

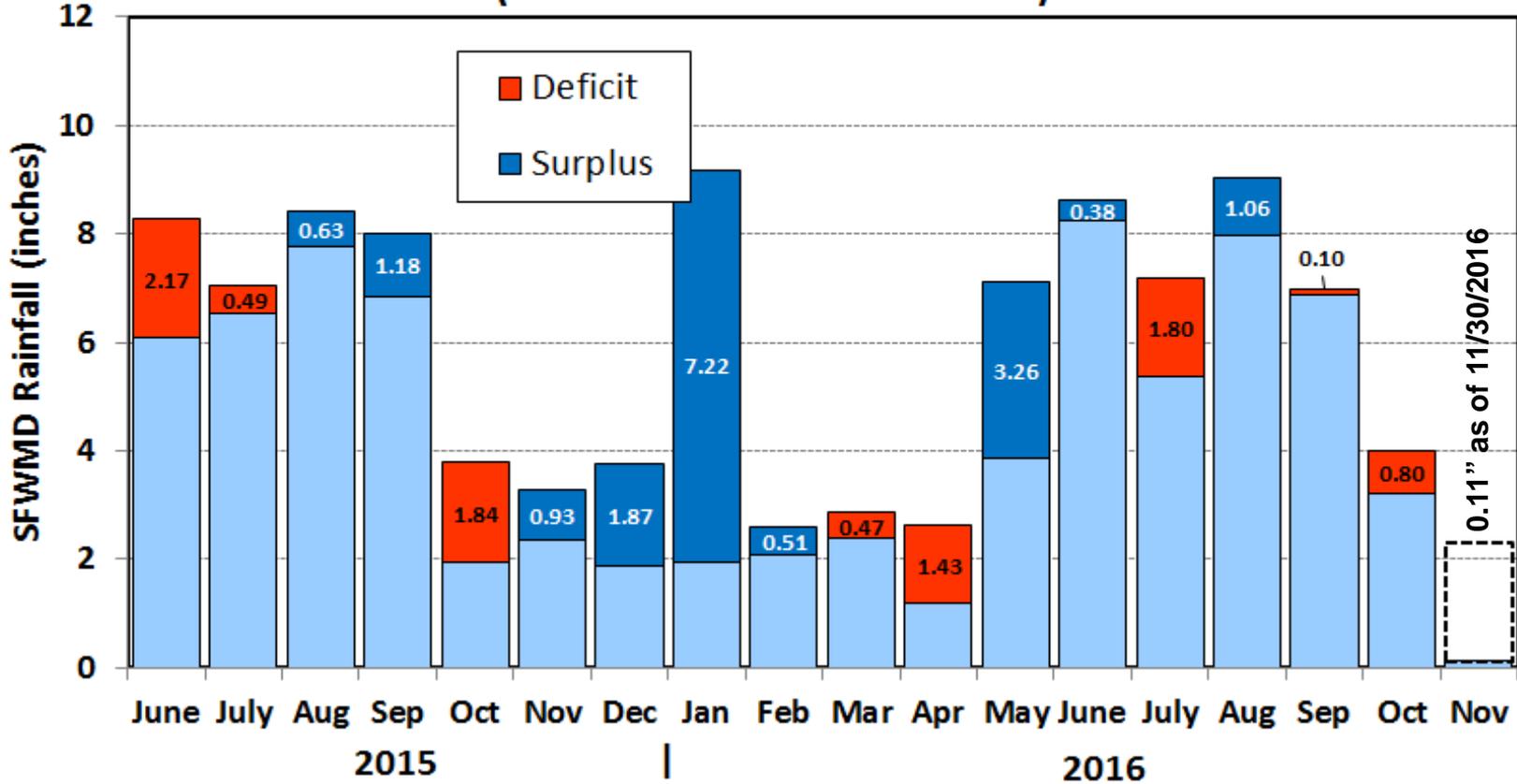
Water Conditions Summary

South Florida Water
Management District
WRAC Meeting
December 1, 2016

John P. Mitnik, PE
Chief District Engineer
South Florida Water Management District

SFWMD Rainfall Distribution Comparison

(June 2015 - November 2016)



2015 WET SEASON:

- Driest May-July since 2004
- Ended below average

2015-16 DRY AND 2016 WET SEASON:

- Nov 2015-Jan 2016 wettest since 1932
- Jan 2016 wettest since 1932
- Second wettest May since 1976
- Dry season 2015-16 168% above average
- 2016 Wet season 96% below average
- Nov and 2016 dry season are well below average

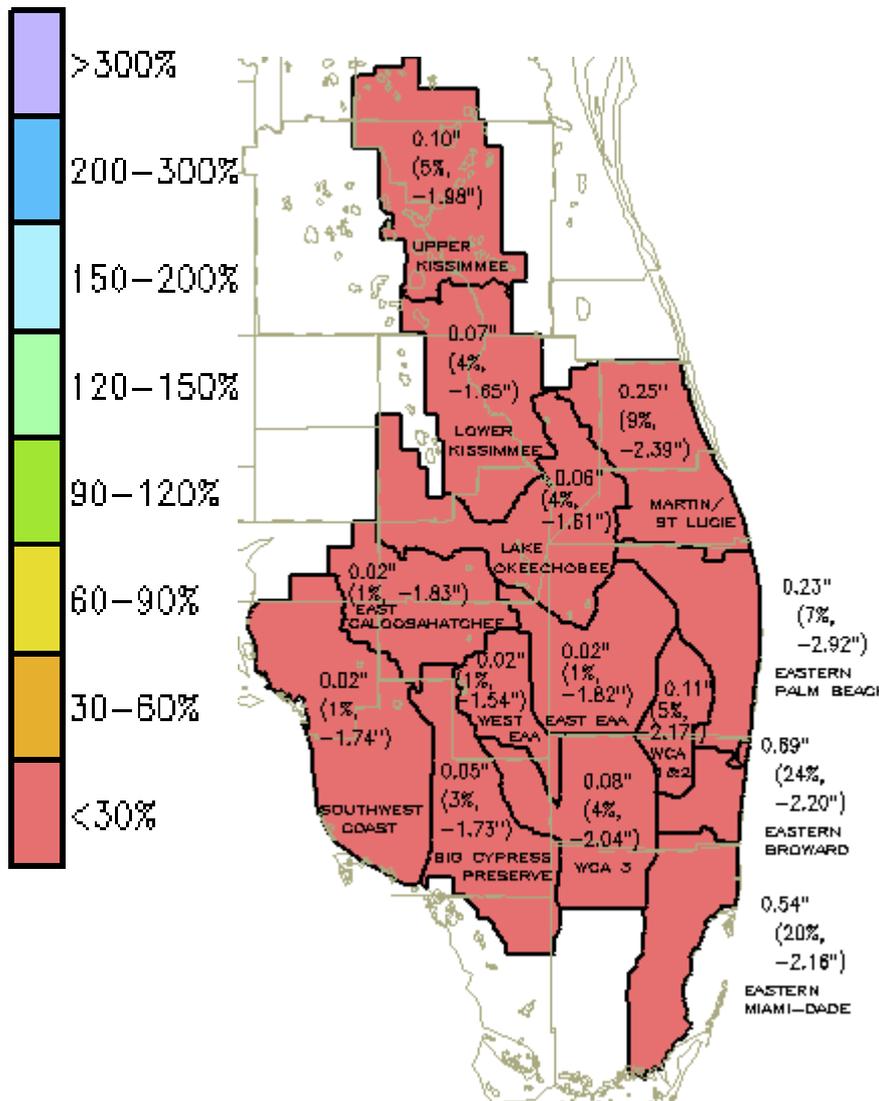
SFWMD

November 2016 Rainfall

(02-Nov to 29-Nov-2016)

**DISTRICT-WIDE: 0.11"
5% of Avg, or -1.95")**

- November 2016 was extremely dry
- All District areas show rainfall less than 30% of average
- Driest November in record since 1932

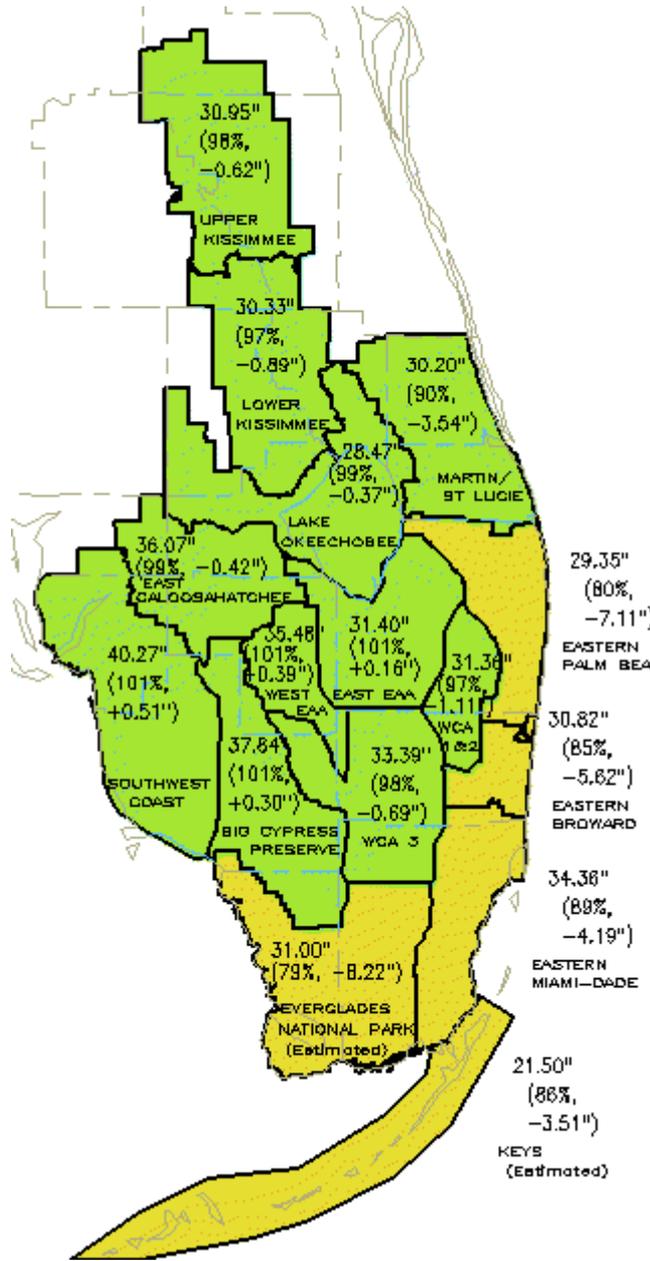
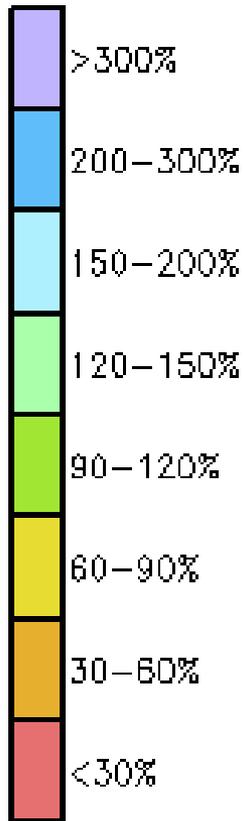


Measured
(% of Avg,
Diff From Avg)

SFWMD

2016 Wet Season Rainfall

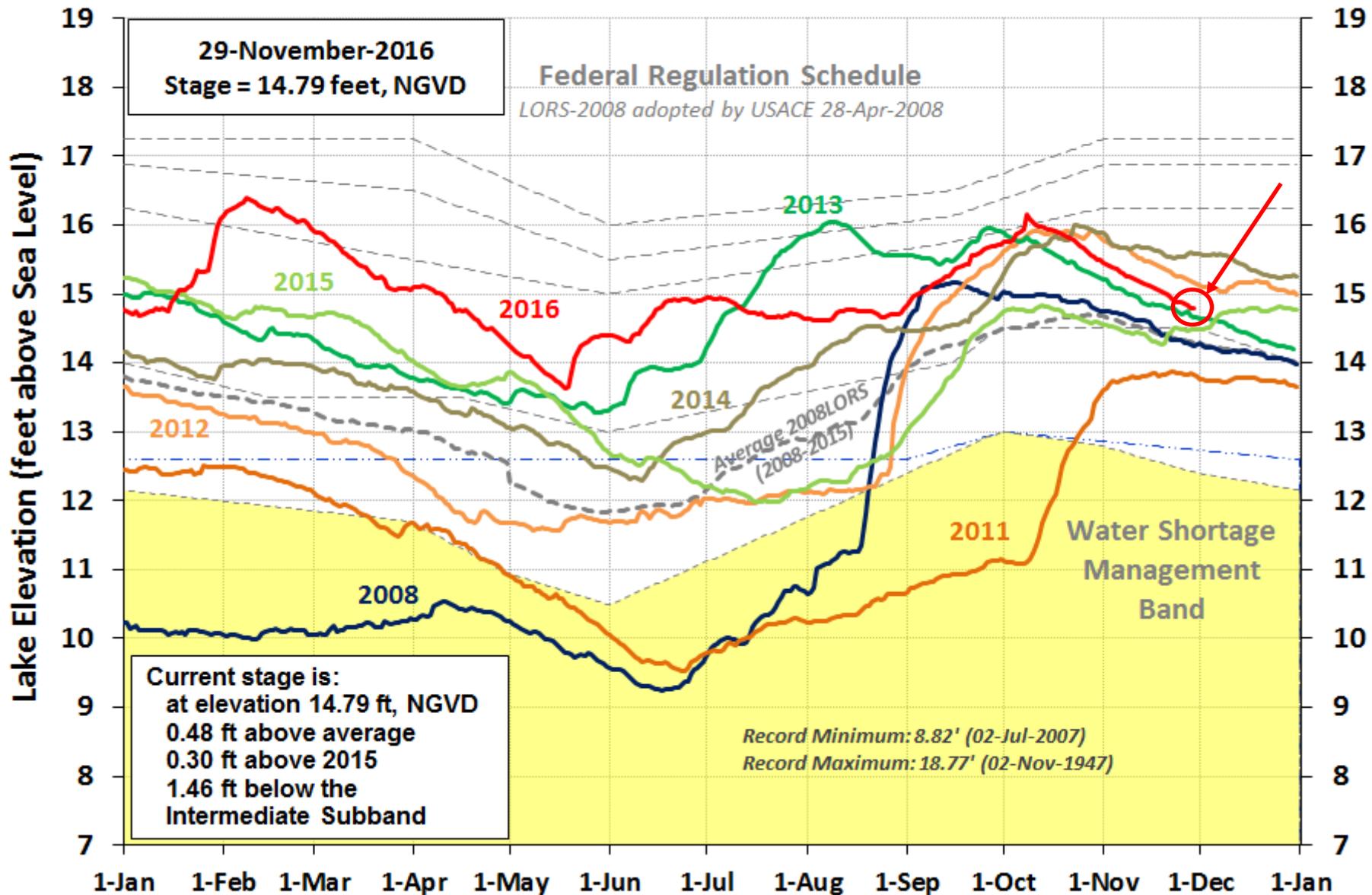
(02-Jun-2016 to 01-Nov-2016
DISTRICT-WIDE: 33.13"
96% of Avg, or -1.26")



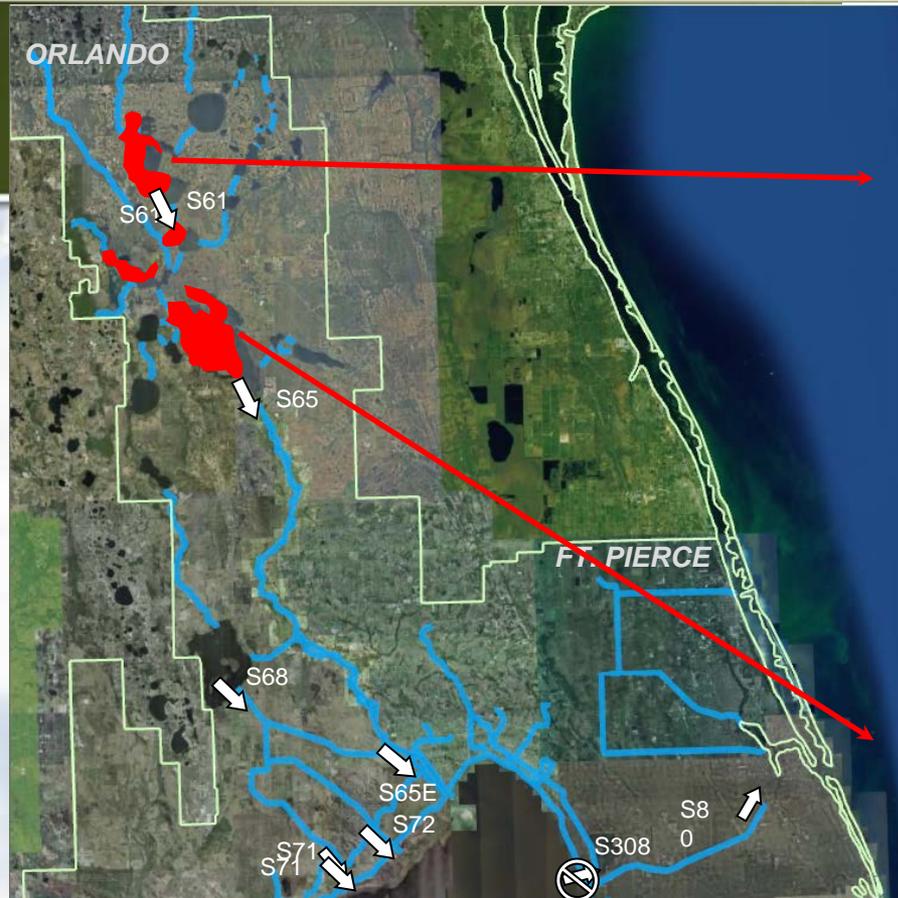
- 2016 wet season District rainfall is slightly below average
- Areas in the LEC, ENP, and the Florida Keys are below normal
- All other rainfall areas are close to average.

Measured
(% of Avg.
Diff From Avg)

Lake Okeechobee Water Level Comparison

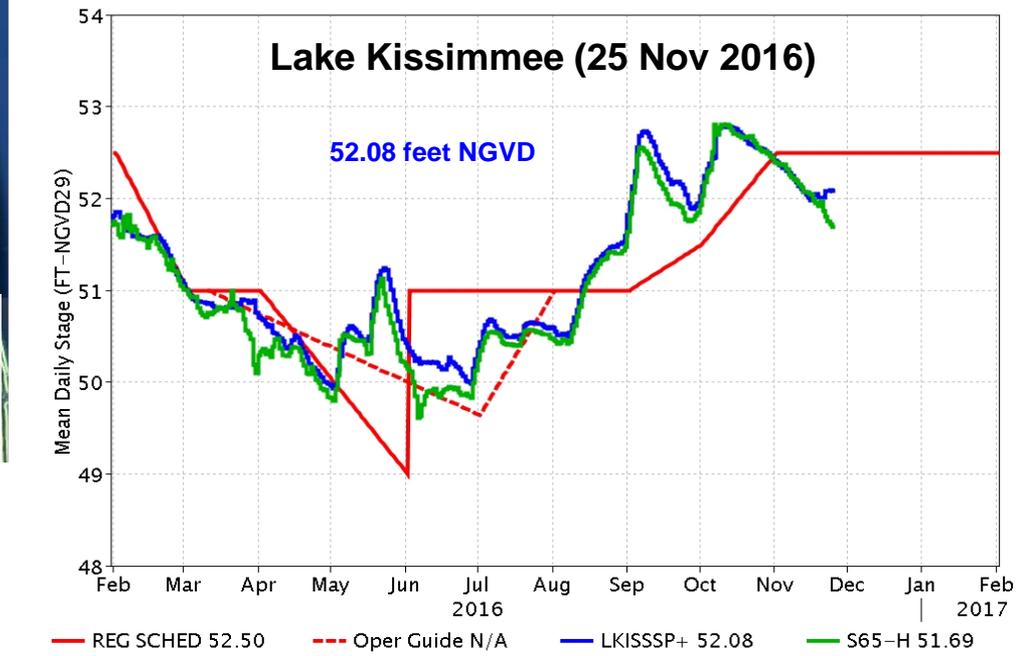
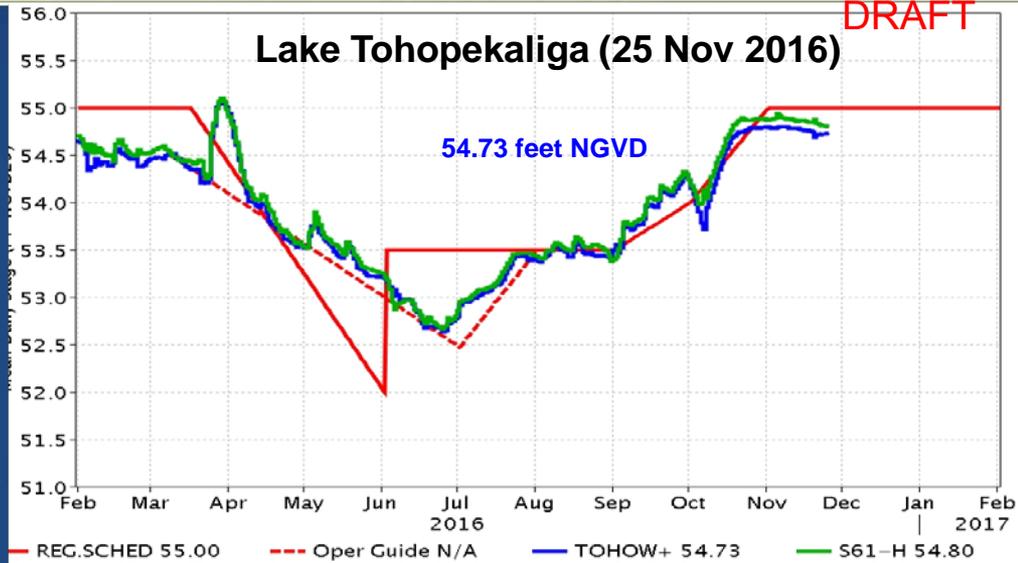


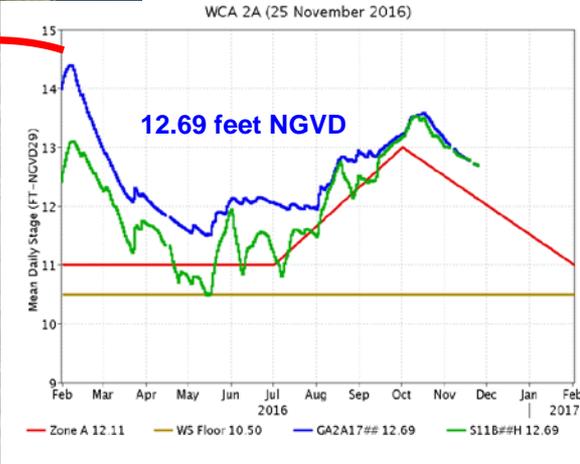
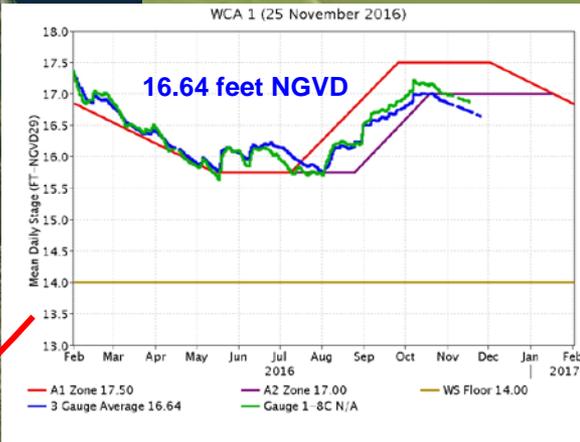
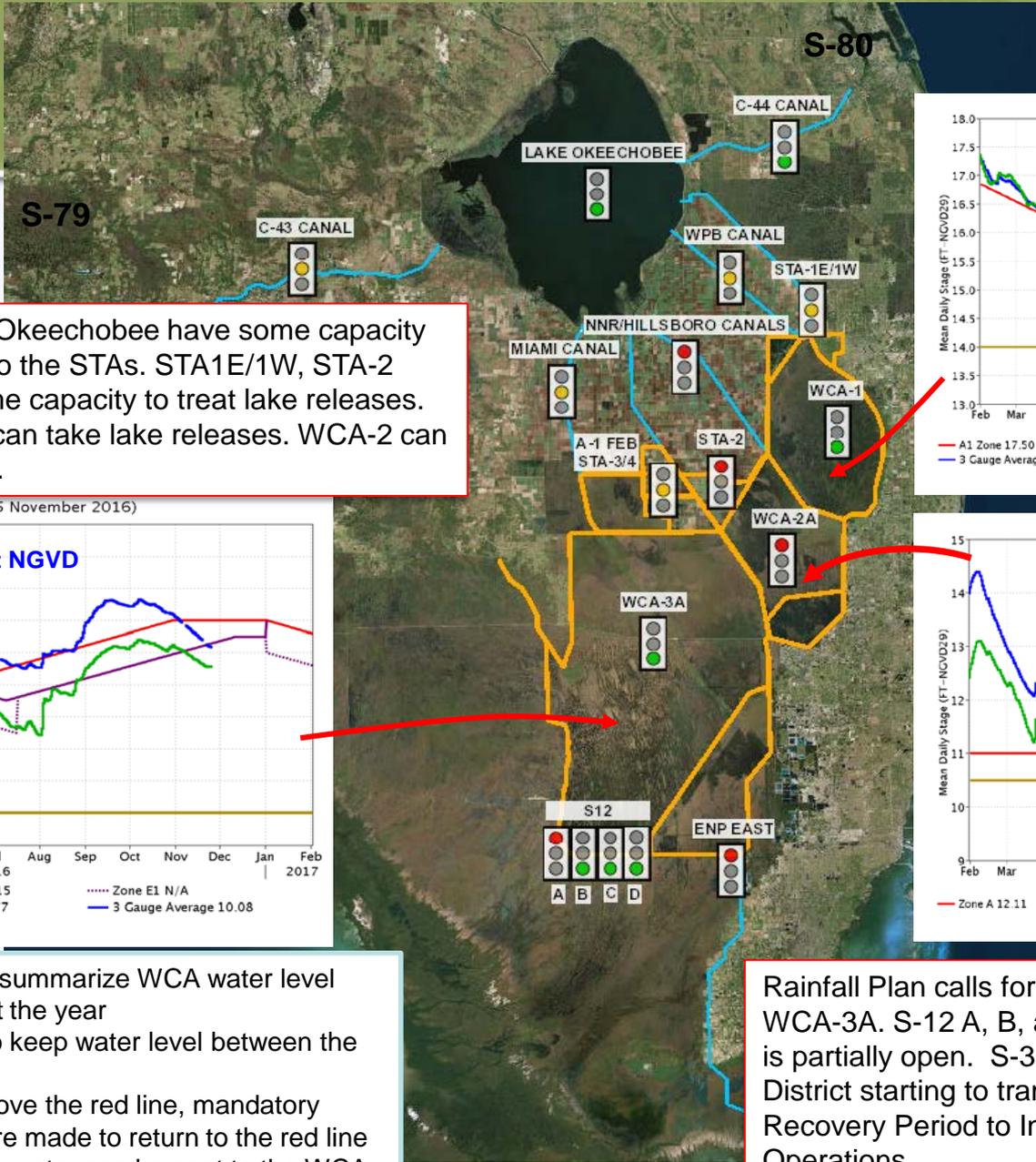
DRAFT



Kissimmee Basin

- Stages at Kissimmee-Cypress-Hatchineha are ~0.5 ft below winter pool elevation
- Stages at East Toho and Toho are ~ 0.2 ft below winter pool regulation
- Lake Alligator, stage is ~ 0.6 ft below schedule.
- For all other lakes stages are close to winter pool regulation
- Discharge at S65 is about 750 cfs





Canals south of Lake Okeechobee have some capacity to take lake releases to the STAs. STA1E/1W, STA-2 and STA 3/4 have some capacity to treat lake releases. WCA-1 and WCA-3A can take lake releases. WCA-2 can not take lake releases.



- Regulation Schedule summarize WCA water level thresholds throughout the year
- Current objective is to keep water level between the red and purple lines
- If water levels rise above the red line, mandatory regulatory releases are made to return to the red line and no additional lake water can be sent to the WCA

Rainfall Plan calls for ~200 cfs to be released from WCA-3A. S-12 A, B, and C are closed and S-12D is partially open. S-333 is closed. USACE and District starting to transition from Extended Recovery Period to Increment 1 for South Dade Operations

2016 Atlantic Tropical Season is over

2016 Atlantic Tropical Cyclone Names

~~Alex~~

~~Bonnie~~

~~Colin~~

~~Danielle~~

~~Earl~~

~~Fiona~~

~~Gaston~~

~~Hermine~~

~~Ian~~

~~Julia~~

~~Karl~~

~~Lisa~~

~~Matthew~~

~~Nicole~~

~~Otto~~

Paula

Richard

Shary

Tobias

Virginie

Walter



Be prepared: Visit hurricanes.gov

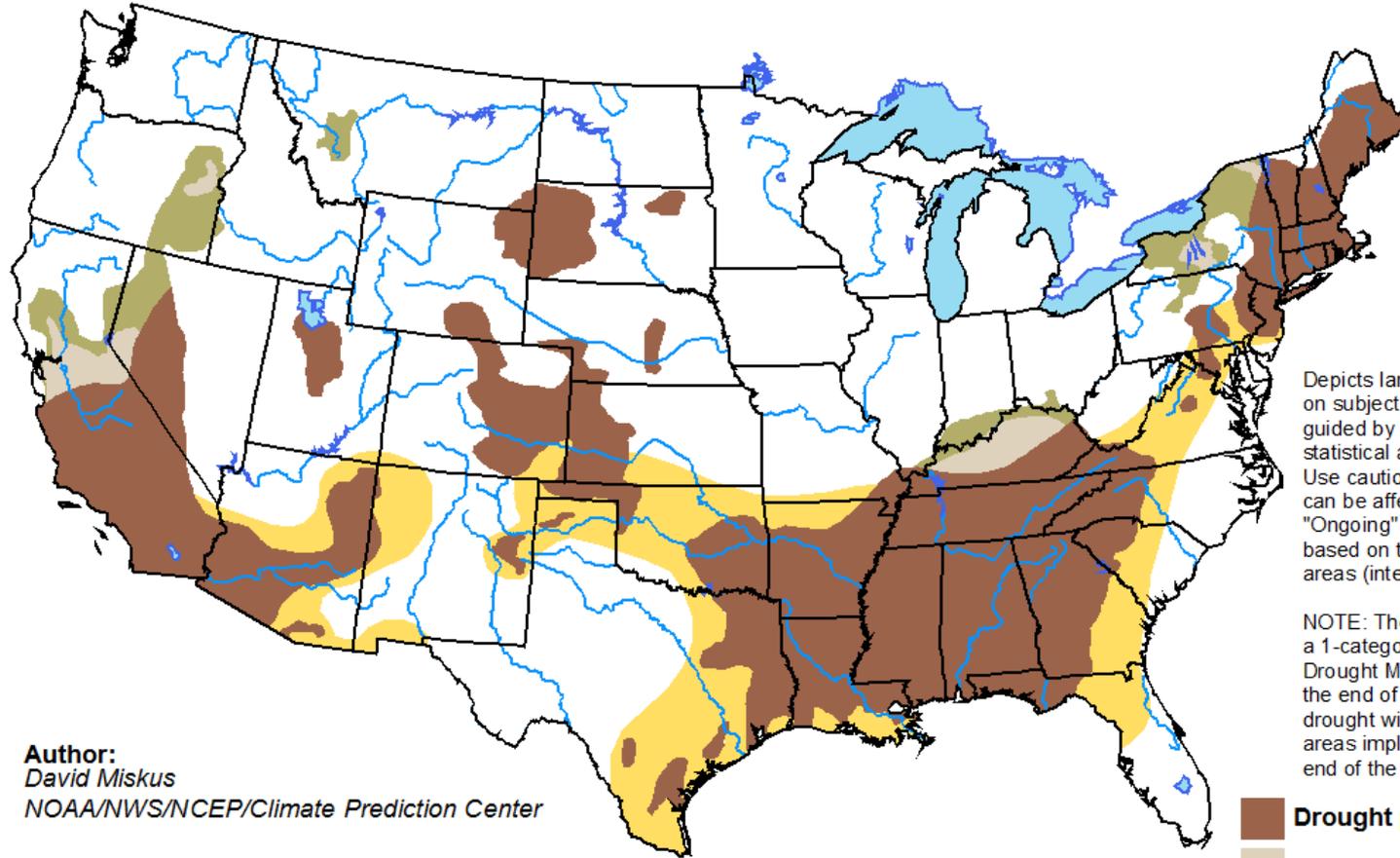
and follow @NWS and @NHC_Atlantic on Twitter



Questions?

U.S. Seasonal Drought Outlook Valid for November 17 - February 28, 2017

Drought Tendency During the Valid Period Released November 17, 2016

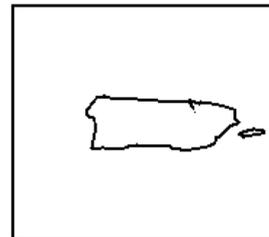
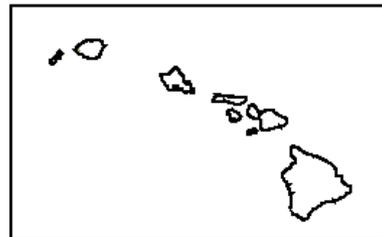
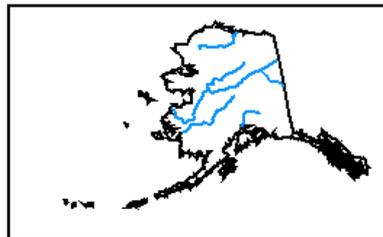


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
David Miskus
NOAA/NWS/NCEP/Climate Prediction Center

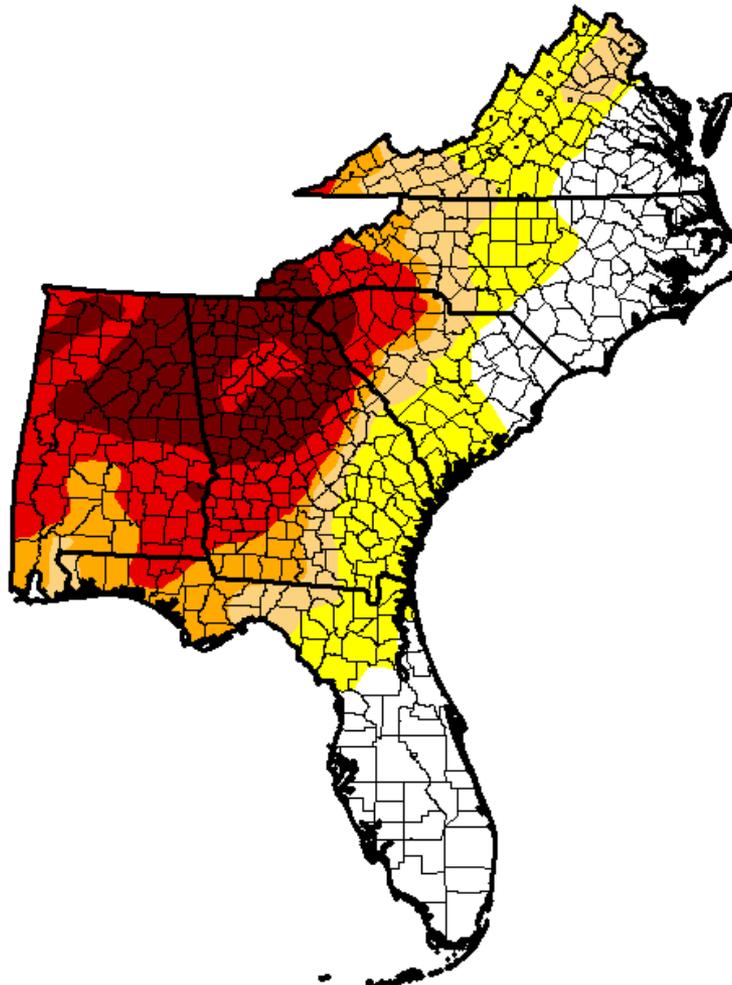
- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/3eZ73>

U.S. Drought Monitor Southeast

November 22, 2016
(Released Wednesday, Nov. 23, 2016)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	26.89	73.11	52.33	41.31	31.51	14.53
Last Week <i>11/15/2016</i>	37.50	62.50	47.42	35.08	26.44	11.39
3 Months Ago <i>8/23/2016</i>	66.14	33.86	17.15	8.29	1.55	0.00
Start of Calendar Year <i>1/22/2015</i>	95.00	5.00	0.00	0.00	0.00	0.00
Start of Water Year <i>9/27/2016</i>	50.04	49.96	22.51	10.61	4.15	0.32
One Year Ago <i>11/24/2015</i>	93.10	6.90	0.06	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Heim
NCEI/NOAA



<http://droughtmonitor.unl.edu/>