

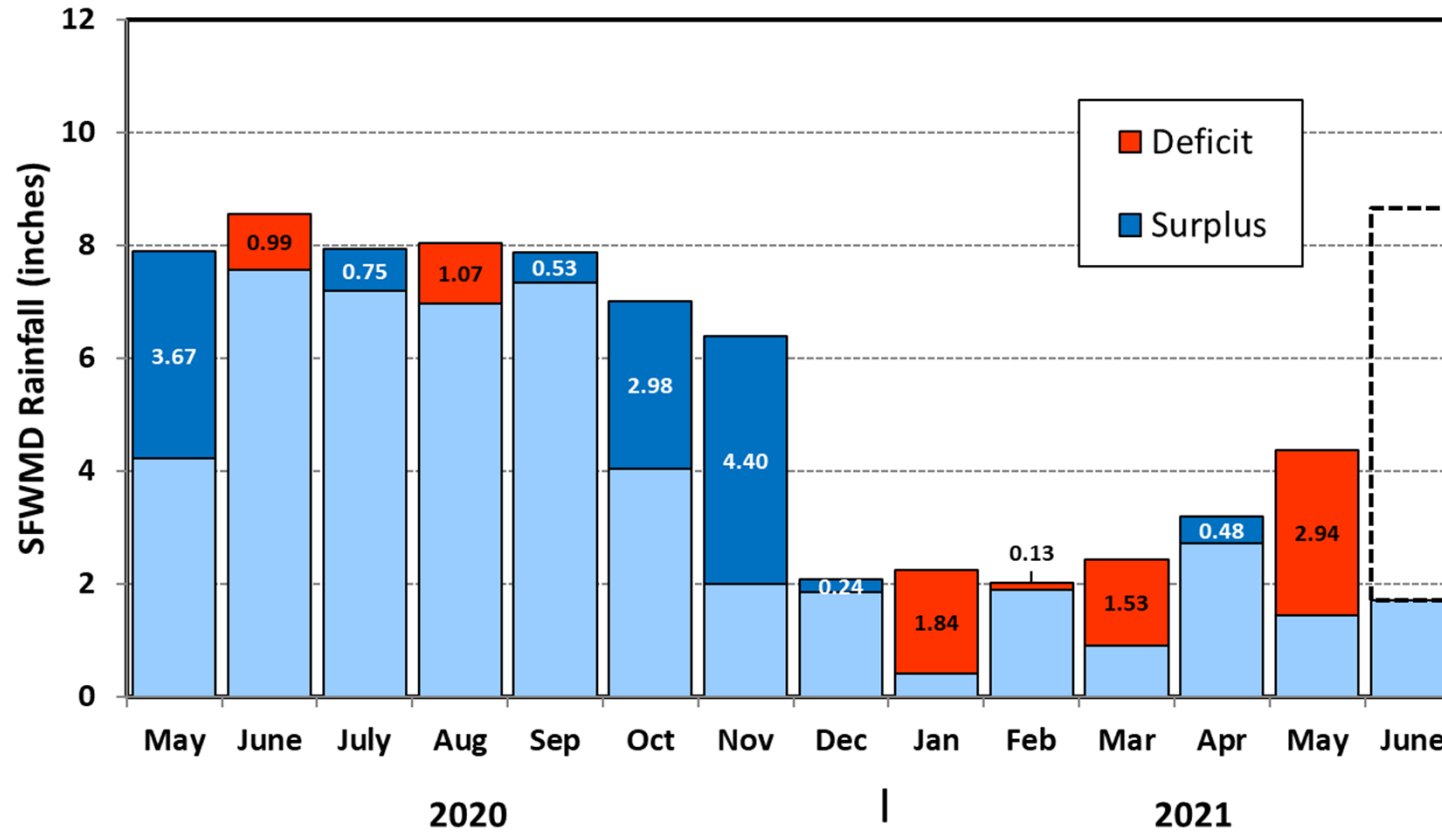
Water Conditions Summary

**South Florida Water Management District
Governing Board Meeting
June 10, 2021**



**John P. Mitnik, PE
Chief District Engineer
Assistant Executive Director**

SFWMD Rainfall Distribution Comparison (May 2020 - June 2021)



District Wide Average Rainfall

Month	Average (inches)
Jan	2.24
Feb	2.01
Mar	2.43
Apr	2.71
May	4.37
Jun	8.65
Jul	7.20
Aug	8.03
Sep	7.31
Oct	4.15
Nov	2.18
Dec	1.94

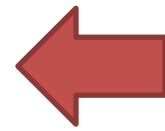
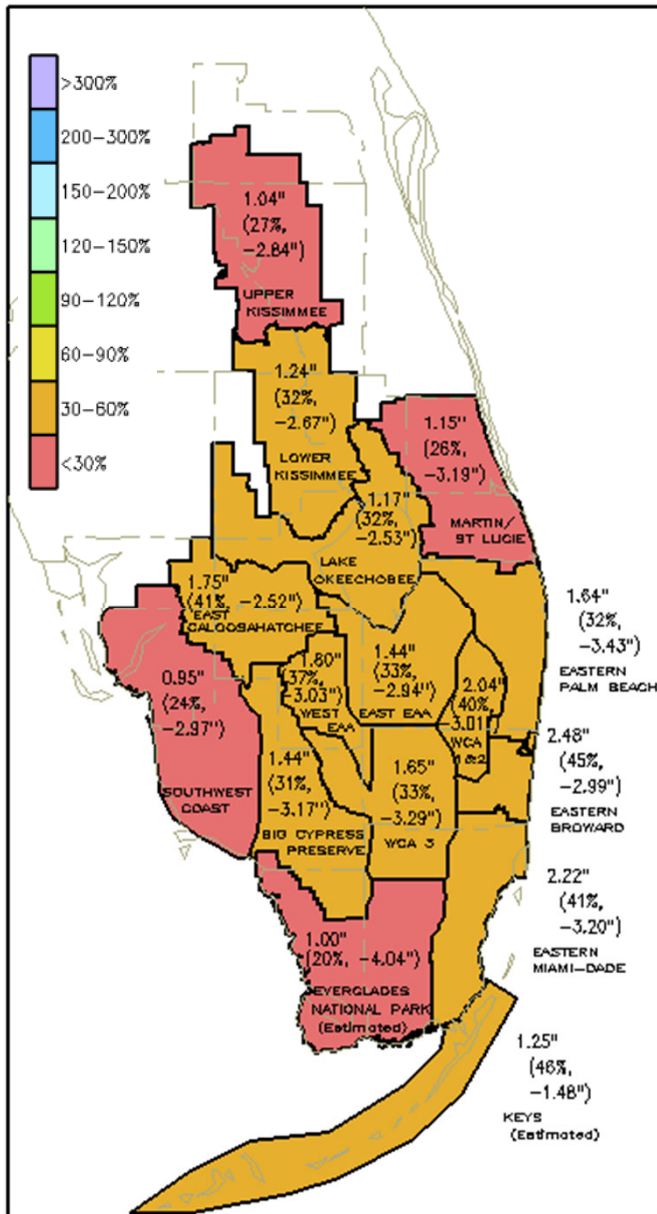
Wet
Season

2020 WET SEASON

- Started May 15, 2020.
- Jul and Sep had above average rainfall.
- October rainfall was well above normal.
- Overall, slightly above normal.

2020-2021 DRY SEASON.

- Nov rainfall was in excess of 300% of normal.
- Jan and Mar extremely dry months.
- Dec and Apr slightly above normal.
- May 2021 is the sixth driest May in POR.

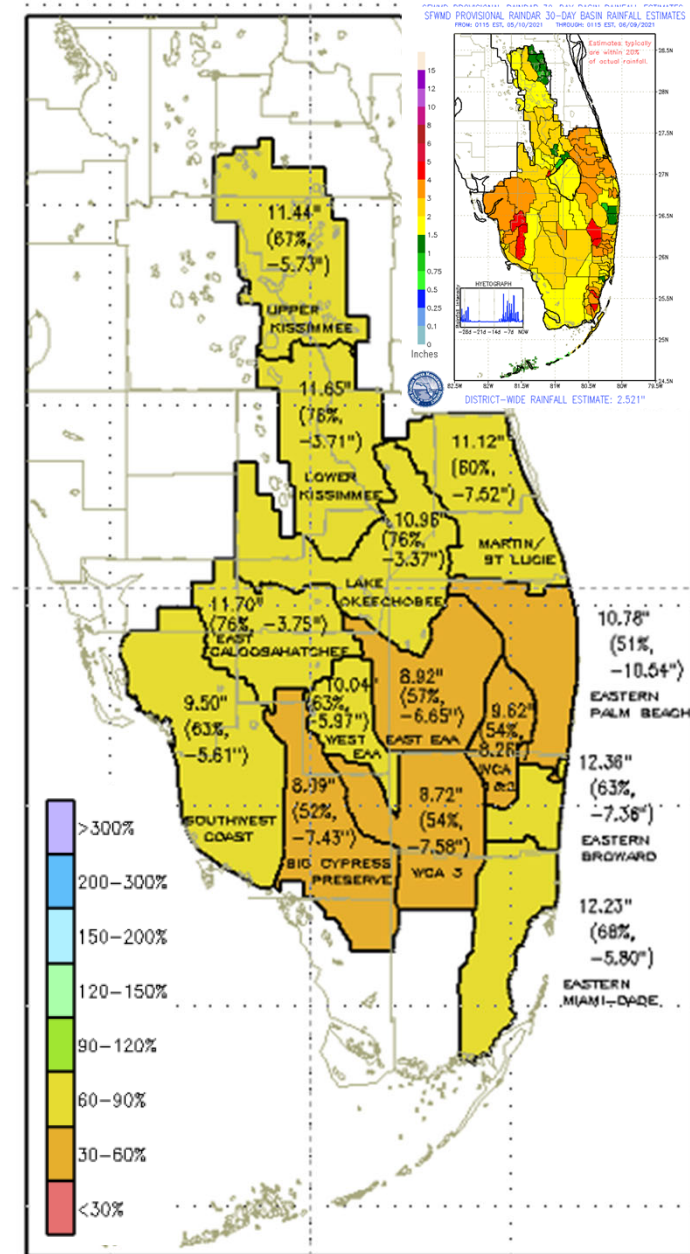
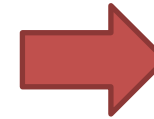


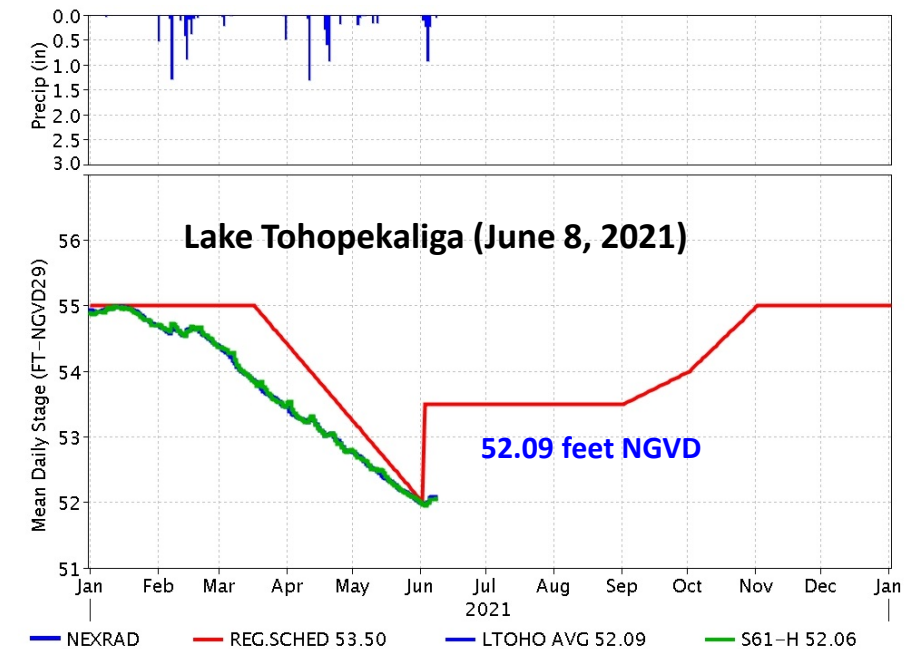
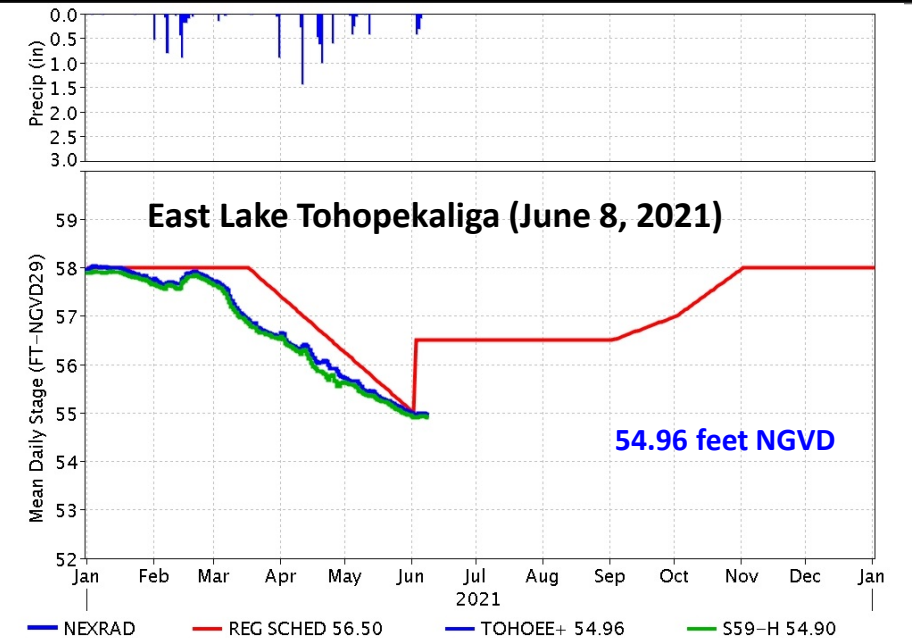
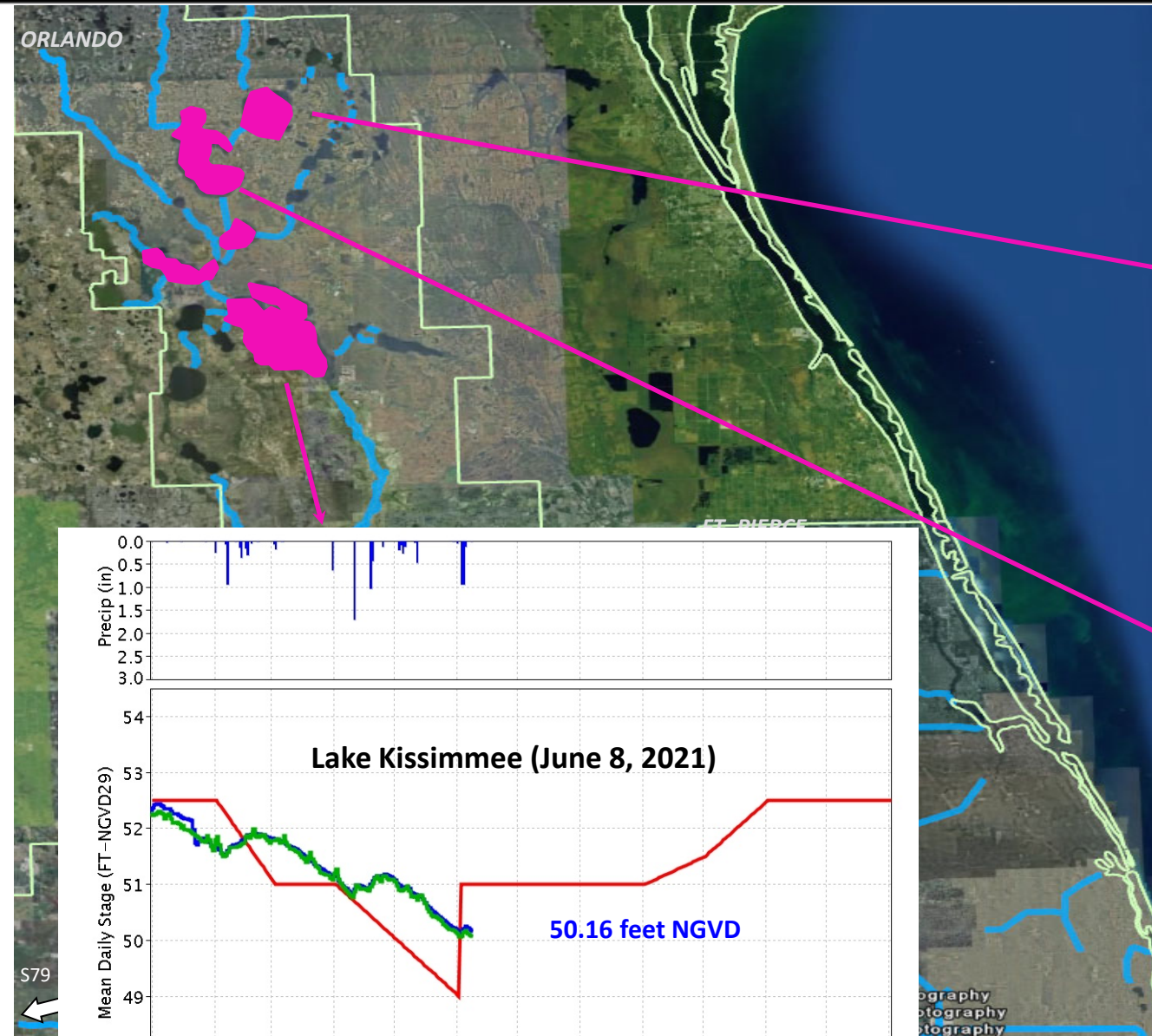
May 2021 Rainfall DISTRICT-WIDE: 1.43"

- 33% of average, -2.94" deficit
- **May 2021 is the 6th driest month of May since 1932**
- Largest deficit is at ENP, -4.04"
- Lowest deficit is at East Caloosahatchee, with -2.52" (Actually 2nd after the Keys)

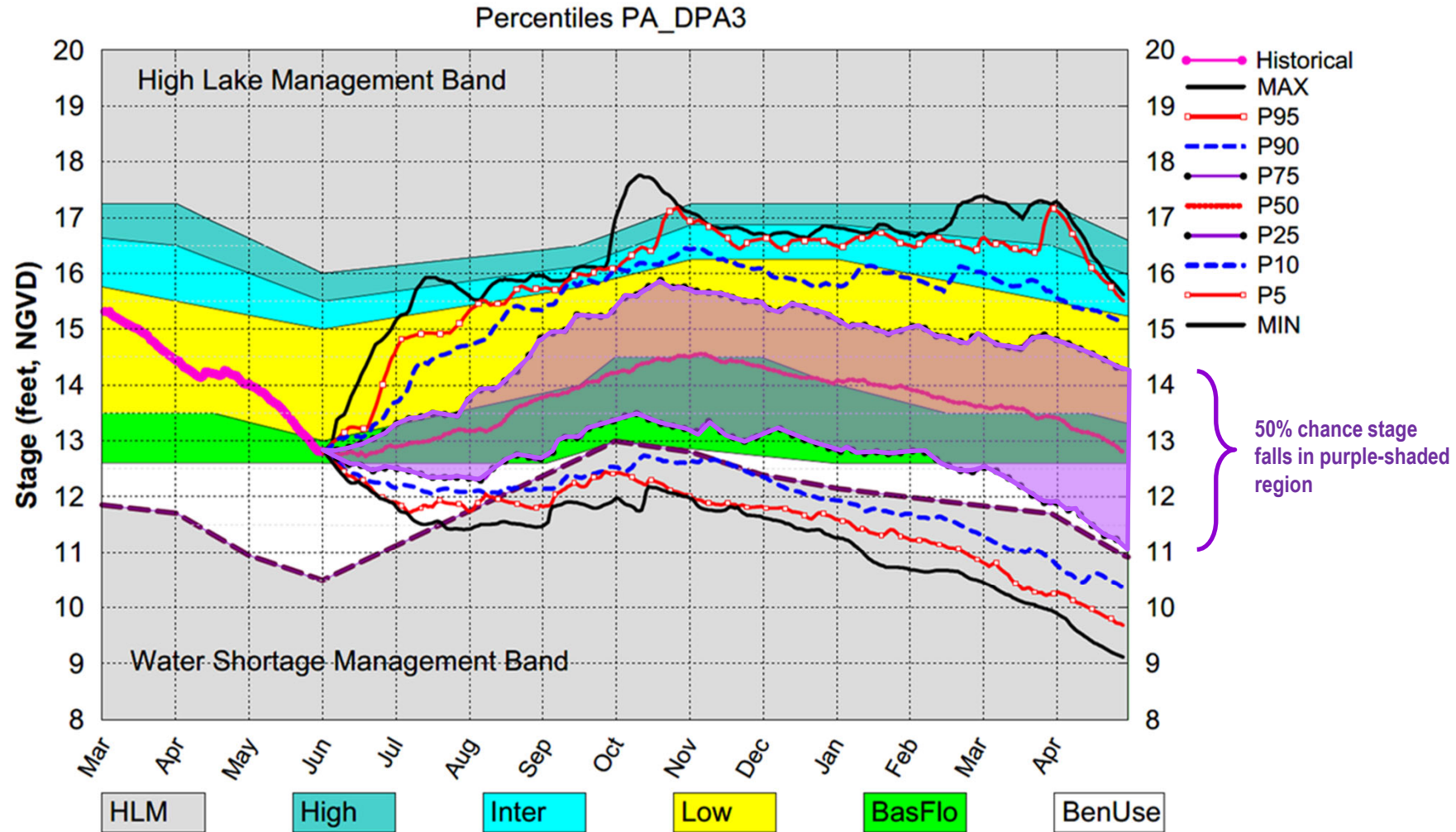
Dry Season Rainfall 19 Nov 2020 – Jun 01 2021 DISTRICT-WIDE: ~10.40"

- **Wet season started May 28th**
- 63% of average, -6.06" deficit
- All areas show rainfall deficit
- Lake Okeechobee is the best positioned with -3.37" deficit
- Eastern Palm Beach shows the largest deficit





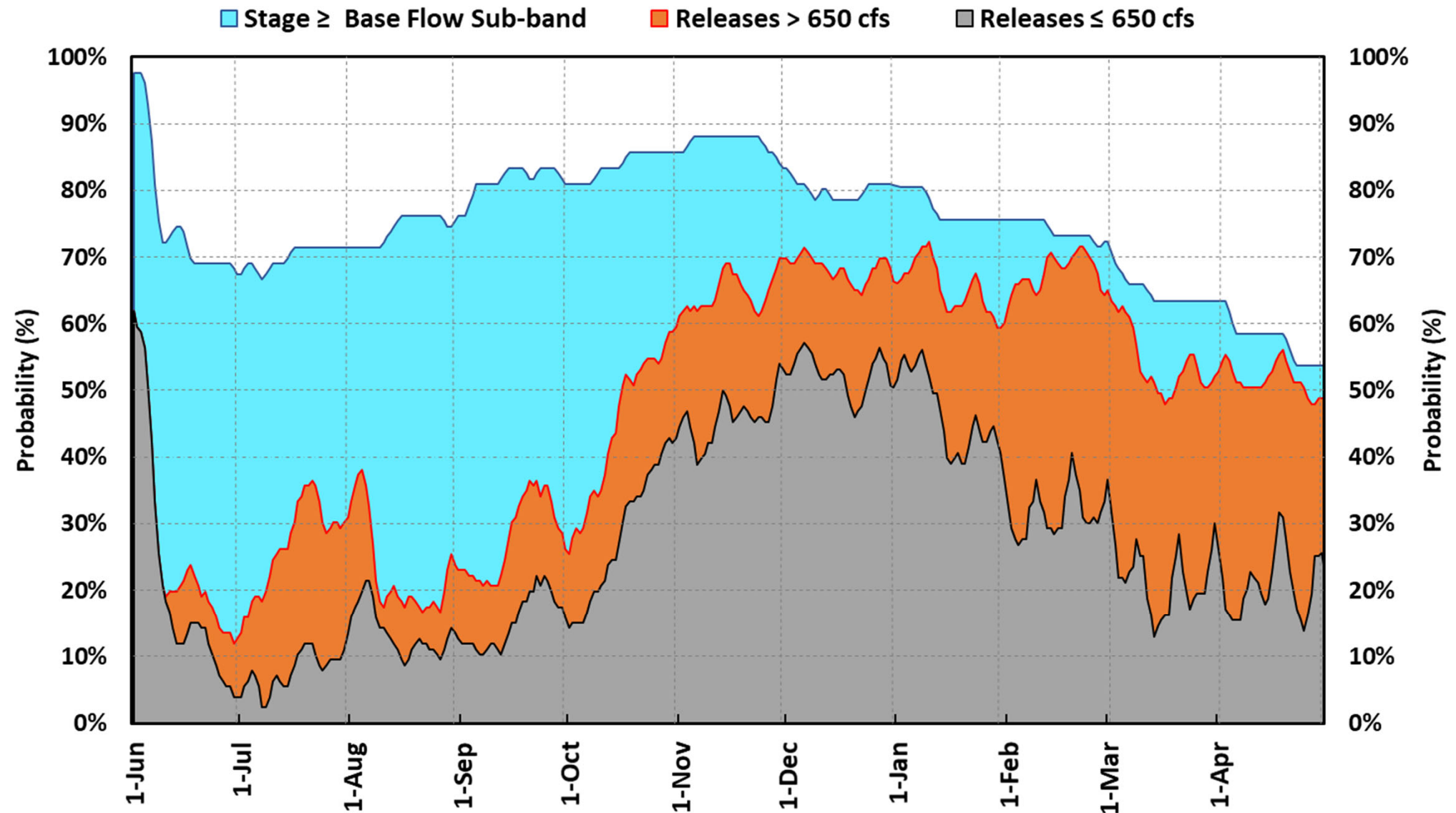
Lake Okeechobee SFWMM Jun 2021 Position Analysis



(See assumptions on the Position Analysis Results website)

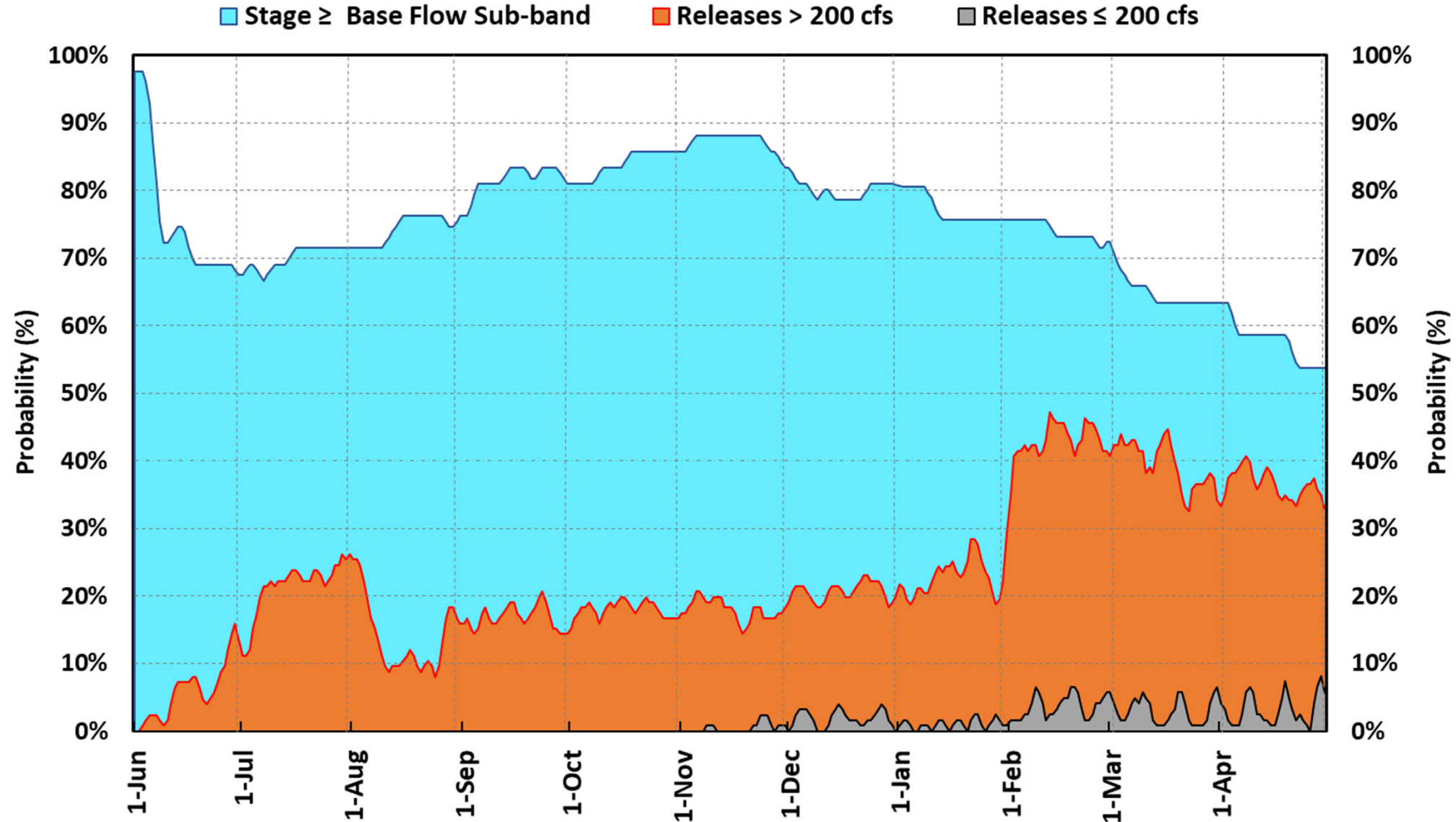
Mon Jun 7 12:01:22 2021

June 2021 PA - Likelihood of Releases to the Caloosahatchee Estuary



Tue 06/08/2021 10:52

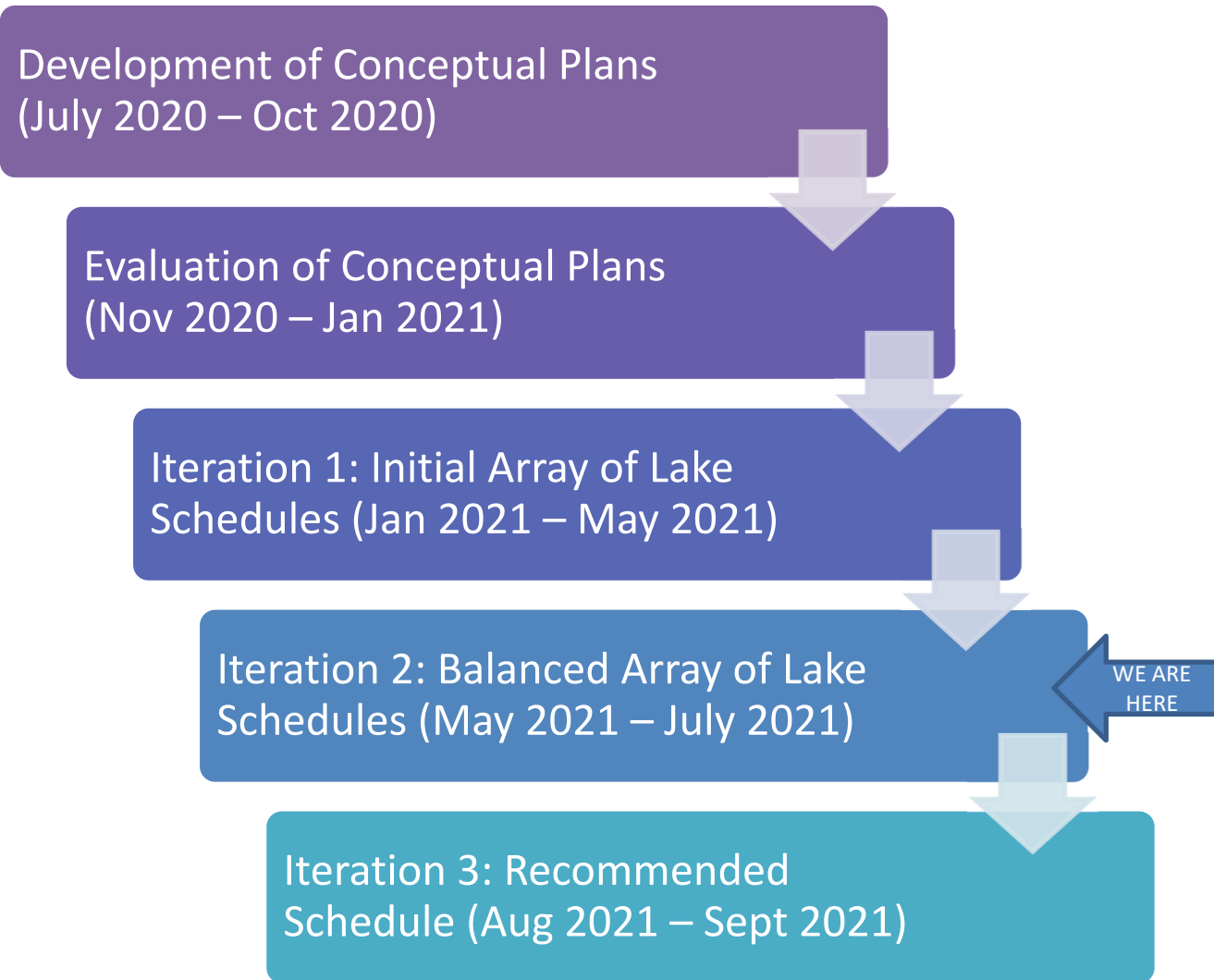
June 2021 PA - Likelihood of Releases to the St. Lucie Estuary



Tue 06/08/2021 10:52

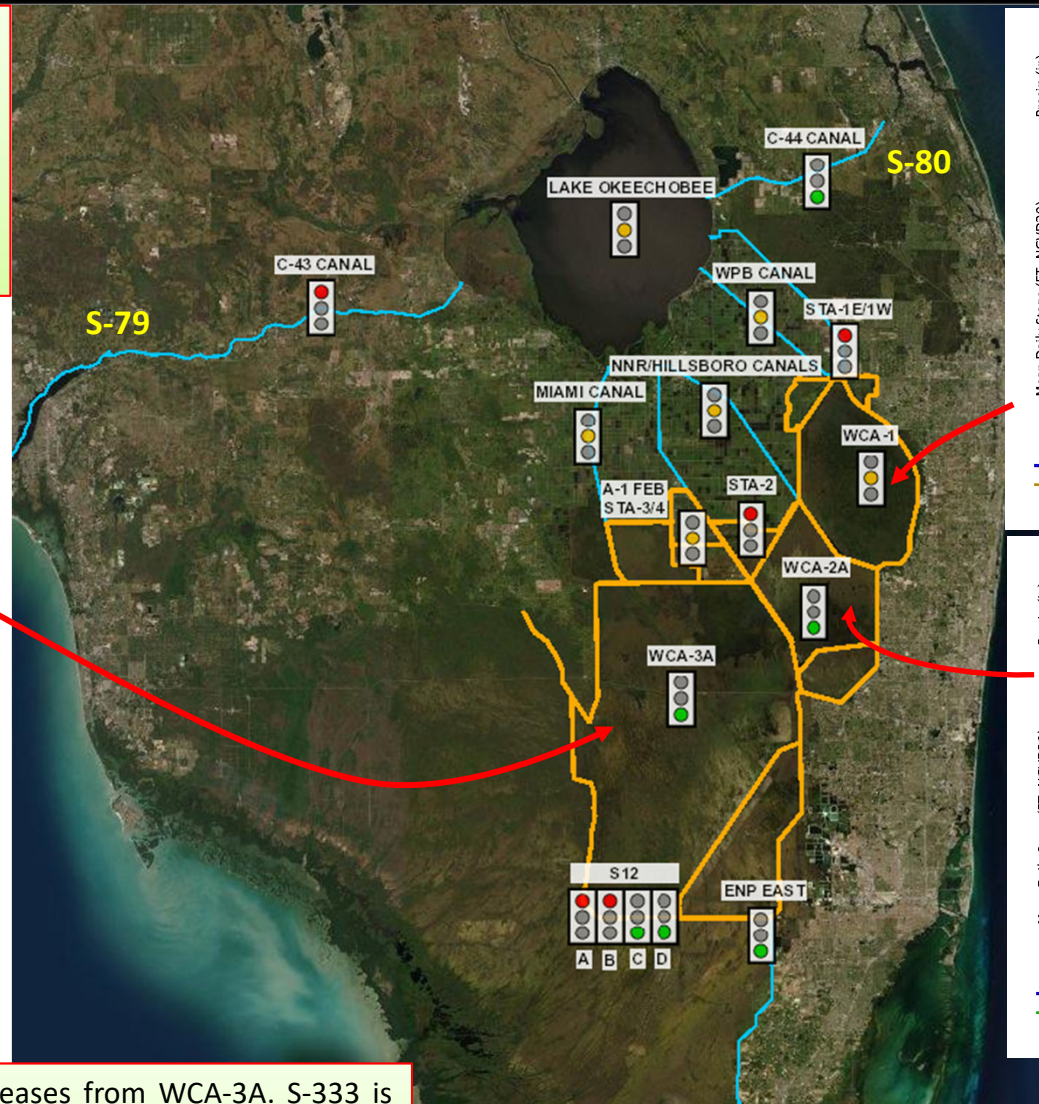
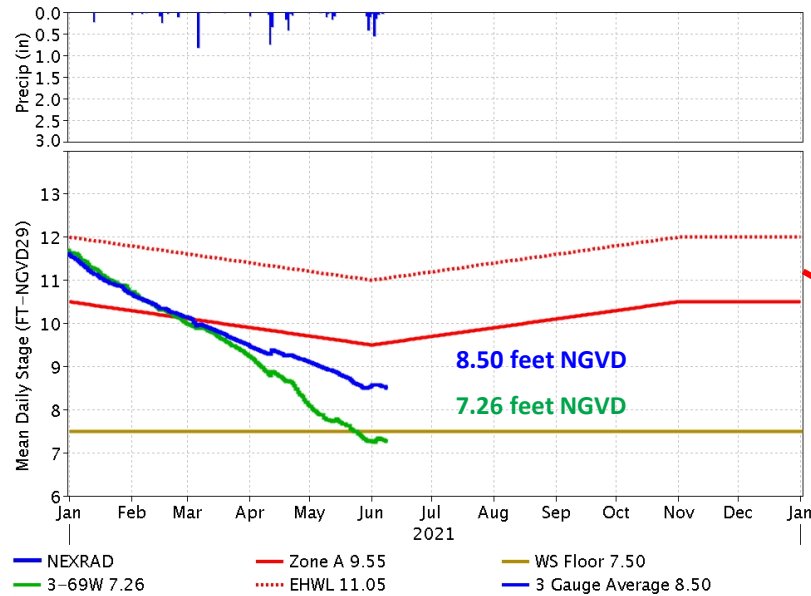
LOSOM Update

- Iteration 2 model results expected June 9th
 - Iteration 2 alternatives are balanced for project objectives
 - 5 alternatives developed from recombining/modifying plans from Iteration 1 and conceptual plans
 - Model results of balanced plans will be evaluated to identify a preferred alternative for further optimization in Iteration 3
- PDT Meeting to discuss overview of results on June 17th
- Workshops and sub-team meeting in late June
- Governing Board Workshop on June 29th
- Selection of the preferred alternative in July

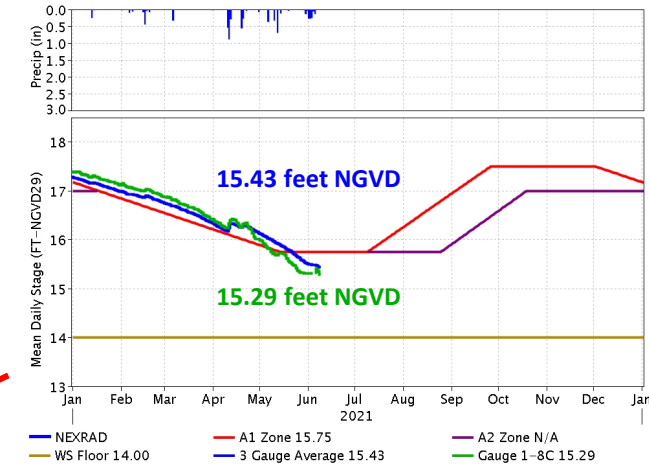


Lake Okeechobee stage is in the Base Flow Sub-band of LORS-2008 Regulation schedule. USACE operated under HAB Deviation February-April. USACE is currently implementing 1,000 cfs 7-day average pulse releases at S-79 and no releases at S-80. District is sending ~700 cfs from the lake south to the WCAs. For the current week, LORS 2008 Part D is recommending S-79 up to 450 cfs, 200 cfs at S-80 and no releases south.

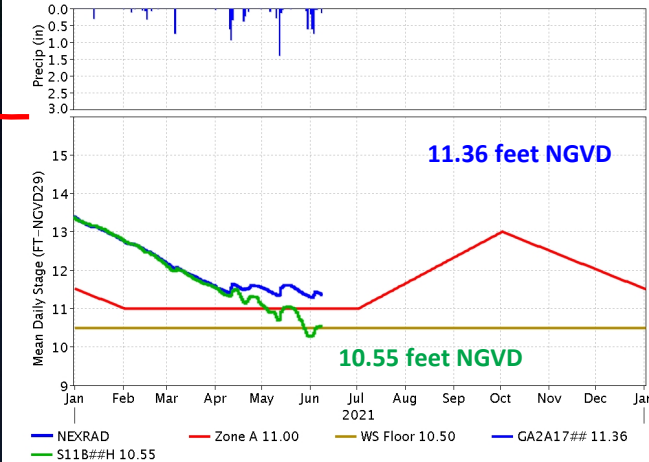
WCA 3A (8 June 2021)



WCA 1 (8 June 2021)

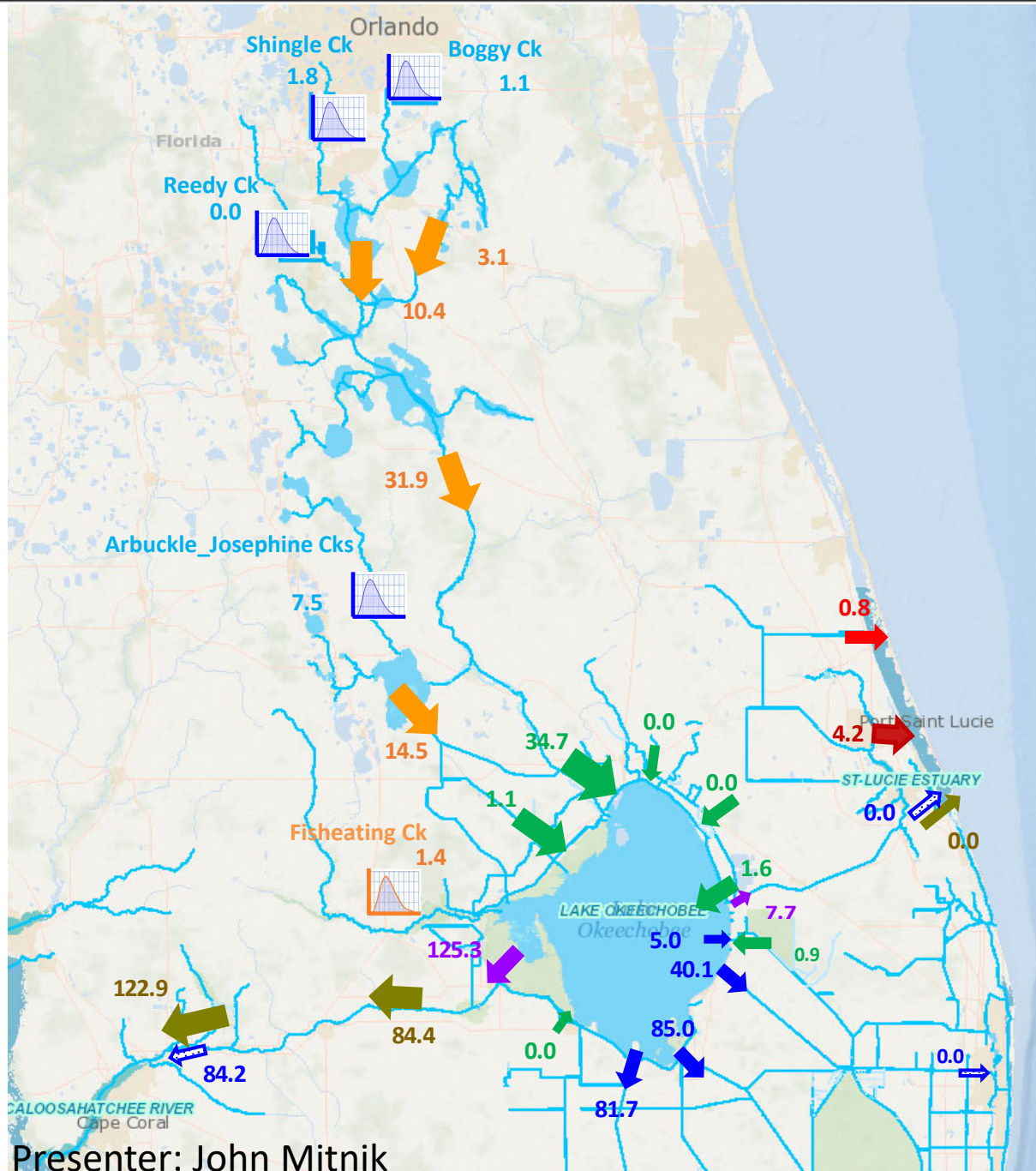


WCA 2A (8 June 2021)












For this week, Tamiami Trail Flow Formula calls for 445 cfs releases from WCA-3A. S-333 is closed and S-333N is passing ~ 375 cfs currently. Current L-29 stage is below 8.0 feet NGVD (constraint ≤ 8.3 feet NGVD). S-356 is not pumping. S-334 had been passing ~60 cfs to maintain canal levels along the South Dade Conveyance System but was closed June 3rd. S-331 is syphoning, S-173 is open. No need to pump at S-357. None of the S-332's are pumping, neither is S-199 or S-200. S-18C is closed and S-197 has been closed since Dec 13, 2020.

WCA-1 is in Zone A2 of the regulation schedule; WCA-2A is in Zone B of the regulation schedule (it was below floor elevation of 10.5 feet NGVD); WCA-3A stage is in Zone B of its regulation schedule and the floor gage is below (floor) 7.5 feet NGVD. S-12A closed Jan. 22 and S-12B closed Jan. 29. S-343A&B closed on Jan. 28. S-12D closed May 17th and S-12C opened on May 24th to facilitate Old Tamiami Trail road removal. However, S-12C is passing small flows due to small stage gradient.









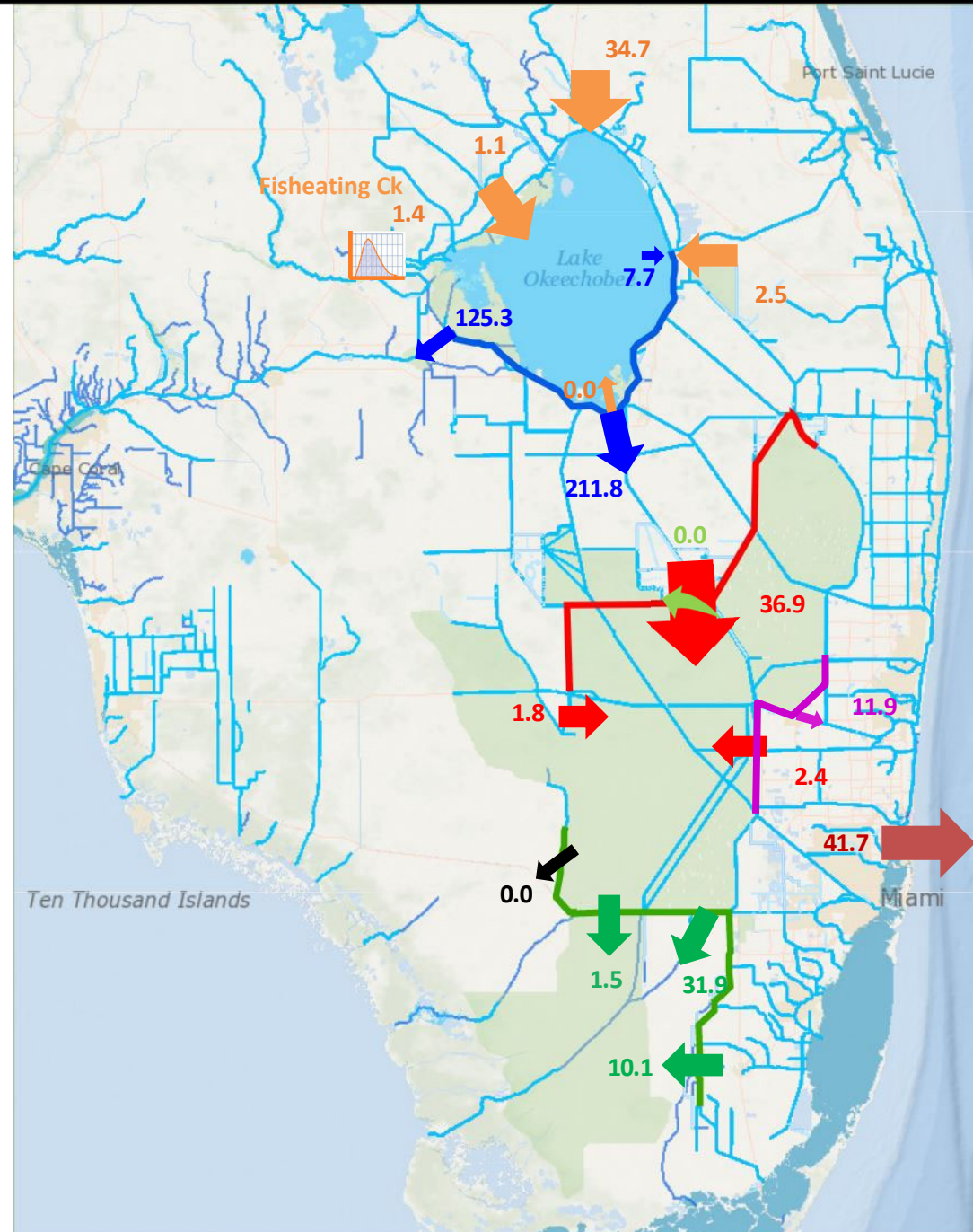
SFWMD – Selected Release Volumes for the Period May 1, 2021 to June 8, 2021 (volumes in 1,000 acre-feet)

Symbol	Description	Volume (1,000 acre- feet)	
		Season to Date	Last Month
	Upper Kissimmee to Lower Kissimmee	31.9	21.0
	Inflows to Lake Okeechobee (including Fisheating Creek)	39.7	29.1
	Lake Releases and Basin Runoff	122.9	90.3
	Lake Releases East and West	133.0	100.8
	Lake Flood Control to Estuaries	84.2	60.7
	Total Lake Releases South	211.8	173.2
	Releases to Indian River Lagoon	0.8	0.8
	Upper East Coast discharges to St. Lucie Estuary	4.2	3.2
	Uncontrolled flows - Creeks (does not include Fisheating Creek)	10.4	7.2

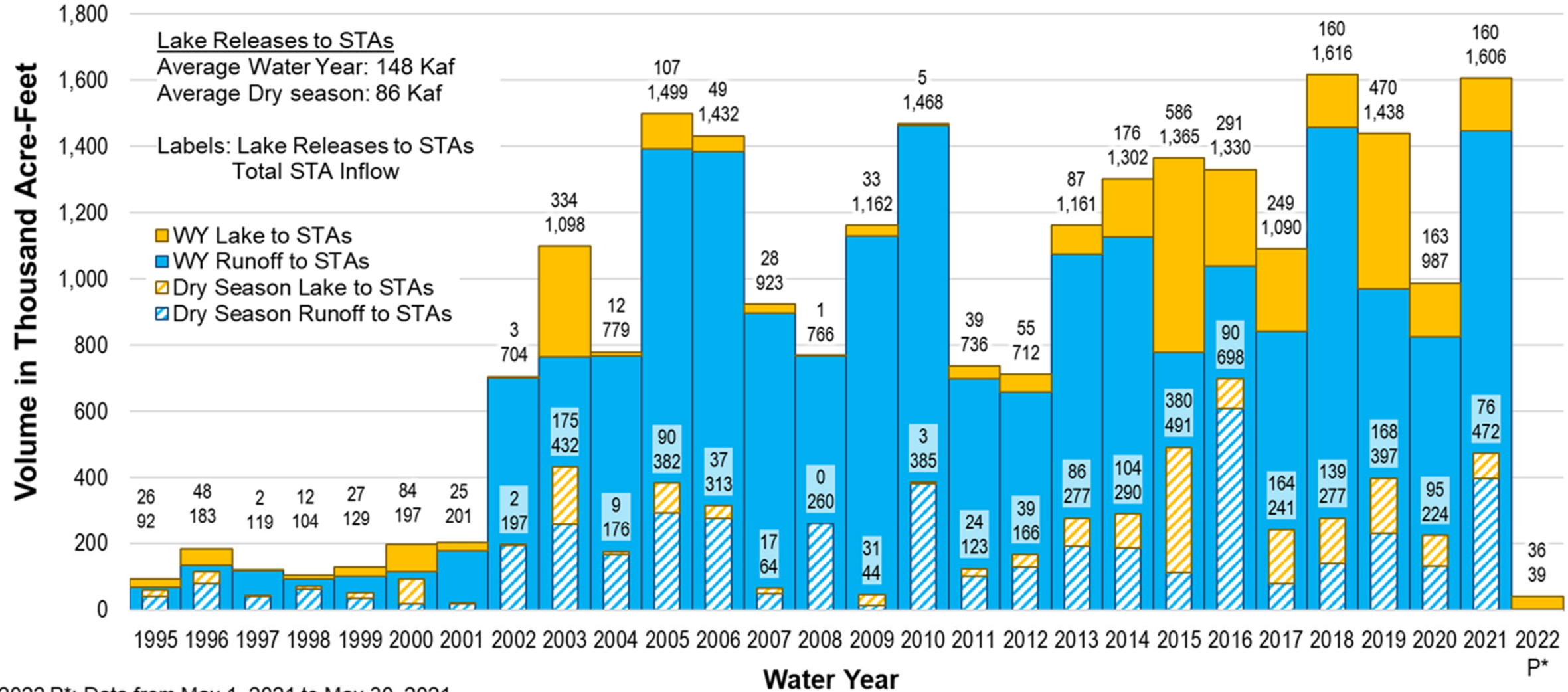
1,000 acre-feet = 325.9 Million Gallons

**SFWMD –Volumes Flowing
Down the System
May 1, 2021 to June 8, 2021**
(volumes in 1,000 acre-feet)

Symbol	Description	Volume (1,000 acre- feet)	
		Season to Date	Last Month
	Lake Okeechobee Inflows	39.7	29.1
	Lake Okeechobee Outflows	344.8	274.0
	WCAs Inflows	41.1	32.7
	ENP / Detention Cell Inflows	43.5	28.2
	WCAs to East	11.9	7.4
	Flows to Intracoastal	41.7	34.7

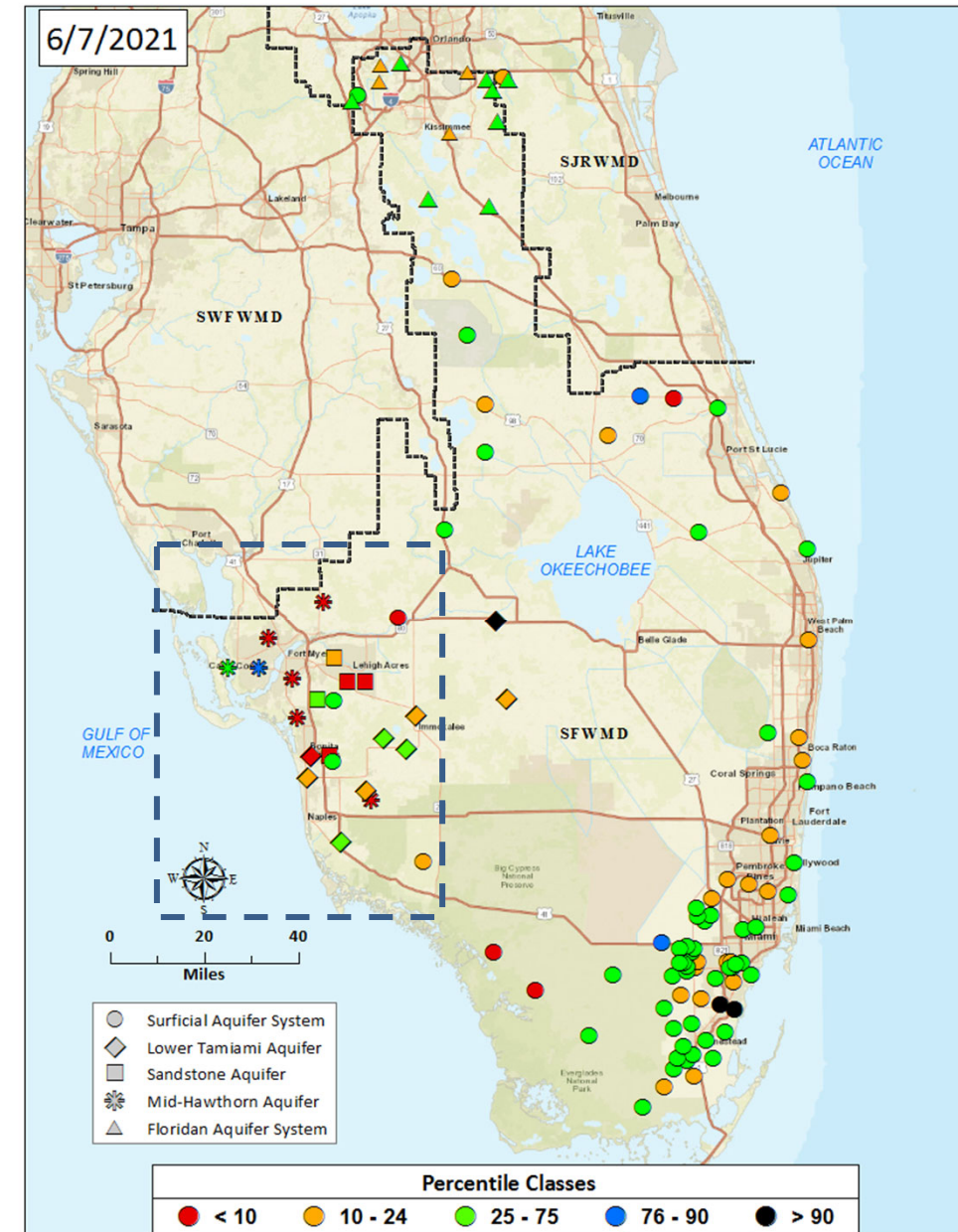


Total STA Inflow and Lake Releases to STAs



Status of Lower West Coast Groundwater Conditions

- In LWC, over 96% of Public Water Supply and Domestic Self-supply comes from groundwater
- Real-time groundwater levels
 - Each dot represents a monitor well, continuously monitoring water levels
 - Color coding corresponds to statistical comparison of current water levels compared to historical for this time of year
 - Surface and groundwater levels showed a mixed trend across the District over the past week, with mainly decrease in Kissimmee, and increases in the East Coast and West Coast.



U.S. Drought Monitor Florida

June 1, 2021

(Released Thursday, Jun. 3, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	61.66	38.34	11.49	0.00	0.00	0.00
Last Week 05-25-2021	72.41	27.59	6.79	0.00	0.00	0.00
3 Months Ago 03-02-2021	80.06	19.94	0.00	0.00	0.00	0.00
Start of Calendar Year 12-29-2020	89.27	10.73	0.00	0.00	0.00	0.00
Start of Water Year 09-29-2020	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago 06-02-2020	59.82	40.18	9.22	1.16	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

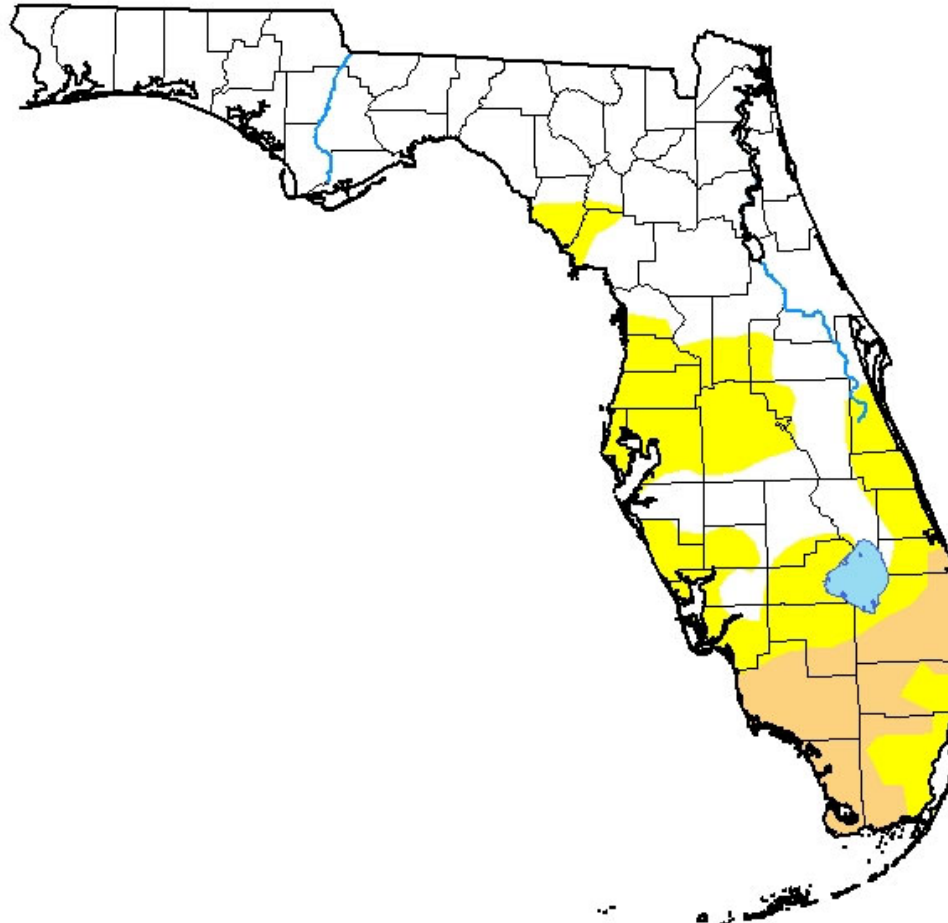
Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

sfwmd.gov



CPC Precipitation Outlook for South Florida



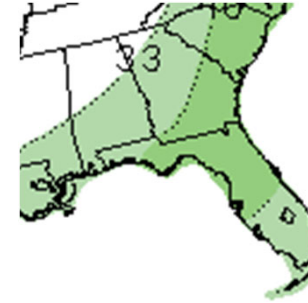
June 2021



Jun-Aug



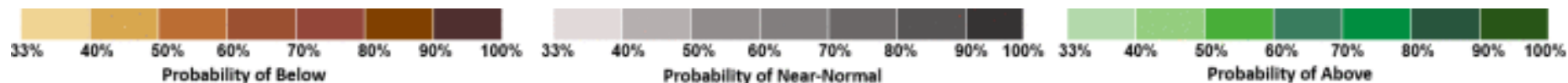
Jul-Sep



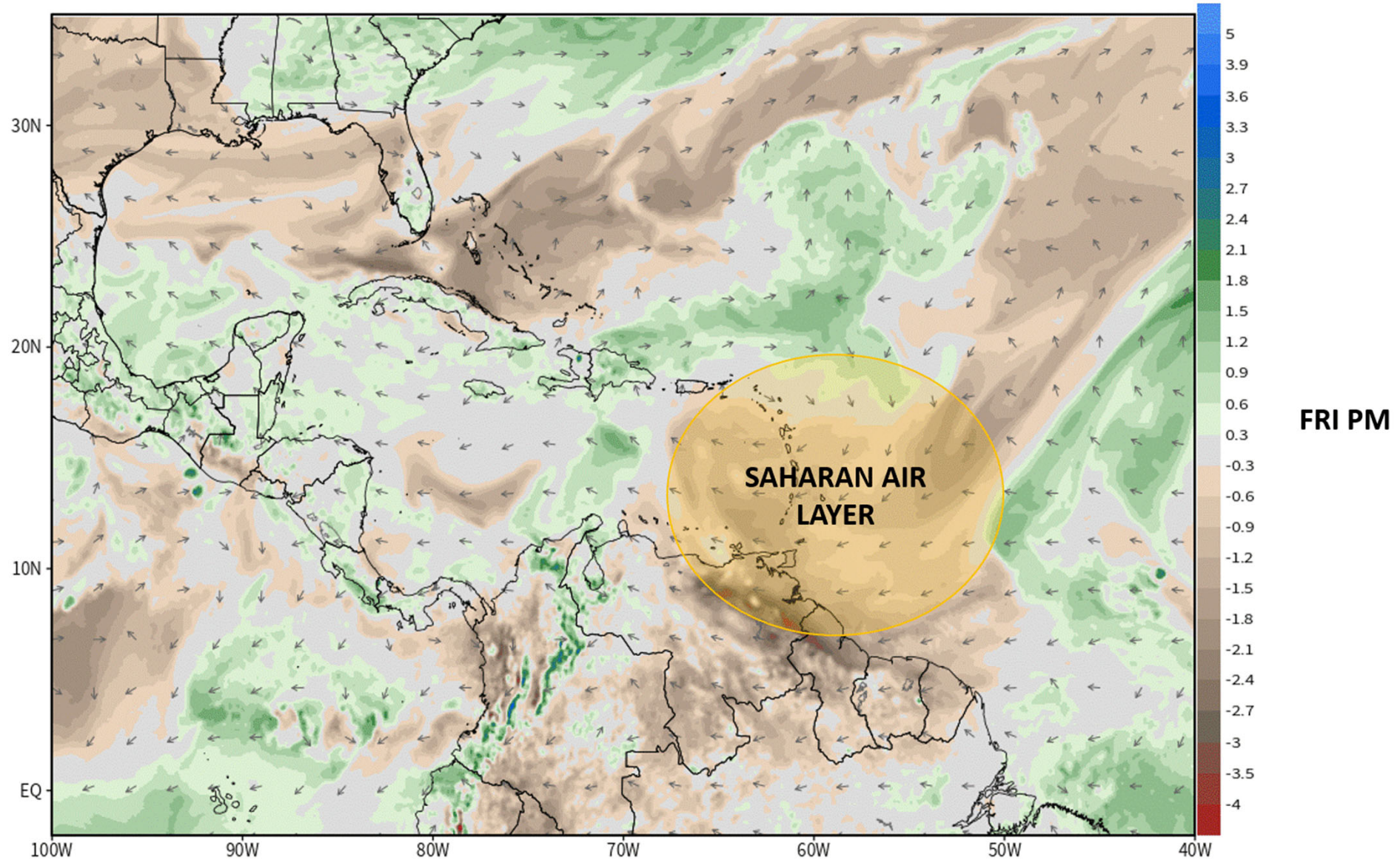
Sep-Nov

<https://www.cpc.ncep.noaa.gov/products/predictions/30day/>

- The most recent CPC precipitation outlooks for Jun 2021 and for the 3-month window of Jun-Aug are for slightly increased chances of above normal rainfall.
- The 3-month window of Jul-Sep shows increased chances of above-normal rainfall.
- The outlooks for the 3-month windows of Aug-Oct and Sep-Nov indicate slightly increased chances of above normal rainfall.
- The outlook for the remainder of the 3-month windows from Oct-Dec and into 2022 is for equal chances of above-normal, normal, and below-normal rainfall.



ECMWF 700-hPa Relative Humidity Normalized Anomaly [std devs] & Wind Direction
Init: 00Z09JUN2021 -- [72] hr --> Valid Sat 00Z12JUN2021

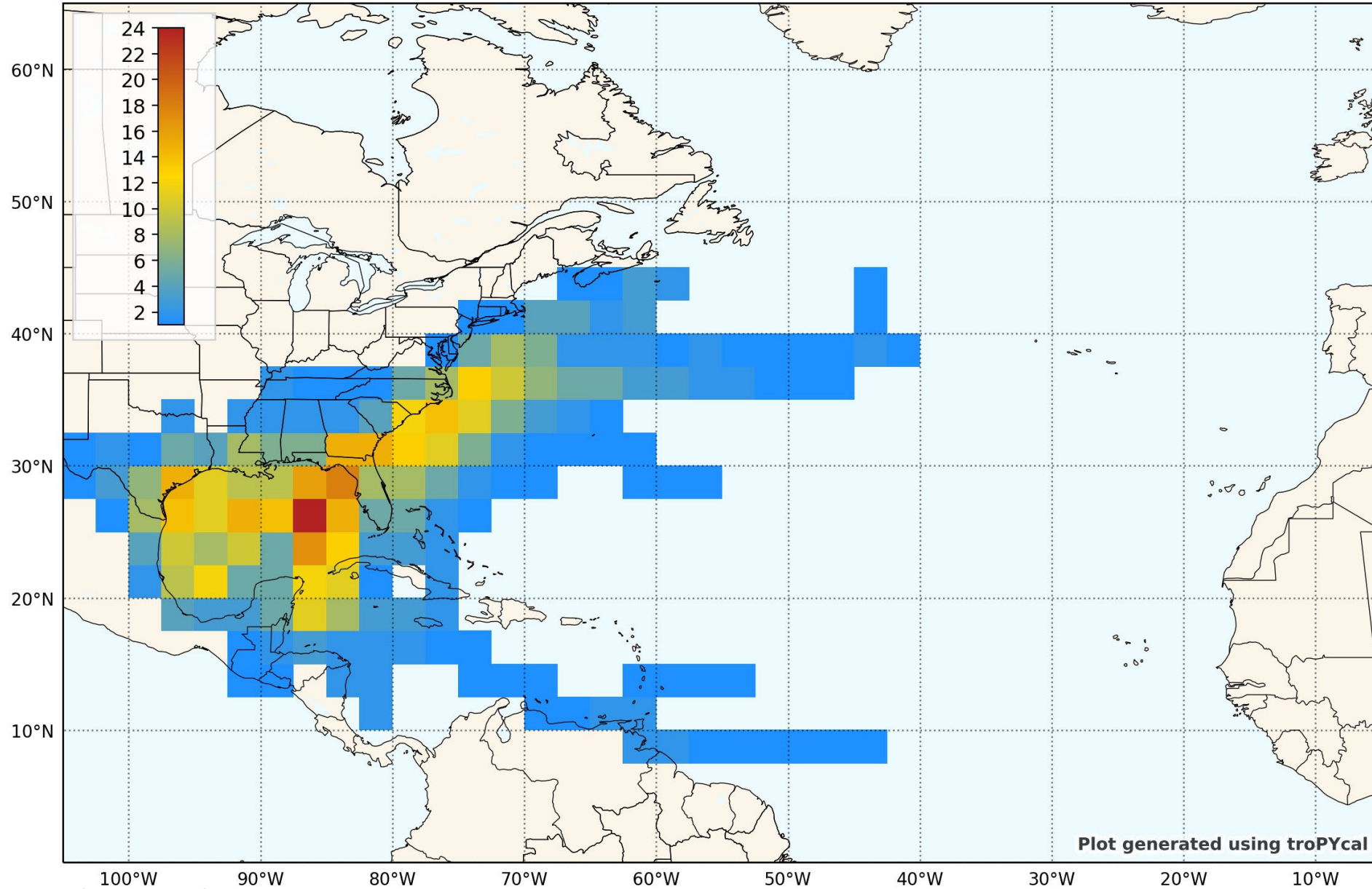


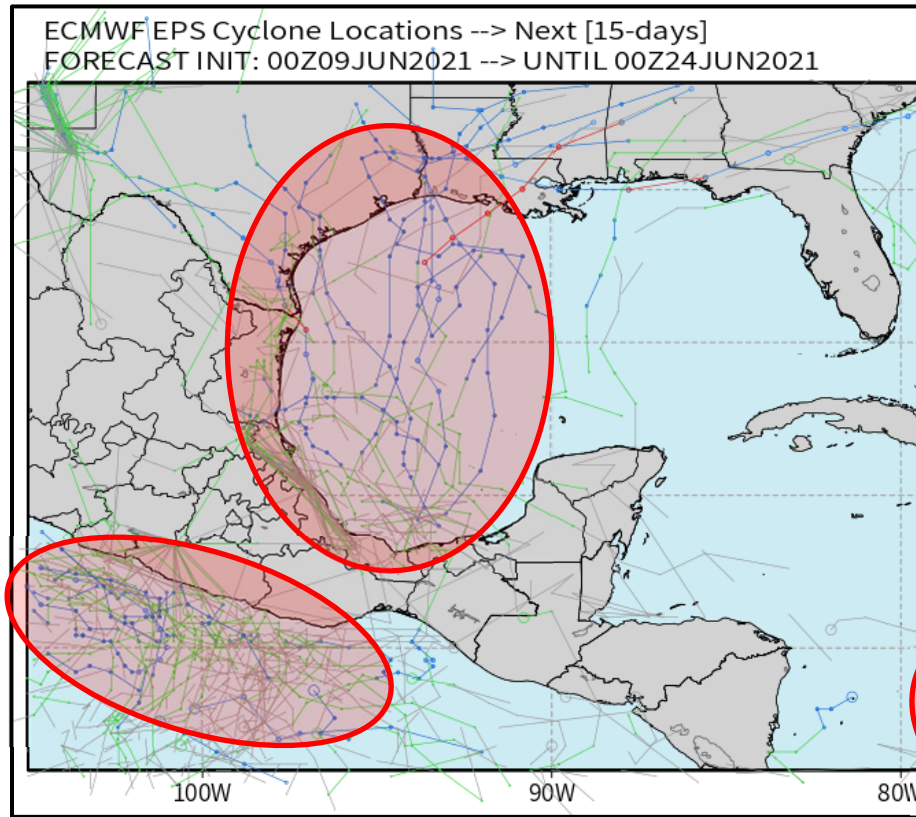
This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF)

weathermodels.com

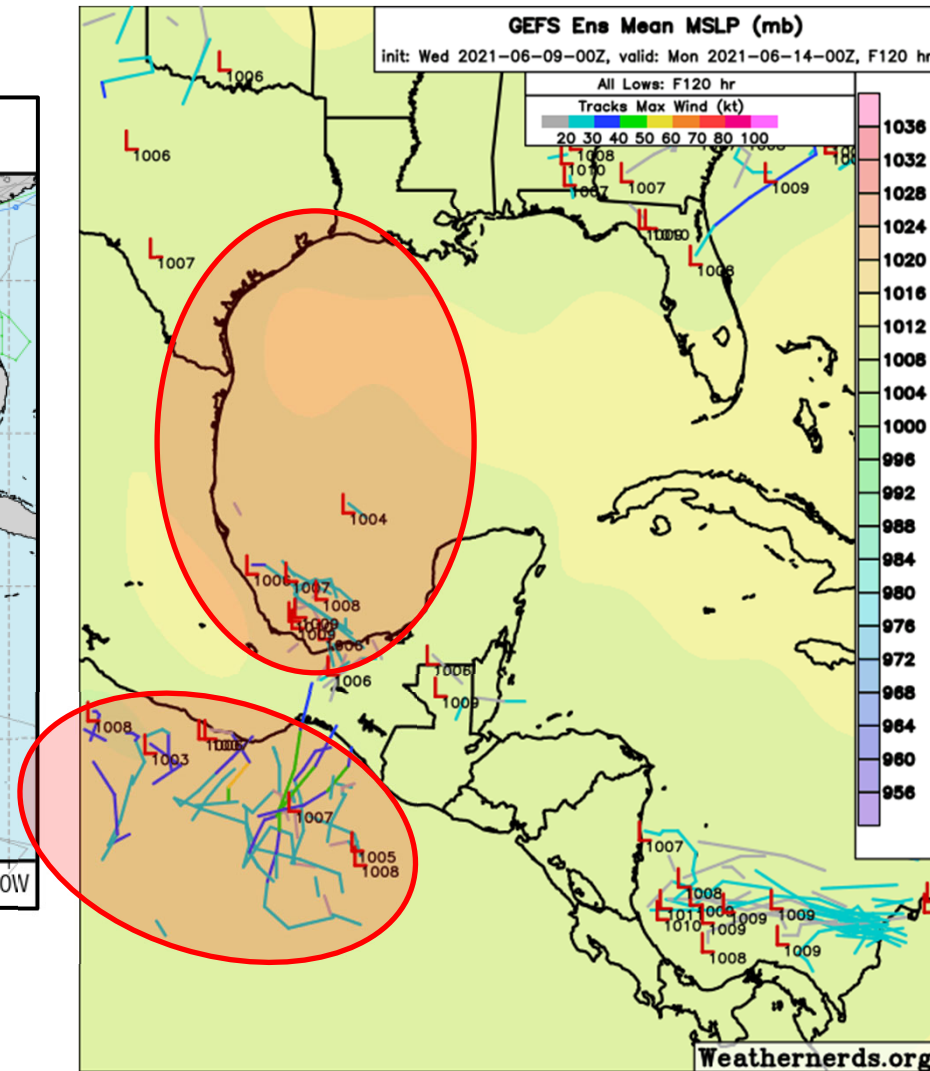
**Number of storms
 ≥ 34 kt**

Jun 01 - Jun 30 • 1851 - 2021

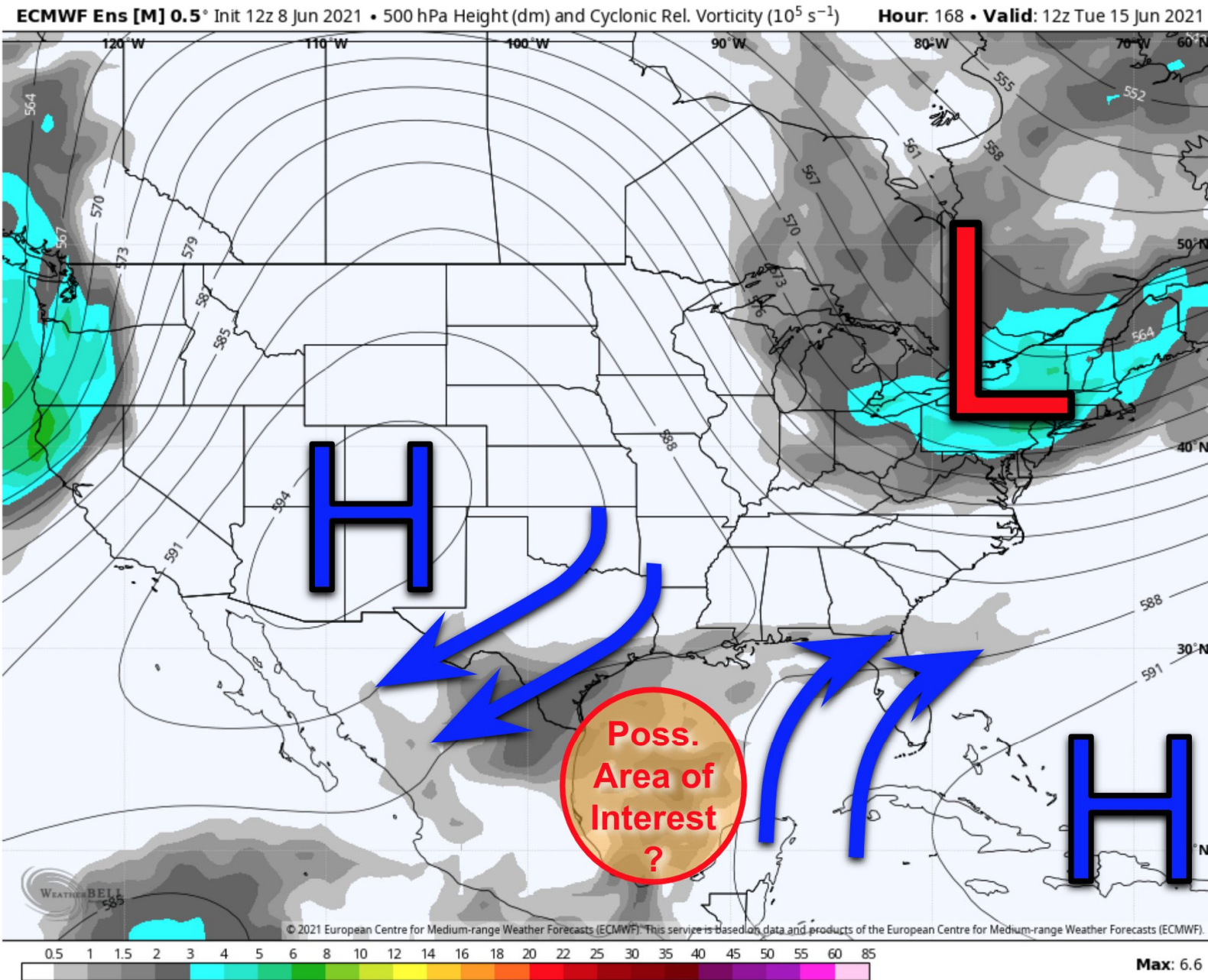




**EUROPEAN MODEL
(ECMWF)**



**AMERICAN MODEL
(GEFS)**

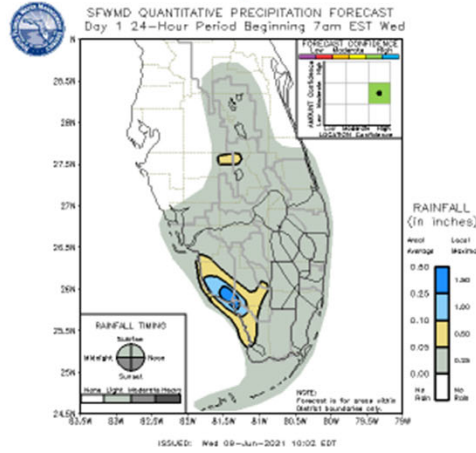


Posted 06/09/2021

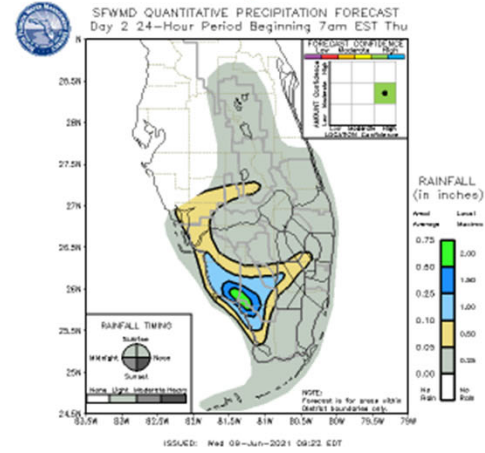
Daily Quantitative Precipitation Forecasts



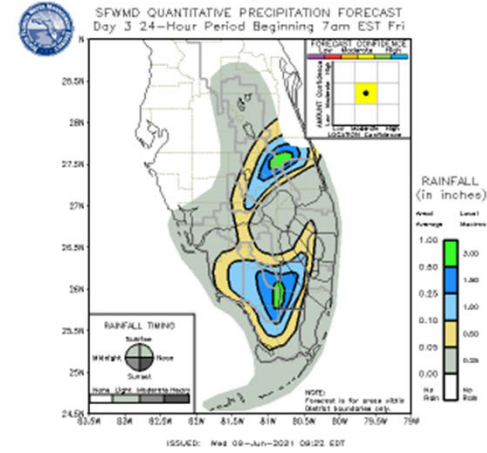
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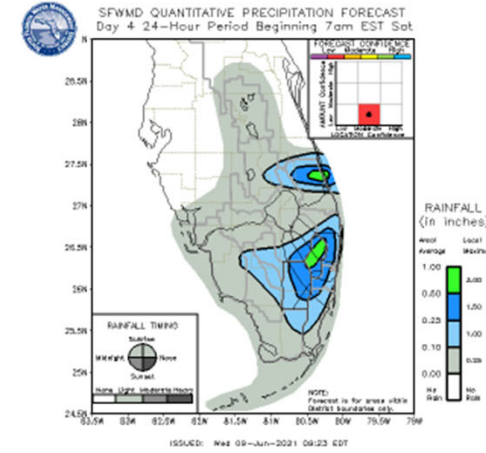
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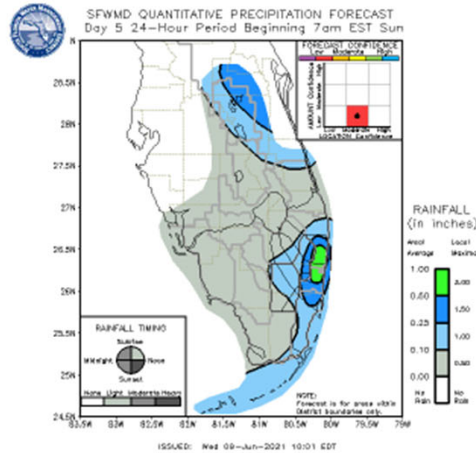
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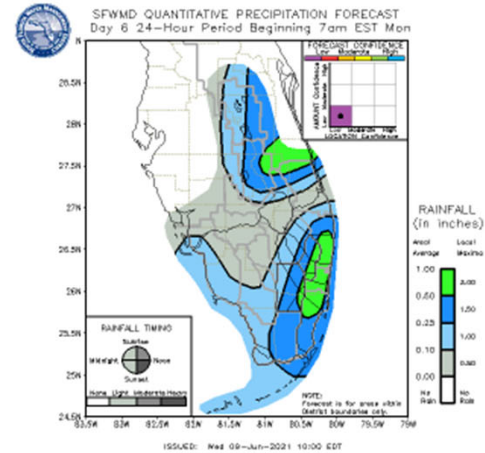
Day 4



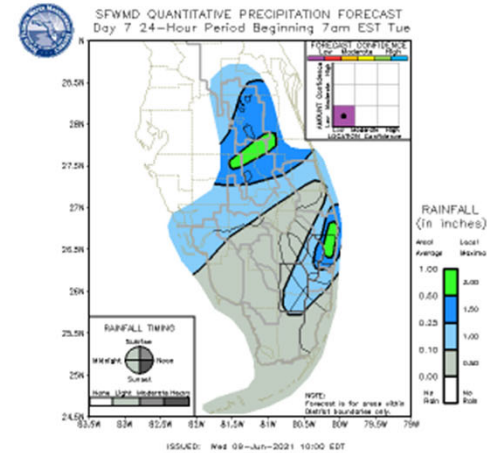
Day 5



Day 6



Day 7



7-Day Total

