

2016 Dry Season Conditions Update

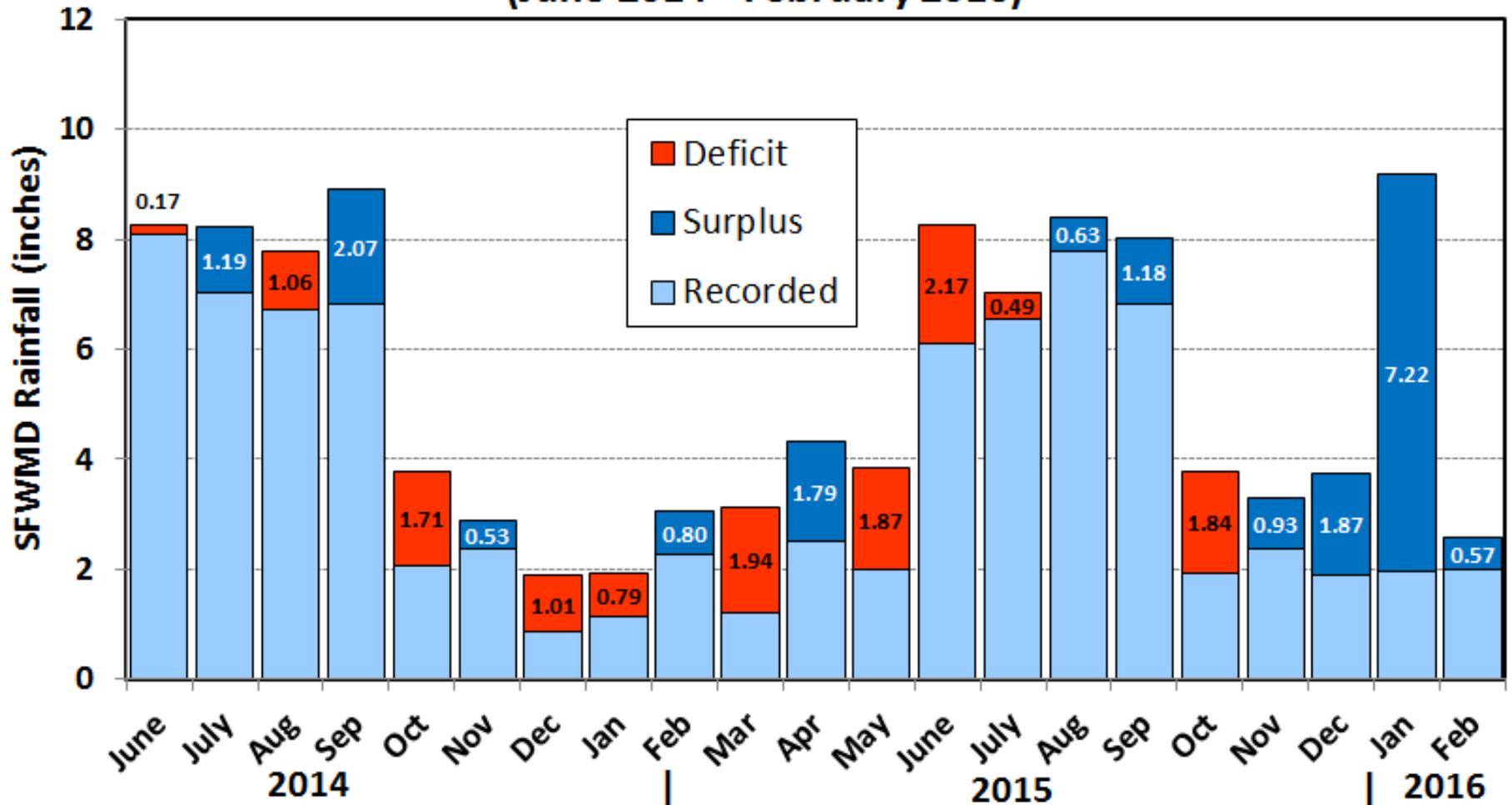
Water Resources Advisory
Commission Meeting
March 3, 2016

John Mitnik

Director, Operations Engineering and Construction Division

SFWMD Rainfall Distribution Comparison

(June 2014 - February 2016)



2014 WET SEASON:

- May 26th – Oct 4th
- Near average (108%)

2014-15 DRY SEASON:

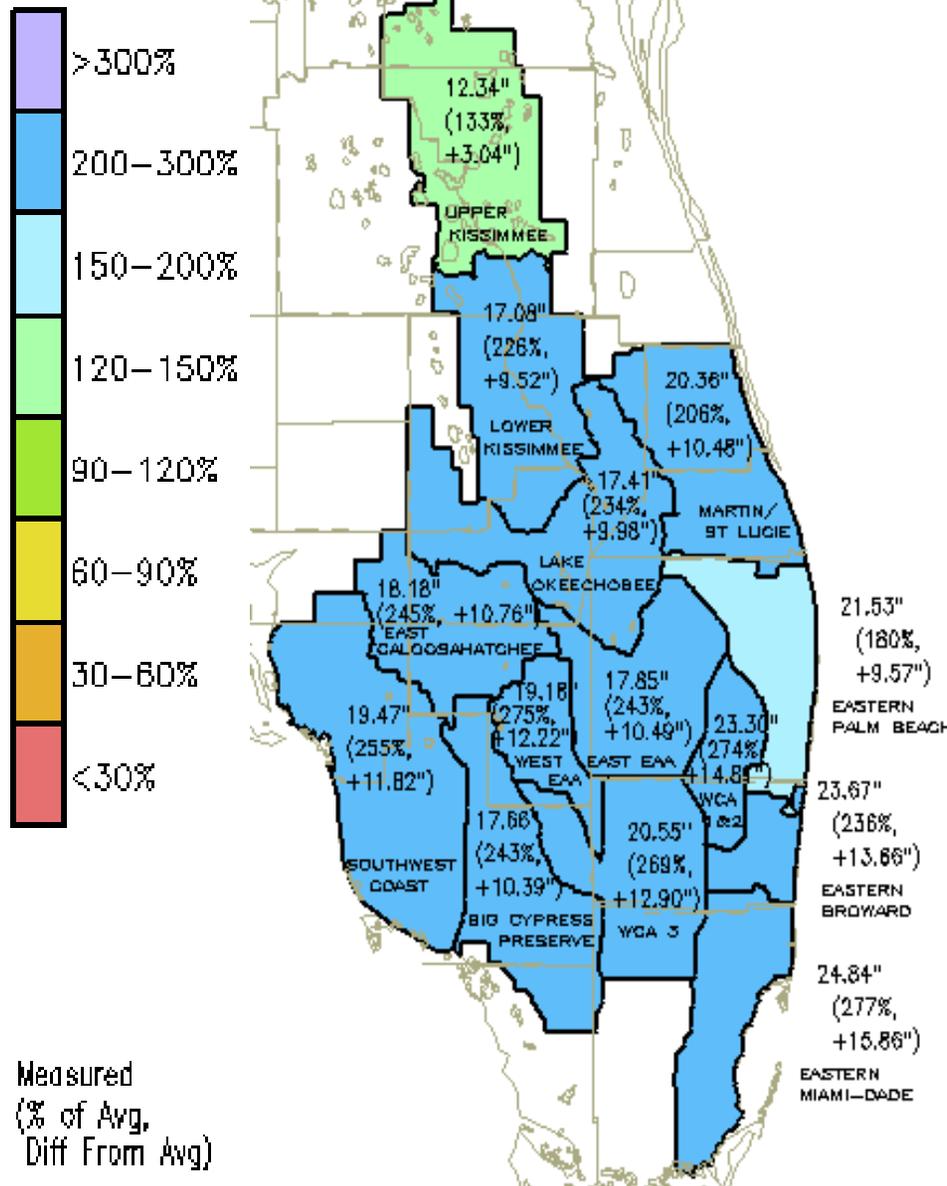
- May was 51% below average
- Dry Season 86% of average

2015 WET SEASON:

- Driest May-July since 2004
- Ended below average

2015-16 DRY SEASON:

- Nov 2015-Jan 2016 wettest since 1932
- Jan 2016 wettest since 1932
- Dry Season is projected to be well above average



SFWMD 2015-2016 Dry Season Rainfall

(02-Nov 2015 to 01-Mar 2016)

**DISTRICT-WIDE: 18.80"
231% of Avg, or +10.65"**

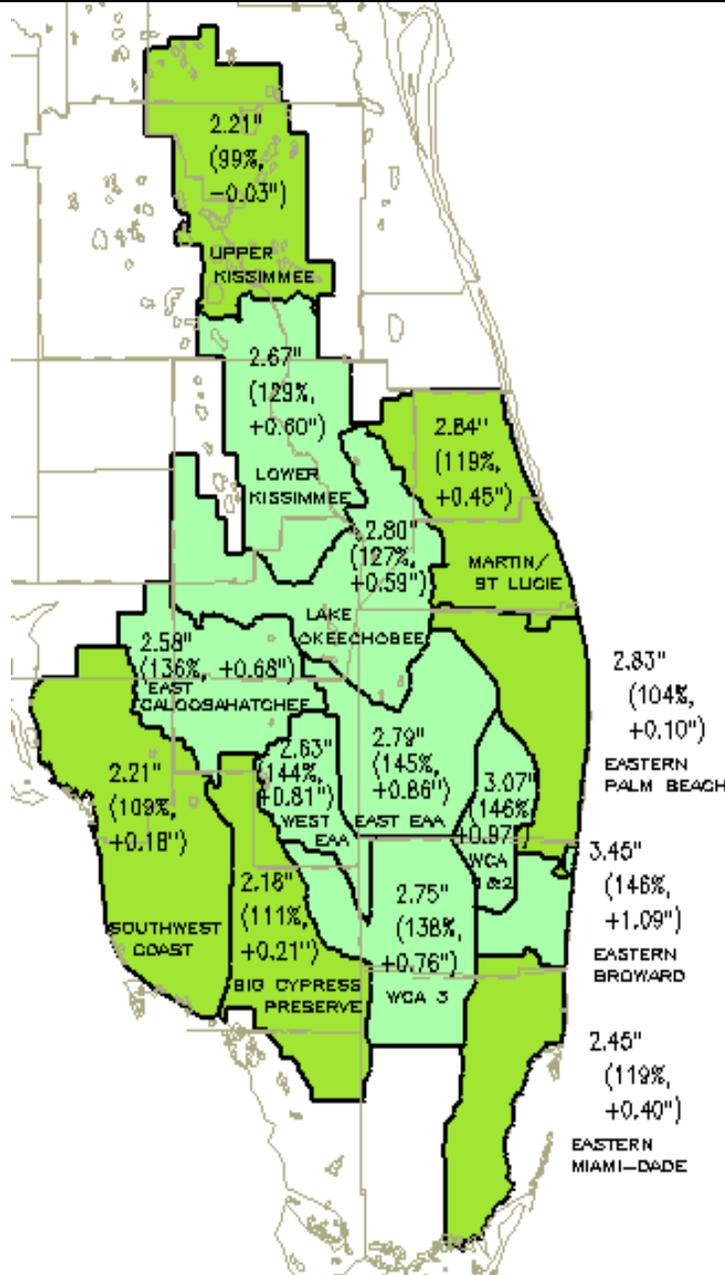
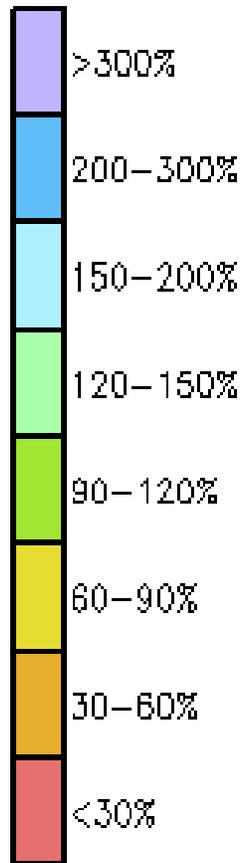
- District rainfall for current dry season is above average after a very dry October 2015.
- Nearly all basins are 200% or more above average
- Upper Kissimmee is the lowest with 133% of average
- November, December and January, the start of the dry season, was the wettest for this period since record keeping began in 1932.

SFWMD

Feb 2016 Rainfall

(02-Feb to 01-Mar 2016)

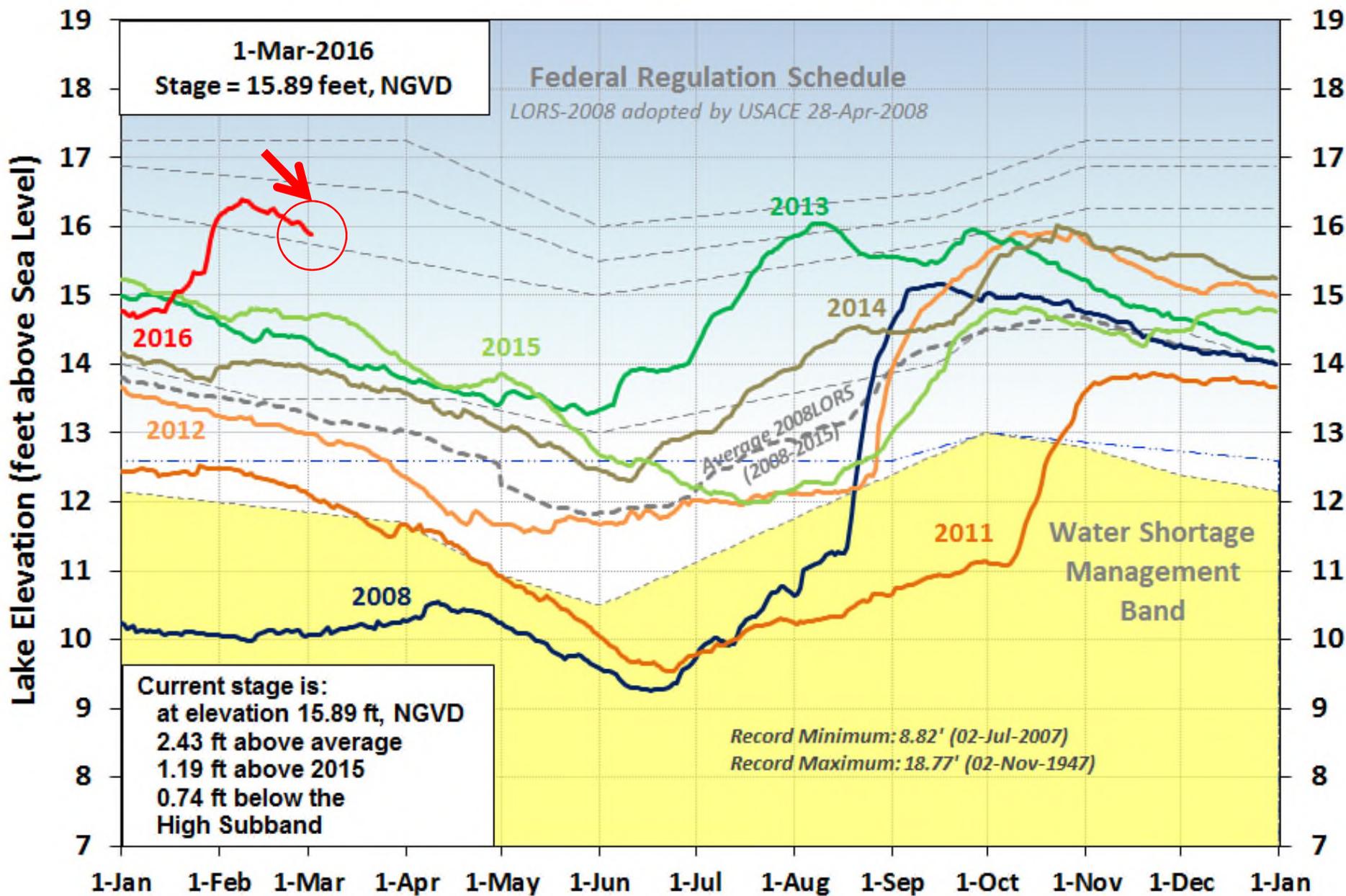
DISTRICT-WIDE: 2.58"
125% of Avg, or +0.51")



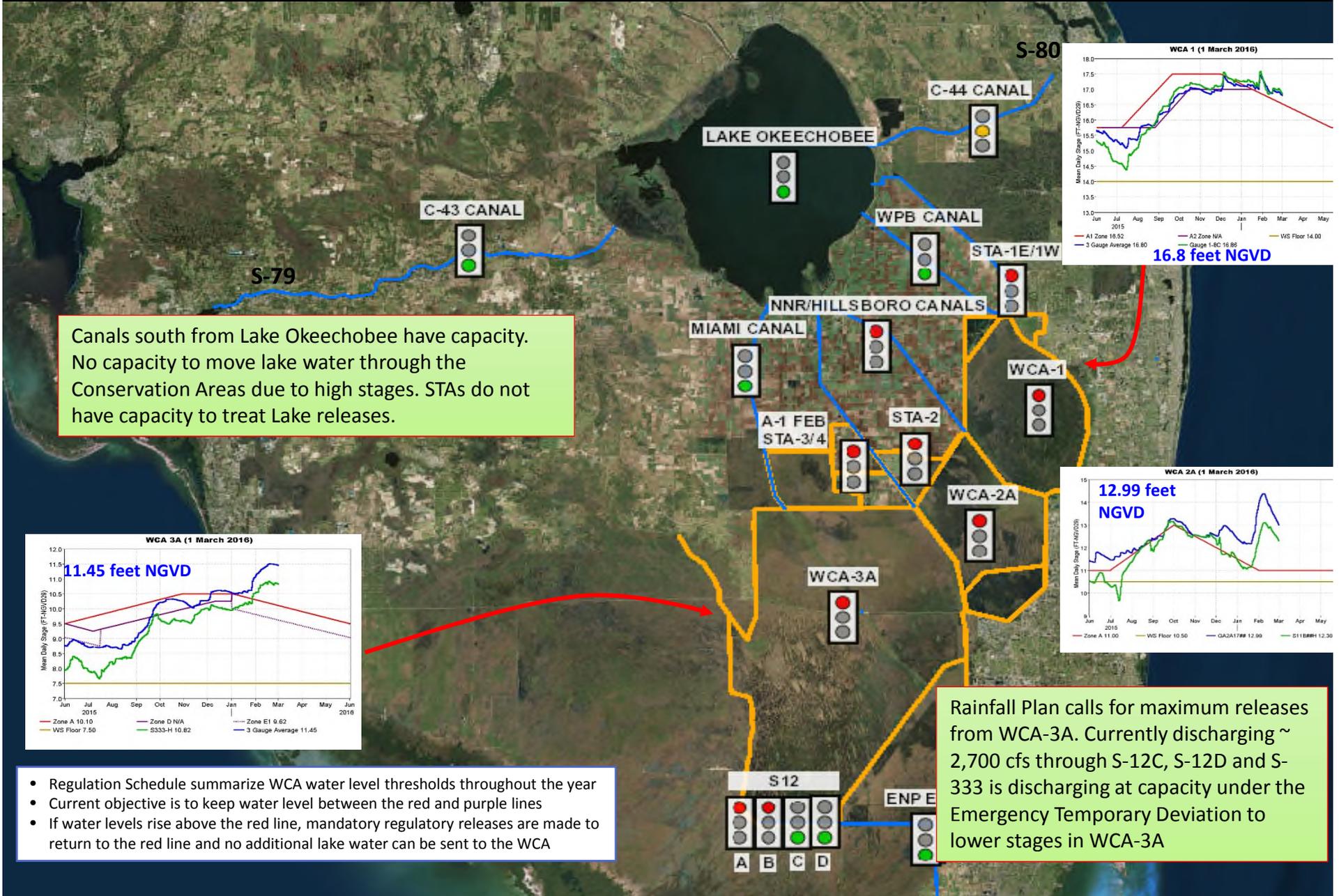
Measured
(% of Avg,
Diff From Avg)

- Still above average, but very different from January 2016
- All basins are above average
- Largest surplus is for WCA-1, WCA-2 and Eastern Broward County
- Upper Kissimmee Lakes basin shows a small deficit

Lake Okeechobee Water Level Comparison



SOUTH FLORIDA WATER MANAGEMENT DISTRICT



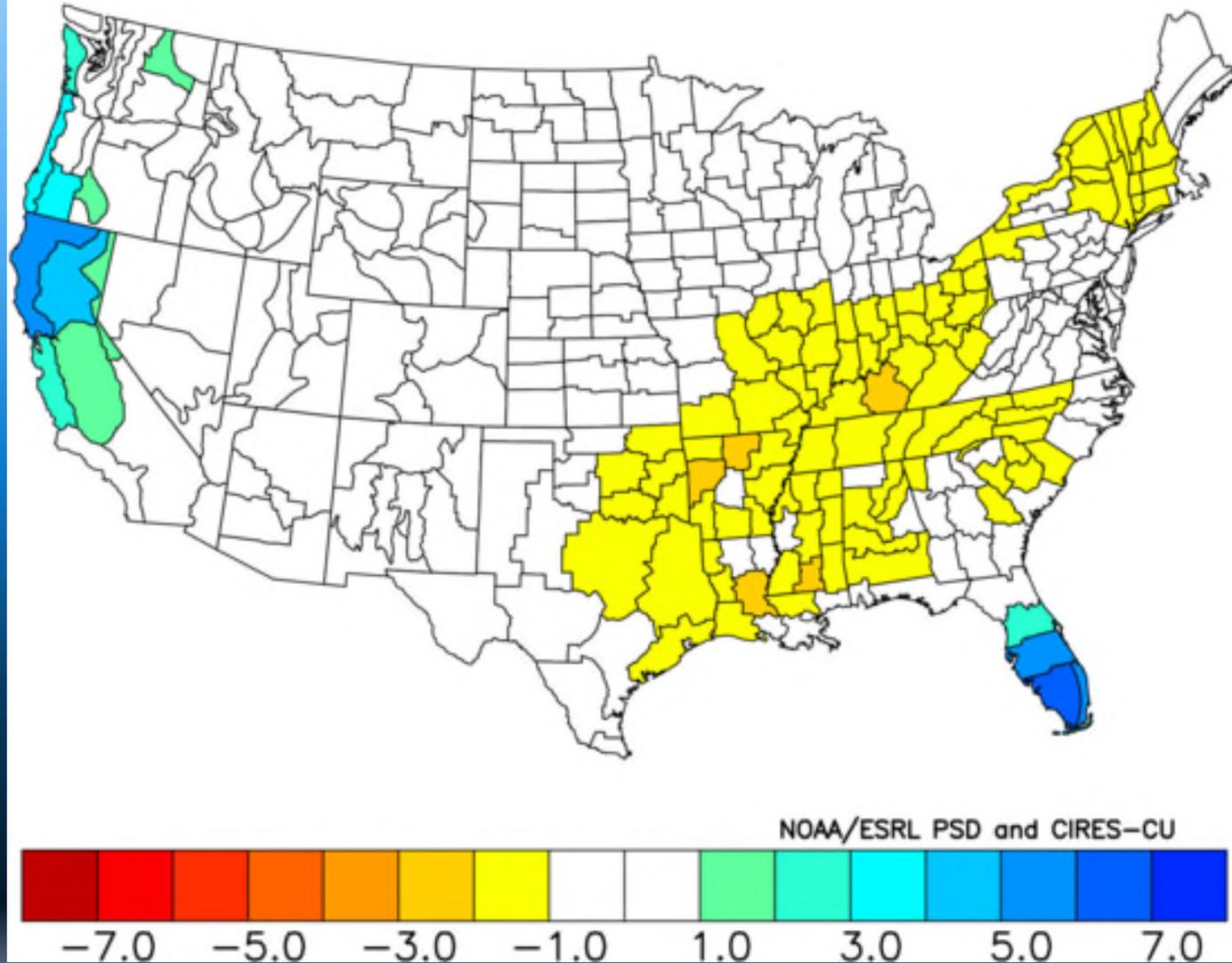
Canals south from Lake Okeechobee have capacity. No capacity to move lake water through the Conservation Areas due to high stages. STAs do not have capacity to treat Lake releases.

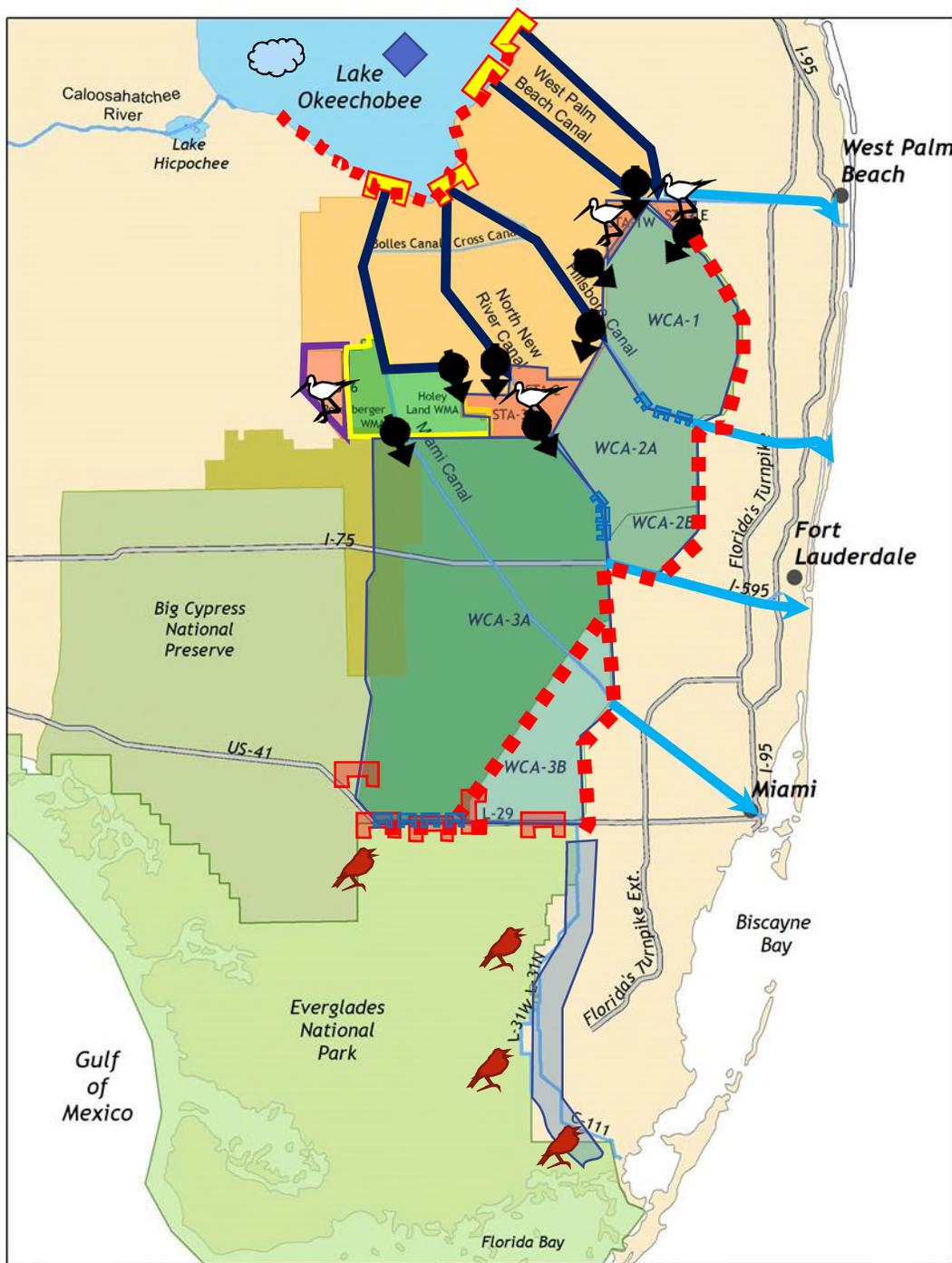
Rainfall Plan calls for maximum releases from WCA-3A. Currently discharging ~ 2,700 cfs through S-12C, S-12D and S-333 is discharging at capacity under the Emergency Temporary Deviation to lower stages in WCA-3A

- 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

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

NOAA/NCDC Climate Division Precipitation Anomalies (in)
Jan 2016
Versus 1981–2010 Longterm Average

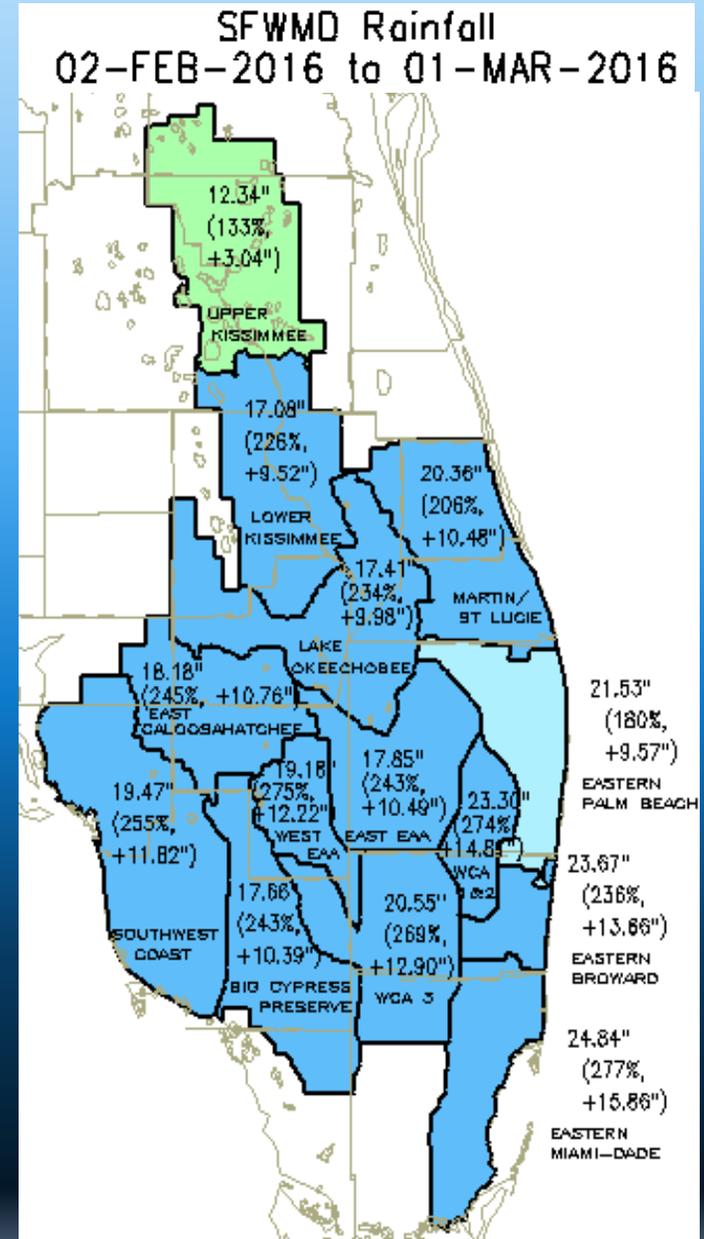
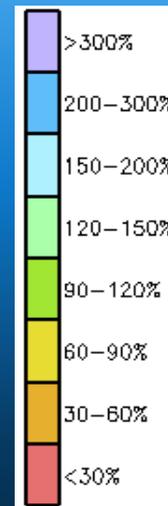


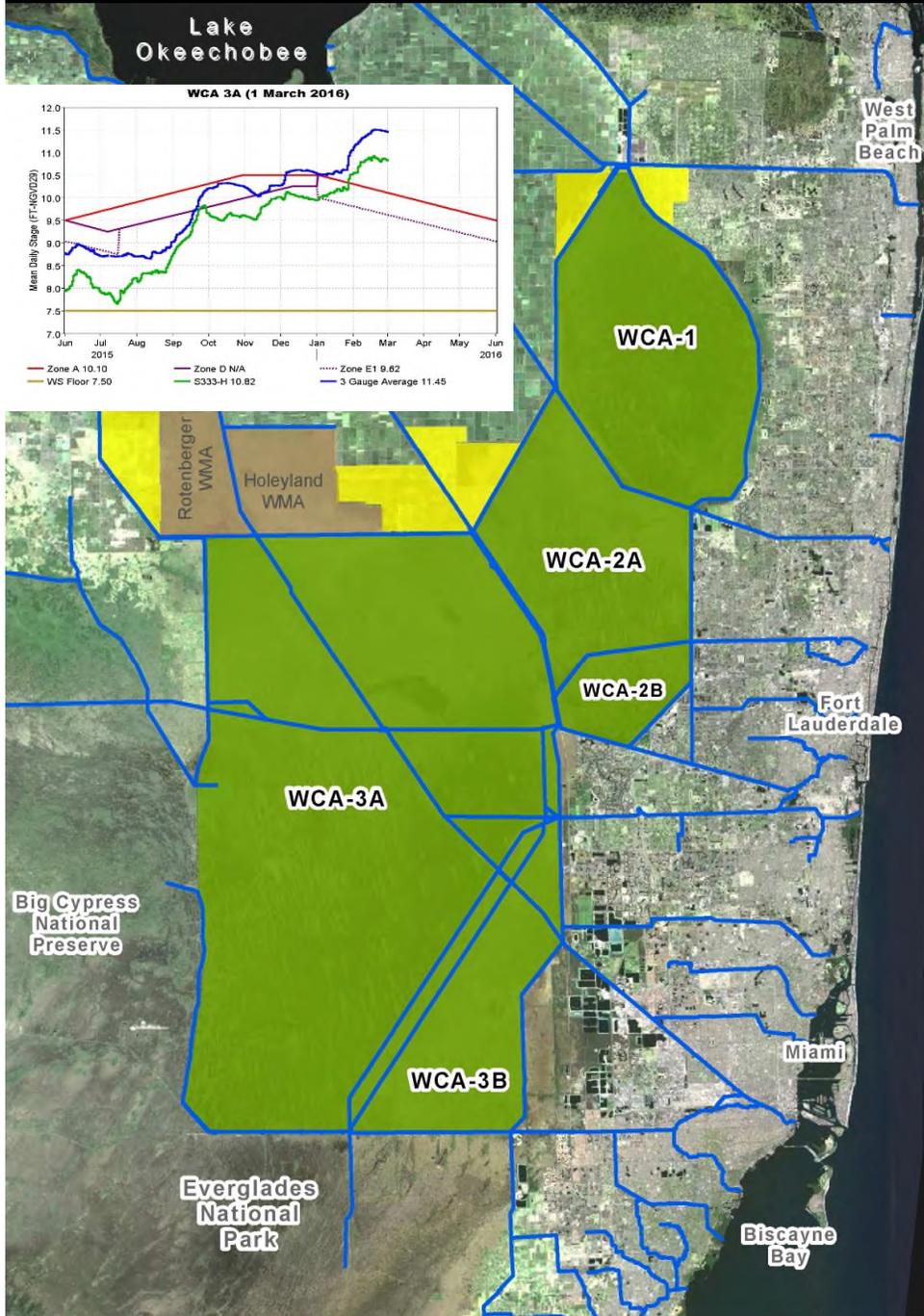


Symbol	Factors to Consider in Operations
	Weather Patterns
	Herbert Hoover Dike
	2008 LORS
	Structure Capacity
	Canal Conveyance
	Species protection
	STA Treatment Capability
	Pump Capacity
	STA 5 / 6 Connectivity
	Wildlife Management Area
	Water Level Limitation (Tree Islands & Wildlife)
	LEC Canal Conveyance
	Levee Safety
	Flow Limitation
	Flood Risk (G3273, SDCS)

Weather Patterns

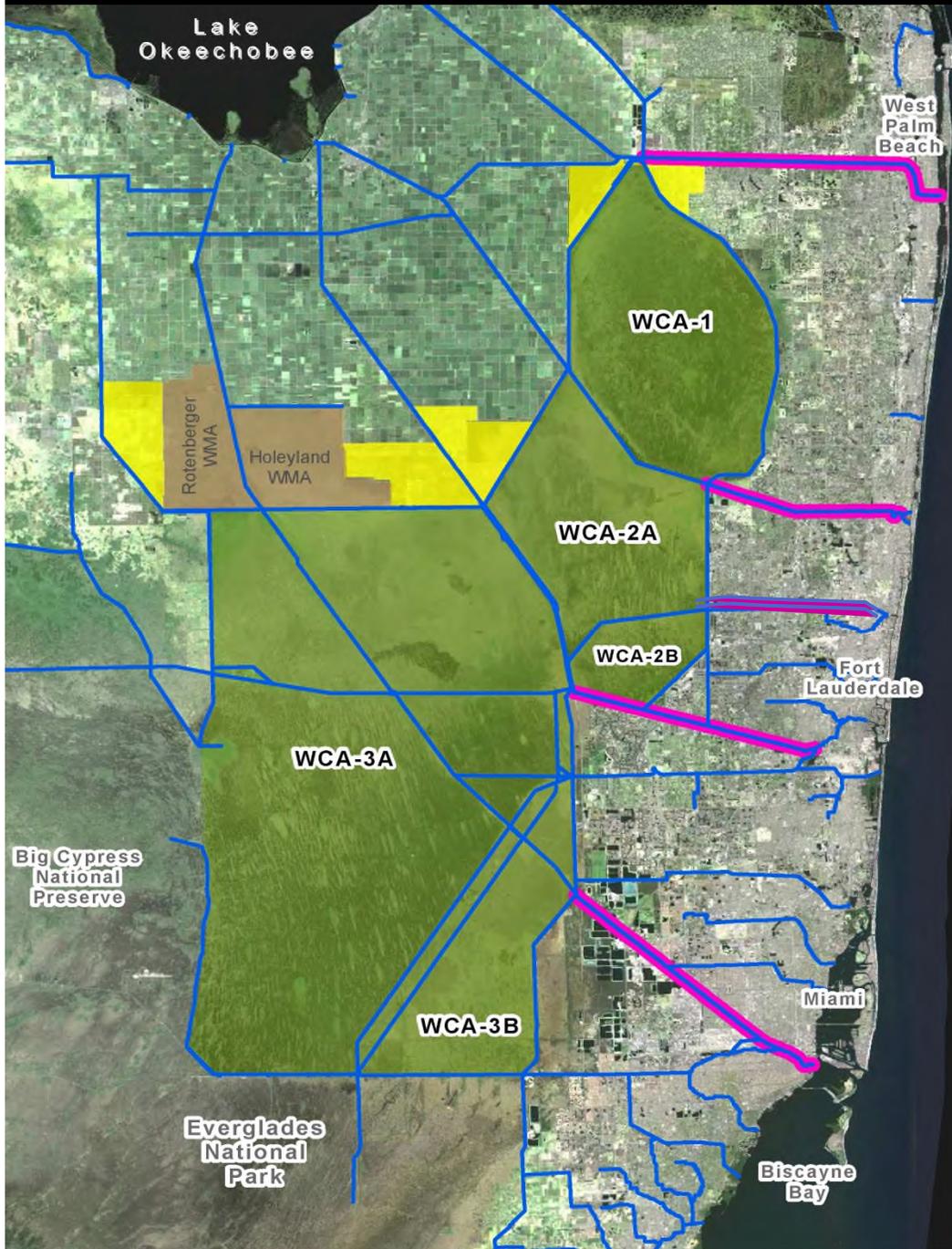
- Very wet dry season
- District-wide rainfall is 241 percent of normal
- March tends to be a transition month during these wetter than average dry season cycles





Water Level Limitations: Water Conservations Areas:

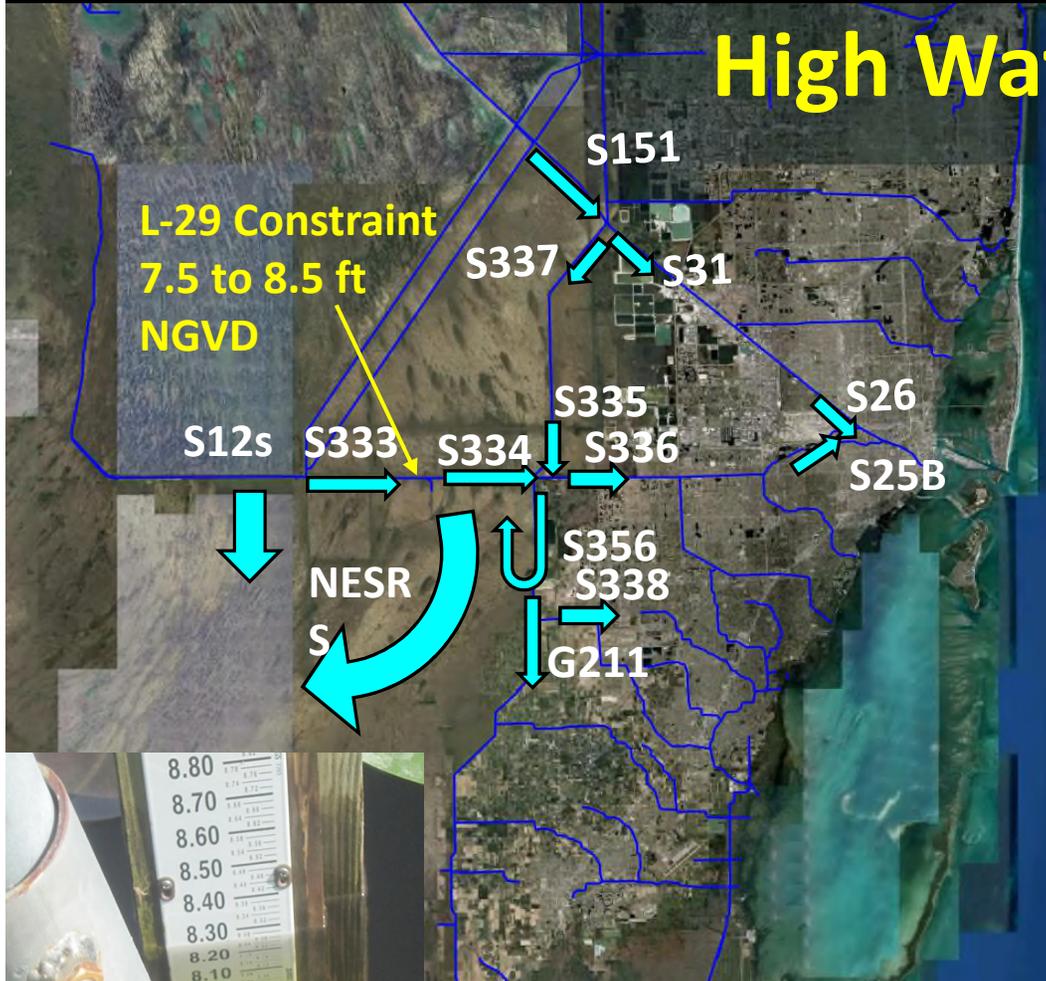
- All WCA stages are above their regulation schedules with no opportunity to take Lake water.
- High water conditions in WCA 3A detrimental to environment and wildlife.
- Lowering stages, starting with WCA-3A, will generate a chain reaction: Lower stages in WCA-2A, lower stages in WCA-1 and increase the ability to send regulatory releases south from the Lake.
- The Governor requested and USACE approved a Temporary Emergency Deviation to Alleviate High Water Levels in WCA-3A.



Lower East Coast(LEC) Canal Conveyance

- Utilizing the LEC infrastructure to move water to tide
- Sending WCA water to tide via: S-39, S-38, S-34, S-143, S-31
- Releases from WCA-3A via S-151, S-337 and S-335 into the SDCS
- Steps to increase capacity for releases to tide:
 - Increasing the use of forward pumps in the urban canals (S-13, S-25B and S-26)

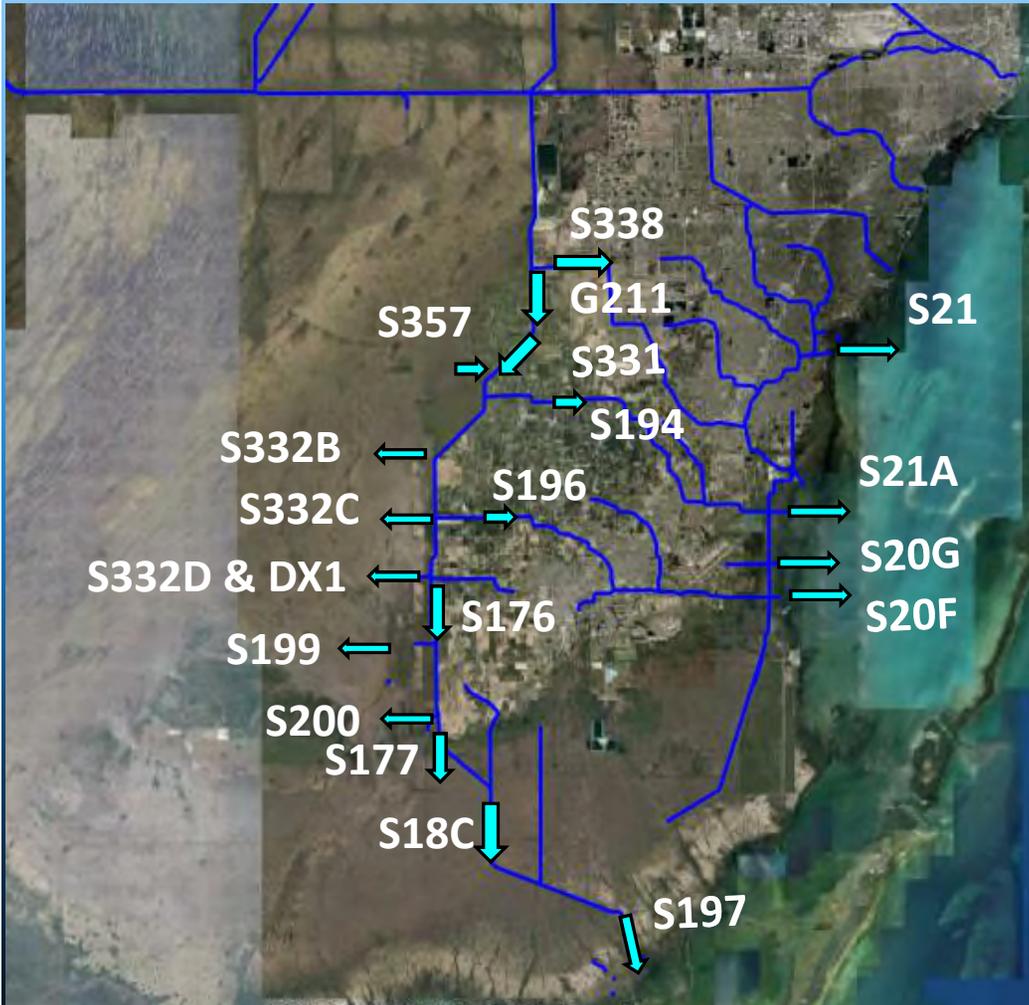
High Water Stages in WCA-3A



Emergency Deviation

- Raises the L-29 stage limit from 7.5 to 8.5 feet
- Allows higher flows from S-333 to the L-29 canal.
- Uses S-334 to moderate L-29 levels if necessary
- Allows additional flows to NESRS
- Sends flows through South Dade Conveyance System
- Modifies the operation of the SDCS to mitigate for additional flows through S-334 and increased seepage from the ENP

Water Control Structures to Maintain Flood Protection in SDCS



- Canals in the South Dade Conveyance System are maintained at lower stages than normal
- S-197 will be operated as necessary to provide additional flow getaway capacity
- Flow diverted through canals such as C-4, C-1, C-102 and C-103 towards coast.
- Pumping towards Everglades National Park and the headwaters of Tailor Slough using the S-332s, S-199 and S-200

Questions