

Water Conditions Summary

June 9, 2011

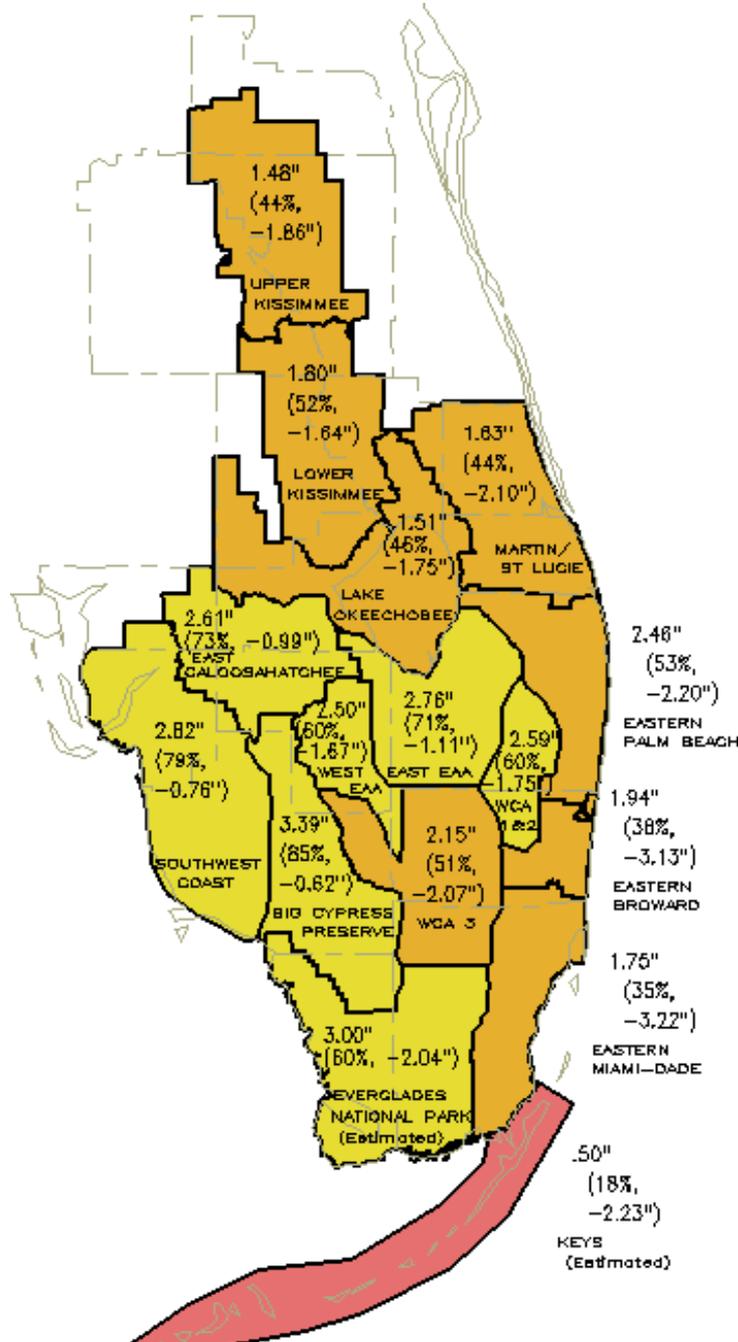
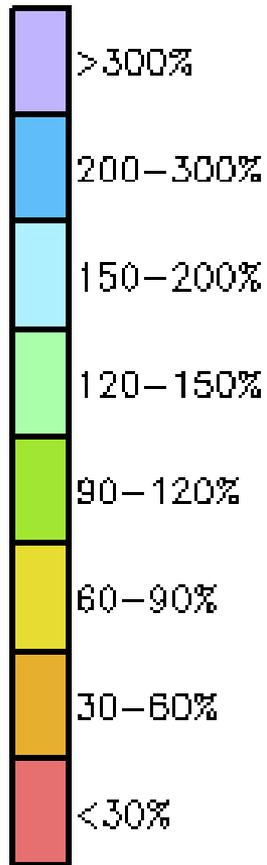
*Susan Sylvester, Director
Operations Control & Hydro Data Management Department
South Florida Water Management District*

SFWMD 2011 May Rain

**DISTRICT-WIDE: 2.21"
(57% of Avg, or -1.64")**

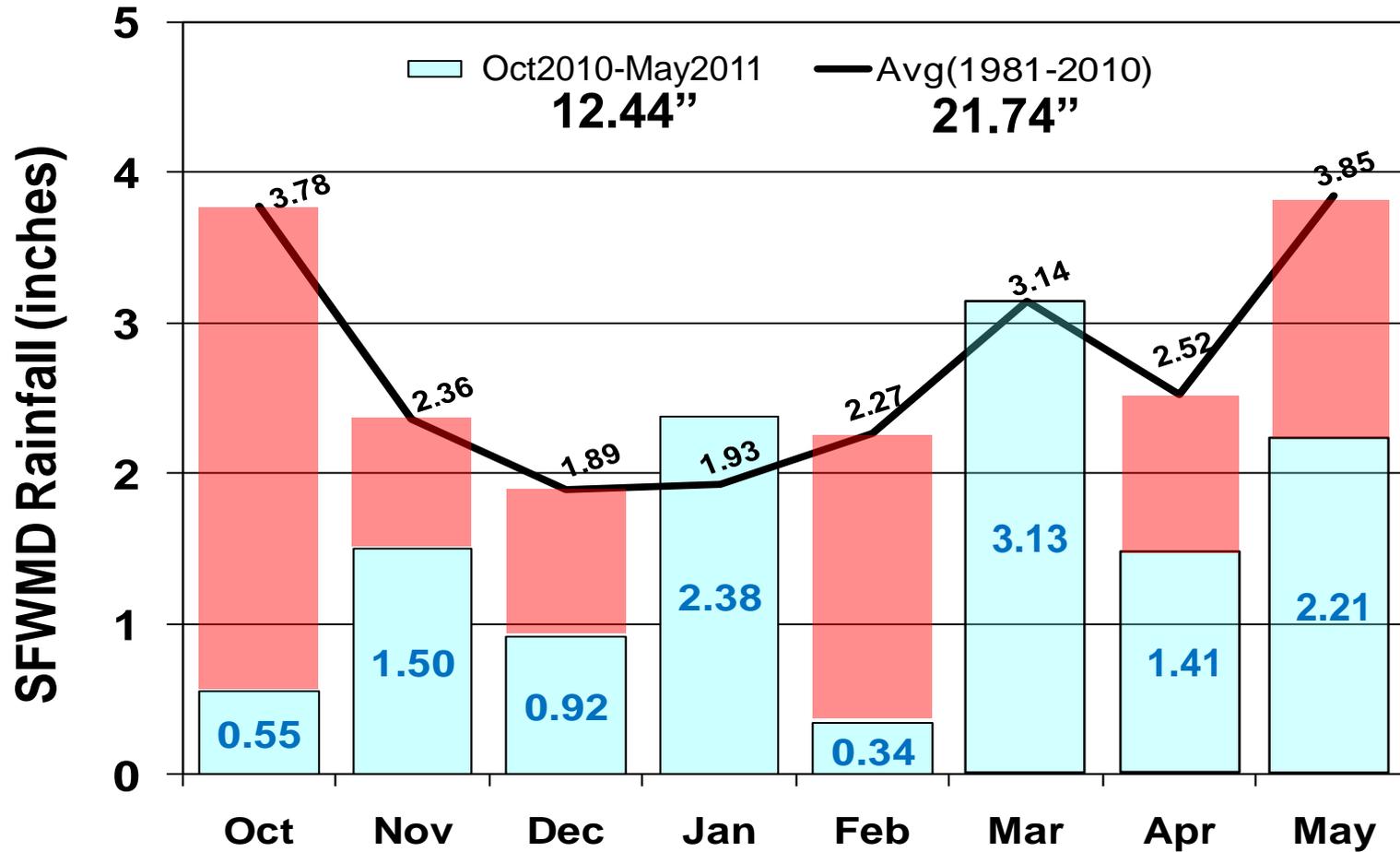
- All basins received less than normal rainfall

**Eastern Broward (38%)
Eastern Miami Dade (35%)
Keys (18%)**



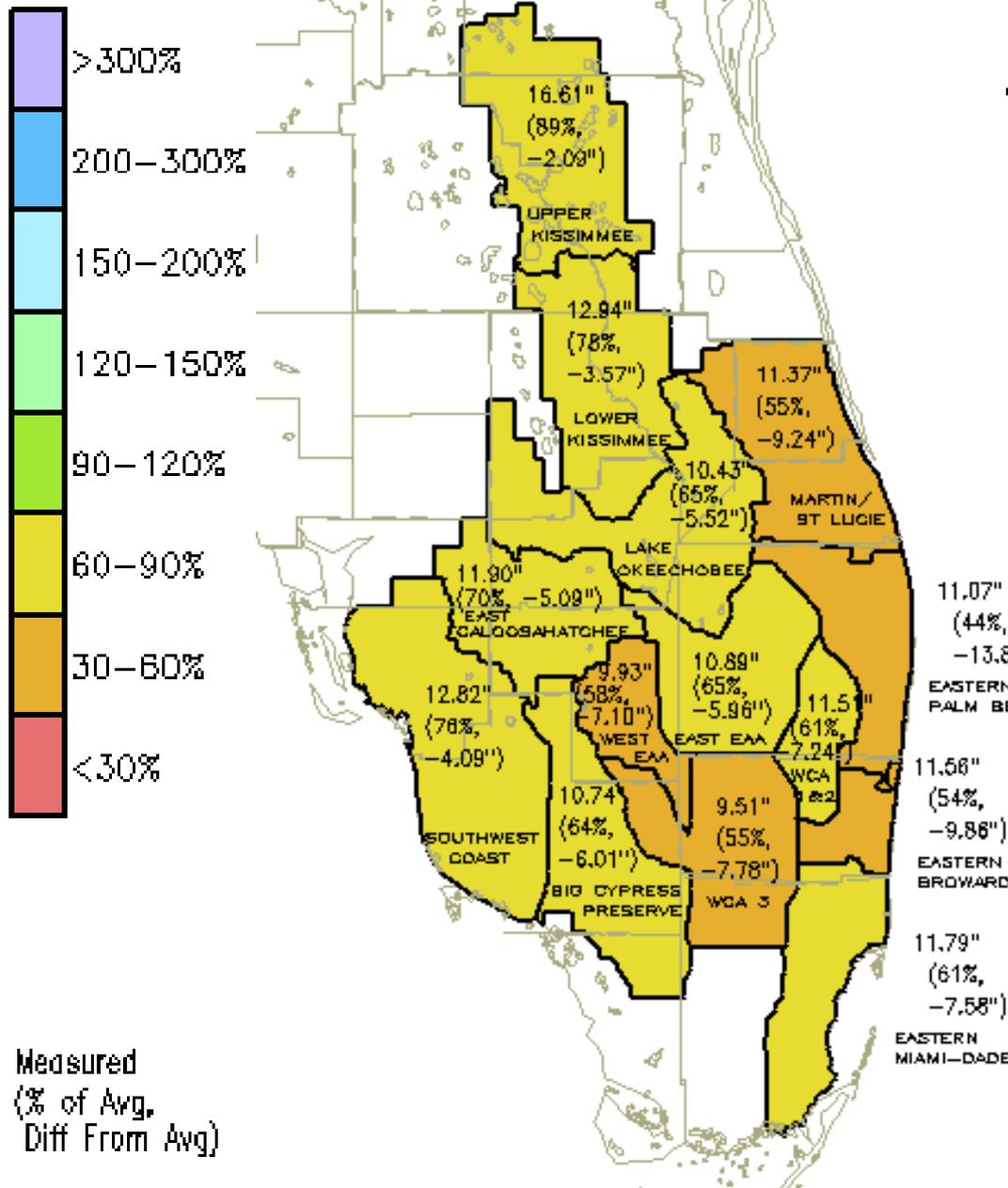
Measured
(% of Avg,
Diff From Avg)

SFWMD Rainfall Distribution Comparison (October-May)



SFWMD 2010-11 Dry Season* Rainfall Nov 2 – June 1

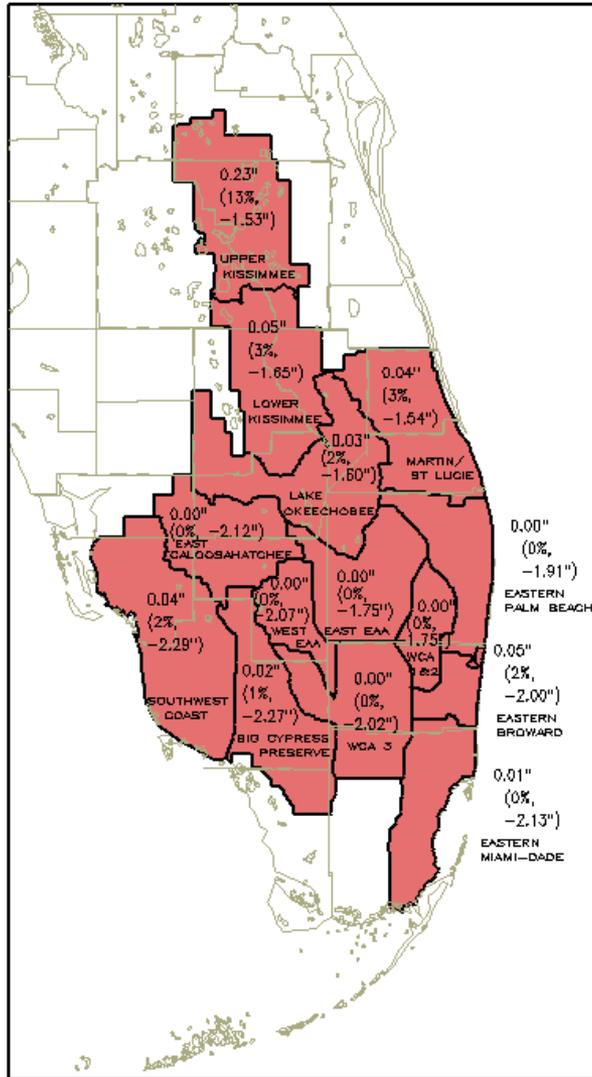
**DISTRICT-WIDE: 11.89"
(66% of Avg, or -6.07")**



- All basins received below normal rainfall
- The dry season started early with a record rainfall deficit in October
- October-Feb rainfall was less than half the average. A record low since recordkeeping began in 1932
- *Oct-Feb rain: 5.7" (46% of Avg, or 6.5" deficit)*

* 2010-11 Dry season started in October

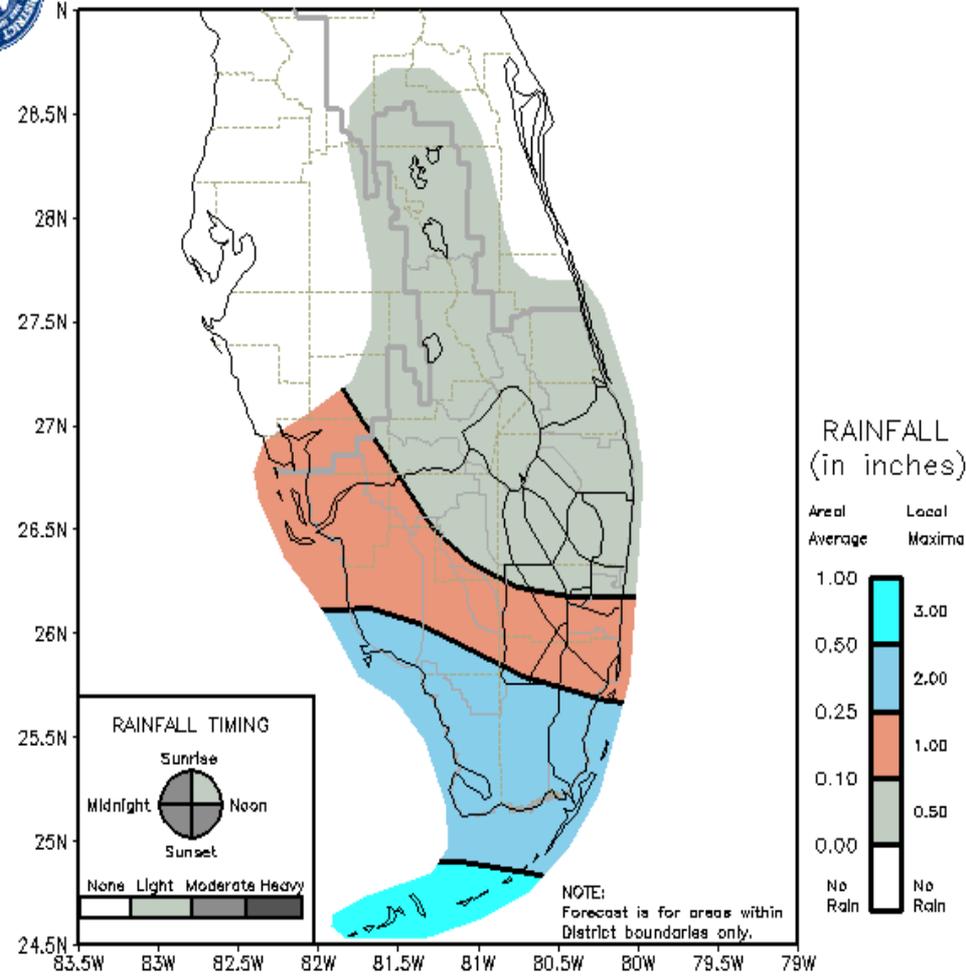
SFWM Rainfall 02-JUN-2011 to 08-JUN-2011



DISTRICT-WIDE: 0.04" (2%, -1.89")



SFWM QUANTITATIVE PRECIPITATION FORECAST Day 2 24-Hour Period Beginning 7am EST THU



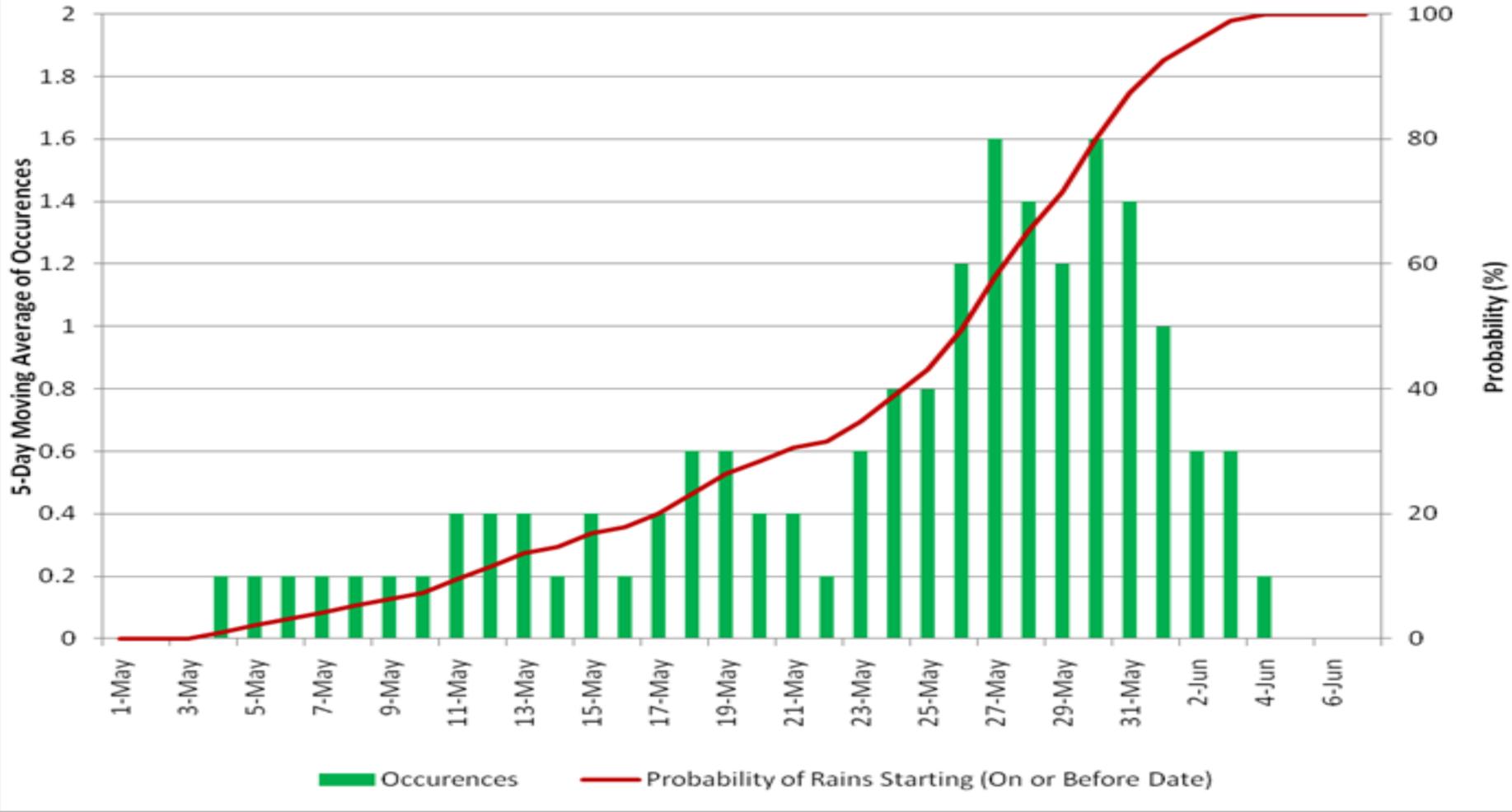
ISSUED: Wed 08-Jun-2011 09:41 EDT

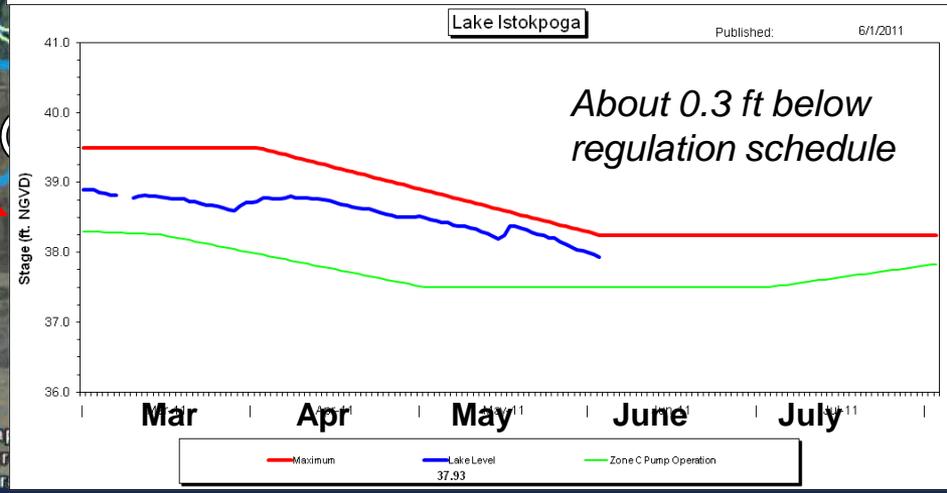
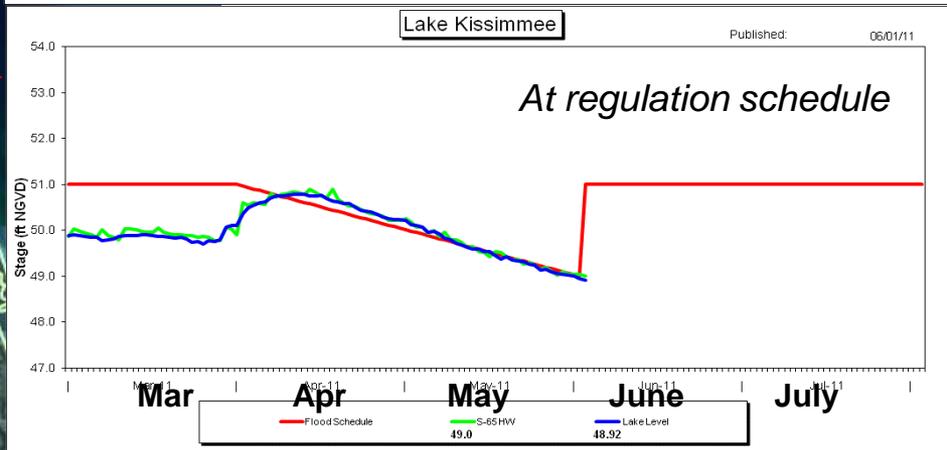
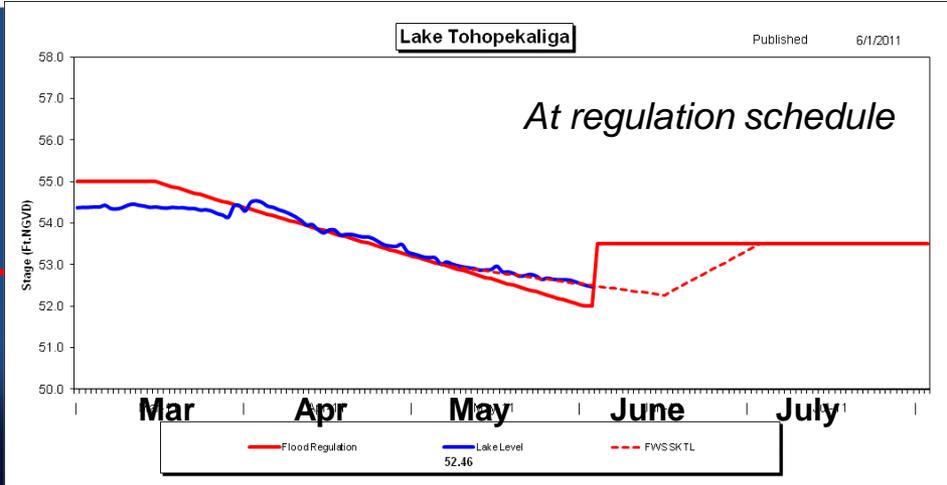
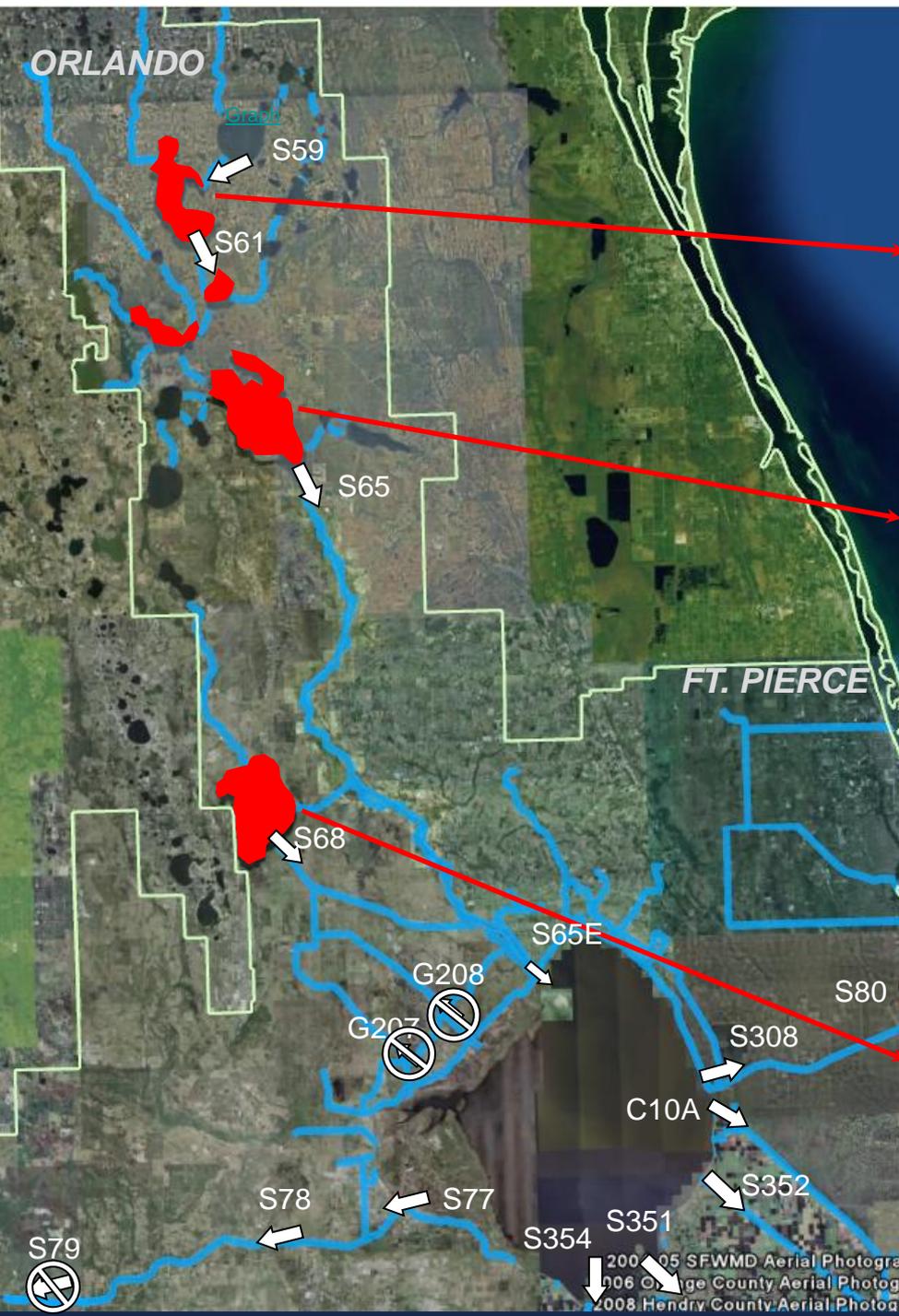
Measured (% of Avg. Diff From Avg)

GRADS: COLA/IGES

Wet Season: Persistent daily rainfall primarily caused by seabreeze.

SFWMD Start Date of Sustained Daily Rainfall (1992-2010)



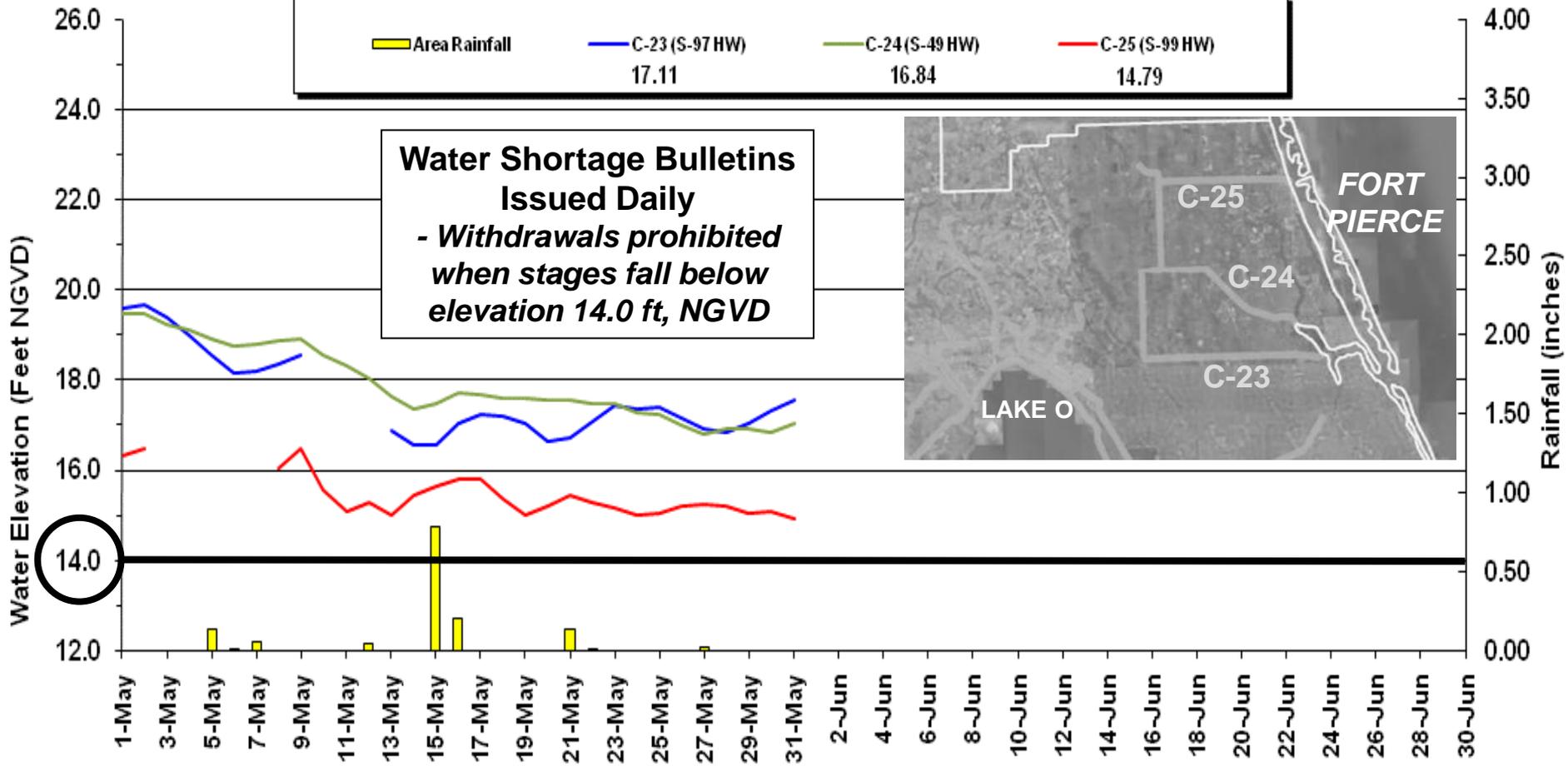
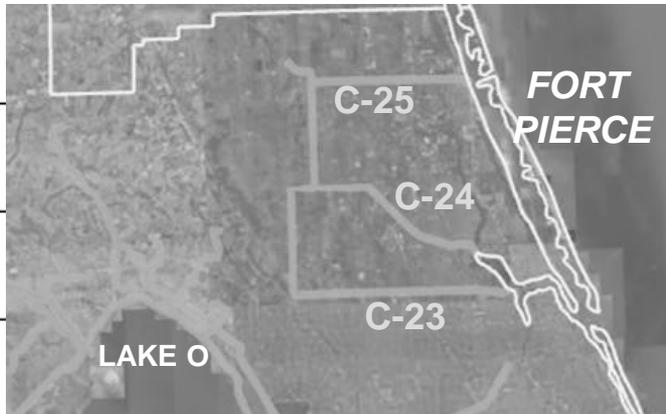


Published: 06/01/11

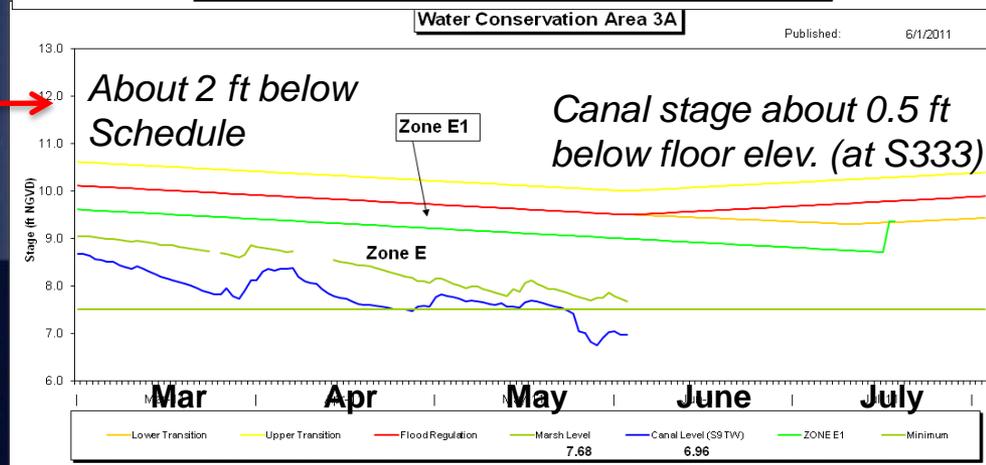
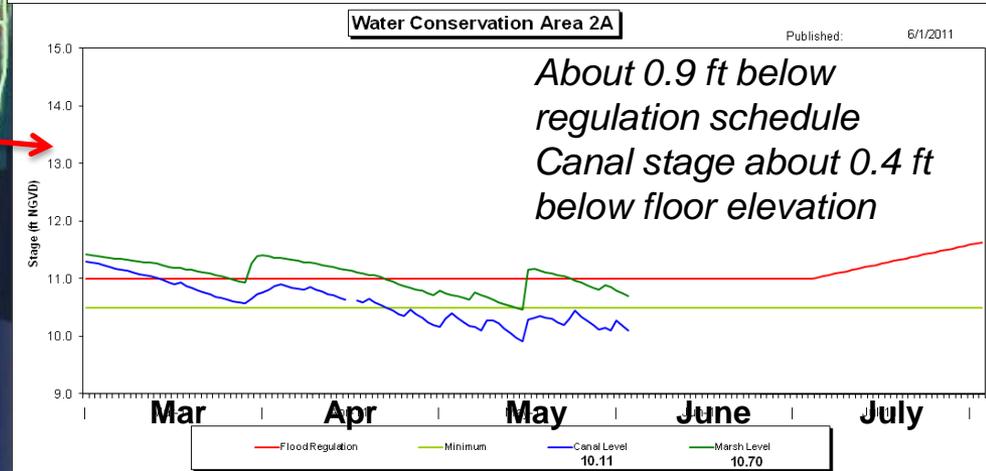
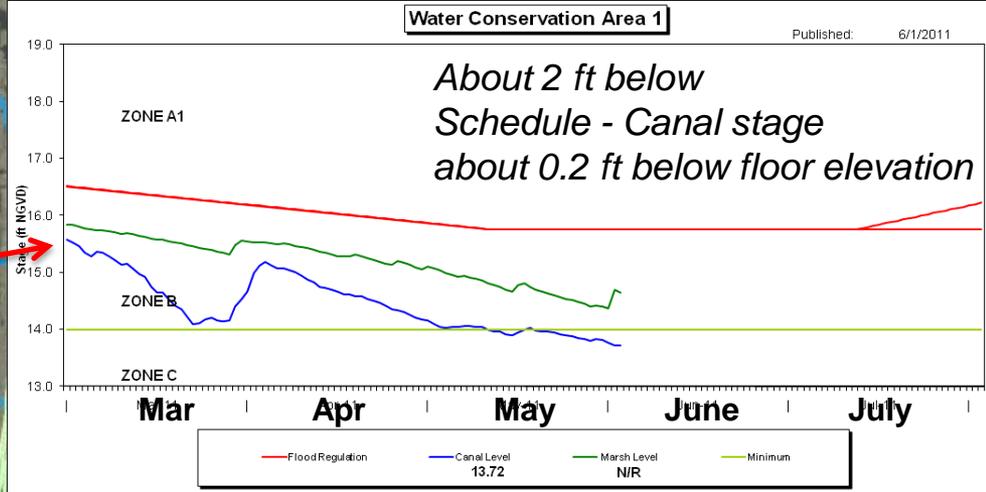
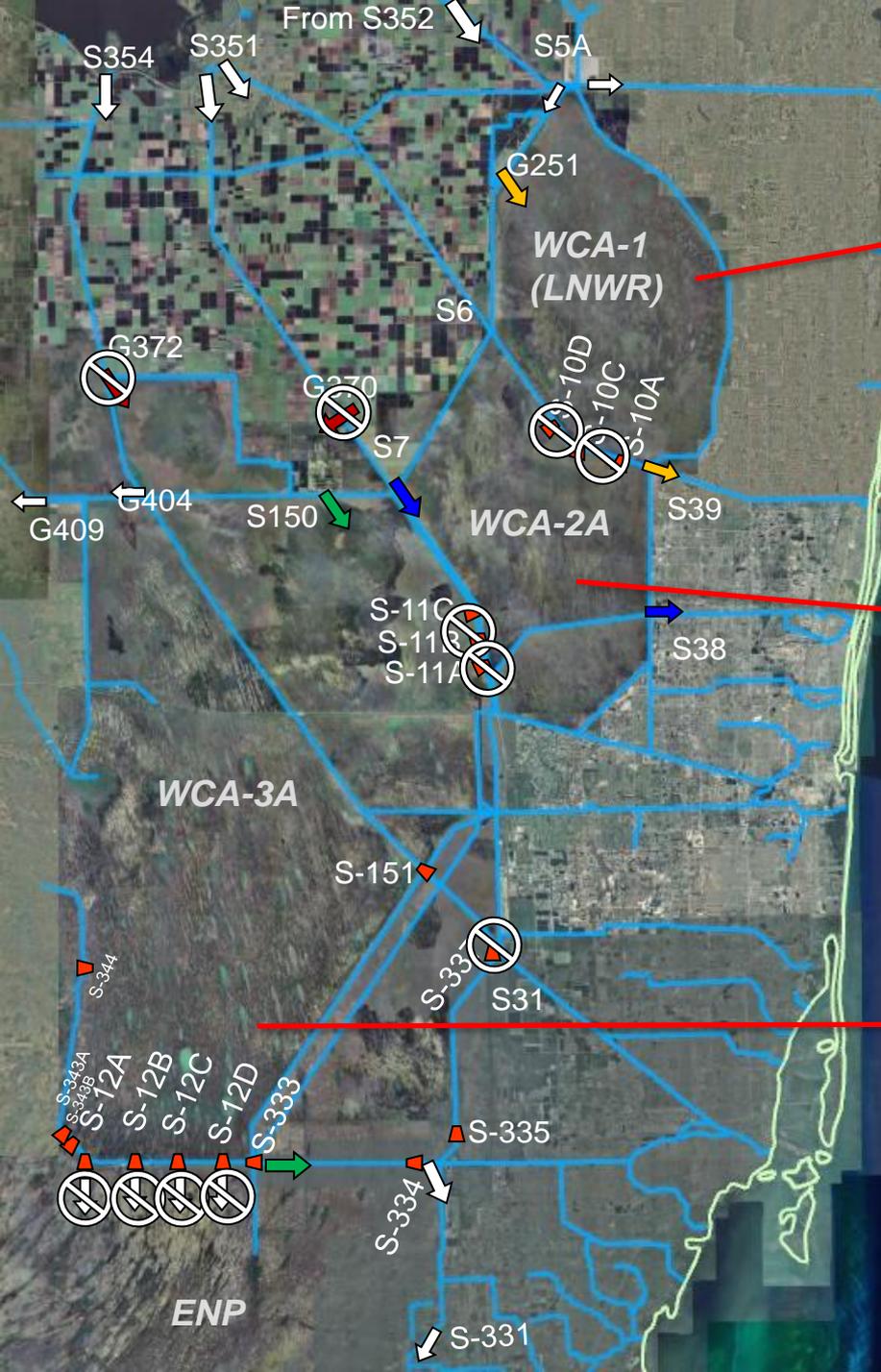
St Lucie Structures on C23, C24 & C25 Canals

 Area Rainfall	 C-23 (S-97 HW) 17.11	 C-24 (S-49 HW) 16.84	 C-25 (S-99 HW) 14.79
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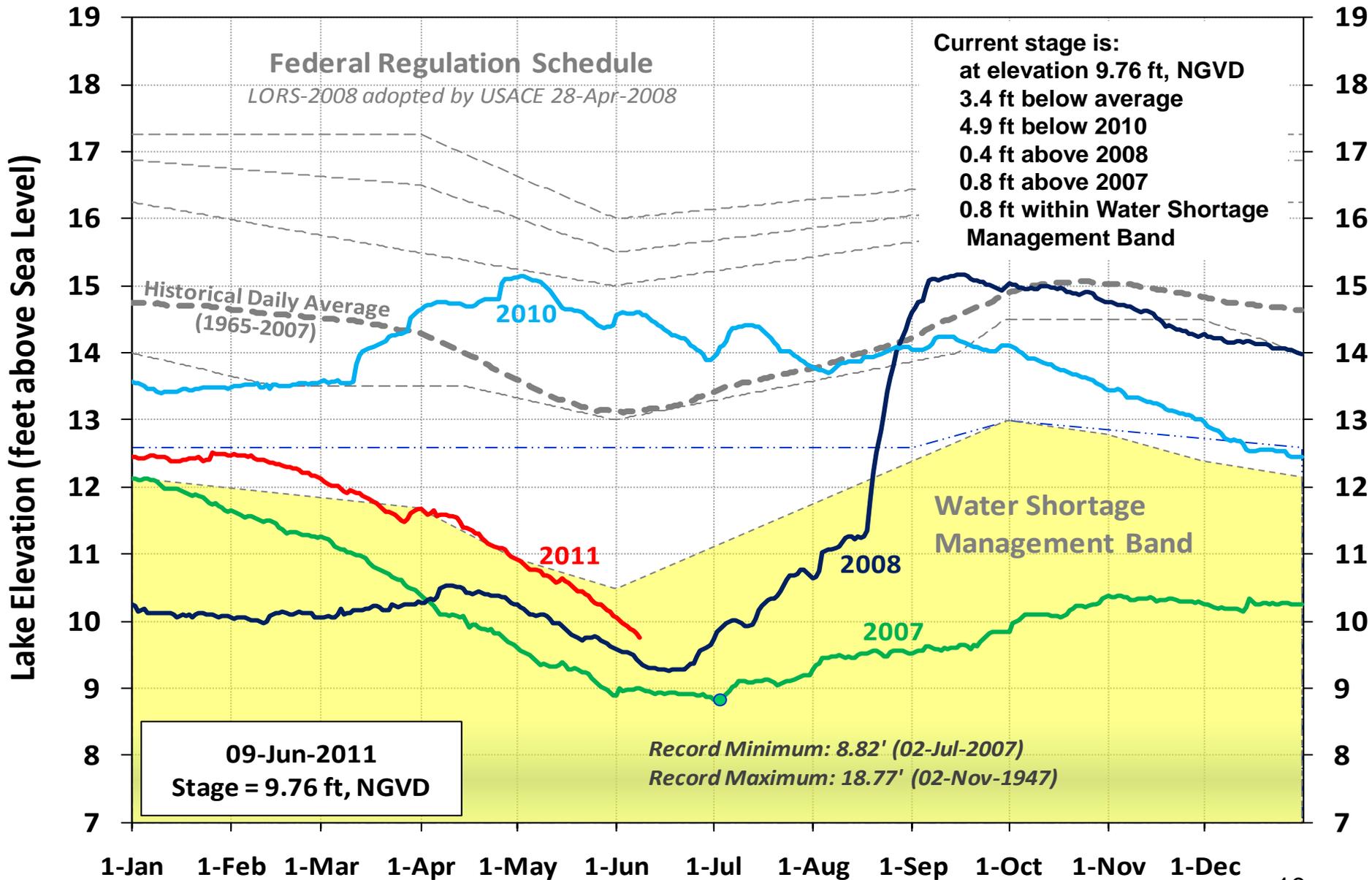
Water Shortage Bulletins Issued Daily
- Withdrawals prohibited when stages fall below elevation 14.0 ft, NGVD



May | June



Lake Okeechobee Water Level Comparison

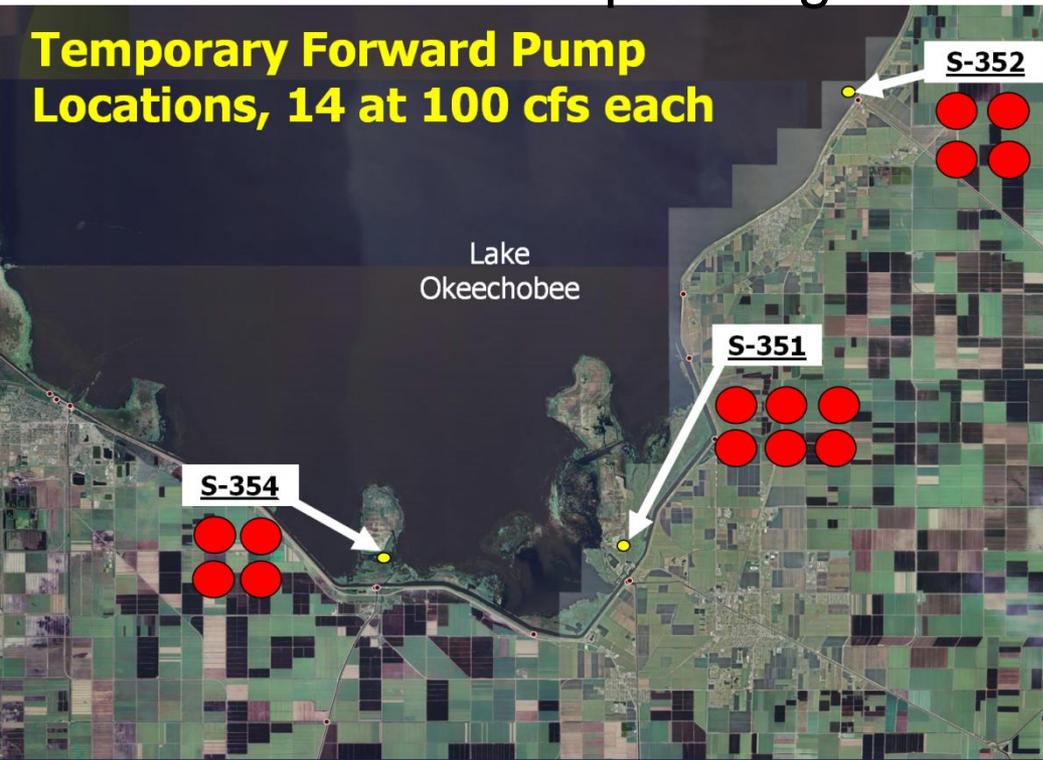


Temporary Pump Installation

Pumps needed to deliver EAA allocations and to help convey Lake water to LECASAs when gravity spillway capacity is insufficient

- S-352 installed 27 May
- S-351 installed 7 June
- S-354 installation pending

Temporary Forward Pump Locations, 14 at 100 cfs each



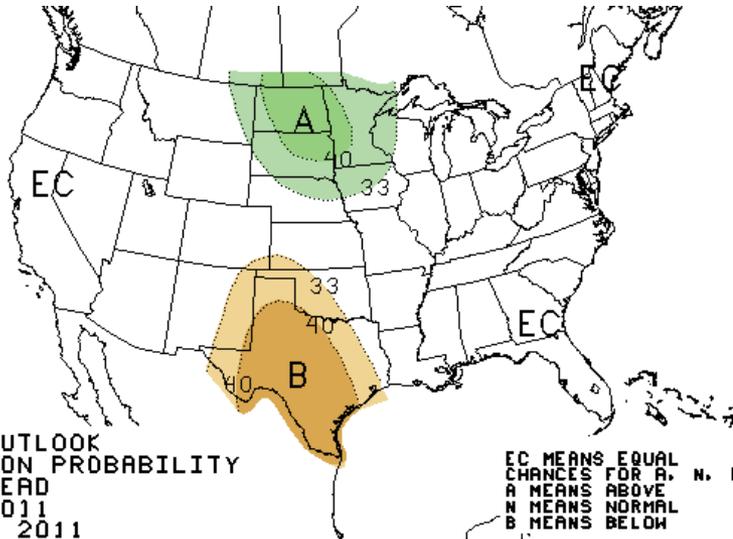
Temporary Pumps have not significantly lowered the Lake O stage

- 100 cfs = ~200 af/day = 0.0076"/day over Lake O
 - Lake surface area at elev 10' is about 316,000 acres
- June 2011 Lake O evaporation rate ~0.2"/day, or 1.4"/week
- 4 pumps at S-352 pumping nearly continuously. Assuming only ½ of the water could be delivered with the gravity capability of S-352 (assuming pumps were not installed), then a week of pumping continuously would lower the lake by an additional:
7-days x (0.0076"/day per pump) x 4 pumps /2 = 0.11"/week (<0.01'/week)
- The effects of the temporary pumps on Lake O stages have been insignificant.

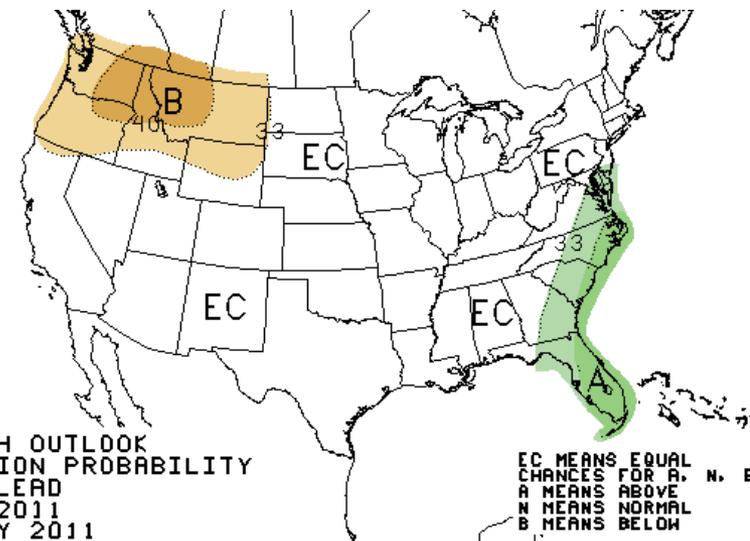
U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

Jun 2011



Jul-Sep 2011



The current precipitation outlook for central and southern Florida is:

- June: equal chances of below-normal (B), normal (N), and above-normal (A)
- July-Sep: increased chance of above-normal (A) rainfall
- increased chance of below-normal (B) rainfall for the entire 2010-11 dry season

No evidence that the wet season has begun or will begin soon

U.S. Drought Monitor

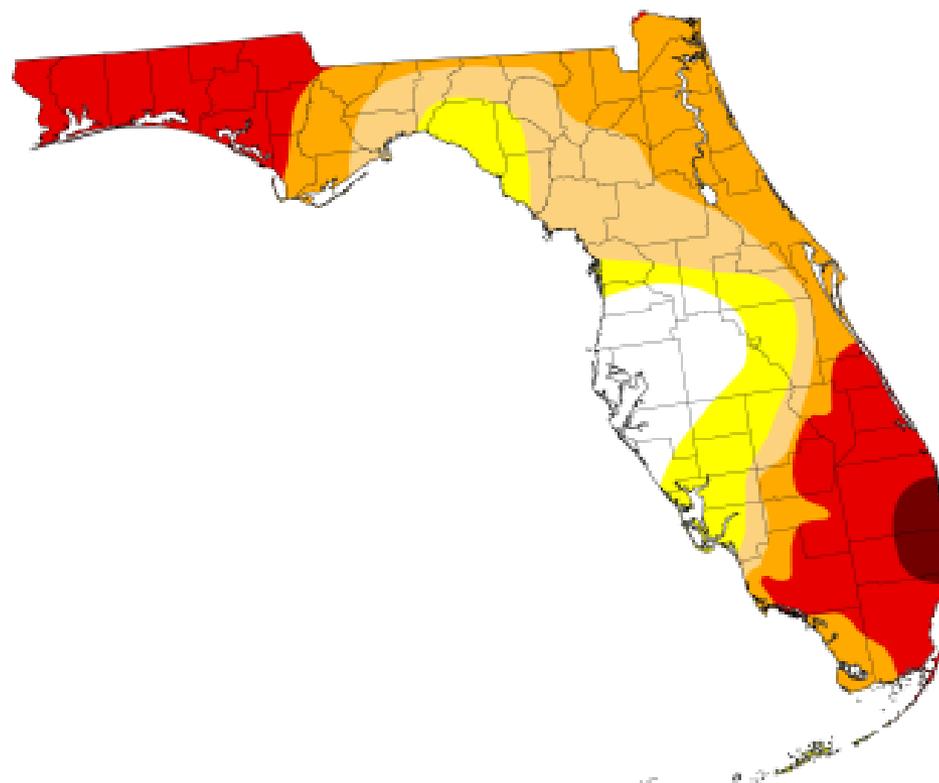
May 31, 2011

Valid 7 a.m. EST

Florida

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.79	90.21	76.31	56.50	31.10	2.32
Last Week (05/24/2011 map)	9.79	90.21	75.03	53.73	28.65	0.00
3 Months Ago (03/01/2011 map)	0.87	99.13	91.30	53.50	13.06	0.00
Start of Calendar Year (12/28/2010 map)	0.18	99.82	86.04	50.84	20.21	0.00
Start of Water Year (09/28/2010 map)	54.97	45.03	18.02	4.22	0.00	0.00
One Year Ago (05/25/2010 map)	100.00	0.00	0.00	0.00	0.00	0.00



Intensity:

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

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

<http://drought.unl.edu/dm>



Released Thursday, June 2, 2011
Anthony Artusa, NOAA/NWS/NCEP/CPC

Lake Okeechobee Stage Forecast

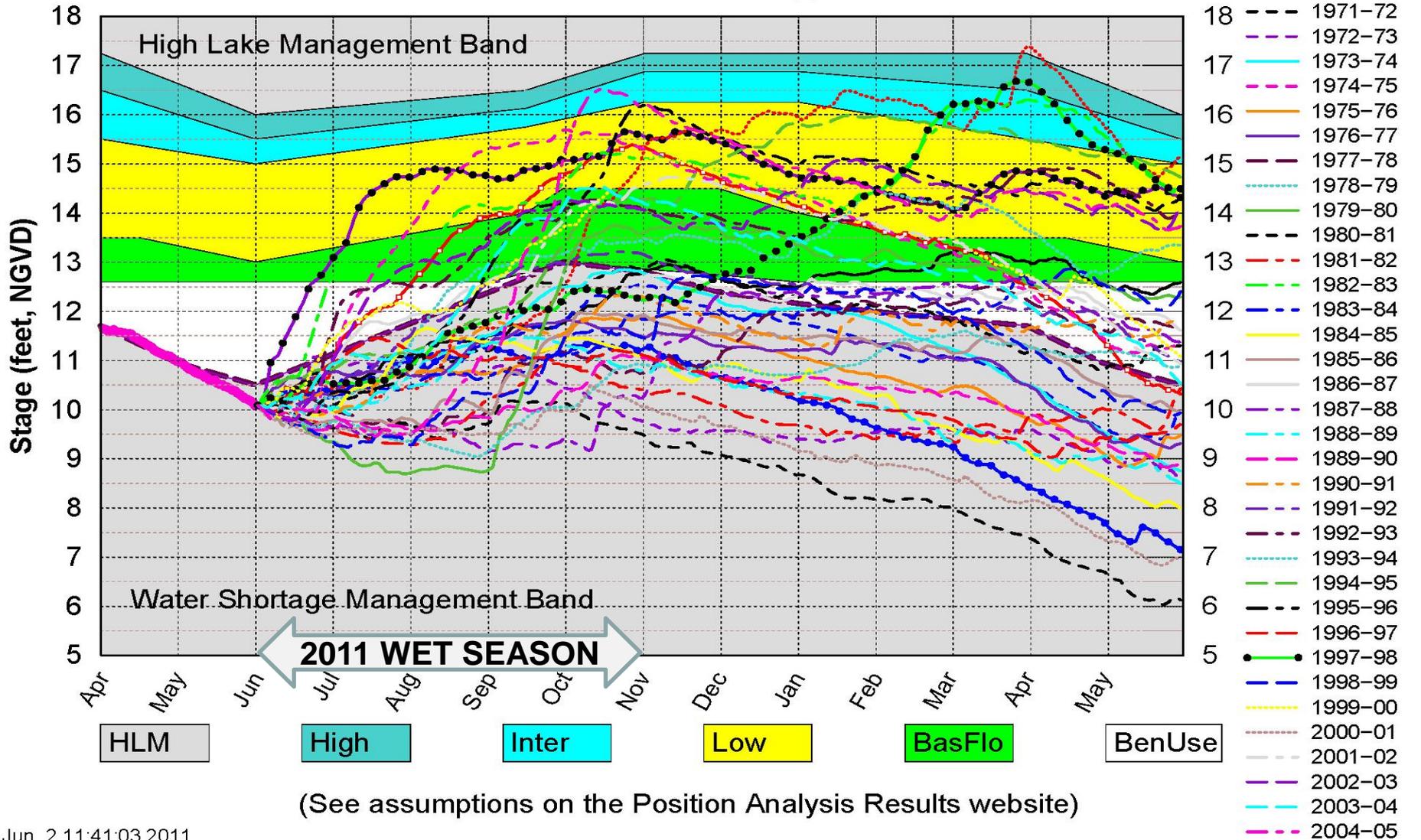
- **Future Lake stage depends on future rainfall**
- **Projections provided monthly by SFWMD Hydrologic and Environmental Systems Modeling (HESM) Department**

*Don Ketprakong, Paul Trimble, Danielle Morancy,
Alaa Ali, Jayantha Obeysekera*

- **Position Analysis**
 - **Each year starts with current hydrologic conditions**
 - **41 1-yr simulations of system response to historical rainfall conditions**
 - **Statistical summaries used to display projections**

Lake Okeechobee SFWMM June 2011 Position Analysis

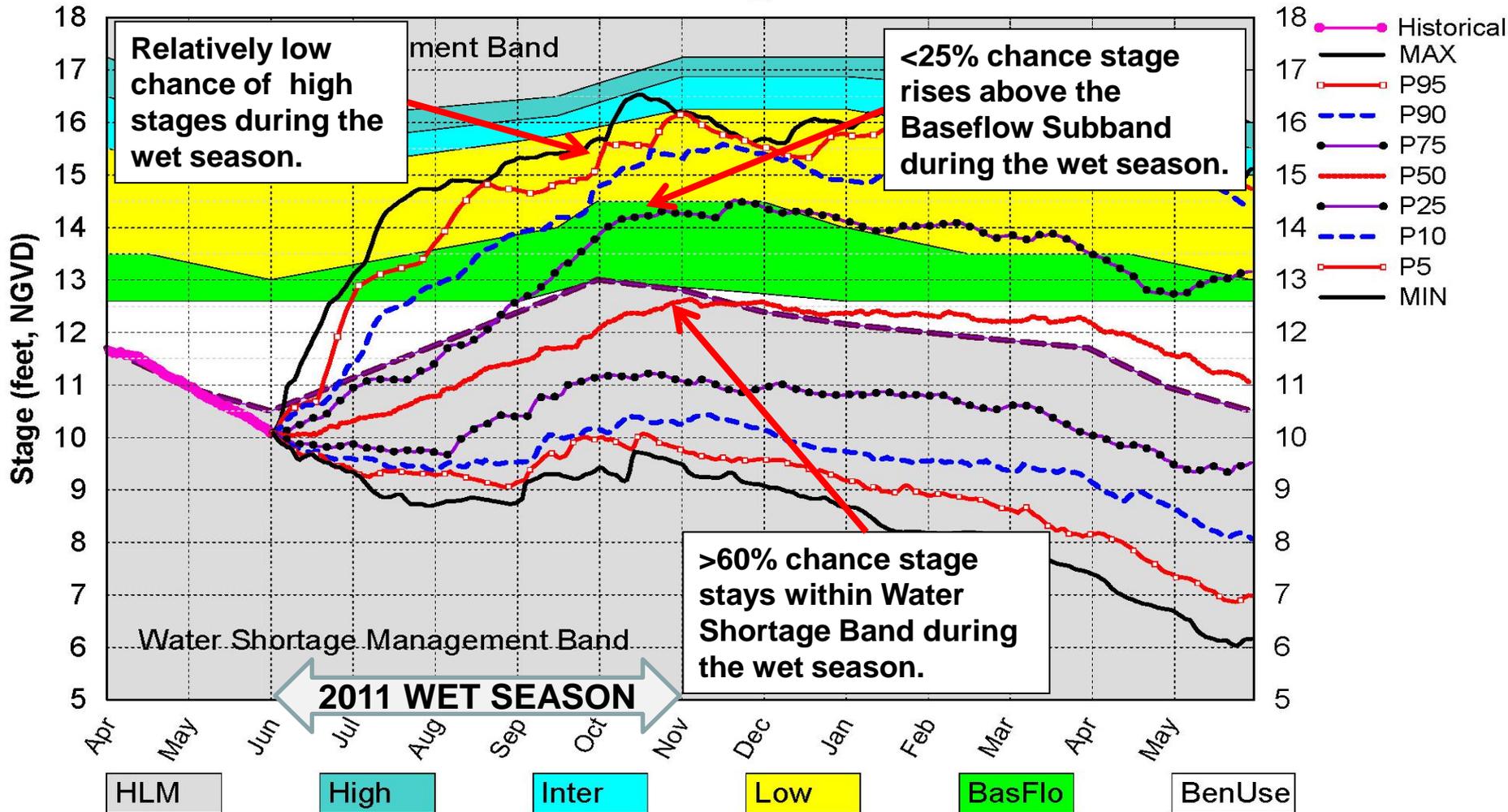
All Simulated Years Plot PA_V2



(See assumptions on the Position Analysis Results website)

Lake Okeechobee SFWMM June 2011 Position Analysis

Percentiles PA_V2



(See assumptions on the Position Analysis Results website)

Questions??

