

Water Conditions Summary

South Florida Water Management District
Governing Board Meeting

December 13, 2012

Tommy B. Strowd, P.E., Director
Operations, Maintenance & Construction Division

SFWMD

Wet Season Rainfall

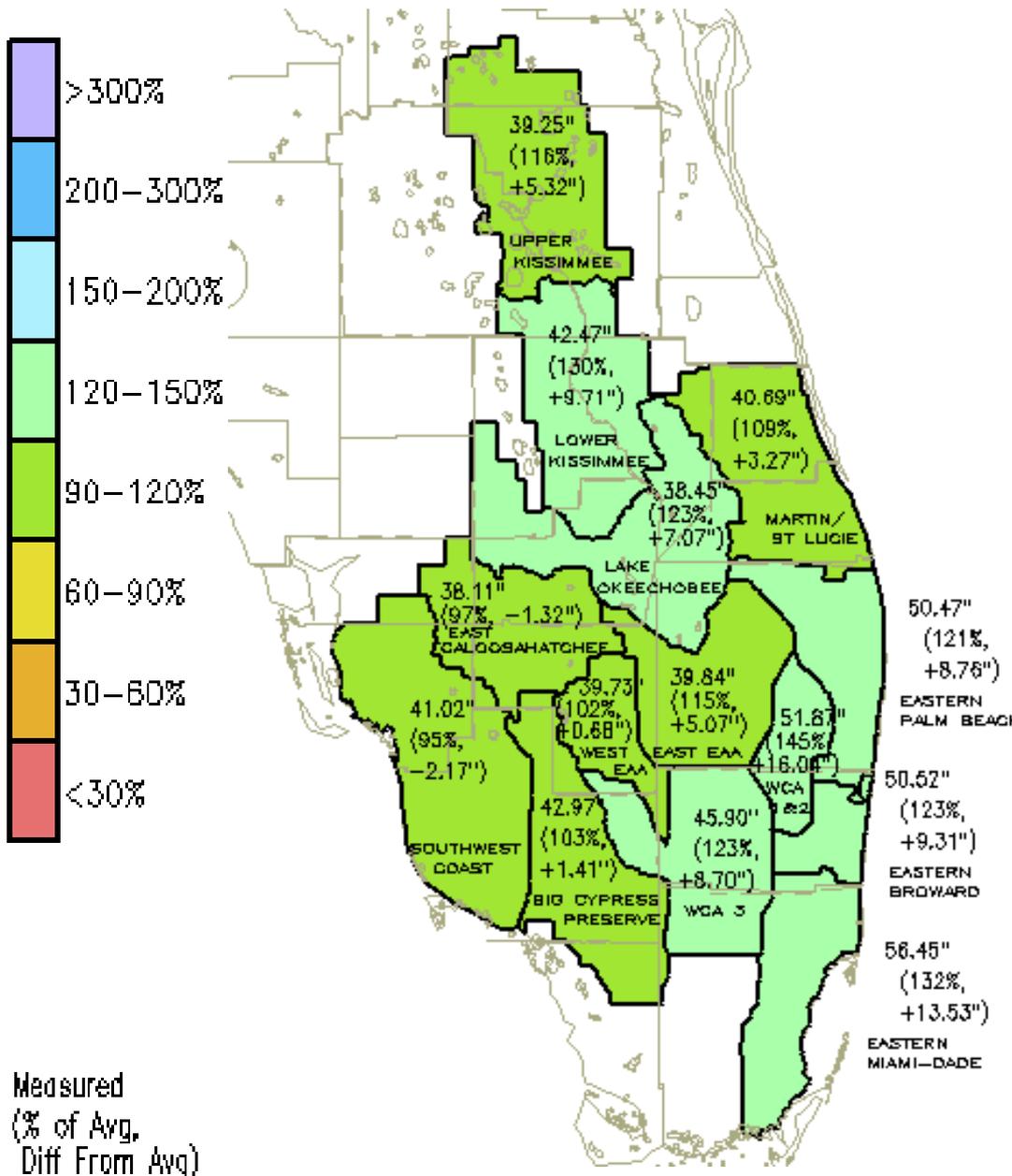
8 May – 9 November 2012**

**DISTRICT-WIDE: 42.87"
(115% of Avg, or +5.46")**

Most basins above average:

- Upper Kissimmee + 5.3"
- Lower Kissimmee + 9.7"
- Lake Okeechobee + 7.1"
- WCA 1 & 2 + 16.0"
- Eastern PB Co + 8.8"
- Miami-Dade + 13.5"

Southwest Coast and East Caloosahatchee are below average

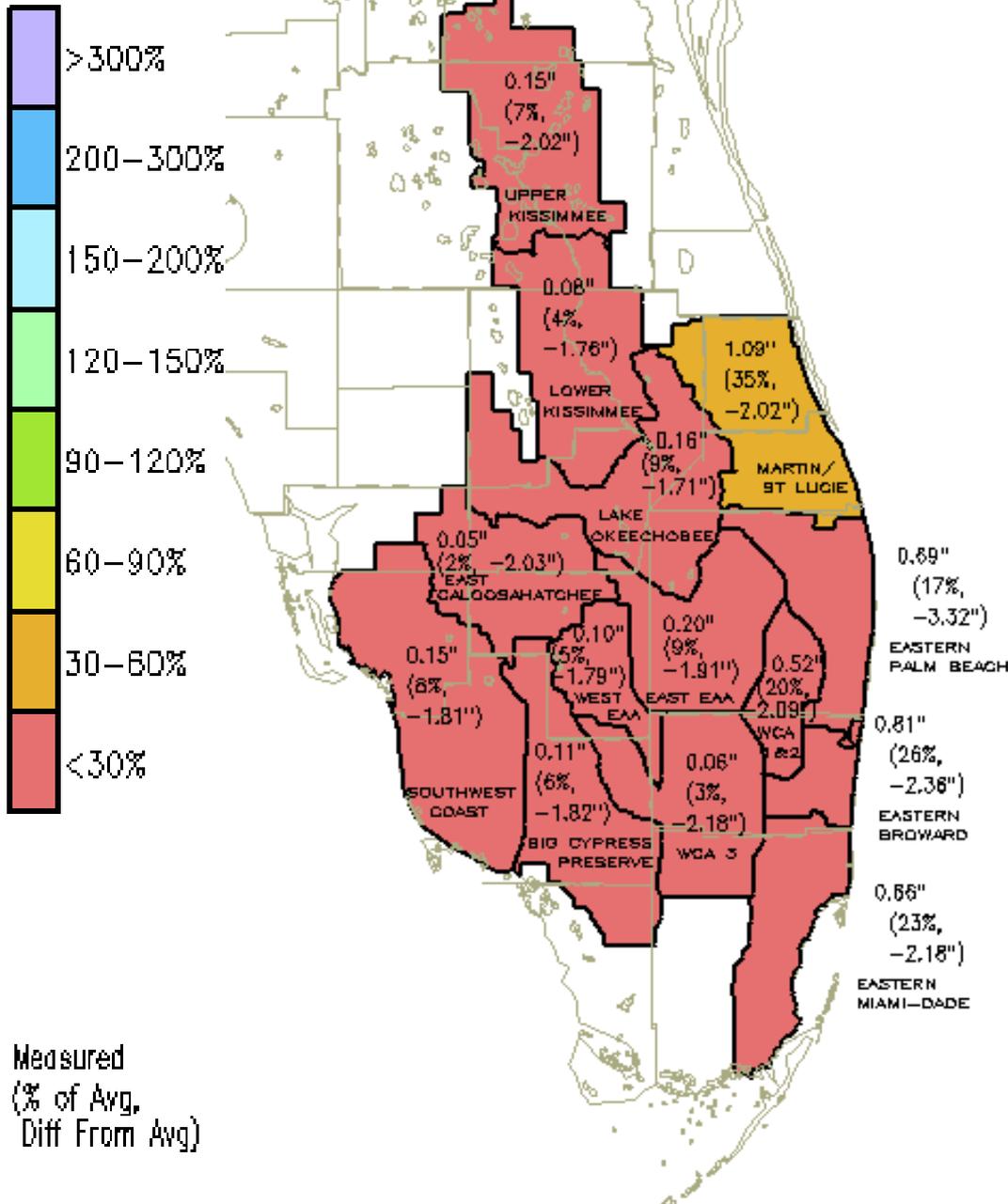


SFWMD 2012 November Rainfall

(Nov 2 -30, 2012)

DISTRICT-WIDE: 0.29"
(12% of Avg, or -2")

- All basins recorded below average rainfall
- WCA3 -2.18" below average
- Driest Nov in the District's record which begins in 1932 (1940 & 1944 were 0.30")

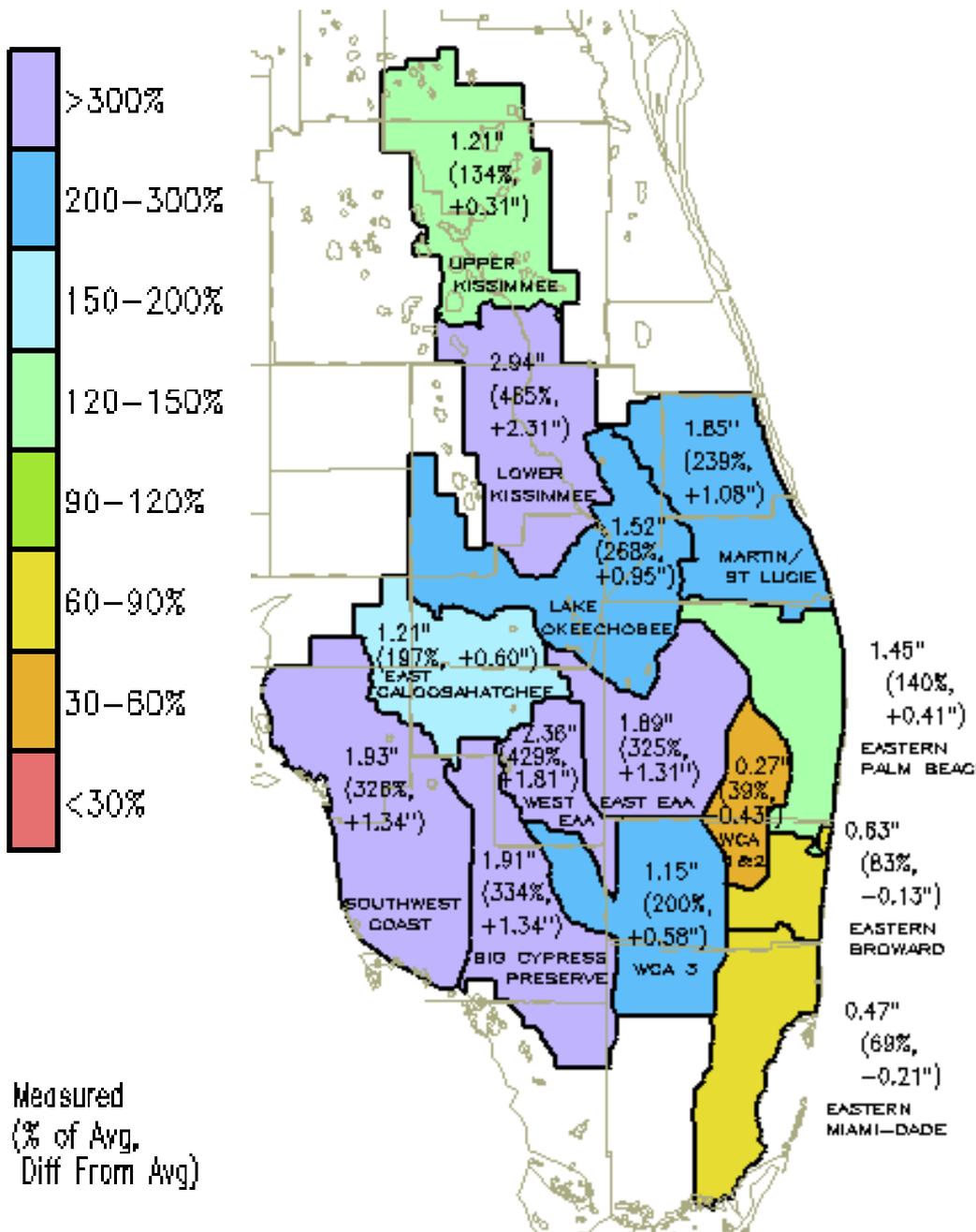


SFWMD 2012 December Rainfall

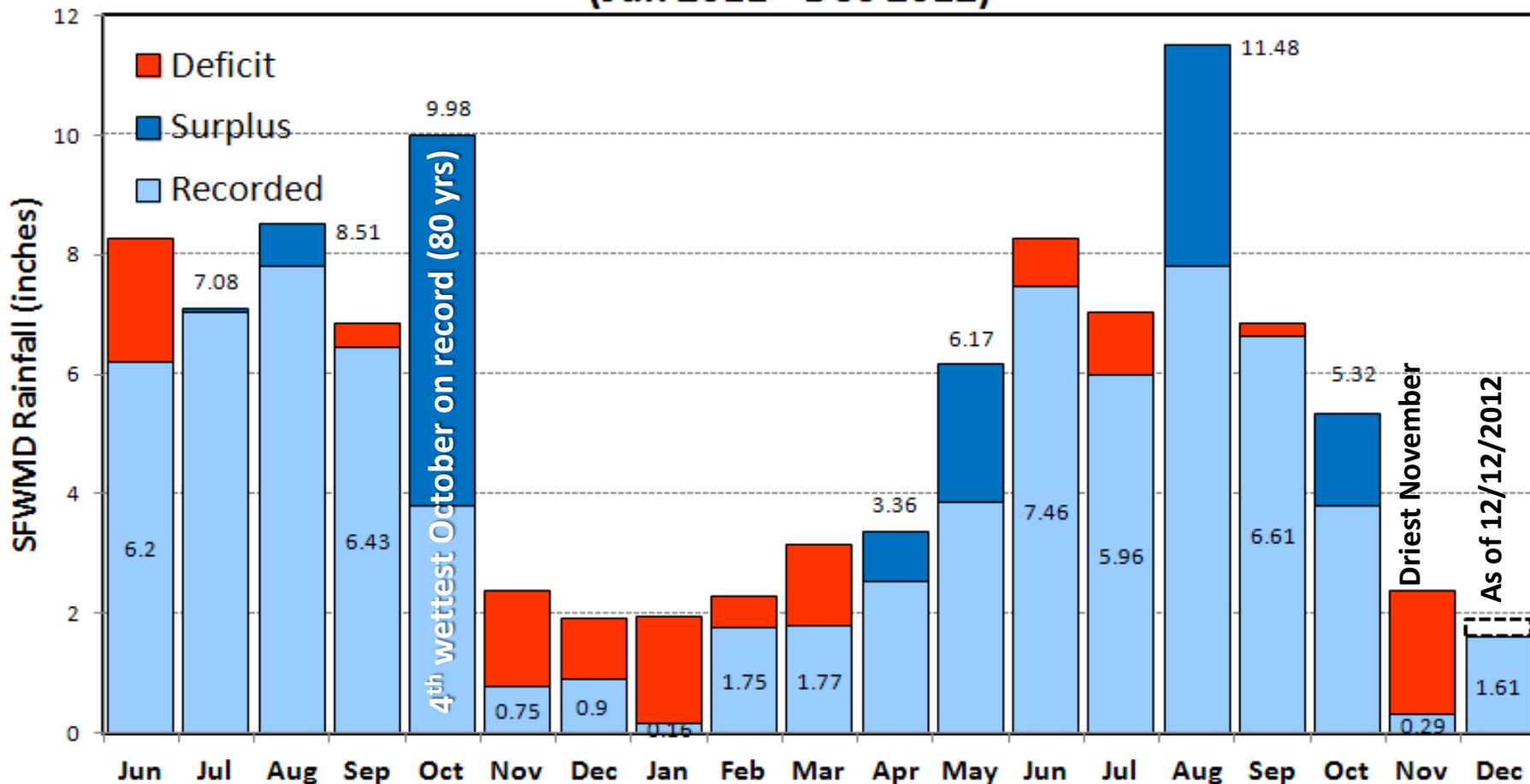
(Dec 2 - 12, 2012)

**DISTRICT-WIDE: 1.61"
(240% of Avg, or +0.94")**

- Most basins are above average
- WCA-1, WCA-2A, Eastern Broward and Eastern Miami-Dade are below average



SFWMD Rainfall Distribution Comparison (Jun 2011 - Dec 2012)



2011-12 DRY SEASON:

- Record dry in Upper Kissimmee (98 yrs)
- Ended up close to average

2012-13 DRY SEASON:

- Driest November since 1932
- Below average so far

2011 WET SEASON:

- Latest start (June 12) in at least 20 years
- 3 Big Rain Days in October (2.3", 2.3" & 1.7")

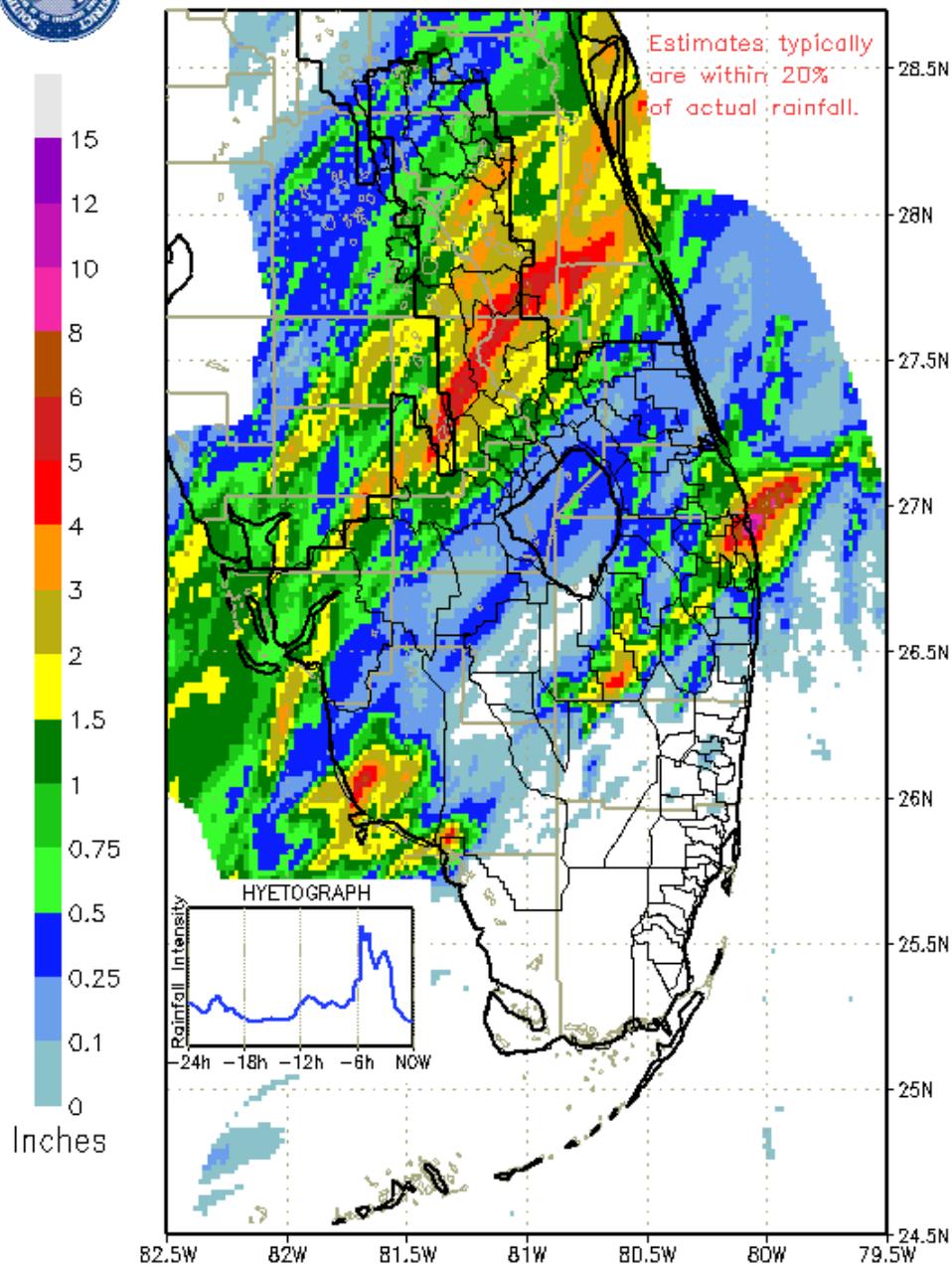
2012 WET SEASON:

- Started early with wet May, followed by dry June and July . TS Isaac brought August rainfall high above average.
- Ended up above average.

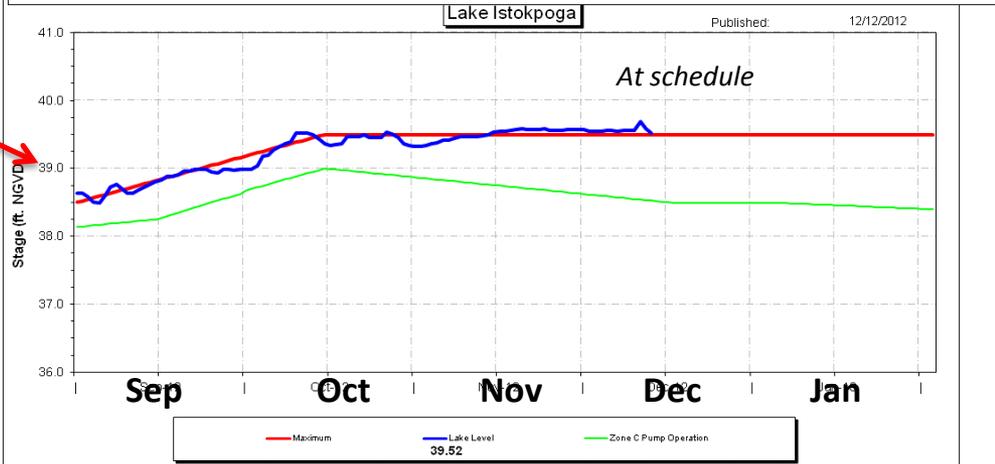
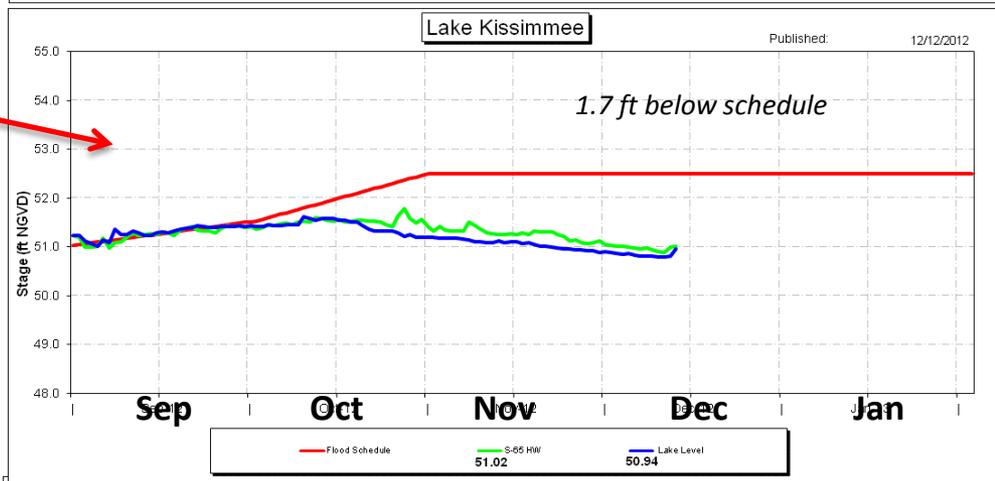
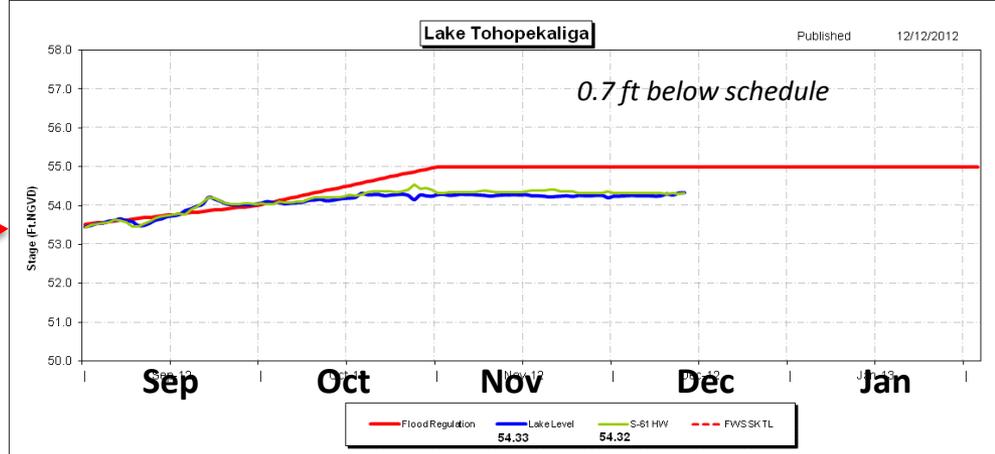
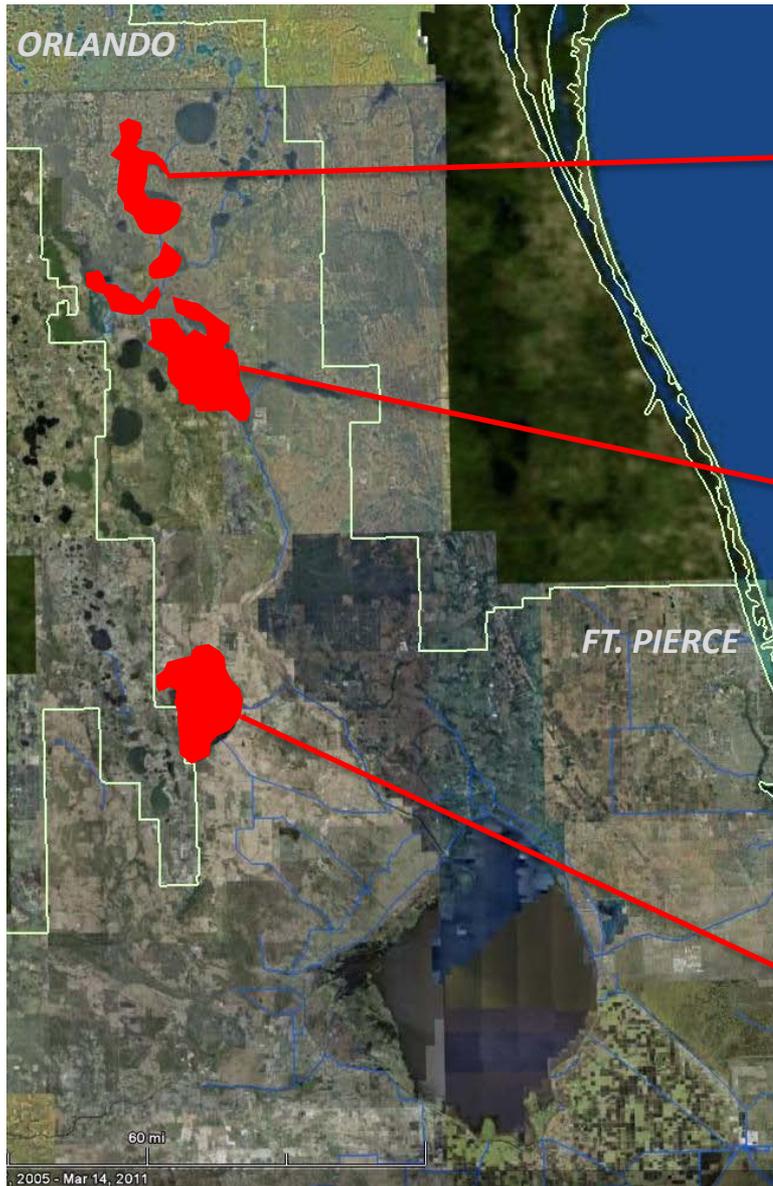


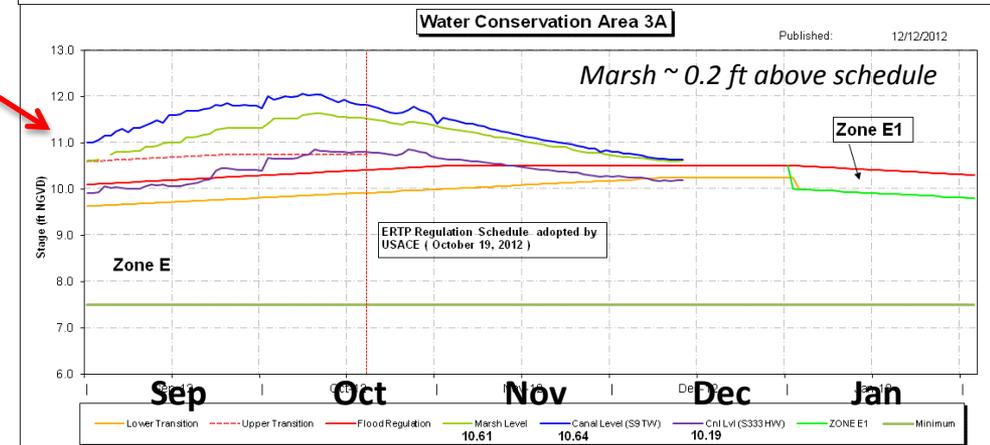
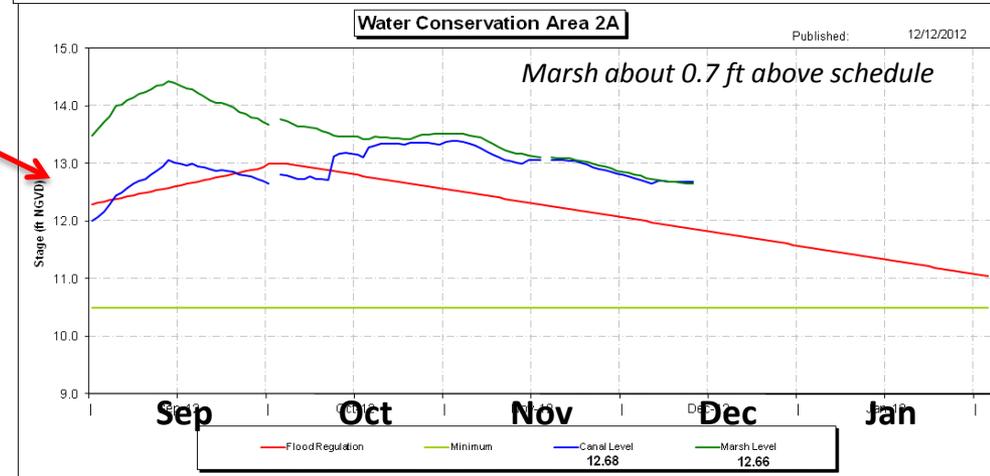
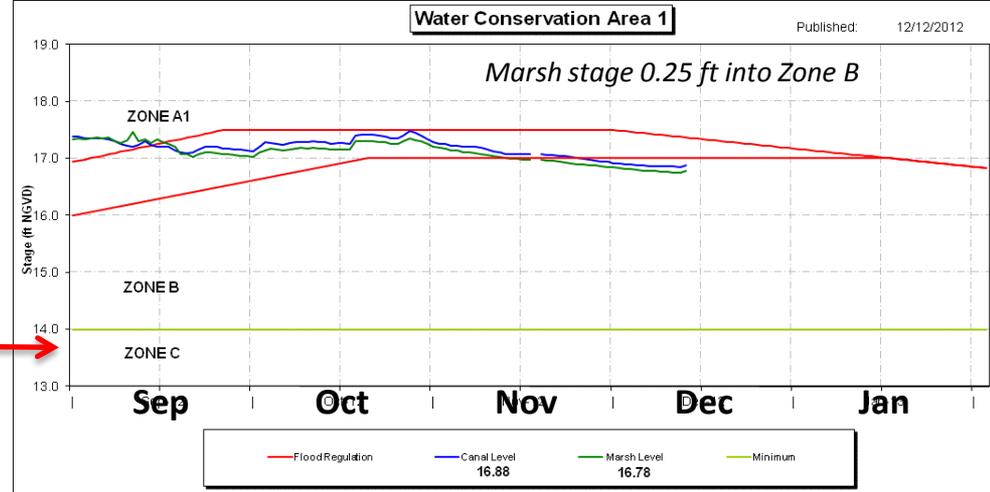
SFWMD RAINDAR NRT DAILY RAINFALL ESTIMATES

FROM: 0700 EST, 12/11/2012 THROUGH: 0630 EST, 12/12/2012



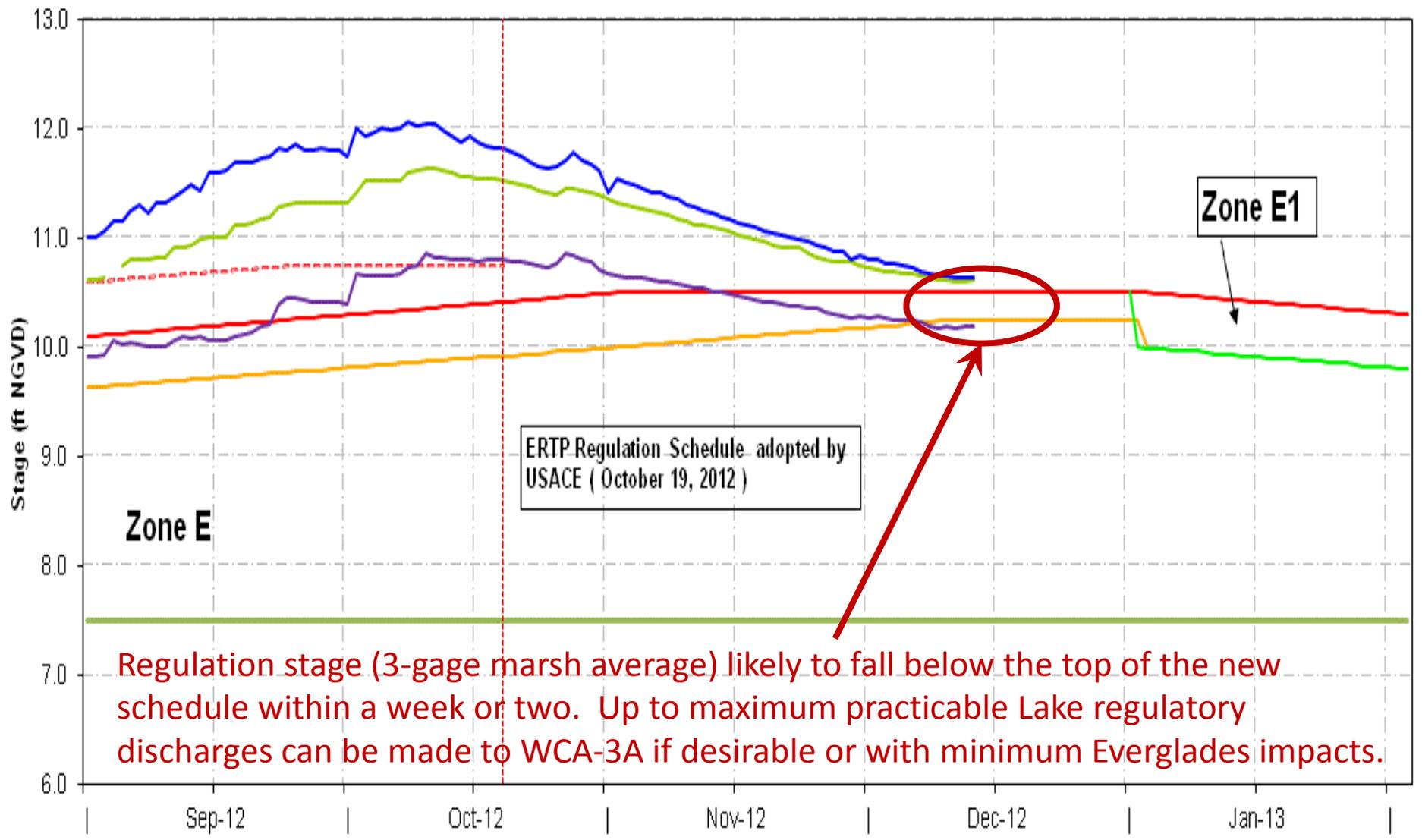
DISTRICT-WIDE RAINFALL ESTIMATE: 0.747"





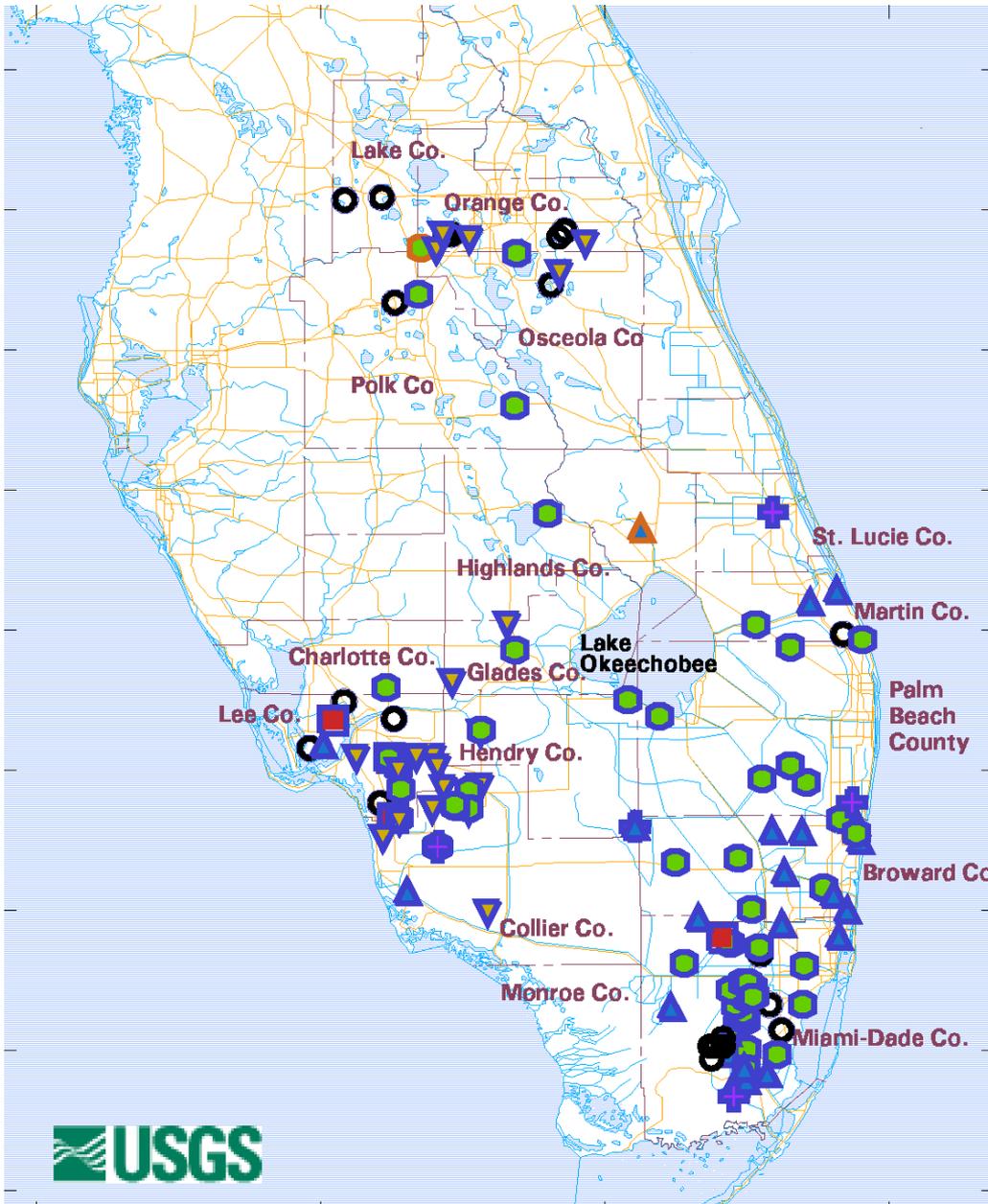
Water Conservation Area 3A

Published: 12/12/2012



Groundwater Levels

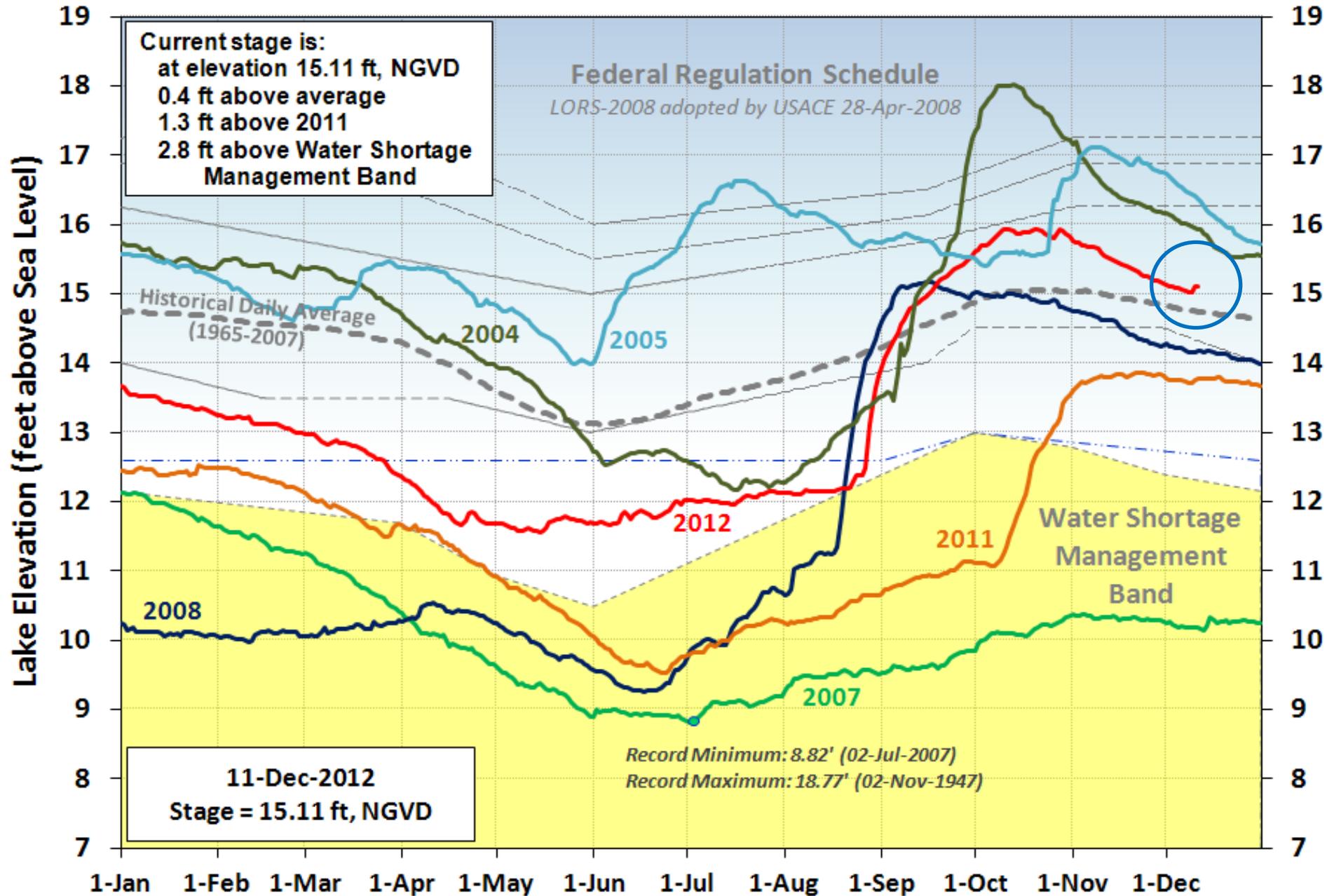
Water levels at selected sites in South Florida
Based on PROVISIONAL DATA, as of December 10, 2012



Water level compared to historical data, without trend analysis:

-  Insufficient information available to compute water-level statistics
-  In lowest 10 percent of past water elevations
-  Within lowest 10 to 30 percent of past water elevations
-  Within 20 percent of the median of past water elevations
-  Within highest 10 to 30 percent of past water elevations
-  In highest 10 percent of past water elevations

Lake Okeechobee Water Level Comparison



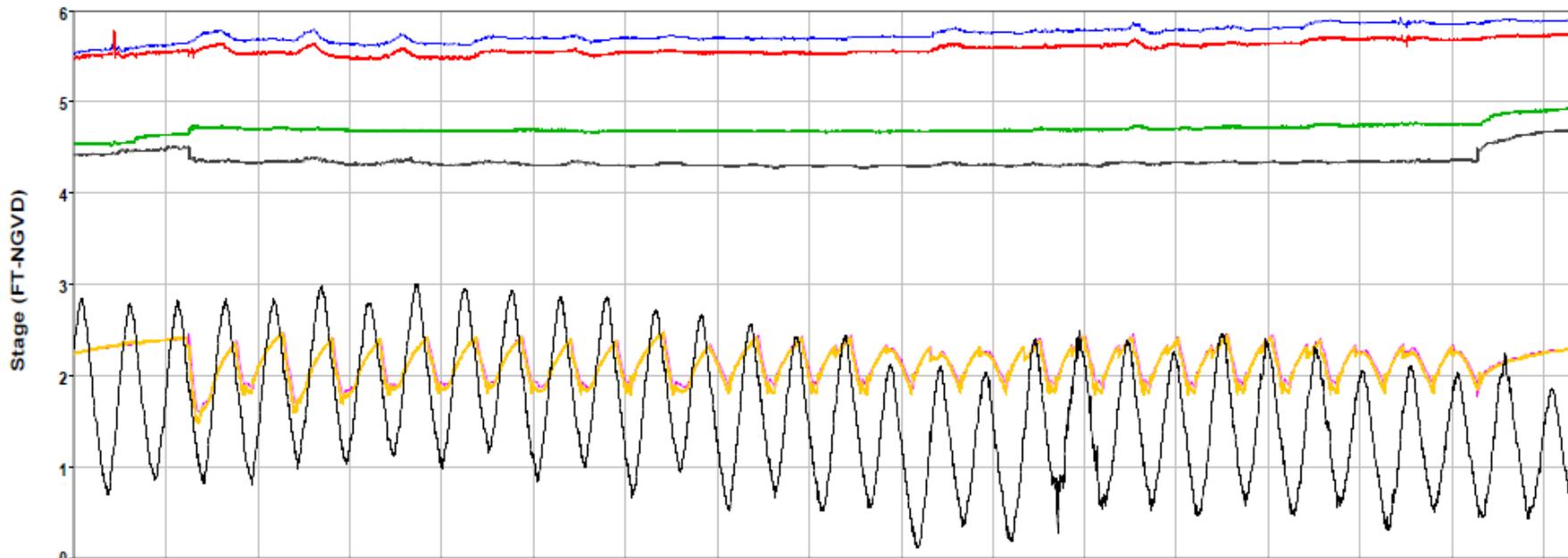
2012 Pilot Test

Fresh Water Releases to Biscayne Bay

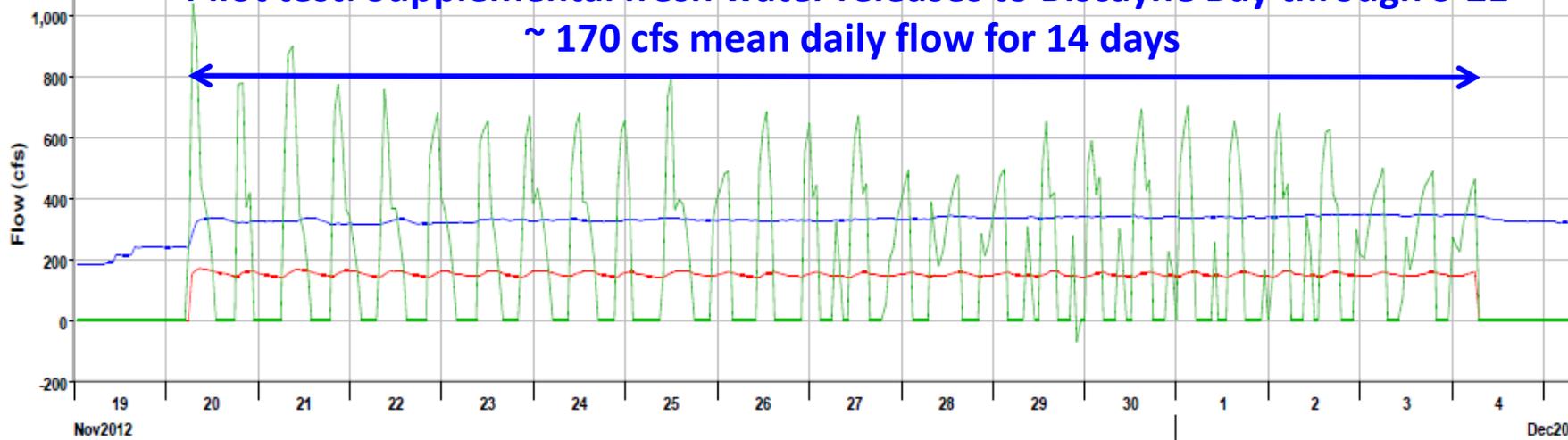
- SFWMD developed a process to conduct a pilot test
- Steps:
 - SFWMD staff held first internal meeting
 - SFWMD met with staff from ENP and BBNP to discuss release priorities
 - ENP agreed to the deliveries to BBNP as long as WCA-3A stage is in the flood control zone of the regulation schedule or releases through a previously closed WCA-3A structure could be used (e.g. S-12B closure)
 - WCA-3A recession rate favorable
- Test conducted Nov 20 – Dec 4



C-1W/C-1 Canals



Pilot test: Supplemental fresh water releases to Biscayne Bay through S-21
 ~ 170 cfs mean daily flow for 14 days



- G211-H PROVISIONAL STAGE — S338-H PROVISIONAL STAGE — S338-T PROVISIONAL STAGE — S148-H PROVISIONAL STAGE — S148-T PROVISIONAL STAGE — S21-H PROVISIONAL STAGE — S21-T PROVISIONAL STAGE
- S338-C-Q OASYS FLOW — S148-S-Q OASYS FLOW — S21-S-Q OASYS FLOW

2012 Seasonal Agricultural Drawdown

Canal drawdown was initiated on October 15th in South Miami-Dade County according to the following schedule:

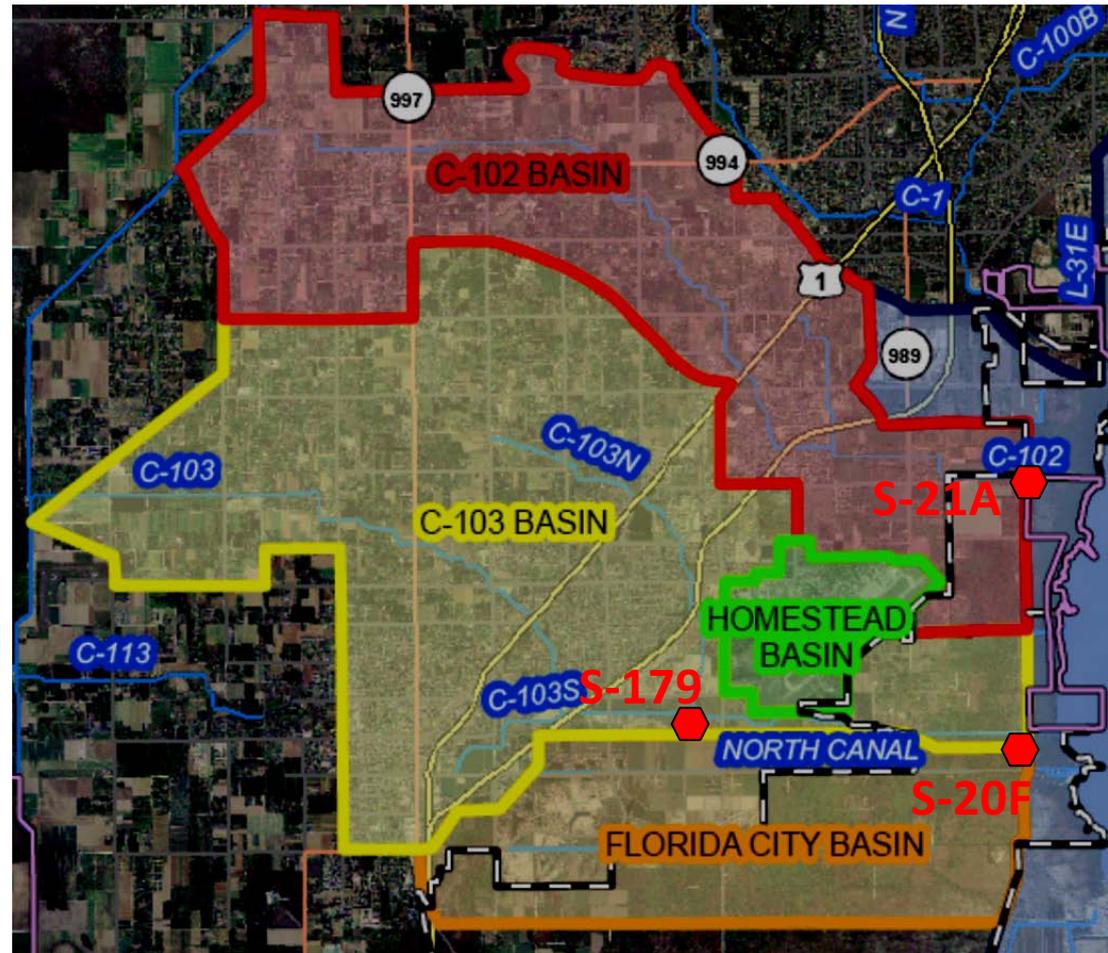
C-102 Basin: October 15th - changed structure S-21A to Low range;
open at 1.4 ft., close at 1.0 ft.

C-103 Basin: October 15th - changed structure S-20F to Low range;
open at 1.4 ft., close at 1.0 ft.

Changed structure S-179 to Low range;
open at 3.1 and close at 2.7

Bi-weekly conference calls with stakeholders have been held since Nov. 7.

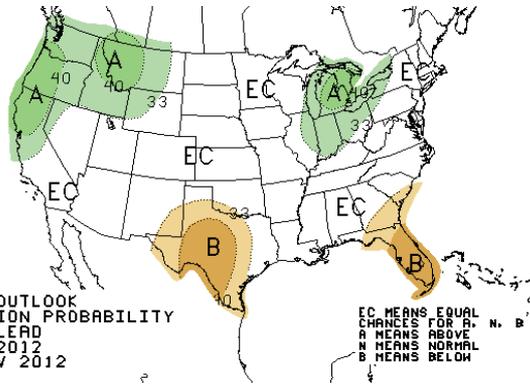
Drawdown is progressing normally



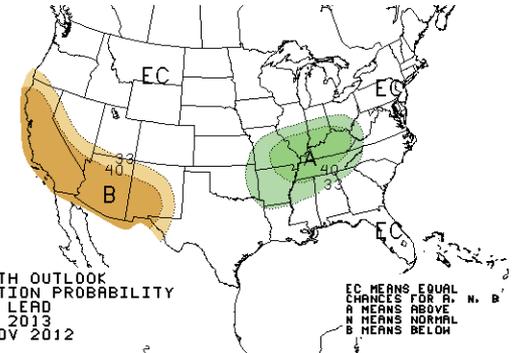
U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

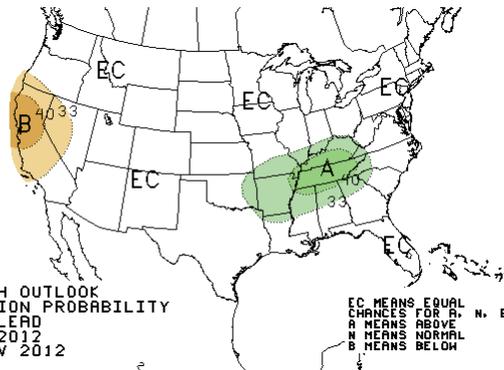
Dec 2012



Jan - Mar 2013



Dec - Feb 2012



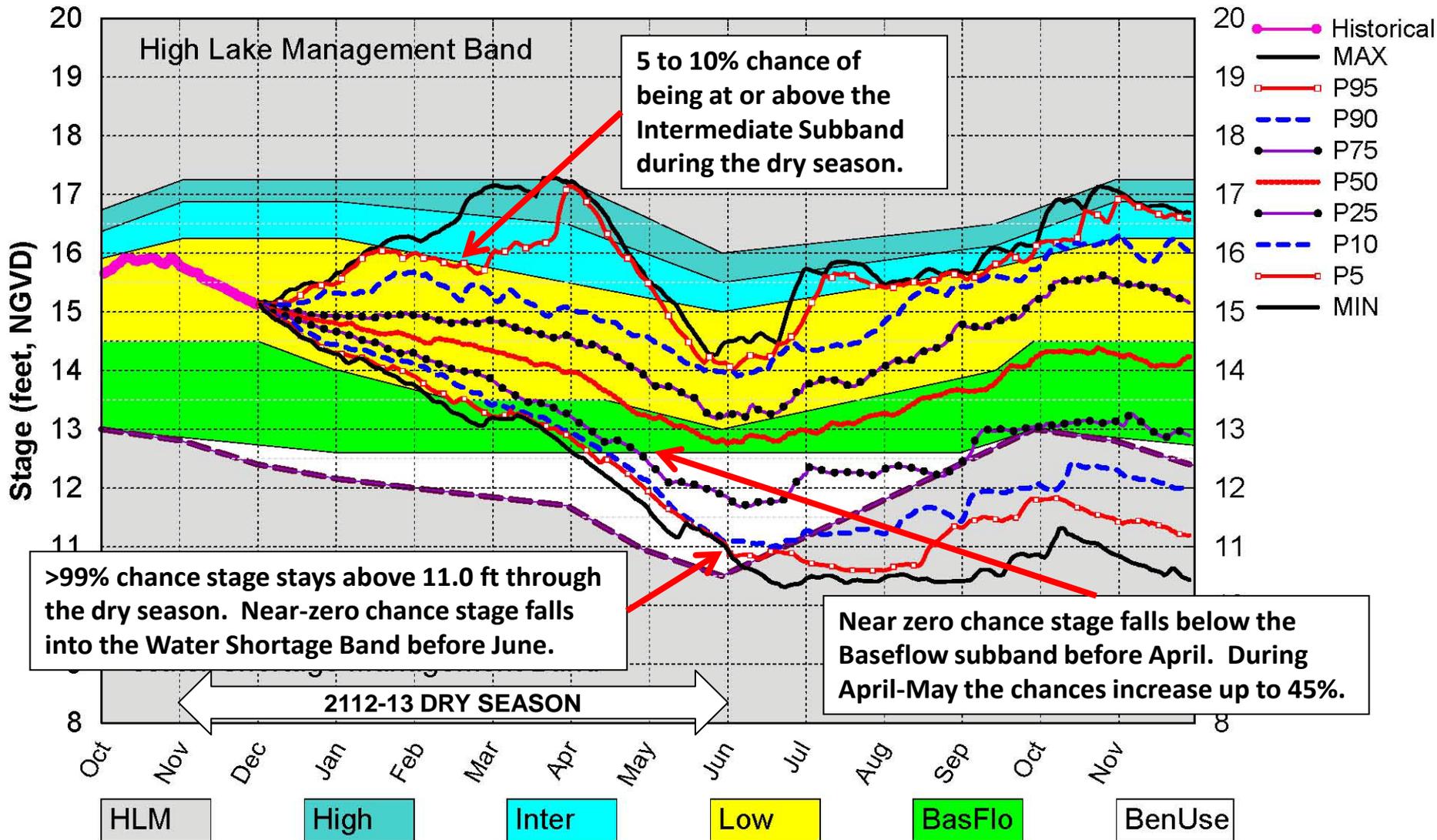
- The current CPC precipitation outlook for central and southern Florida is for below average rainfall for Dec. 2012 and equal chances (EC) of being above, normal or below for the three month windows extending into the 2012-2013 dry season.

Lake Okeechobee: Current Operations

- **USACE's Lake O Regulation Schedule (2008 LORS)**
 - Stage (~15.0 ft, NGVD) is in the lower third of the Low Subband
 - Release guidance currently suggests up to 450 cfs at S-79, and up to 200 cfs at S-80
 - Tributary Hydrologic Conditions are in the normal classification
 - Seasonal Lake inflow outlook is dry (neutral ENSO conditions)
 - Multi-Seasonal Lake inflow outlook is in the wet classification
 - USACE transitioned to 650 cfs baseflow through S-79 and intends to continue baseflow releases per the 2008 LORS
 - No Lake releases to the WCAs until WCA-3A stage falls below its new regulation schedule (ERTP)
 - Releases to be made via STA-3/4 subject to treatment capability
- **SFWMD's Lake O Adaptive Protocol (2010)**
 - Will be the basis for SFWMD recommendations as the Lake stage recedes into the Baseflow Subband of the 2008 LORS

Lake Okeechobee SFWMM December 2012 Position Analysis

Percentiles based on 41 possible outcomes starting with Dec 1st initialization



(See assumptions on the Position Analysis Results website)

Questions ?



S-197 Structure Replacement
Miami-Dade County