

# Water Conditions Summary

*South Florida Water Management District  
Governing Board Meeting*

*January 12, 2012*

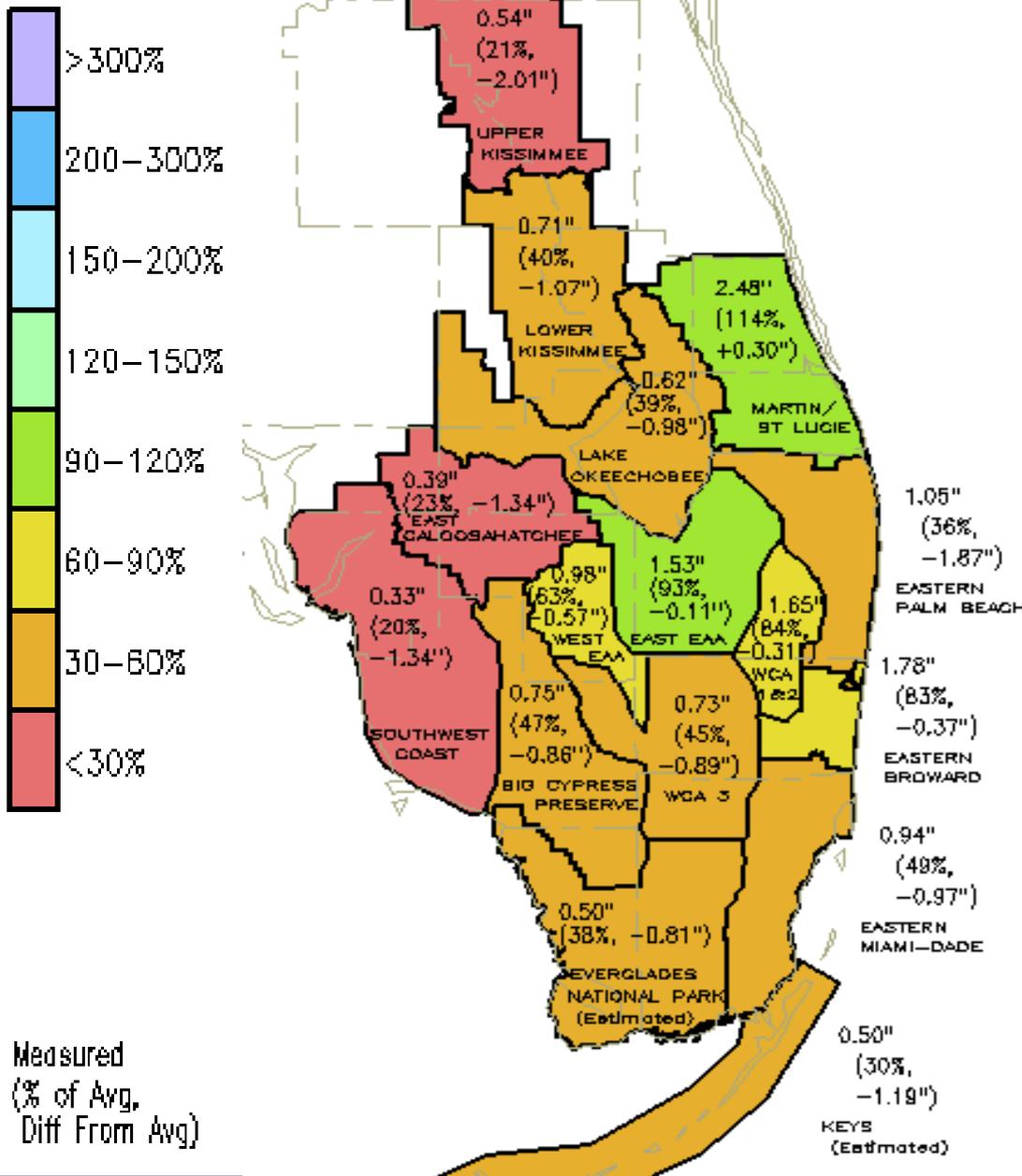
*Tommy B. Strowd, P.E., Director  
Operations, Maintenance & Construction Division*

# SFWMD 2011

## December Rainfall

02Dec2011 – 01Jan2012

**DISTRICT-WIDE: 0.90"  
(48% of Avg, or -0.99")**



- All basins received less than average rainfall except Martin/St. Lucie (0.30" above average)

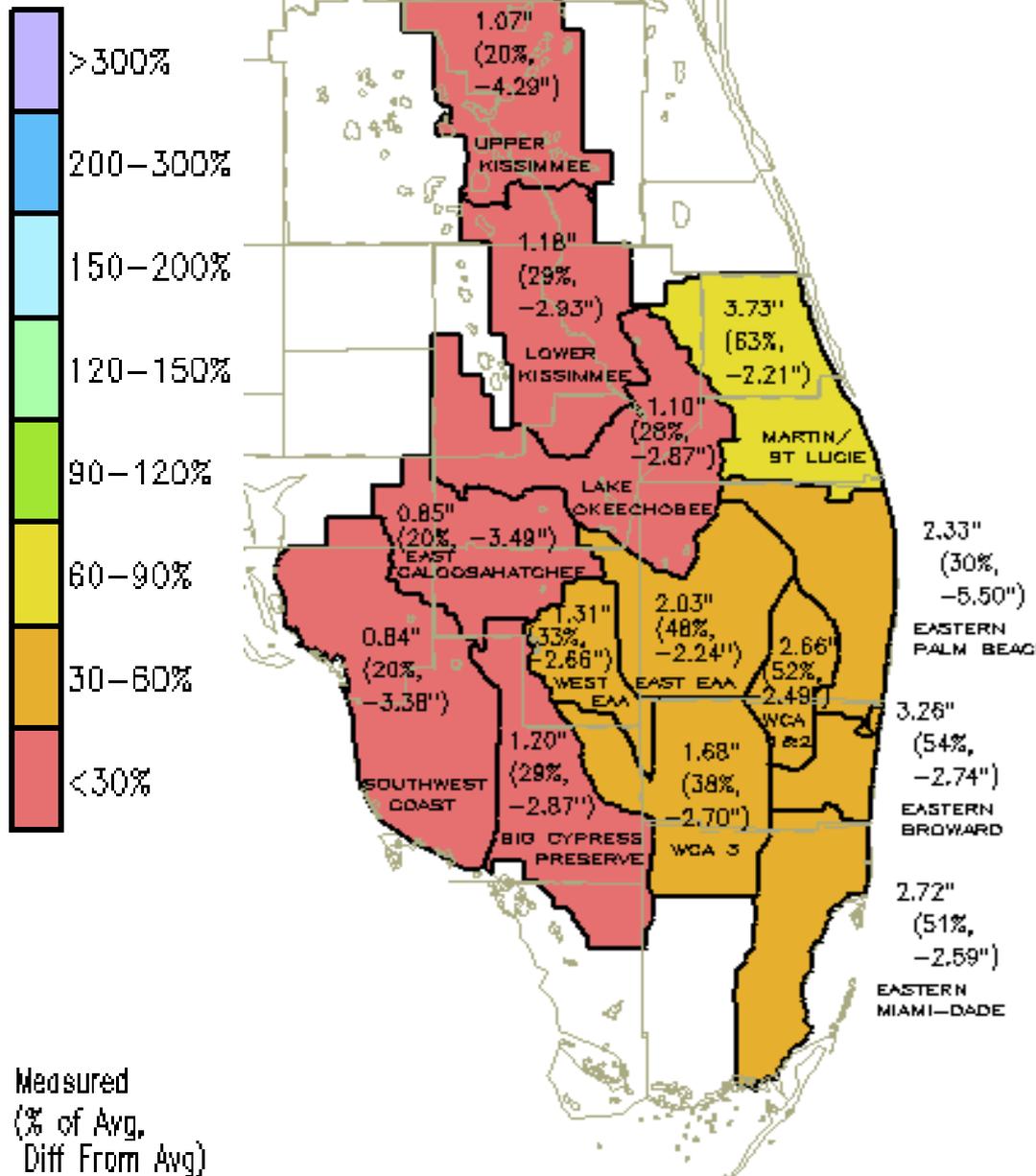
- Only about 20% of average rainfall in the Upper Kissimmee, East Caloosahatchee, and Southwest Coast

Measured  
(% of Avg,  
Diff From Avg)

# SFWMD 2011-12 Dry Season Rainfall

02Nov2011 – 09Jan2012

**DISTRICT-WIDE: 1.65"  
(35% of Avg, or -3.10")**



- All Basins received less than average rainfall so far this dry season
- Given the well above normal rainfall District wide in October water supply is not yet a concern in the short-term
- However, we are very mindful of the Climate Predication Center outlook for dryer than normal conditions through the dry season and appropriately all areas are under a water shortage warning

# U.S. Drought Monitor

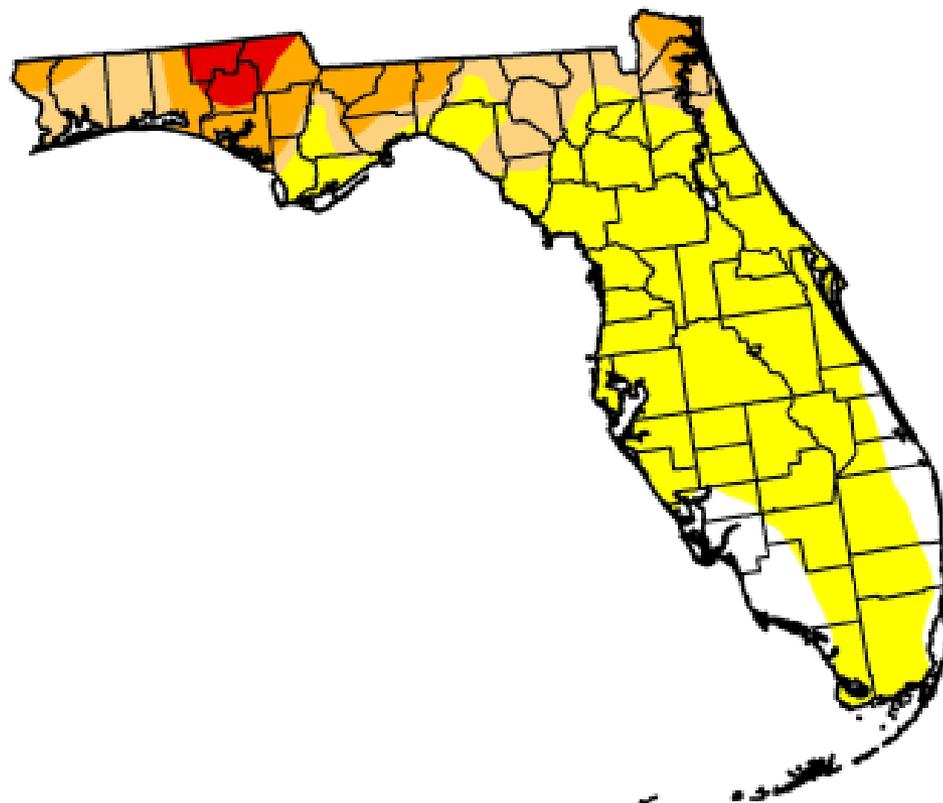
January 3, 2012

Valid 7 a.m. EST

## Florida

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.91	91.09	27.41	12.84	2.61	0.00
Last Week (12/27/2011 map)	38.81	61.19	27.41	12.84	2.61	0.00
3 Months Ago (10/04/2011 map)	43.22	56.78	29.30	19.17	9.49	0.00
Start of Calendar Year (12/27/2011 map)	38.81	61.19	27.41	12.84	2.61	0.00
Start of Water Year (09/27/2011 map)	43.12	56.88	28.83	16.85	7.85	0.00
One Year Ago (12/28/2010 map)	0.18	99.82	86.04	50.84	20.21	0.00



Intensity:

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

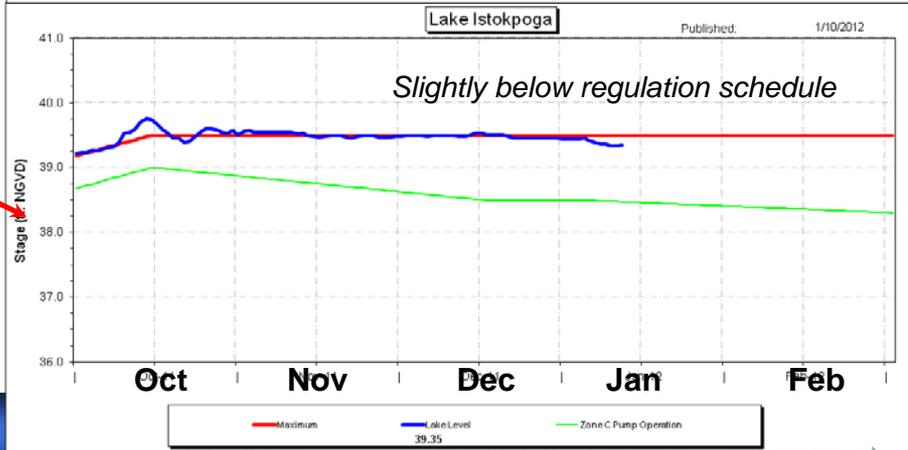
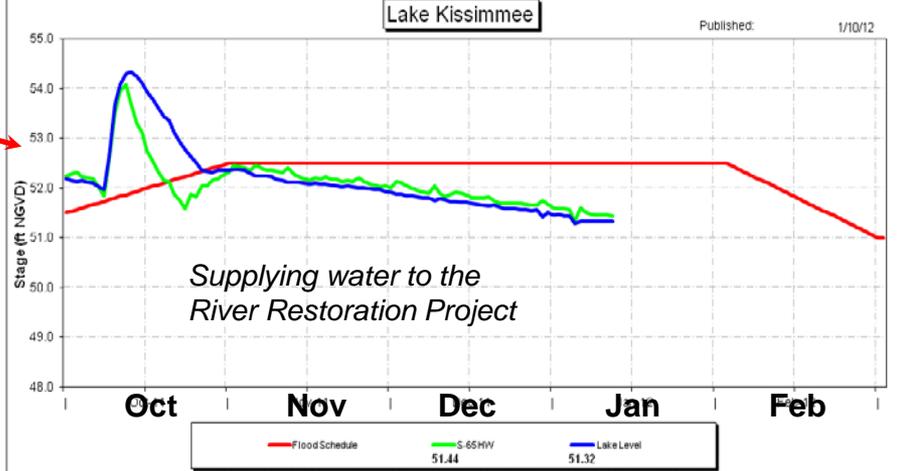
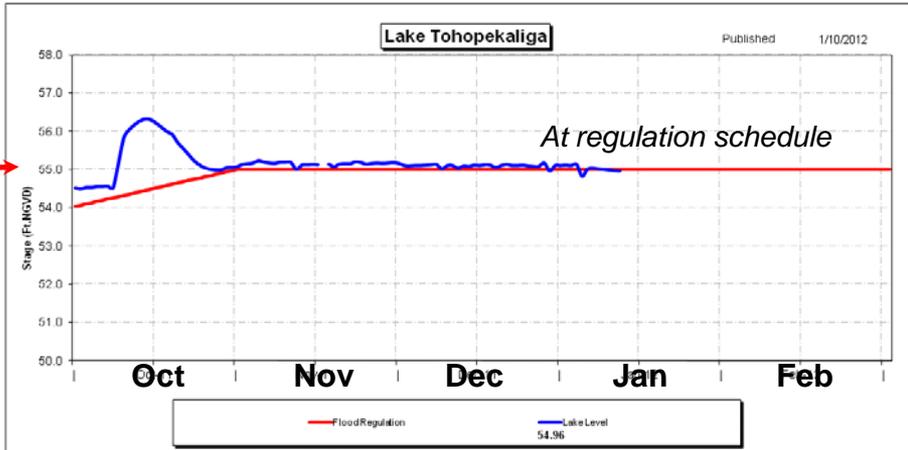
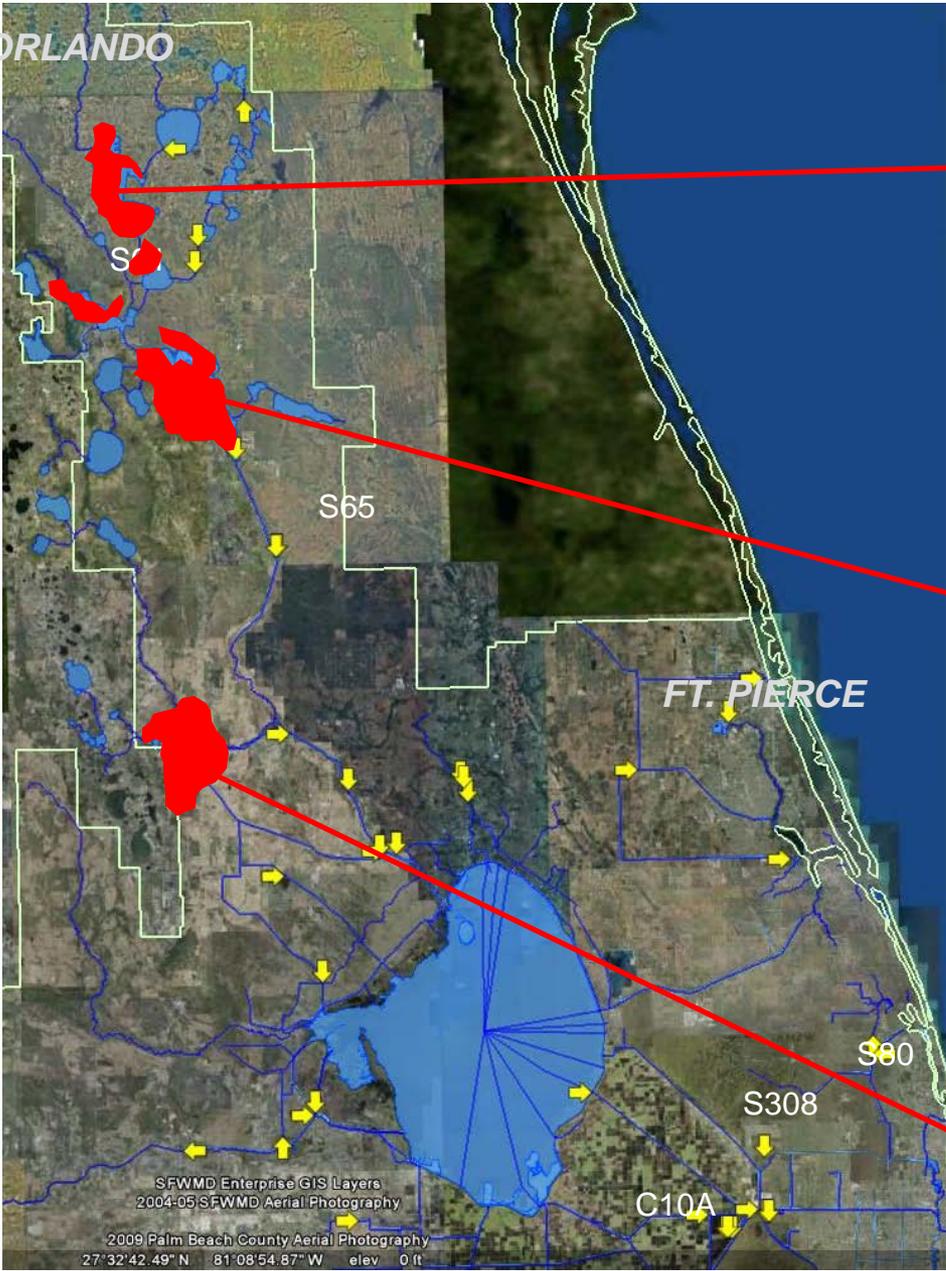
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

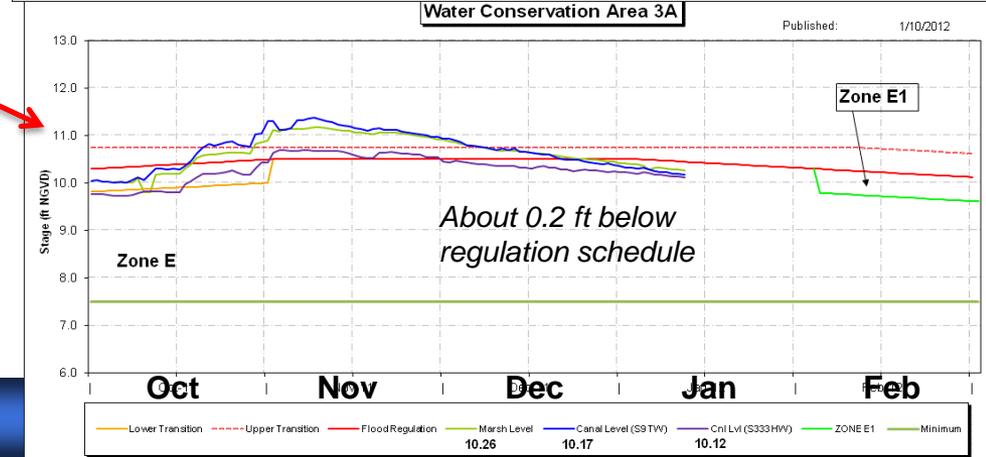
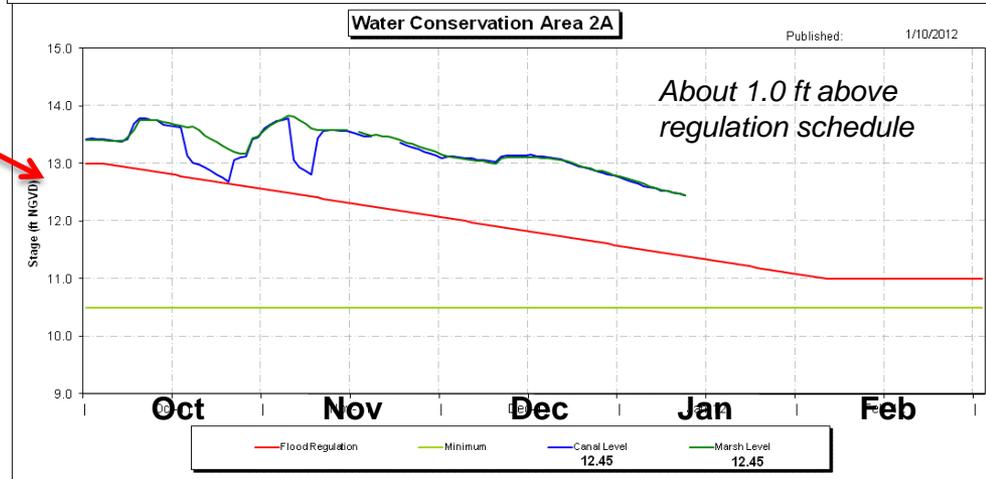
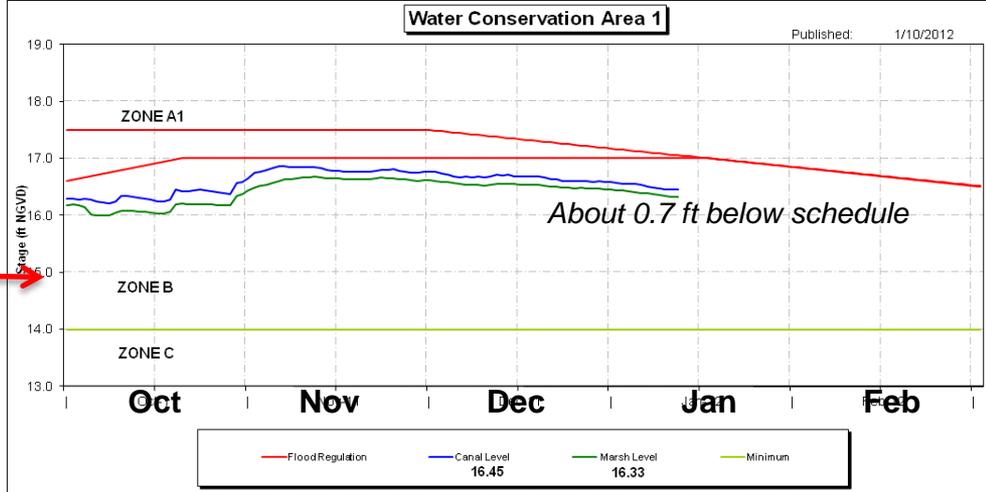
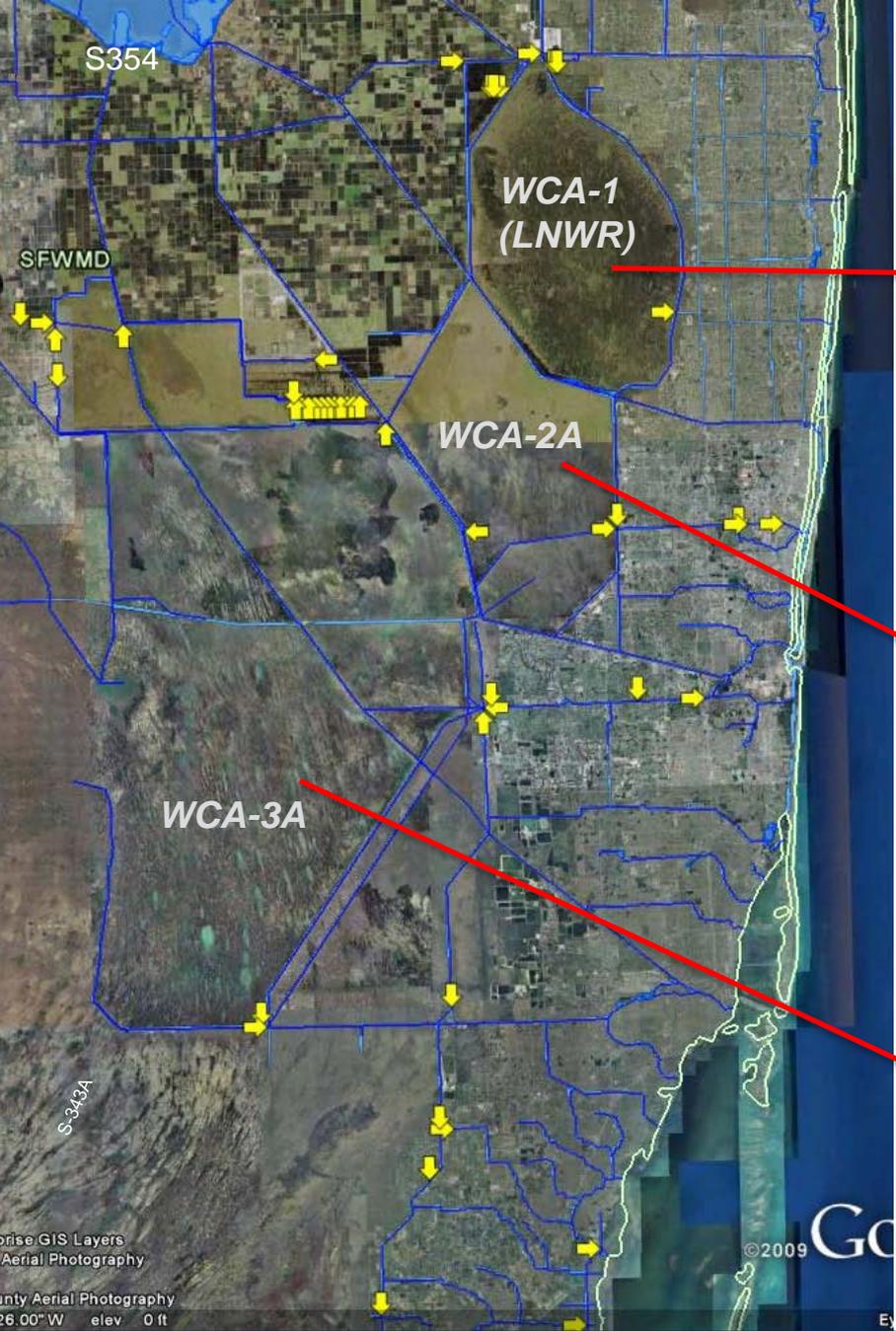
<http://droughtmonitor.unl.edu>



Released Thursday, January 5, 2012  
Brad Rippey, U.S. Department of Agriculture

ORLANDO

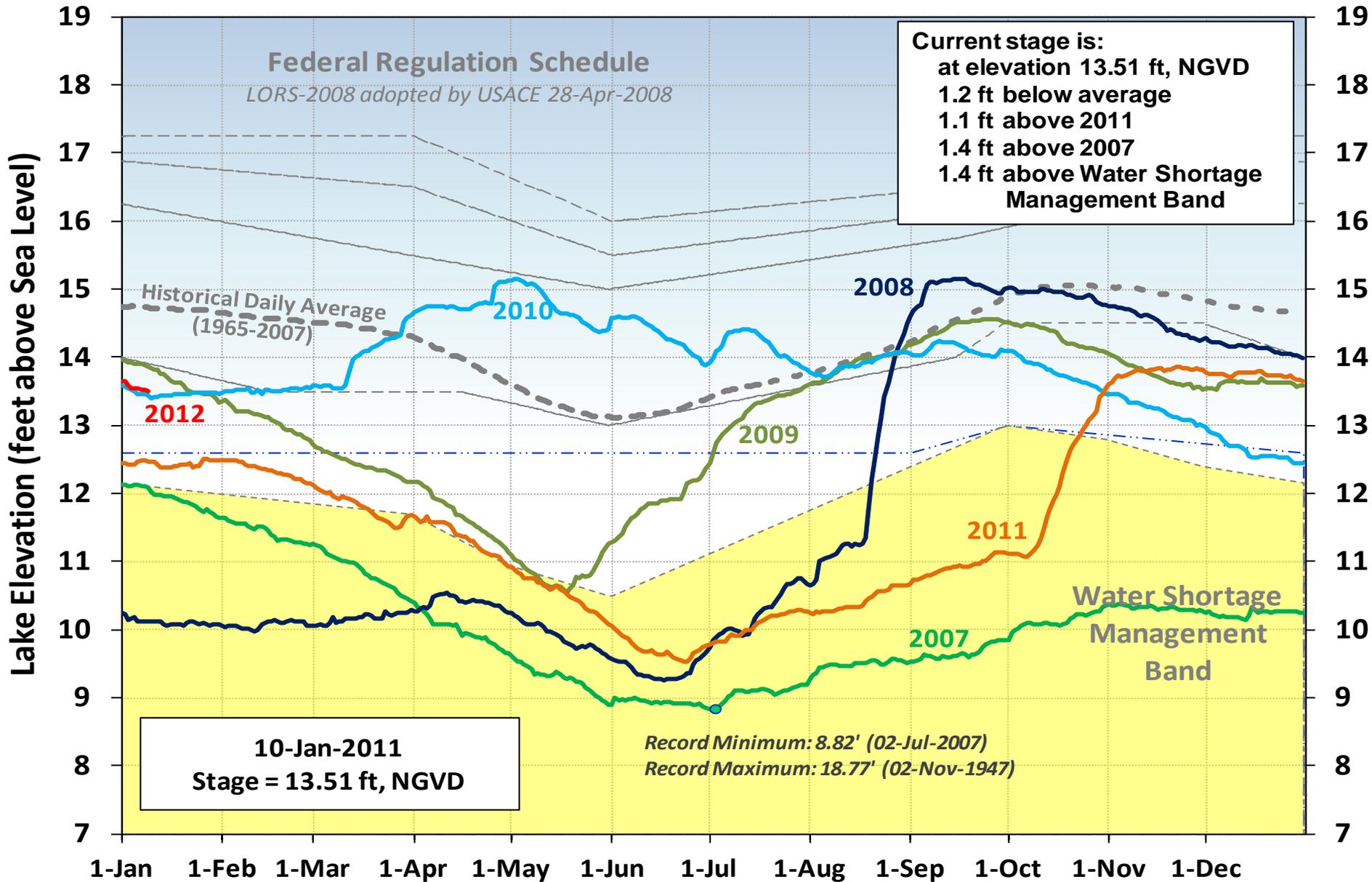




Aerial Photography  
 Aerial Photography  
 26 00' W elev 0 ft

©2009 Google

# Lake Okeechobee Water Level Comparison

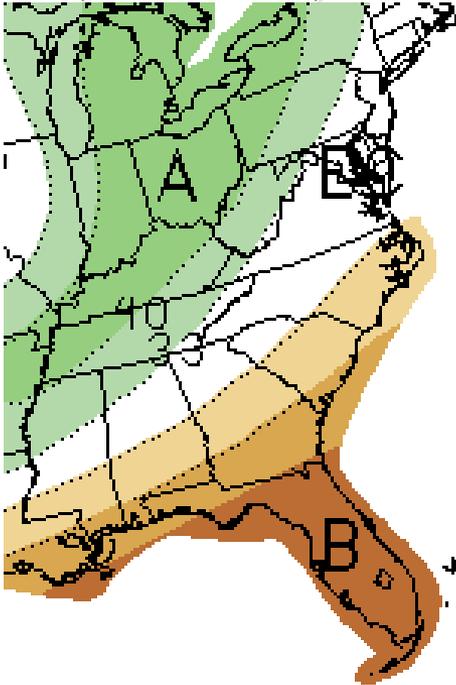


# U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

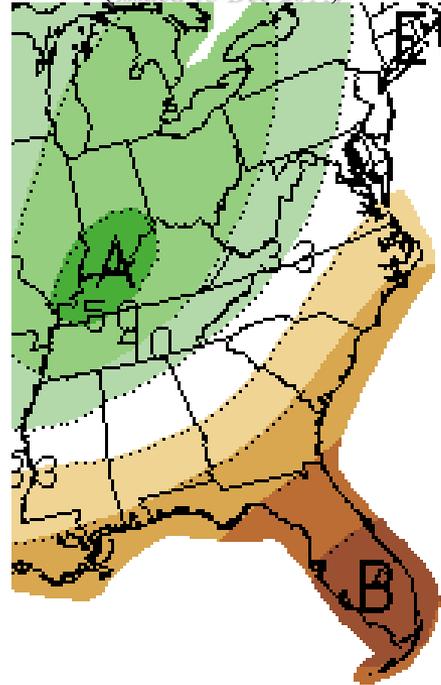
## Jan 2012

(issued 31-Dec-2011)



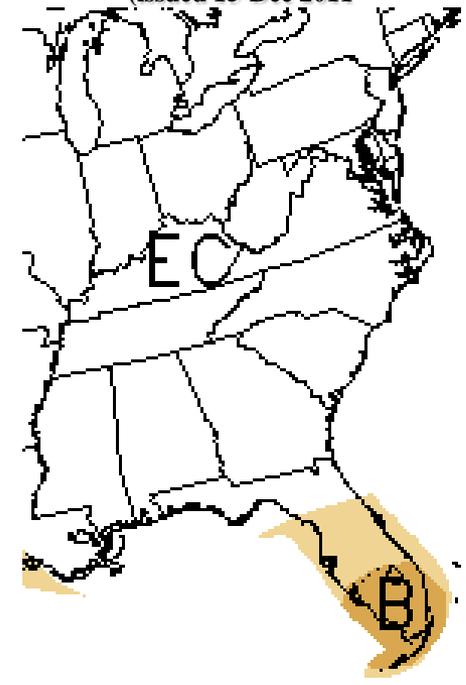
## Jan - Mar 2012

(issued 15-Dec-2011)



## Apr - Jun 2012

(issued 15-Dec 2011)



The current CPC precipitation outlook for central and southern Florida is for increased chances of below-normal (B) rainfall for the remainder of the 2011-12 dry season. Jan-Mar shows highest probabilities (>50%)

# ***Lake Okeechobee Stage Forecast***

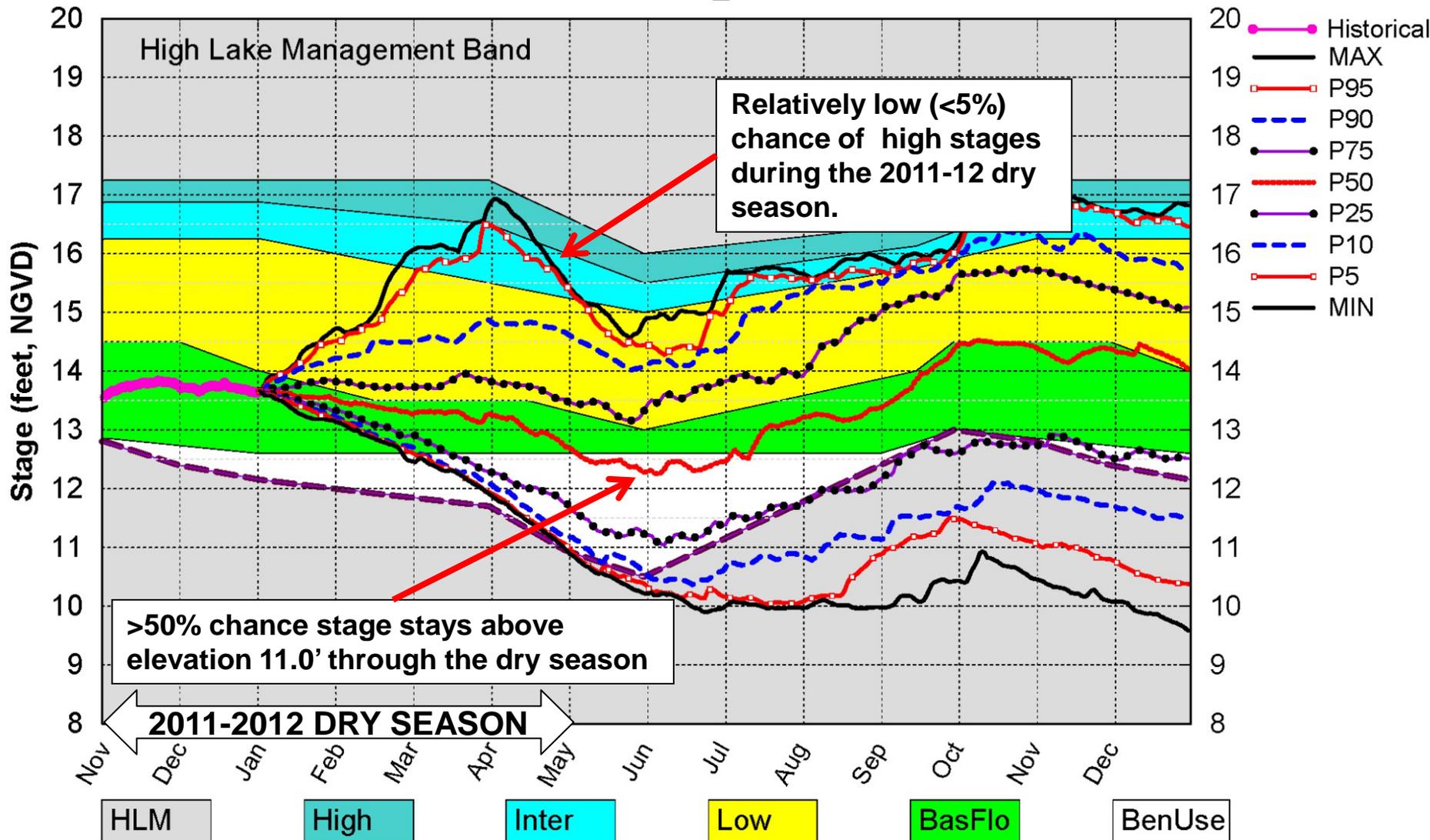
- **Future Lake stage depends on future rainfall**
- **Projections provided monthly by SFWMD Hydrologic and Environmental Systems Modeling (HESM) Department**

*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 January 2012 Position Analysis

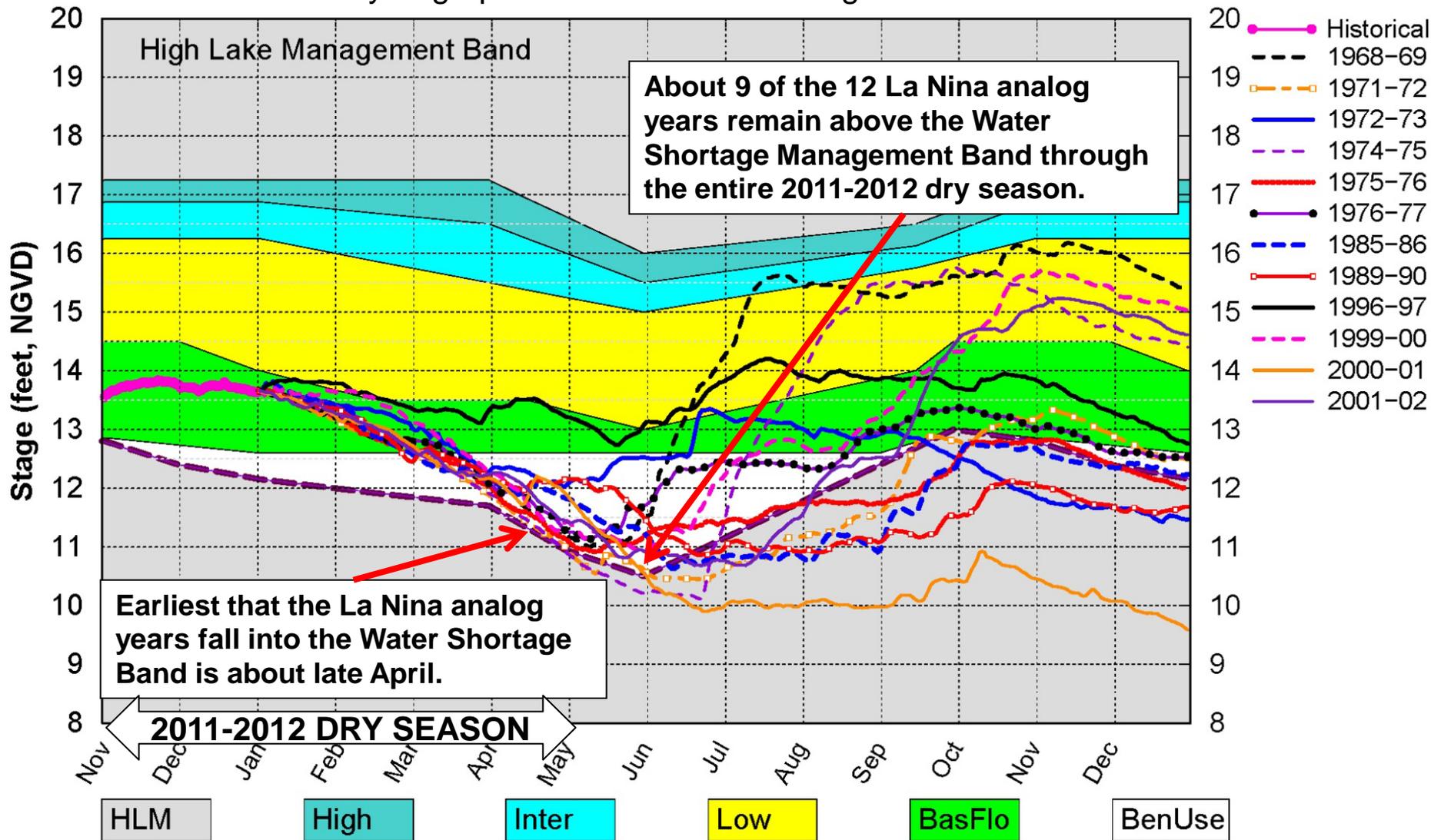
Percentiles based on 41 possible outcomes starting with January 1<sup>st</sup> initialization



(See assumptions on the Position Analysis Results website)

# Lake Okeechobee SFWMM January 2012 Position Analysis

Hydrographs for 12 La Nina Analog Years



(See assumptions on the Position Analysis Results website)

# ***Lake Okeechobee: Current Operations***

- **USACE's Lake O Regulation Schedule (2008 LORS)**
  - Stage is within the Baseflow Subband
  - Release guidance suggests:
    - up to baseflow releases at S-79 and S-80
    - No releases to the WCAs (Dry Tributary Hydrologic Conditions)
- **SFWMD's Lake O Adaptive Protocol (2010)**
  - Release guidance currently suggests up to 450 cfs baseflow releases to the Caloosahatchee Estuary
    - Lake Stage is in the Baseflow Subband
    - Val I75 Salinity forecast (30-day moving avg) > 5 psu within next two weeks
    - Less than 50% chance Lake stage will fall below elevation 11.0 ft during the dry season
  - Jan 11<sup>th</sup>: SFWMD requested the USACE to initiate 5<sup>th</sup> consecutive week of 450 cfs baseflow releases

# Questions