

Water Conditions Summary

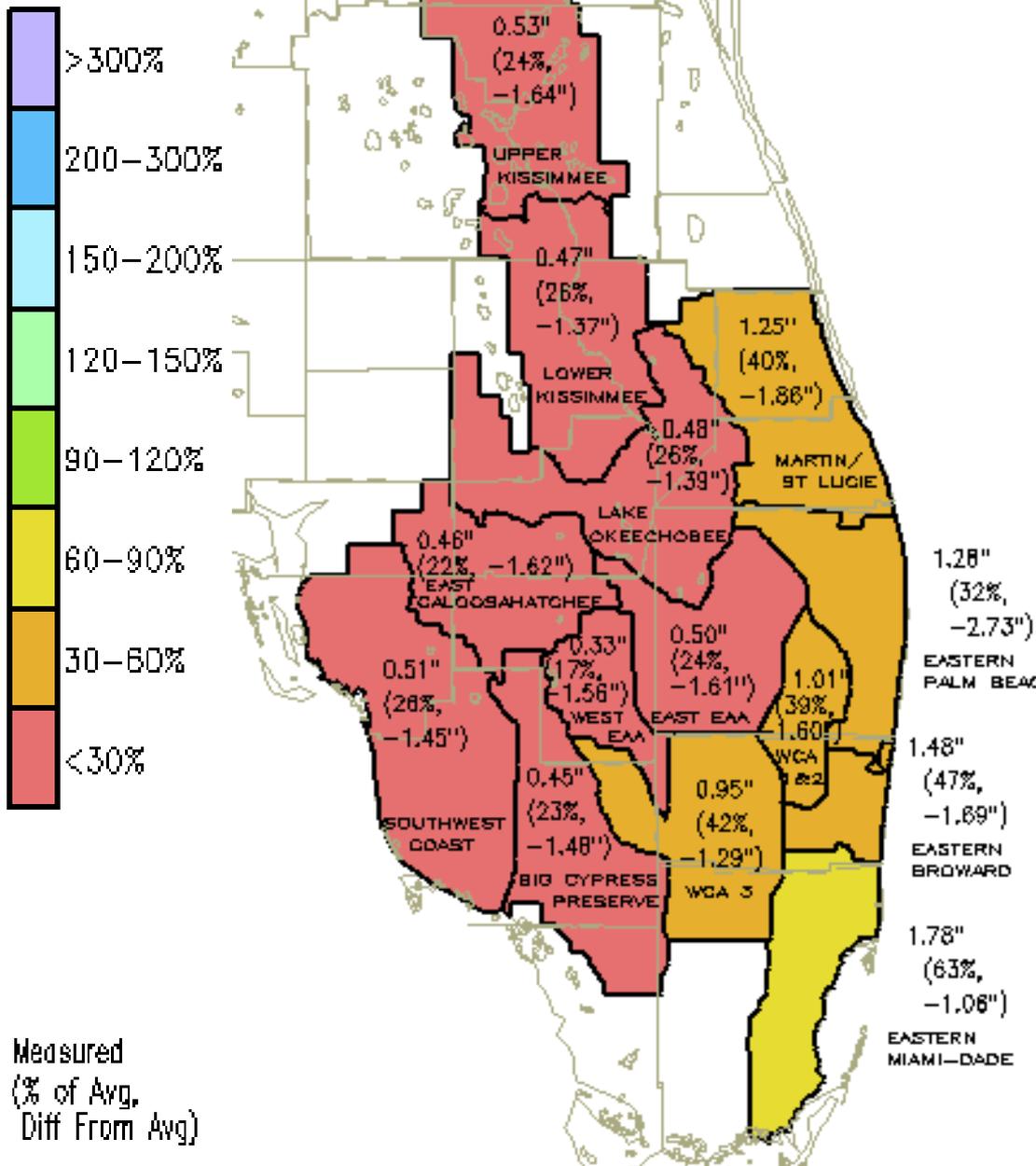
*South Florida Water Management District
Governing Board Meeting*

December 15, 2011

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

SFWMD 2011 November Rainfall

**DISTRICT-WIDE: 0.75"
(33% of Avg, or -1.53")**

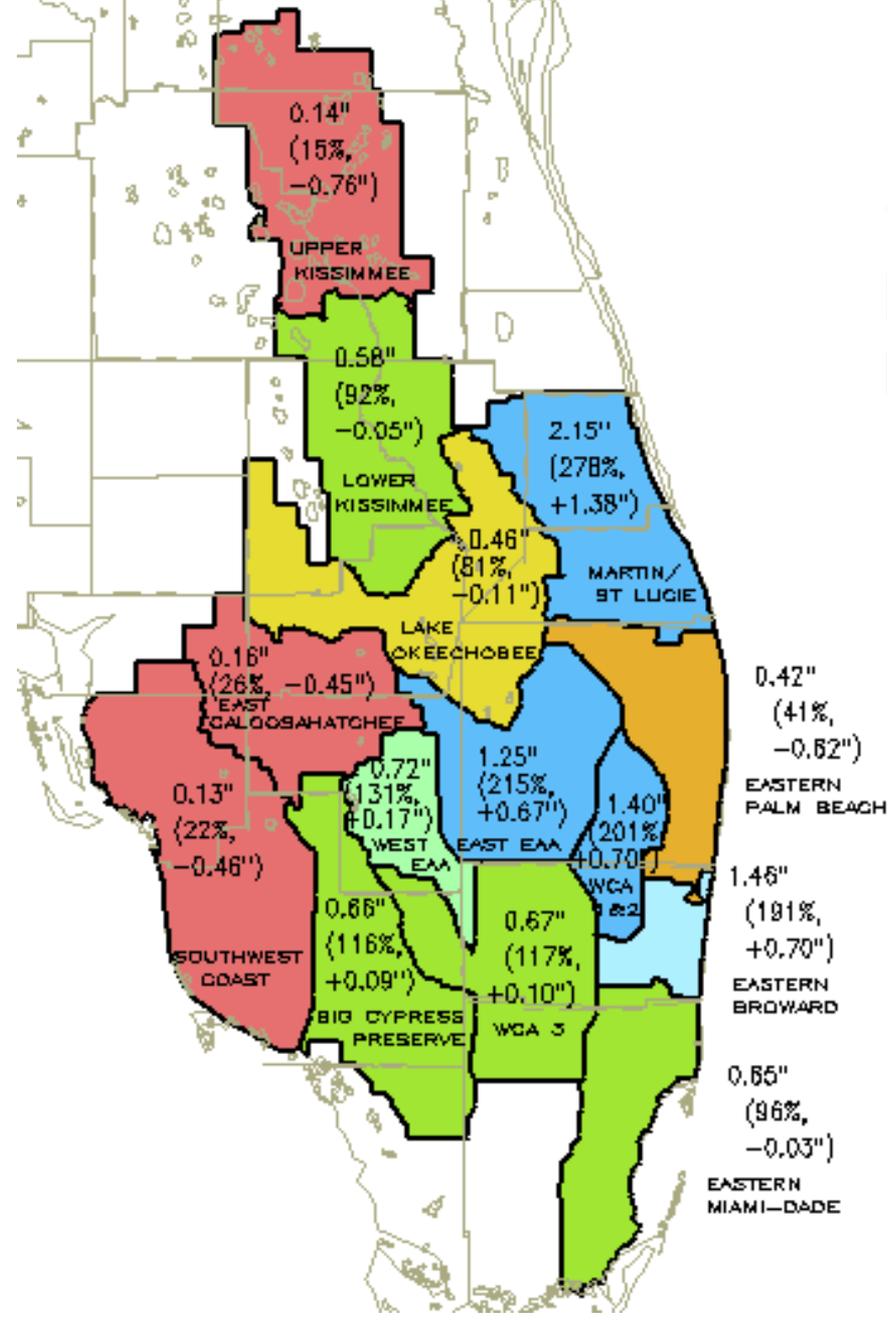
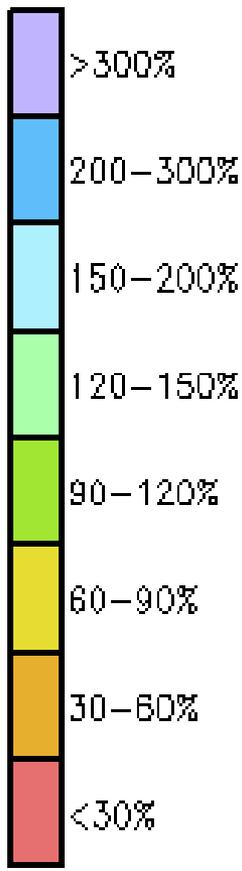


- All Basins received less rainfall this November than November 2010
- Given the well above normal rainfall District wide in October water supply is not yet a concern in the short-term
- However, we are very mindful of the Climate Prediction Center outlook for dryer than normal conditions through the dry season and appropriately all areas are under a water shortage warning

SFWMD 2011 December Rainfall

1 – 12 Dec 2011

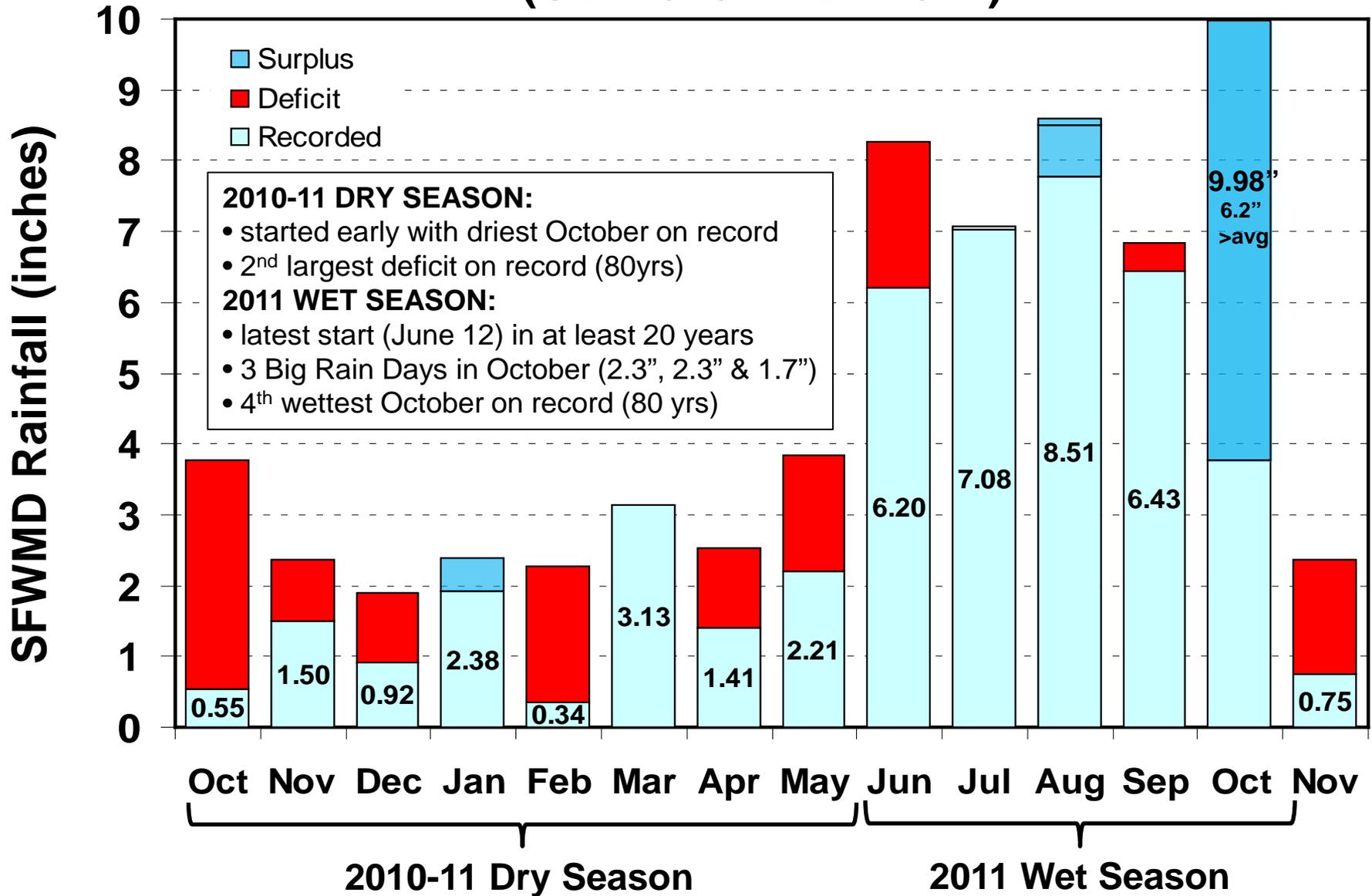
DISTRICT-WIDE: 0.68"
(101% of Avg, or +0.01")



Measured
(% of Avg,
Diff From Avg)

- A stalled front over the area produced over 5.5" of rain in 4 hours in eastern Martin County Saturday morning, December 10th
- Radar estimates of rainfall indicated over 10" of rain in spots along coastal Martin and St Lucie Counties during this time frame.

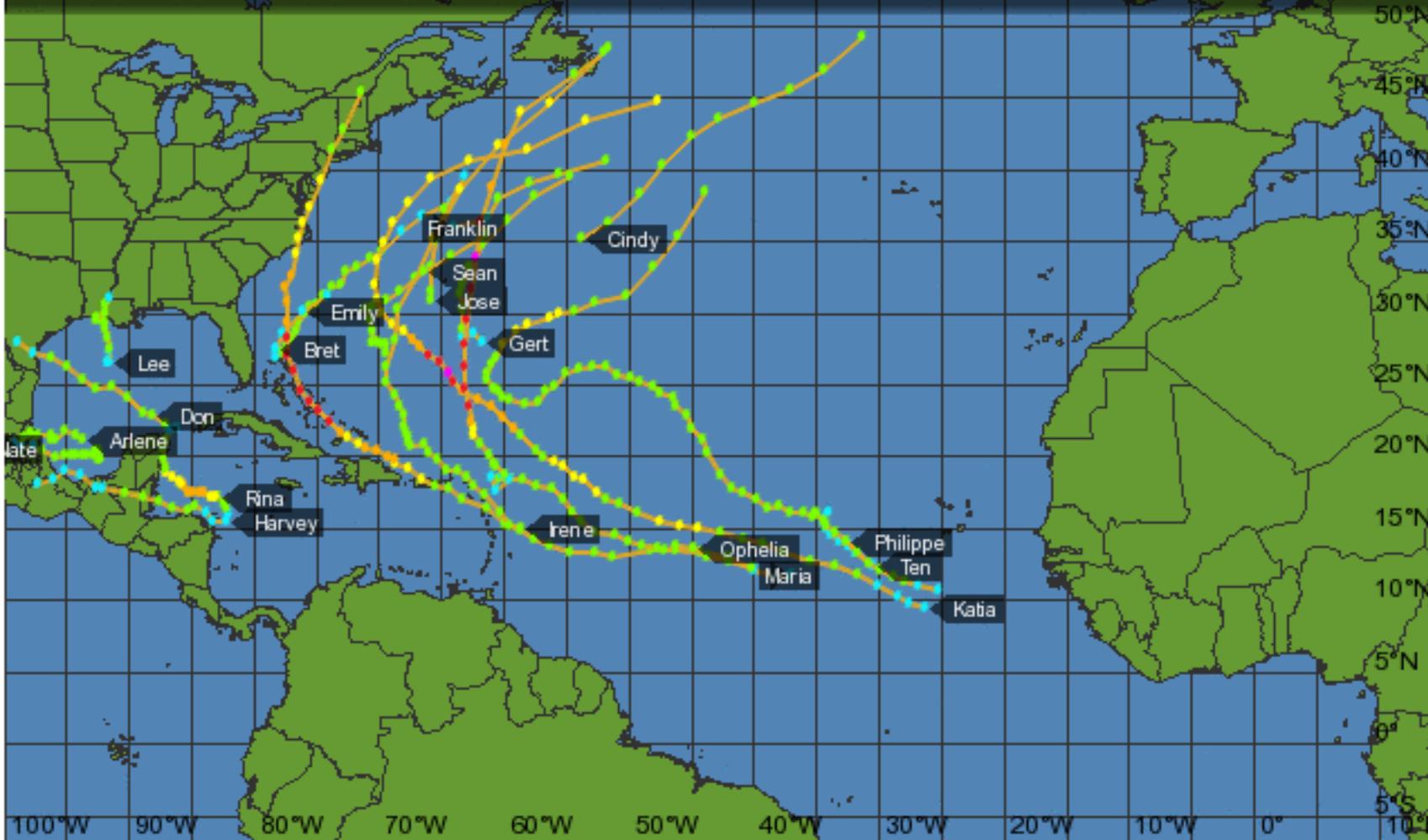
SFWMD Rainfall Distribution Comparison (Oct 2010 - Nov 2011)



Atlantic 2011 Storms

Storm Category

Tropical Depression	Tropical Storm	Category 1	Category 2	Category 3	Category 4	Category 5
< 39 mph	39-73 mph	74-95 mph	96-110 mph	111-130 mph	131-155 mph	156+ mph



U.S. Drought Monitor

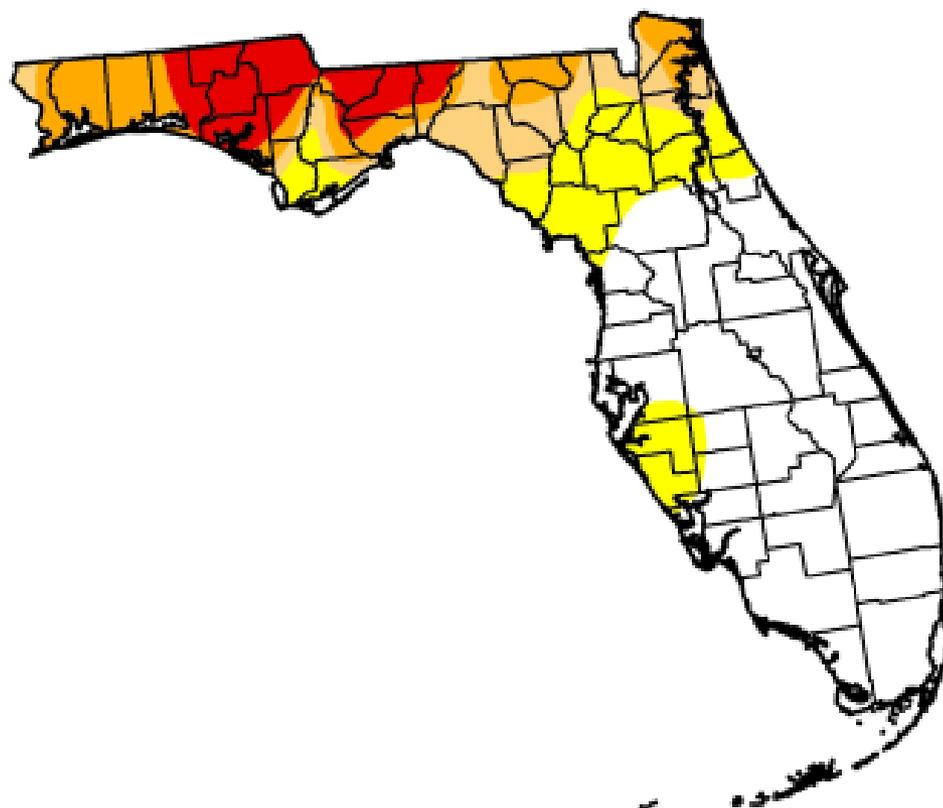
December 6, 2011

Valid 7 a.m. EST

Florida

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	53.81	46.19	30.25	20.60	9.32	0.00
Last Week (11/29/2011 map)	63.01	36.99	26.19	18.79	8.62	0.00
3 Months Ago (09/06/2011 map)	37.55	62.45	38.38	15.70	7.95	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 (09/27/2011 map)	43.12	56.88	28.83	16.85	7.85	0.00
One Year Ago (11/30/2010 map)	4.08	95.92	69.13	30.22	7.91	0.00



Intensity:

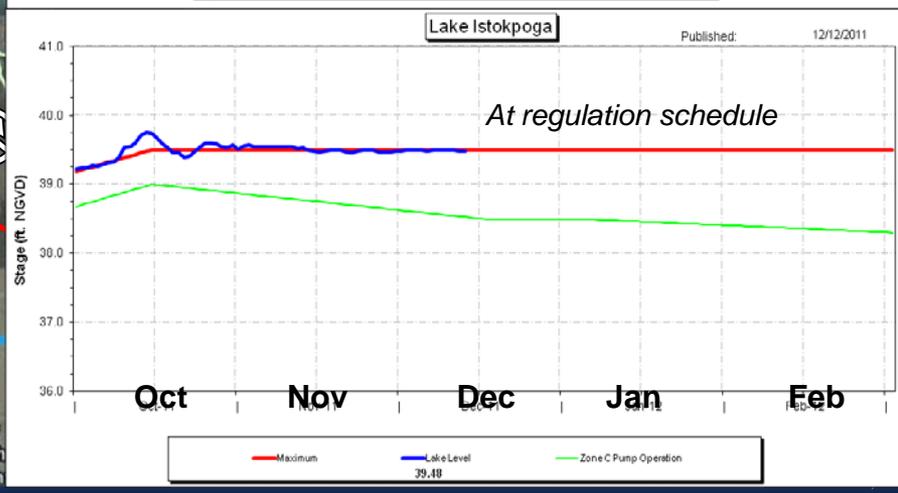
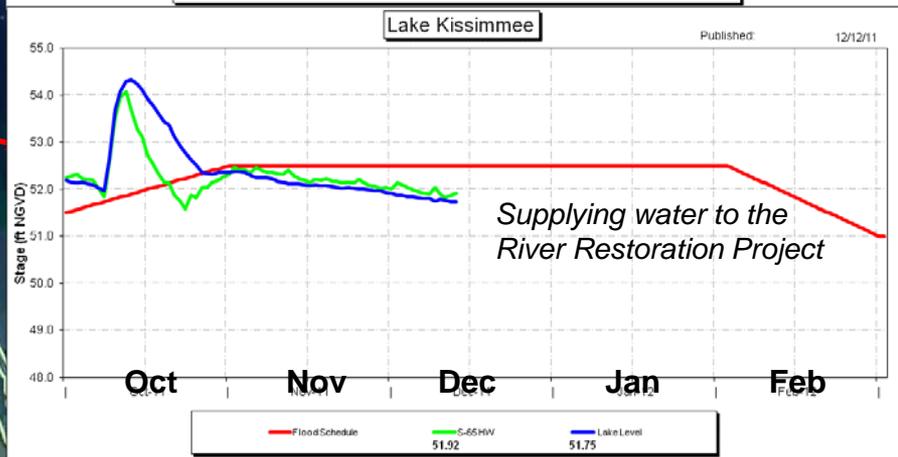
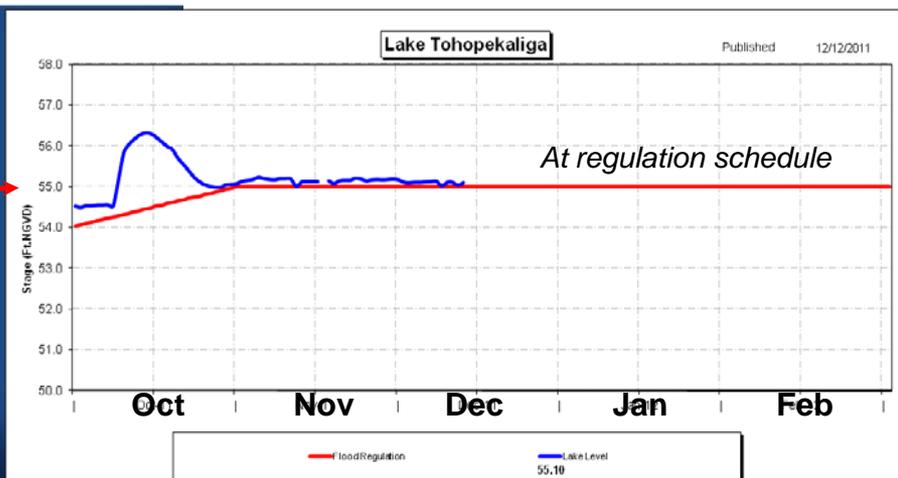
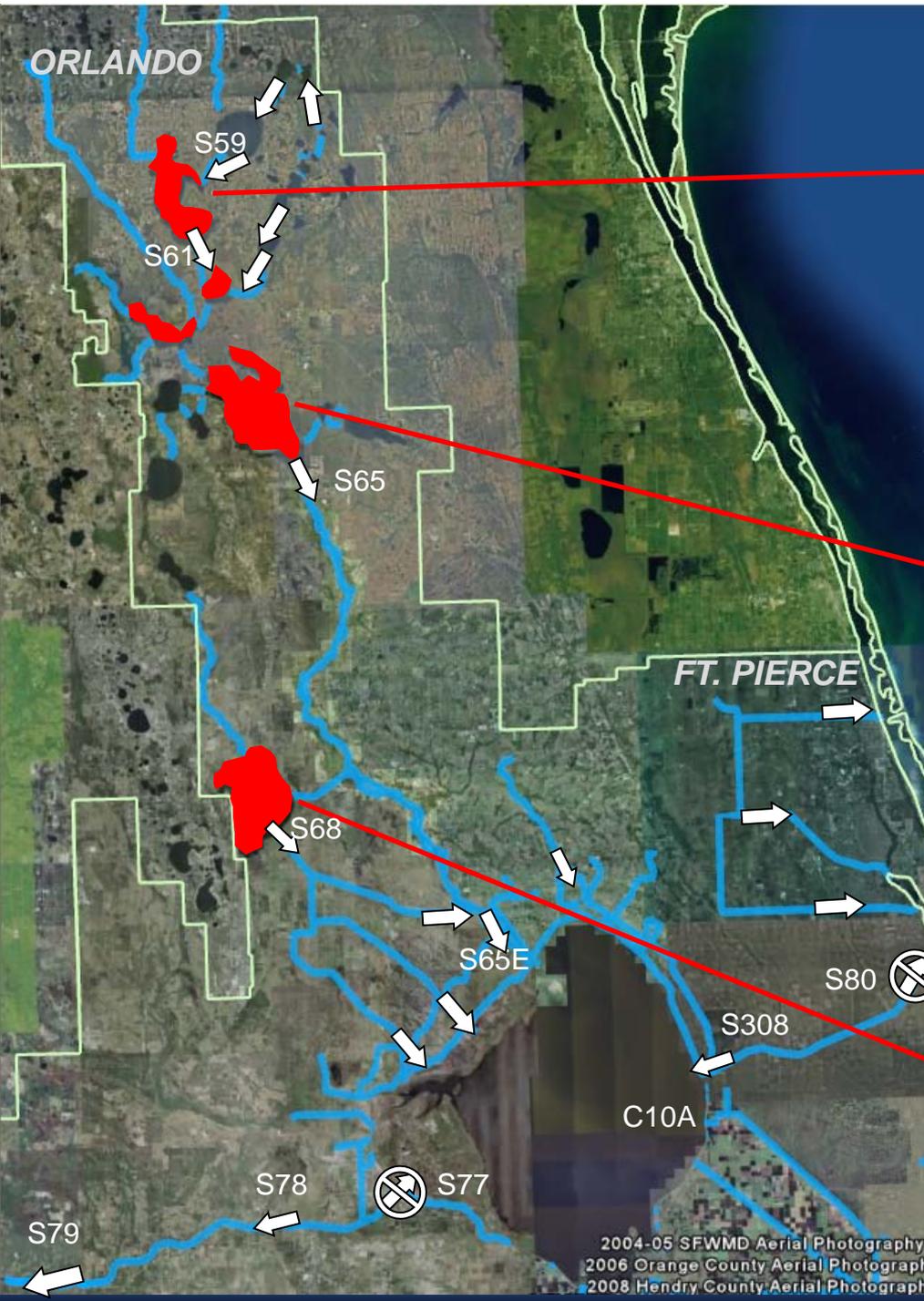
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

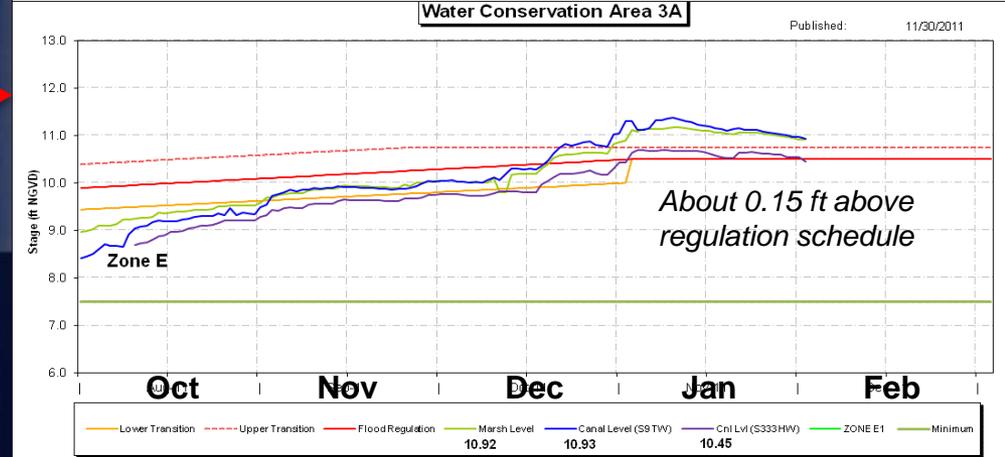
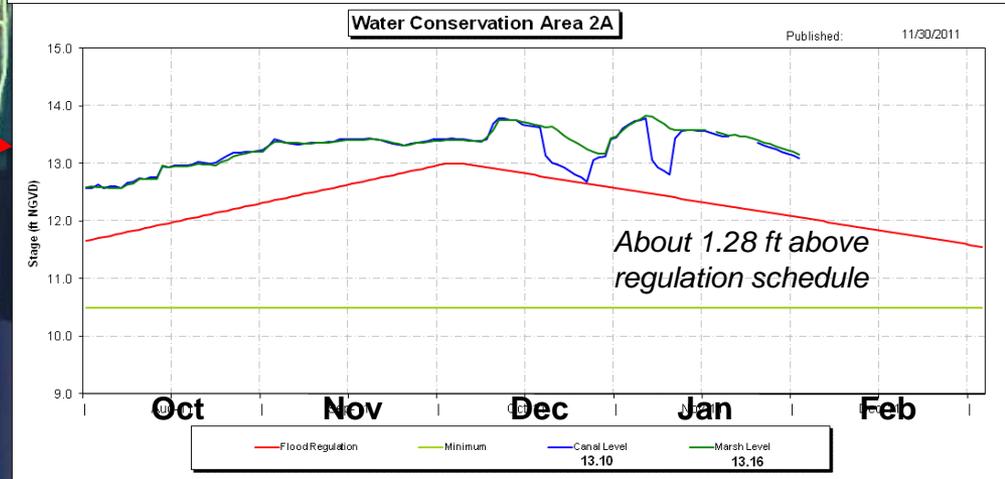
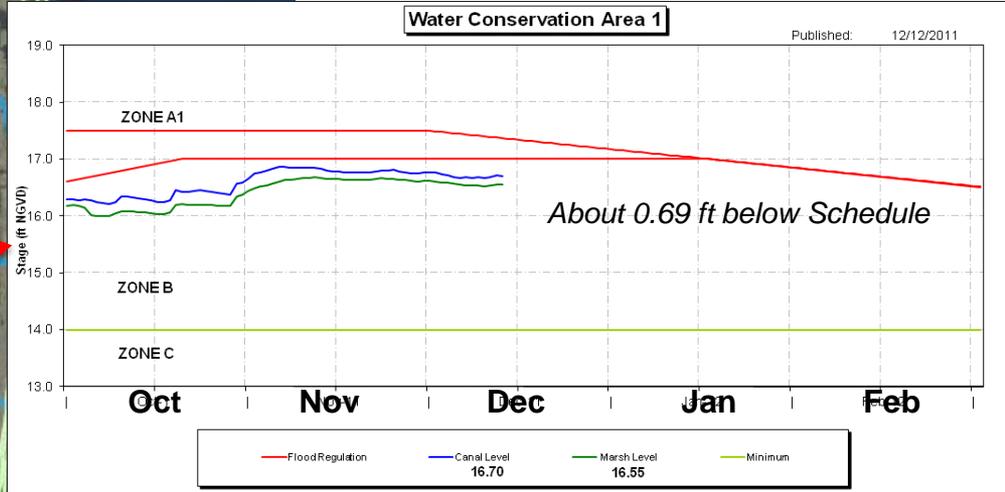
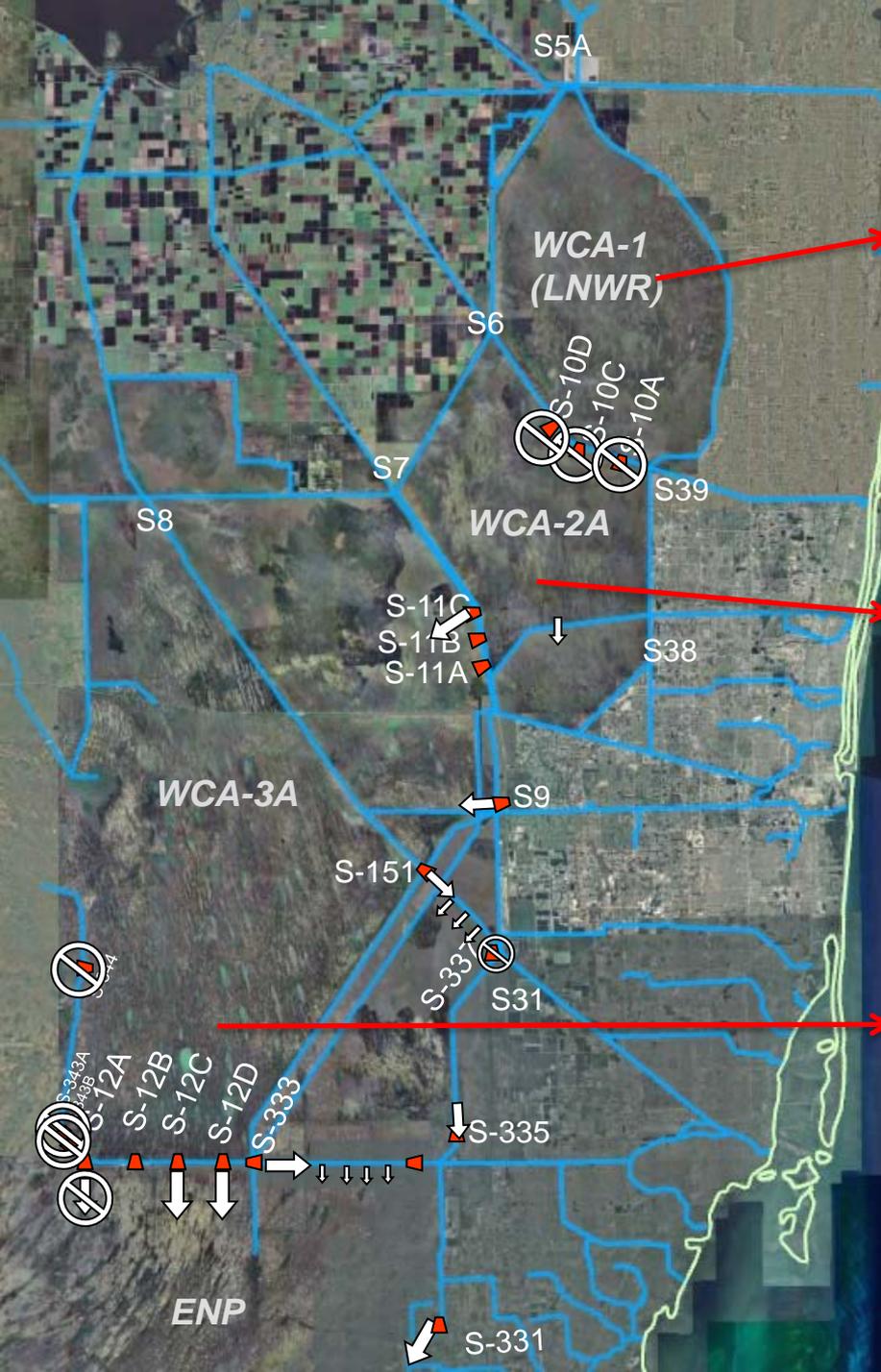
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



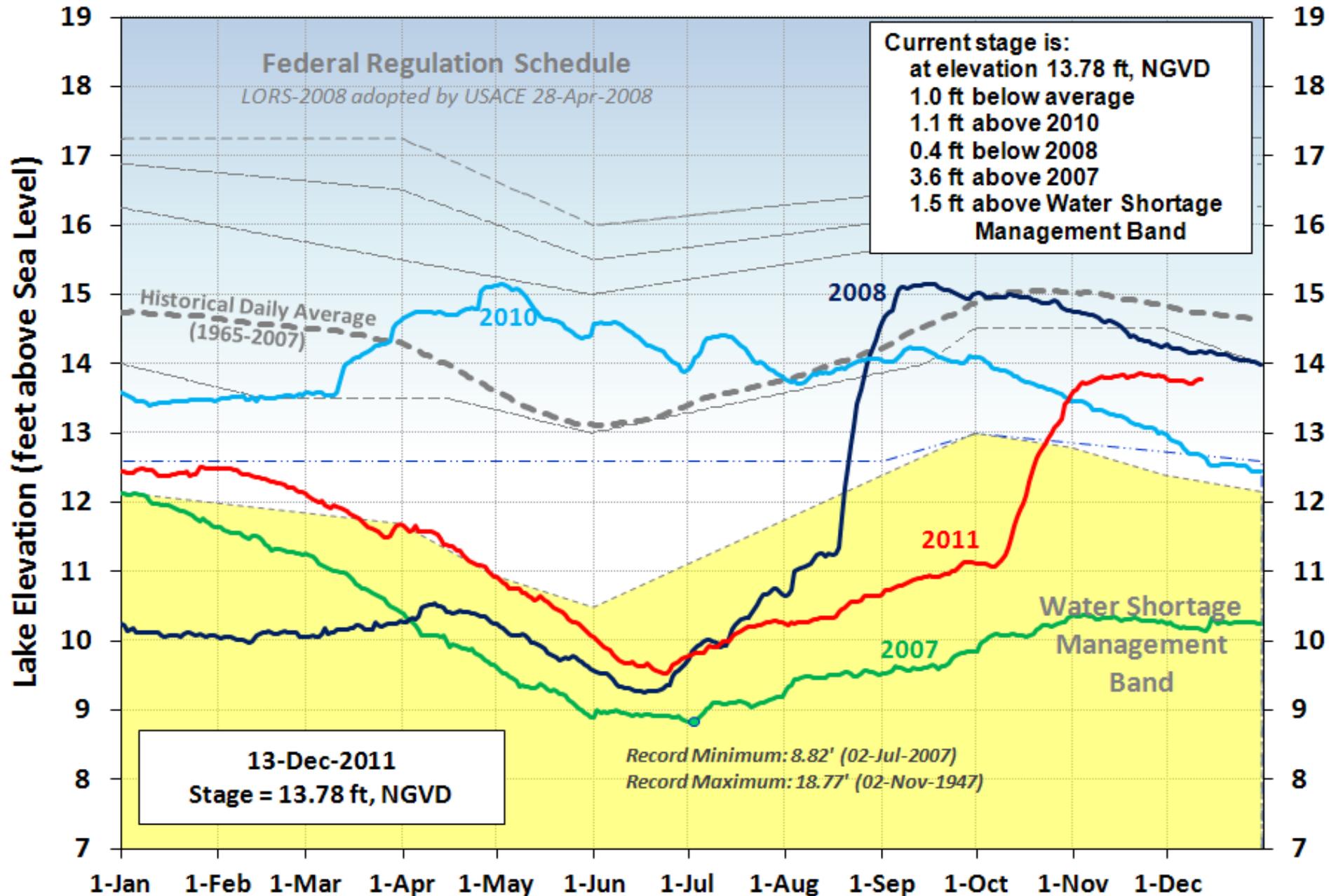
<http://droughtmonitor.unl.edu>

Released Thursday, December 8, 2011
David Miskus, NOAA/NWS/NCEP/Climate Prediction Center





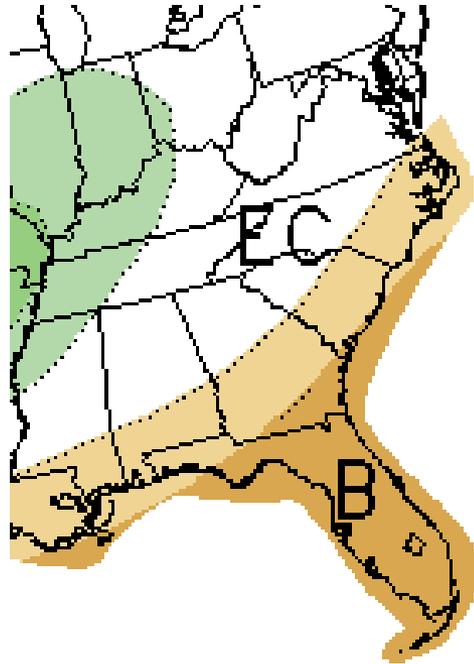
Lake Okeechobee Water Level Comparison



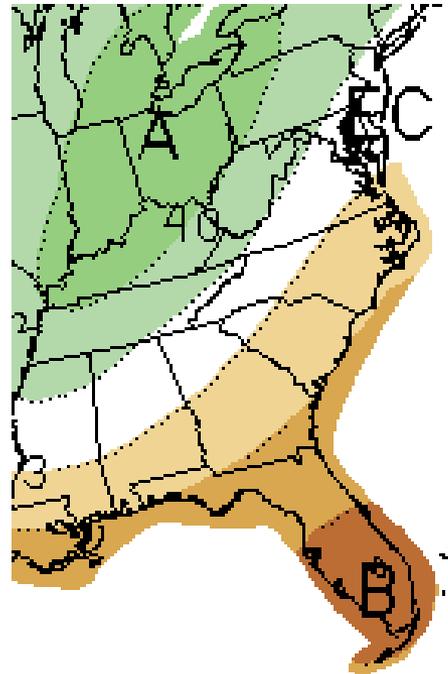
U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

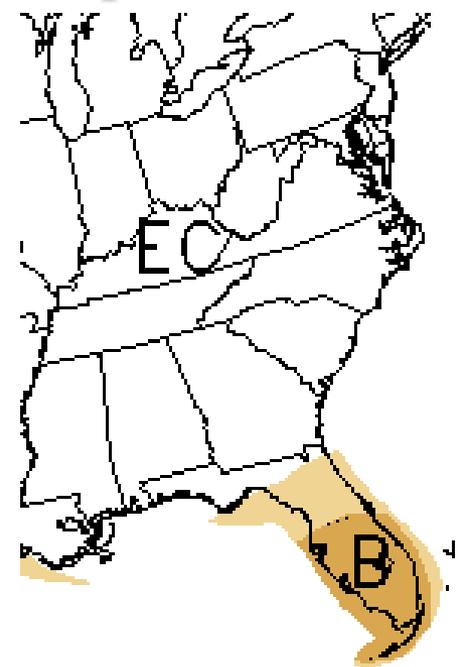
Dec 2011



Jan - Mar 2012



Apr - Jun 2012



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

Lake Okeechobee Stage Forecast

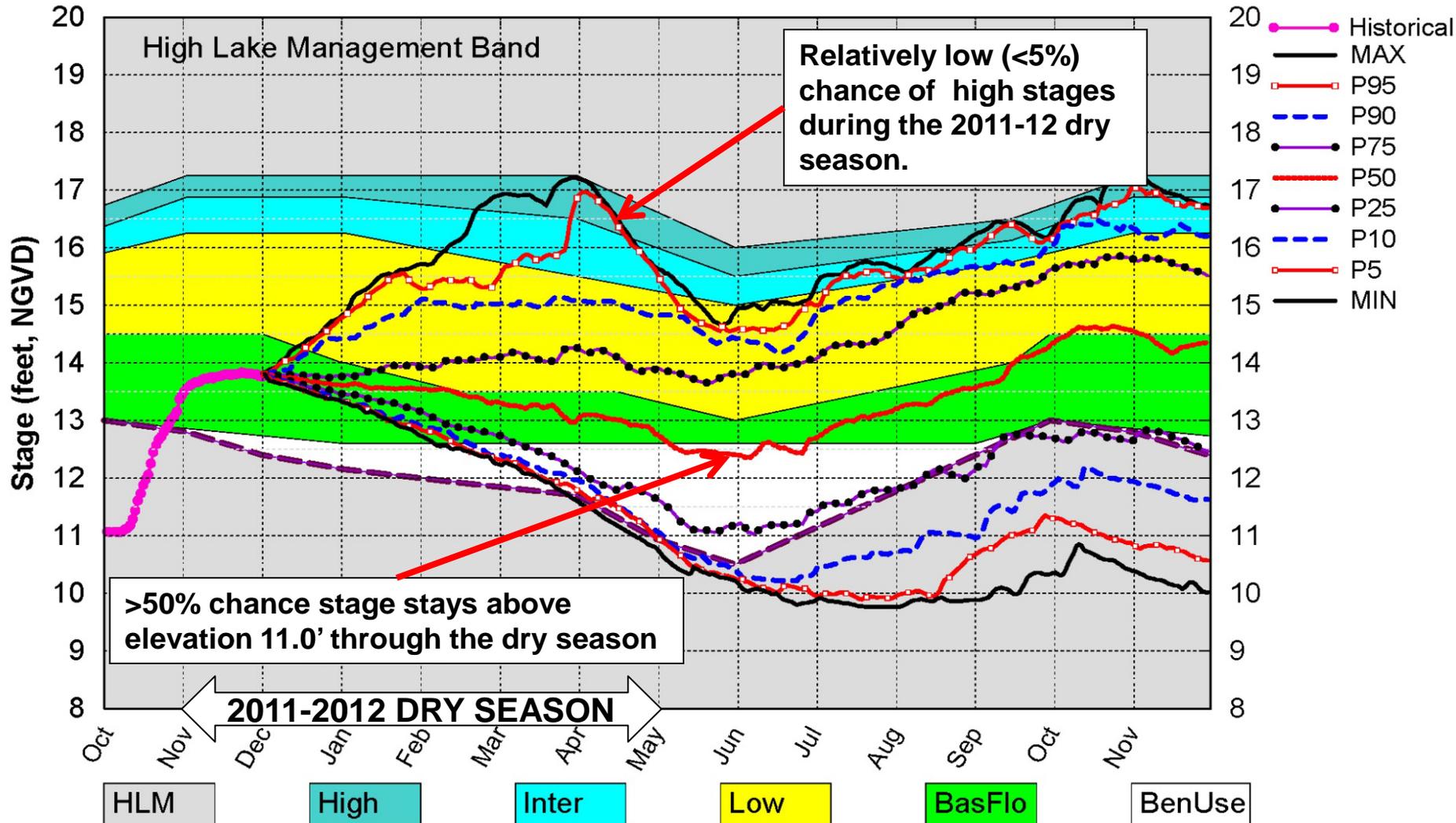
- **Future Lake stage depends on future rainfall**
- **Projections provided monthly by SFWMD Hydrologic and Environmental Systems Modeling (HESM) Department**

*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 December 2011 Position Analysis

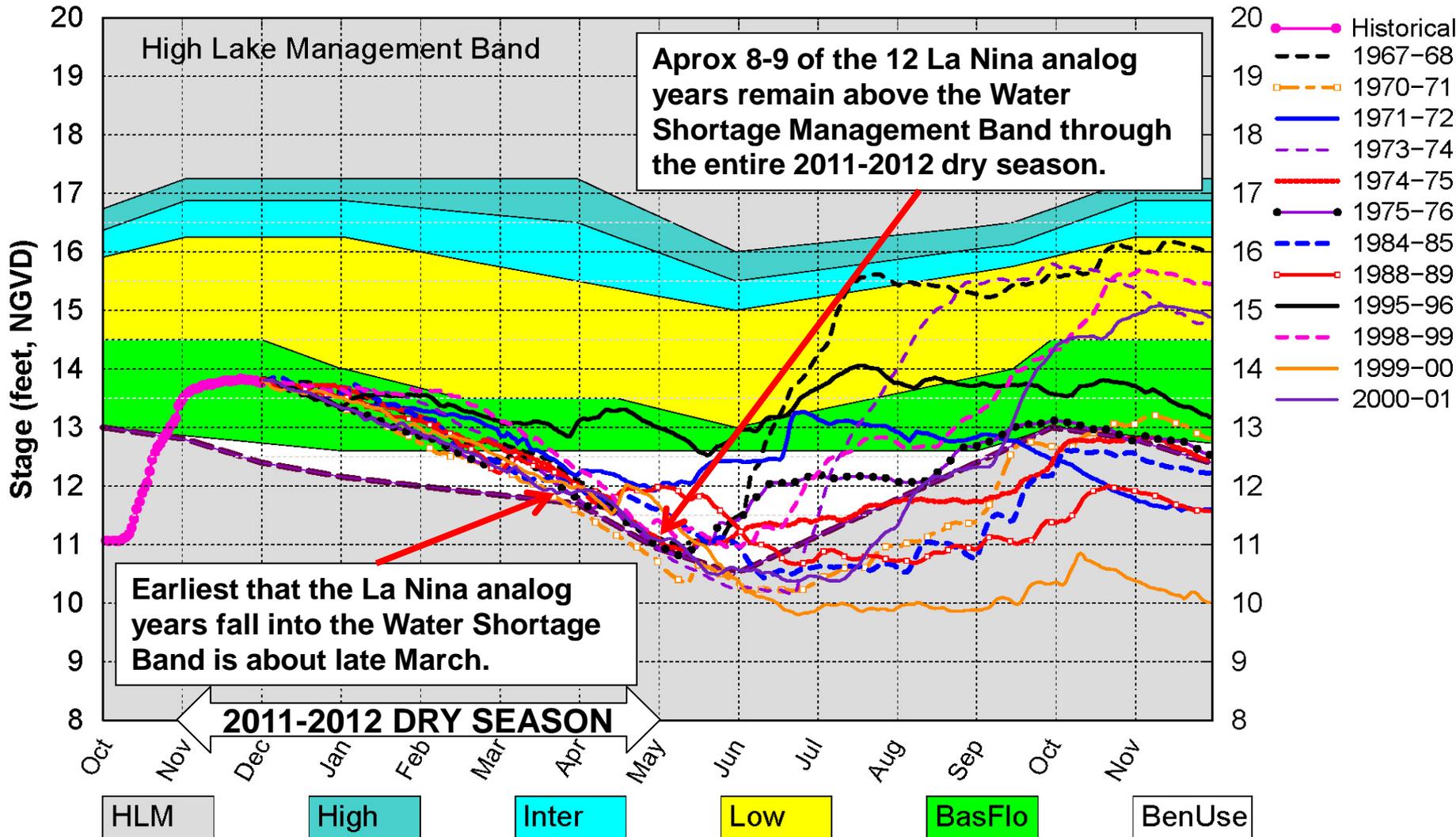
Percentiles based on 41 possible outcomes starting with December initialization



(See assumptions on the Position Analysis Results website)

Lake Okeechobee SFWMM December 2011 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
 - up to maximum practicable releases to the WCAs if desirable or with minimum impacts to the Everglades
 - No Releases south due to high WCA-3A stages
- **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
 - SFWMD requested the USACE to initiate releases this week

Post Storm Flows Assessments - North Area Structure Inspection - Hydrographic Surveys Osceola, Polk & Okeechobee Counties

S-61



S-63



S-65



S-65DX1



- Field Work Completed on Downstream Side of 4 Structures
- Drafting Commenced
- 4 Additional Structure to be Completed in December



Questions