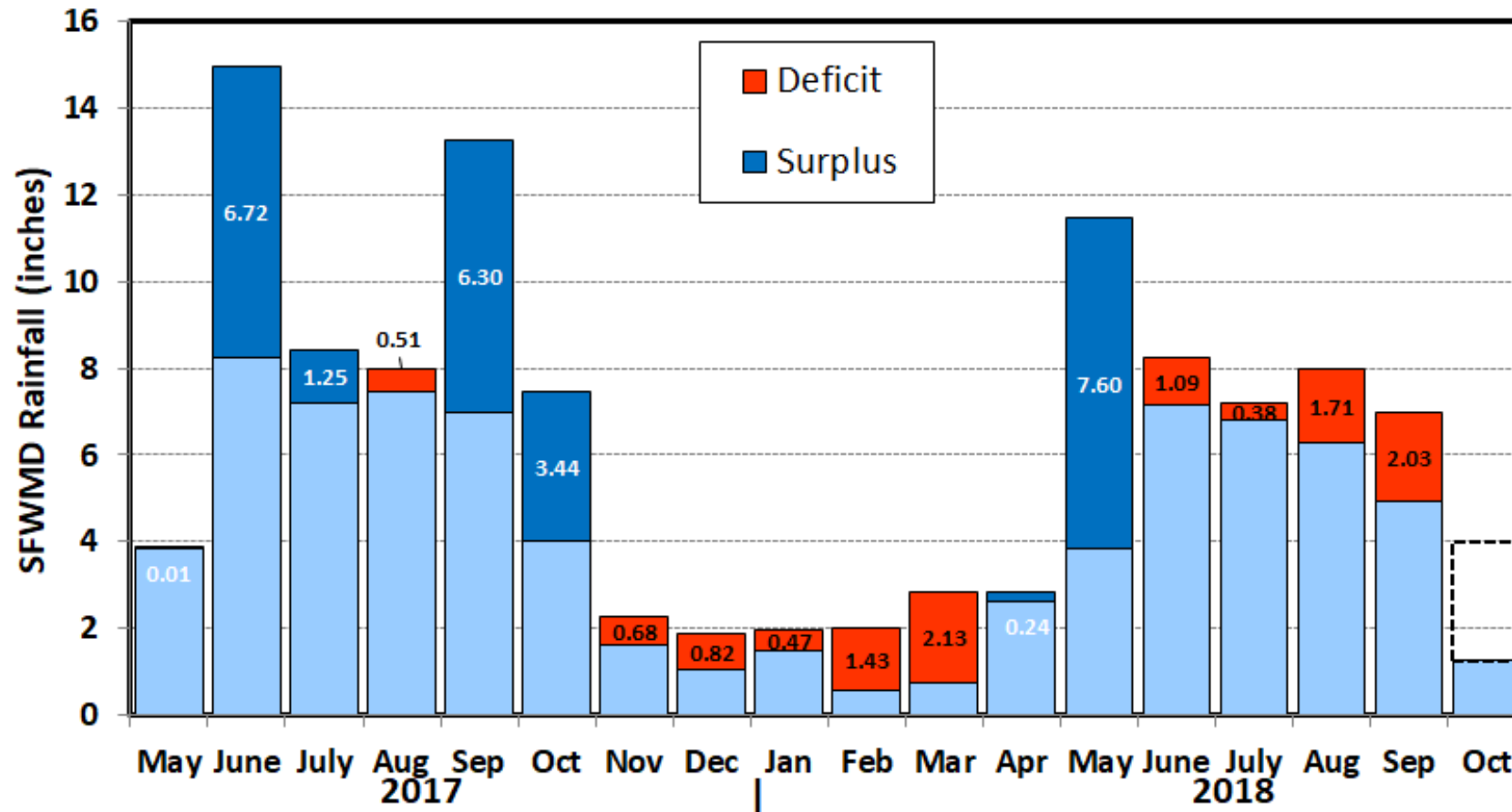


Water Conditions Summary

**South Florida Water Management District
WRAC Meeting
November 1, 2018**

**Matahel Ansar, PhD, PE
Section Administrator
Applied Hydraulics Section
Hydrology and Hydraulics Bureau**

SFWMD Rainfall Distribution Comparison (May 2017 - October 2018)



2017-2018 WET SEASON:

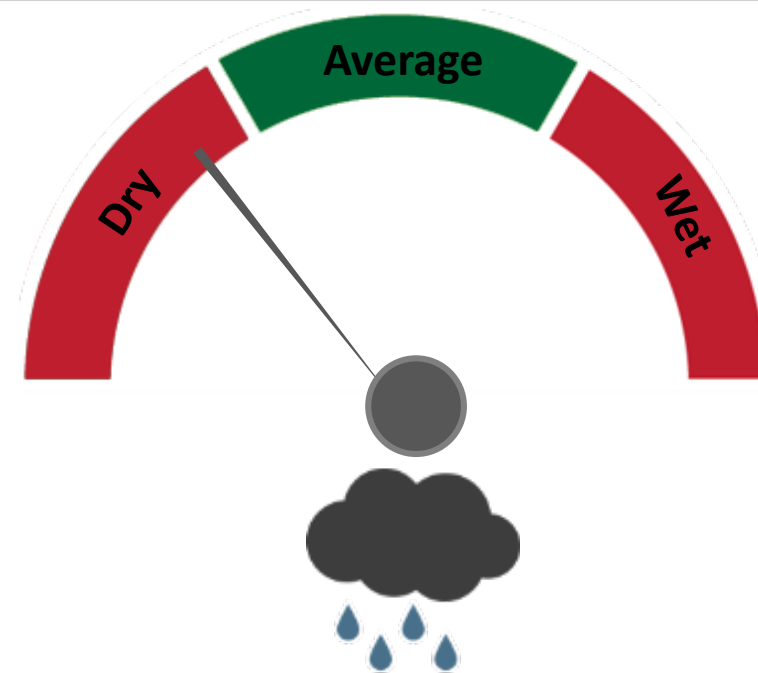
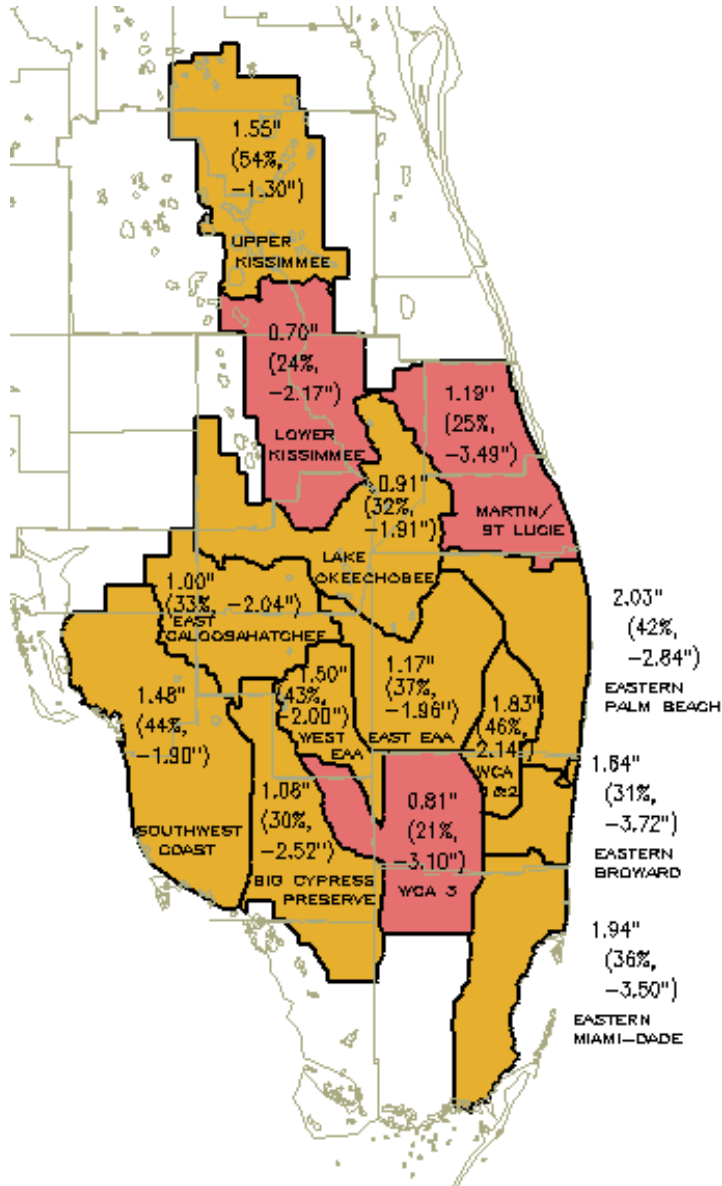
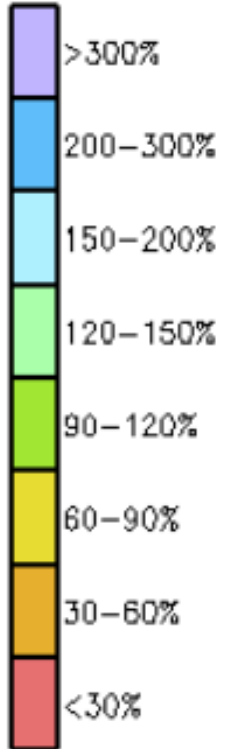
- June, September and October 2017 were ~ 190% average
- Hurricane Irma Impact ~ 8.5"
- TS Philippe ~ 2.4"

2018 DRY SEASON:

- Below average
- April was first month above average after 5 dry months
- Wettest May in the POR

2018-2019 WET SEASON:

- All months in the wet season had below average rainfall
- September 2018 rainfall was below average, including TS Gordon and the effect from Florence
- October 2018 is well below Normal

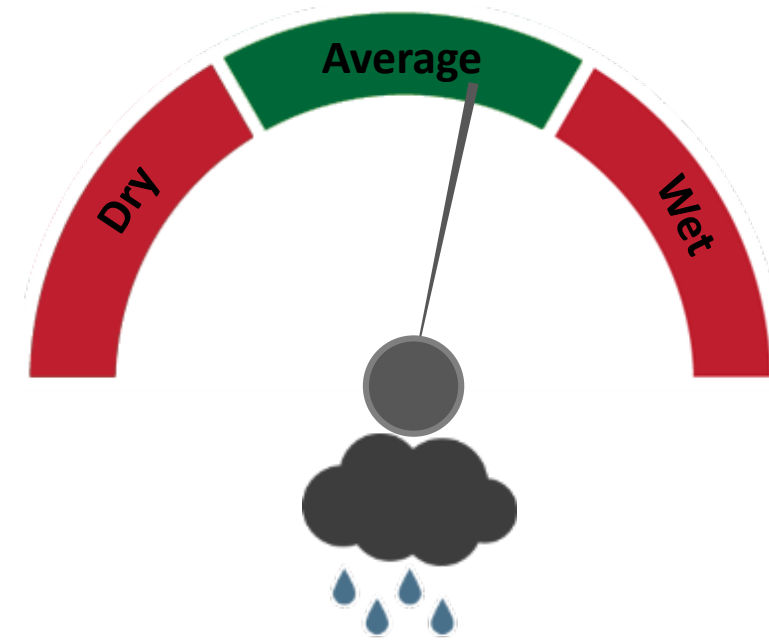
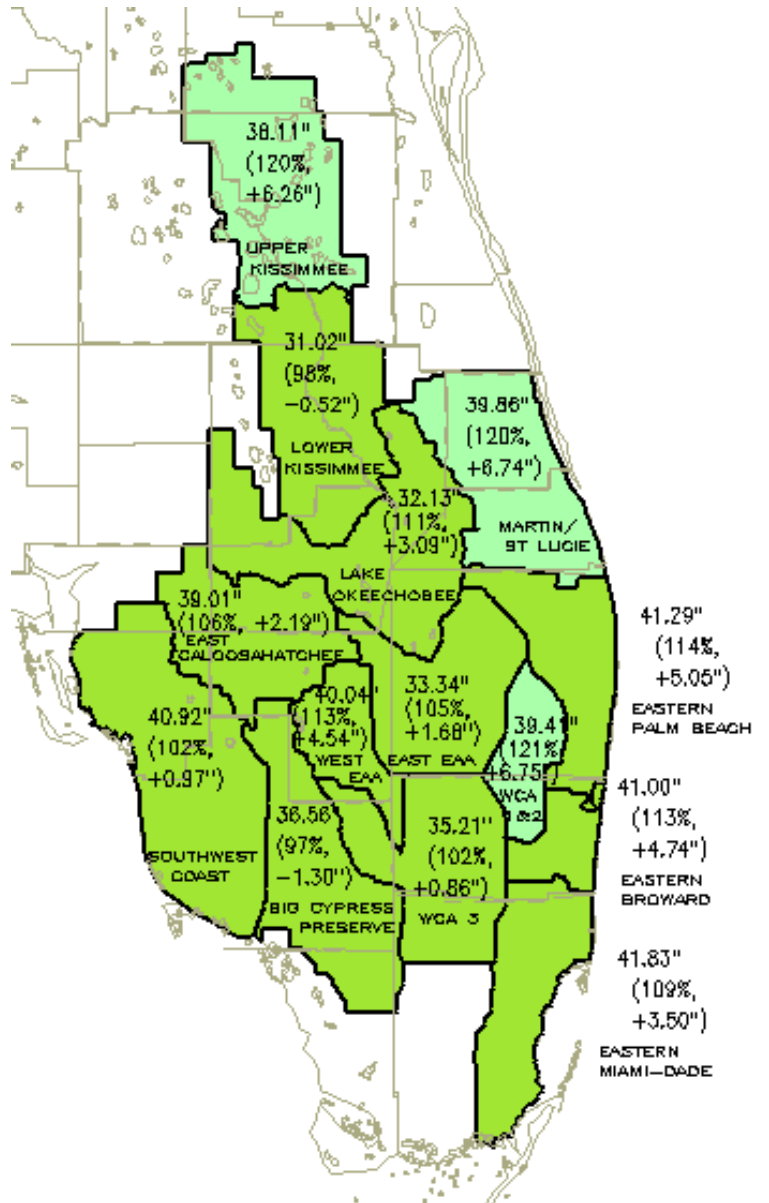
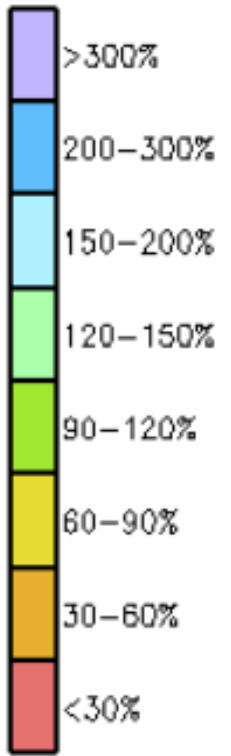


SFWMD

OCTOBER 2018

DISTRICT-WIDE: 1.27"

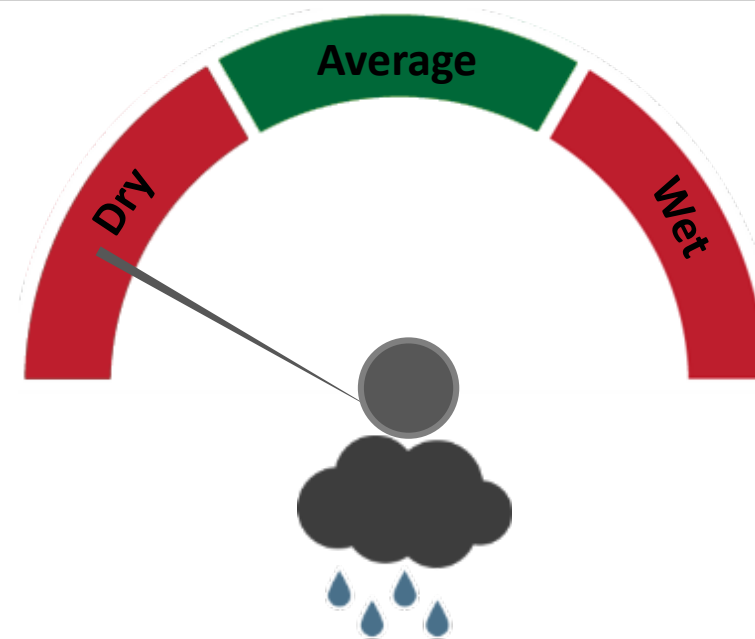
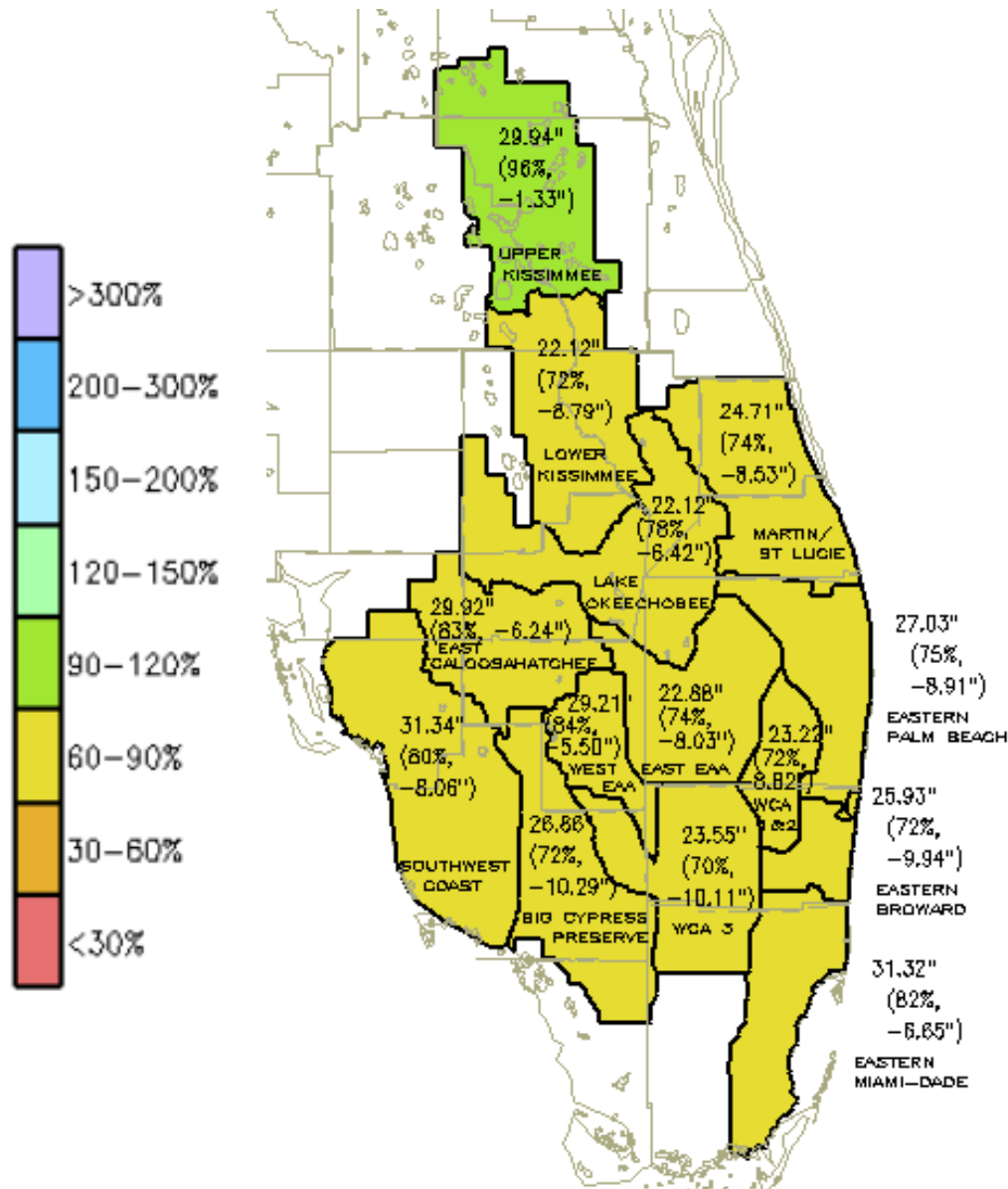
- Below average: 35% or -2.35"
- All rainfall areas are 60% or less of average
- Lower Kissimmee, Martin/St. Lucie and WCA3 are 25% or less of average
- Largest deficit observed is at Martin/ St. Lucie with -3.49"



SFWMD

Wet Season Rainfall
14-May, 2018 to 15-Oct, 2018
DISTRICT-WIDE: 36.43"

- 108% of average or +2.68"
- Last 2 weeks of May produced 10.87" of rain
- Rainfall for period June through October is below average
- As we progressed into September and October, additional basins moved from above to near-average rainfall



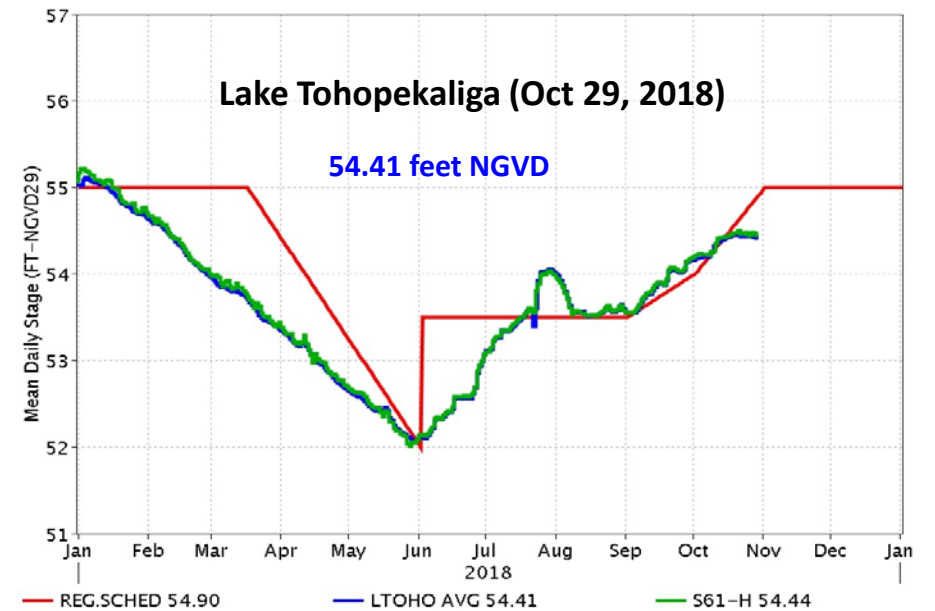
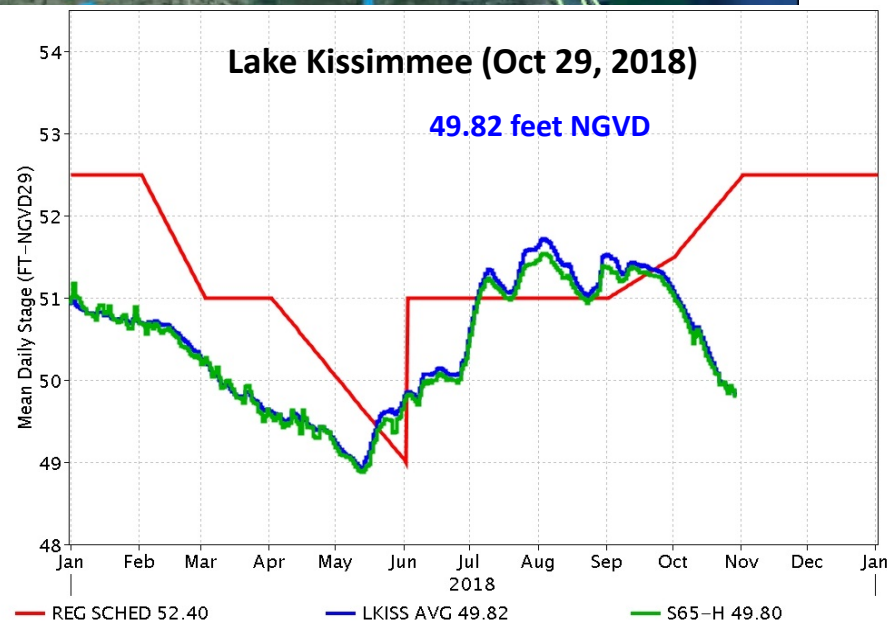
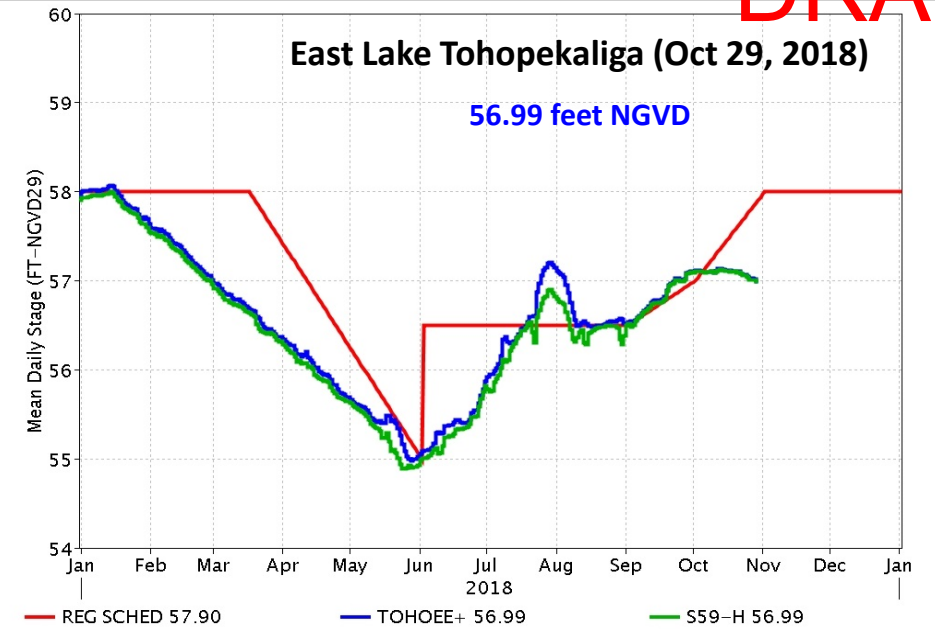
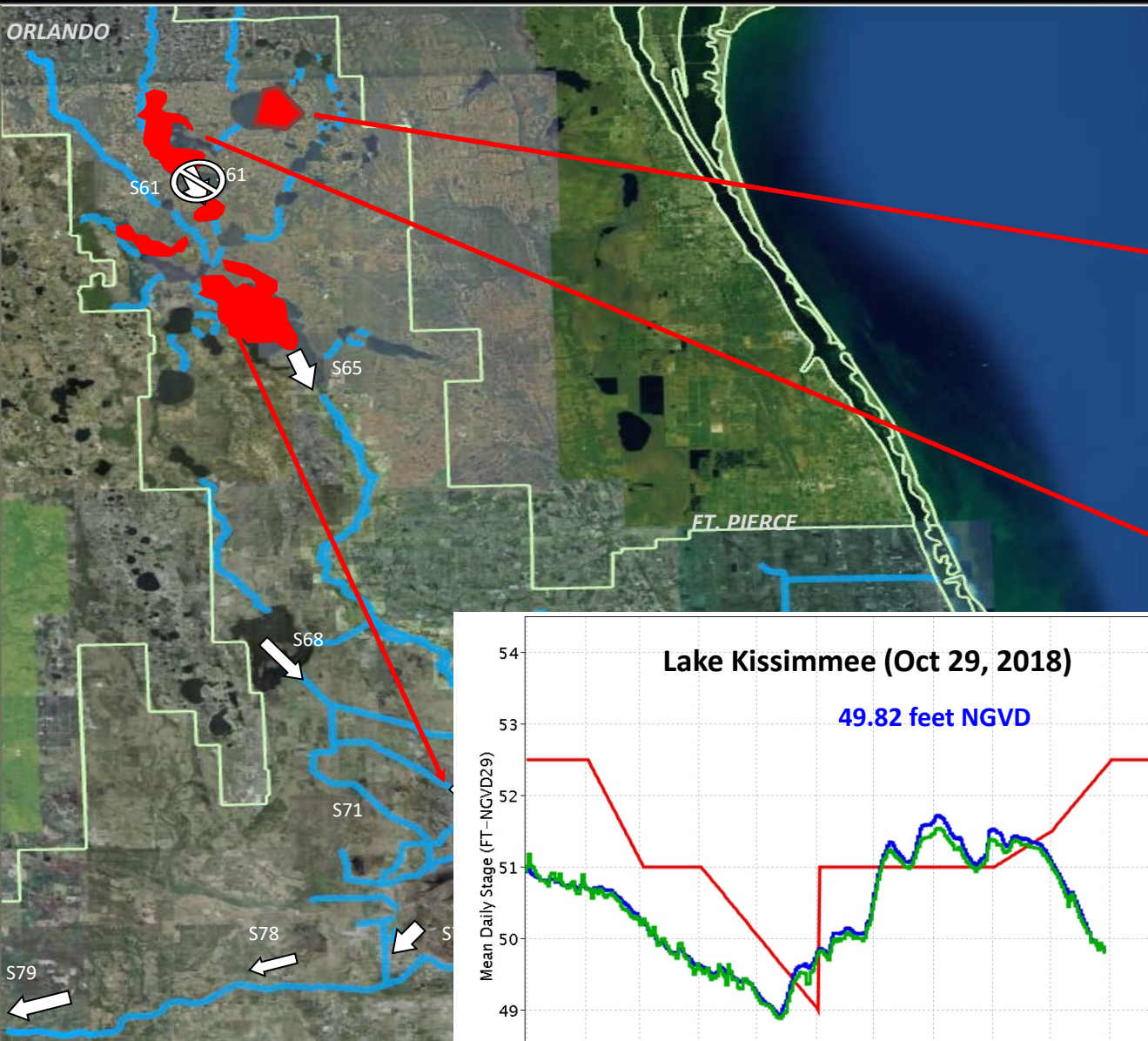
SFWMD

Wet Season Rainfall

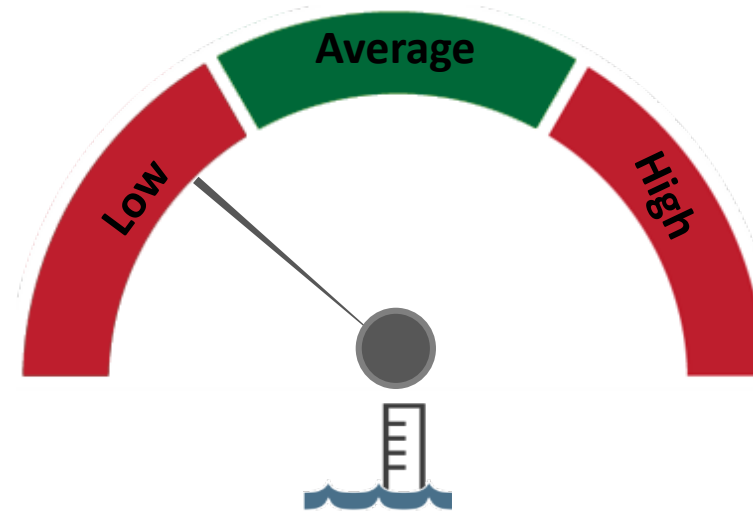
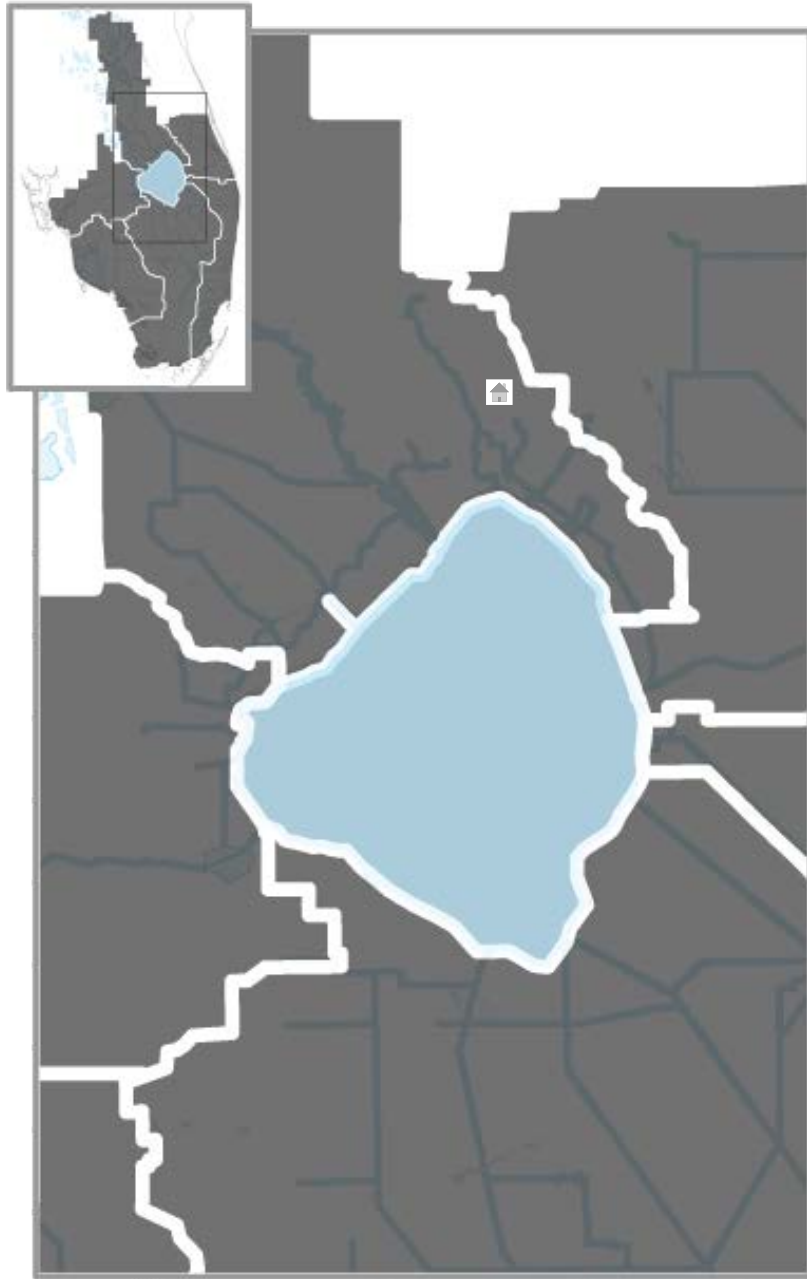
02-Jun, 2018 to 29-Oct, 2018

DISTRICT-WIDE: 26.44"

- 78% of average or -7.56"
- Change is dramatic once 2nd half May 2018 rainfall is not included
- Most areas are 60-90% of average
- Only Upper Kissimmee area is near average

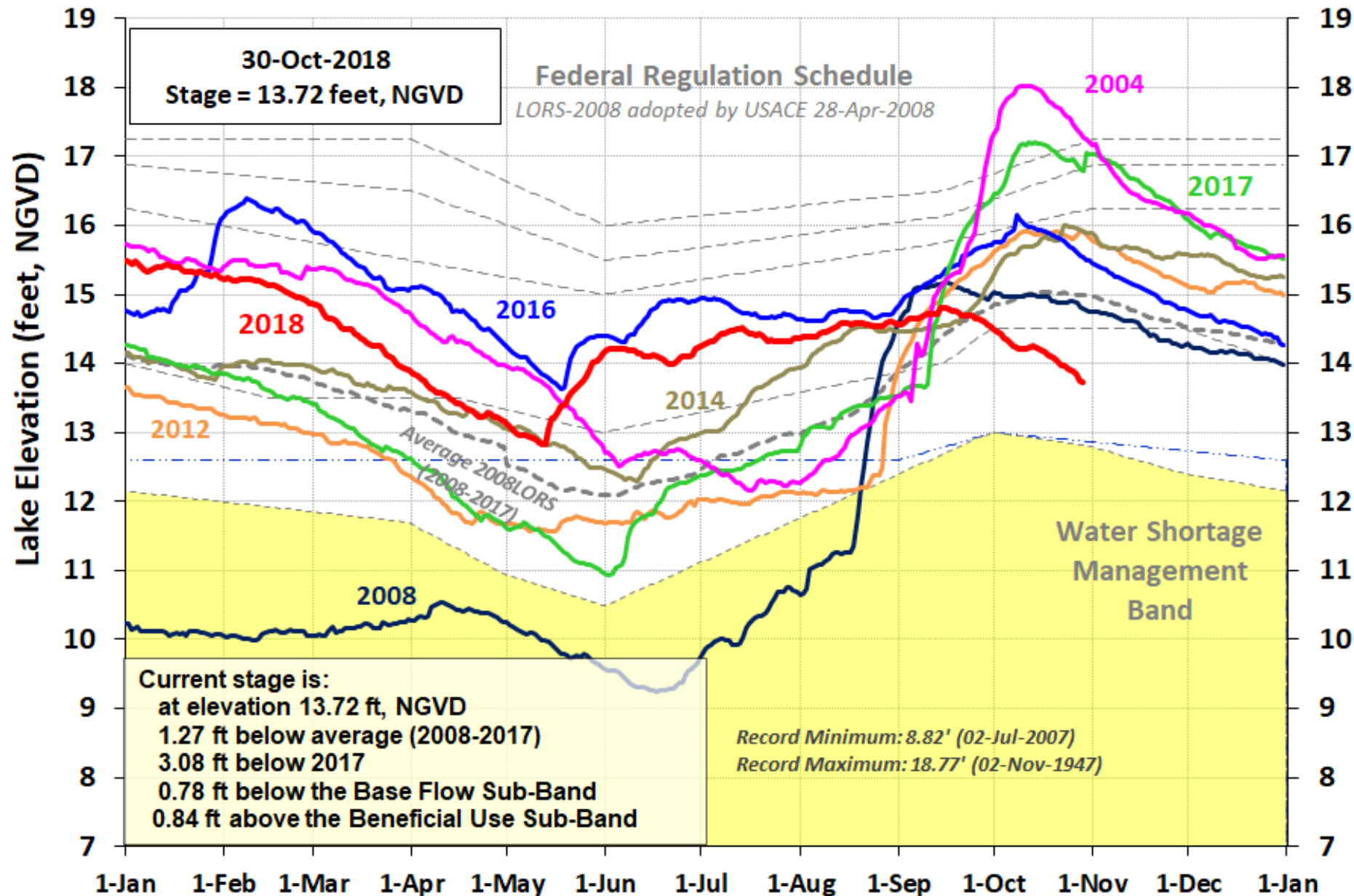


Lake Okeechobee Water Level

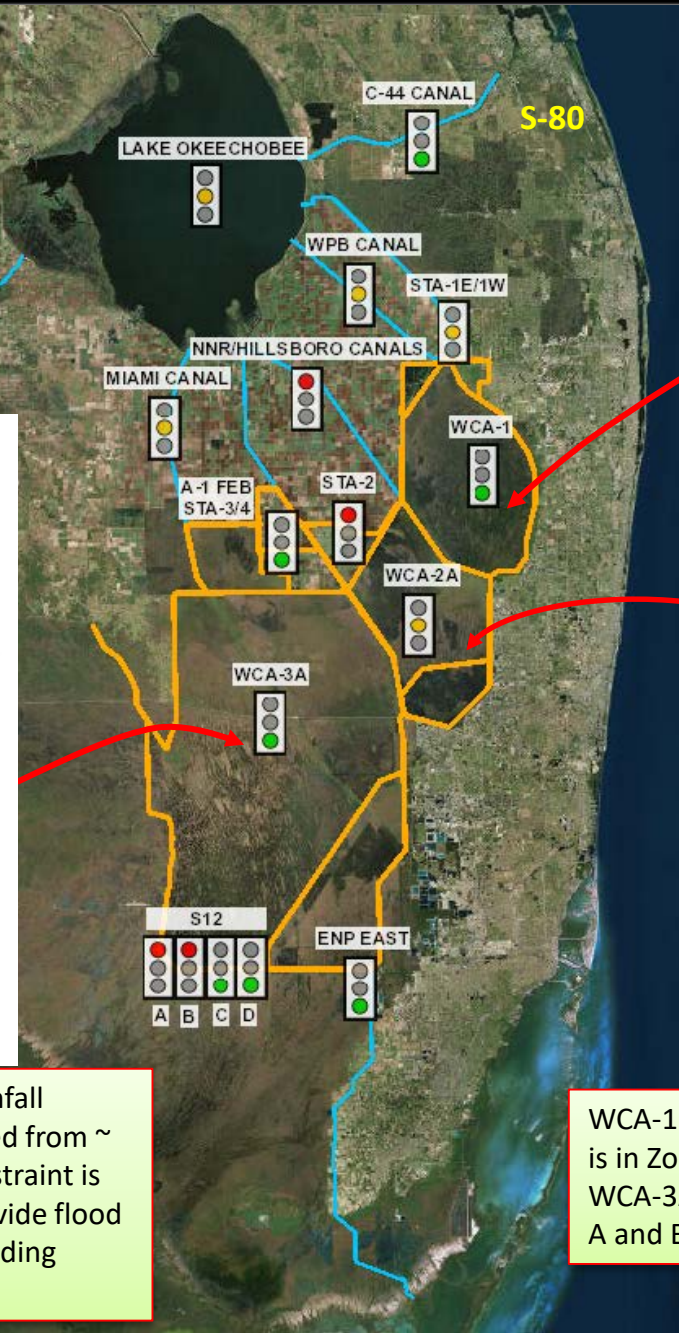
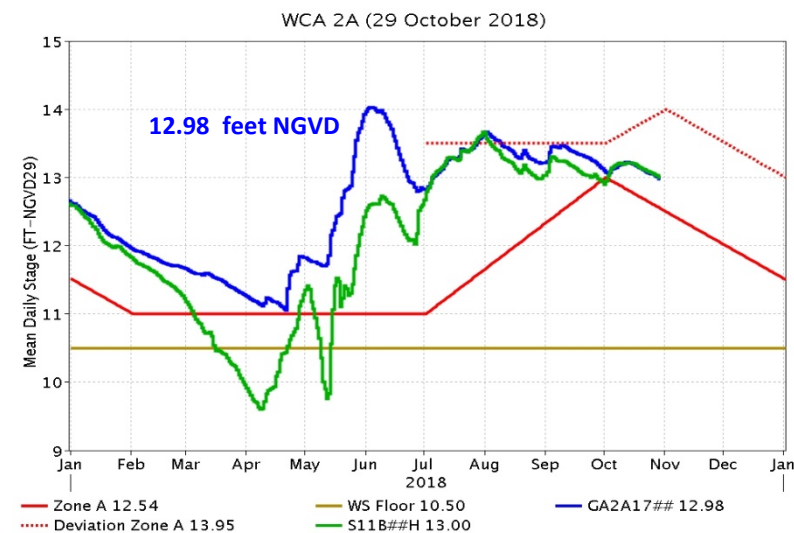
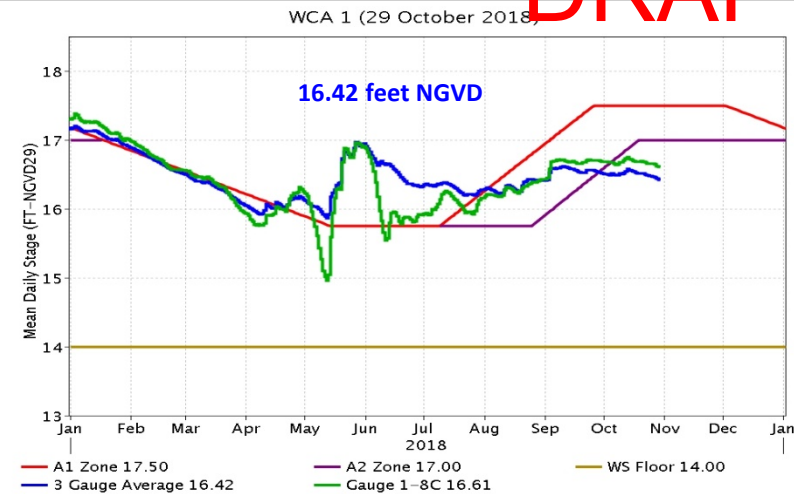
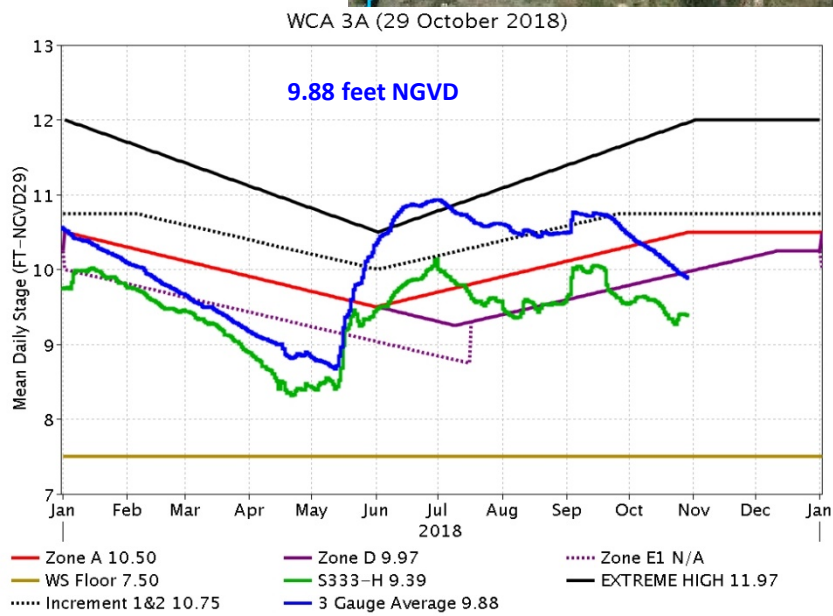


- Lake stage is **13.72** feet NGVD as of 10/29/2018 in the Base flow Sub-band of LORS 2008
- Lake level decreased by 0.84 feet during the preceding 30 days and by 0.26 feet in the last 7 days
- USACE started a 3-week transition plan to lower discharges to Base Flow releases at S-79. S-80 flows were terminated Oct. 5
- Current week LORS 2008 Part C is suggesting no releases south
- USACE will continue a pulse release of 1,000 cfs average flow measured at S-79

Lake Okeechobee Water Level Comparison



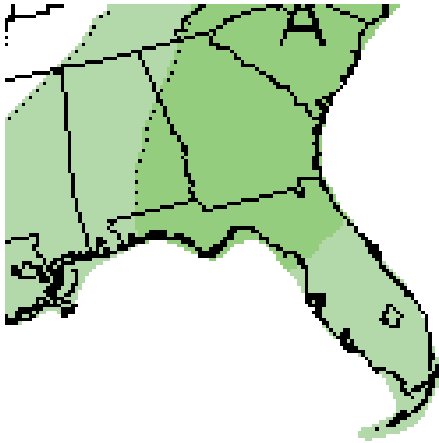
Lake Okeechobee stage is in the Base Flow Sub-Band. Releases to St. Lucie Estuary were terminated. Caloosahatchee Estuary releases were transitioned to Base Flow releases, but USACE continues 1,000 cfs at S-79. Maximum practicable releases to the south through the WCAs from Lake Okeechobee. Transitioning to no regulatory releases south this week.



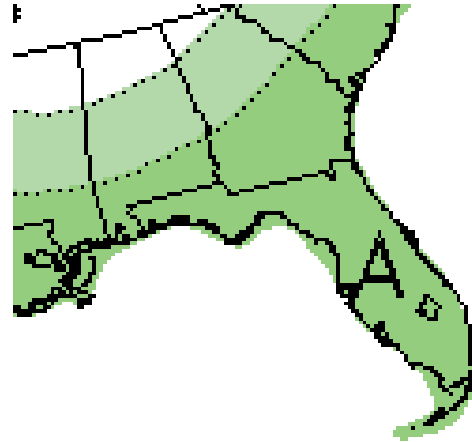
Rainfall Plan calls for releases from WCA-3A in the amount of 126 cfs (rainfall component). S-12s, S-343 A and B, and S-344 are all closed. S-333 reduced from ~ 1000 to 125 cfs. S-355B temp pumps were secured. L-29 canal stage constraint is at 8.5 feet NGVD. District continues to operate the detention cells to provide flood control and control seepage for the SDCS (L-31N and C-111). SFWMD sending water to Taylor Slough. S-356 is running 1 unit.

WCA-1 is below schedule; WCA-2A is above regulation schedule; WCA-3A is in Zone E of the regulation schedule. No flood control releases from WCA-3A. S-10s are closed. USACE closed the S-11s on 10/02/2018. S-12 A and B were closed Oct 1. S12C and D were closed on Oct 24.

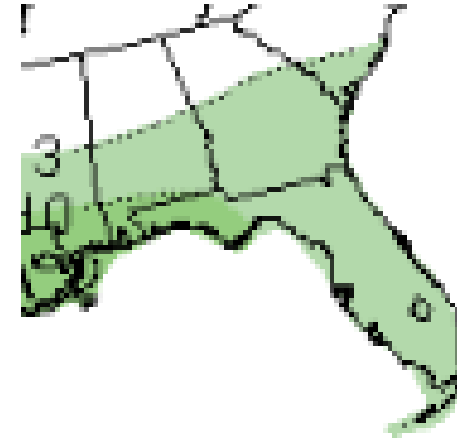
CPC Precipitation Outlook



Nov 2018



Feb-Apr 2019

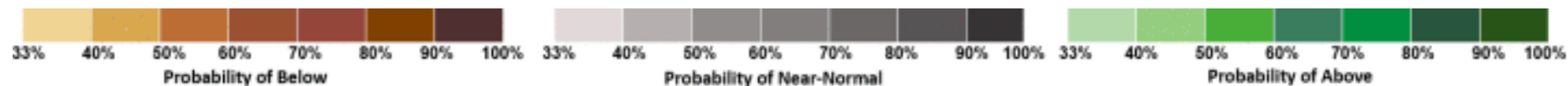


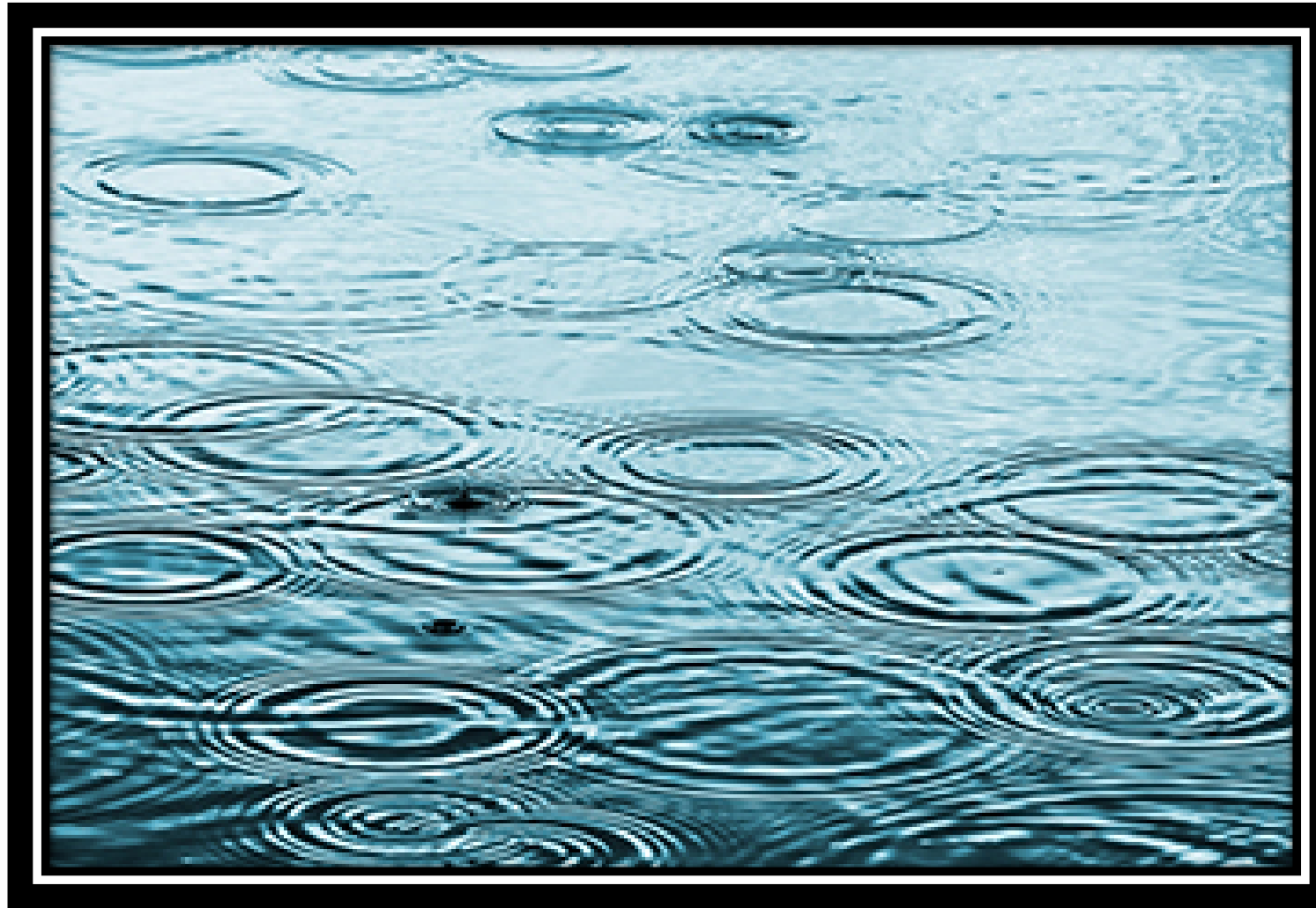
Apr-Jun 2019



May-Jul 2019

- The outlook for November 2018 is for slightly increased chances (37%) of above normal rainfall
- The outlooks for all 3-month windows from Nov-Jan (2018) to Mar-May (2019) are for increased chances (45%) of above normal rainfall
- The outlooks for the 3-month window from Apr-Jun (2019) is for slightly increased chances (37%) of above normal rainfall
- The outlook for the remainder of 2019 is for equal chances (EC) of above-normal, normal, and below-normal





Questions