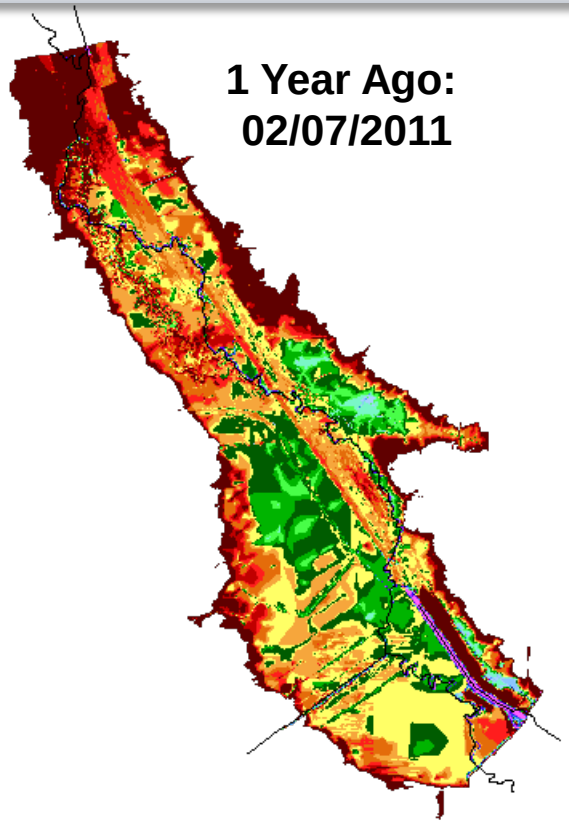
Governing Board Meeting
February 9, 2012

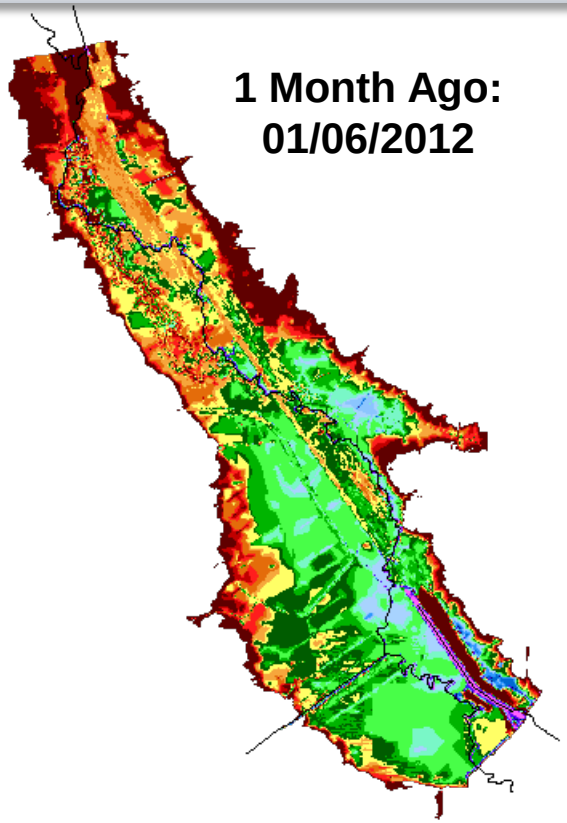
ECOLOGICAL CONDITIONS UPDATE

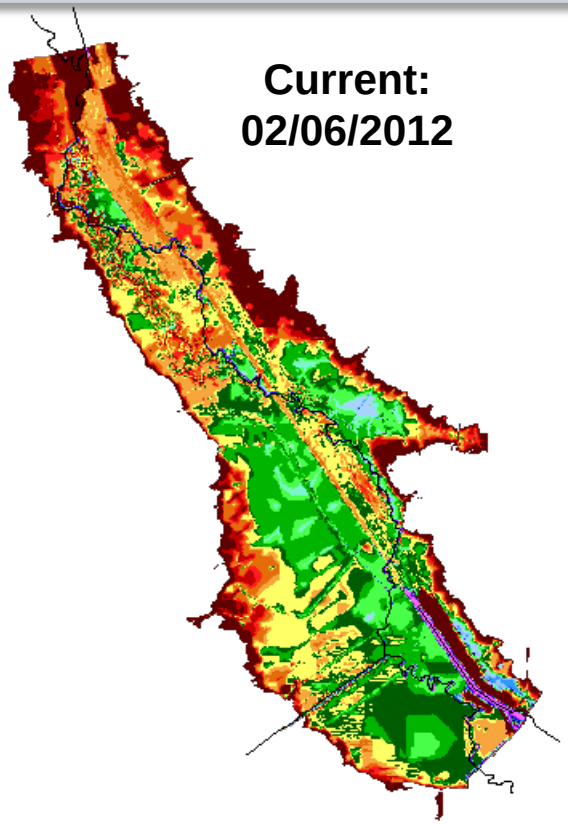
Terrie Bates
Director, Water Resources Division

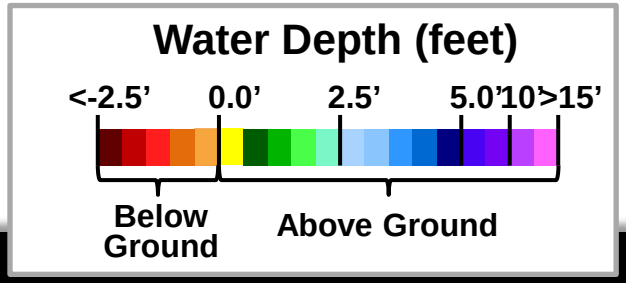
Kissimmee River (Pool C)

Monthly Water Depth Maps



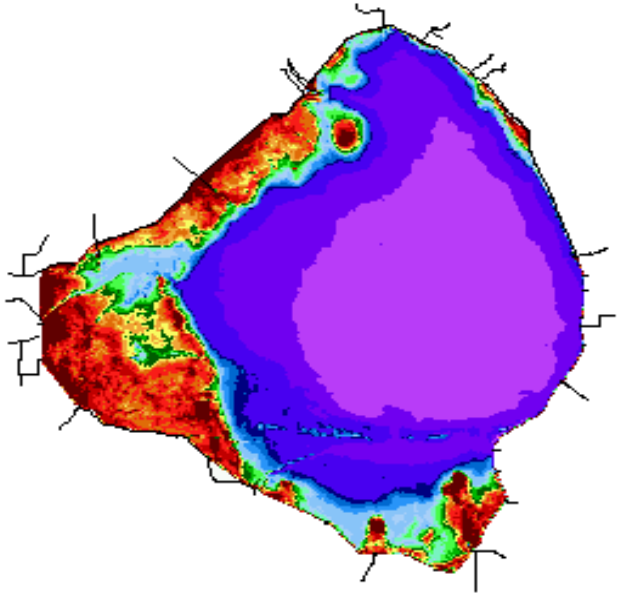






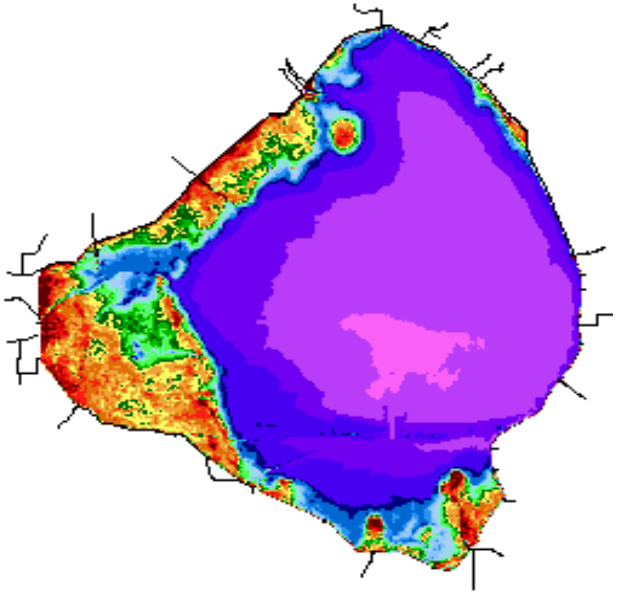
Lake Okeechobee
Water Depth Timeseries Maps

1 Year Ago: 02/06/2011



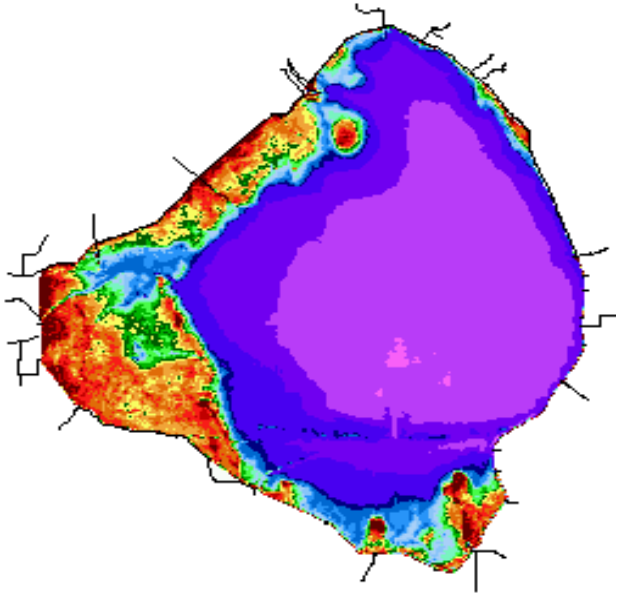
(12.45 ft NGVD29)

1 Month Ago: 01/07/2012



(13.53 ft NGVD29)

Current: 02/08/2012



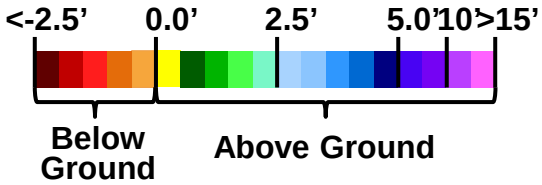
(13.22 ft NGVD29)

Lowest lake stage in 2011:
9.53 ft NGVD29 (06/24/11)

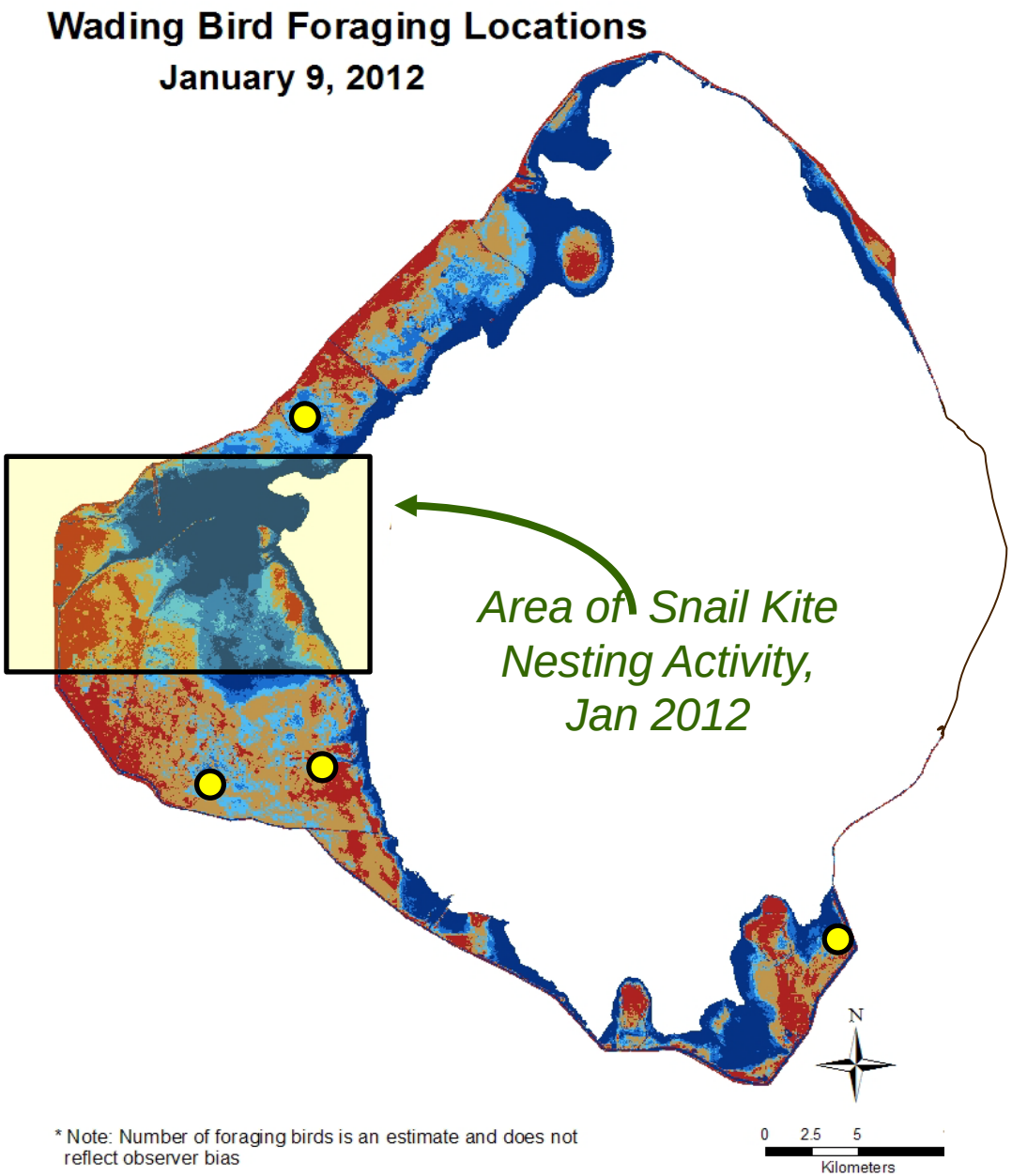
Record low lake stage:
8.82 ft NGVD29 (7/2/07)

Current Lake Level:
(13.22 ft NGVD29
2/8/12)

Water Depth (feet)



Lake Okeechobee Wading Birds and Snail Kites



* Note: Number of foraging birds is an estimate and does not reflect observer bias

Average Stage: 13.5 NGVD
Number of foraging birds 2012*: 575

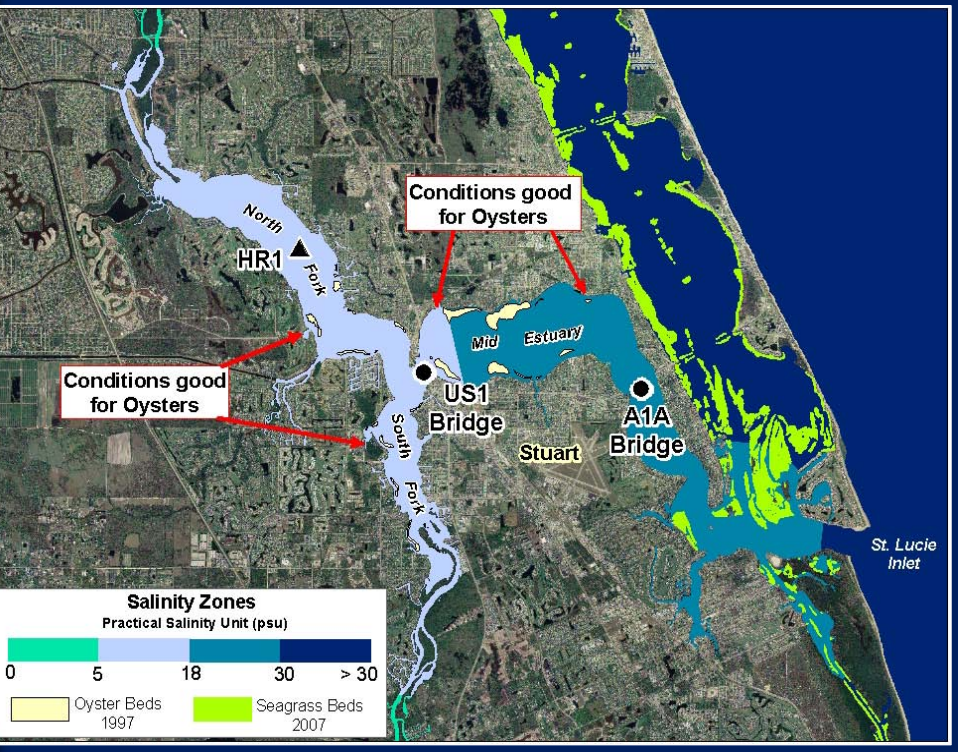
Water Depth

- Too Wet (> 1.64')
- Long-legged (0.66' - 1.64')
- Short and long-legged (0' - 0.66')
- Some Ponding
- Too Dry (<0.00')
- Foraging Birds

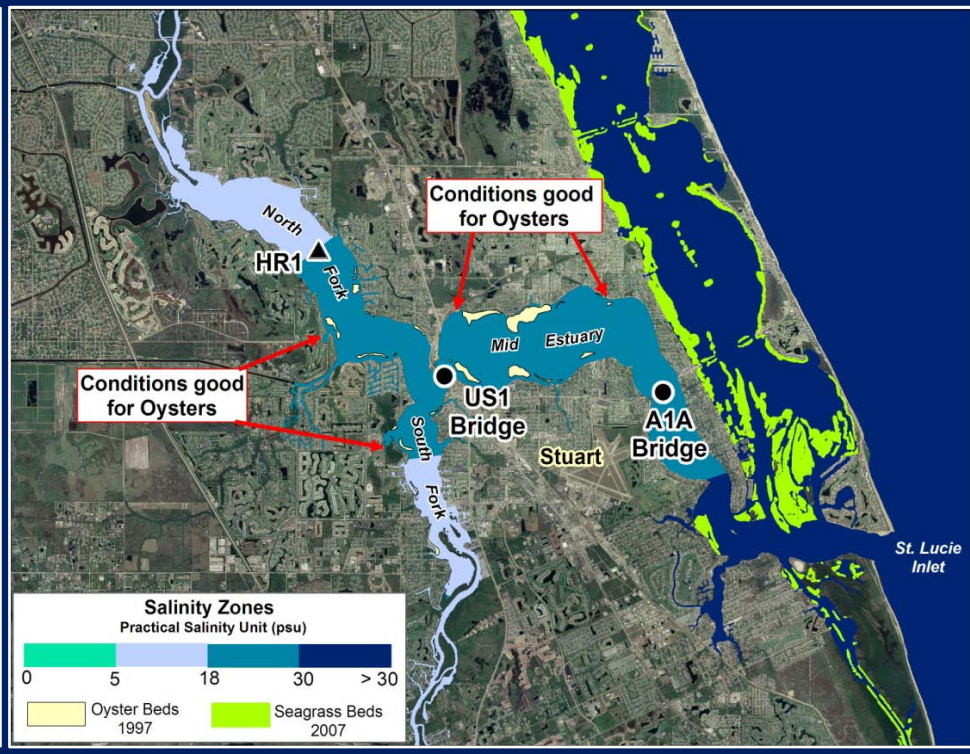
St. Lucie Estuary

Salinity Conditions

January 9, 2012



February 6, 2012

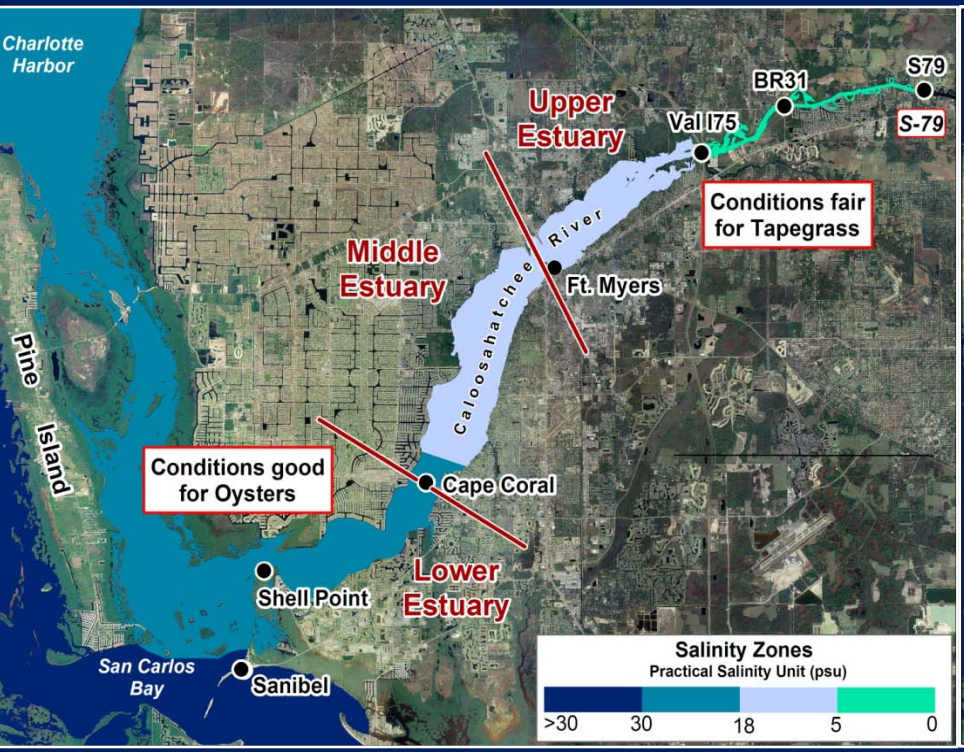


NOTE: Good Range for Oysters: 10 – 30

Caloosahatchee Estuary

Salinity Conditions

January 9, 2012



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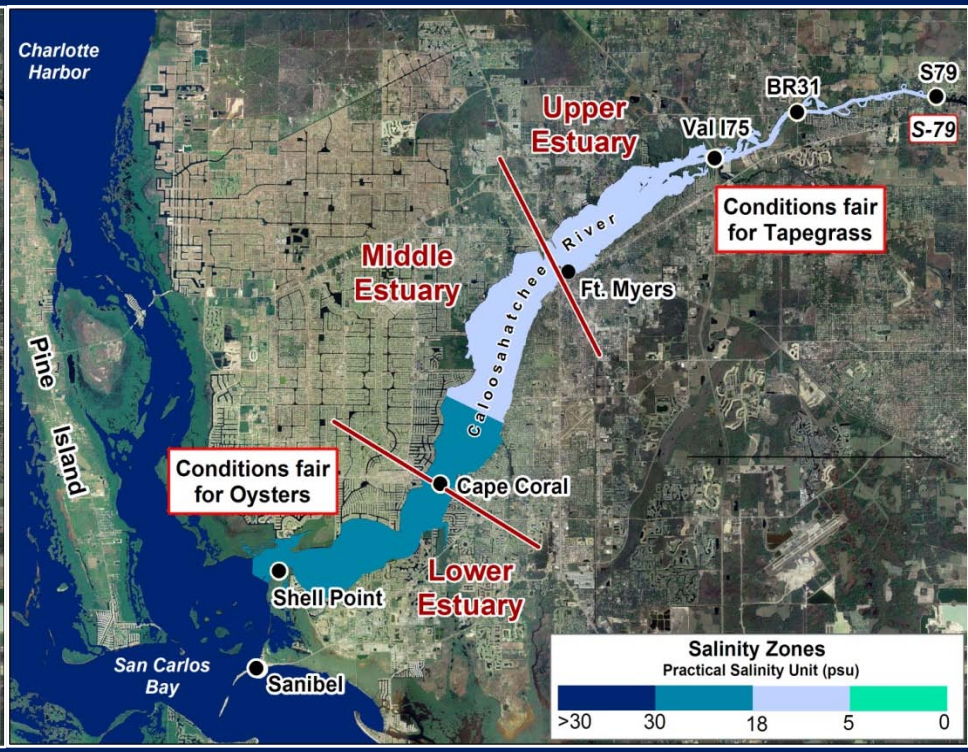
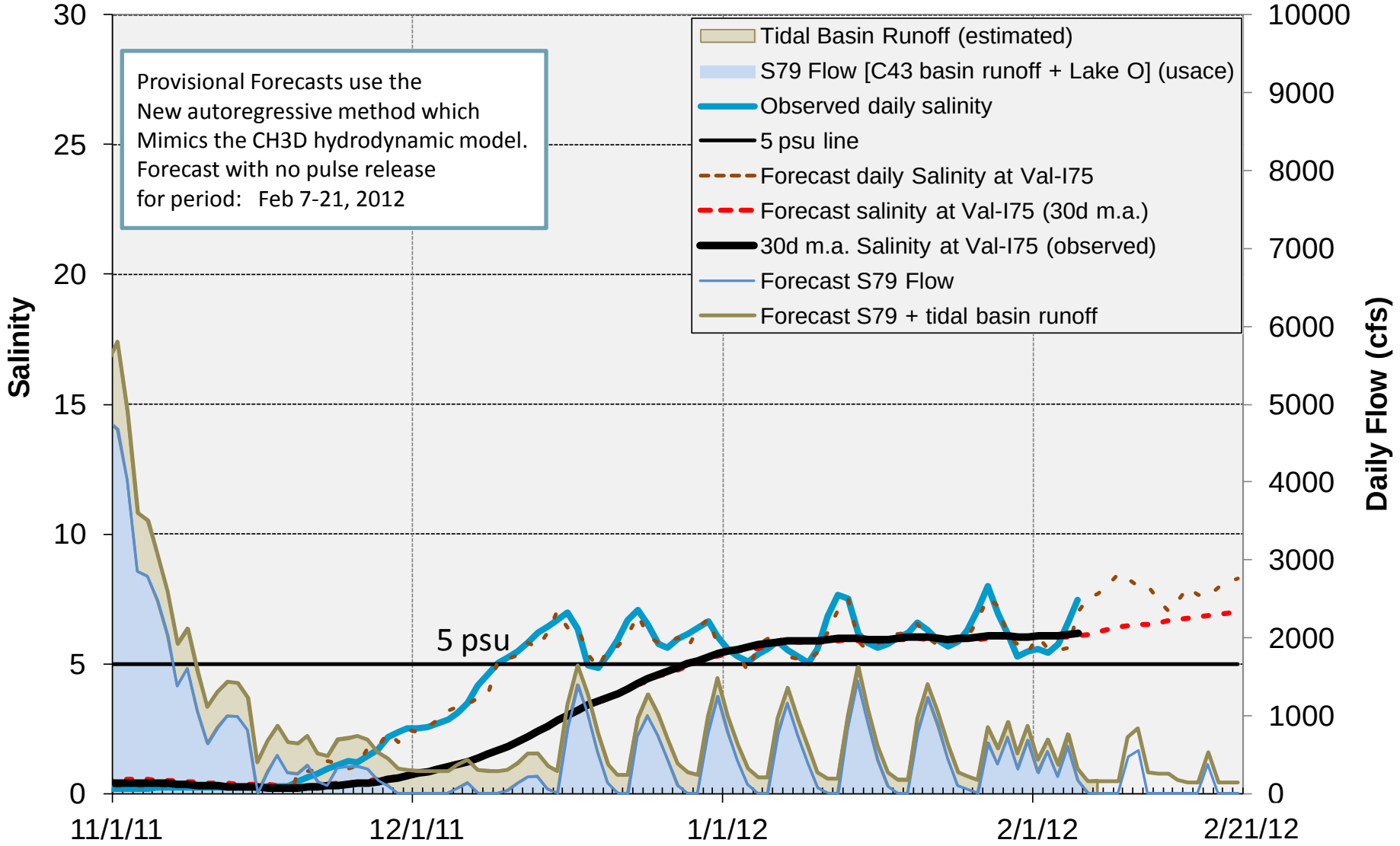


NOTE: Good Range for Oysters: 10 – 30 Optimal Range for Tape Grass: 0 – 5

Caloosahatchee Estuary Flows and Salinity
Observed and Forecast Salinity at Val I-75

Forecast 1: S-79=88 cfs & TBR = 190 cfs



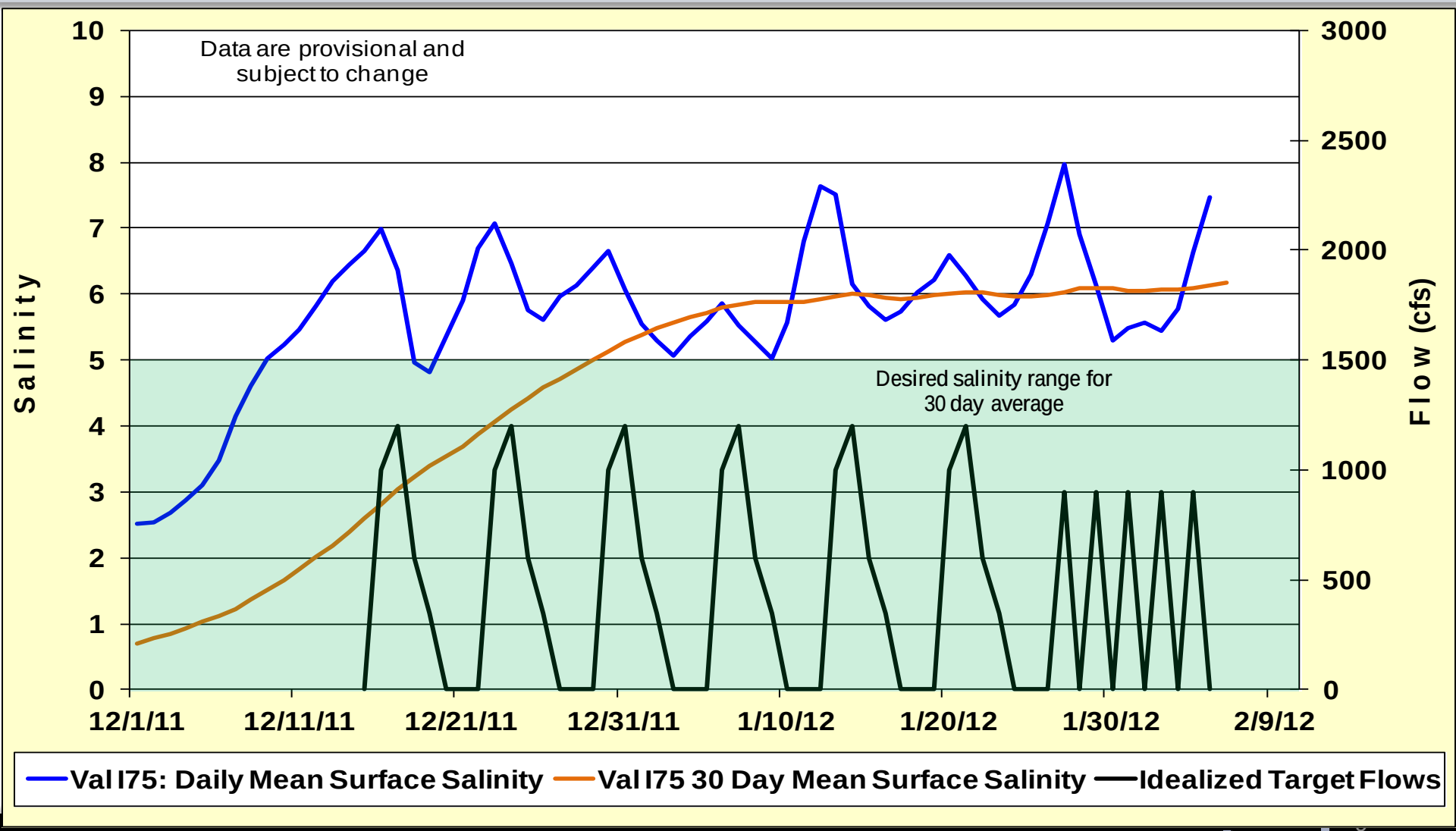
Caloosahatchee Estuary

Pulse Releases Averaging 450 cfs

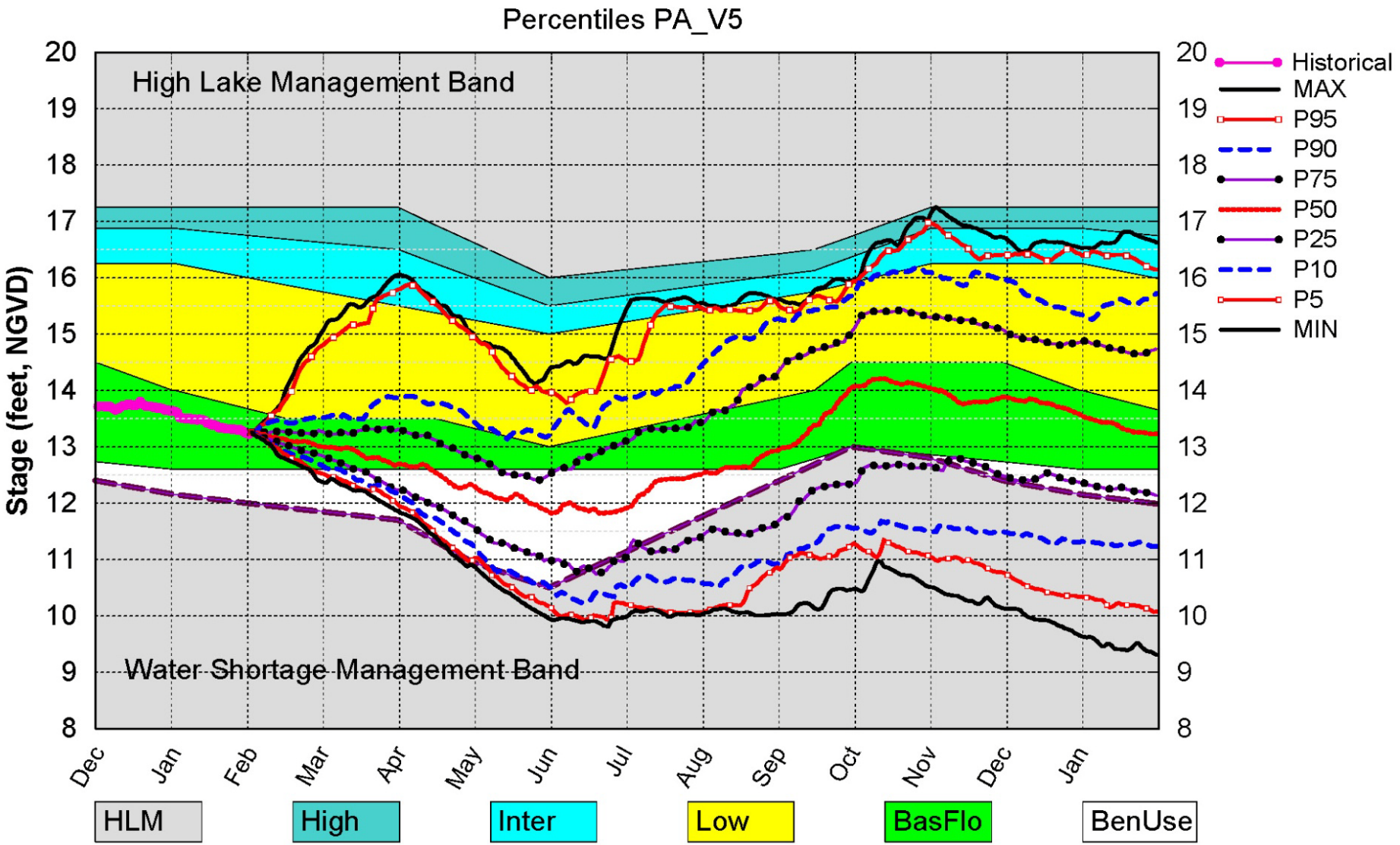
Pattern 1: 7-day Pulse	
Day	cfs
1	1000
2	1200
3	600
4	350
5	0
6	0
7	0

Pattern 2: 2-day Oscillation	
Day	cfs
1	900
2	0
3	900
4	0
5	900
6	0
7	900
8	0

Caloosahatchee Estuary
Pulse Releases



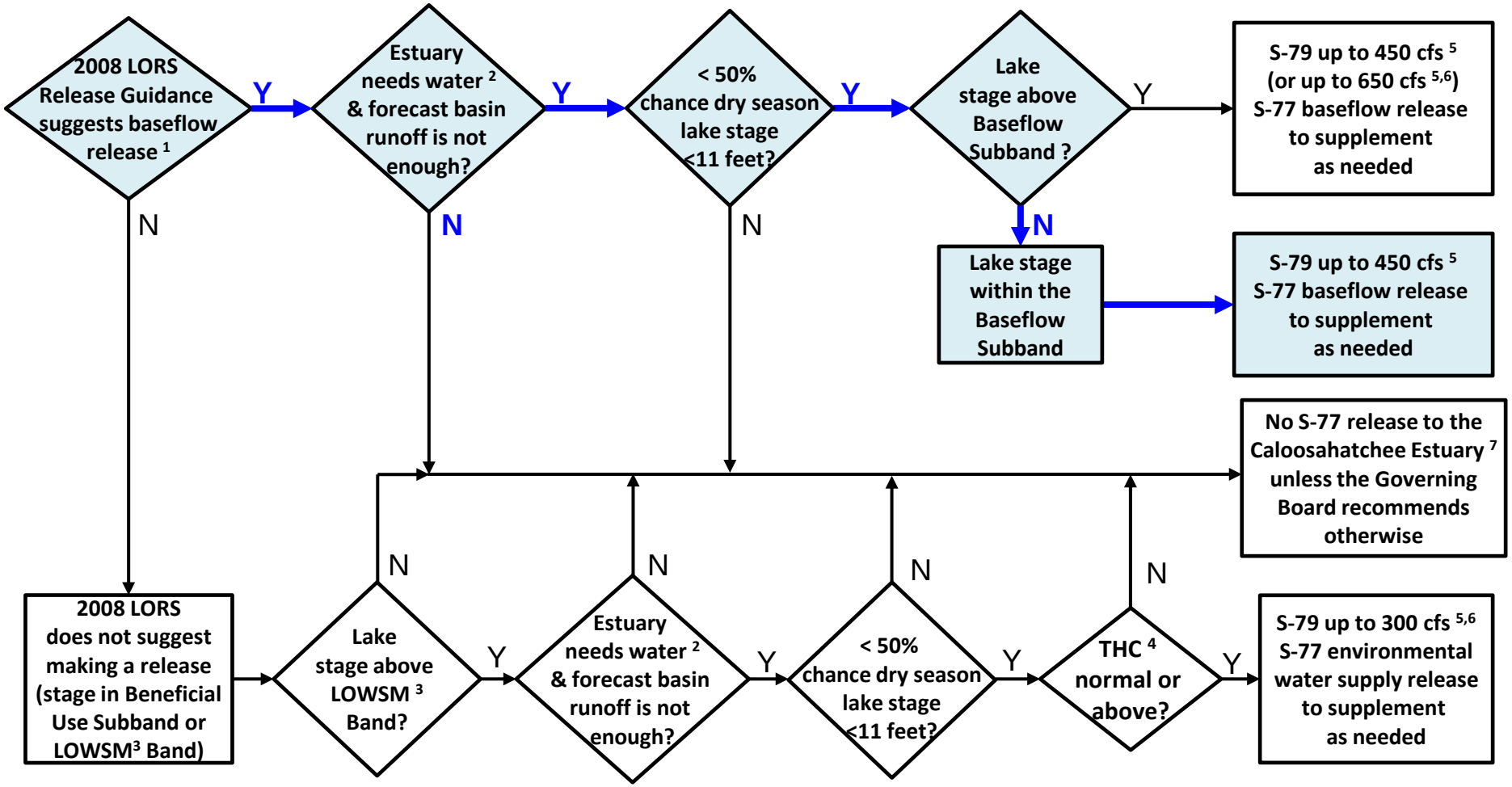
Lake Okeechobee SFWMM February 2012 Position Analysis



(See assumptions on the Position Analysis Results website)

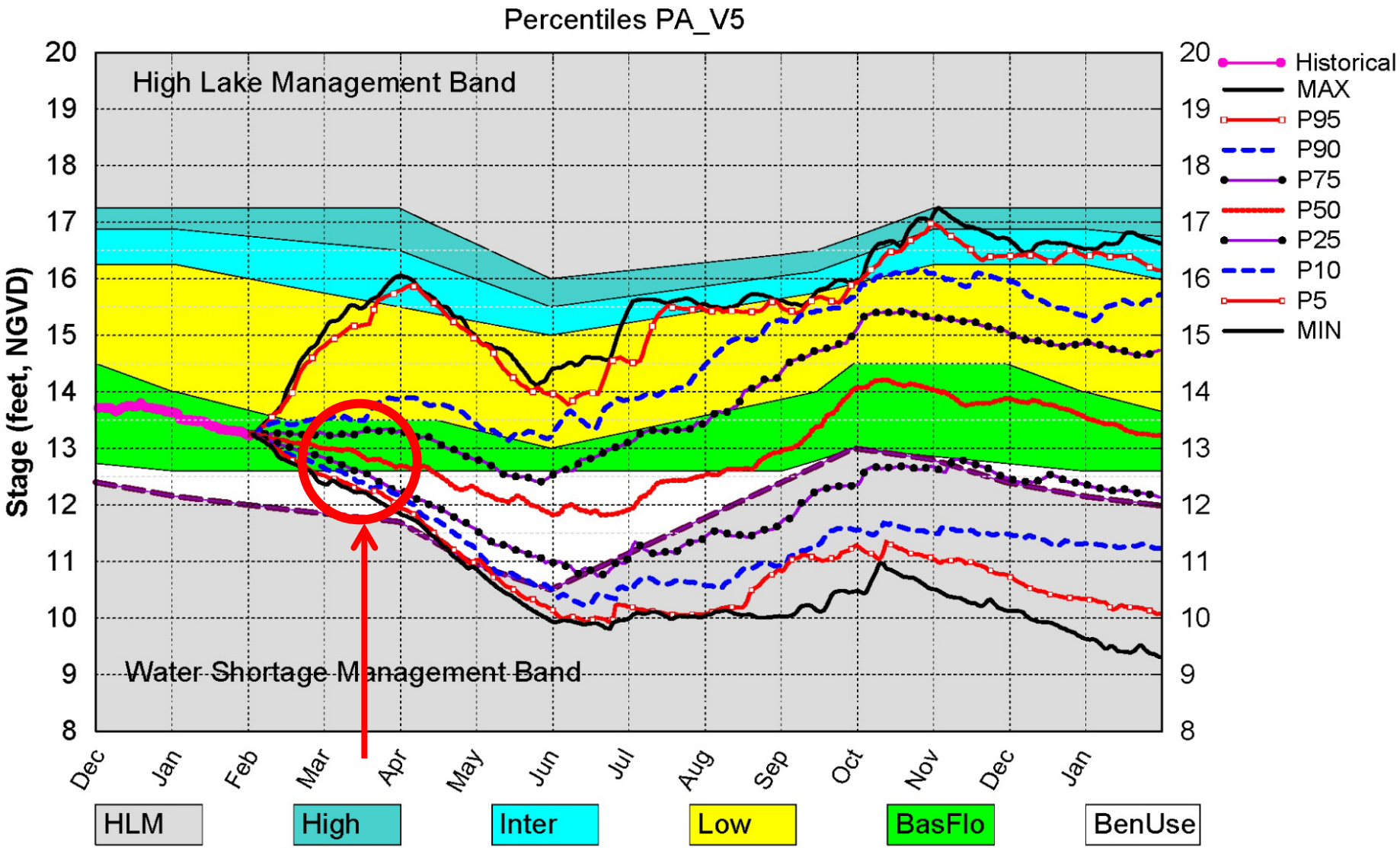
Mon Feb 6 14:59:09 2012

Flowchart to Guide Recommendations for Lake Okeechobee Releases to the Caloosahatchee Estuary for 2008 LORS Baseflow & for Environmental Water Supply



[1]The 2008 LORS Release Guidance (Part D) can suggest baseflow releases in the Intermediate, Low, or Baseflow Subbands.
[2]Estuary "needs" water when the 30-day moving average salinity at I-75 bridge is projected to exceed 5 practical salinity units (psu) within 2 weeks.
[3]LOWSM = Lake Okeechobee Water Shortage Management.
[4]Tributary Hydrologic Condition (THC) is based on classification of Lake Okeechobee Net Inflow and Palmer Index.
[5]Can release less than the "up to" limit if lower release is sufficient to reach or sustain desired estuary salinity; cfs = cubic feet per second.
[6]After reviewing conditions in Water Conservation Areas (WCAs), Stormwater Treatment Areas (STAs), ENP, St. Lucie Estuary and Lake Okeechobee.
[7]Should this condition be reached, the Governing Board will be briefed at their next regularly scheduled meeting as part of the State of the Water Resources agenda item.

Lake Okeechobee SFWMM February 2012 Position Analysis



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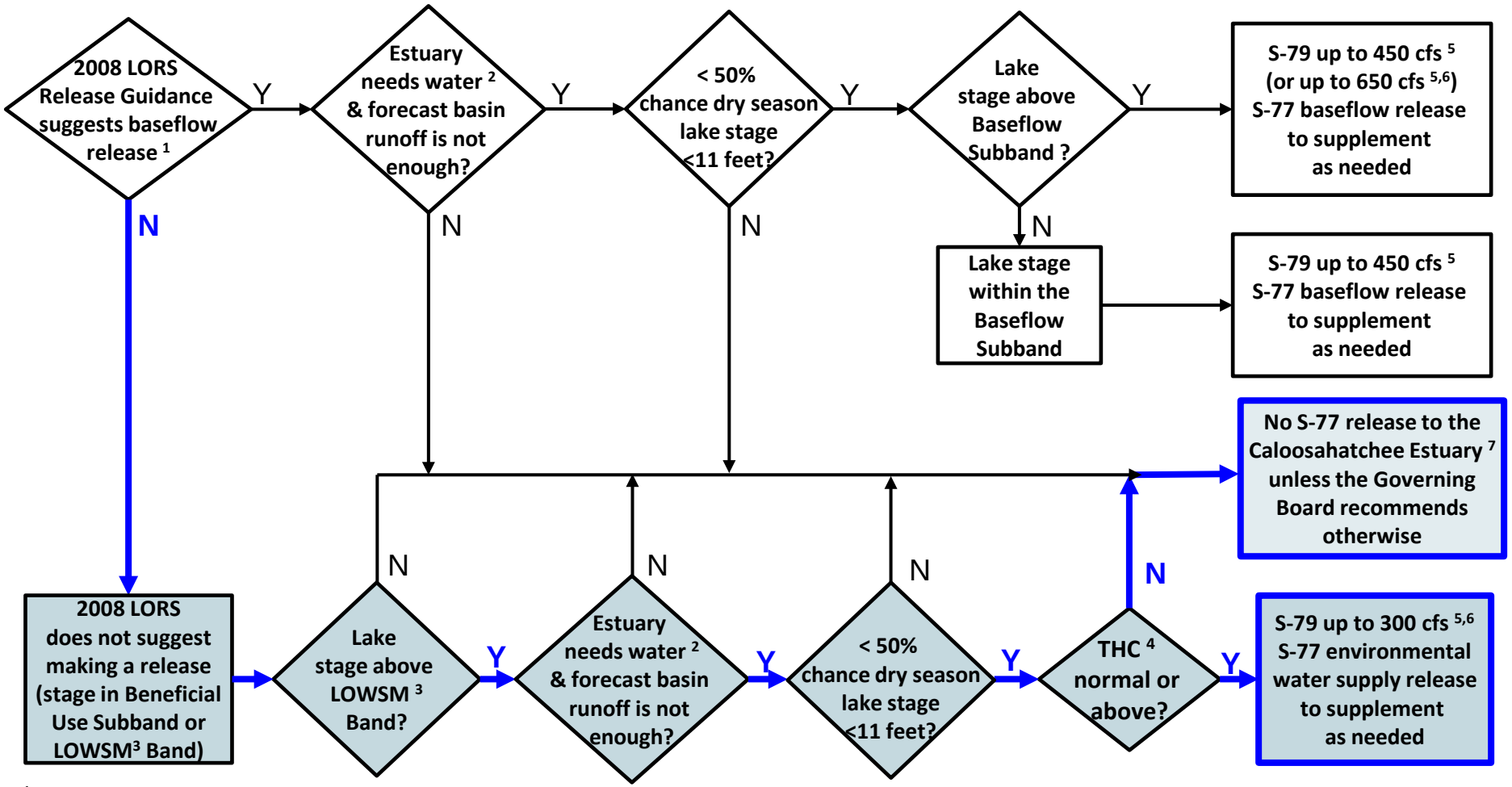

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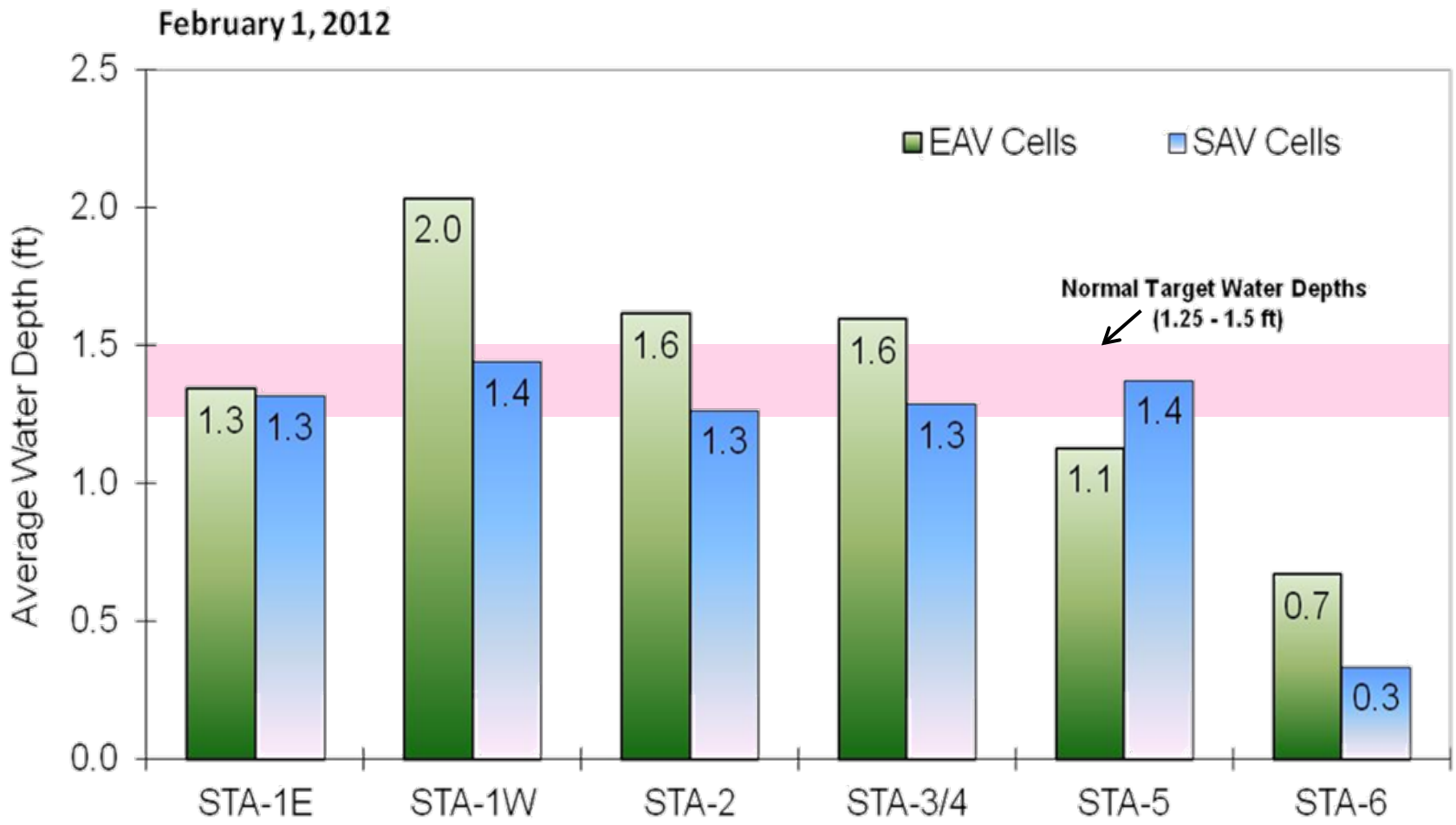
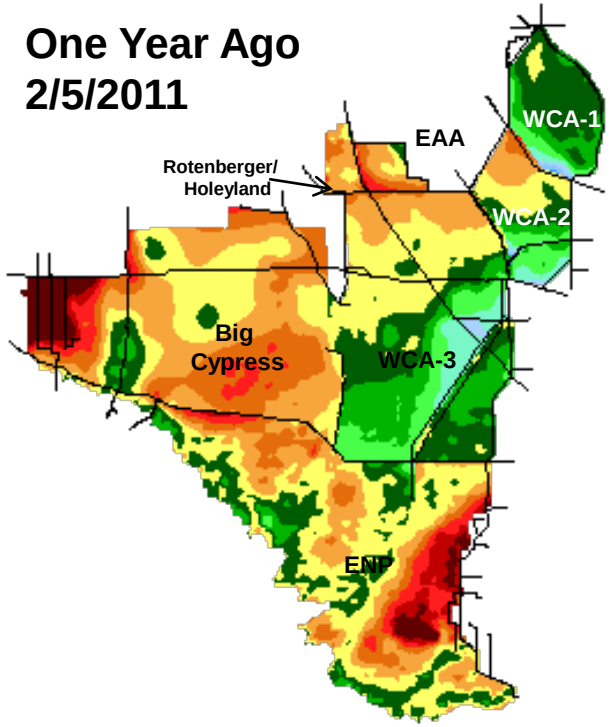
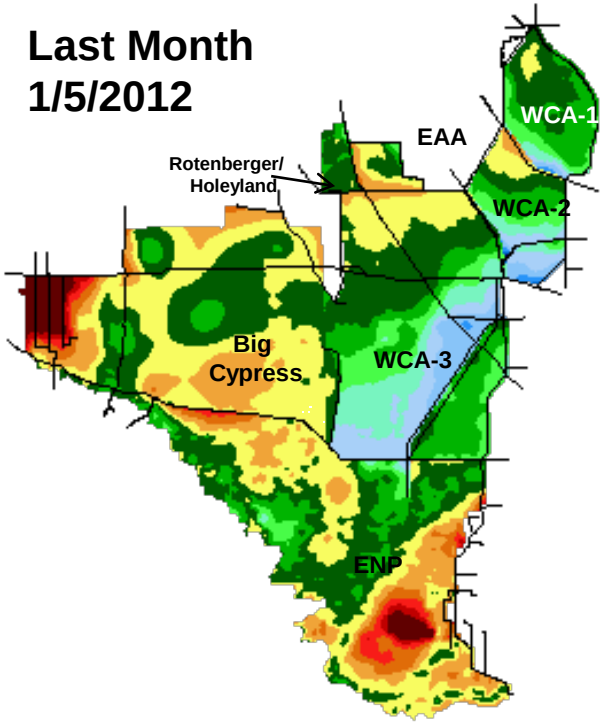
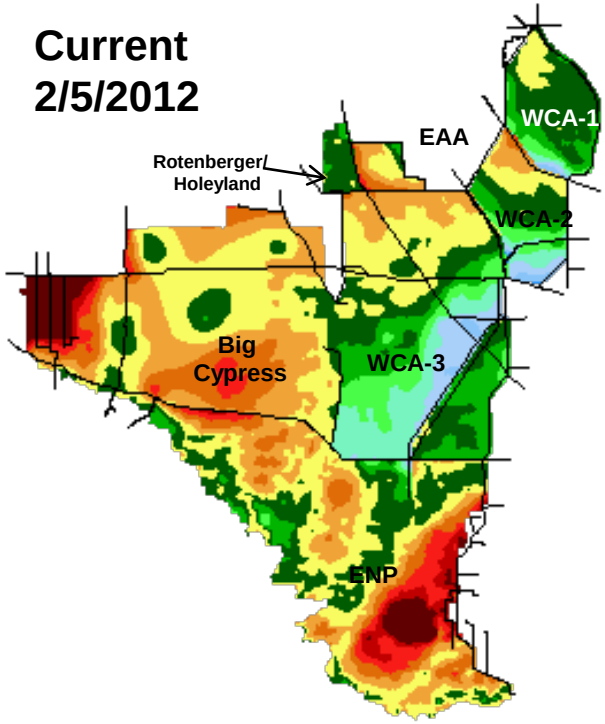
Stormwater Treatment Areas
Water Depths

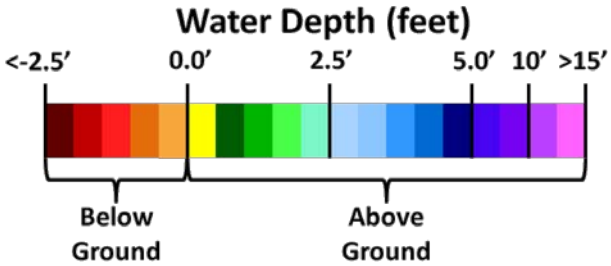


Greater Everglades
Water Depth Monthly Snapshots

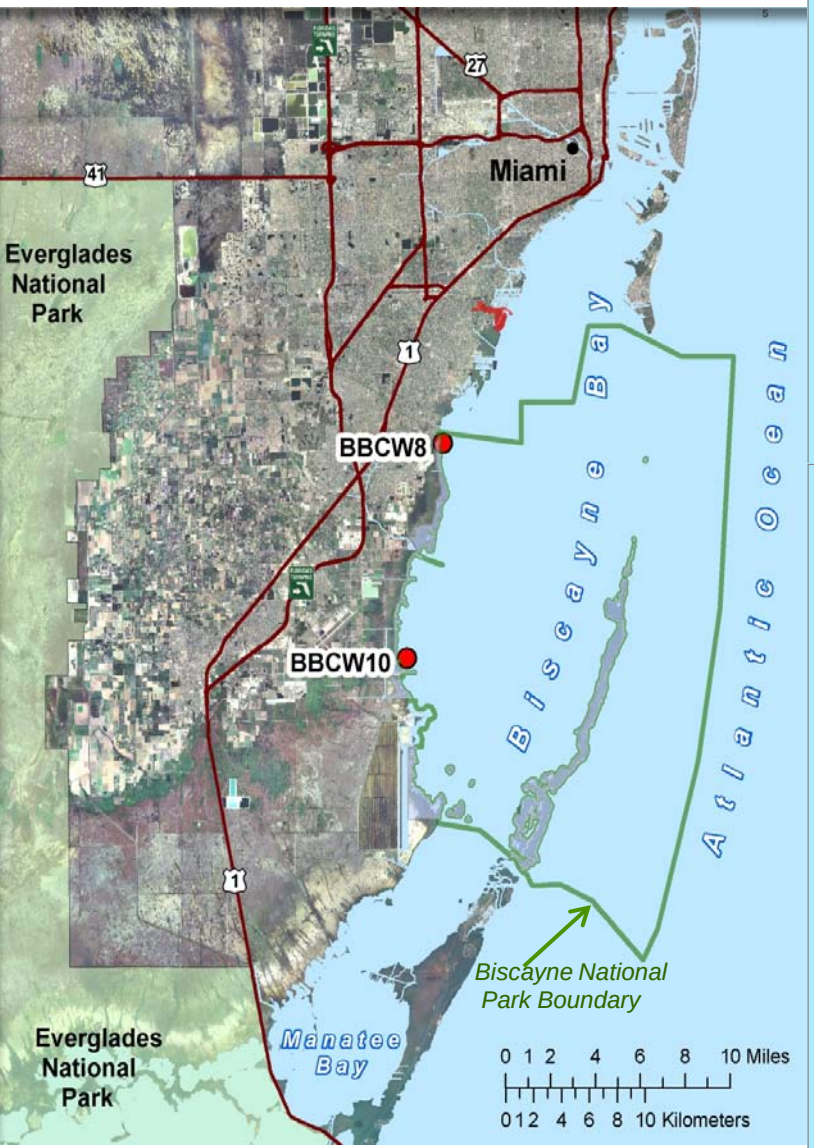


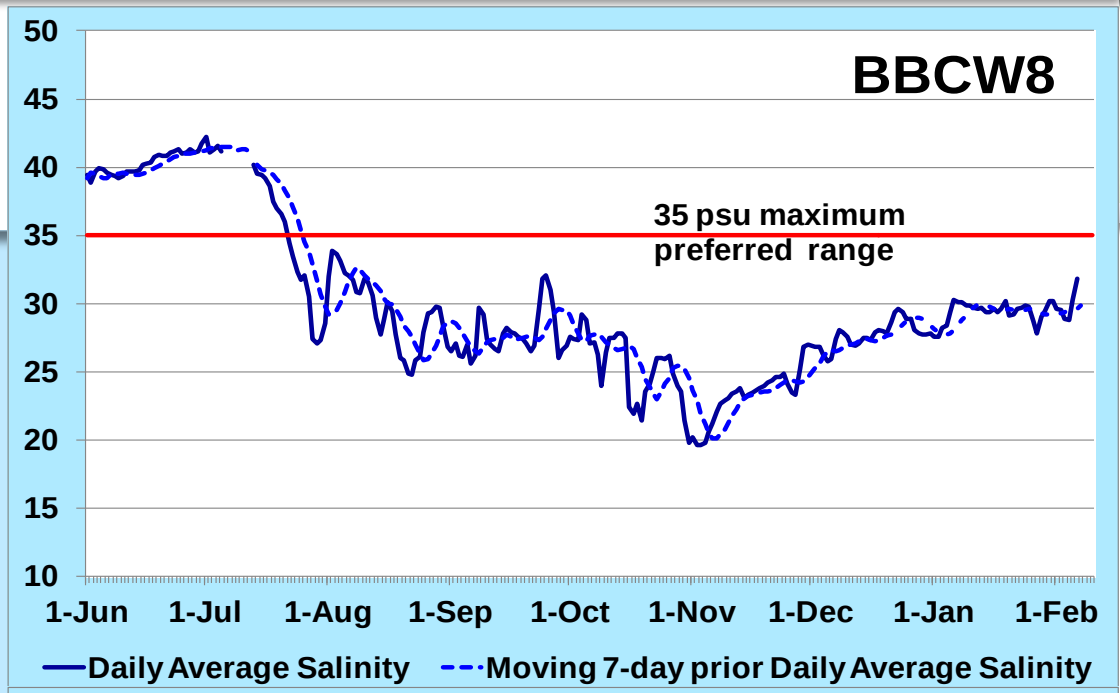


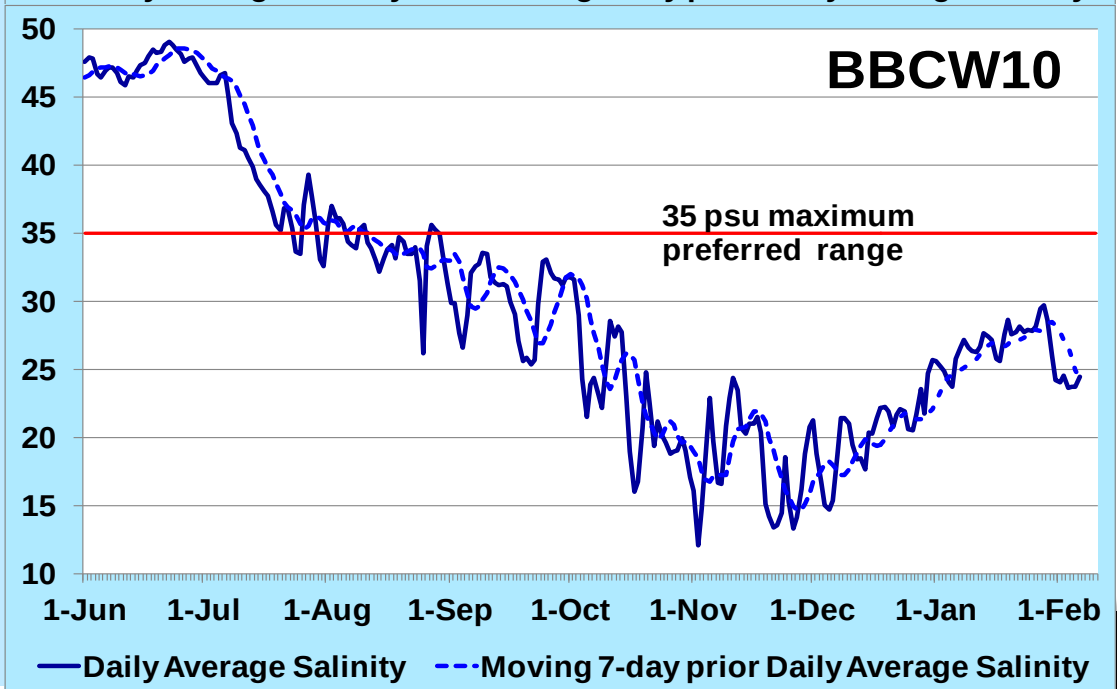




Biscayne Bay Salinity







Thank You
Questions?