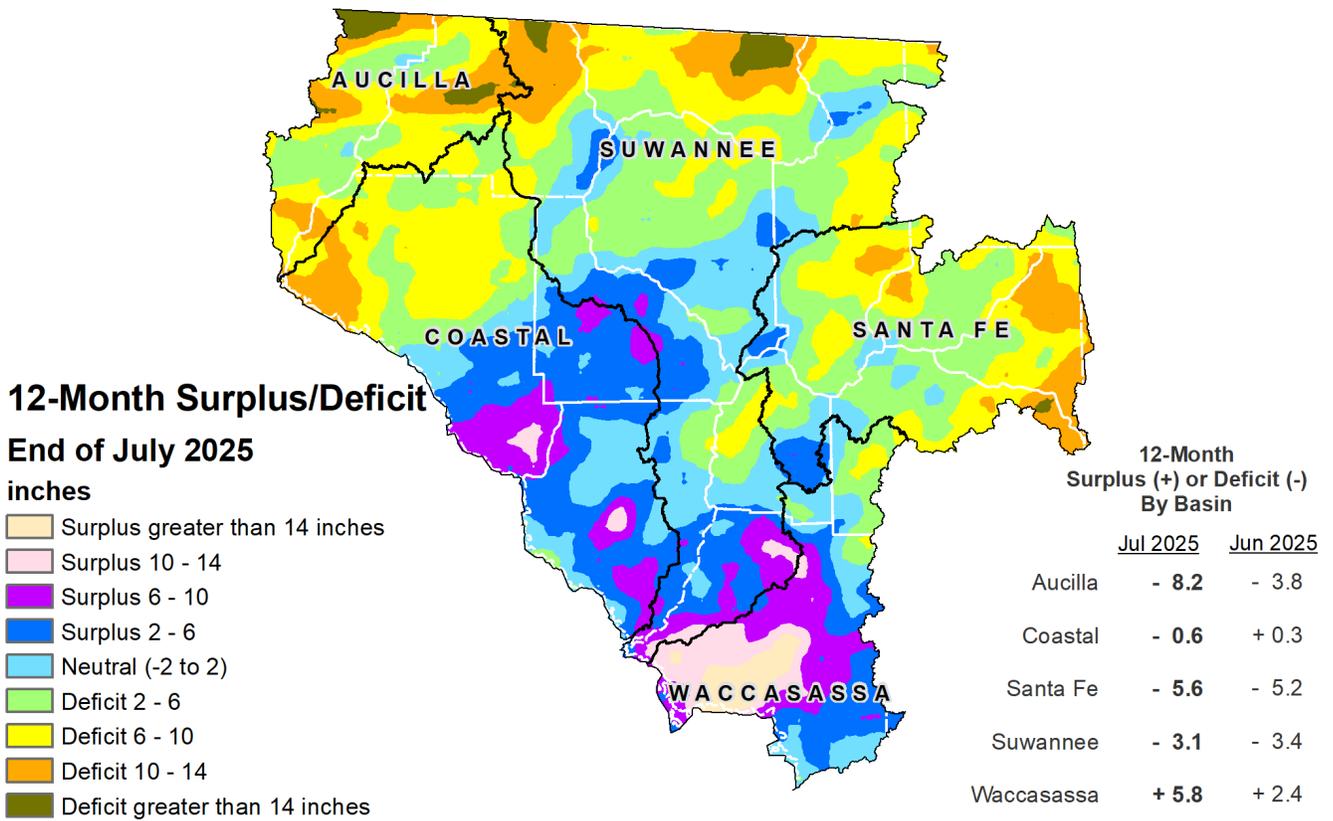


Figure 4: 3 - Month Rainfall Surplus/Deficit by River Basin through July 31, 2025

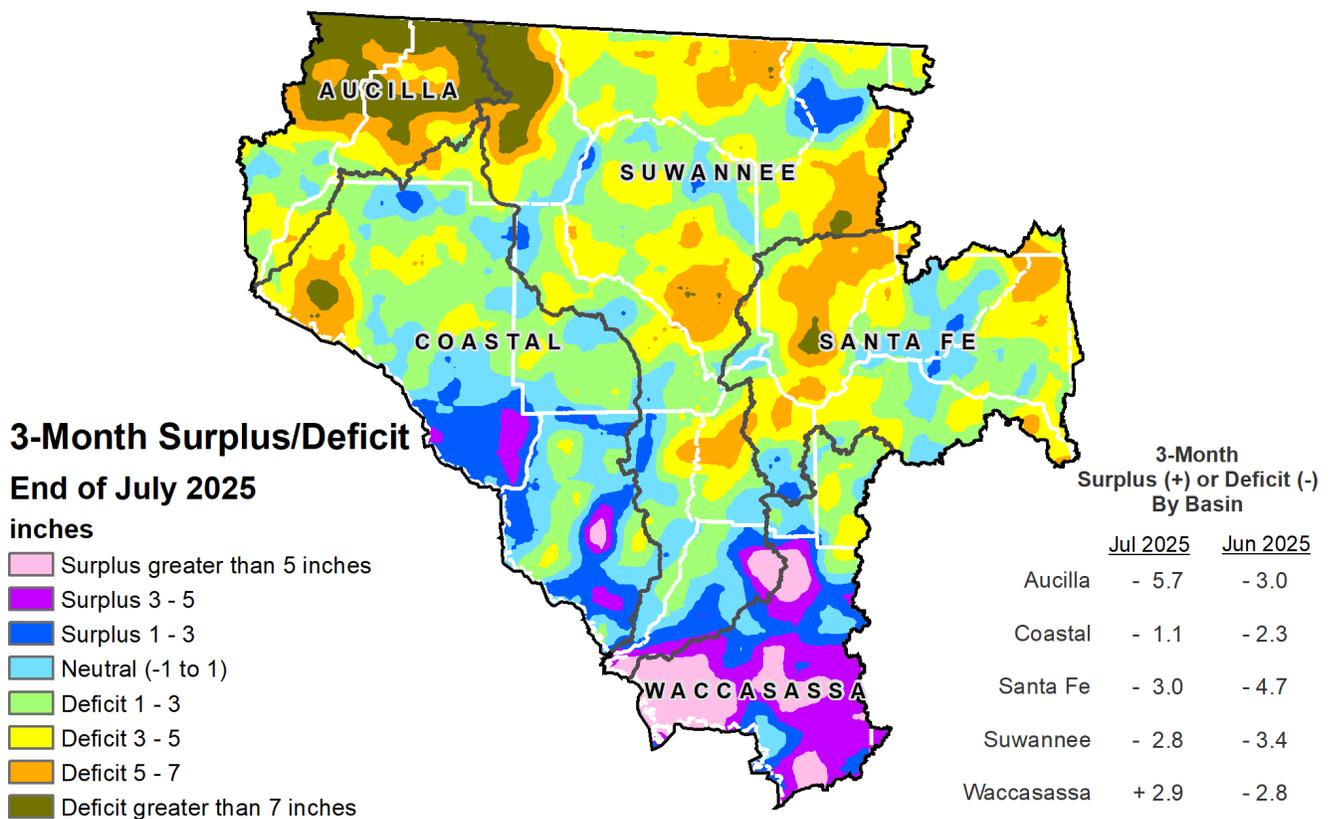


Figure 5: Daily River Flow Statistics

August 1, 2024 through July 31, 2025

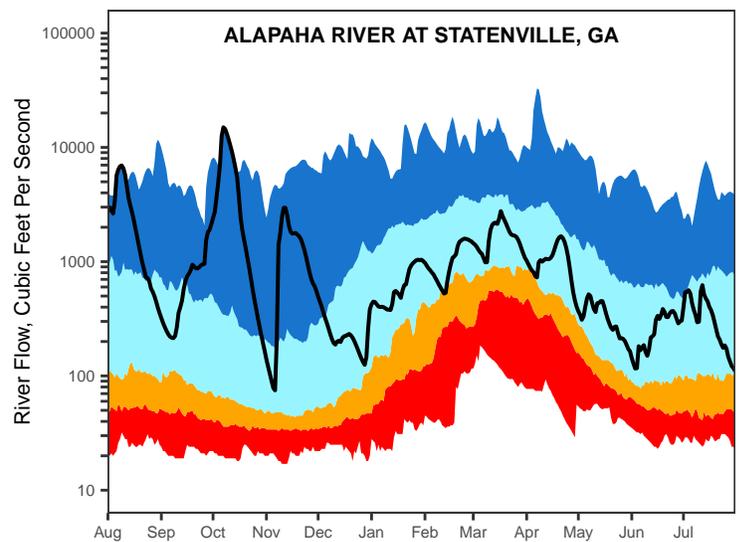
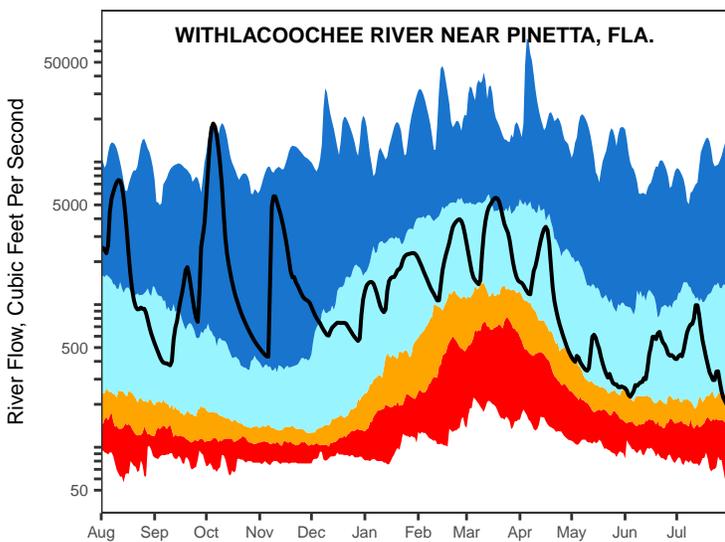
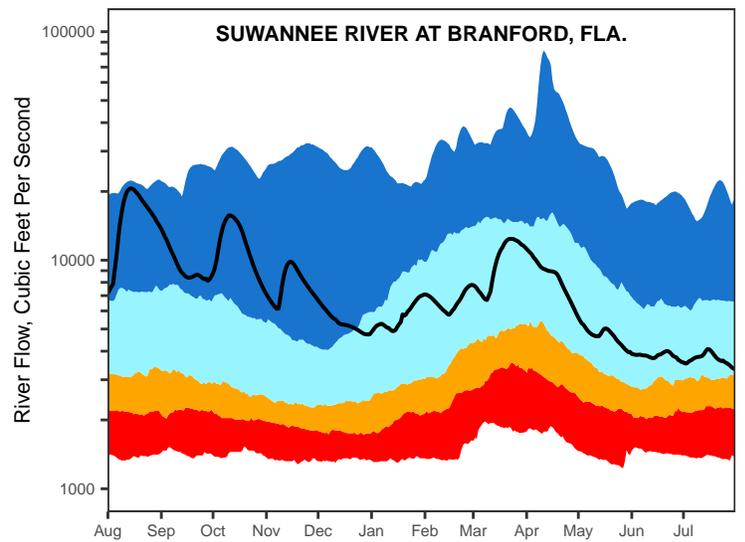
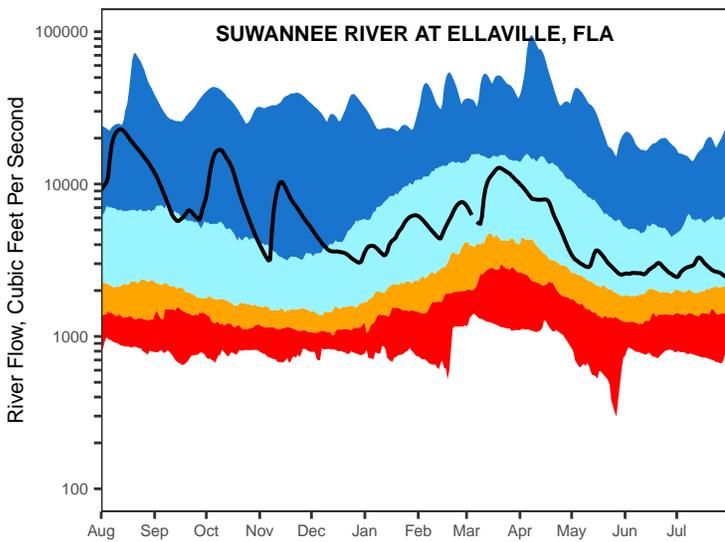
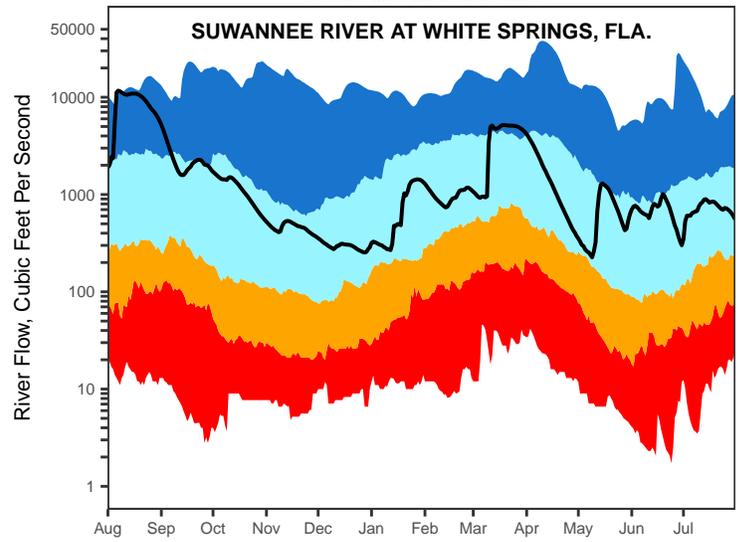
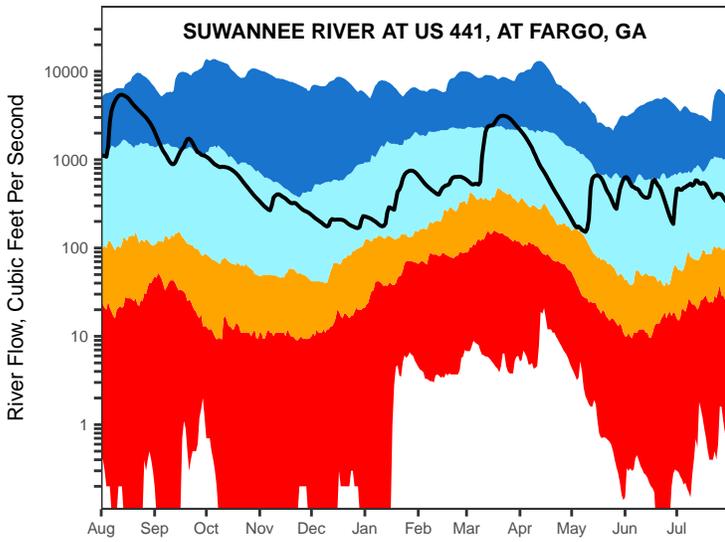
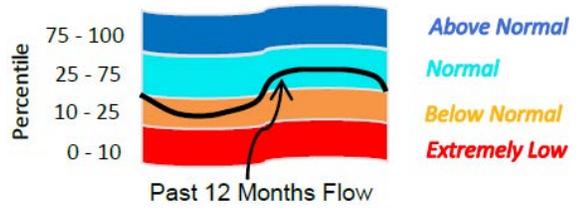
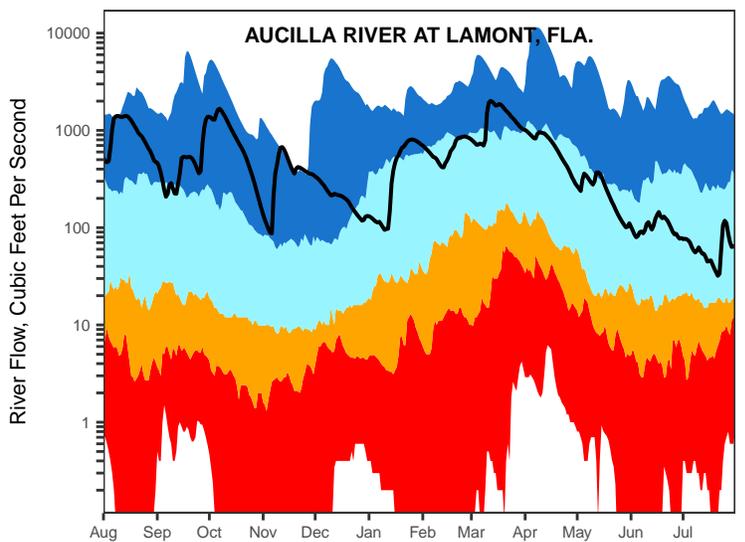
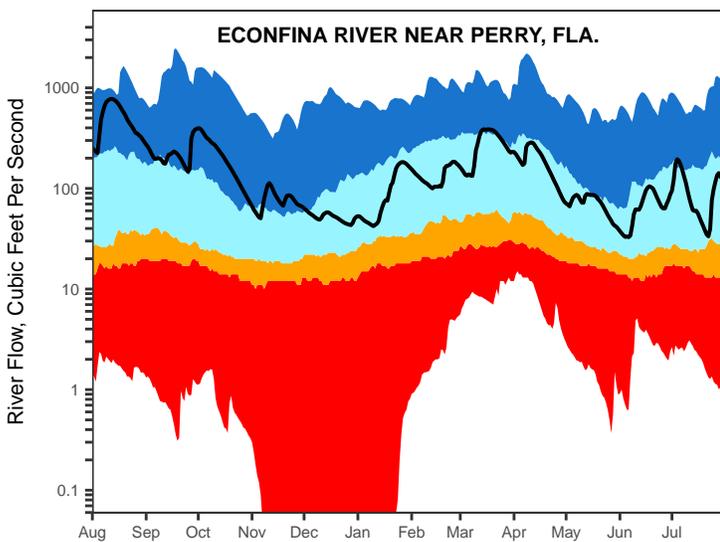
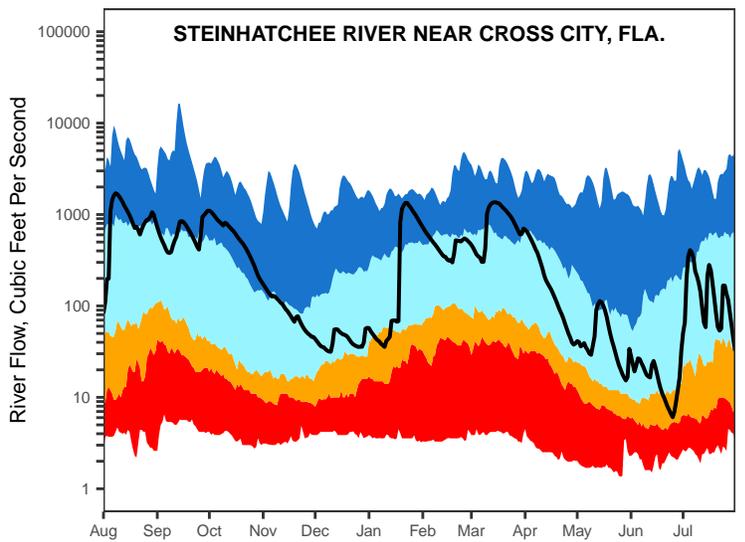
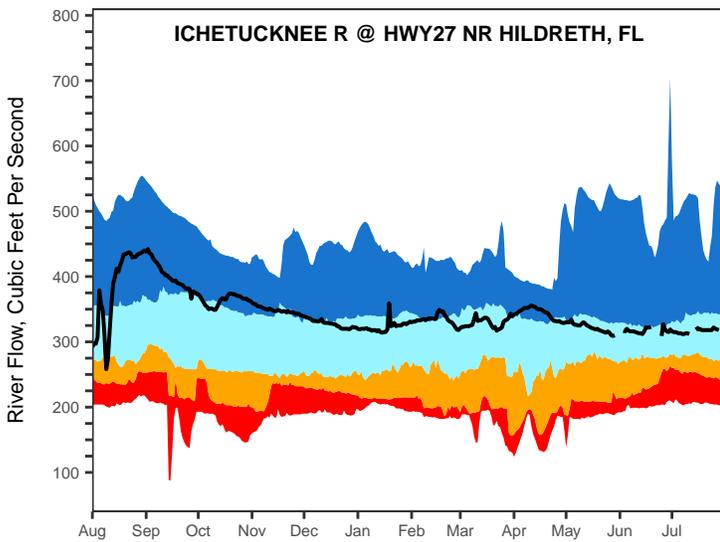
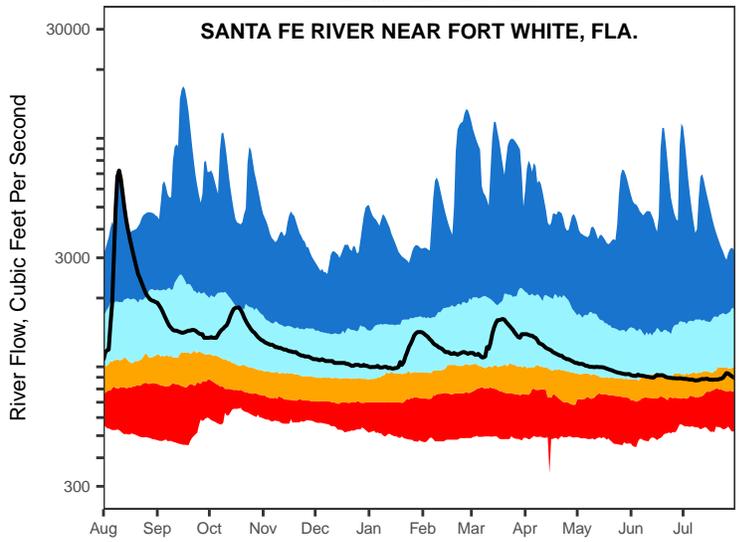
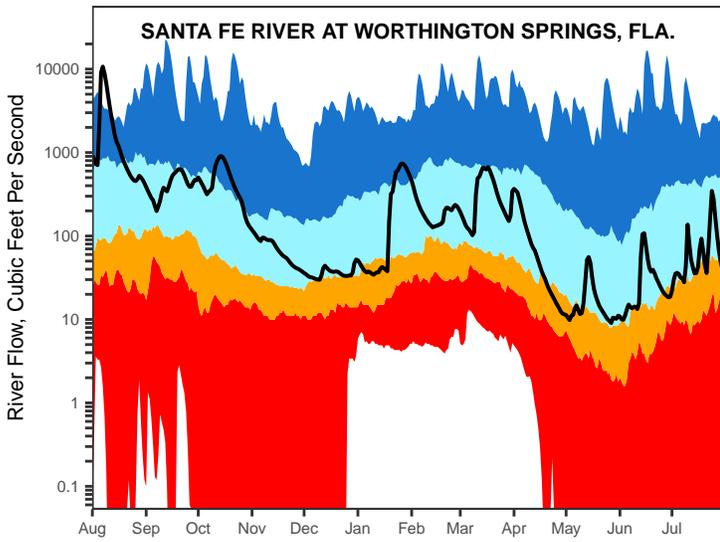
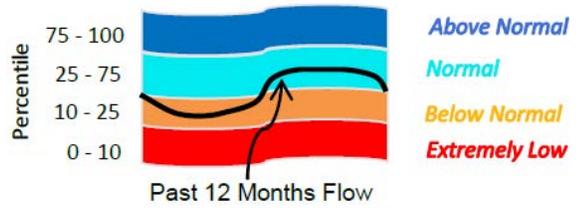


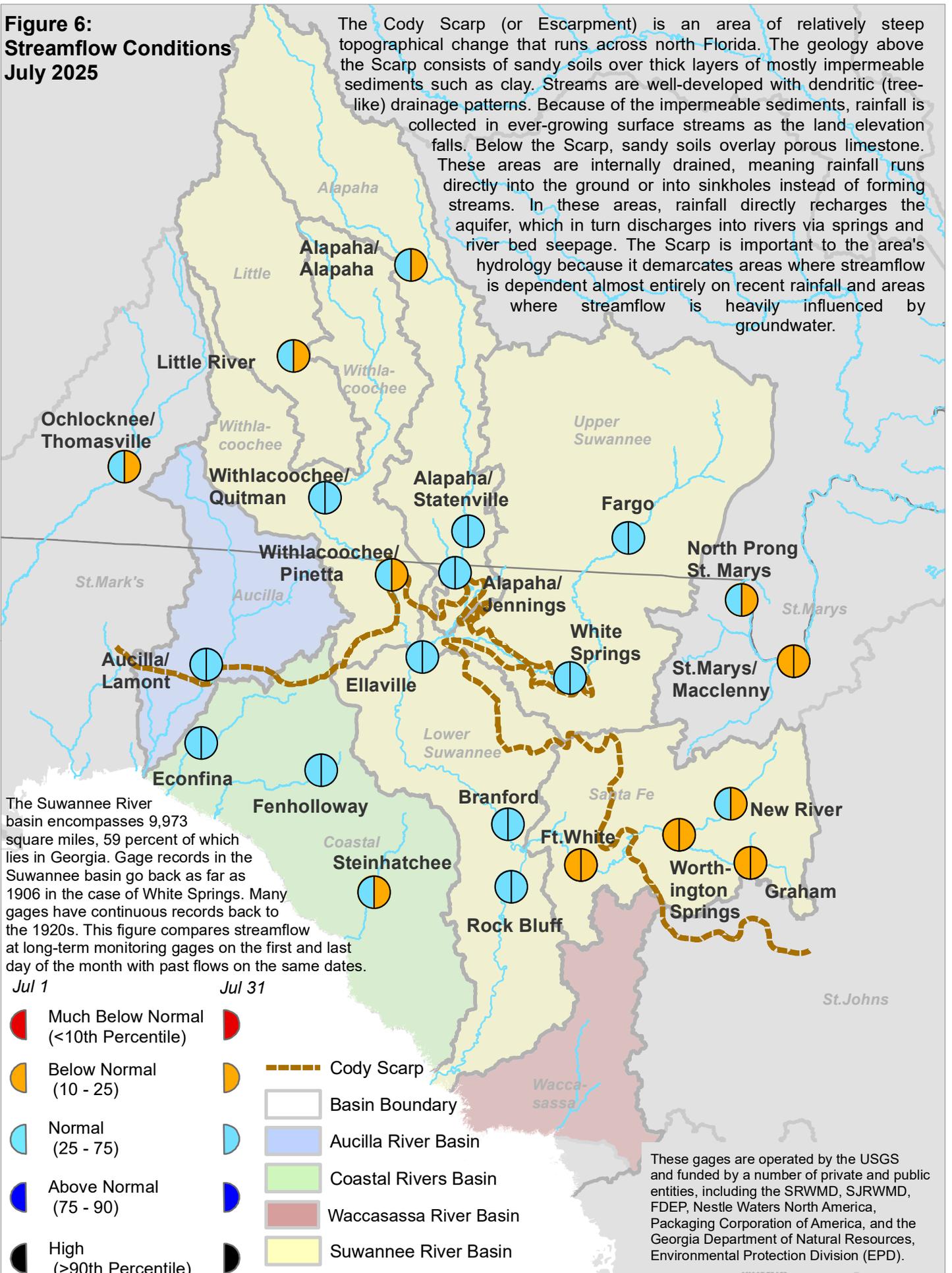
Figure 5, cont.: Daily River Flow Statistics

August 1, 2024 through July 31, 2025



**Figure 6:
Streamflow Conditions
July 2025**

The Cody Scarp (or Escarpment) is an area of relatively steep topographical change that runs across north Florida. The geology above the Scarp consists of sandy soils over thick layers of mostly impermeable sediments such as clay. Streams are well-developed with dendritic (tree-like) drainage patterns. Because of the impermeable sediments, rainfall is collected in ever-growing surface streams as the land elevation falls. Below the Scarp, sandy soils overlay porous limestone. These areas are internally drained, meaning rainfall runs directly into the ground or into sinkholes instead of forming streams. In these areas, rainfall directly recharges the aquifer, which in turn discharges into rivers via springs and river bed seepage. The Scarp is important to the area's hydrology because it demarcates areas where streamflow is dependent almost entirely on recent rainfall and areas where streamflow is heavily influenced by groundwater.



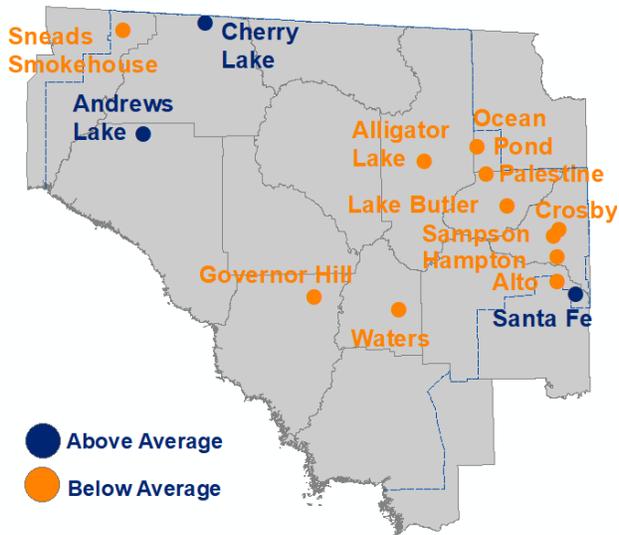
The Suwannee River basin encompasses 9,973 square miles, 59 percent of which lies in Georgia. Gage records in the Suwannee basin go back as far as 1906 in the case of White Springs. Many gages have continuous records back to the 1920s. This figure compares streamflow at long-term monitoring gages on the first and last day of the month with past flows on the same dates.

- | | |
|--------------------------------------|--------|
| Jul 1 | Jul 31 |
| | |
| Much Below Normal (<10th Percentile) | |
| | |
| Below Normal (10 - 25) | |
| | |
| Normal (25 - 75) | |
| | |
| Above Normal (75 - 90) | |
| | |
| High (>90th Percentile) | |

- Cody Scarp
- Basin Boundary
- Aucilla River Basin
- Coastal Rivers Basin
- Waccasassa River Basin
- Suwannee River Basin

These gages are operated by the USGS and funded by a number of private and public entities, including the SRWMD, SJRWMD, FDEP, Nestle Waters North America, Packaging Corporation of America, and the Georgia Department of Natural Resources, Environmental Protection Division (EPD).

Figure 7: July 2025 Lake Levels



SRWMD lakes react differently to climatic changes depending on their location in the landscape. Some lakes, in particular in the eastern part of the District, are embedded in a surficial or intermediate aquifer over relatively impermeable clay deposits. These lakes rise and fall according to local rainfall and surface runoff. They retain water during severe droughts since most losses occur from evaporation. Other lakes, such as Governor Hill and Waters Lake, have porous or “leaky” bottoms that interact with the Floridan aquifer. These lakes depend on groundwater levels to stay high. If aquifer levels are low, these lakes go dry even if rainfall is normal.

The District currently monitors 14 lakes on a long-term basis; much of the data was originally provided by volunteer observers. Monitoring records began in the 1970s, except for Lakes Butler, Sampson, and Santa Fe, which started in 1957.

Feet Above or Below Historic Average

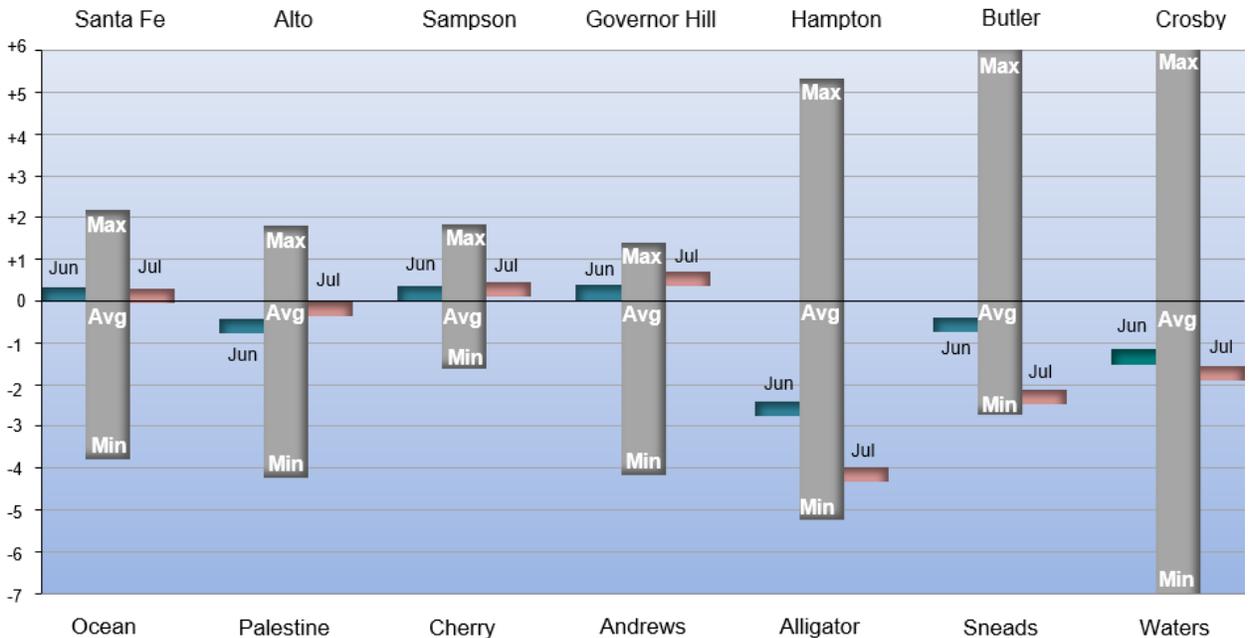
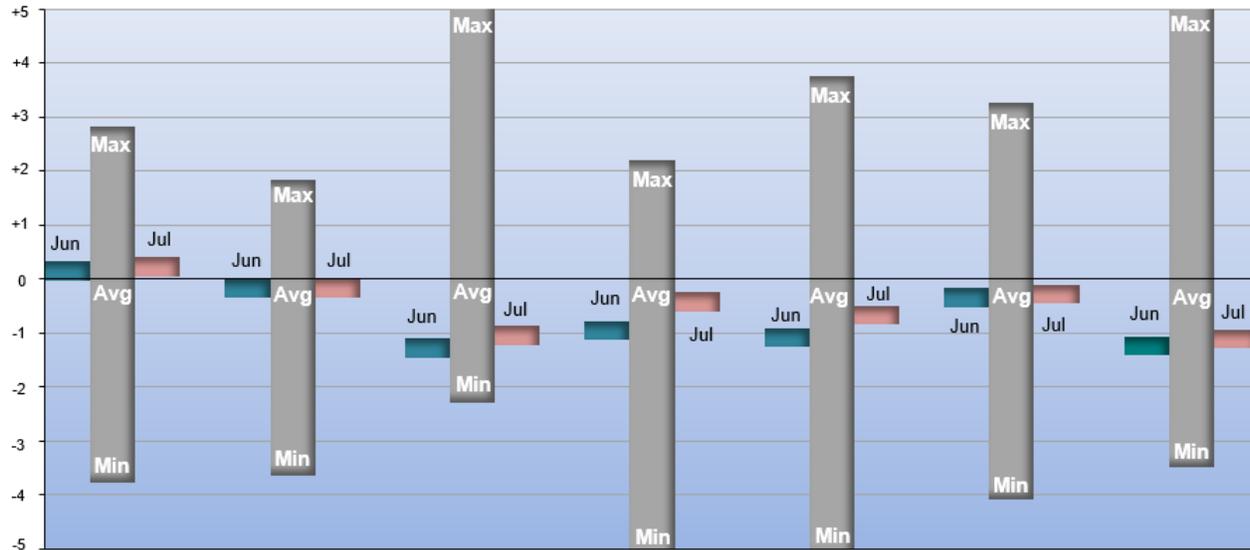


Figure 8: Flow Over the Past 12 Months, Fanning Springs (cubic feet per second)

Note: This graph is based on provisional data that are subject to revision

Period 12 Month 08/01/2024 to 08/01/2025

2024-25

Percentile statistics are calculated using data from 10/01/1930 to 09/30/2023

Fanning_spg

■ Max-Q75

■ Q75-Q25

■ Q25-Q10

■ Q10-Min

— Archived Data

— Provisional Data

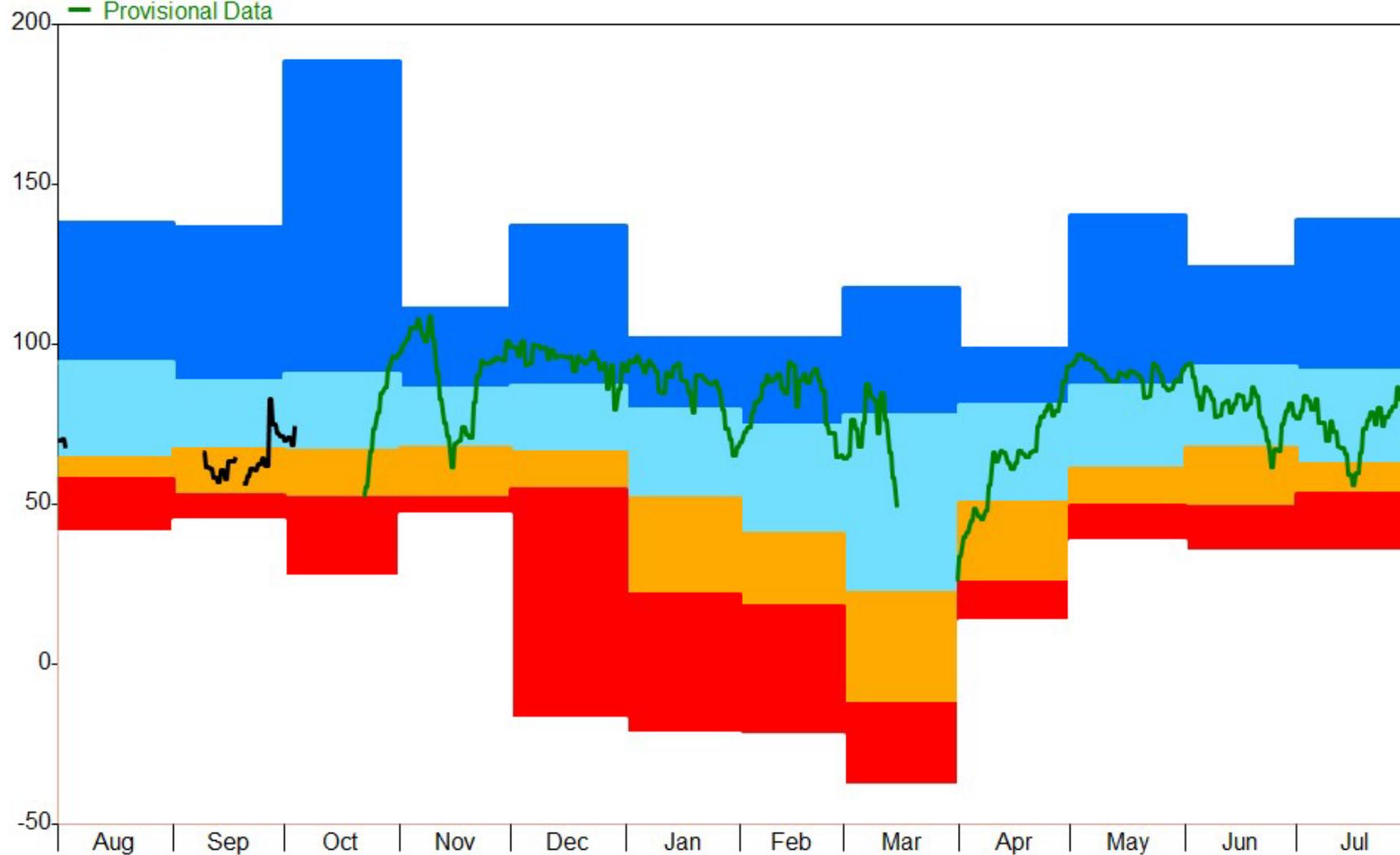


Figure 9: Flow Over the Past 12 Months, Manatee Springs (cubic feet per second)

Note: This graph is based on provisional data that are subject to revision

Period 12 Month 08/01/2024 to 08/01/2025

2024-25

Percentile statistics are calculated using data from 03/01/1932 to 09/30/2023

Manatee_Spg

■ Max-Q75

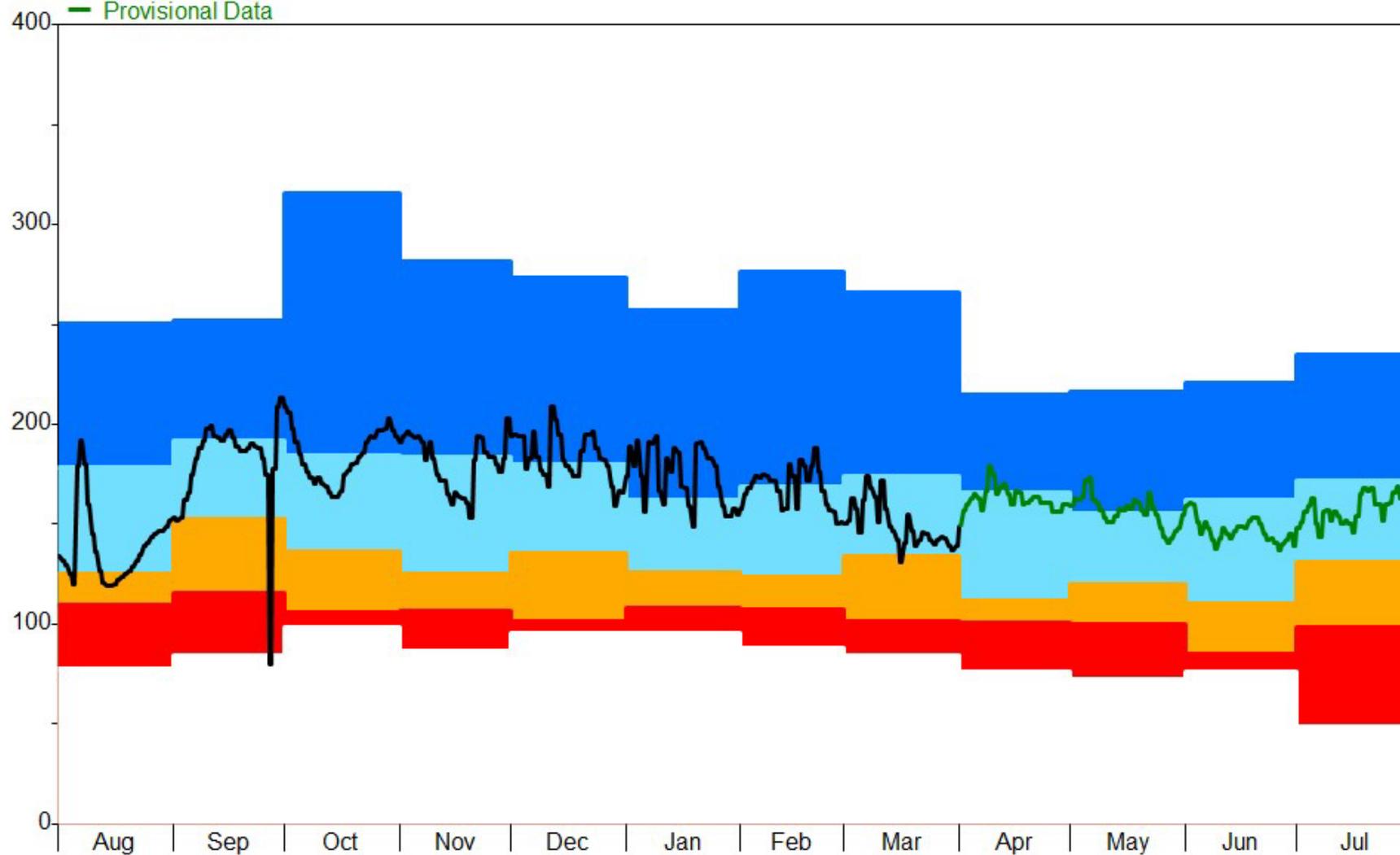
■ Q75-Q25

■ Q25-Q10

■ Q10-Min

— Archived Data

— Provisional Data



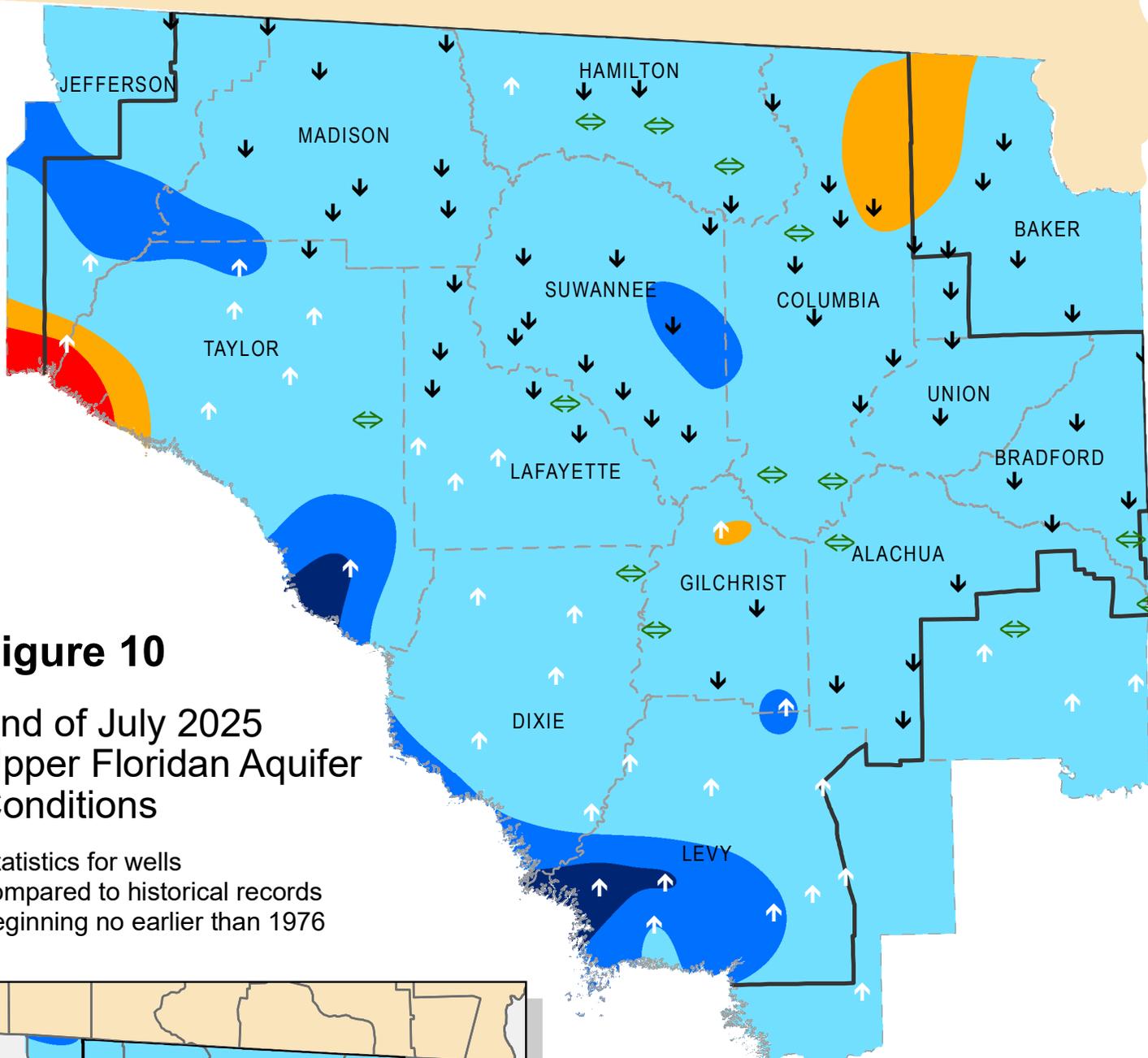
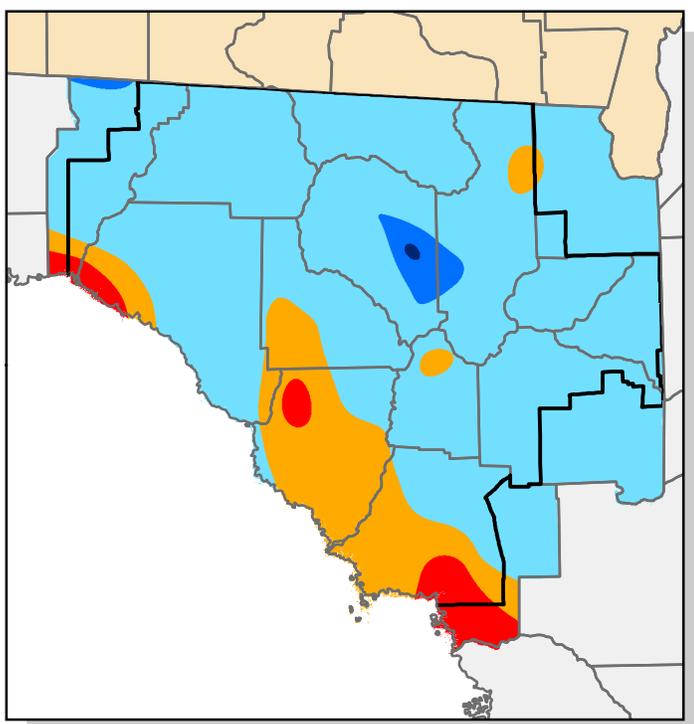


Figure 10

End of July 2025 Upper Floridan Aquifer Conditions

Statistics for wells compared to historical records beginning no earlier than 1976



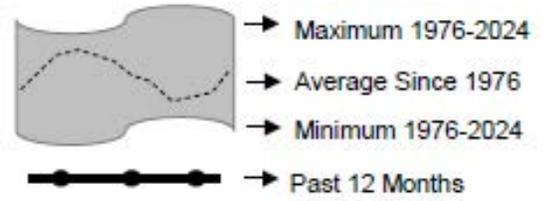
Inset: June Groundwater Percentiles

Additional wells courtesy of SJRWMD, SWFWMD and USGS

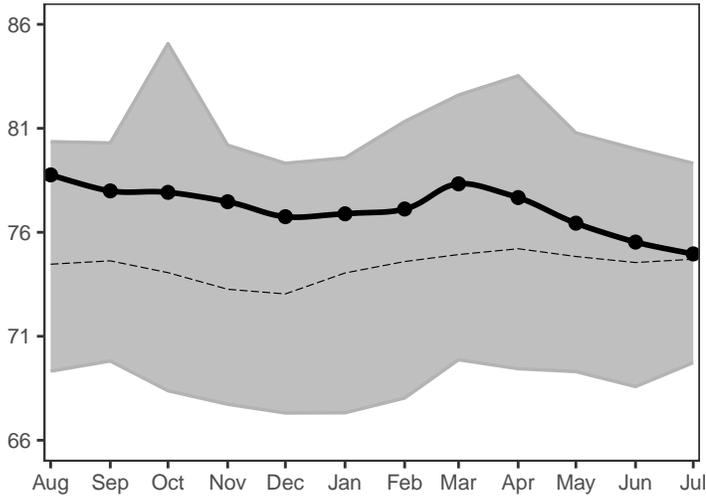
- Extremely High
(Greater than 90th Percentile)
- High
(75th to 90th Percentile)
- Normal
(25th to 75th Percentile)
- Low
(10th to 25th Percentile)
- Extremely Low
(Less than 10th Percentile)
- Increase/decrease in level since last month
- Increase/decrease since last month less than one percent of historic range
- District Boundary

Figure 11: Monthly Groundwater Statistics

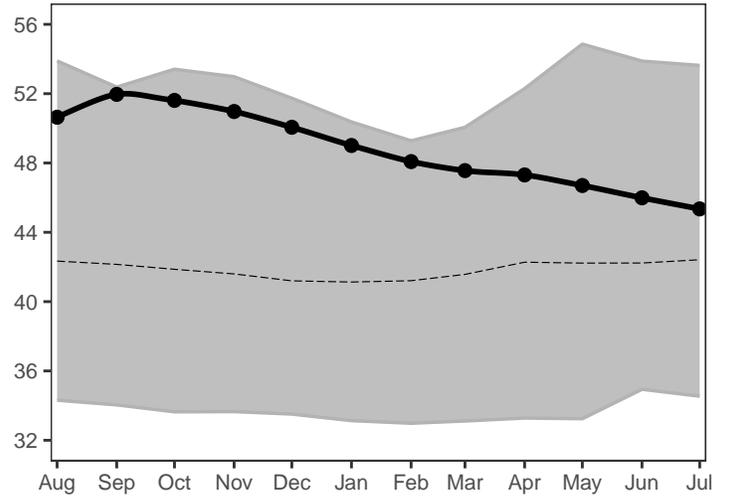
Levels August 2024 through July 2025
 Period of Record Beginning 1976



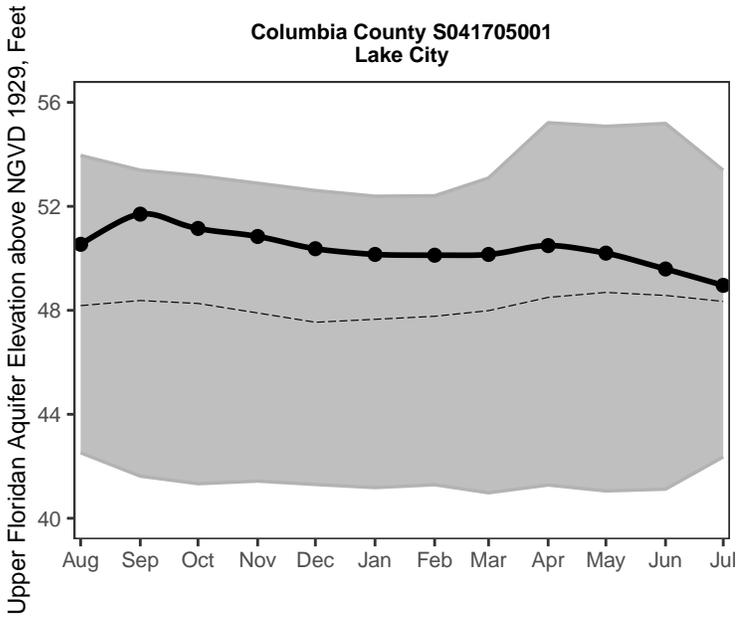
Madison County N010719001
near Greenville



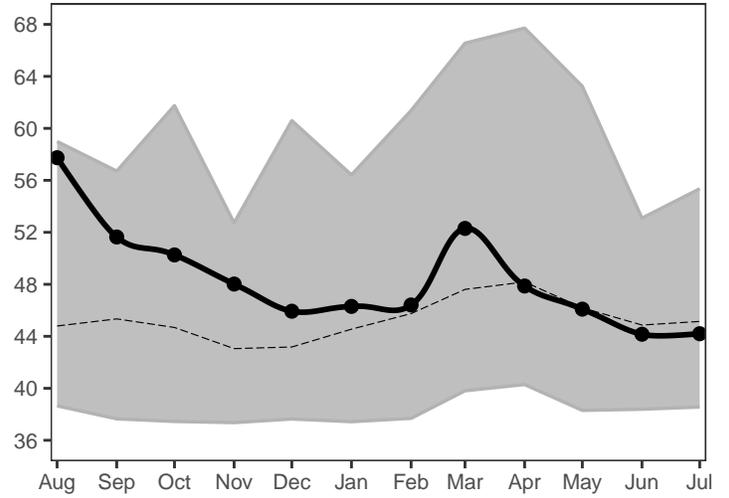
Suwannee County S021335001
near Live Oak



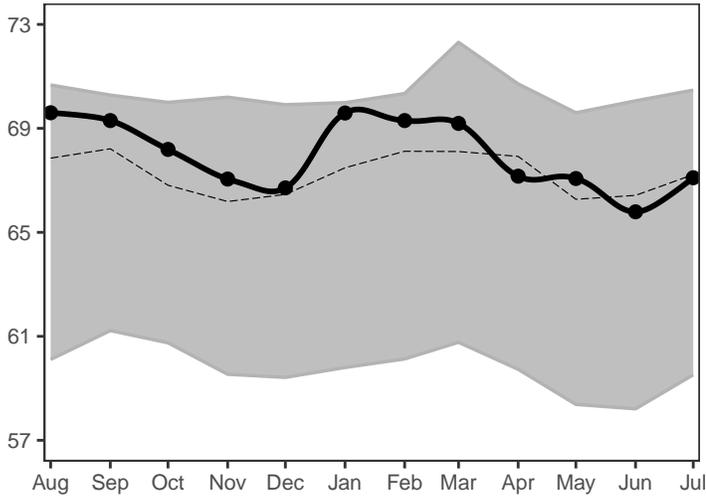
Columbia County S041705001
Lake City



Hamilton County N011422007
near Jasper



Lafayette County S061114001
near Mayo



Taylor County S040736005
Perry

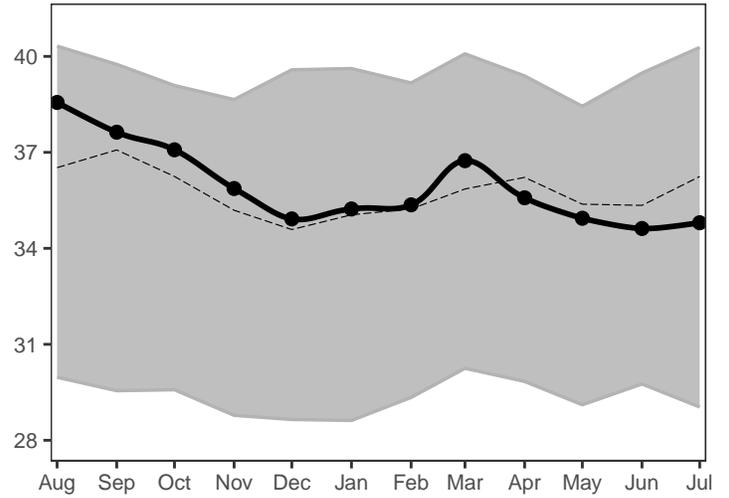
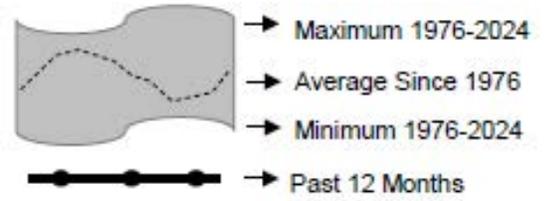
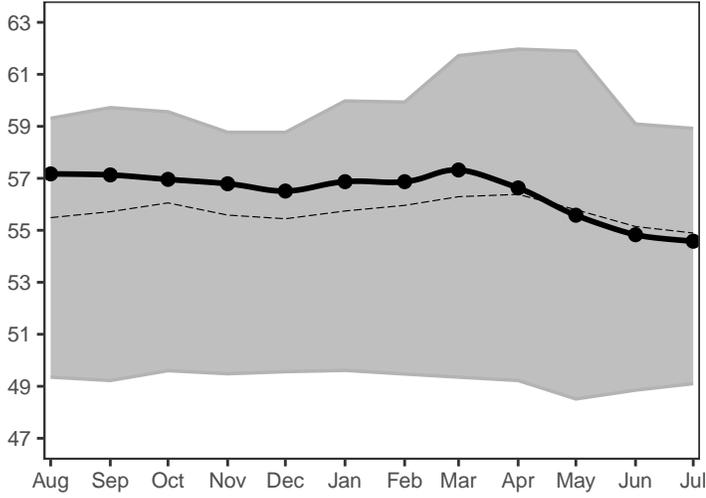


Figure 11, cont.: Monthly Groundwater Statistics

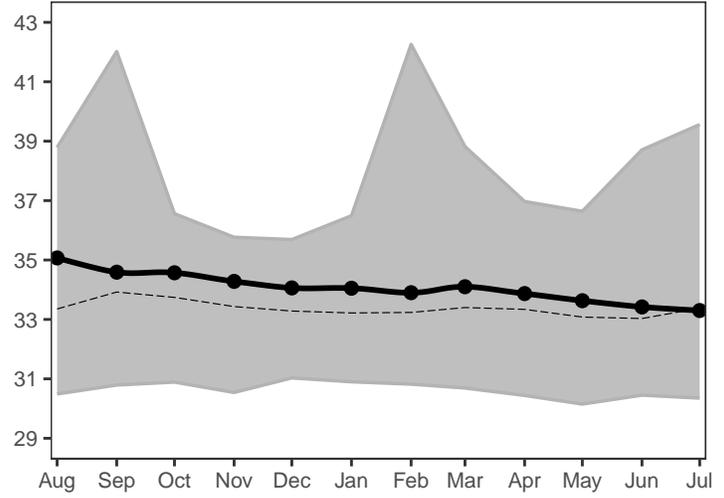
Levels August 2024 through July 2025
 Period of Record Beginning 1976



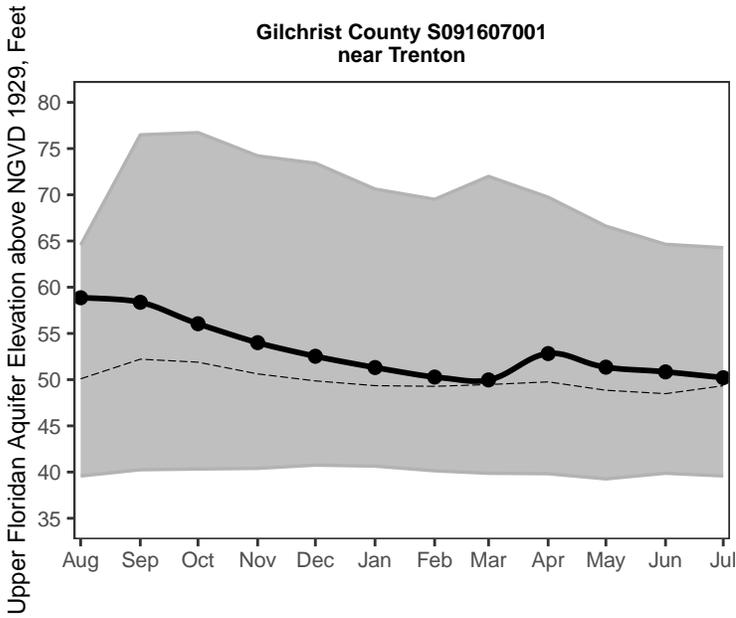
Union County S051933001
near Lake Butler



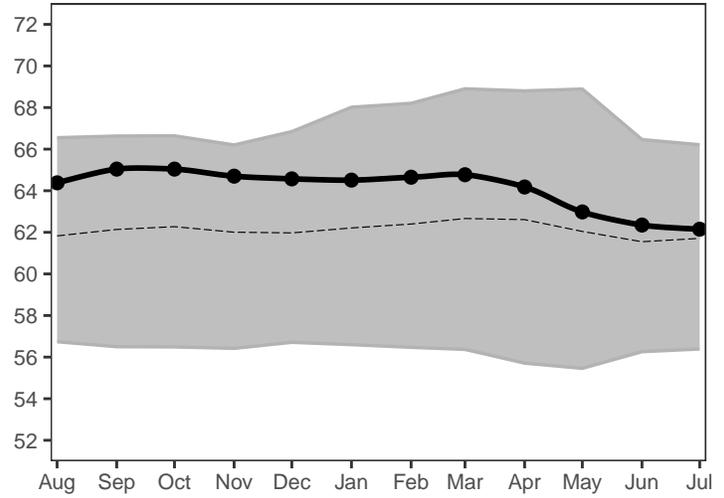
Alachua County S081703001
at High Springs



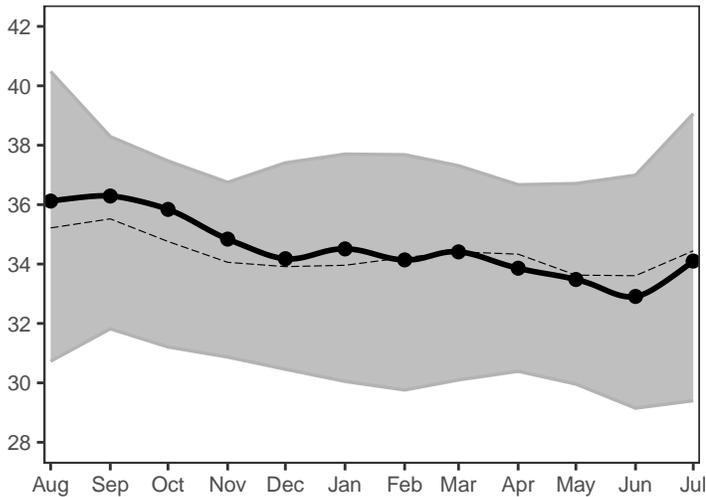
Gilchrist County S091607001
near Trenton



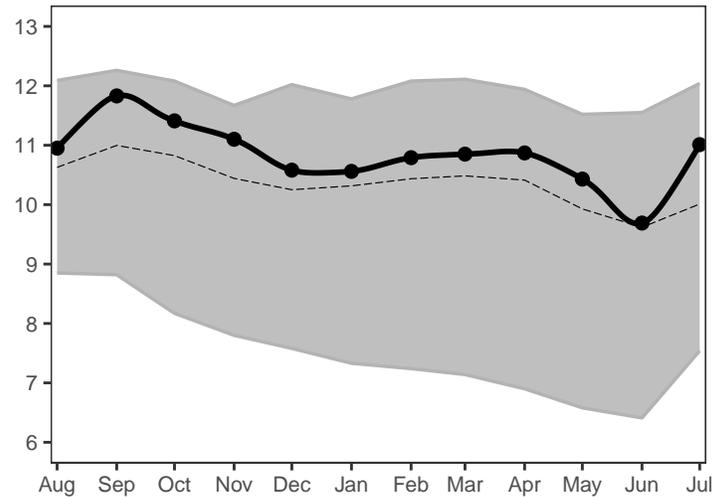
Bradford County S072132001
near Graham

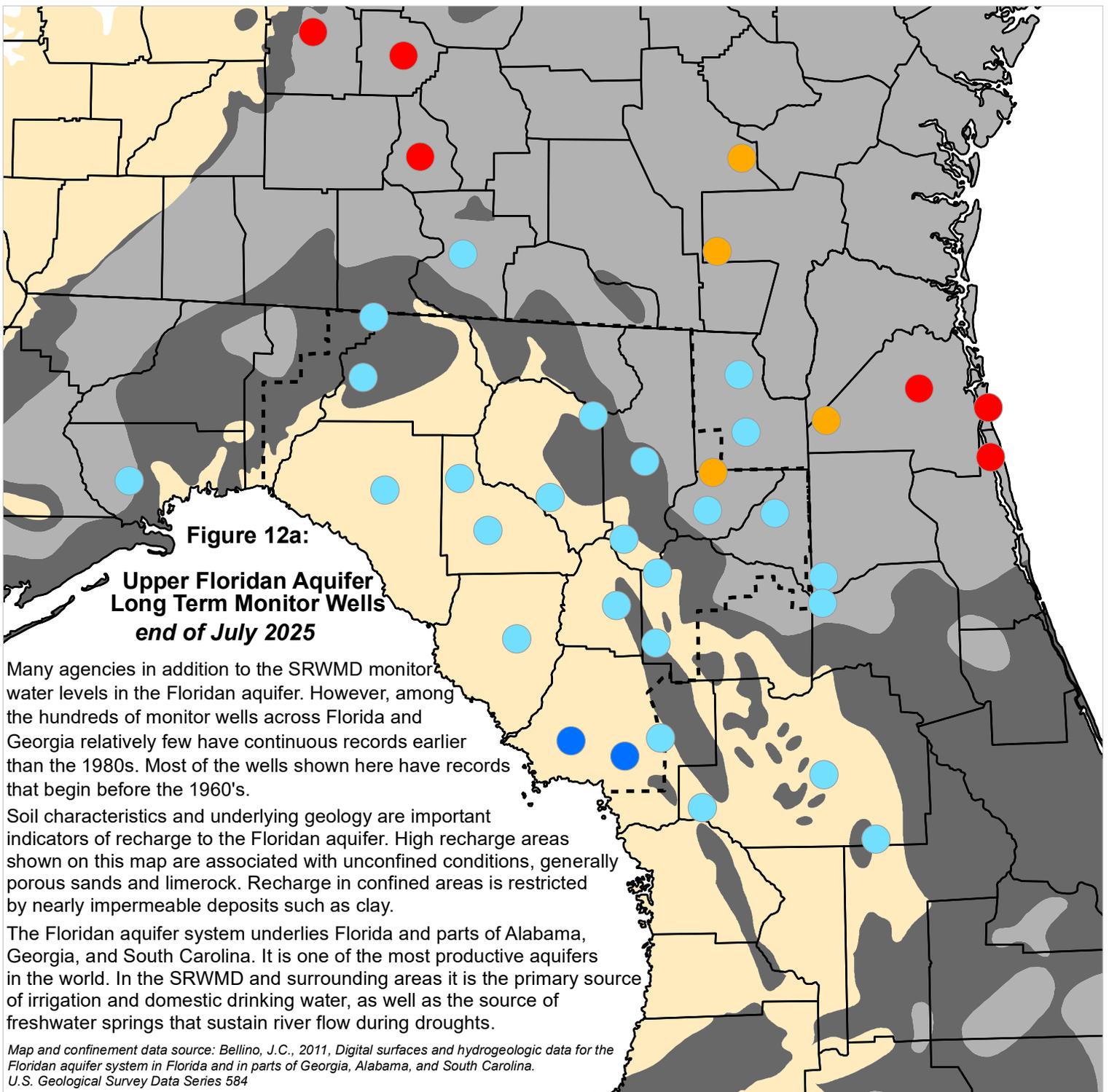


Dixie County S101210001
at Cross City



Levy County S141429001
near Cedar Key





Occurrence of Confined and Unconfined Conditions in the Upper Floridan Aquifer

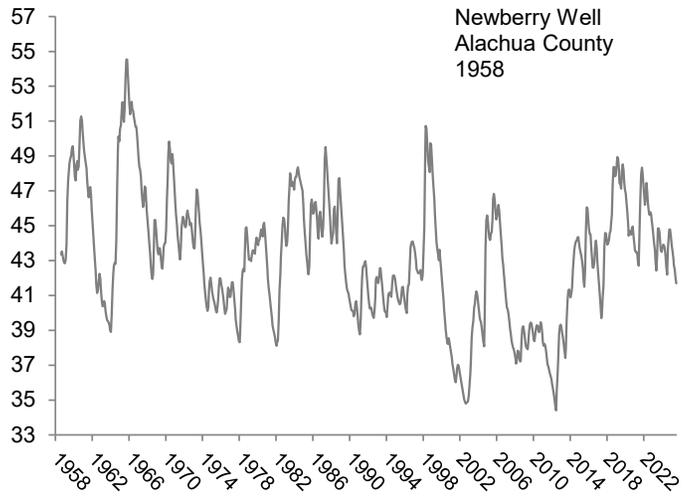
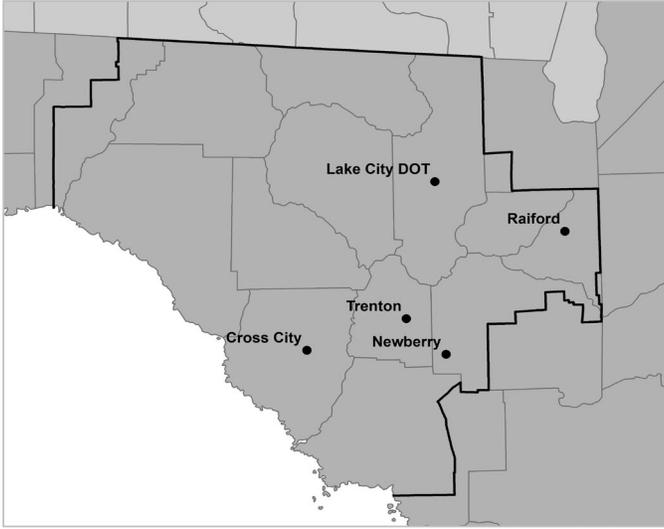
-  Confined: Upper confining unit is generally greater than 100 feet thick and unbreached. Recharge is low.
-  Semi-confined: Upper confining unit is generally less than 100 feet thick, breached, or both. Recharge is moderate.
-  Unconfined: Upper confining unit is absent or very thin. Recharge is high.
-  SRWMD Boundary

Percentile of Most Recent Water Level Relative to Entire Record

-  Very High (Greater than 90th Percentile)
-  High (75th to 90th Percentile)
-  Normal (25th to 75th Percentile)
-  Low (10th to 25th Percentile)
-  Very Low (Less than 10th Percentile)
-  Data Not Available

Figure 12b: Regional Long Term Upper Floridan Aquifer Levels

Data through July 2025



Upper Floridan Aquifer Elevation above NGVD 1929, Feet

