

# Water Conditions Summary

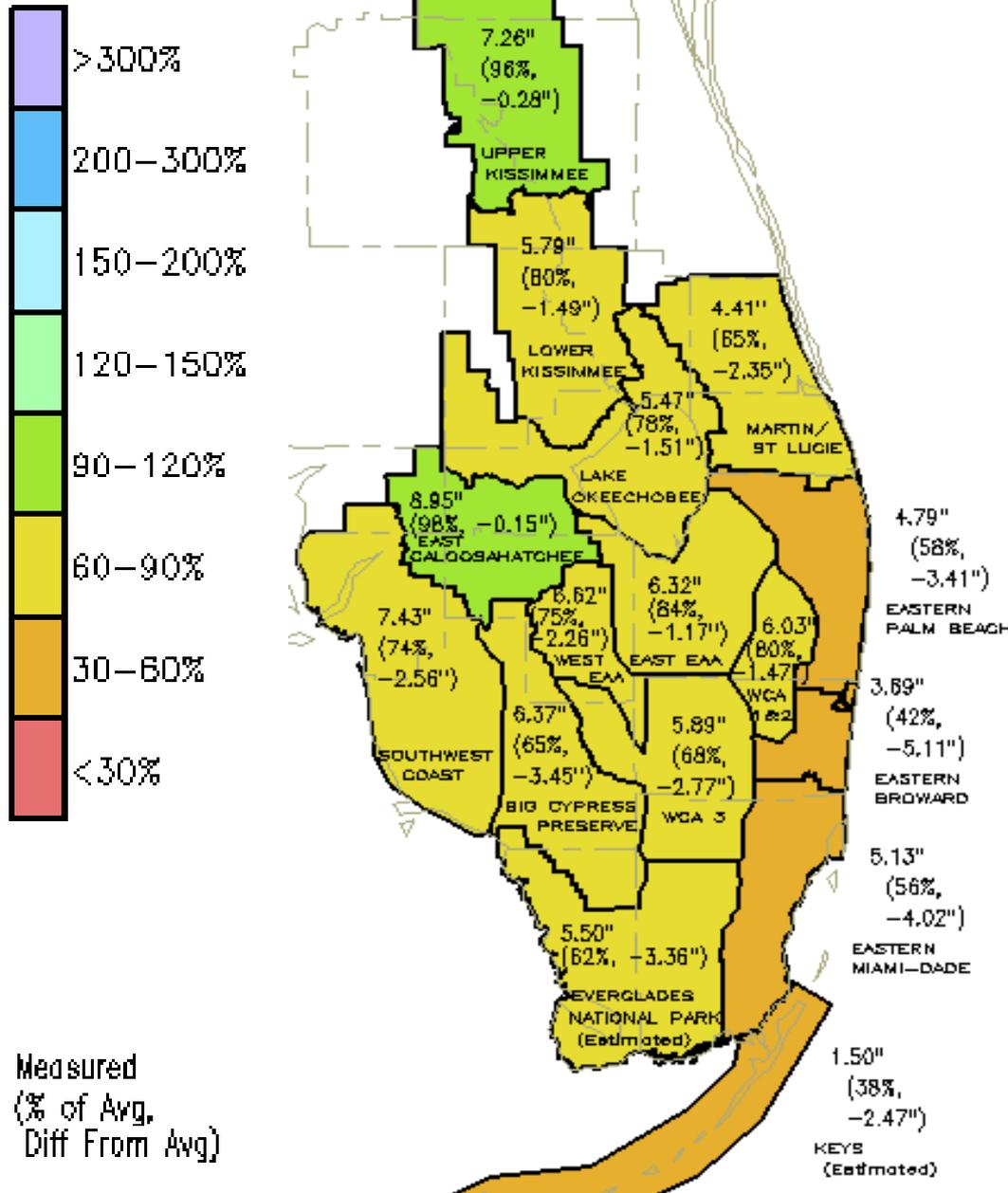
*July 14, 2011*

**Tommy B. Strowd, P.E., Director**  
***Operations, Maintenance & Construction Division***  
***South Florida Water Management District***

# SFWMD 2011 June Rain

**DISTRICT-WIDE: 6.20"  
(75% of Avg, or -2.06")**

- Wet season arrived June 12<sup>th</sup>
- Latest start in over 20 years
- No basins received greater than average rainfall
- Upper Kissimmee and East Caloosahatchee received near-average
- Eastern Palm Beach (58%)
- Eastern Broward (42%)
- Eastern Miami Dade (56%)
- Keys (38%)

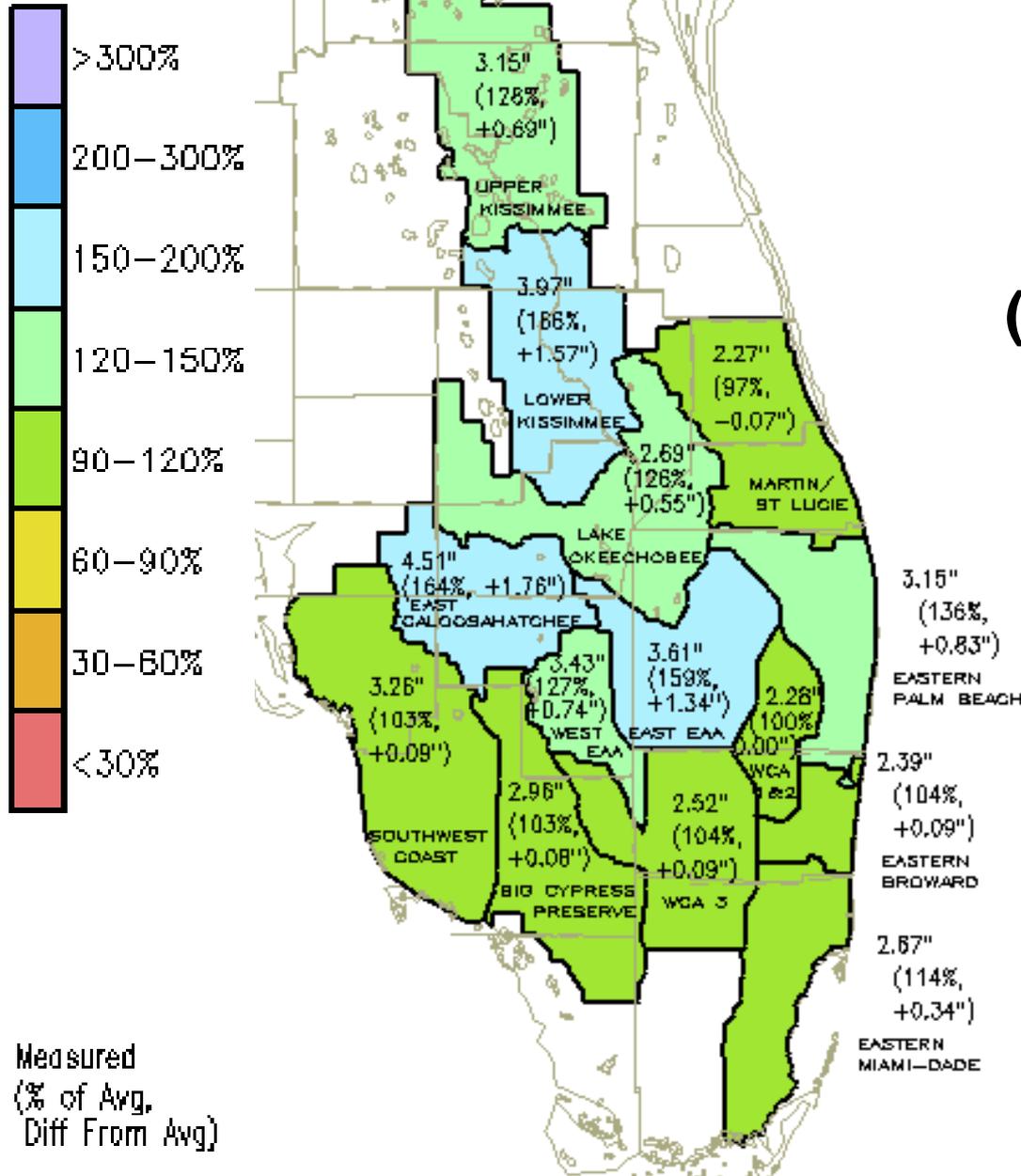


# SFWMD 2010-11

## July Rainfall

Jul 2 – 12

**DISTRICT-WIDE: 3.12"  
(125% of Avg, or +0.63")**

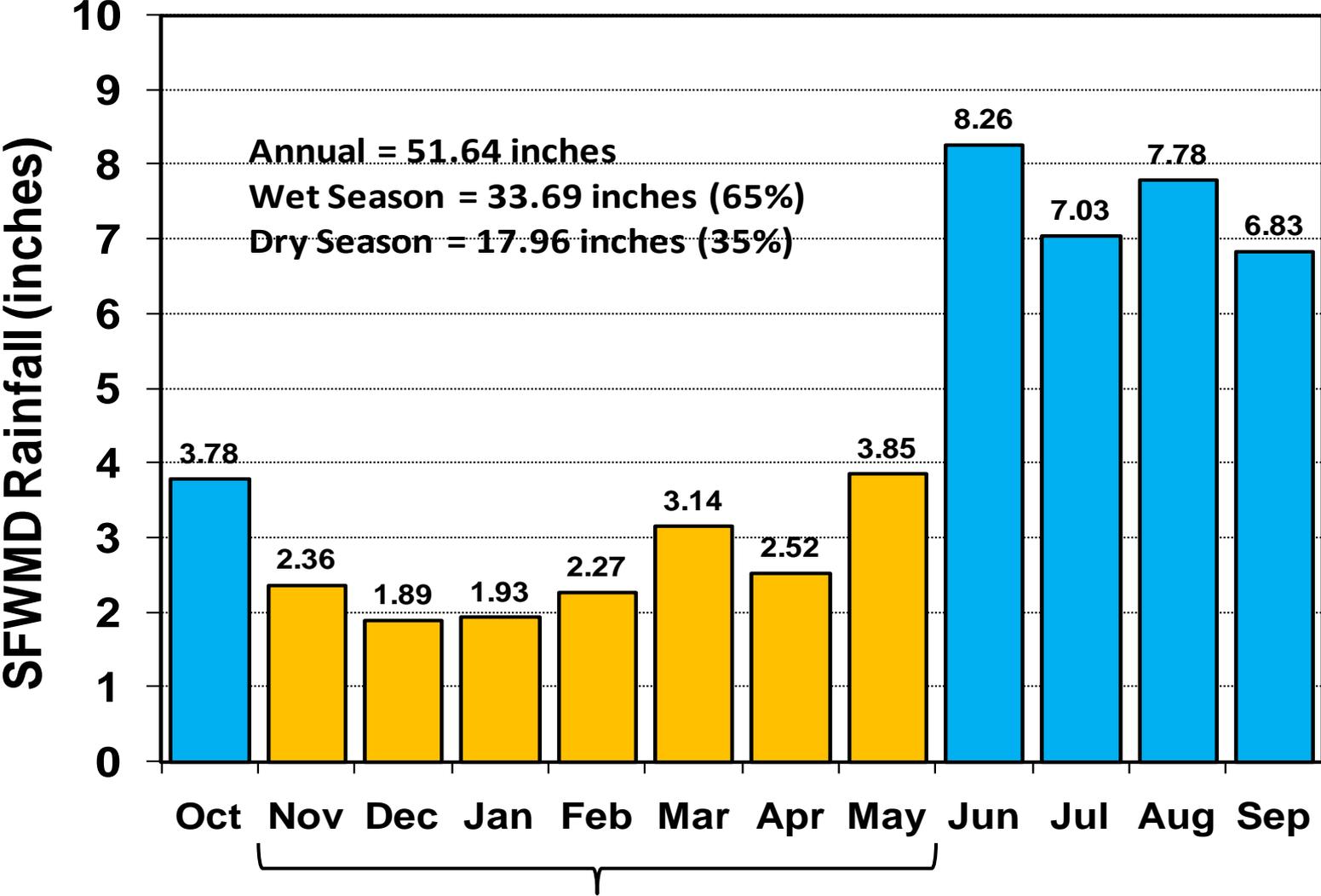


- All basins received above-average rainfall for this time of year

- Lower Kissimmee, East Caloosahatchee, and EAA received more than 150% of average rainfall

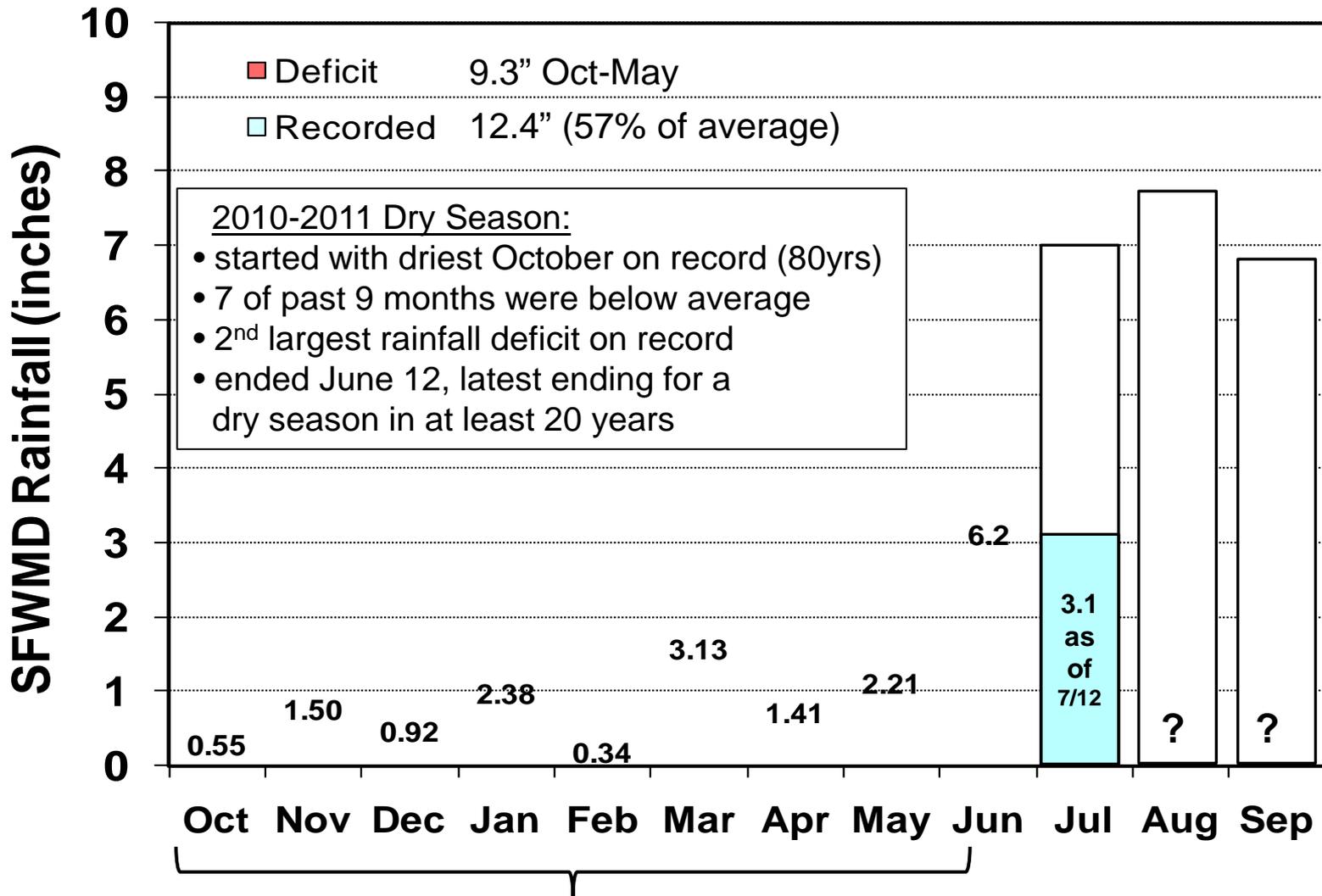
- Near-term Forecast is for below-average rain Thursday & Friday, likely increasing through the weekend

# SFWMD Average Monthly Rainfall (30-yr means: 1981-2010)

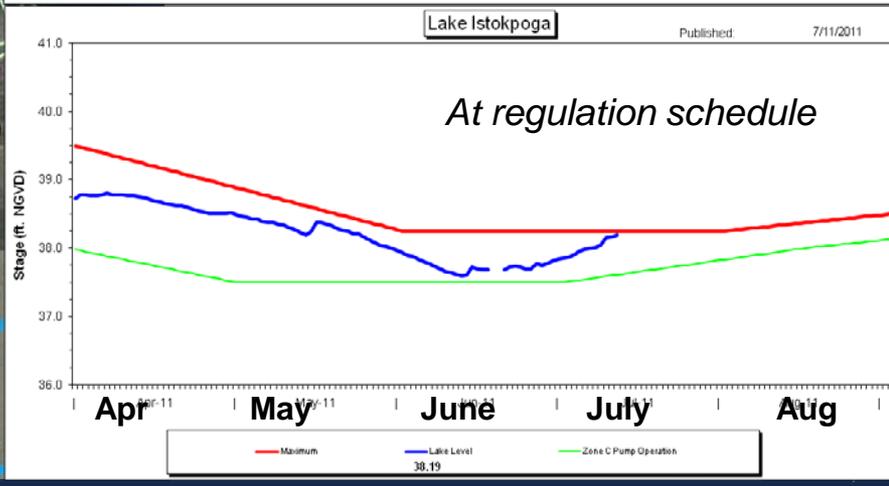
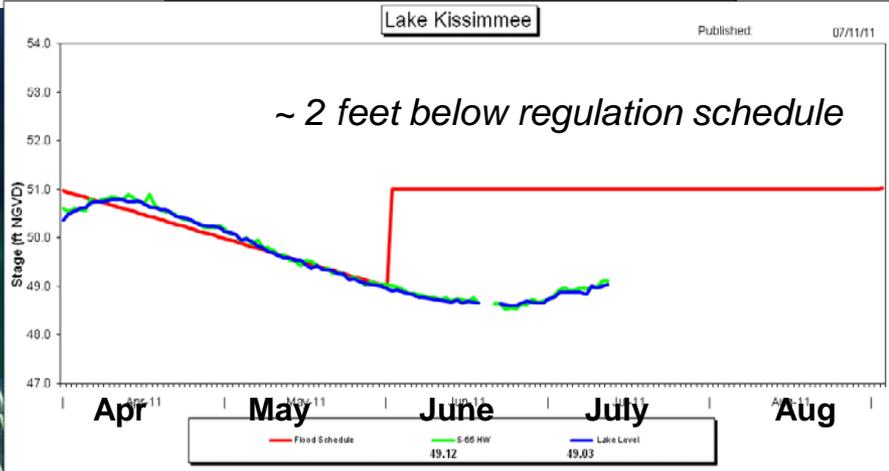
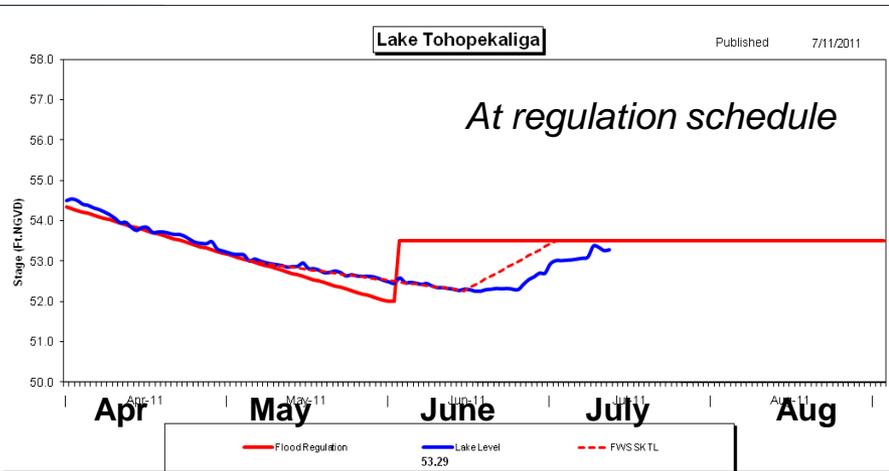
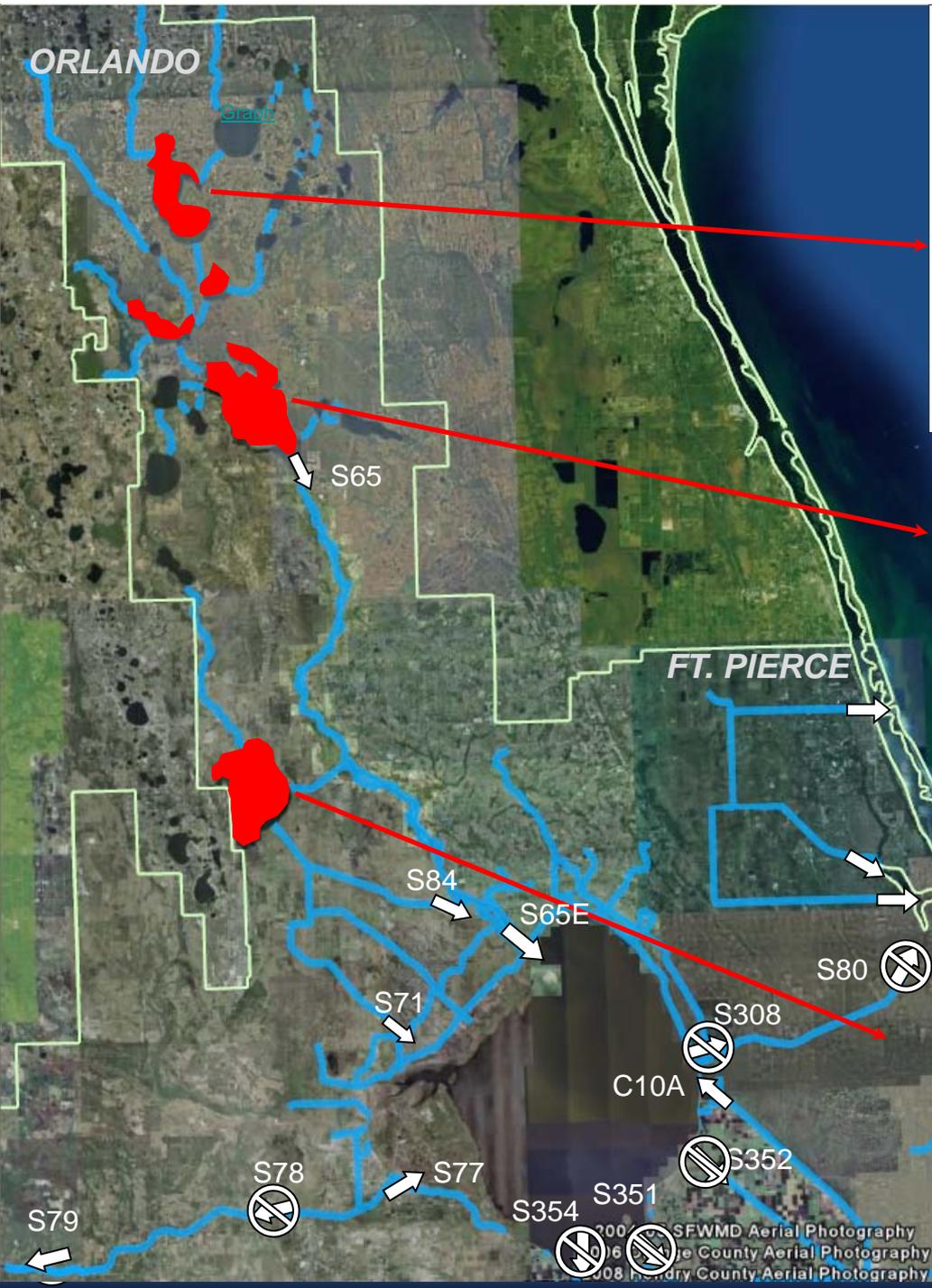


Typical Dry Season: Nov-May (~35% of annual rainfall)

# SFWMD Rainfall Distribution Comparison (Oct 2010 - Jun 2011)



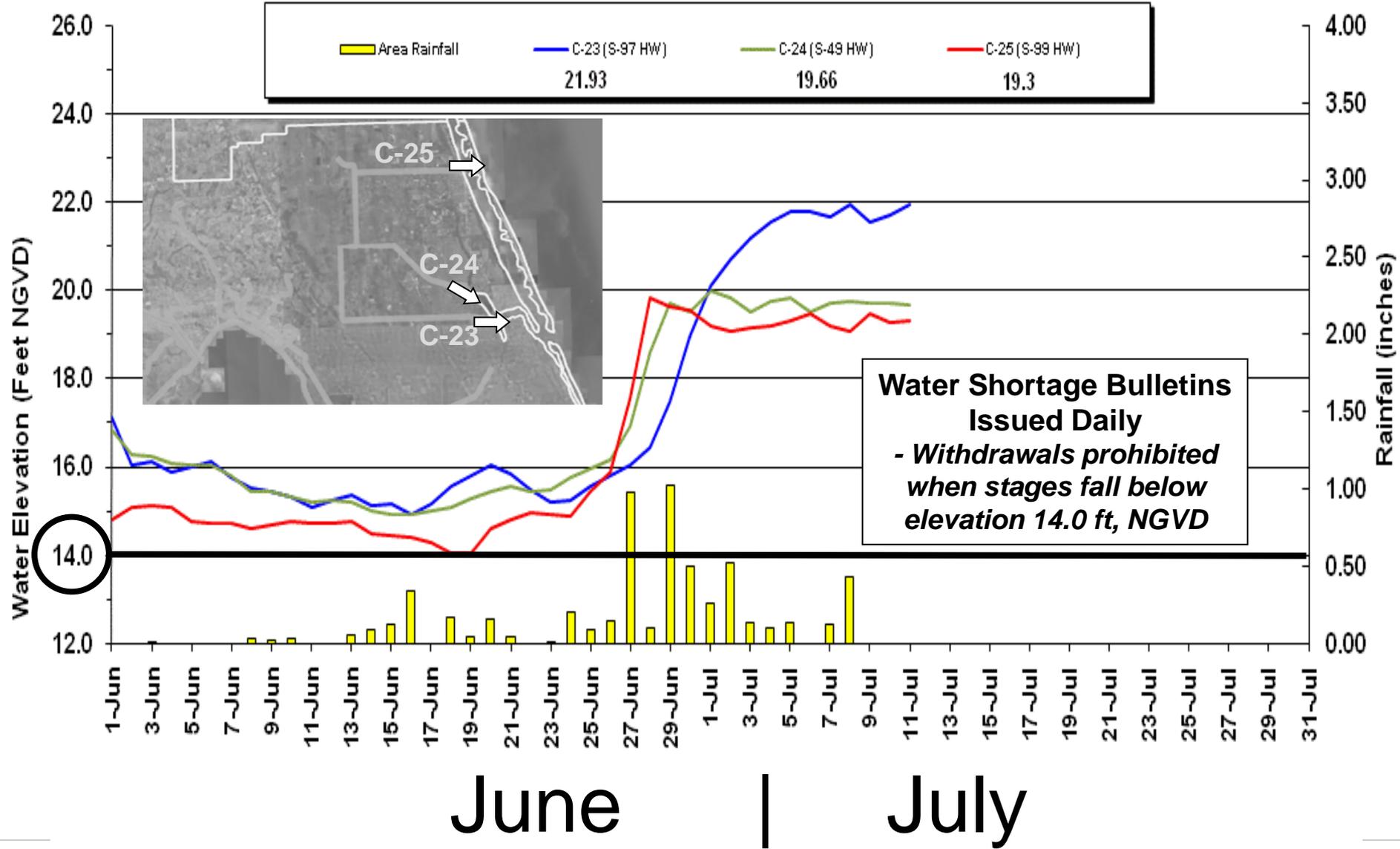
2010-11 Dry Season: Oct-Jun (started early & ended late)

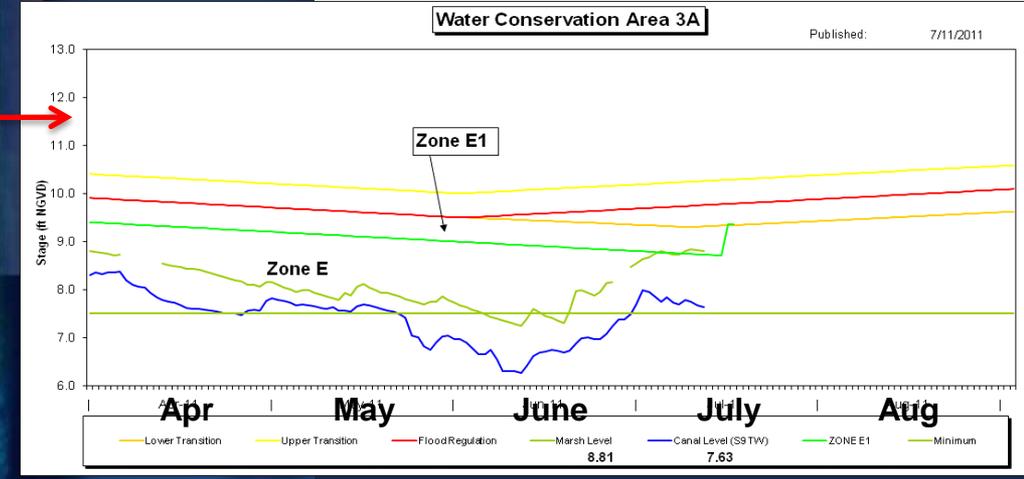
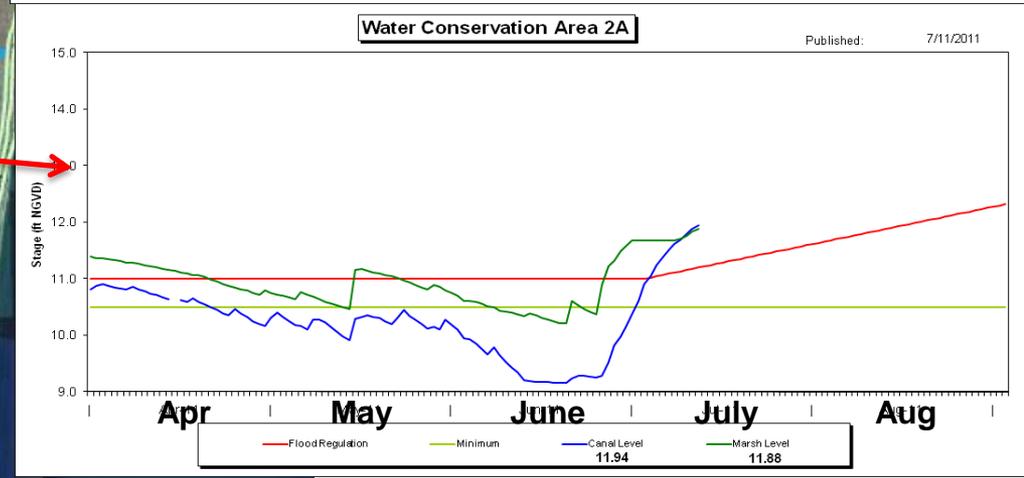
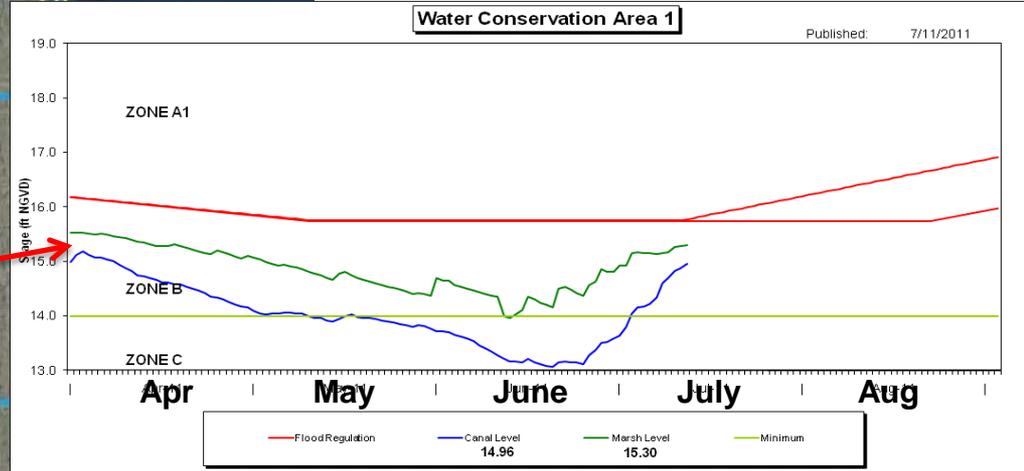
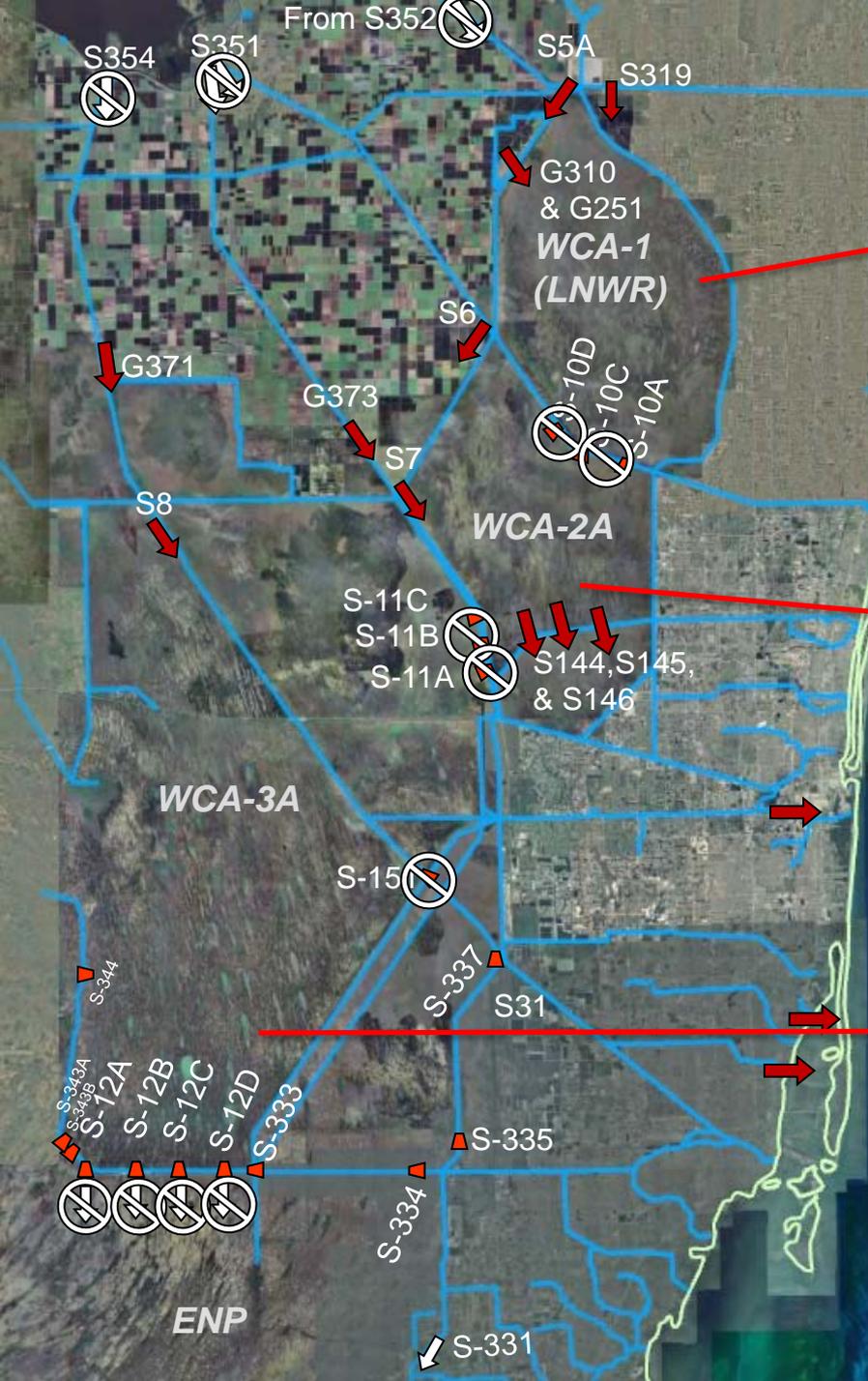


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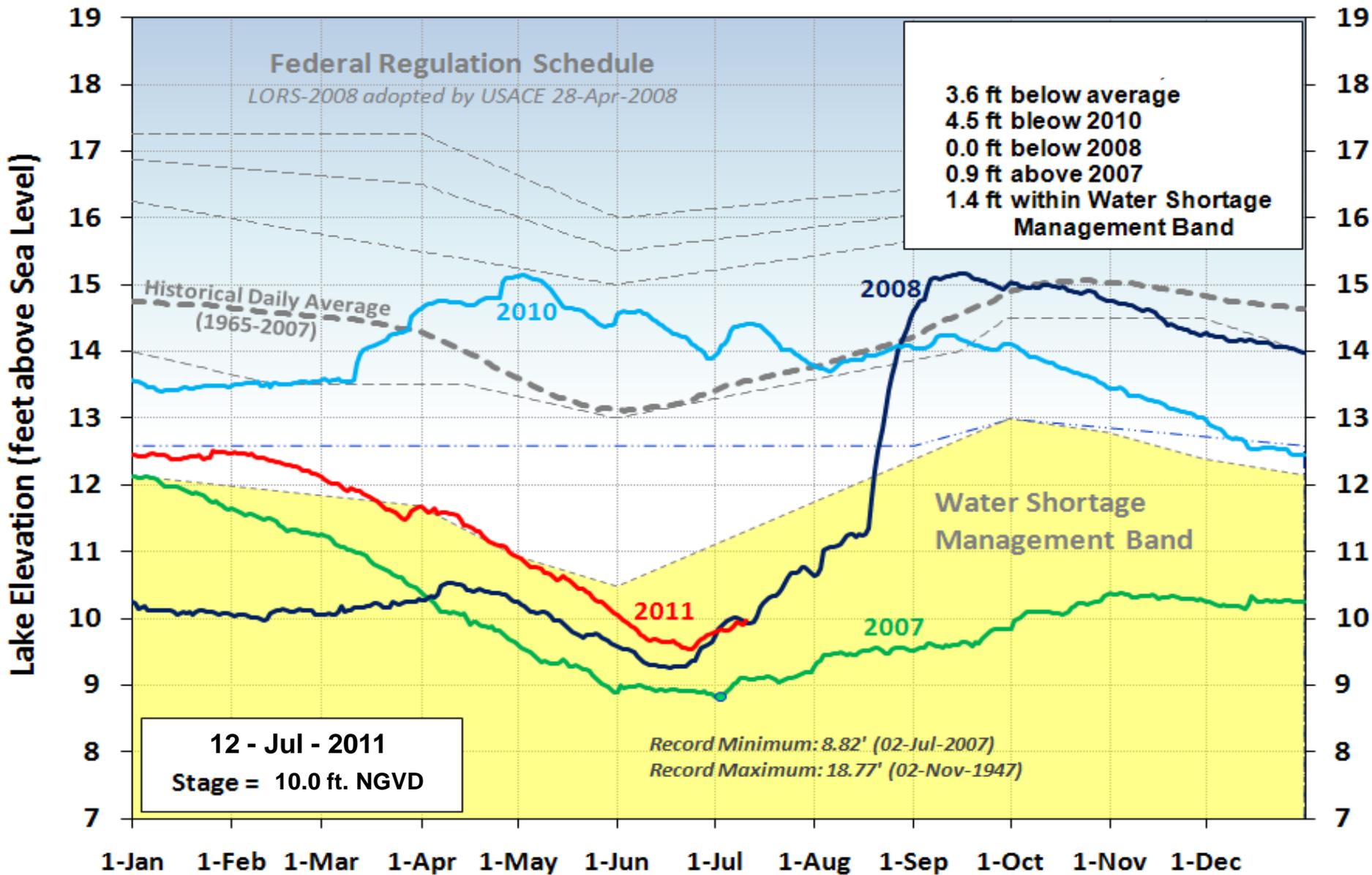
07/11/11

# St Lucie Structures on C23, C24 & C25 Canals





# Lake Okeechobee Water Level Comparison

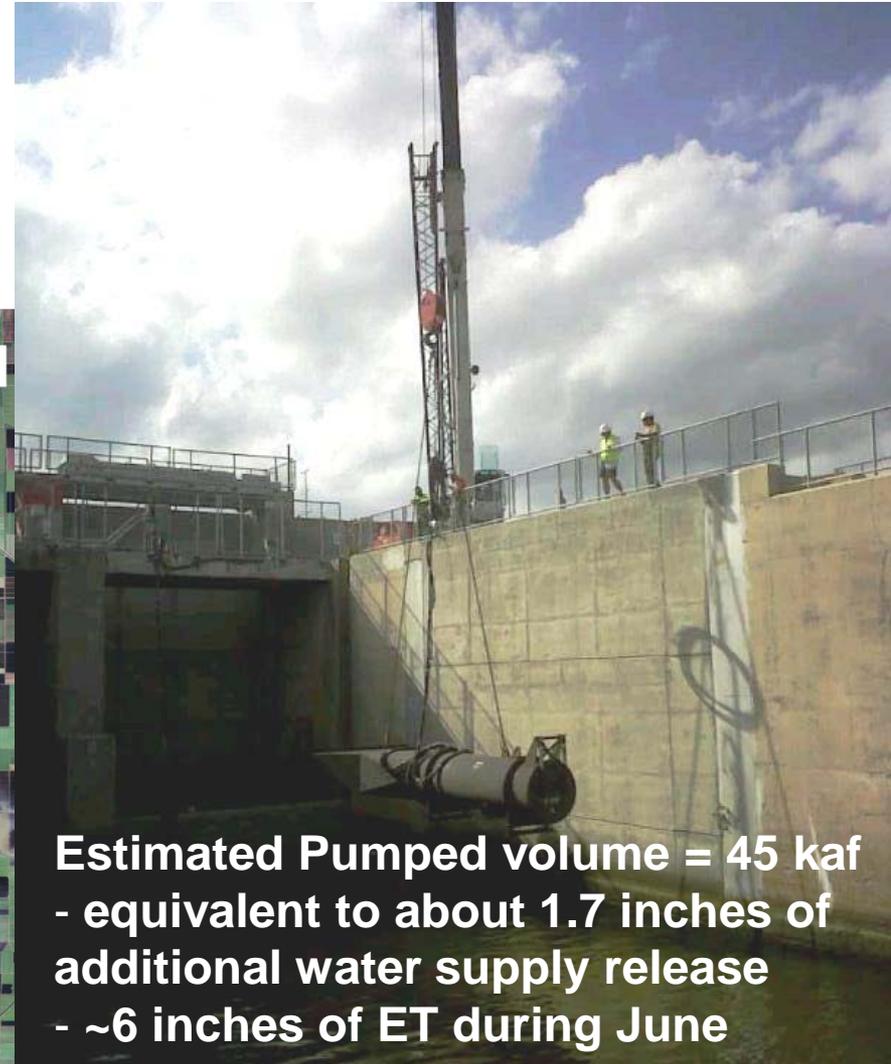
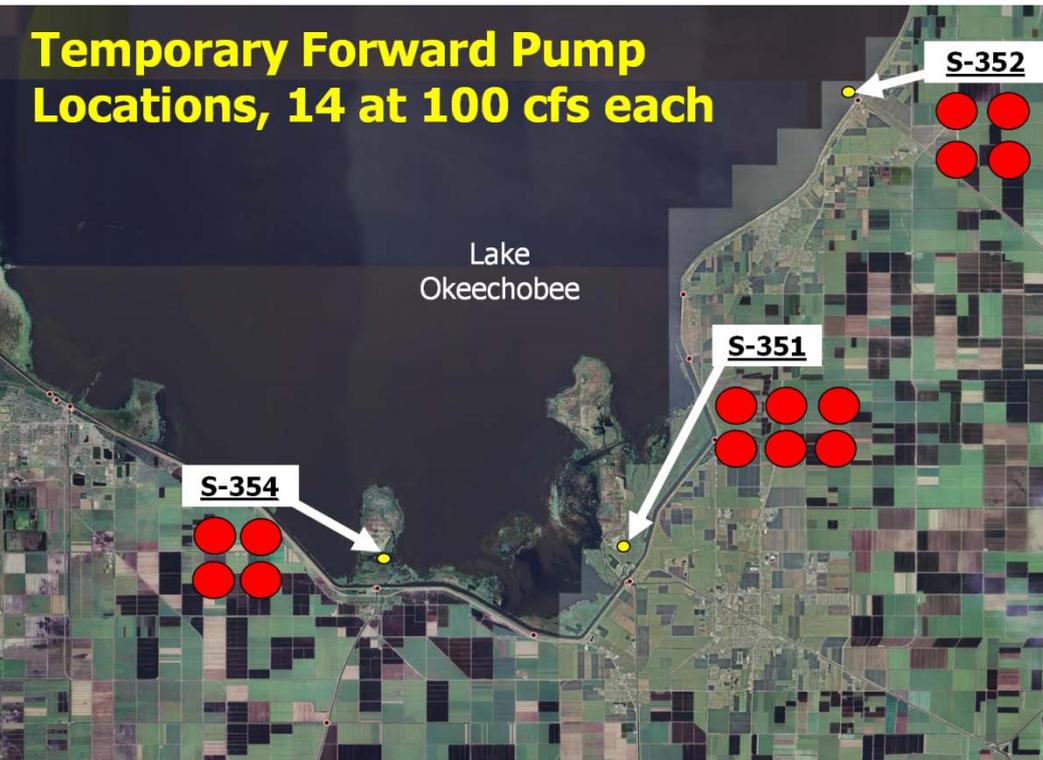


# Temporary Pump Installation

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

- S-352: May 27 – Jun 24
- S-351: June 8 - 24
- S-354: not installed

**Temporary Forward Pump Locations, 14 at 100 cfs each**

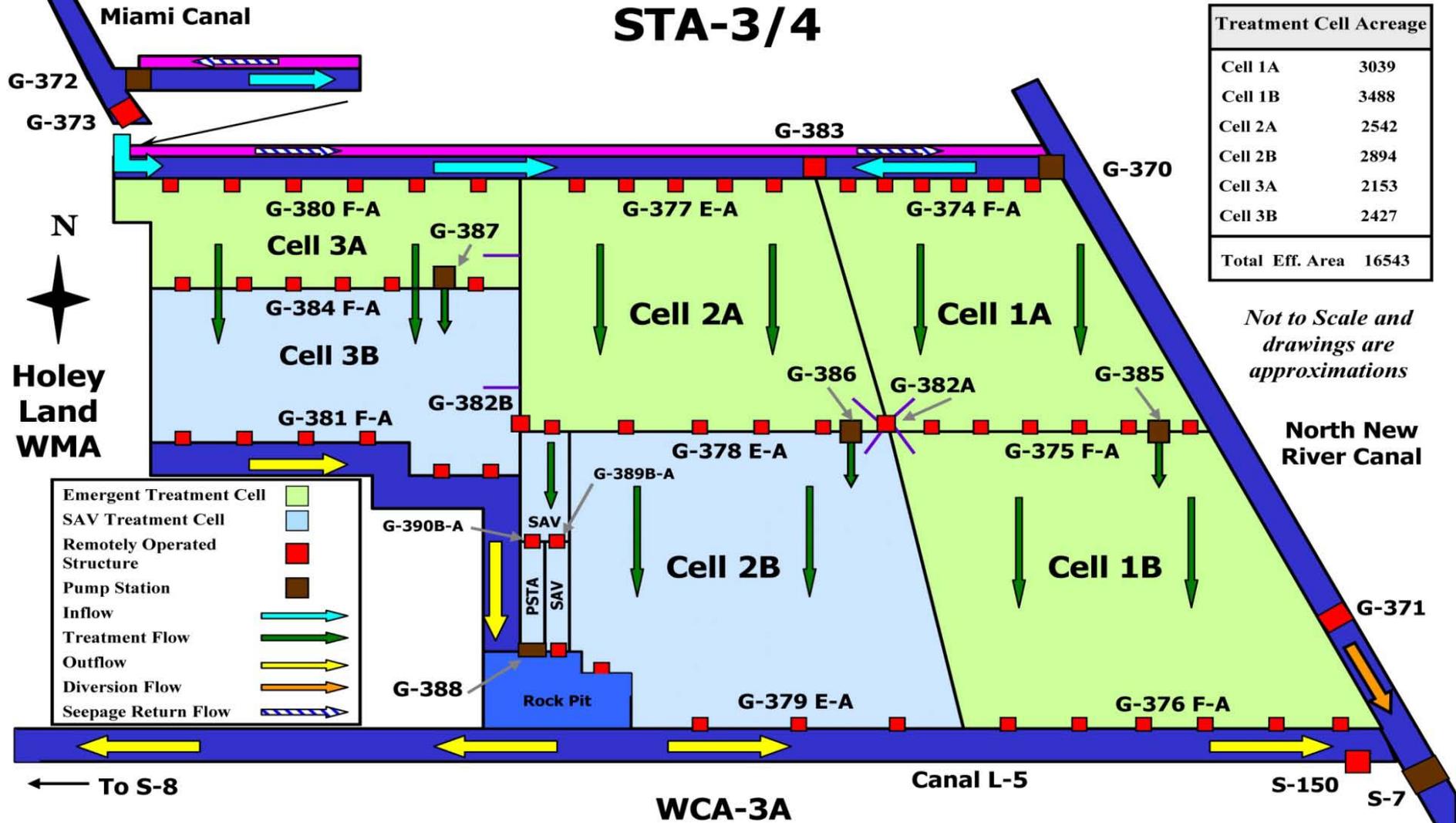


Estimated Pumped volume = 45 kaf  
- equivalent to about 1.7 inches of additional water supply release  
- ~6 inches of ET during June

# STA-3/4 Diversion Operations

- Early July rains produced large inflows and rapid increases in STA-3/4 stages after extended dry conditions
- created unfavorable conditions for re-establishment of new emergent vegetation and the continued survival of remaining submerged aquatic vegetation (SAV)
- SFWMD scientists recommended reducing inflows and holding very low stages to allow SAV chance to recover
- G-371 and G-373 diversion structures being used to facilitate reduced inflows to STA-3/4
- Operation intended to prevent overloading of STA-3/4 while preserving flood control capability of the system
- SFWMD coordinating closely with FDEP to implement conditions of permit

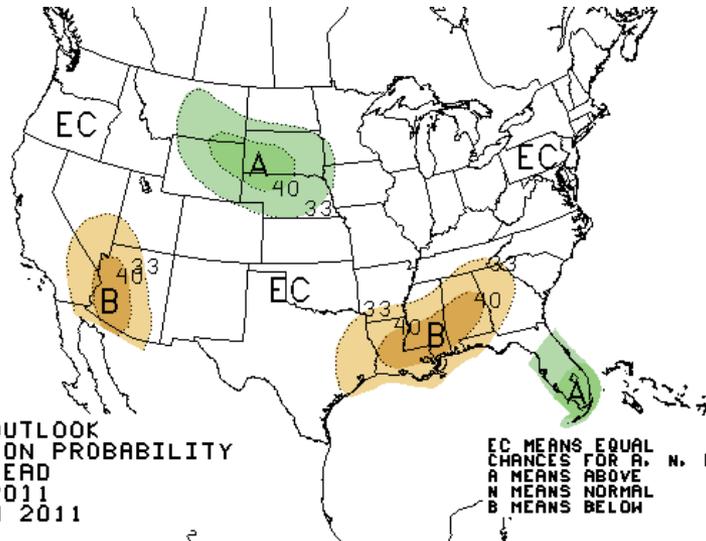
# Stormwater Treatment Area 3/4



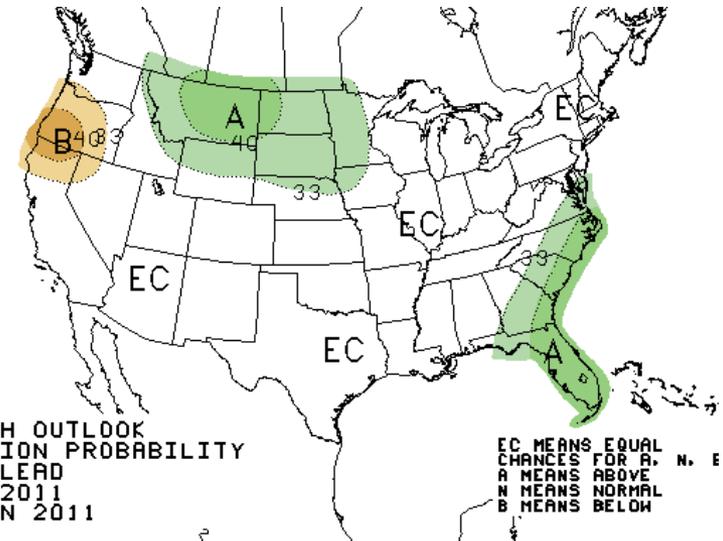
# U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

## Jul 2011



## Jul-Sep 2011



The current precipitation outlook for central and southern Florida is:

- July: increased chances of above-normal (A) rainfall
- July-Sep: increased chance of above-normal (A) rainfall

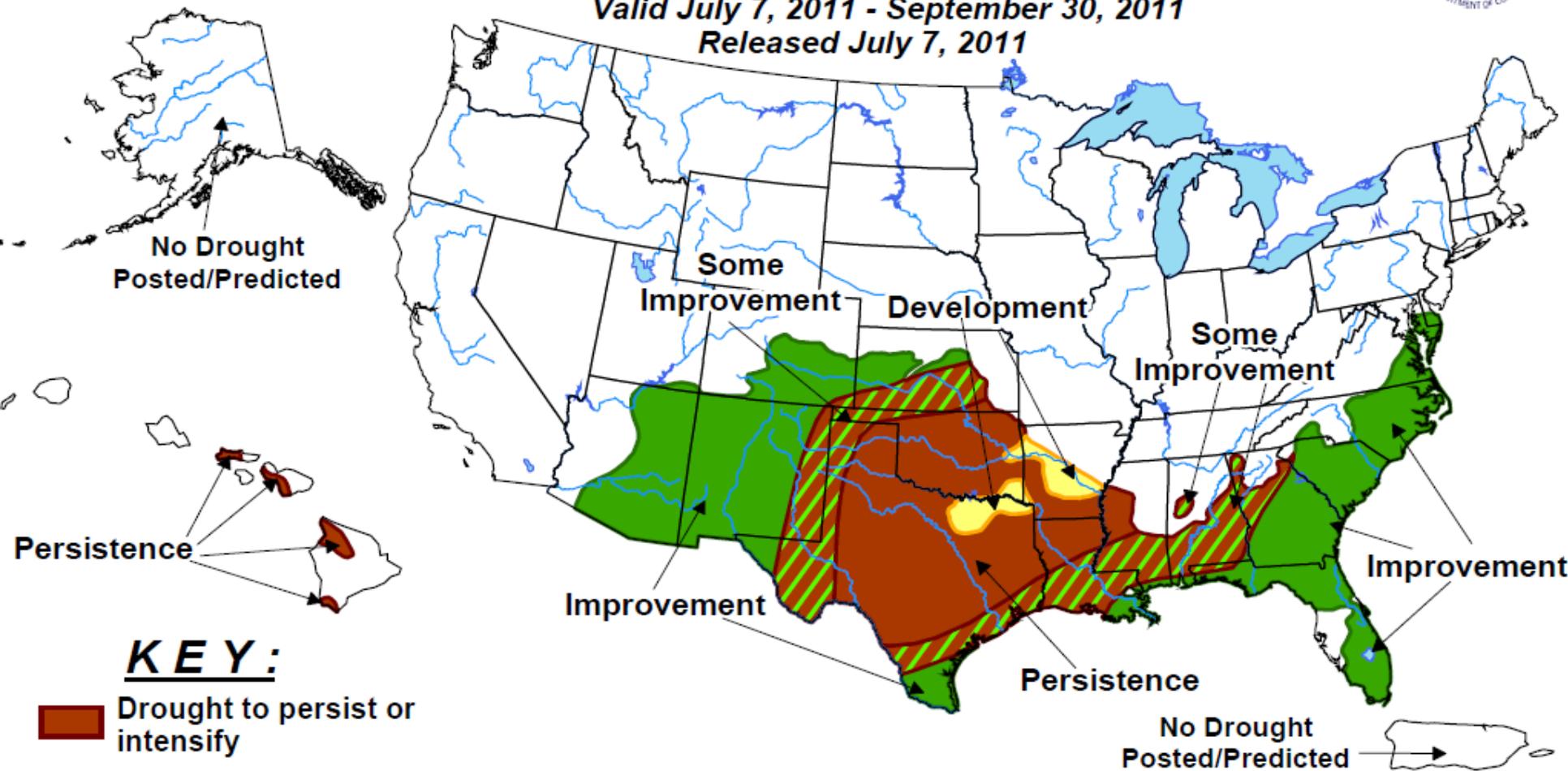


# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid July 7, 2011 - September 30, 2011

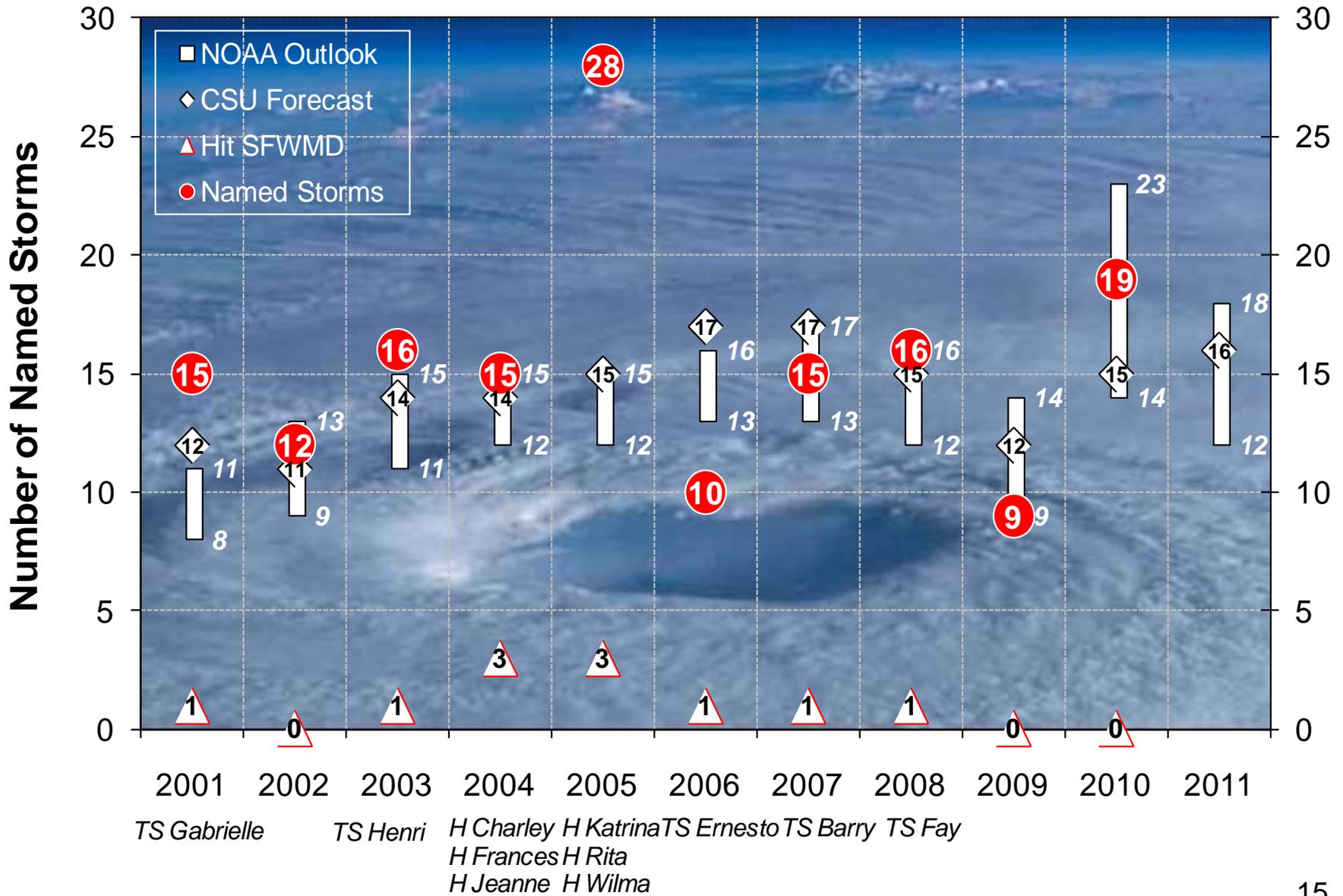
Released July 7, 2011



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

# Atlantic Hurricane Season

## Named Storms - Observed vs Pre-Season Outlooks



# *Lake Okeechobee Stage Forecast*

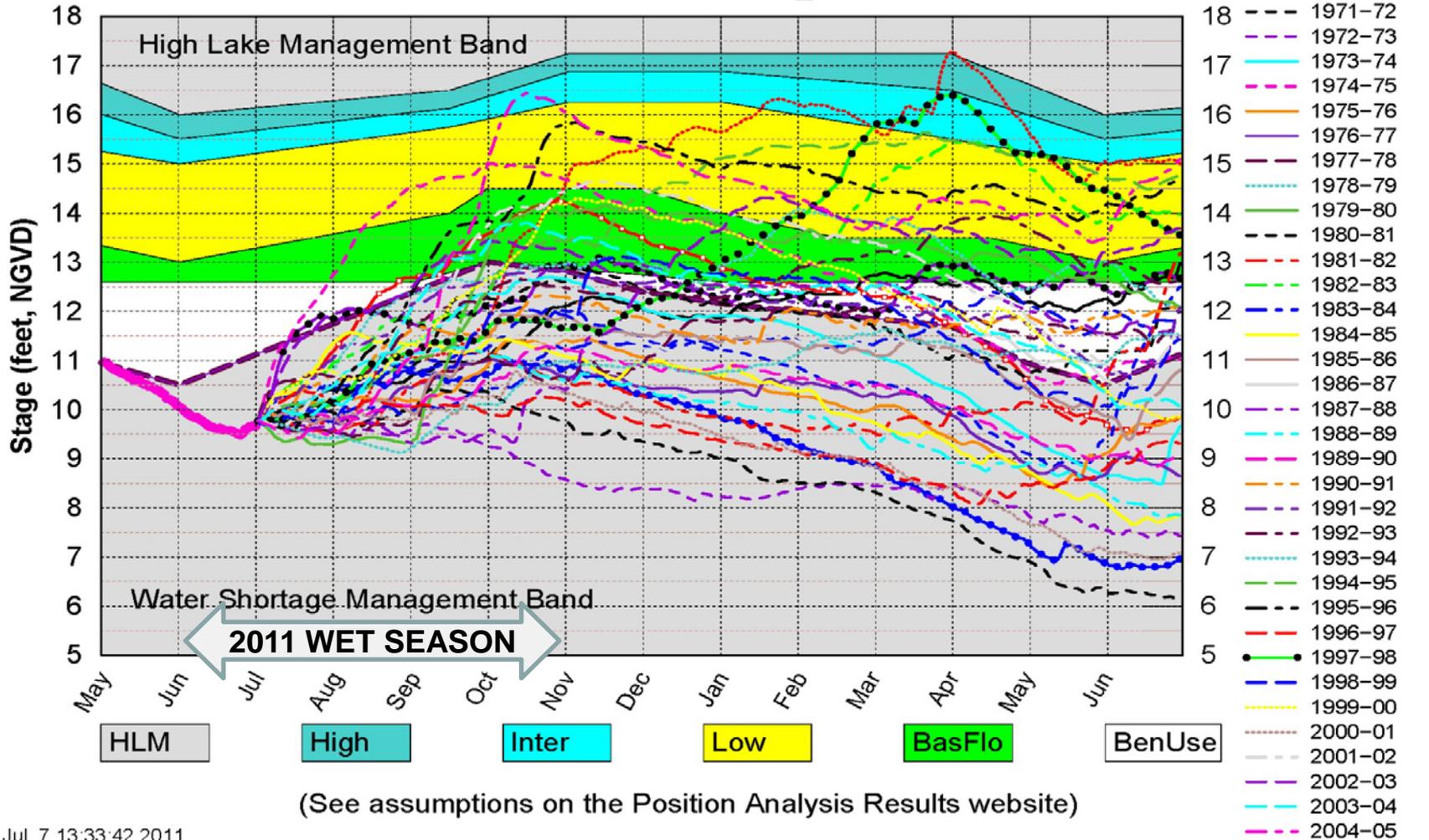
- **Future Lake stage depends on future rainfall**
- **Projections provided monthly by SFWMD Hydrologic and Environmental Systems Modeling (HESM) Department**

*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 July 2011 Position Analysis

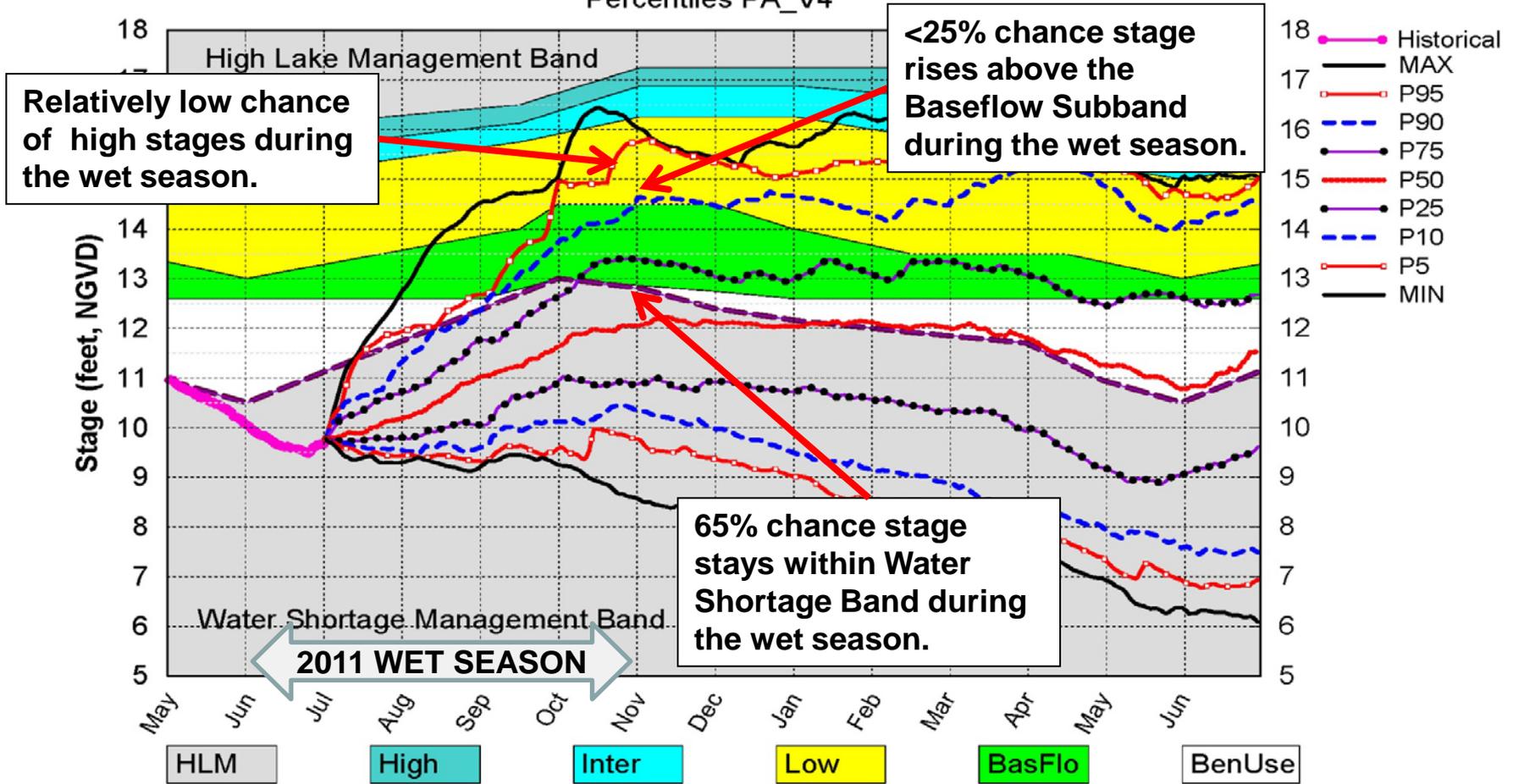
All Simulated Years Plot PA\_V4



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# Lake Okeechobee SFWMM July 2011 Position Analysis

Percentiles PA\_V4



(See assumptions on the Position Analysis Results website)

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# Questions??

