Drought Conditions and Review of the District's Water Shortage Process

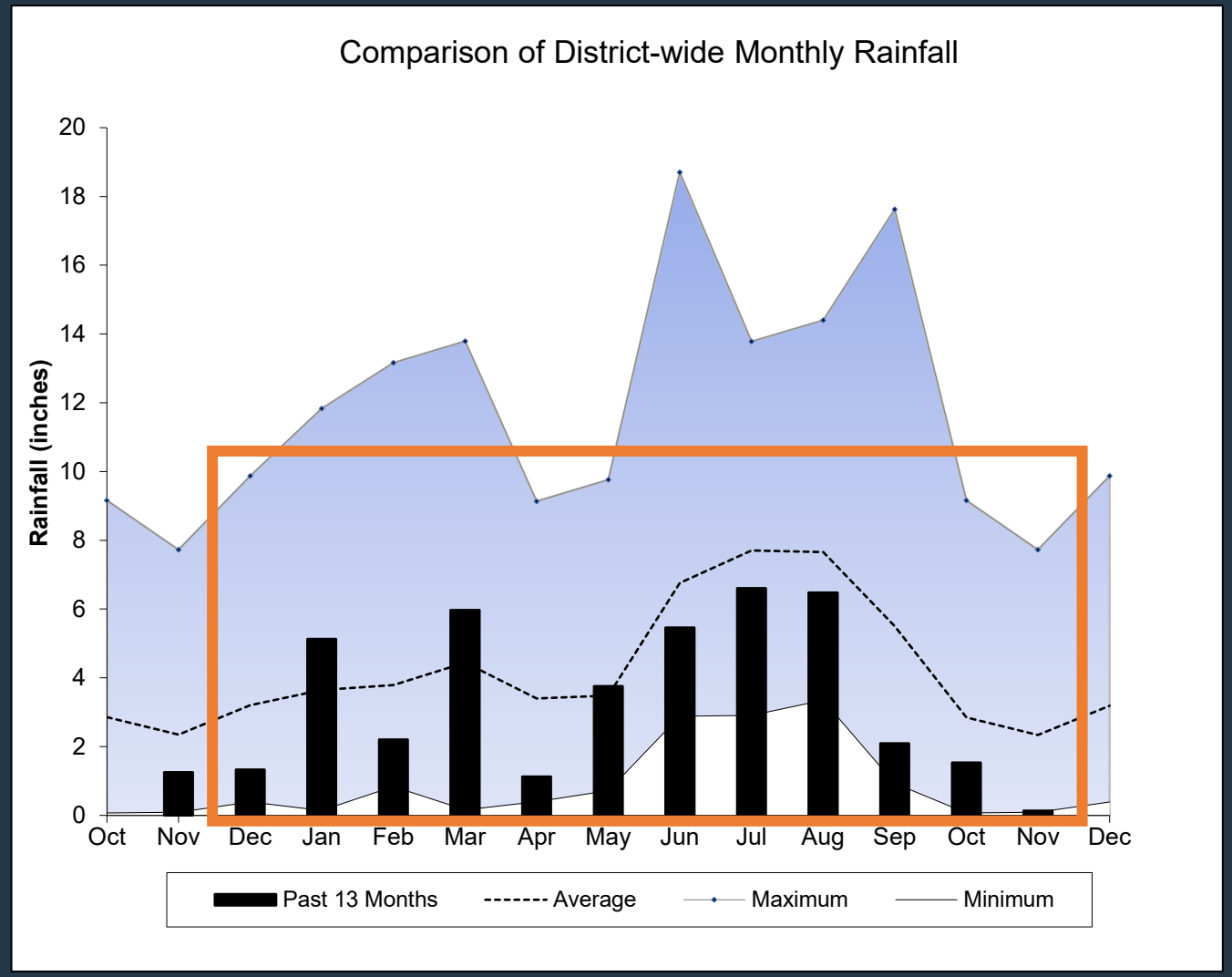
Presentation Overview

- Review of District Flows, Levels, and Drought Indicators – Robbie
- Review of Demand Forecast – Amy
- Overview of water shortage process - Amy

DROUGHT CONDITIONS

Regional Drought Indicators Section

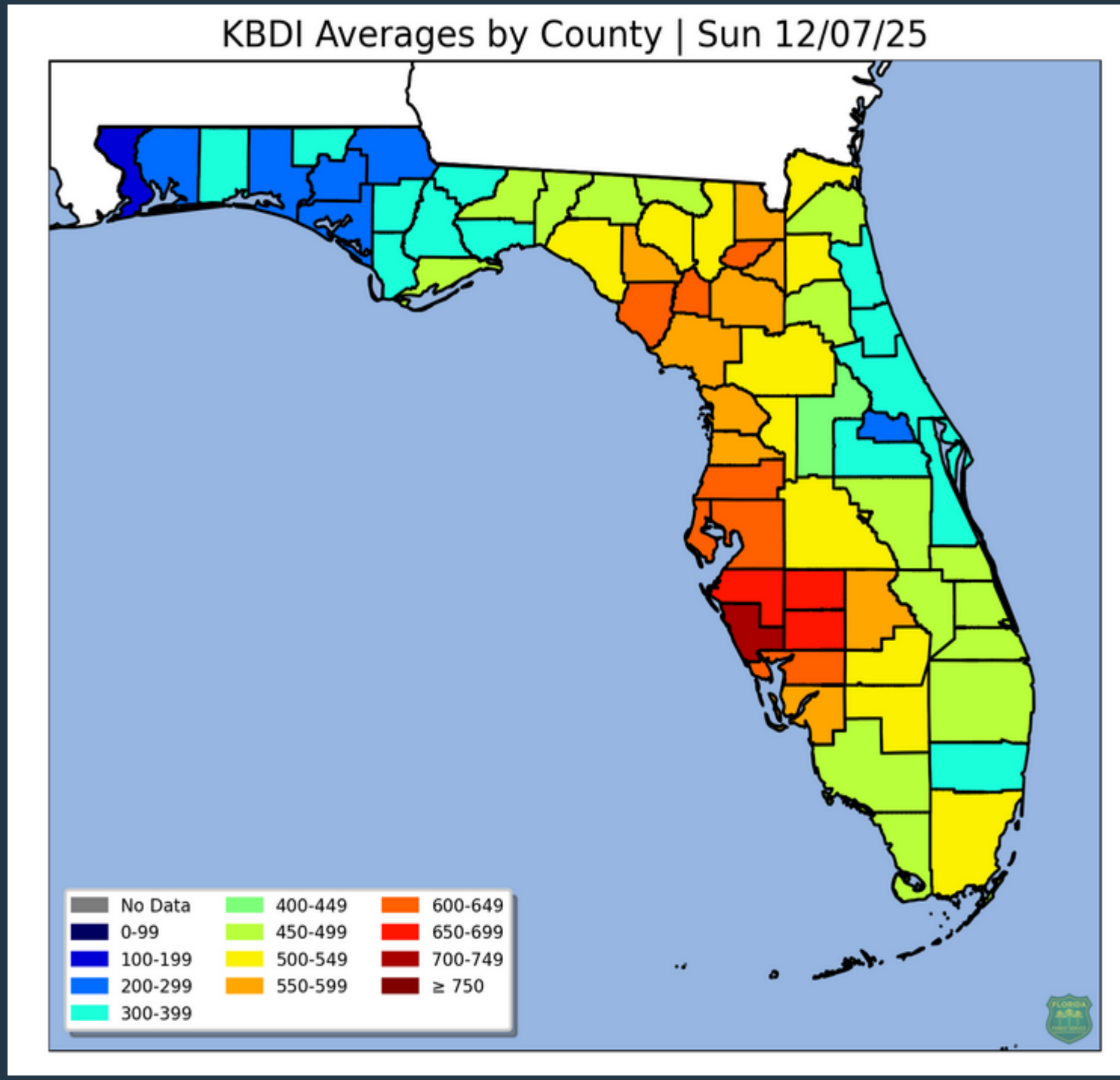
- 12- and 24-month rainfall moving sum with percentiles (14 counties)
- 8-week and 7-day streamflow averages and percentiles (7-stations)
- Aquifer Resource Indicator percentiles (98 long-term UFA wells)



DROUGHT CONDITIONS

Hydrologic Data Section

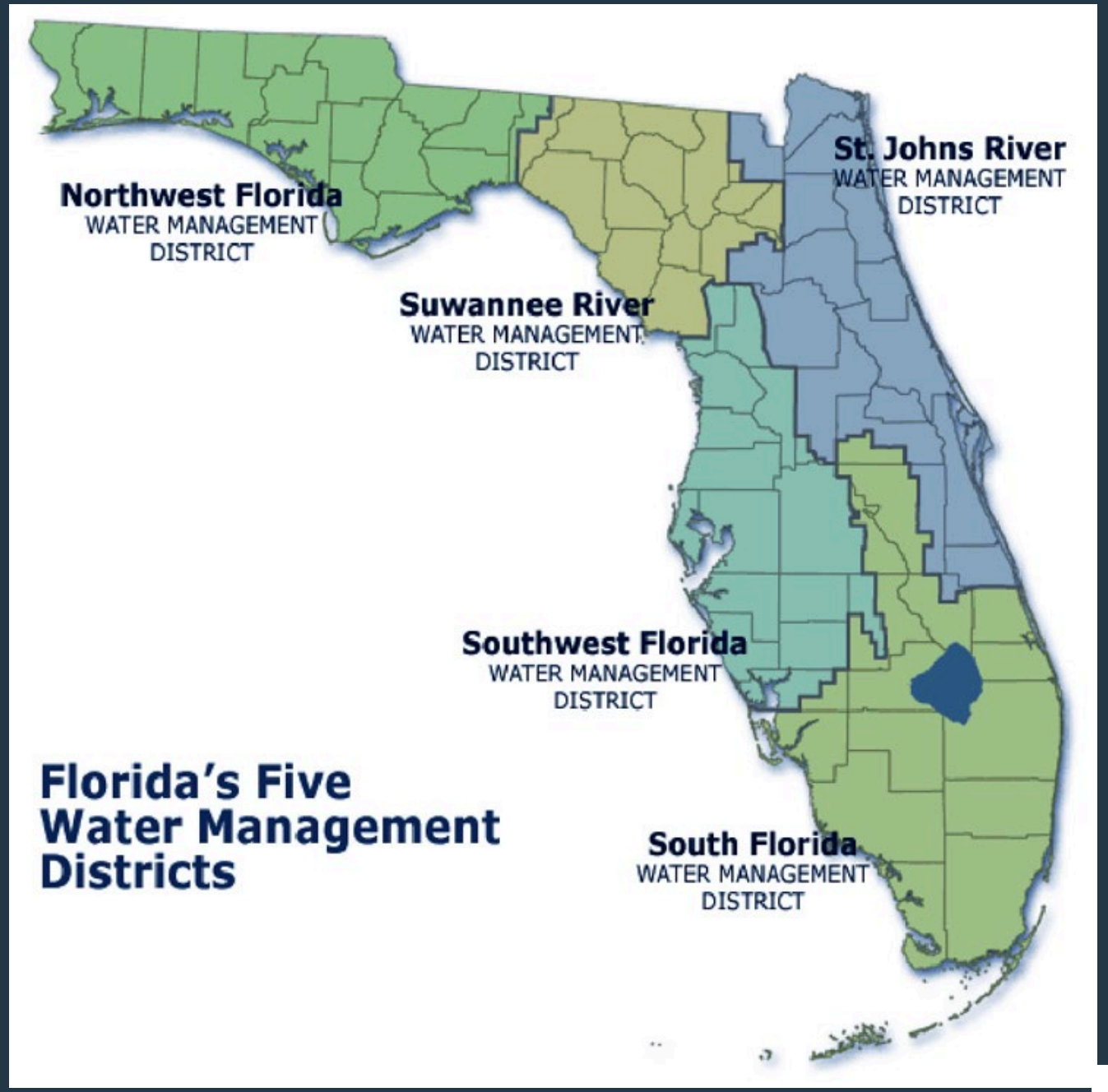
- Climate Prediction Center 3-month outlooks
- Keetch-Byram Drought Indicator (KBDI)
- Fire Danger Index (FDI)
- US Drought Monitor
- Lake levels compared to low normal values

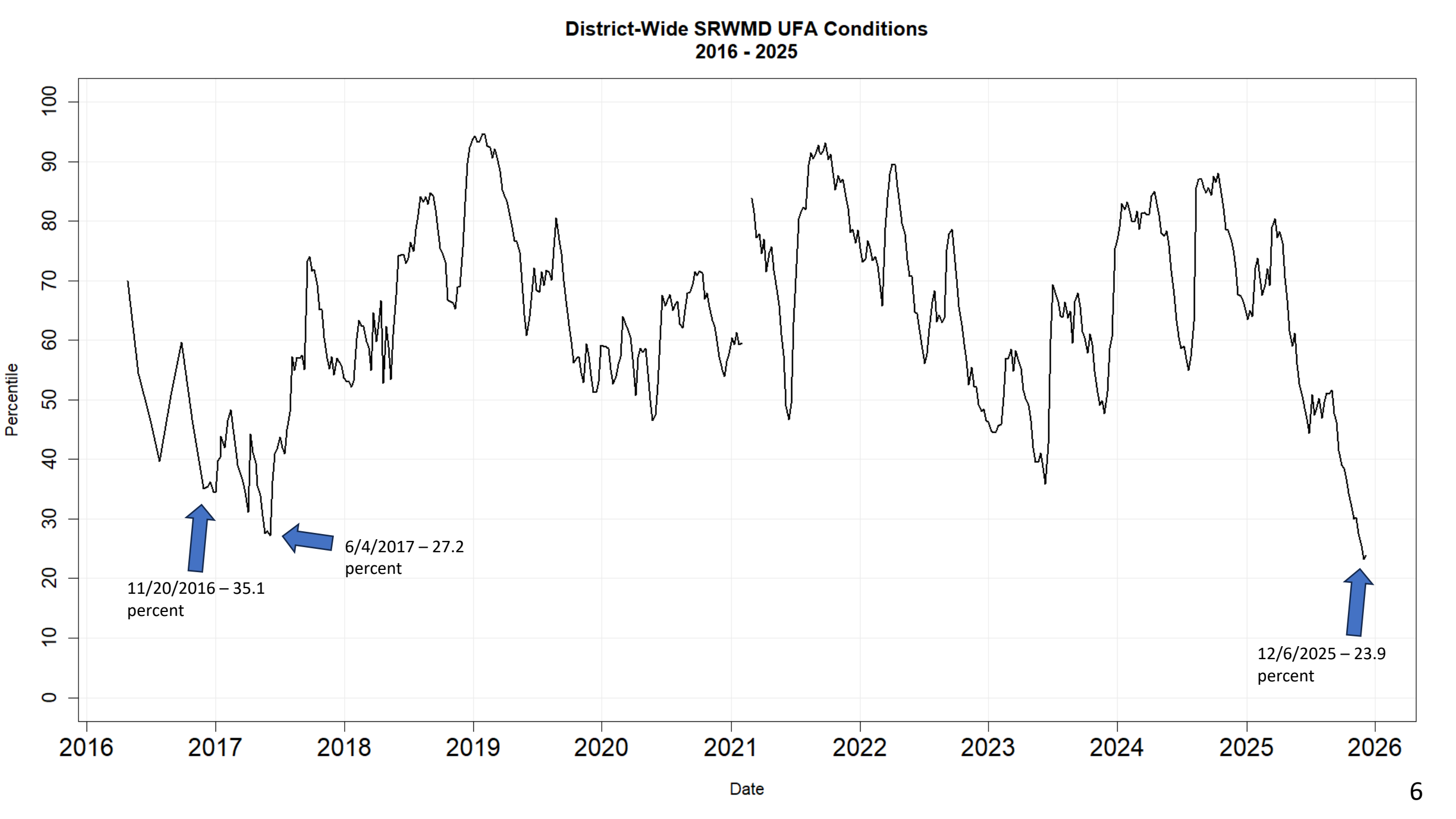


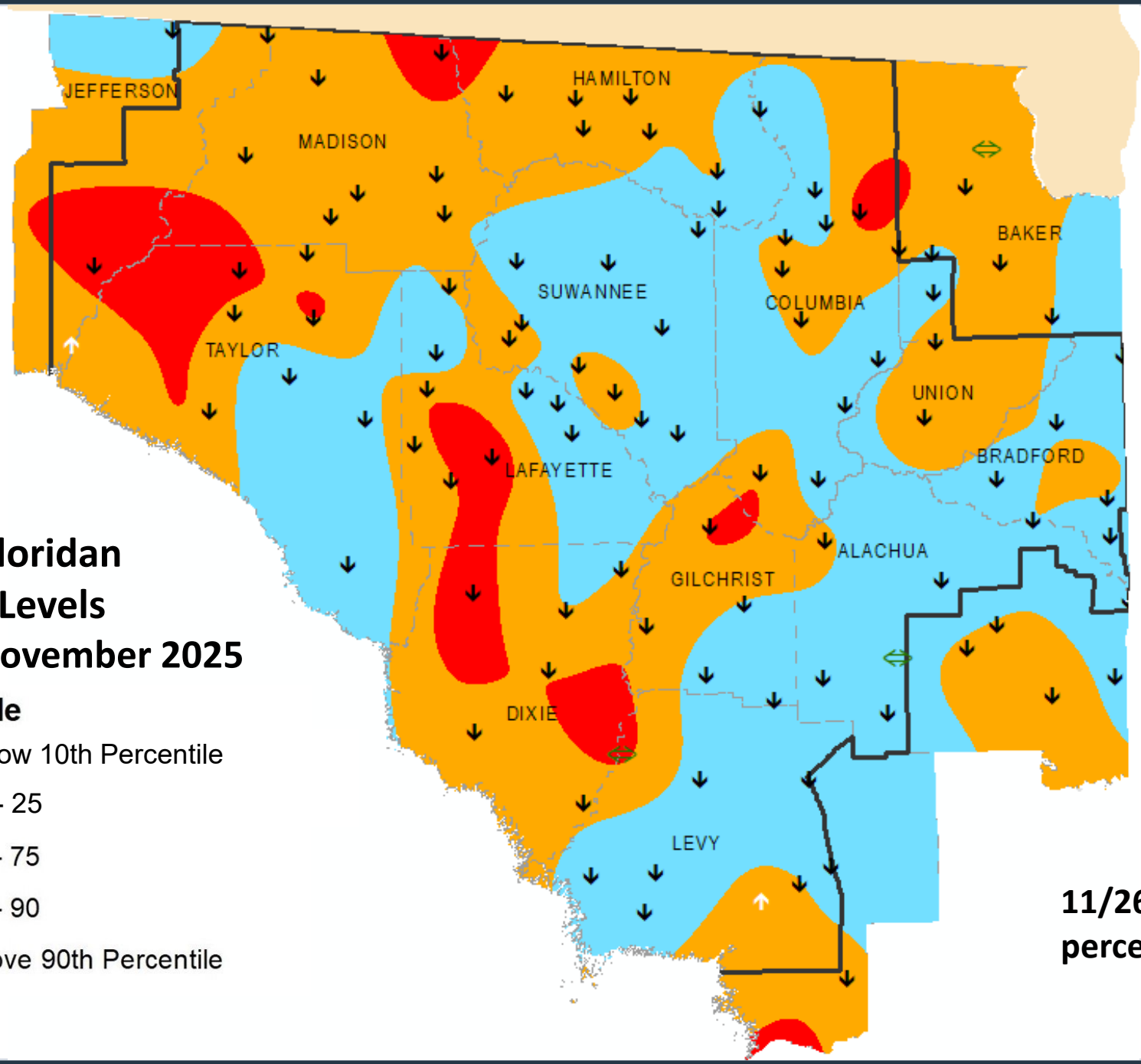
Drought Conditions

Additional Key Factors to Consider

- Water use demands, current and projected
- Impact to water supply wells
- Coordination with other water management districts




District-Wide SRWMD UFA Conditions
2016 - 2025
Percentile
0
10
20
30
40
50
60
70
80
90
100
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Date
11/20/2016 – 35.1 percent
6/4/2017 – 27.2 percent
12/6/2025 – 23.9 percent

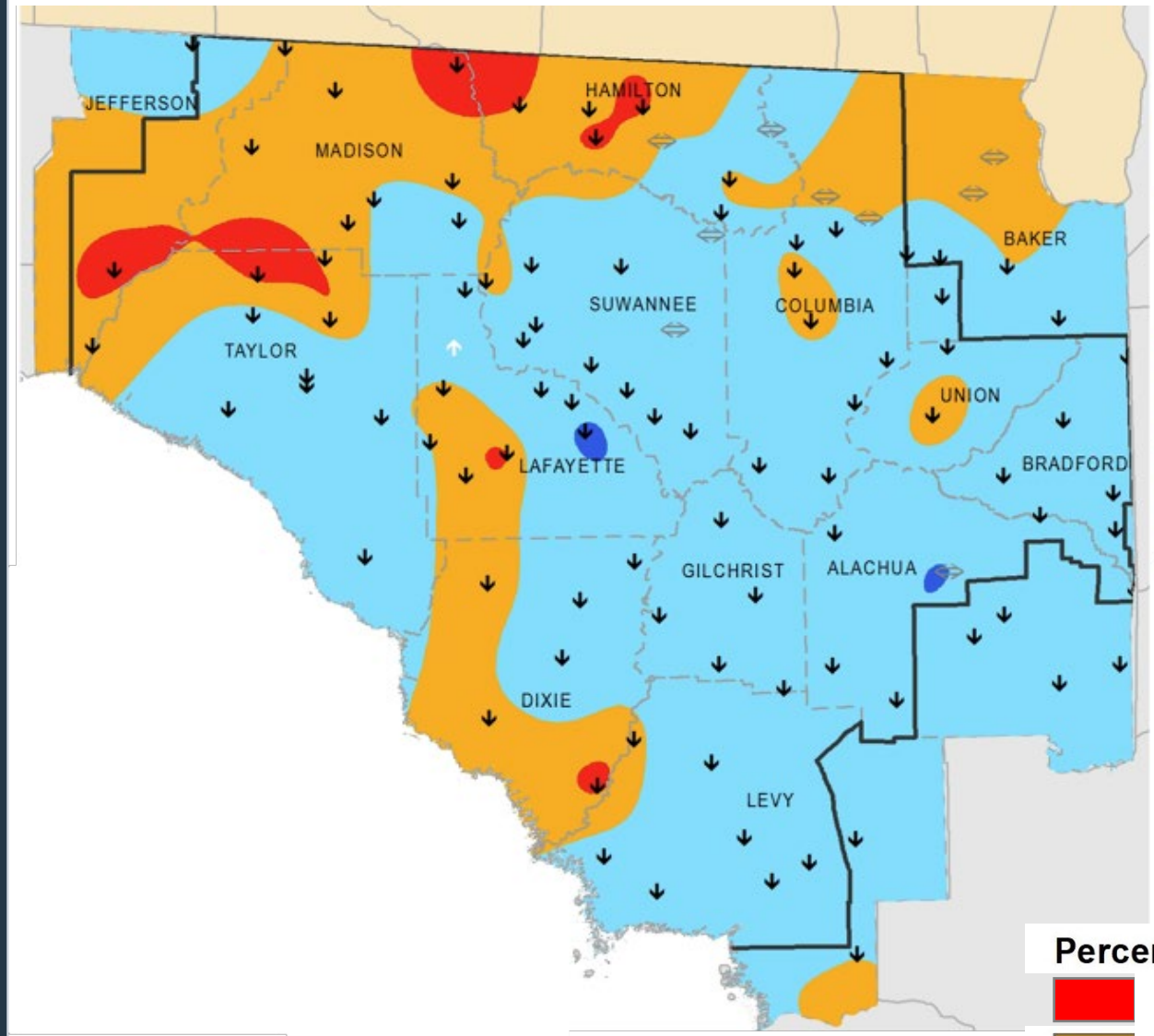


Upper Floridan Aquifer Levels
End of November 2025

Percentile

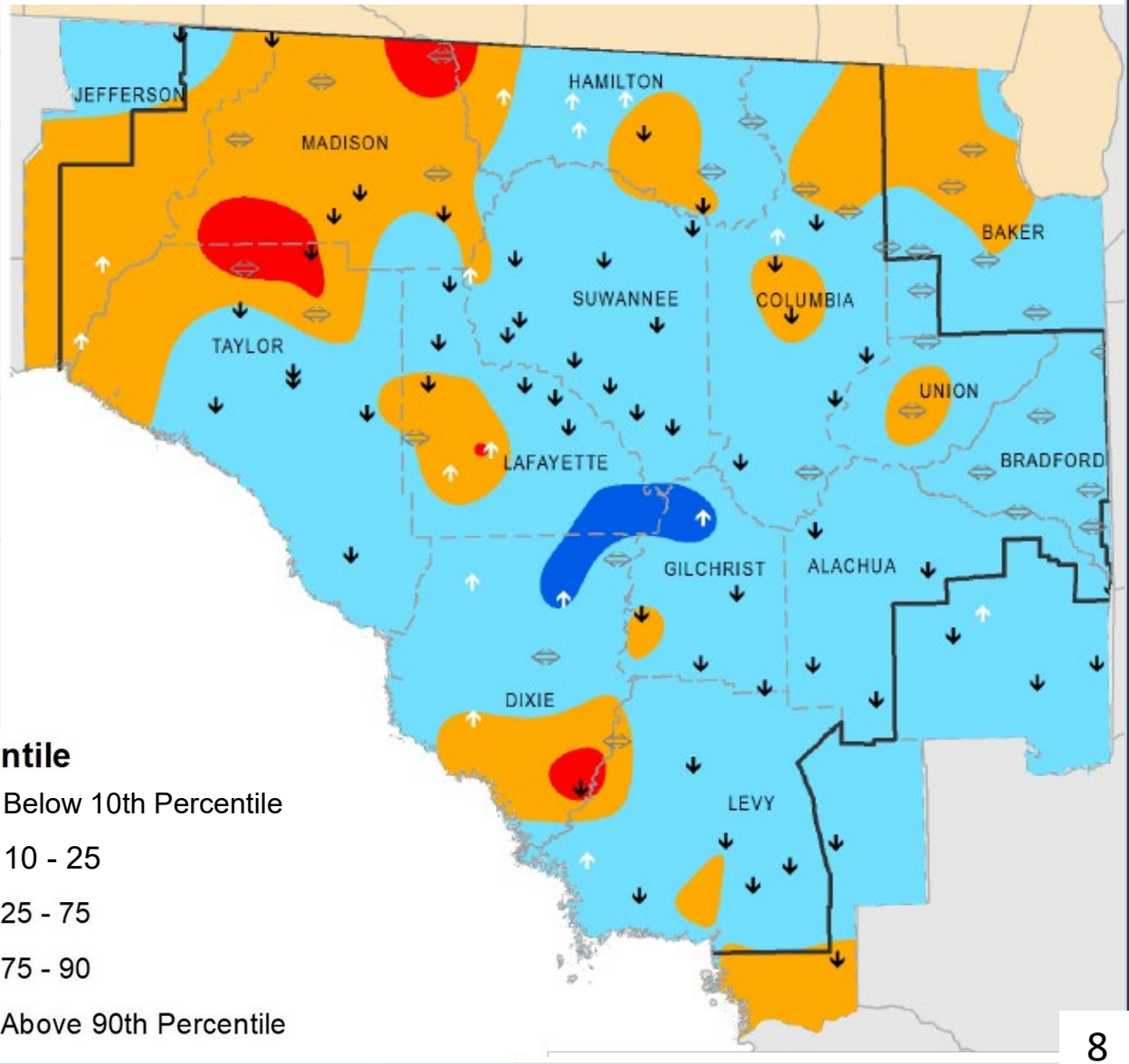
- Below 10th Percentile
- 10 - 25
- 25 - 75
- 75 - 90
- Above 90th Percentile

11/26/2025 – 24.4 percent



Upper Floridan Aquifer Levels End of November 2016

11/27/2016 – 35.1 percent

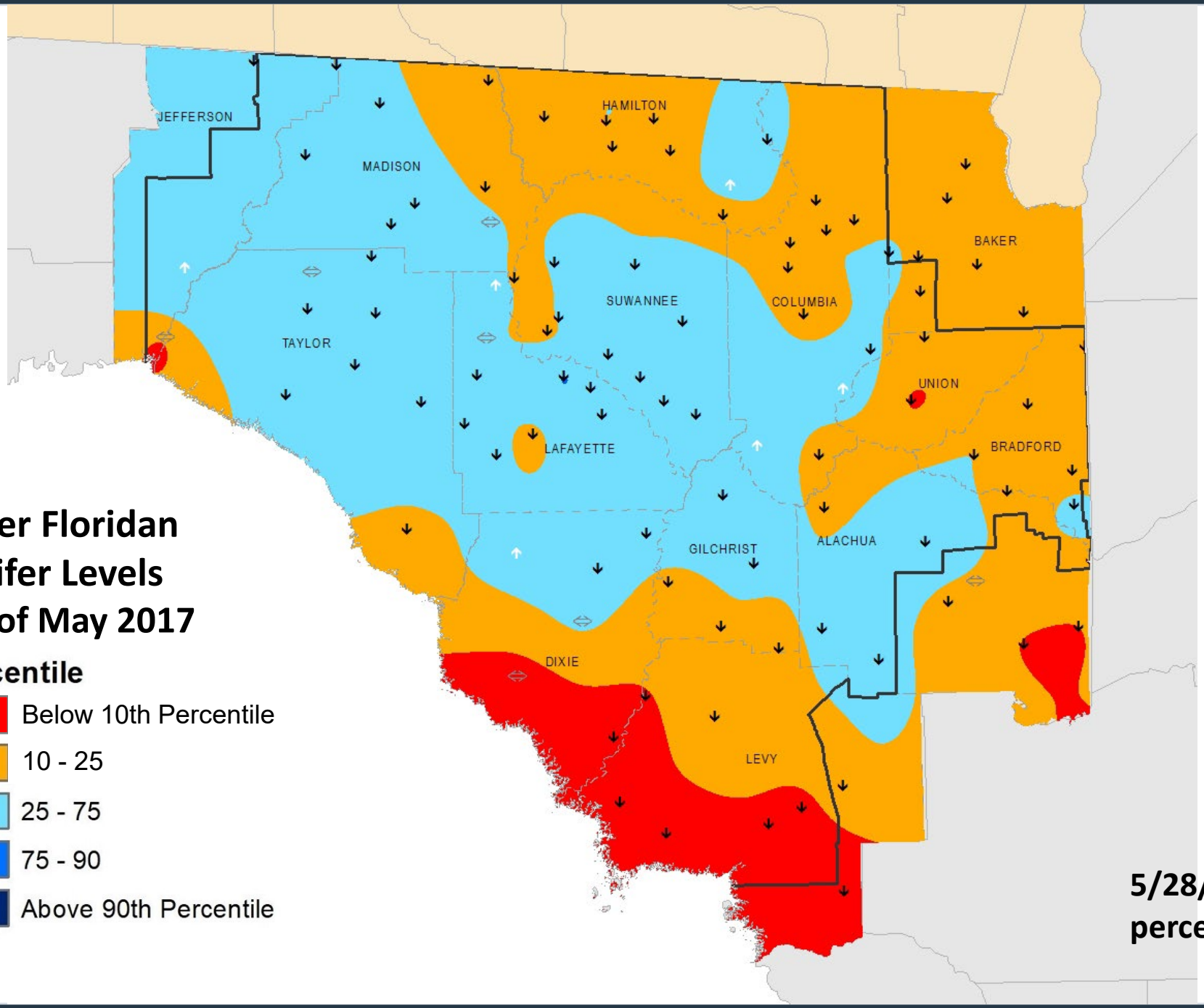


Upper Floridan Aquifer Levels End of December 2016

12/25/2016 – 34.6 percent

Percentile

- Below 10th Percentile
- 10 - 25
- 25 - 75
- 75 - 90
- Above 90th Percentile

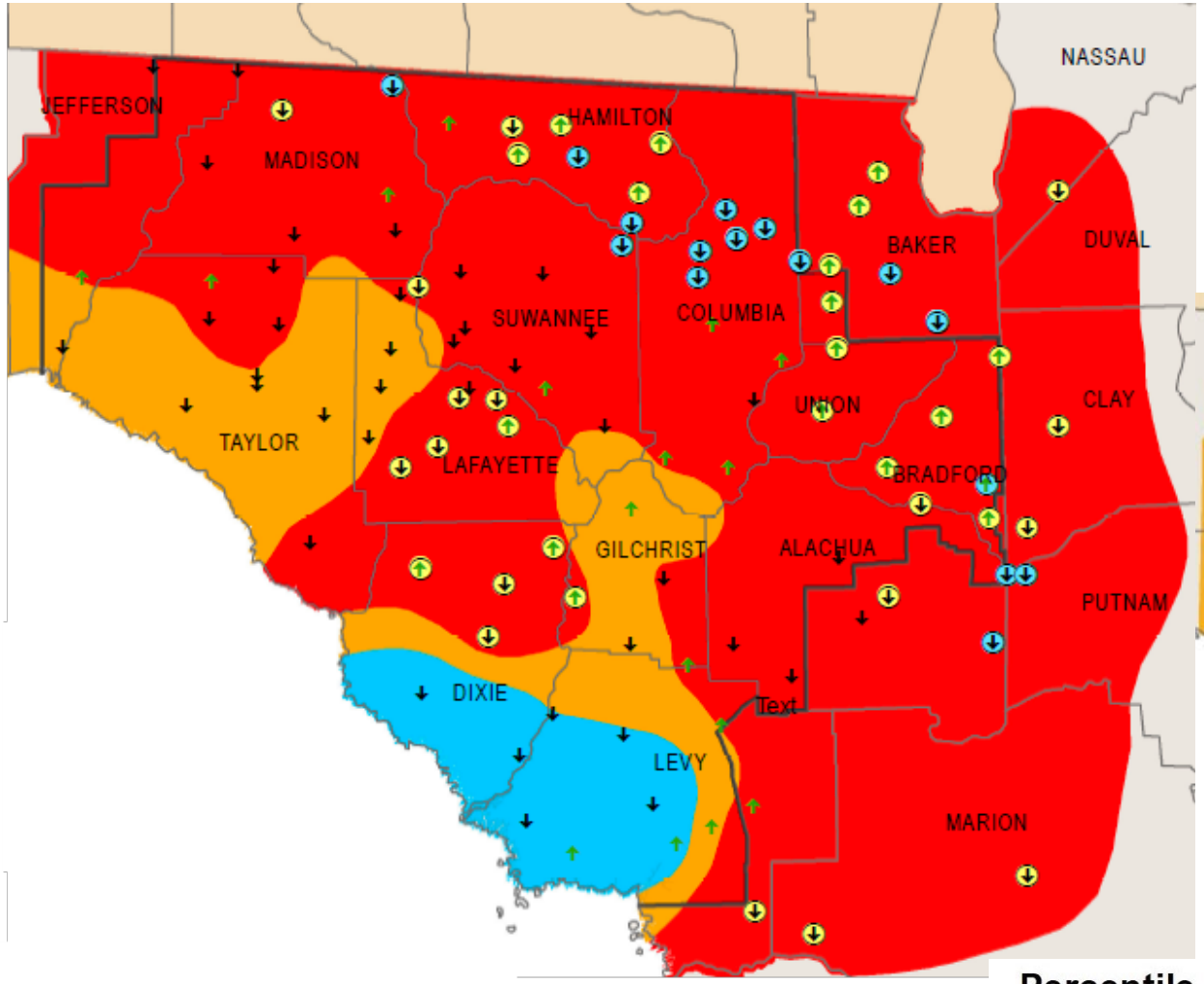


Upper Floridan Aquifer Levels End of May 2017

Percentile

- Below 10th Percentile
- 10 - 25
- 25 - 75
- 75 - 90
- Above 90th Percentile

5/28/2017 – 28.0 percent

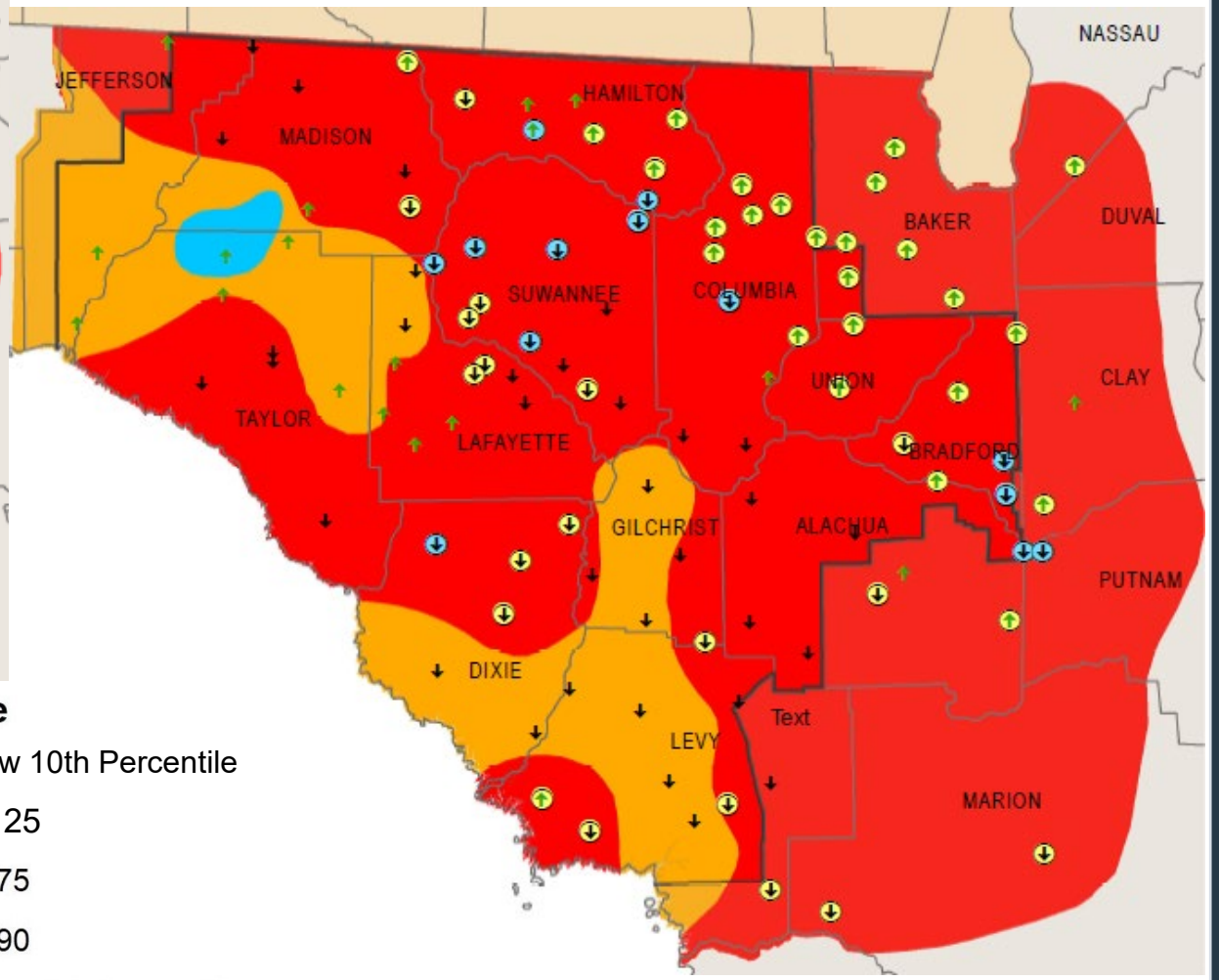


Upper Floridan Aquifer Levels End of November 2011

11/2011 – 5.0 percent

Upper Floridan Aquifer Levels End of December 2011

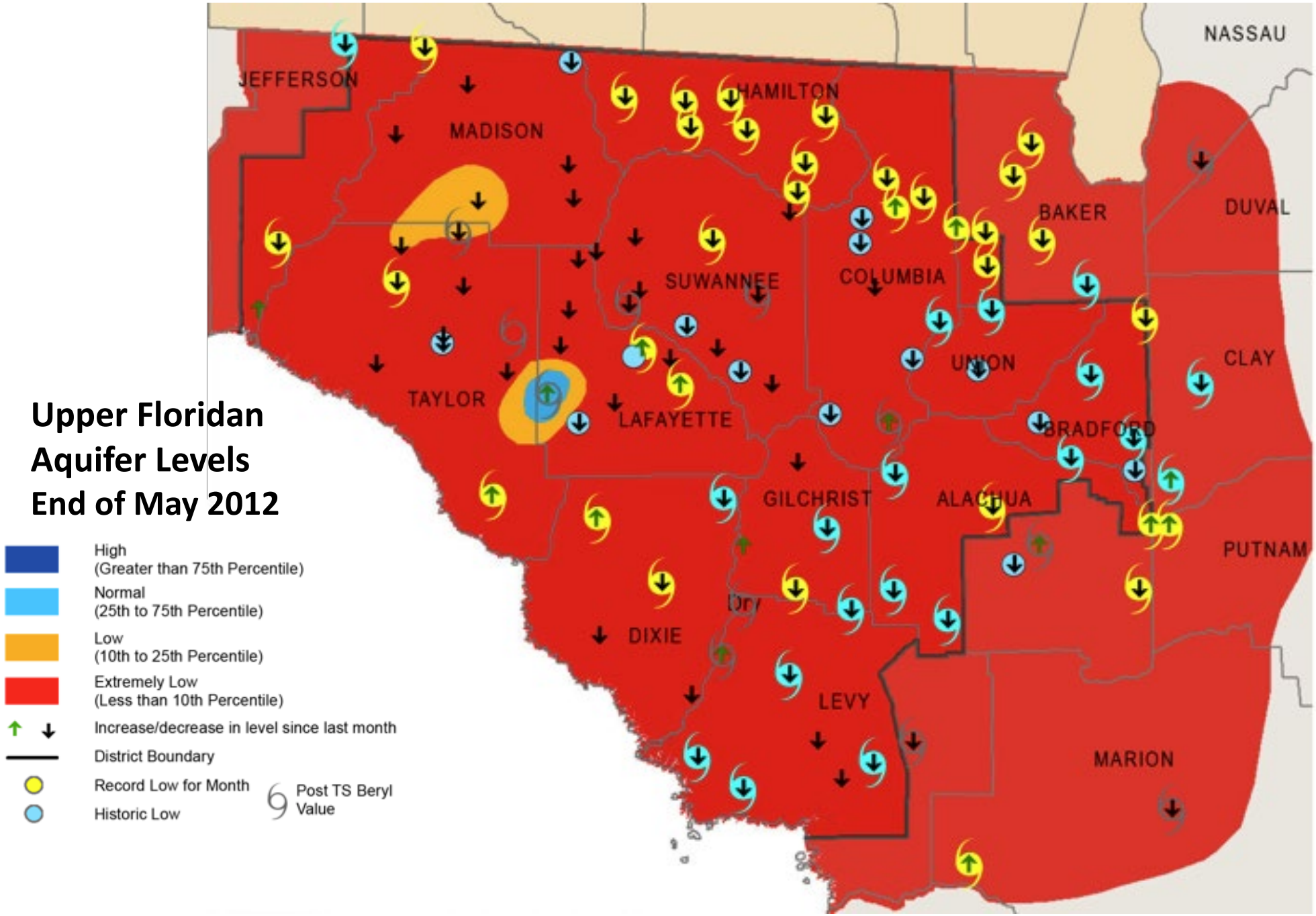
12/2011 – 5.0 percent



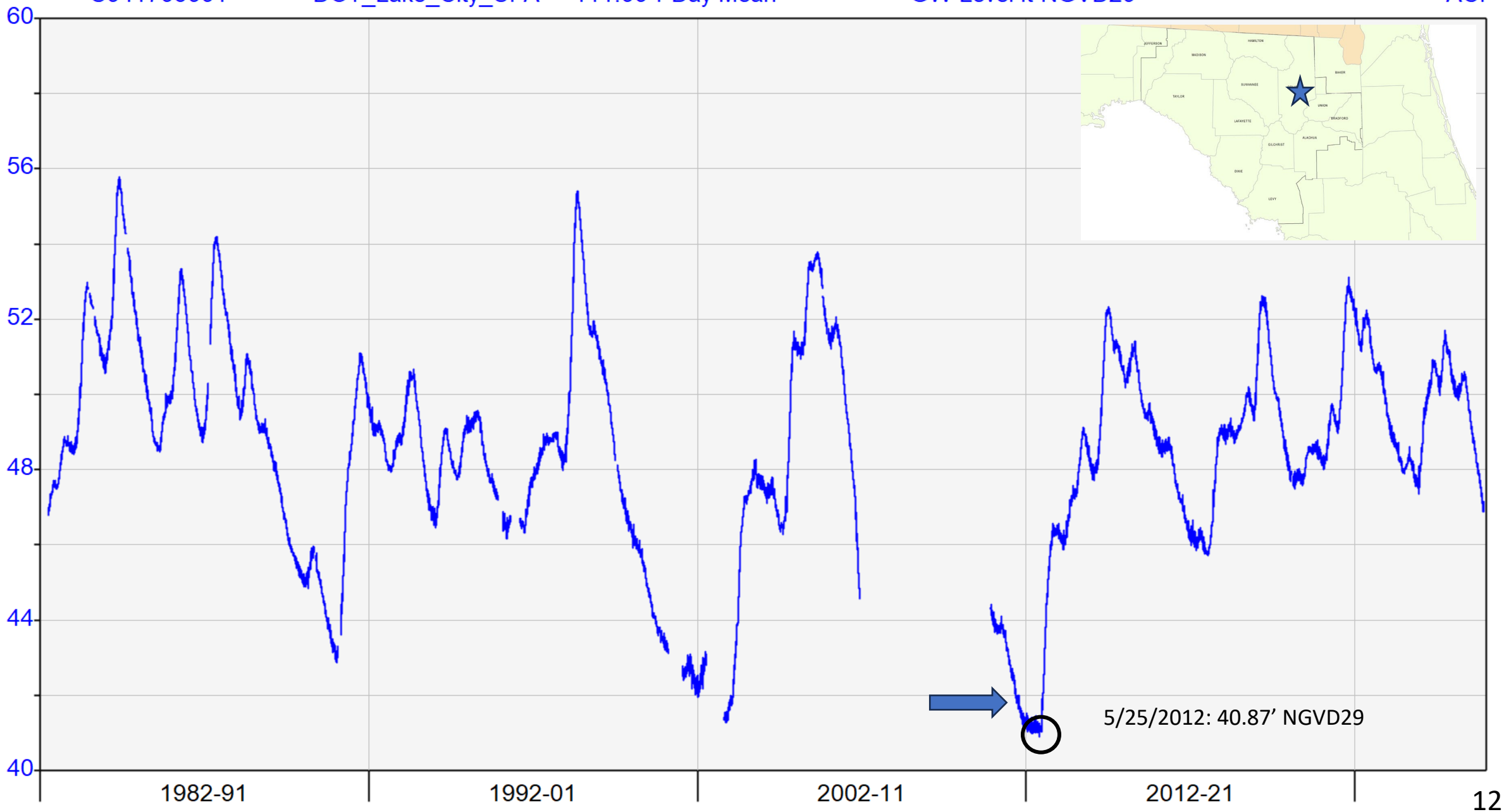
Percentile

- Below 10th Percentile
- 10 - 25
- 25 - 75
- 75 - 90
- Above 90th Percentile

Upper Floridan Aquifer Levels End of May 2012

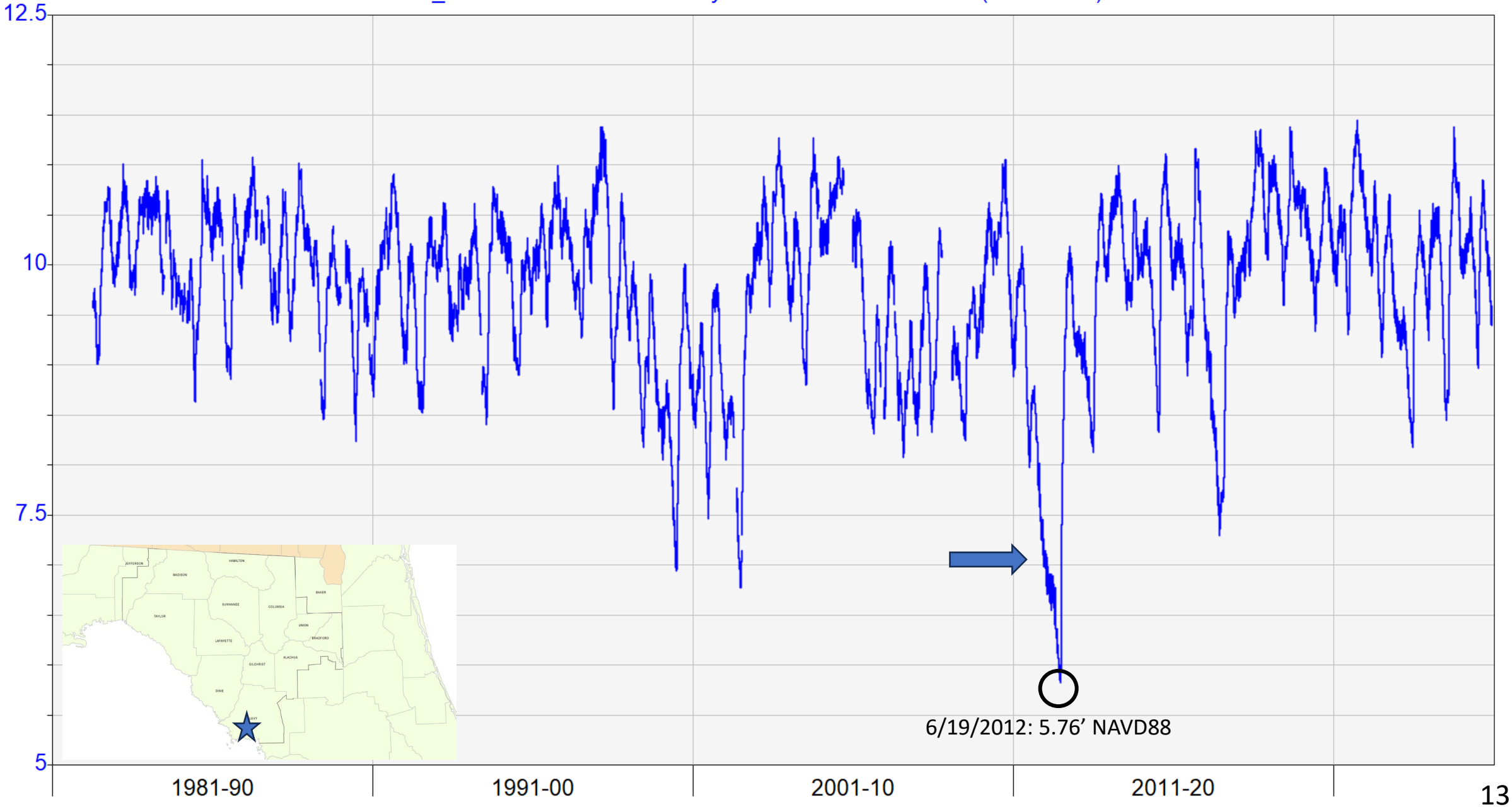


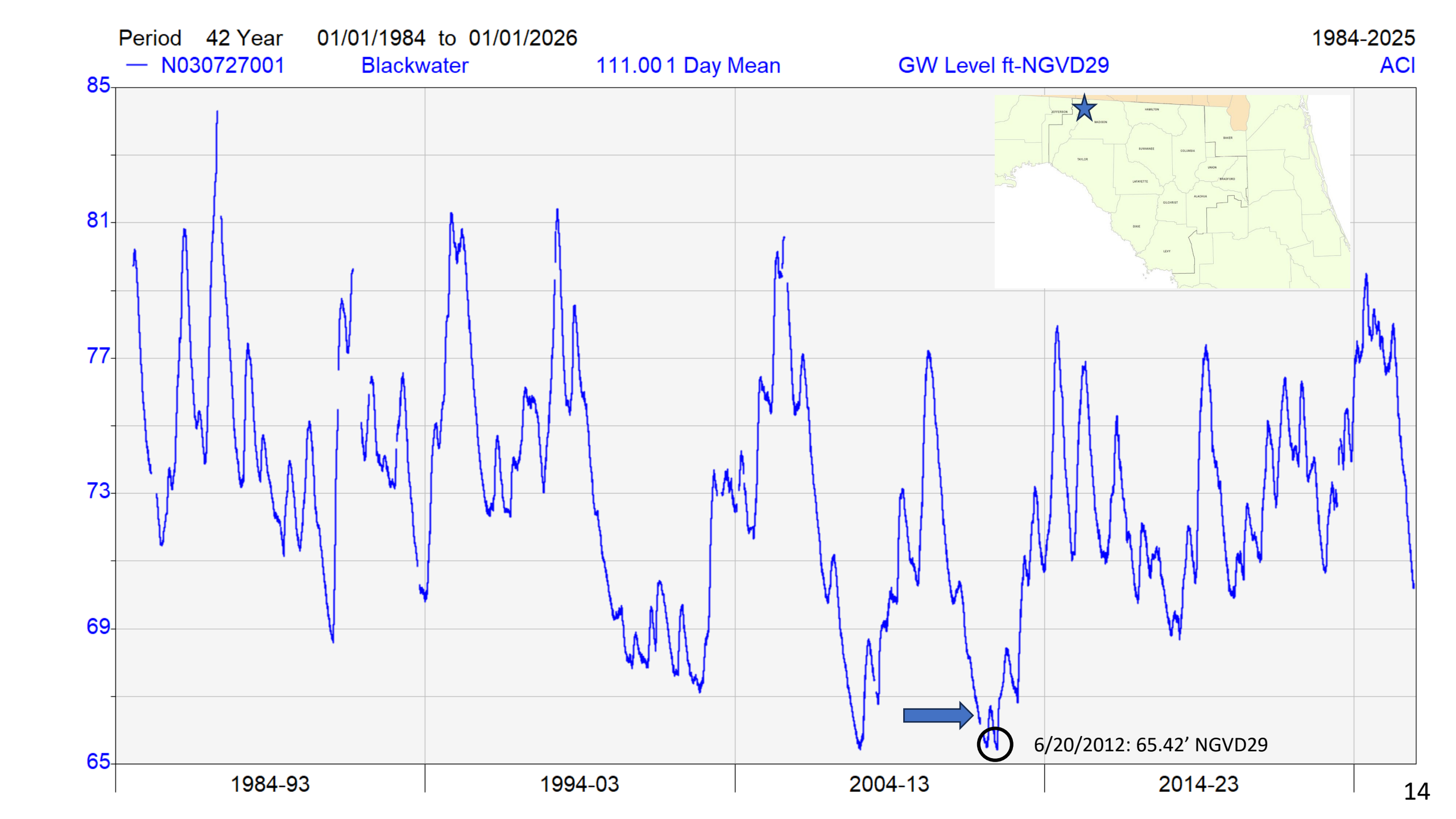
5/2012 – 1.0 percent


Period 44 Year 01/01/1982 to 01/01/2026
1982-2025
S041705001 DOT_Lake_City_UFA 111.00 1 Day Mean GW Level ft-NGVD29 ACI
60
56
52
48
44
40
1982-91
1992-01
2002-11
2012-21
5/25/2012: 40.87' NGVD29

Period 45 Year 01/01/1981 to 01/01/2026 1981-2025

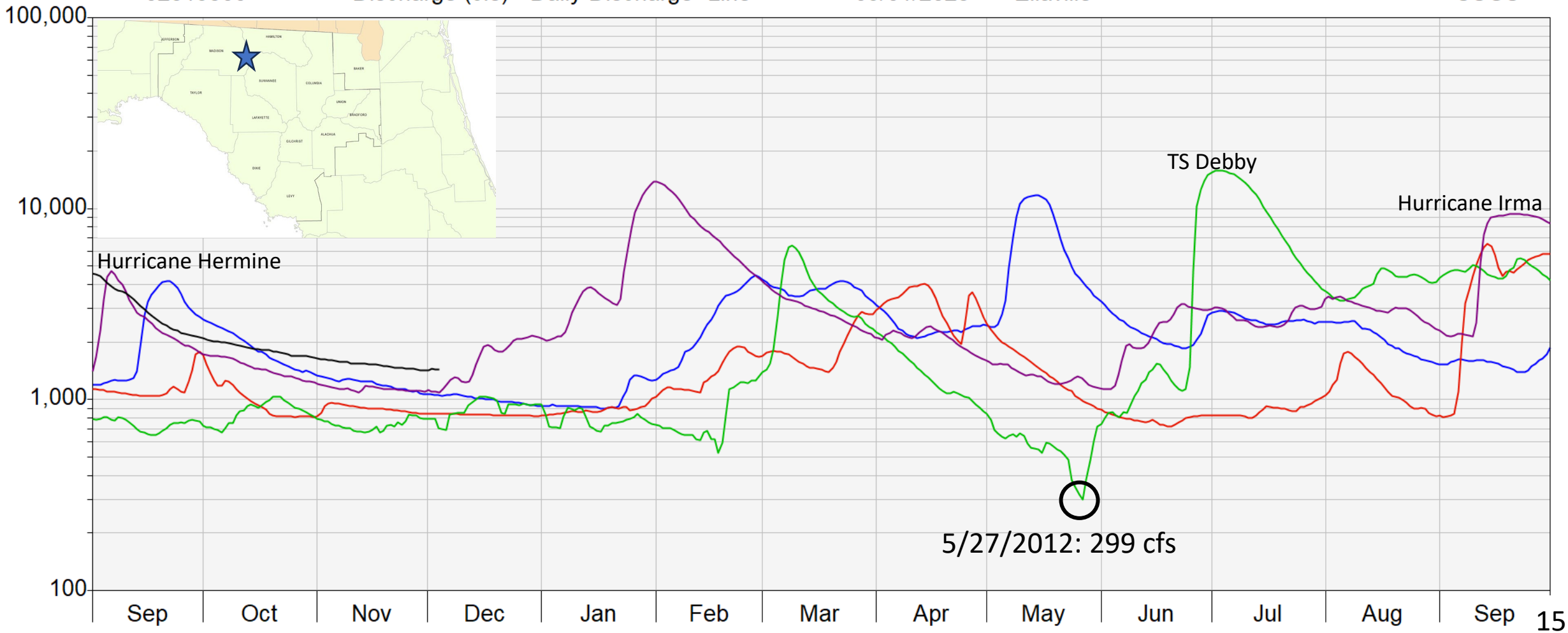
— S141429001 Rosewood_Tower 227.001 Day Mean Level (ft-NAVD88) Unit Value Level ACI




Period 42 Year 01/01/1984 to 01/01/2026
1984-2025
N030727001 Blackwater 111.00 1 Day Mean GW Level ft-NGVD29 ACI
85
81
77
73
69
65
1984-93
1994-03
2004-13
2014-23
6/20/2012: 65.42’ NGVD29

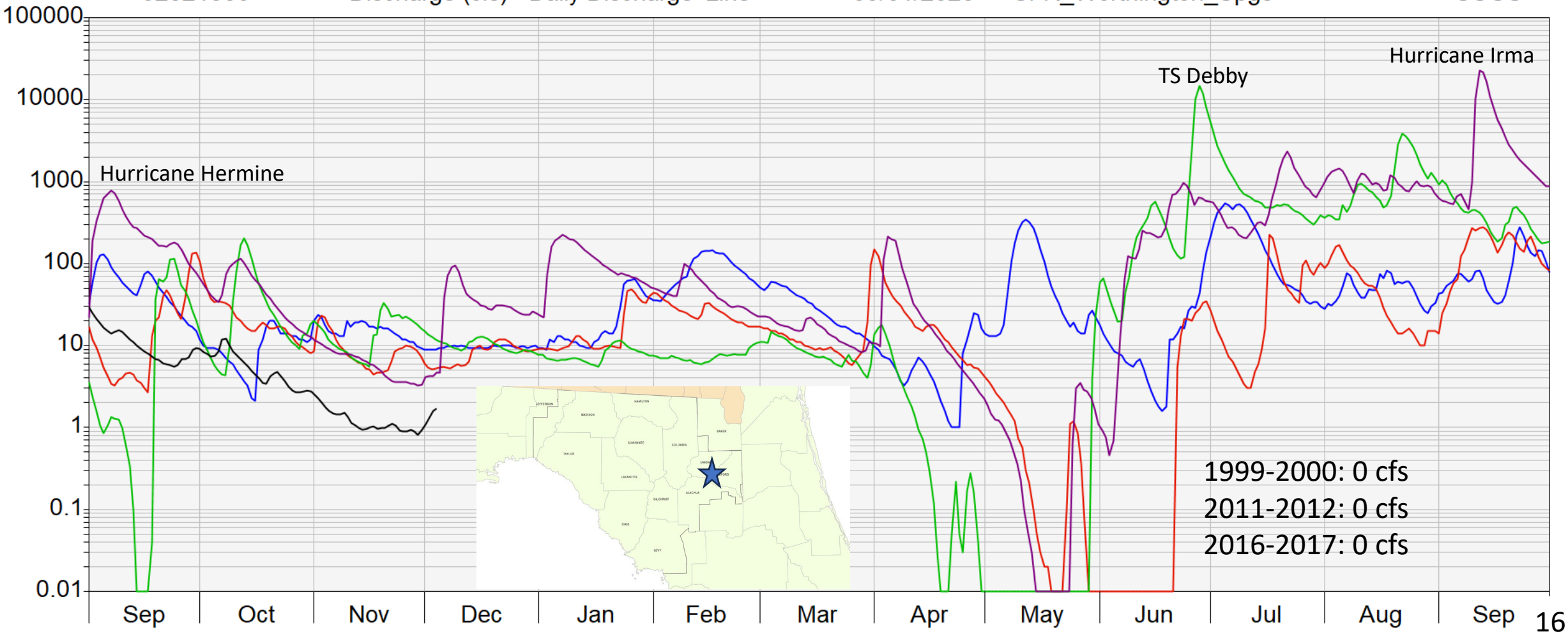
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02319500	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Ellaville	USGS
02319500	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Ellaville	USGS
02319500	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Ellaville	USGS
02319500	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Ellaville	USGS
02319500	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Ellaville	USGS



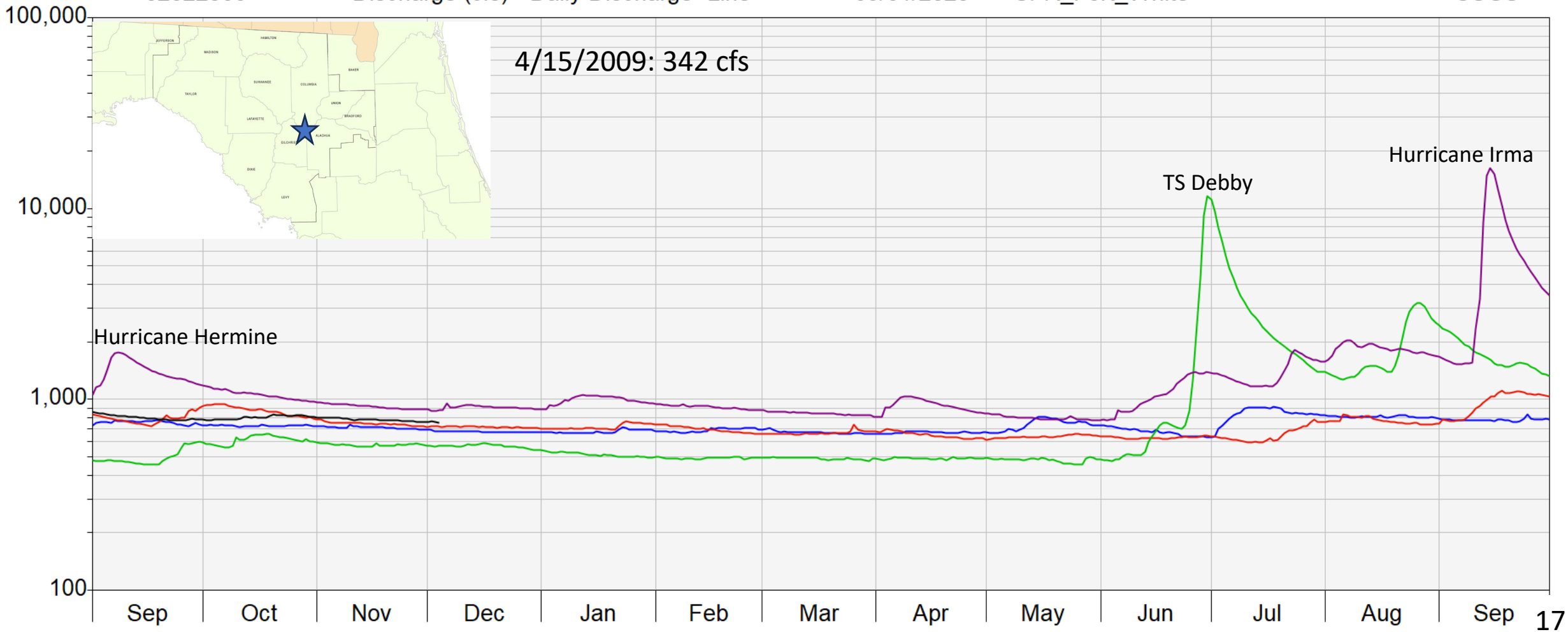
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02321500	Discharge (cfs) - Daily Discharge	Line	09/01/1955	SFR_Worthington_Spgs	USGS
02321500	Discharge (cfs) - Daily Discharge	Line	09/01/1999	SFR_Worthington_Spgs	USGS
02321500	Discharge (cfs) - Daily Discharge	Line	09/01/2011	SFR_Worthington_Spgs	USGS
02321500	Discharge (cfs) - Daily Discharge	Line	09/01/2016	SFR_Worthington_Spgs	USGS
02321500	Discharge (cfs) - Daily Discharge	Line	09/01/2025	SFR_Worthington_Spgs	USGS



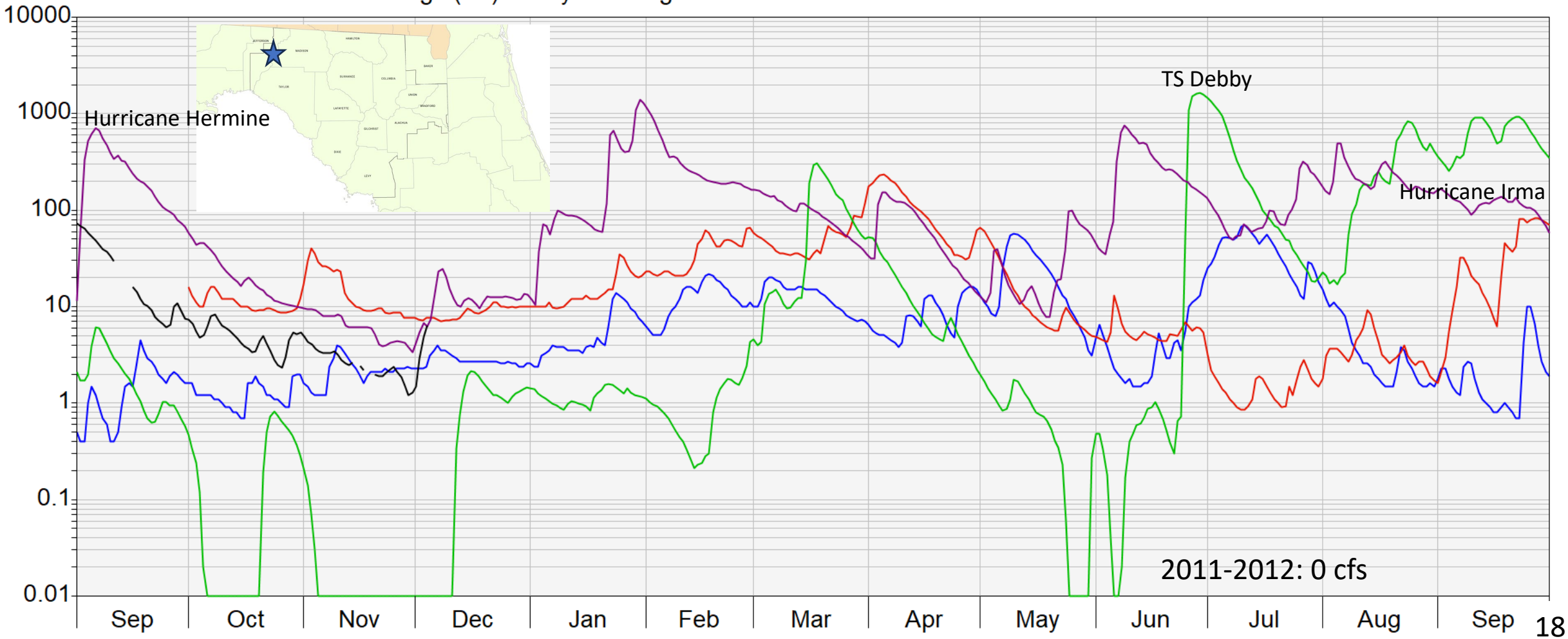
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02322500	Discharge (cfs) - Daily Discharge	Line	09/01/1955	SFR_Fort_White	USGS
02322500	Discharge (cfs) - Daily Discharge	Line	09/01/1999	SFR_Fort_White	USGS
02322500	Discharge (cfs) - Daily Discharge	Line	09/01/2011	SFR_Fort_White	USGS
02322500	Discharge (cfs) - Daily Discharge	Line	09/01/2016	SFR_Fort_White	USGS
02322500	Discharge (cfs) - Daily Discharge	Line	09/01/2025	SFR_Fort_White	USGS



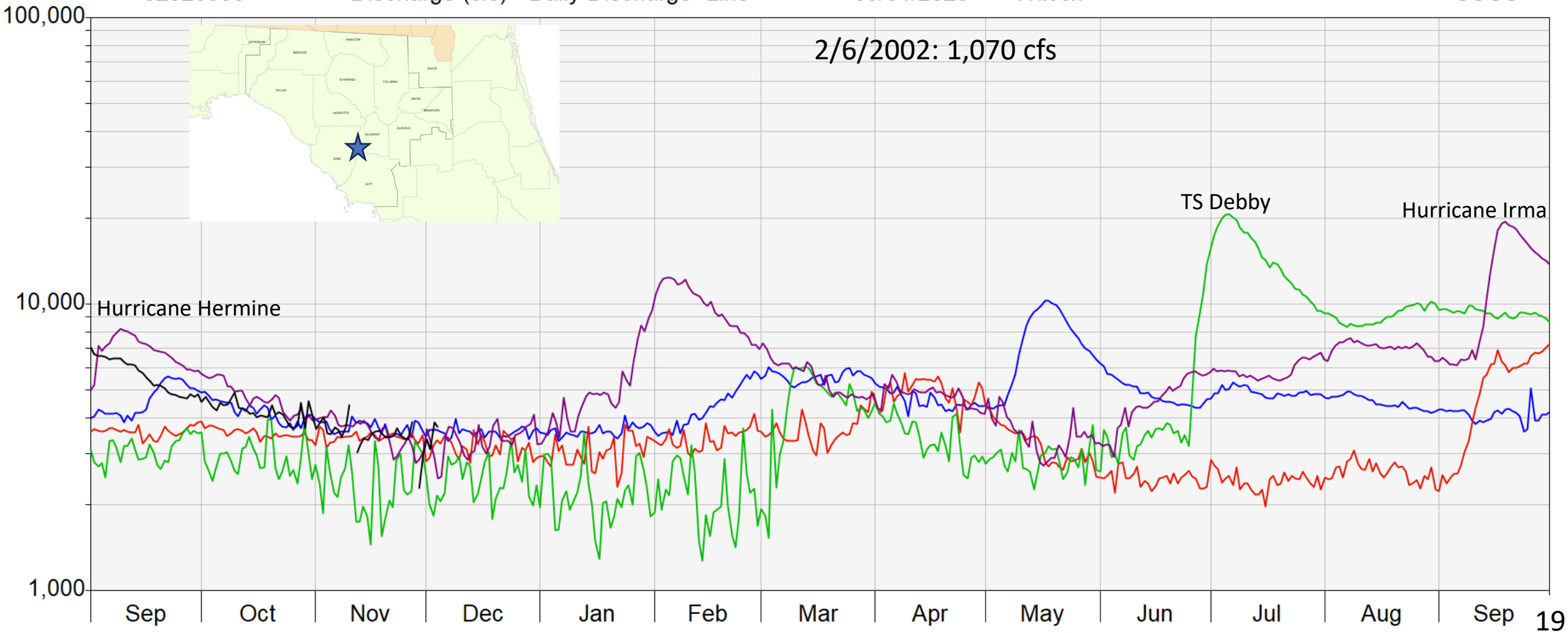
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02326500	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Lamont	USGS
02326500	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Lamont	USGS
02326500	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Lamont	USGS
02326500	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Lamont	USGS
02326500	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Lamont	USGS



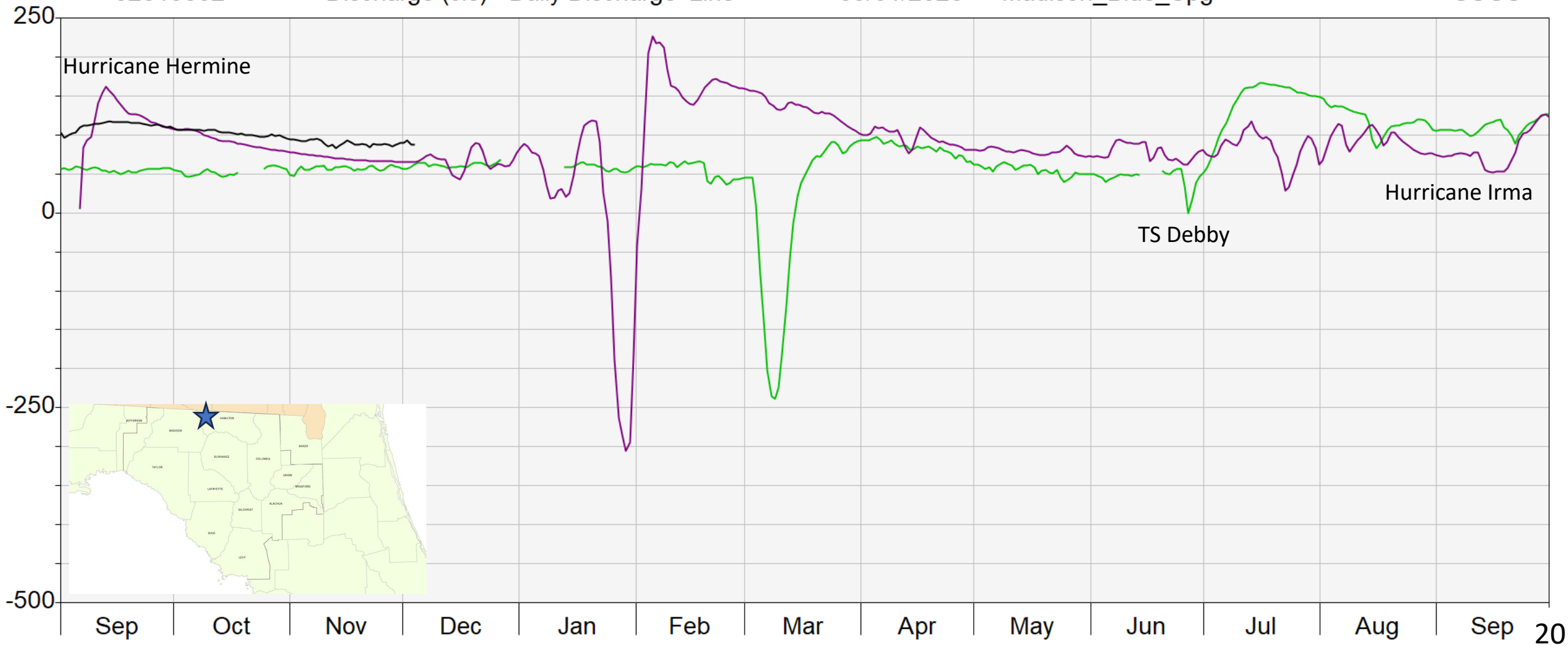
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02323500	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Wilcox	USGS
02323500	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Wilcox	USGS
02323500	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Wilcox	USGS
02323500	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Wilcox	USGS
02323500	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Wilcox	USGS



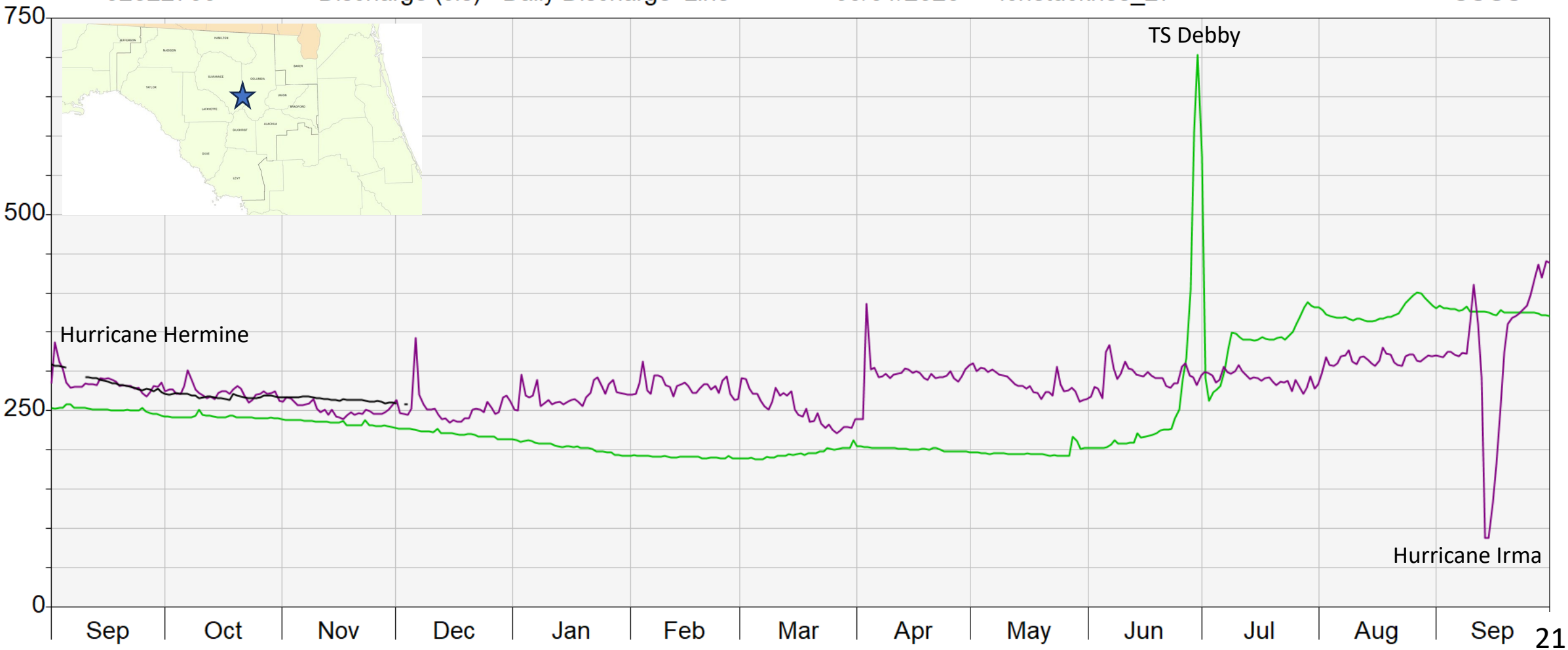
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02319302	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Madison_Blue_Spg	USGS
02319302	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Madison_Blue_Spg	USGS
02319302	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Madison_Blue_Spg	USGS
02319302	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Madison_Blue_Spg	USGS
02319302	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Madison_Blue_Spg	USGS



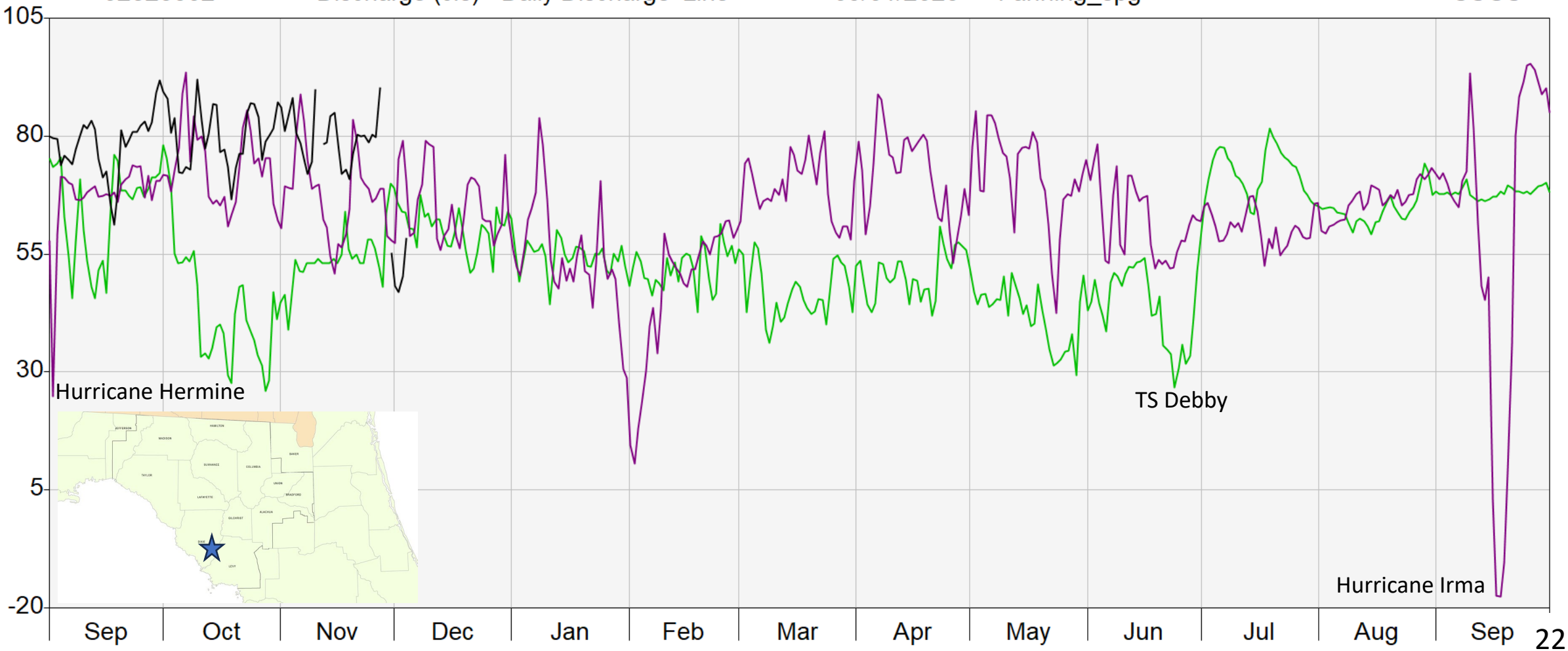
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02322700	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Ichetucknee_27	USGS
02322700	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Ichetucknee_27	USGS
02322700	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Ichetucknee_27	USGS
02322700	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Ichetucknee_27	USGS
02322700	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Ichetucknee_27	USGS



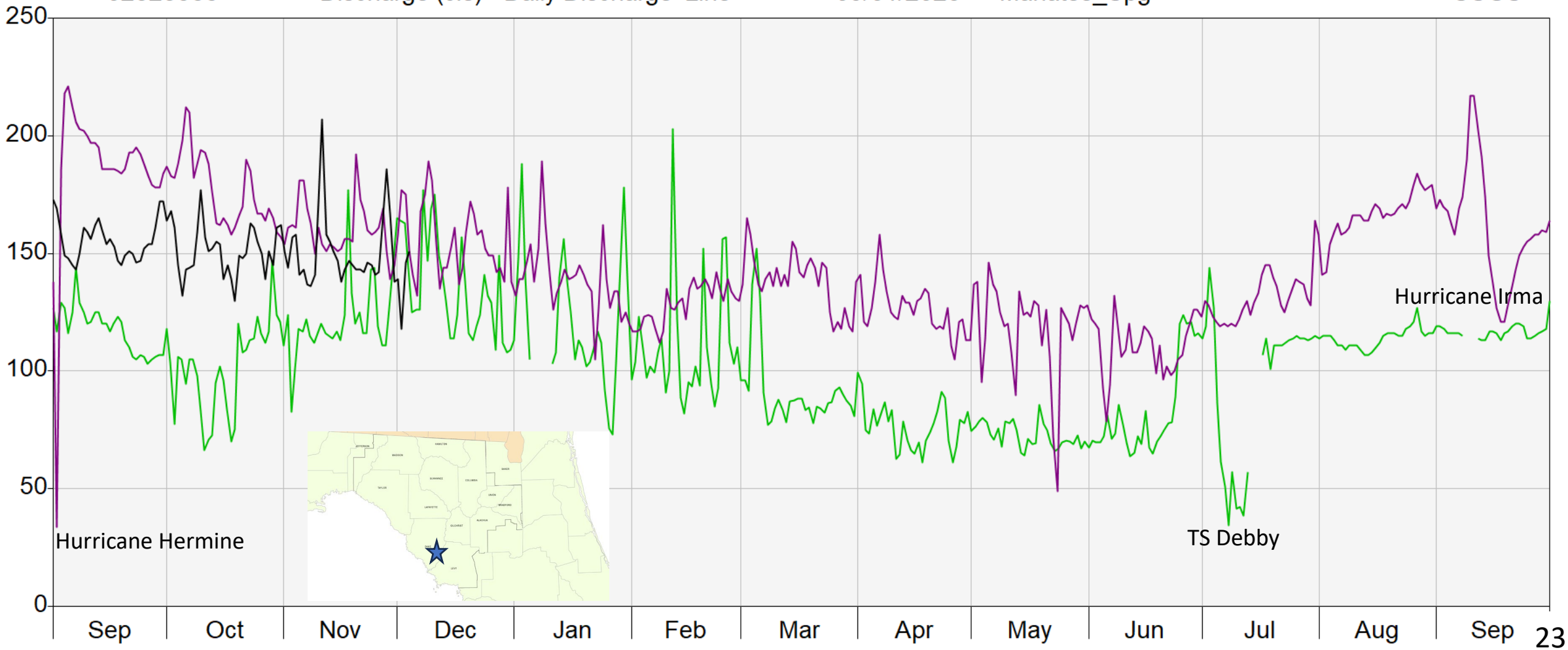
Period 13 Month
Interval 1 Day

Site	Var	Type	Start	Name	
02323502	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Fanning_spg	USGS
02323502	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Fanning_spg	USGS
02323502	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Fanning_spg	USGS
02323502	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Fanning_spg	USGS
02323502	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Fanning_spg	USGS



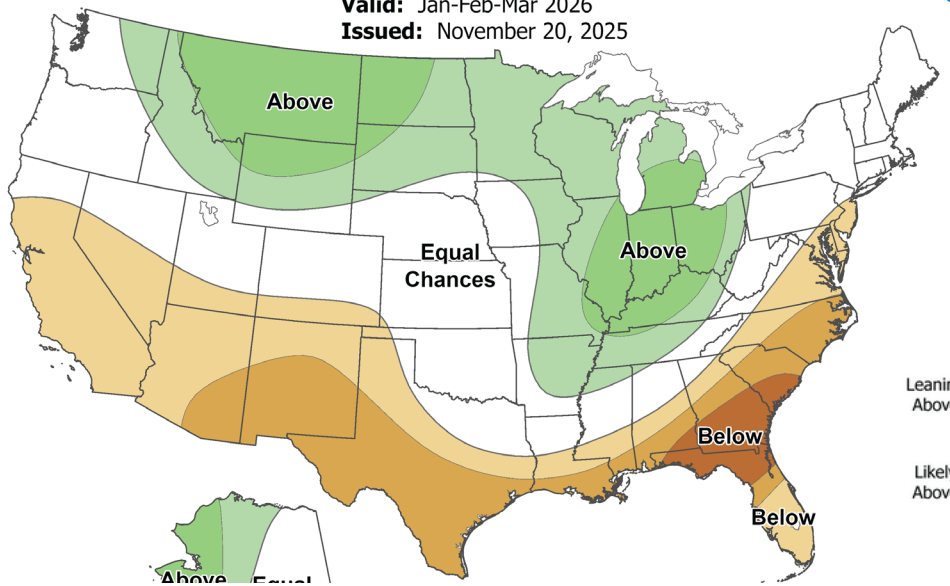
Period 13 Month
Interval 1 Day

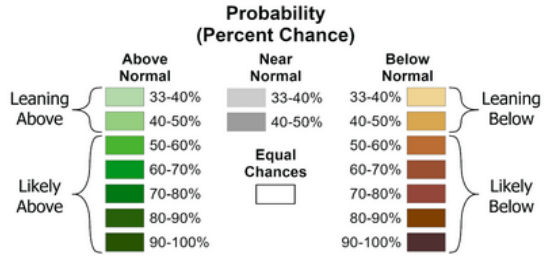
Site	Var	Type	Start	Name	
02323566	Discharge (cfs) - Daily Discharge	Line	09/01/1955	Manatee_Spg	USGS
02323566	Discharge (cfs) - Daily Discharge	Line	09/01/1999	Manatee_Spg	USGS
02323566	Discharge (cfs) - Daily Discharge	Line	09/01/2011	Manatee_Spg	USGS
02323566	Discharge (cfs) - Daily Discharge	Line	09/01/2016	Manatee_Spg	USGS
02323566	Discharge (cfs) - Daily Discharge	Line	09/01/2025	Manatee_Spg	USGS



Seasonal Precipitation Outlook

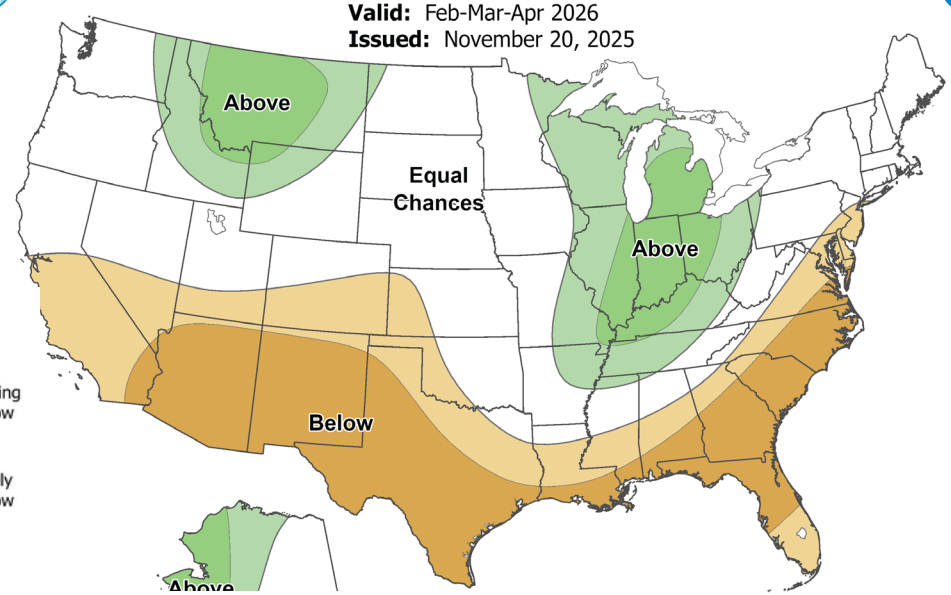
Valid: Jan-Feb-Mar 2026
Issued: November 20, 2025





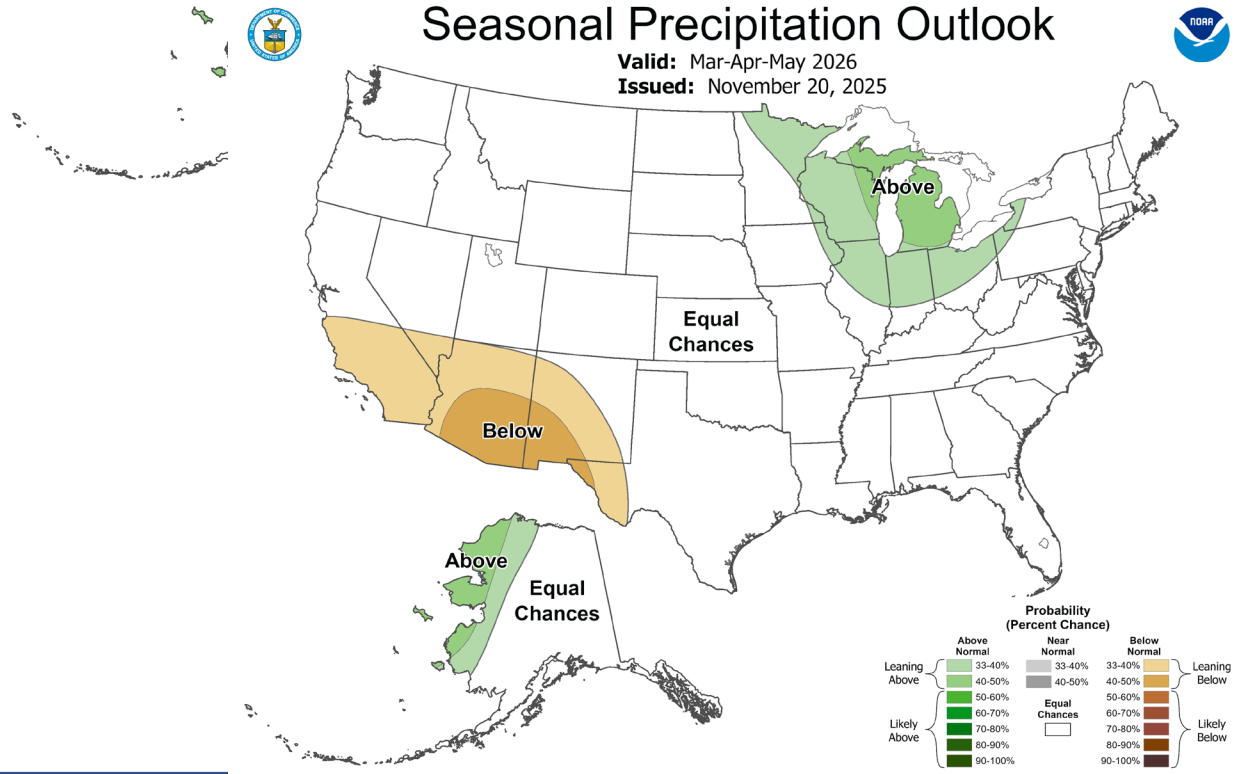
Seasonal Precipitation Outlook

Valid: Feb-Mar-Apr 2026
Issued: November 20, 2025



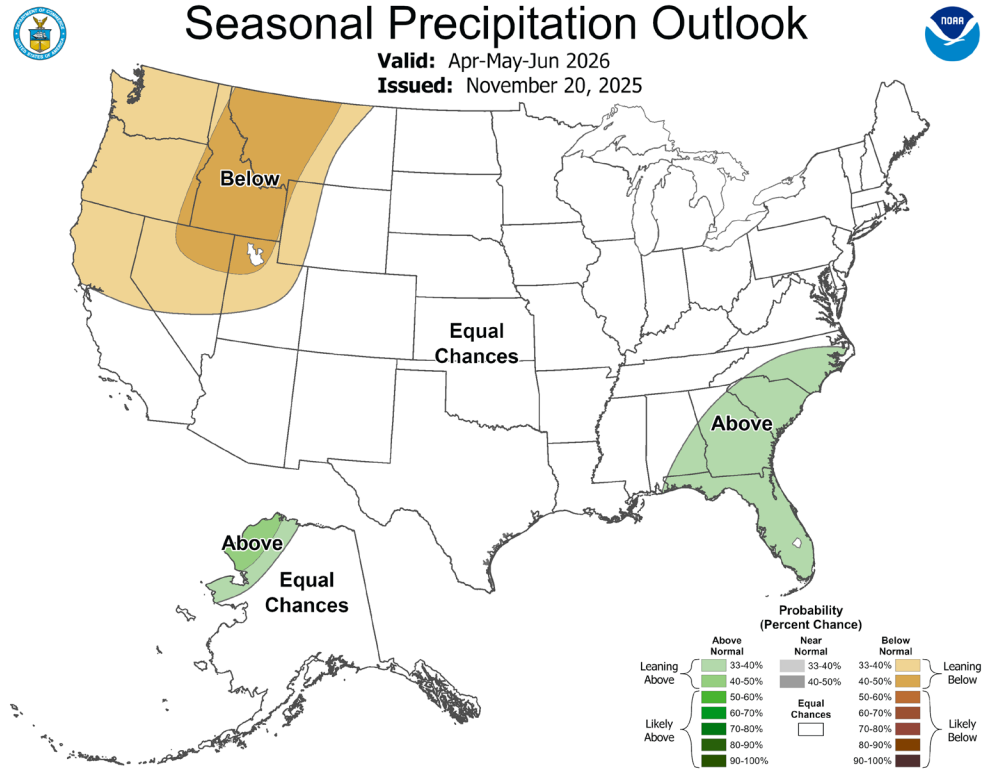
Seasonal Precipitation Outlook

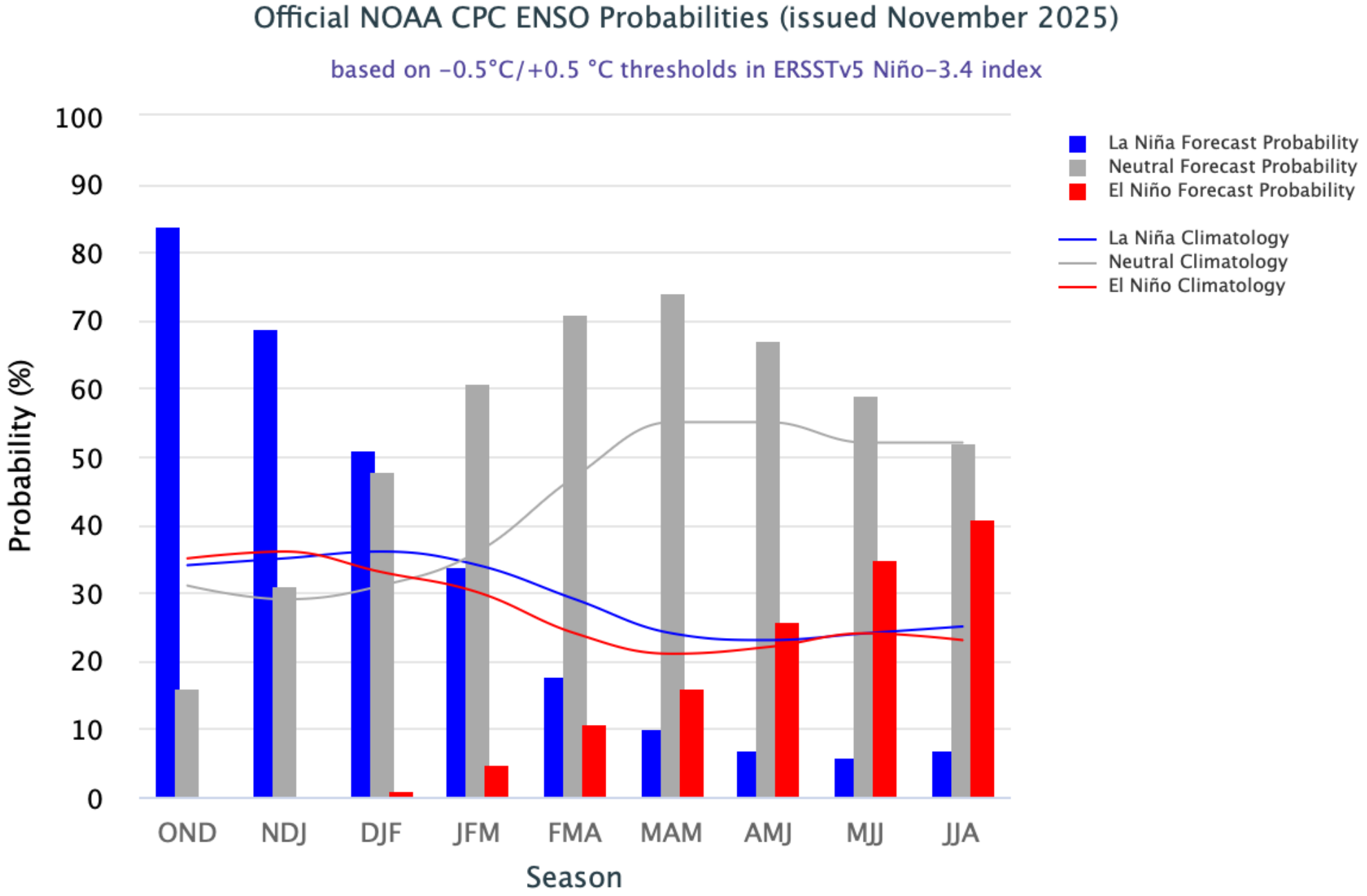
Valid: Mar-Apr-May 2026
Issued: November 20, 2025



Seasonal Precipitation Outlook

Valid: Apr-May-Jun 2026
Issued: November 20, 2025

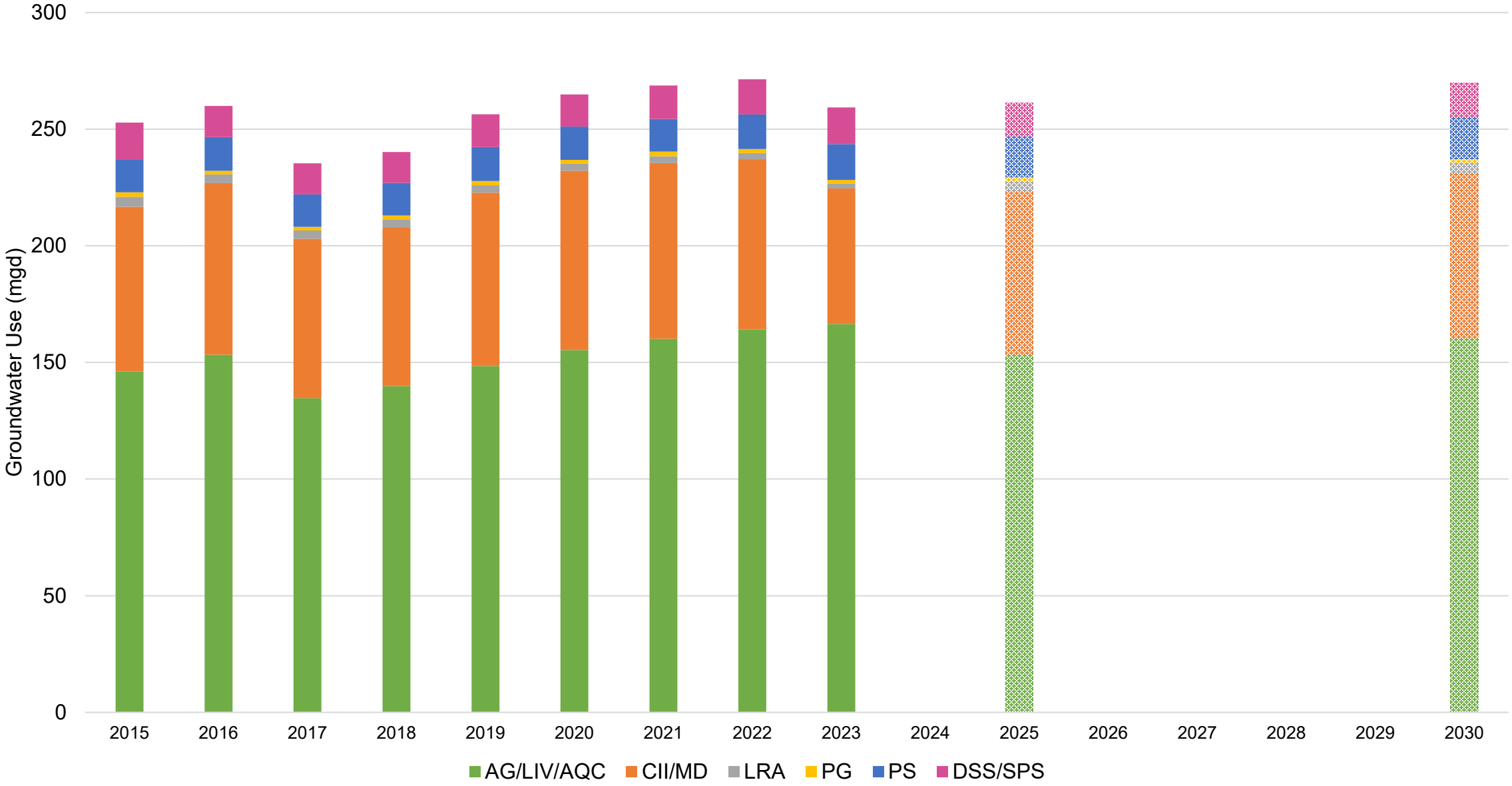



Official NOAA CPC ENSO Probabilities (issued November 2025)
based on -0.5°C/+0.5 °C thresholds in ERSSTv5 Niño-3.4 index
Probability (%)
100
90
80
70
60
50
40
30
20
10
0
OND
NDJ
DJF
JFM
FMA
MAM
AMJ
MJJ
JJA
Season
La Niña Forecast Probability
Neutral Forecast Probability
El Niño Forecast Probability
La Niña Climatology
Neutral Climatology
El Niño Climatology

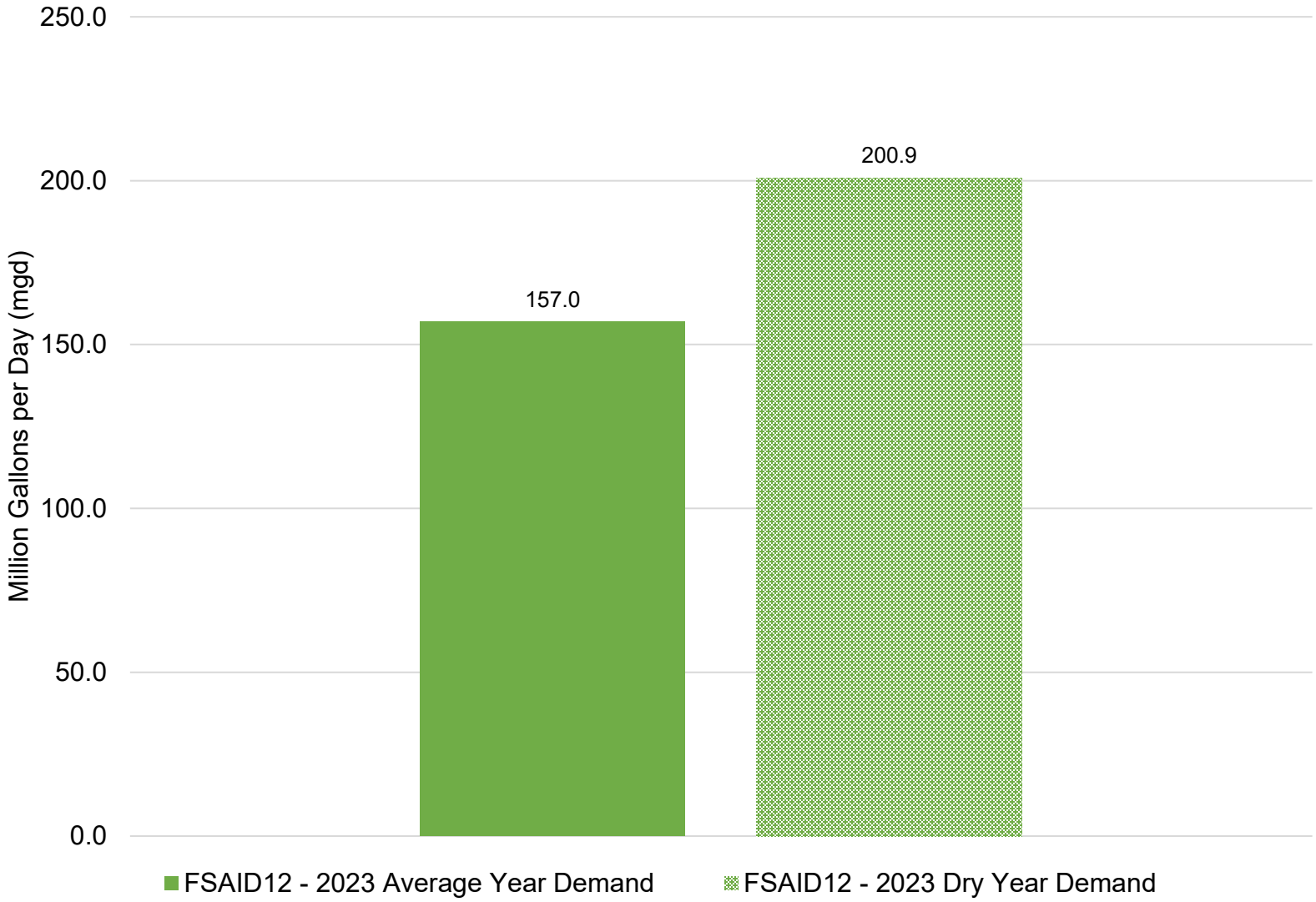
DROUGHT CONDITIONS

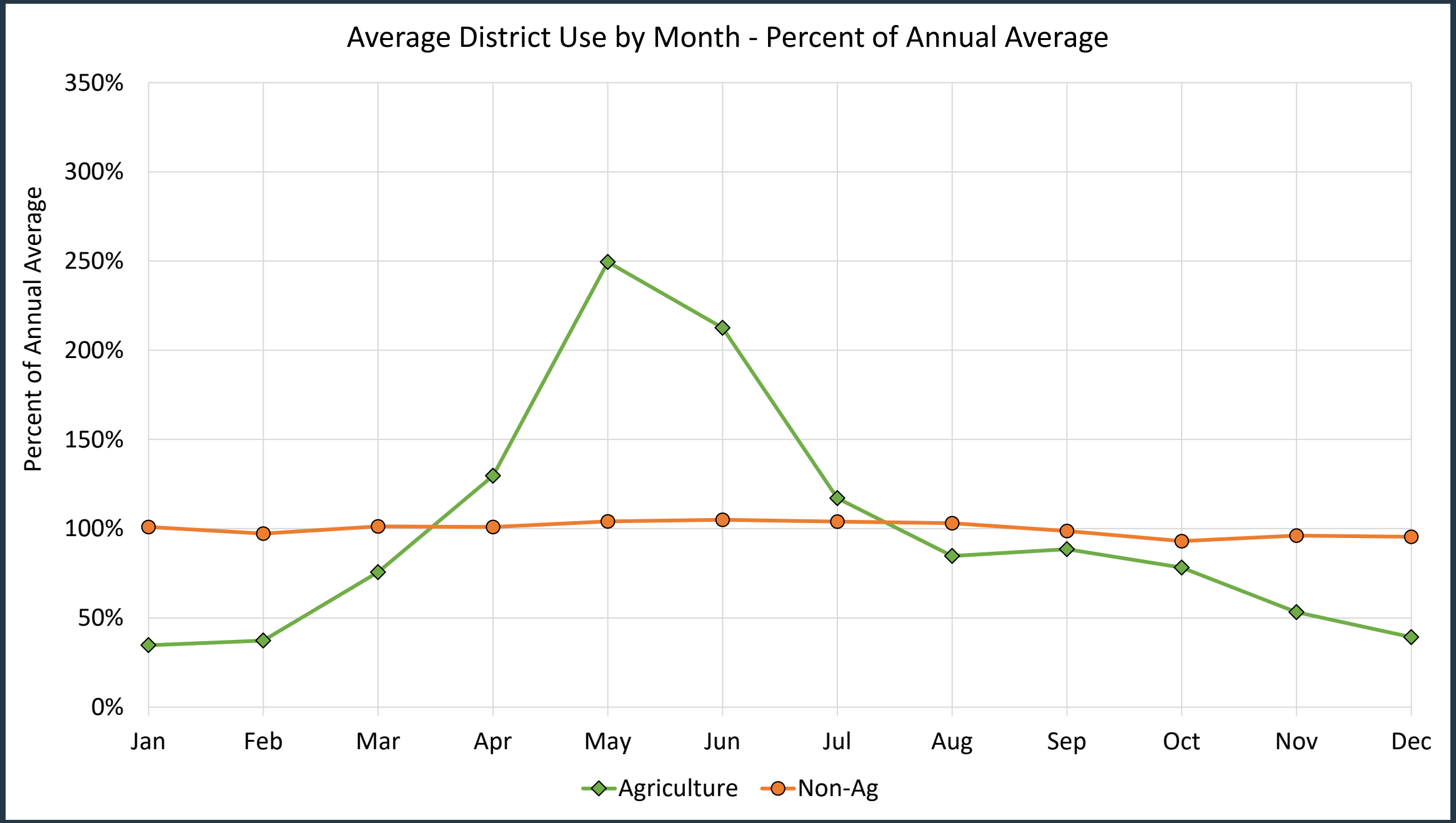
- Regional Drought Indicators Section
  - 12- and 24-month rainfall moving sum with percentiles (14 counties)
  - 8-week and 7-day streamflow averages and percentiles (7-stations)
  - Aquifer Resource Indicator percentiles (98 long-term UFA wells)
- Hydrologic Data Section
  - Climate Prediction Center 3-month outlooks
  - Keetch-Byram Drought Indicator (KBDI)
  - Fire Danger Index (FDI)
  - US Drought Monitor
  - Lake levels compared to low normal values
- Additional Key Factors to Consider
  - Water use demands, current and projected
  - Impact to water supply wells
  - Coordination with adjacent water management districts

Historical and Projected Water Use by Use Type

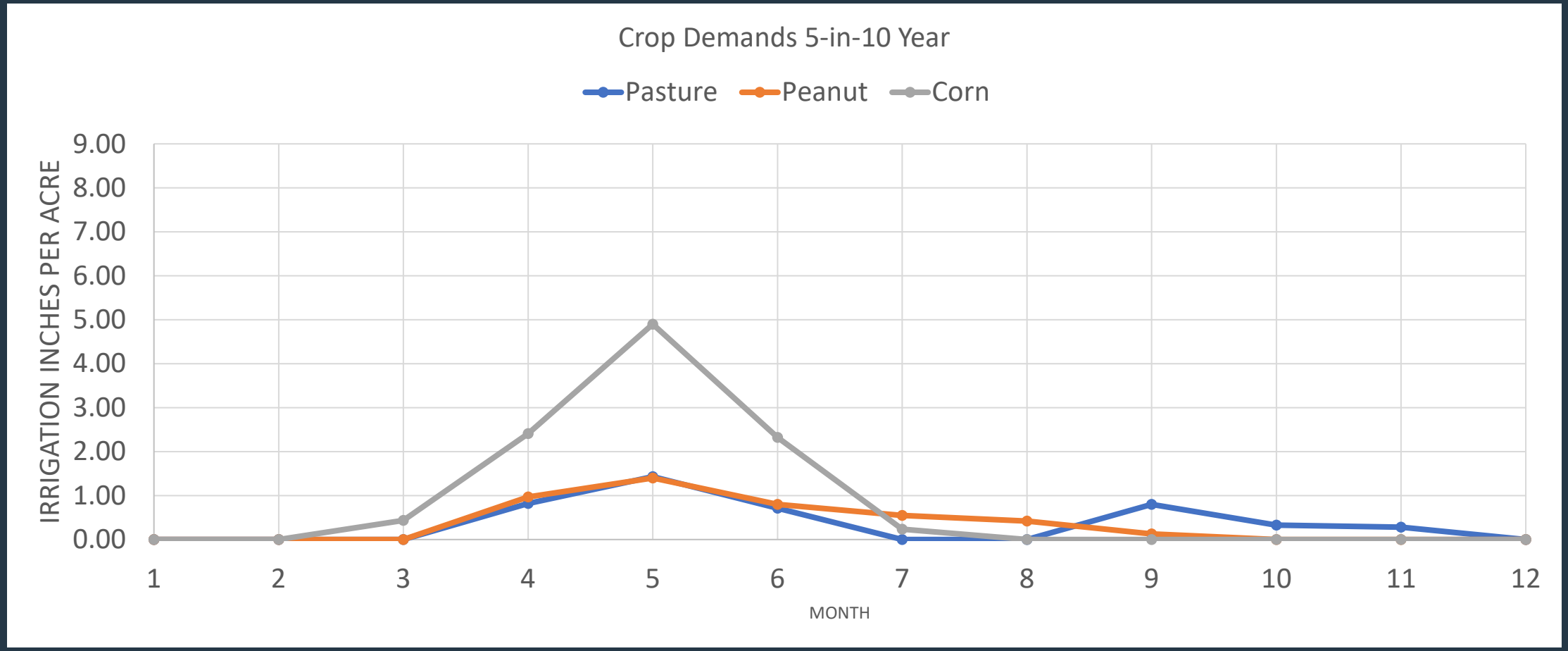


FSAID 12 - 2023

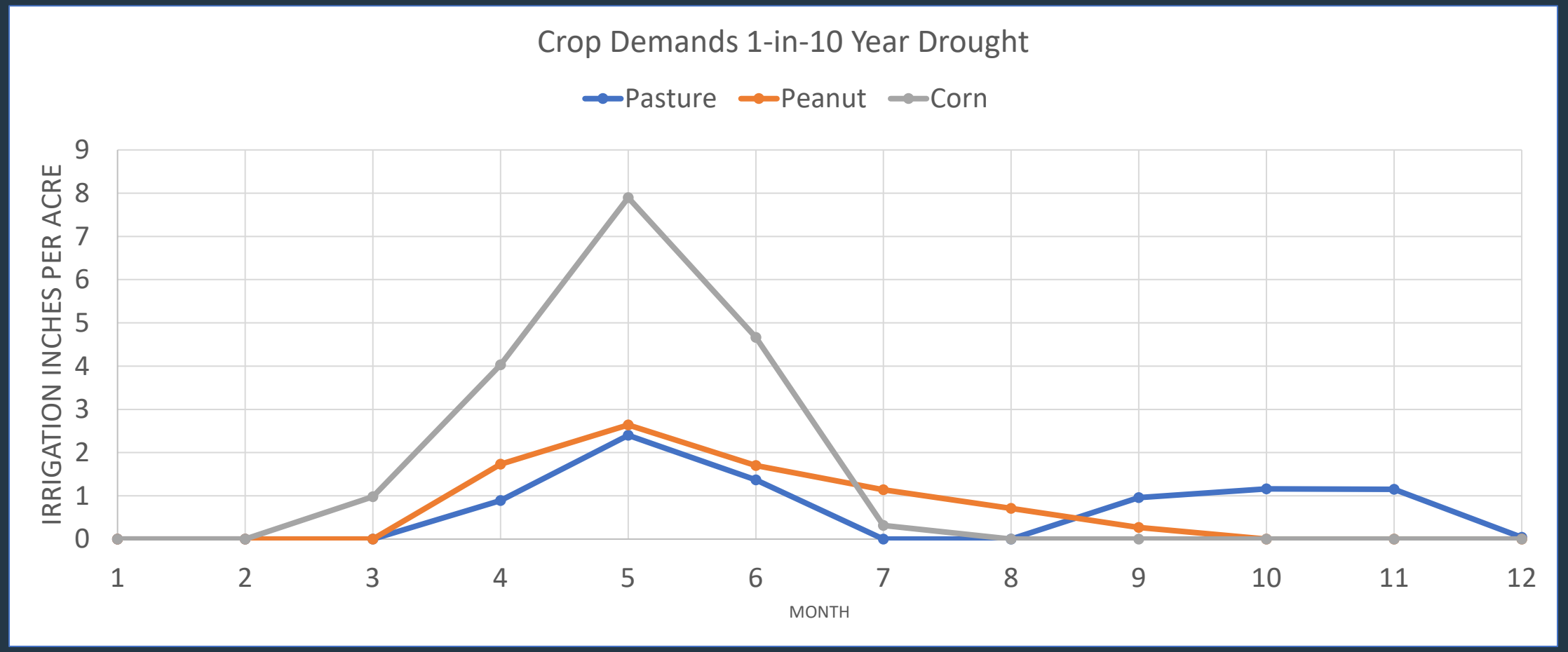



Average District Use by Month - Percent of Annual Average
Percent of Annual Average
350%
300%
250%
200%
150%
100%
50%
0%
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Agriculture
Non-Ag

Irrigation Demands 5-in-10



Irrigation Demands 1-in-10



Efficiency Requirements

- The District prioritizes the efficient use of water all year round
- These conditions apply to all water users:
  - Employ standard water conservation practices for the use type;
  - In the event of a water shortage as declared by the Board, adhere to all limitations on withdrawal or use ordered by the District pursuant to Chapter 40B-21, F.A.C.
- The District has year-round mandatory lawn and landscape irrigation requirements:
    - Irrigation shall not occur between 10 a.m. and 4 p.m.
    - No more than 3/4 inch of water may be applied per irrigation zone
    - Water no more than 1 hour per irrigation zone
    - Irrigation limited to 1x/week during standard time

Water Shortage Process Overview

- Section 373.246, F.S. specifies that each district shall formulate a plan for implementation during periods of water shortage
- Chapter 40B-21, F.A.C. contains the plan for this District, including assessment water conditions and procedures for the implementation of water shortage
  - Monitoring
  - Evaluating
  - Responding
  - Reviewing and revising

Water Shortage Phases

- Water Shortage Warning or Advisory
  - Non regulatory
- Water Shortage, Phase II
  - Severe water shortage
  - Voluntary and Regulatory measures to reduce demand
- Water Shortage, Phase III
  - Extreme water shortage
  - Voluntary and Regulatory measures to reduce demand
- Water Shortage Emergency
  - If provisions of water shortage are not sufficient to protect public health, safety, or welfare, the health of animals, fish, or aquatic life

Implementation Considerations

40B-21.275

Factors the District shall consider include:

- (a) The source of the water supply experiencing the shortage;
- (b) The relative impact of the various categories of water users on the water body for which the shortage is declared;
- (c) The availability and practicality of alternative sources;
- (d) The relative economic impacts that the restrictions are likely to have on each category of user.

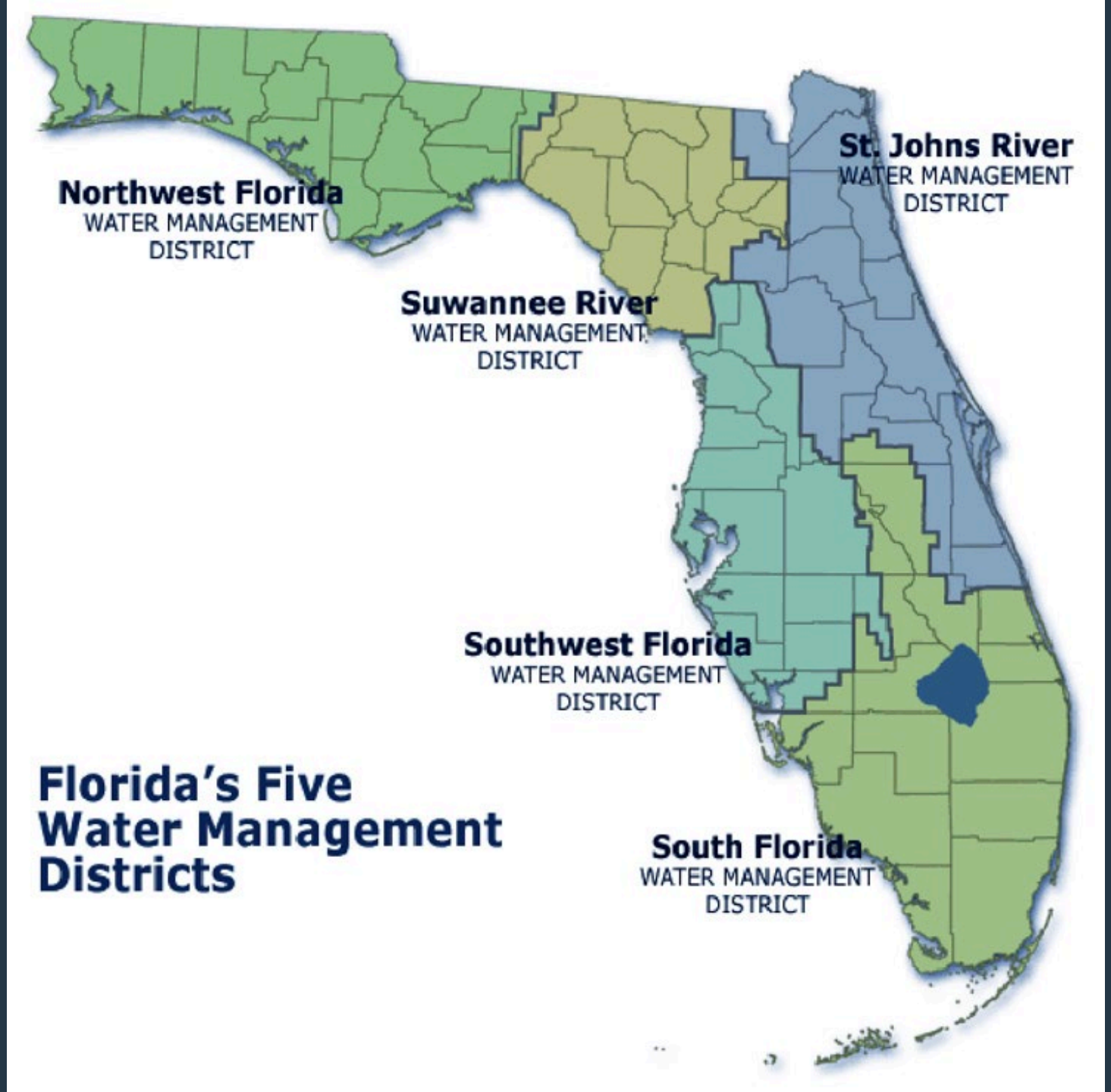
Implementation Considerations

…distributes the burden of the restrictions equitably among water users, relative to their impact on the sources experiencing the shortage;

- (e) The potential for serious harm to natural systems;
- (f) Water shortage plans of local governments;
- (g) The appropriate geographic scope of the restrictions;
- (h) The effectiveness of the restriction imposed in terms of reducing water use and protecting the relevant water supply source; and
- (i) The impact of the water use reduction methods and means on the public health, safety and welfare.

The Declaration Process

- Defined in statute (373.246, F.S.)
- Requires at least one public hearing
  - The public and water use permit holders shall be afforded an opportunity to participate during water shortage public hearing(s) and present testimony on water shortage effects and the impacts of the proposed reduction methods and means. Substantive evidence submitted by the public at or prior to the hearing shall be made a part of the record at the hearing.
- Requires notification of
  - Local elected officials
  - Local law enforcement officials
  - Each affected permittee of any change in permit conditions, any permit suspension or any other restriction on water use
- Requires noticing each day for the first week of the shortage and once a week thereafter
- Becomes effective on the day after notice is published and remains in effect until modified or rescinded by the Governing Board.


Northwest Florida
WATER MANAGEMENT
DISTRICT
St. Johns River
WATER MANAGEMENT
DISTRICT
Suwannee River
WATER MANAGEMENT
DISTRICT
Southwest Florida
WATER MANAGEMENT
DISTRICT
South Florida
WATER MANAGEMENT
DISTRICT
Florida's Five
Water Management
Districts


SUWANNEE RIVER
WATER MANAGEMENT DISTRICT
QUESTIONS?
Naked Spring at Ruth B. Kirby Gilchrist Blue Springs State Park