

# Water Conditions Summary

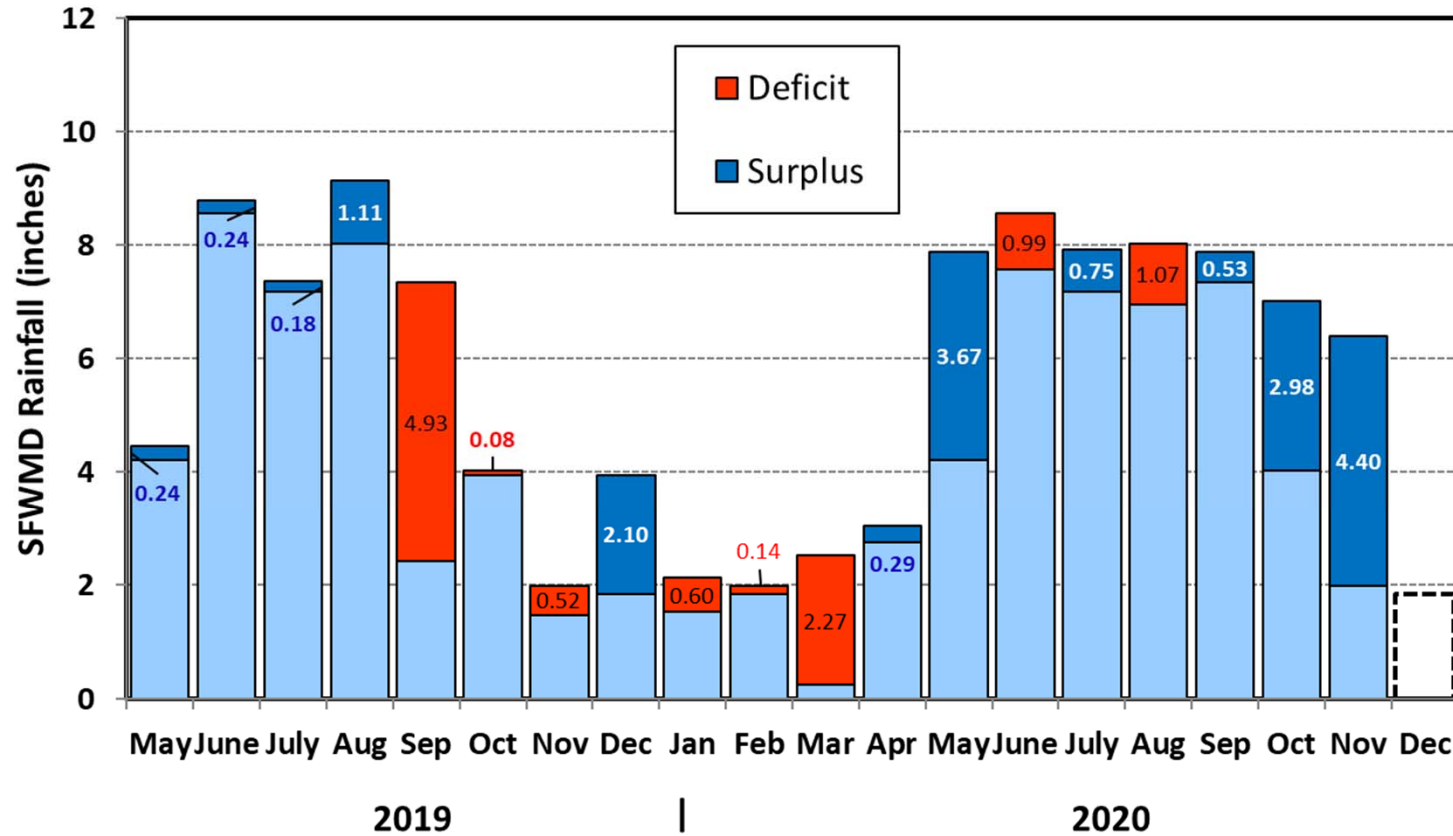
## South Florida Water Management District Governing Board Meeting December 10, 2020



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

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## SFWMD Rainfall Distribution Comparison (May 2019 - December 2020)



### District Wide Average Rainfall

Month	Average (inches)
Jan	2.12
Feb	1.98
Mar	2.51
Apr	2.74
May	4.21
Jun	8.55
Jul	7.18
Aug	8.03
Sep	7.34
Oct	4.03
Nov	1.99
Dec	1.84

Wet  
Season

### 2019 WET SEASON

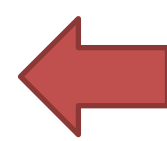
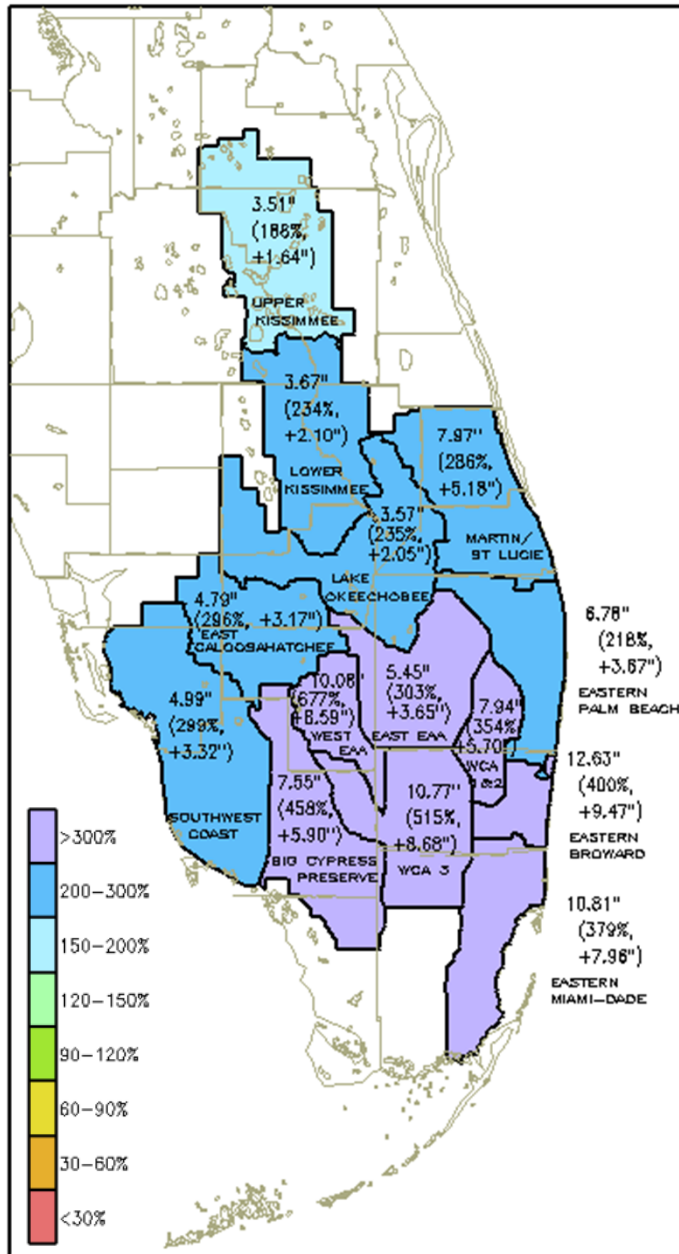
- May to August had above average rainfall
- August was 14% above average.
- Driest September in the 88-year POR.
- Earliest end in POR: Sep. 16, 2019.

### 2019-2020 DRY SEASON.

- Sep. 18, 2019 to May 15, 2020, 73% or Normal
- Driest March in 89 years of record
- May was ~ 187% of normal

### 2020 WET SEASON

- Started May 15, 2020.
- July and September had above average rainfall.
- October rainfall was well above normal.
- November rainfall was in excess of 300% of normal



## Nov 2020 Rainfall

### DISTRICT-WIDE: 6.39"

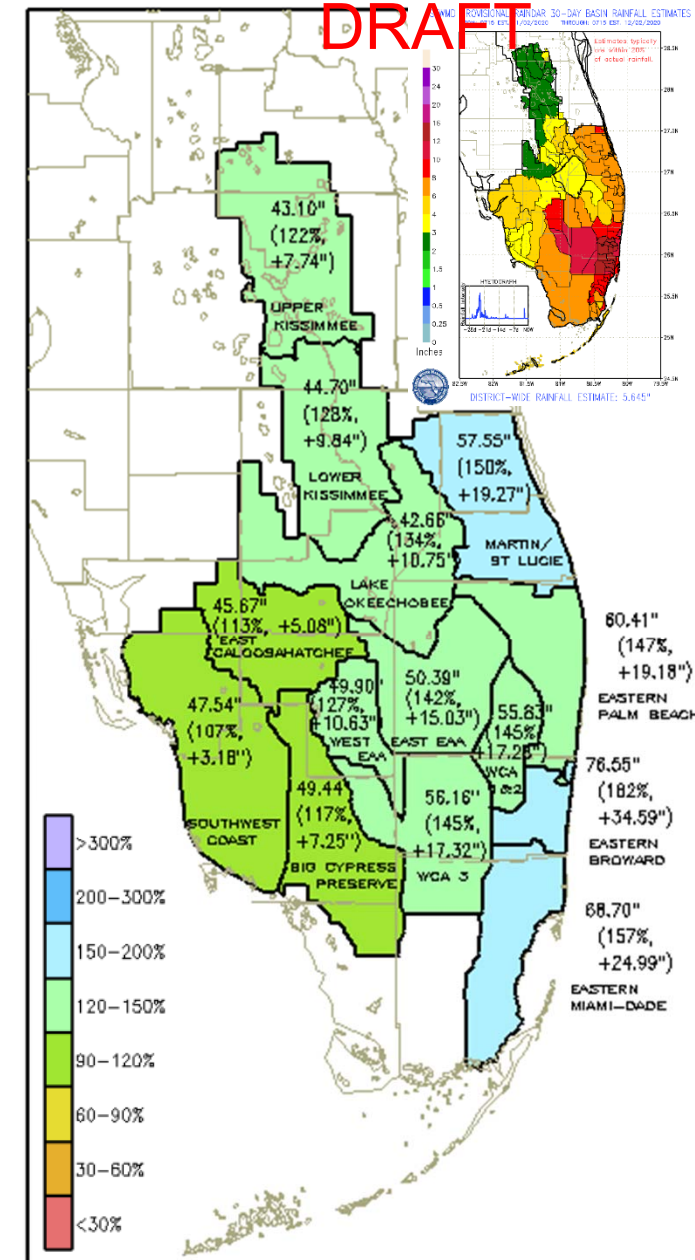
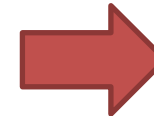
- 321% of average, +4.40" surplus
- This rainfall amount is near (but below) normal for summer months
- Of 14 rainfall areas 7 are above 300% of normal, 6 are above 200% and one above 150%
- Area with highest rainfall are WCA3
- Lowest is Upper Kissimmee

## Wet Season Rainfall

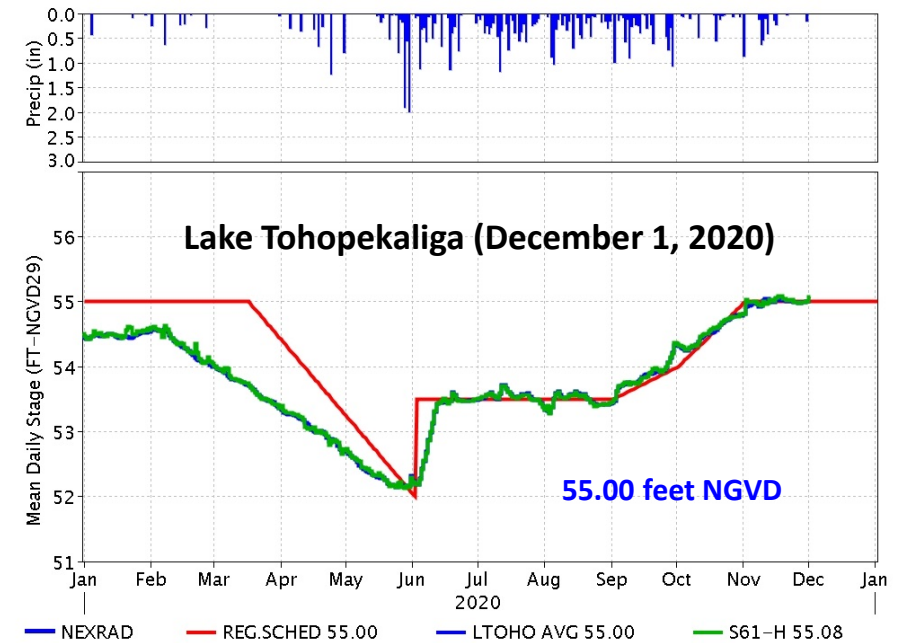
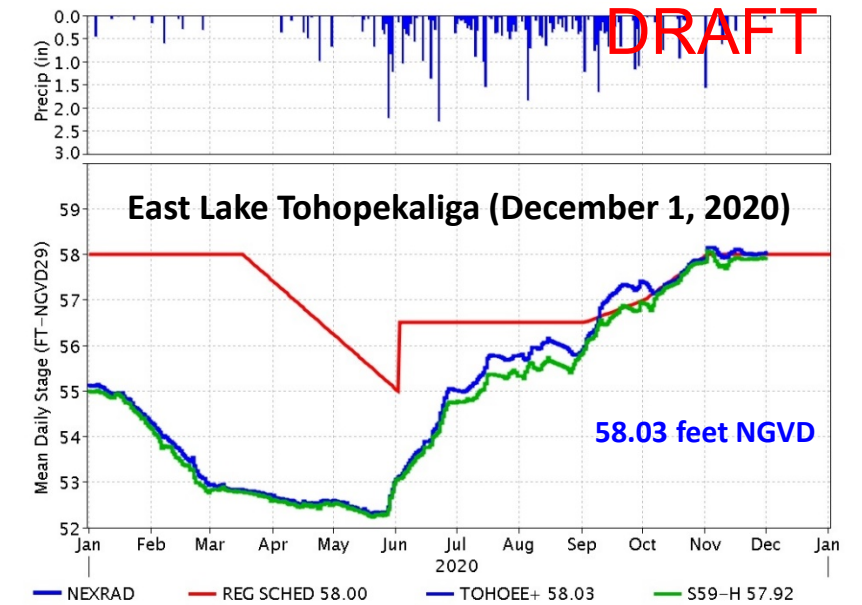
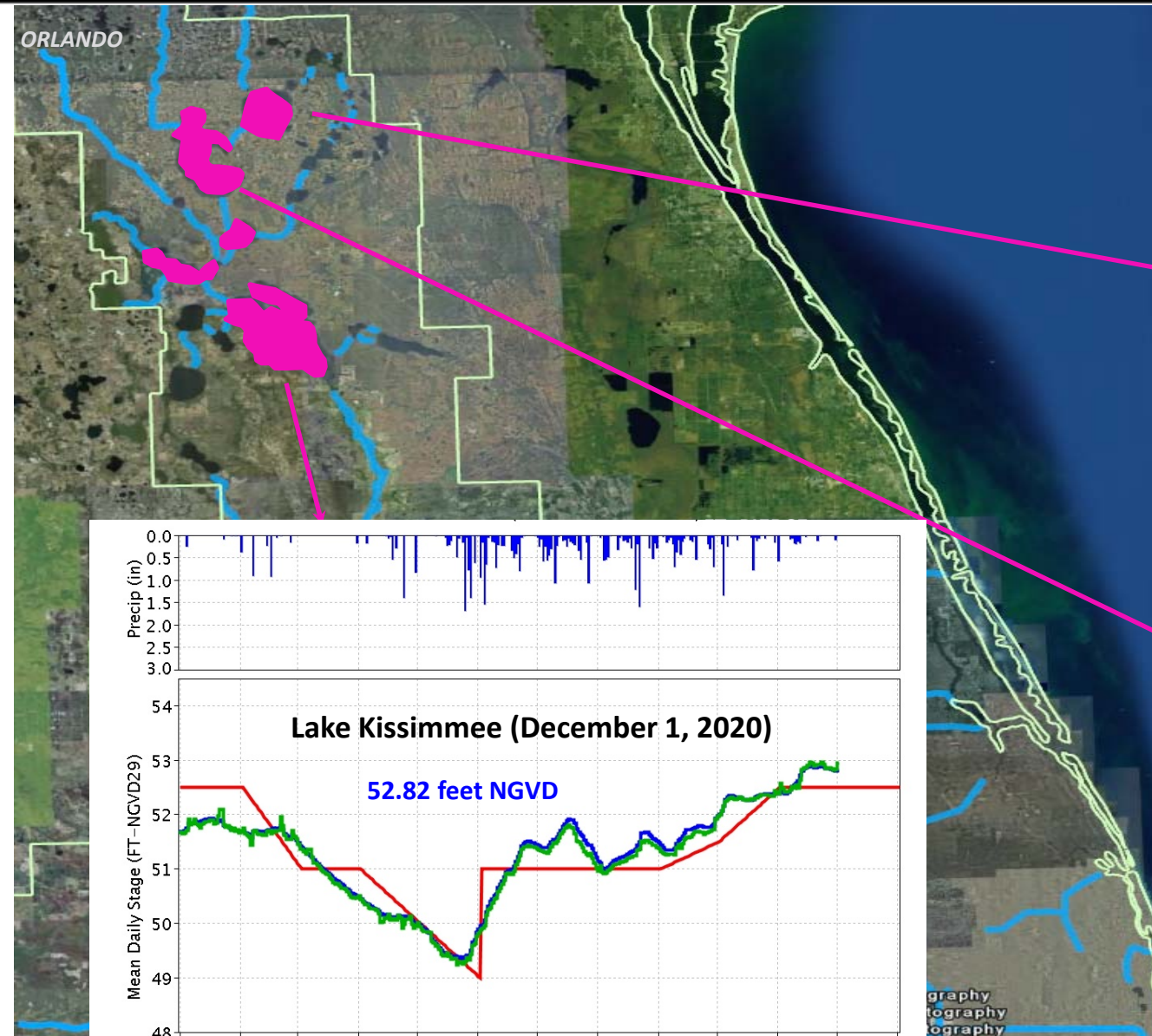
### 15 May 2020 – Nov 18

### DISTRICT-WIDE: ~51.12"

- 132% of average, + 12.42" surplus
- Areas on the West have received less rainfall
- All areas are 107% to 182% of average
- Highest is Eastern Broward and lowest is Southwest Coast



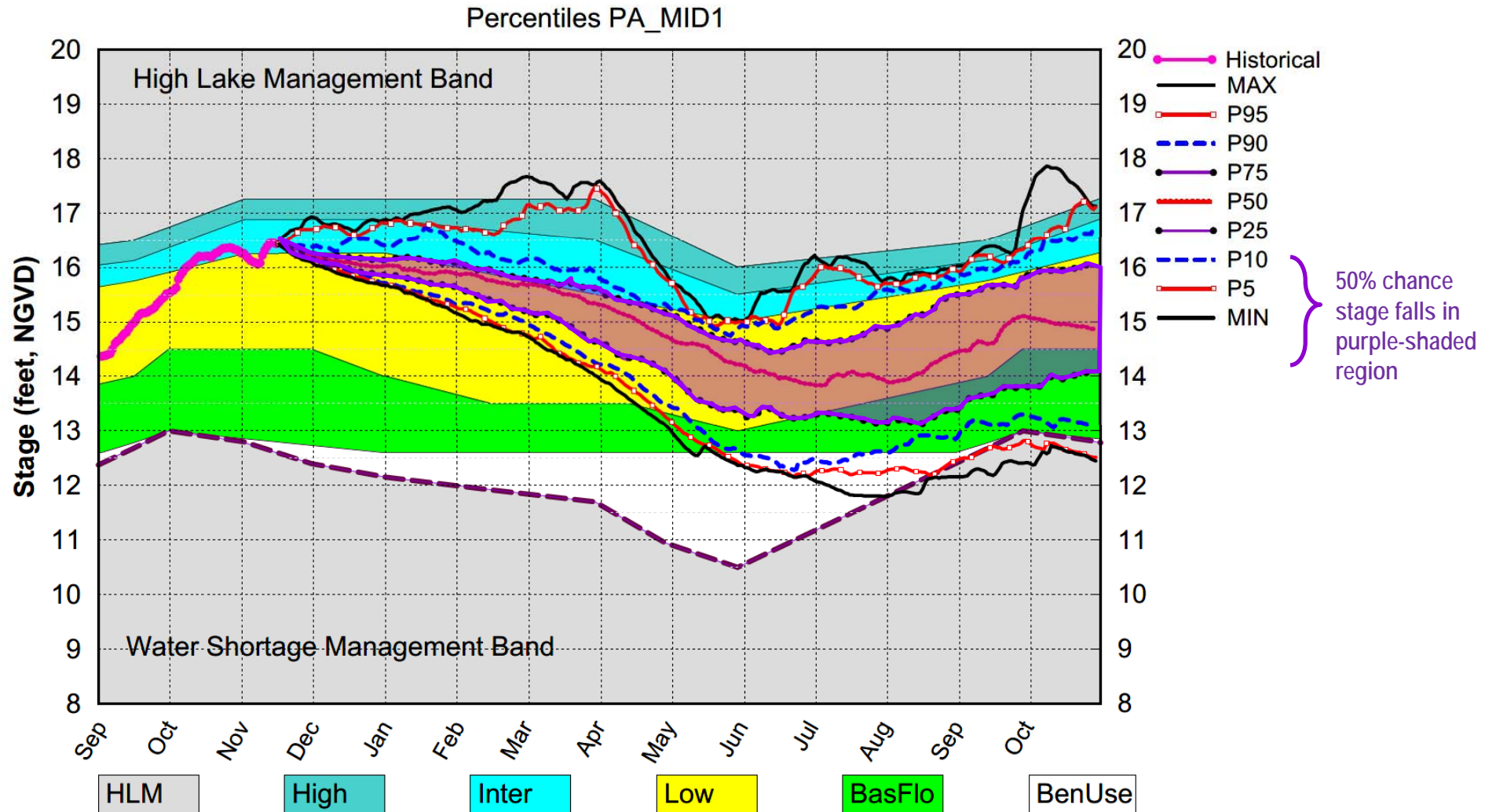




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## Lake Okeechobee SFWMM Nov 2020 Mid-Mon Position Analysis



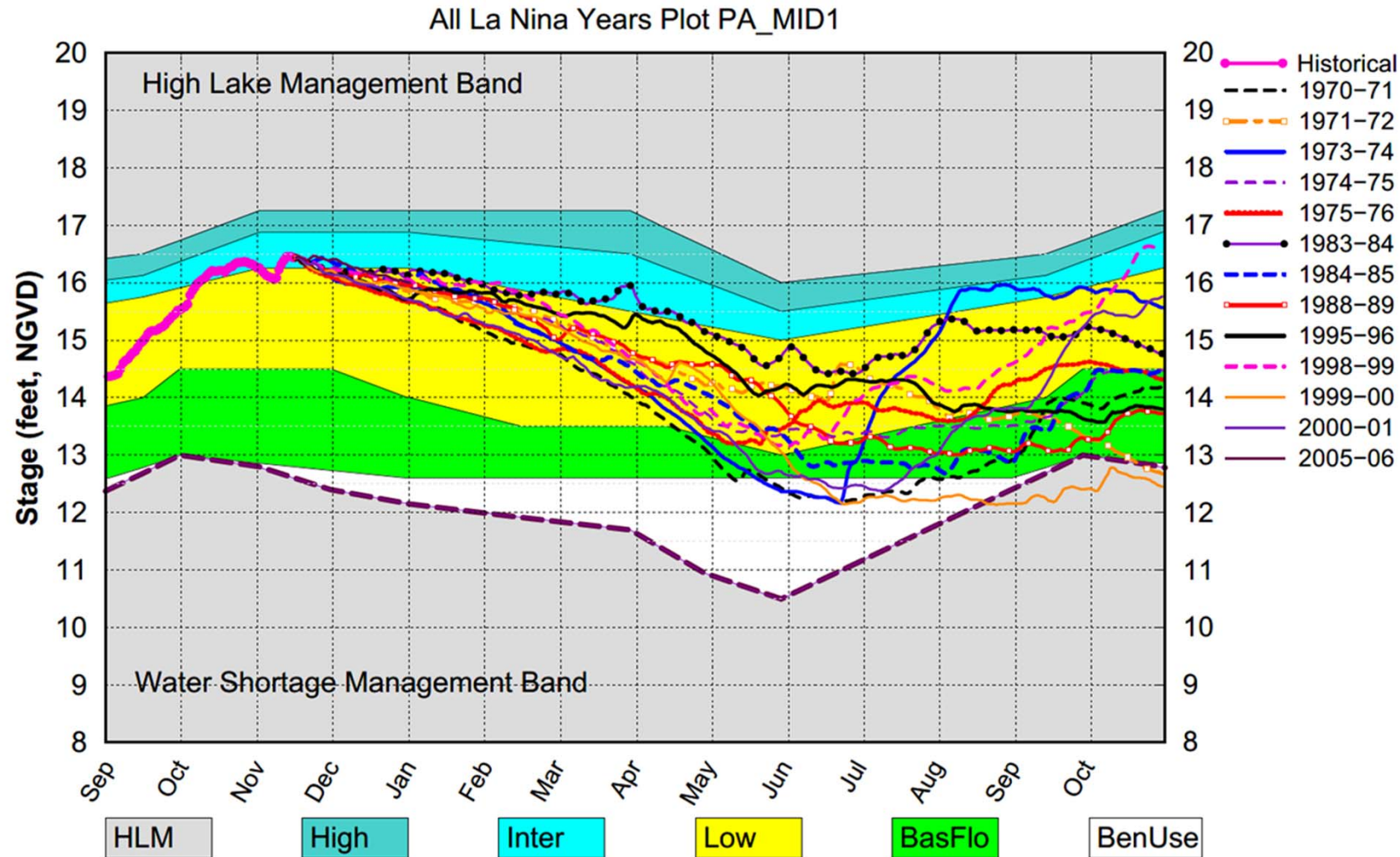
(See assumptions on the Position Analysis Results website)

Sat Nov 21 05:14:41 2020



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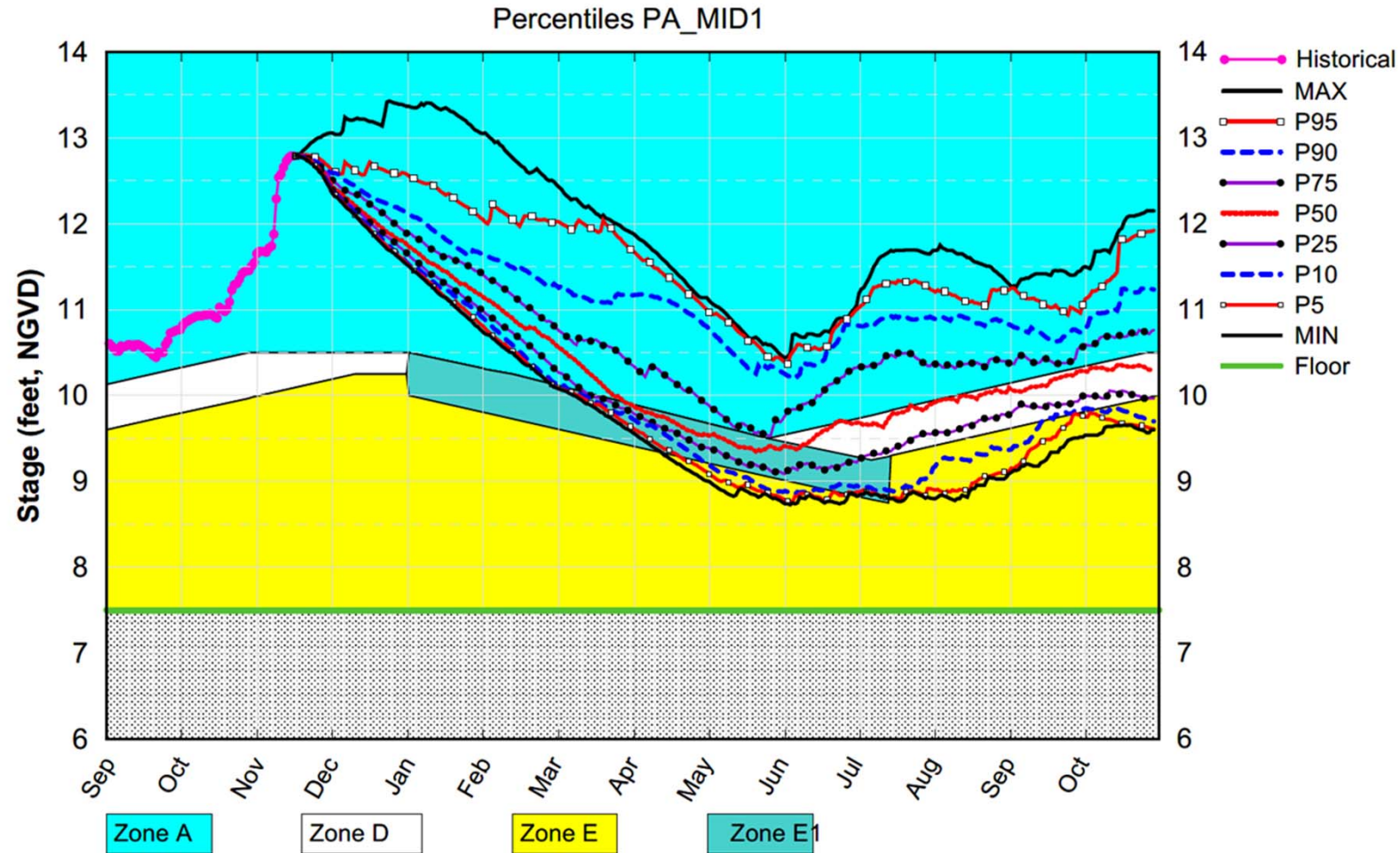
# Lake Okeechobee SFWMM Nov 2020 Mid-Mon Position Analysis



(See assumptions on the Position Analysis Results website)

Sat Nov 21 05:15:21 2020

## WCA3A SFWMM Nov 2020 Mid-Mon Position Analysis

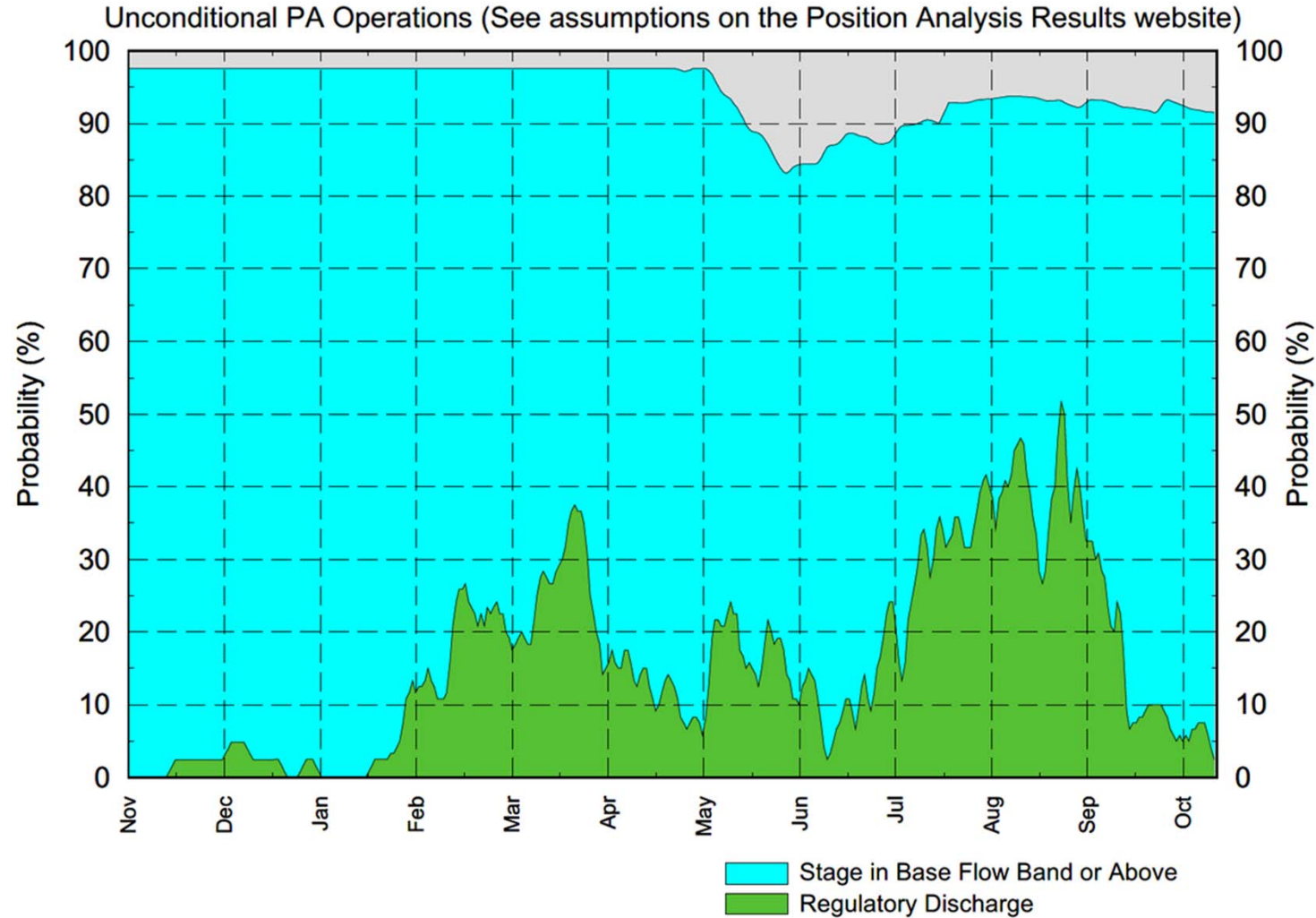


(See assumptions on the Position Analysis Results website)

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# Mid-Month November 2020 Dynamic Position Analysis

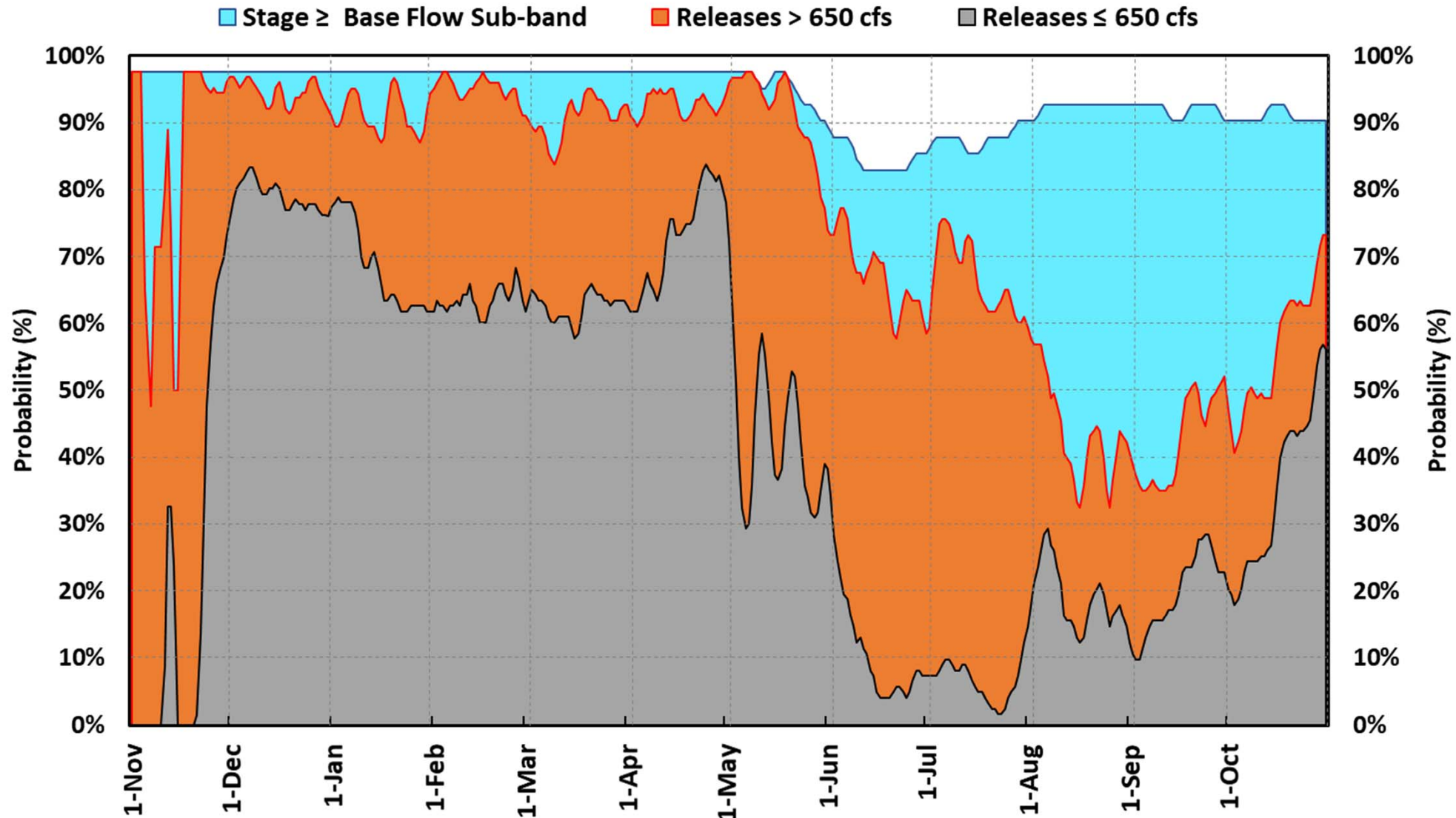
## Lake Okeechobee – LORS2008 Releases to the WCA's



Sat Nov 21 14:54:11 2020



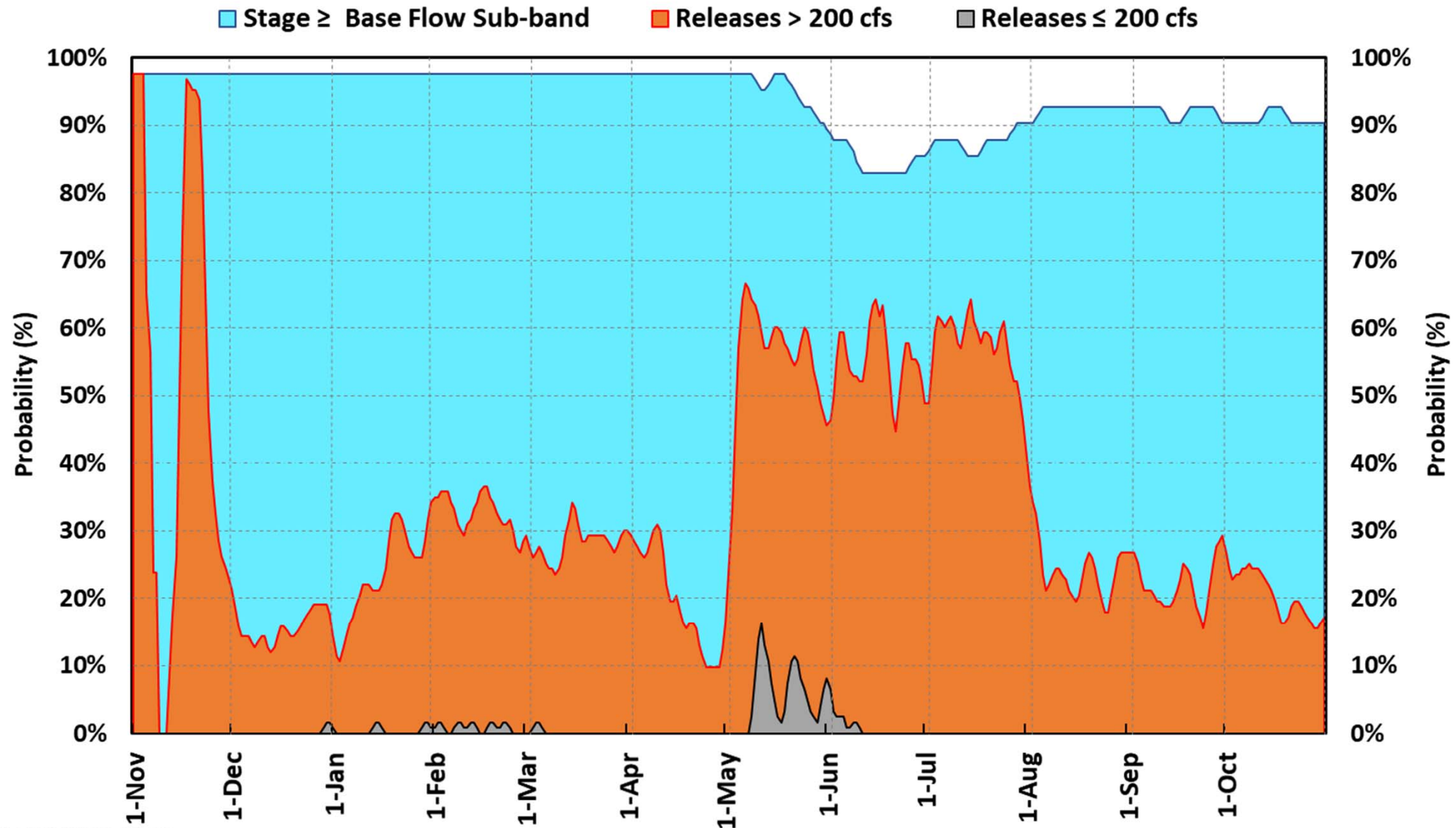
## Mid-Nov 2020 PA - Likelihood of Releases to the Caloosahatchee Estuary



Tue 11/24/2020 15:30

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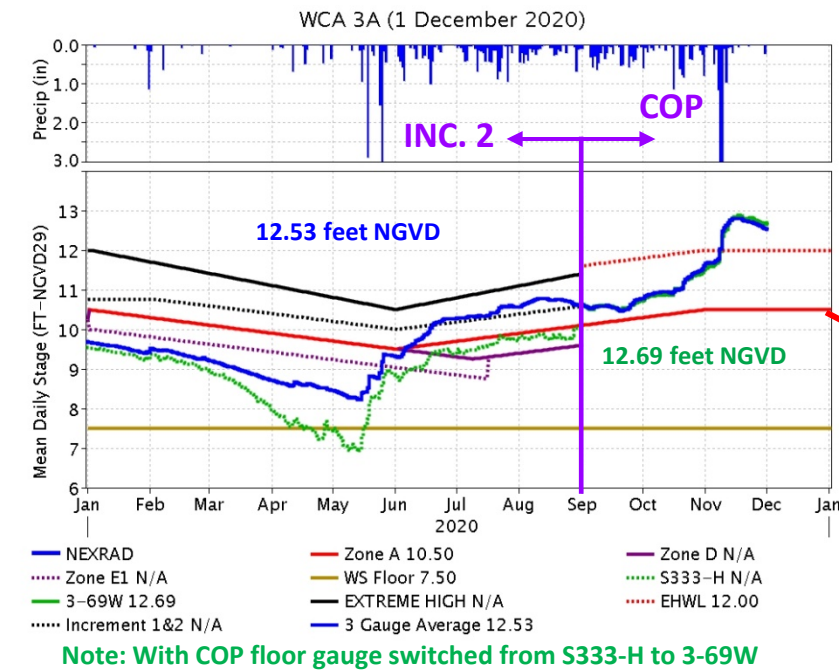
## Mid-Nov 2020 PA - Likelihood of Releases to the St. Lucie Estuary



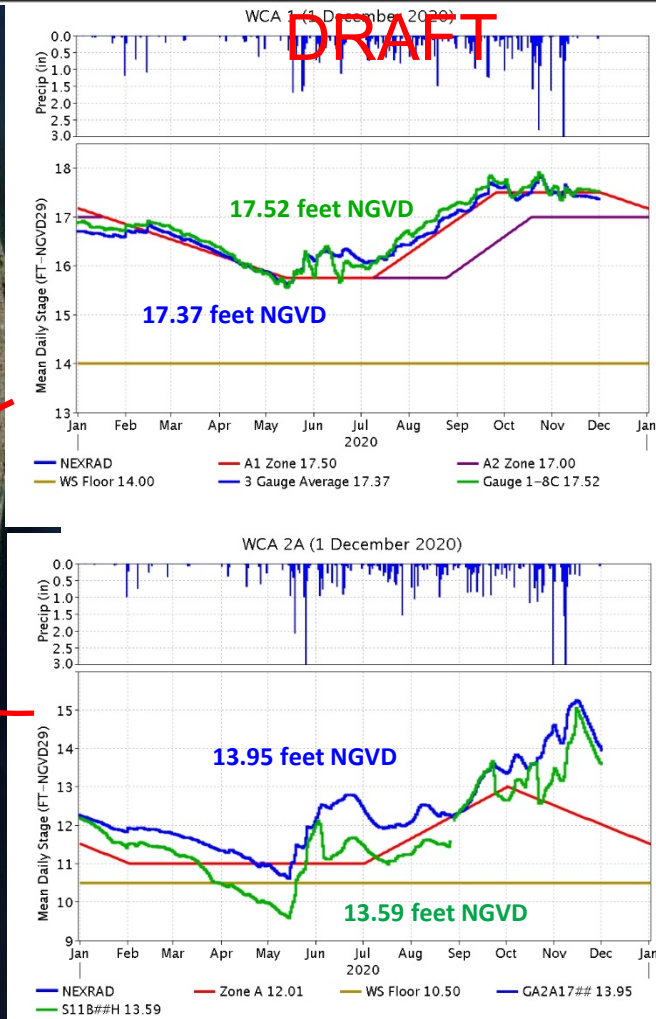
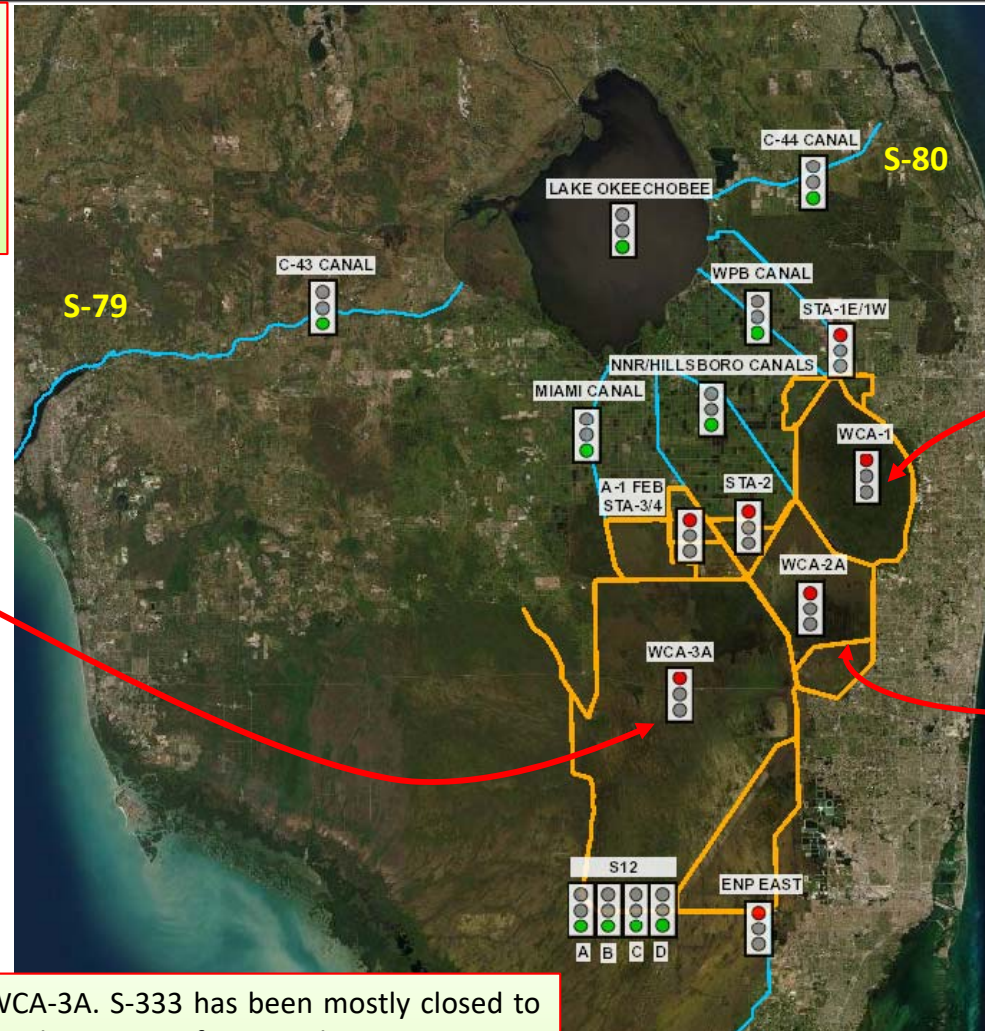
Tue 11/24/2020 15:30



Lake Okeechobee stage is in the Low Sub-band of LORS-2008 Regulation schedule. By the middle of September, the USACE requested the District to implement maximum practicable releases to the WCAs. USACE has been implementing 4,000 cfs at S-77 and 1,800 cfs at S-80. For this week, LORS 2008 Part D is recommending S-79 up to 450 cfs and 200 cfs at S-80.



Tamiami Trail Flow Formula calls for MAXIMUM releases from WCA-3A. S-333 has been mostly closed to reduce L-29 stage from 8.3-8.5 to 7.8-8.0 feet NGVD to provide flood mitigation for Las Palmas community. S-334 is closed. S-331 and S-357 are pumping with very low stage settings to also help the Las Palmas Community. District continues to operate the detention cells to provide flood mitigation and seepage management for the SDCS (L-31N and C-111). S-199 and S-200 pumps are running (no Cape Sable Seaside Sparrow limitations). S-152 was closed September 15 due to high water conditions in WCA-3B. S-197 was opened Oct 2<sup>nd</sup> – 8<sup>th</sup>, 21<sup>st</sup> – 29<sup>th</sup> and Nov 6<sup>th</sup> to present as a result of heavy rainfall in South Dade (TS Eta).

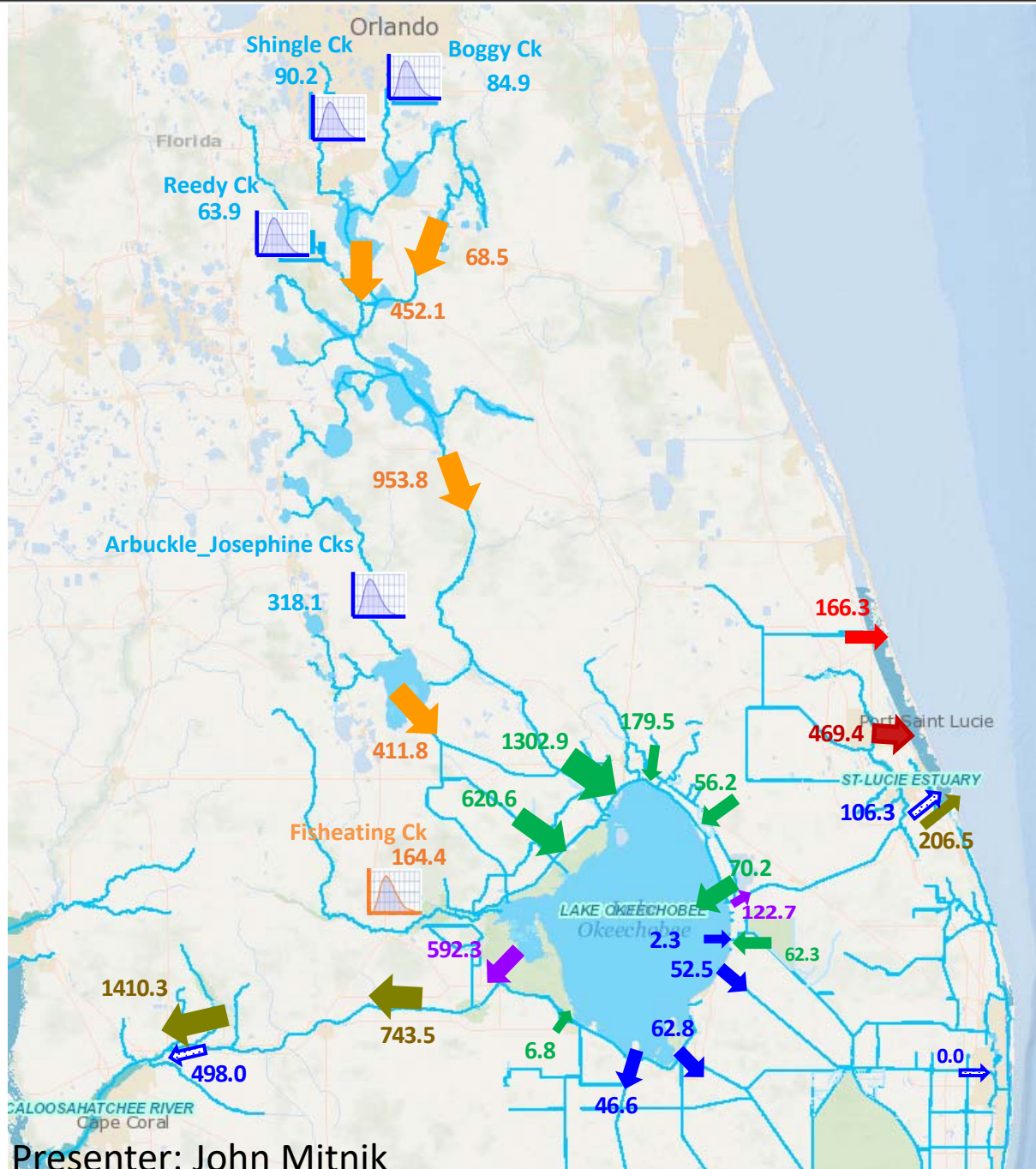


WCA-1 is in Zone A1 of the regulation schedule; WCA-2A is in Zone A of the regulation schedule; WCA-3A is above the EHWL of its regulation schedule. S-10s are closed. S-11s are open (~ 3,300 cfs). S-12 C&D opened on June 1, 2020. All S-12s passing ~5,800 cfs currently. S-343 A and B were closed on Oct 1<sup>st</sup> as required under COP. S-12 A&B remain open. USACE approved a temporary operational deviation to keep S-12A&B and S-343A&B open to lower stages in WCA-3A. S-343A&B and S-344 had to be closed again to mitigate impact on the Loop Road.



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## SFWMD – Selected Release Volumes for the Period May 1, 2020 to December 1, 2020 (volumes in 1,000 acre-feet)









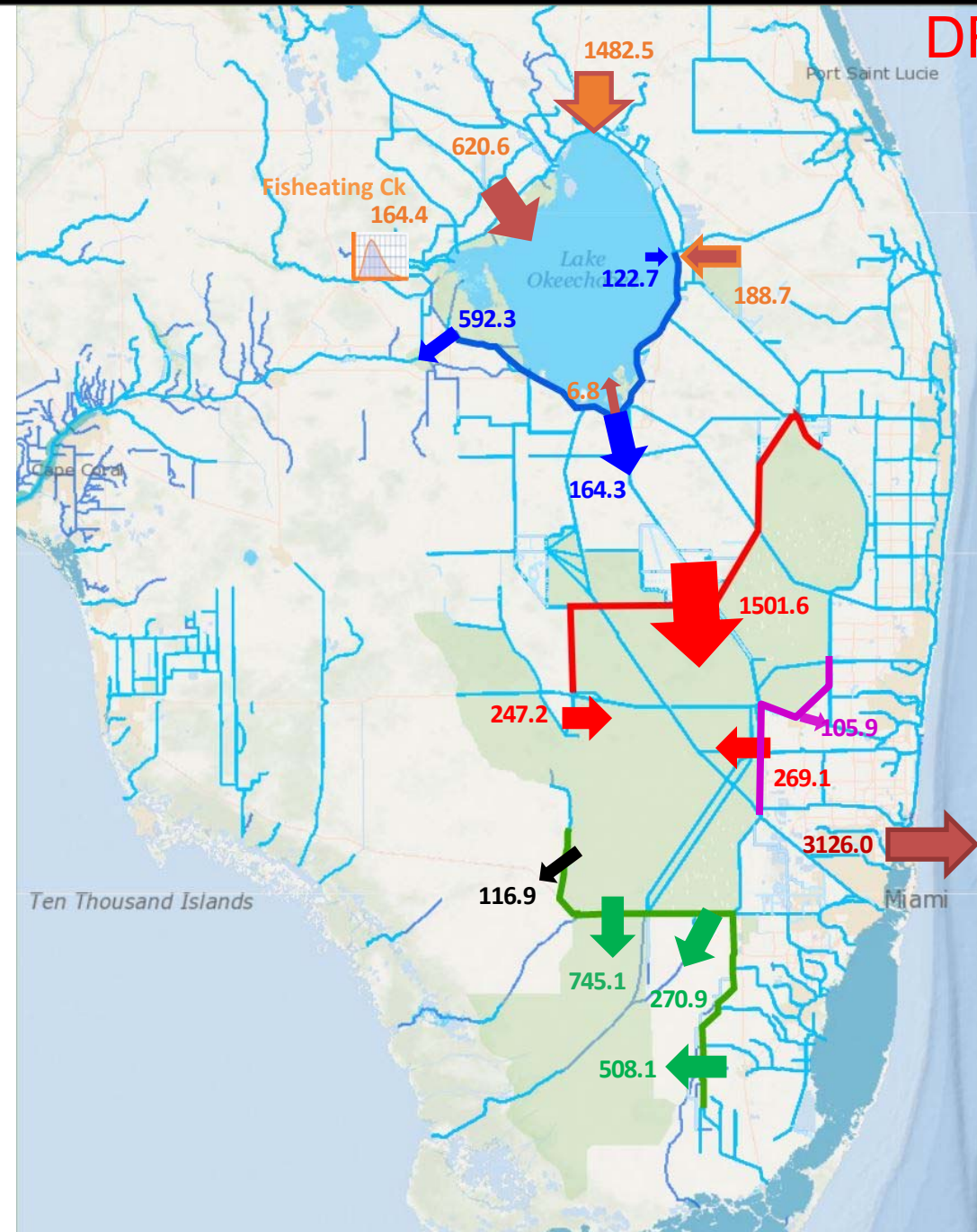
Symbol	Description	Volume (1,000 acre- feet)	
		Season to Date	Last Month
	Upper Kissimmee to Lower Kissimmee	953.8	50.8
	Inflows to Lake Okeechobee (including Fisheating Creek)	2463.0	325.2
	Lake Releases and Basin Runoff	1616.8	521.5
	Lake Releases East and West	715.0	315.2
	Lake Flood Control to Estuaries	604.3	306.1
	Total Lake Releases South	164.3	14.0
	Releases to Indian River Lagoon	166.3	50.8
	Upper East Coast discharges to St. Lucie Estuary	469.4	107.8
	Uncontrolled flows - Creeks (does not include Fisheating Creek)	557.1	62.3

1,000 acre-feet = 325.9 Million Gallons

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**SFWMD –Volumes Flowing  
Down the System  
May 1, 2020 to December 1, 2020**  
(volumes in 1,000 acre-feet)

Symbol	Description	Volume (1,000 acre- feet)	
		Season to Date	Last Month
	Lake Okeechobee Inflows	2463.0	325.2
	Lake Okeechobee Outflows	879.3	329.2
	WCAs Inflows	2017.9	479.4
	ENP / Detention Cell Inflows	1524.1	422.2
	WCAs to East	105.9	36.9
	Flows to Intracoastal	3126.0	725.7

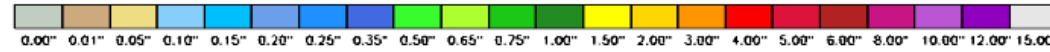




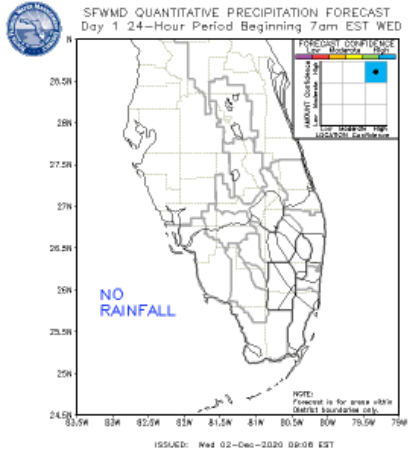
Posted 12/02/2020

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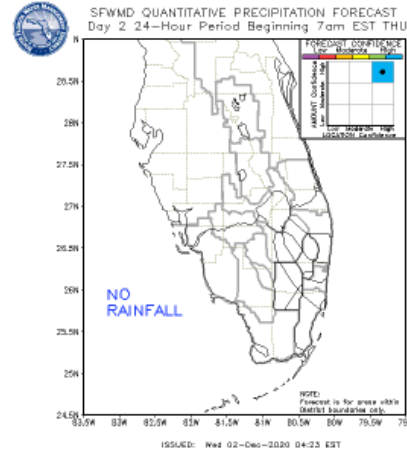
## Daily Quantitative Precipitation Forecasts



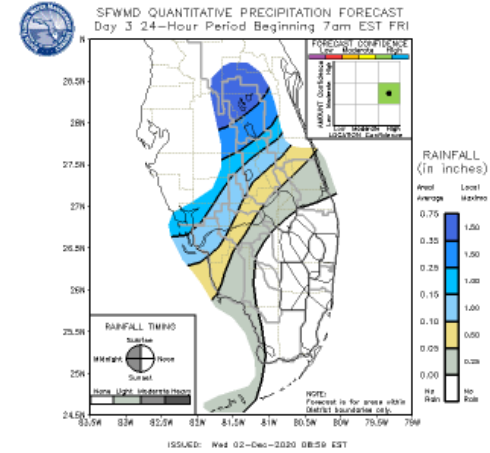
## Day 1



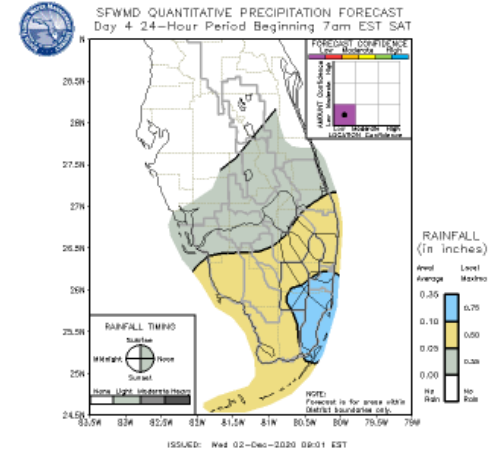
## Day 2



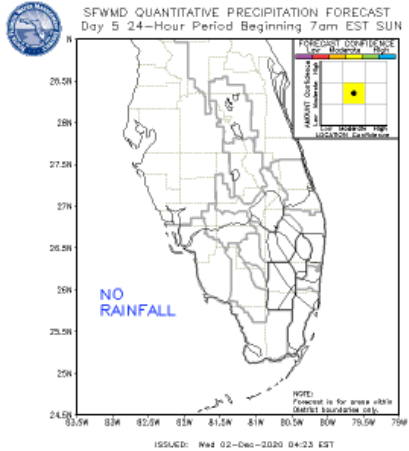
## Day 3



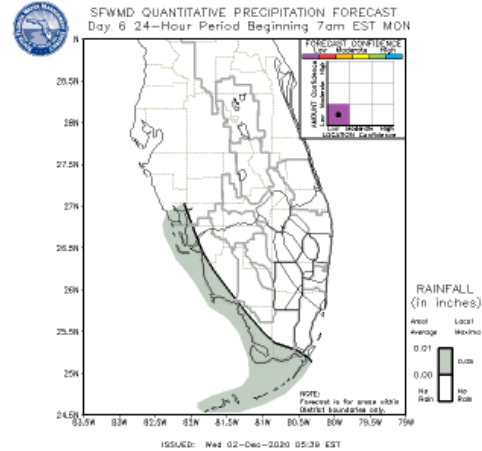
## Day 4



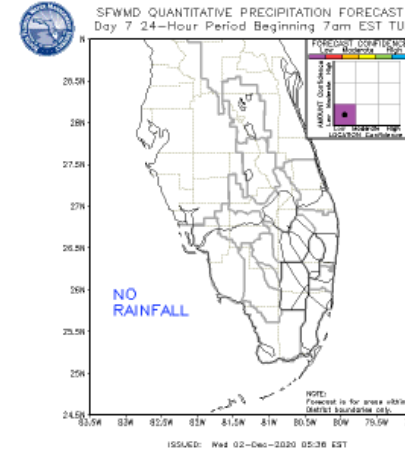
## Day 5



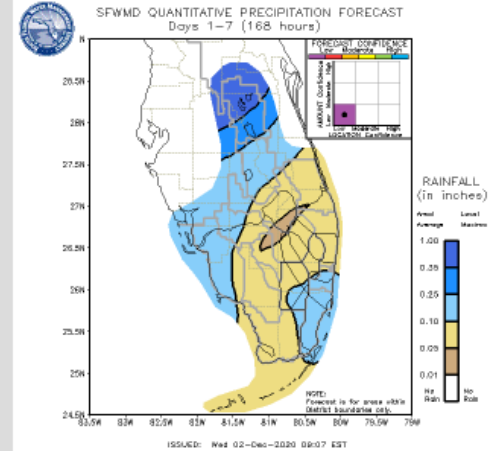
## Day 6



## Day 7

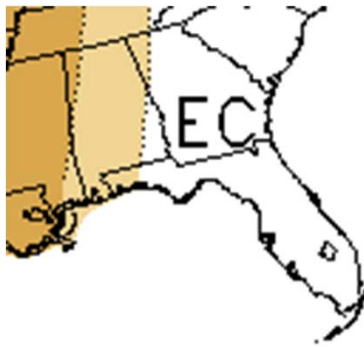


## 7-Day Total

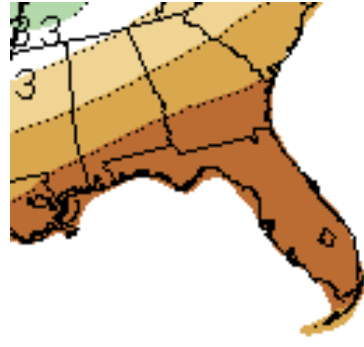




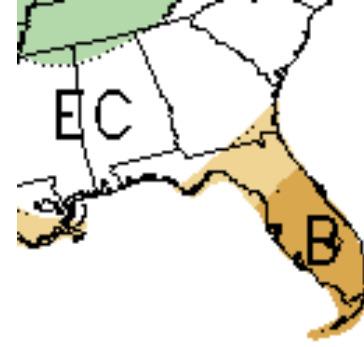
# CPC Precipitation Outlook for South Florida <sup>DRAFT</sup>



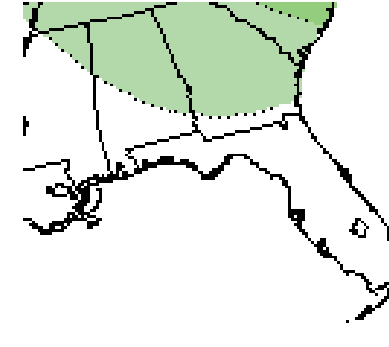
Dec 2020



Nov-Jan



Mar-May



Apr-Jun

[https://www.cpc.ncep.noaa.gov/products/predictions//multi\\_season/13\\_seasonal\\_outlooks/color/churchill.php](https://www.cpc.ncep.noaa.gov/products/predictions//multi_season/13_seasonal_outlooks/color/churchill.php)

- The most recent CPC precipitation outlook for Dec 2020 calls for equal chances of above-normal, normal, and below-normal rainfall.
- The outlooks for the 3-month windows from Dec-Feb to Feb-Apr call for substantially increased chances of below-normal rainfall.
- The outlook for the 3-month window Mar-May is for increased chances of below-normal rainfall.
- The outlook for the 3-month window Apr-Jun is for equal chances of above-normal, normal, and below-normal rainfall.
- The outlook for the transition to the 2021 wet season is for slightly increased chances of above normal rainfall.

