Governing Board Meeting

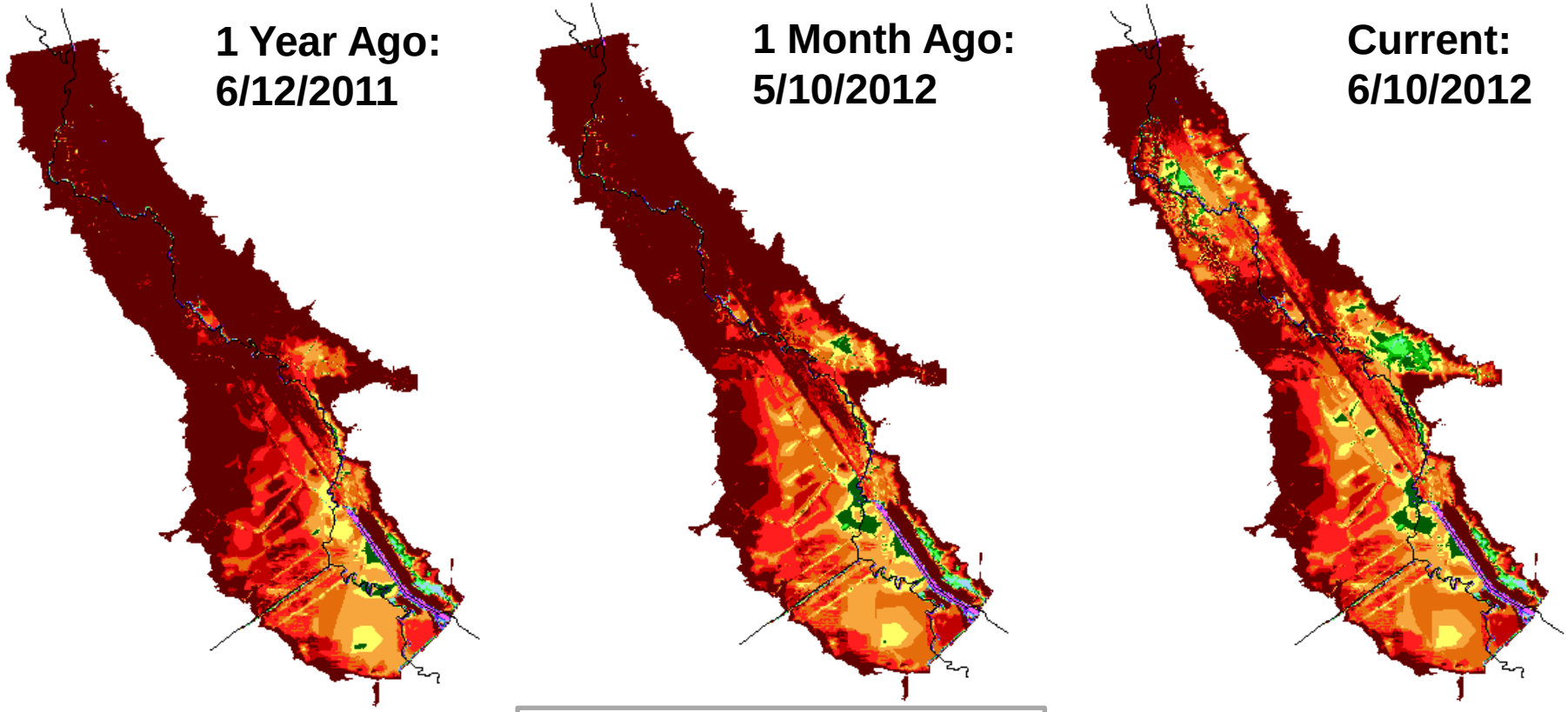
June 14, 2012

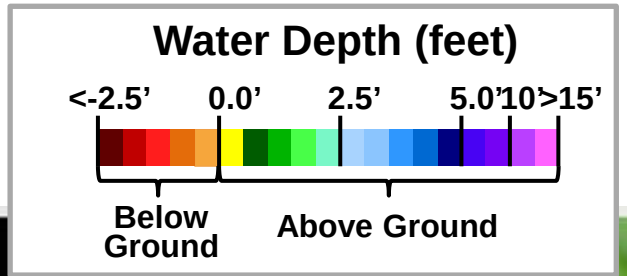
Environmental Conditions Update

Terrie Bates
Division Director
Water Resources Division

Kissimmee River (Pool C)

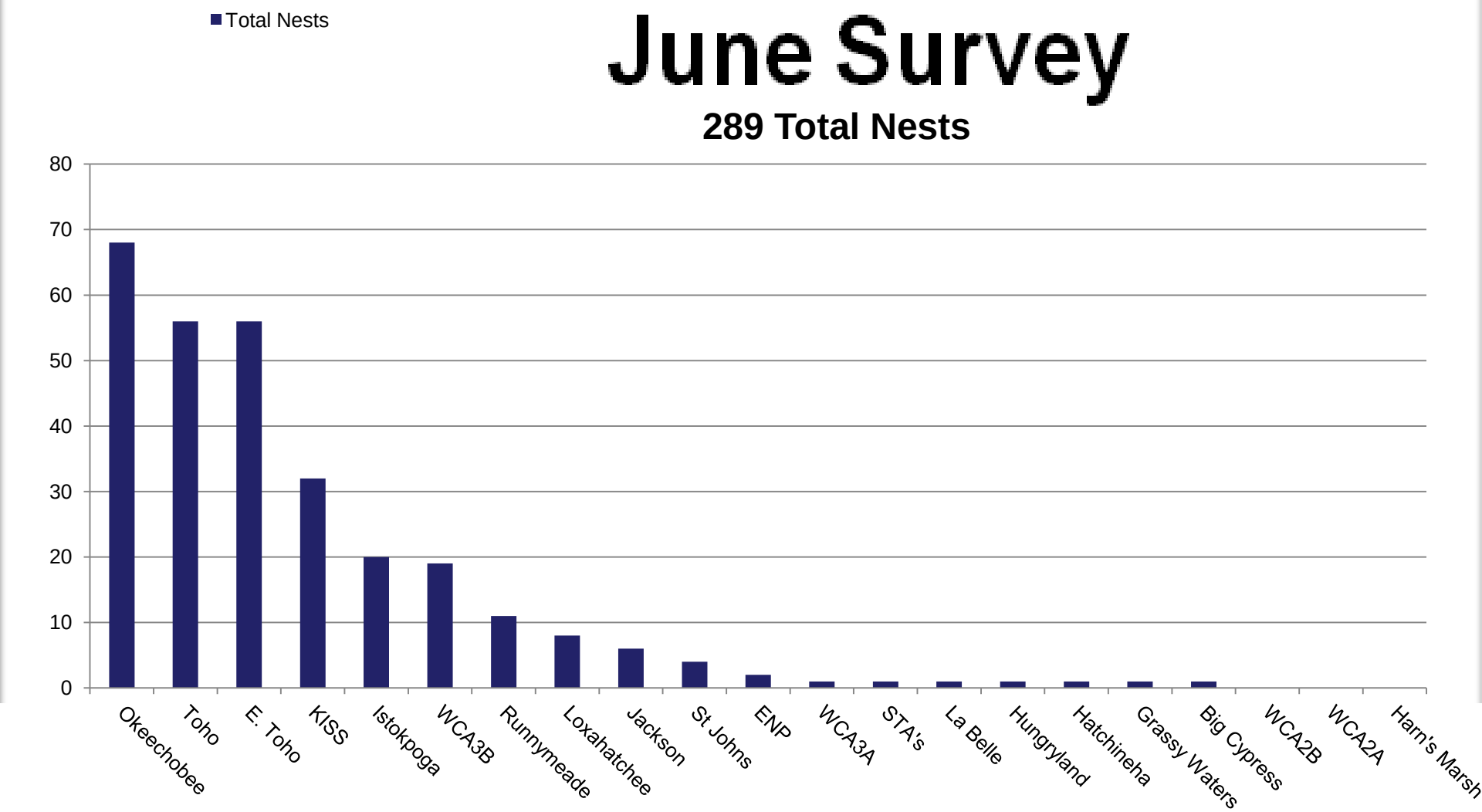
Monthly Water Depth Maps



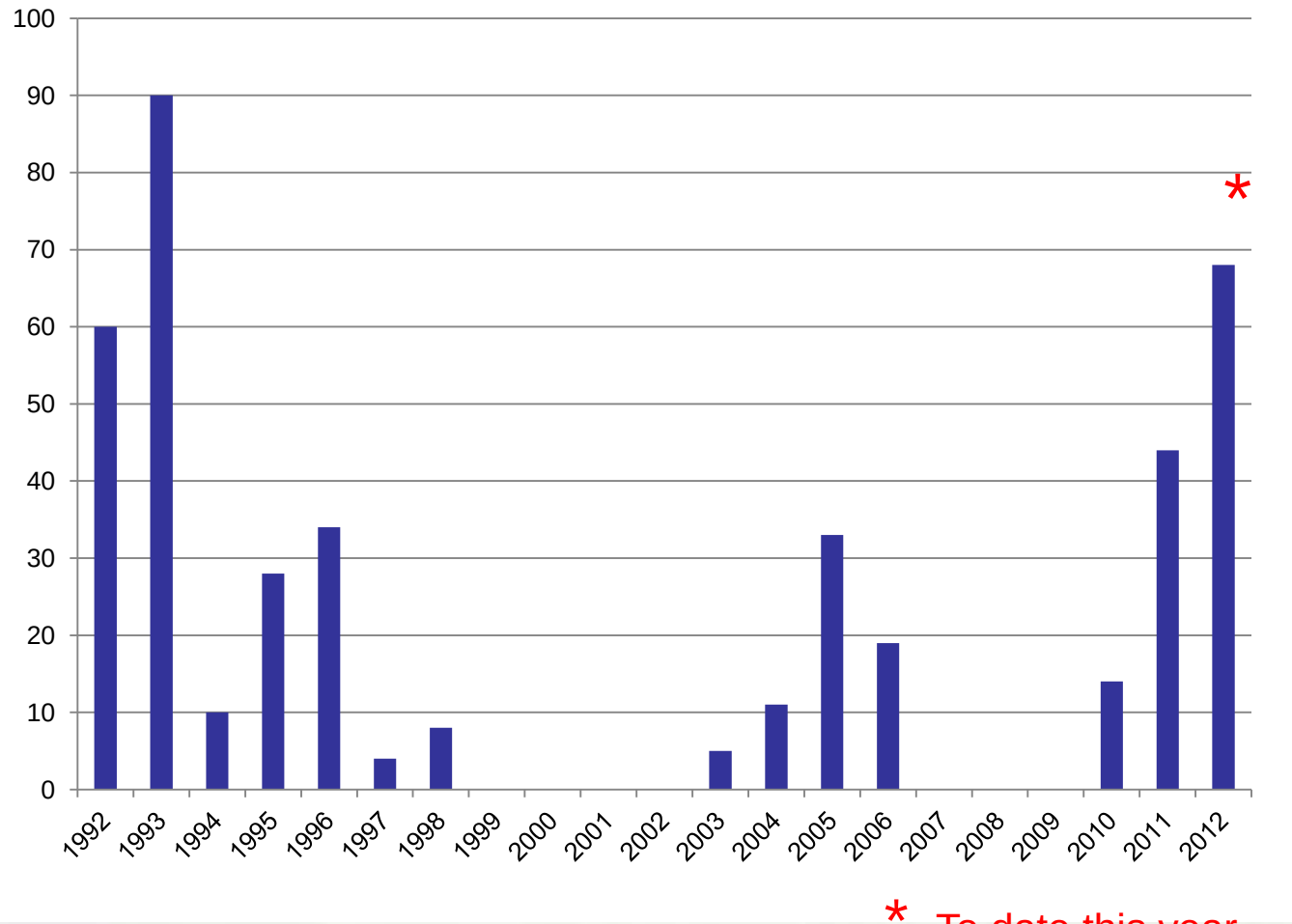


Kissimmee Basin

Regional Snail Kite Nesting Activity



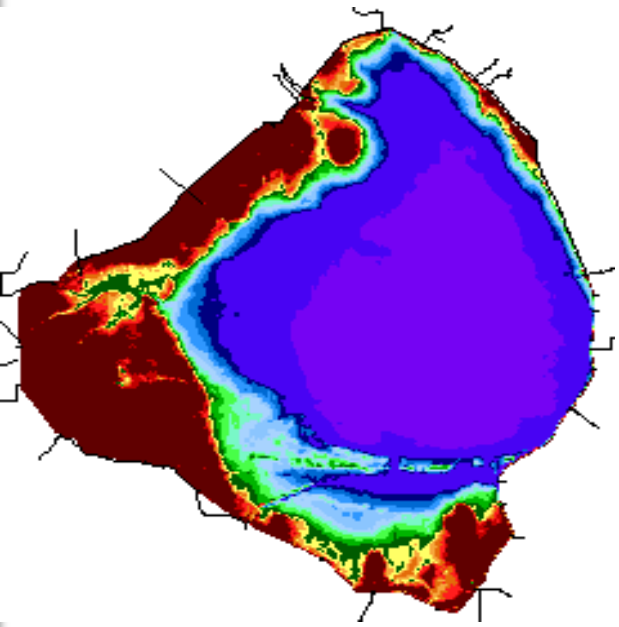
Lake Okeechobee Snail Kite Nesting Trends 1992-2012



* To date this year

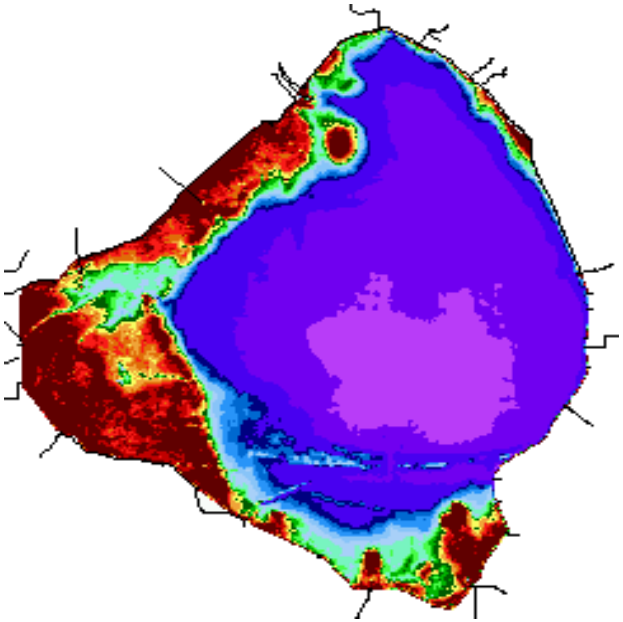
Lake Okeechobee
Water Depth Timeseries Maps

1 Year Ago: 06/11/2011



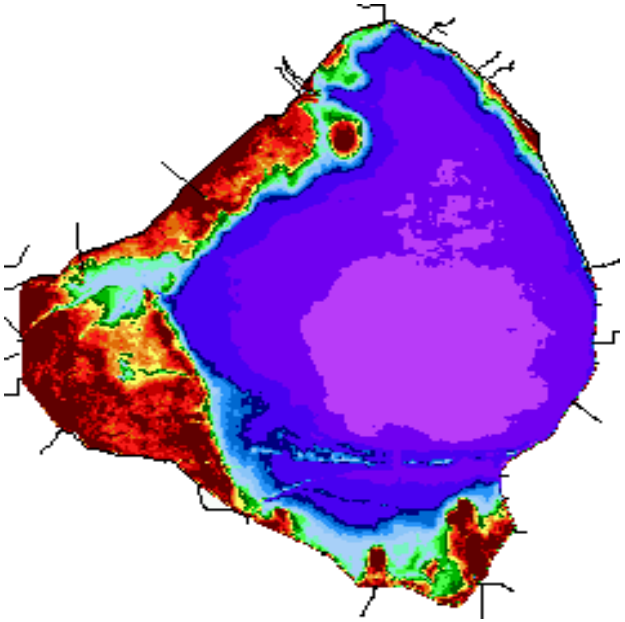
(9.67 ft NGVD29)

1 Month Ago: 05/12/2012

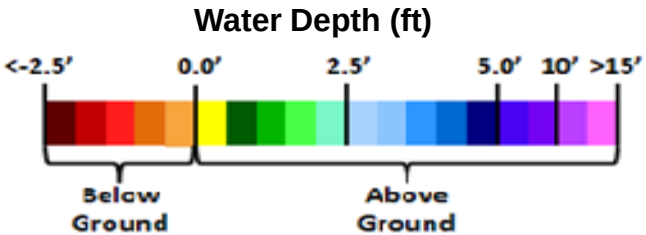


(11.58 ft NGVD29)

Current: 06/11/2012

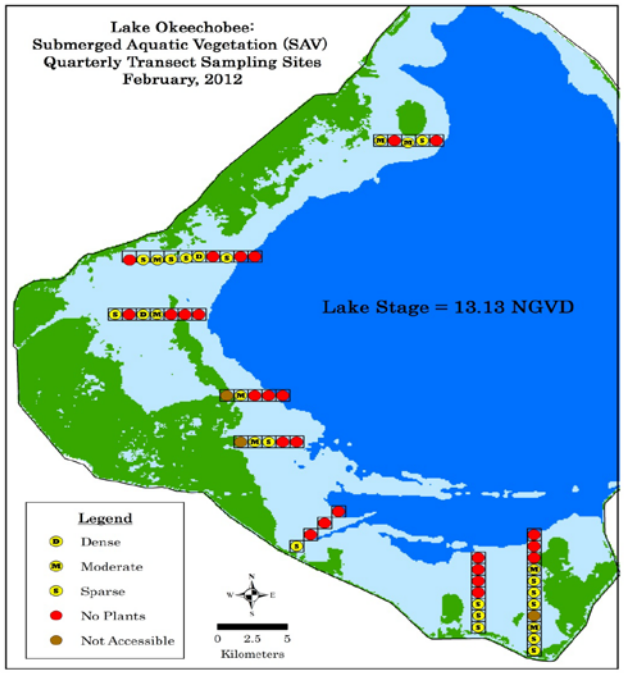


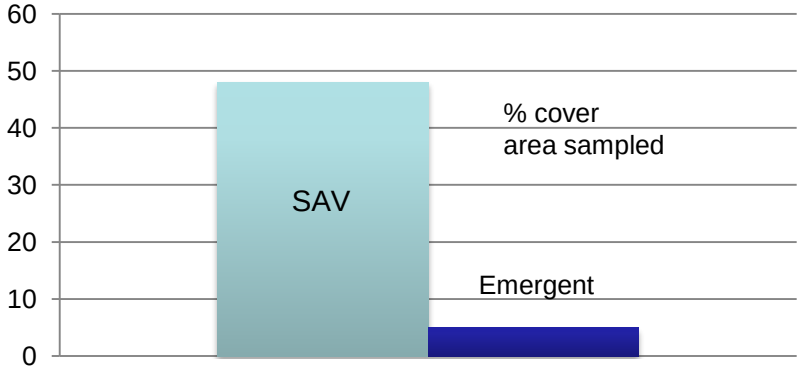
(11.82 ft NGVD29)

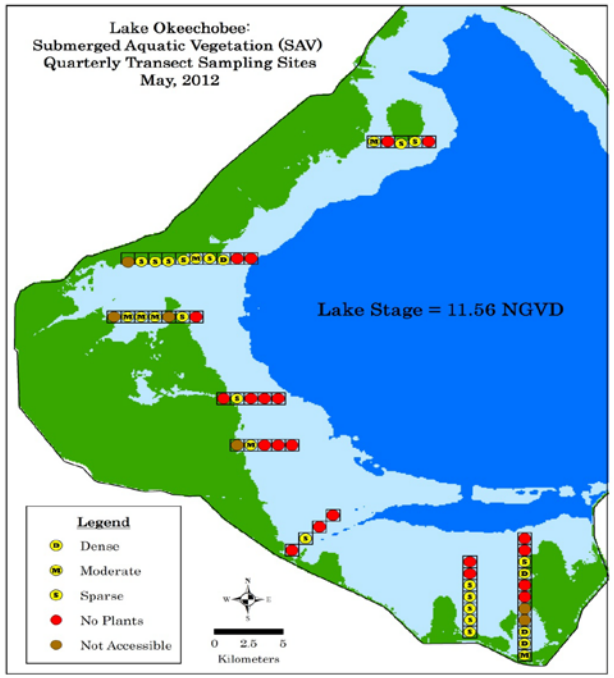


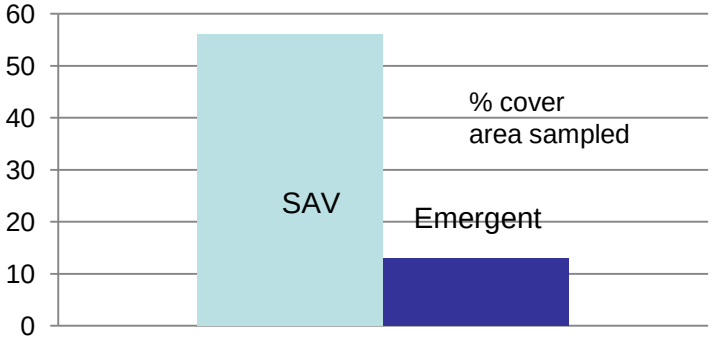
Current Lake Level*:*
(11.82 ft NGVD29 6/11/12)

WDAT Lake Okeechobee
Submerged Aquatic Vegetation Maps





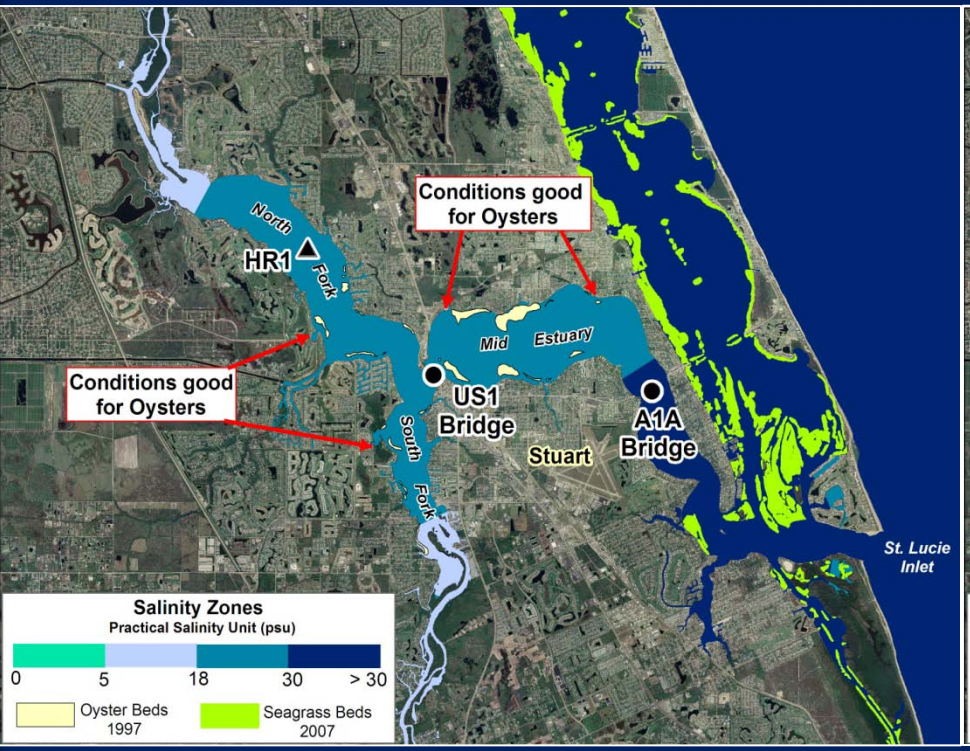




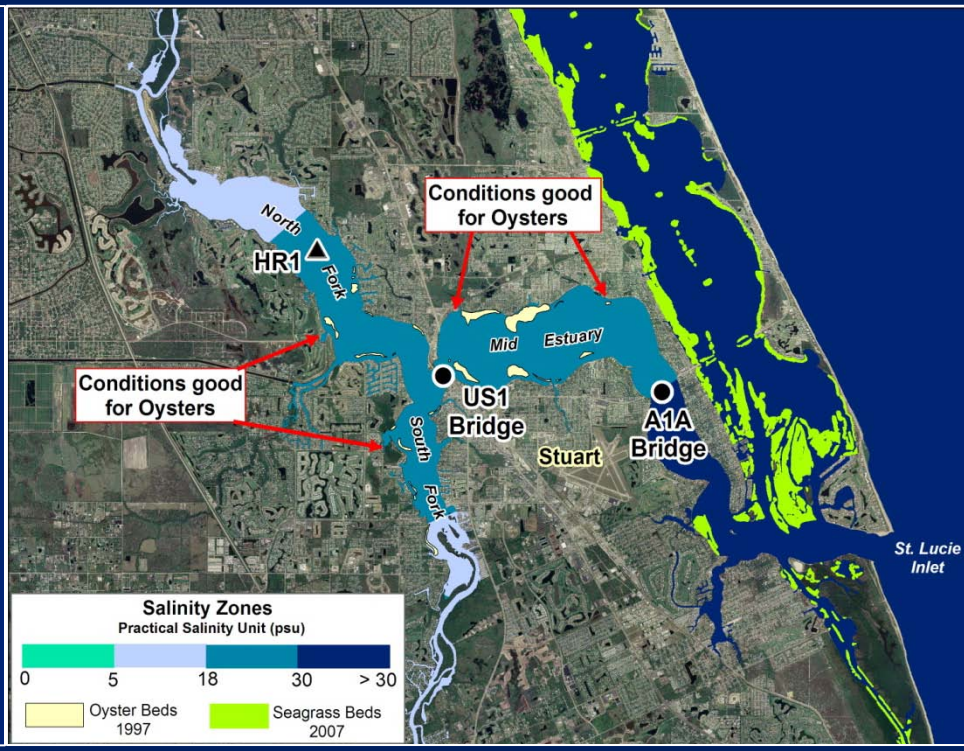
St. Lucie Estuary

Salinity Conditions

May 7, 2012

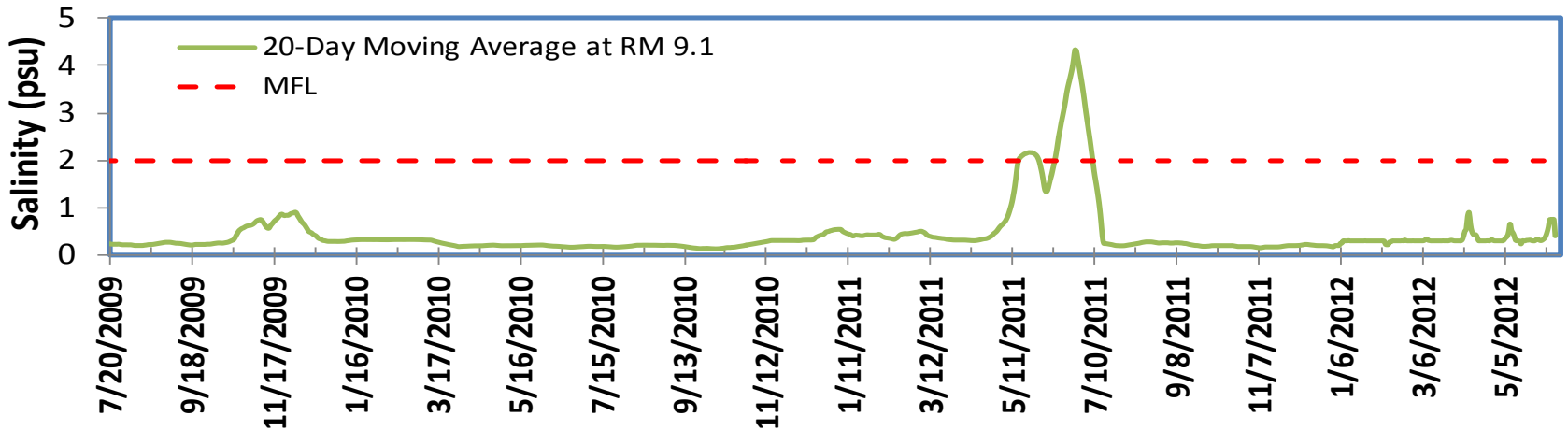


June 11, 2012

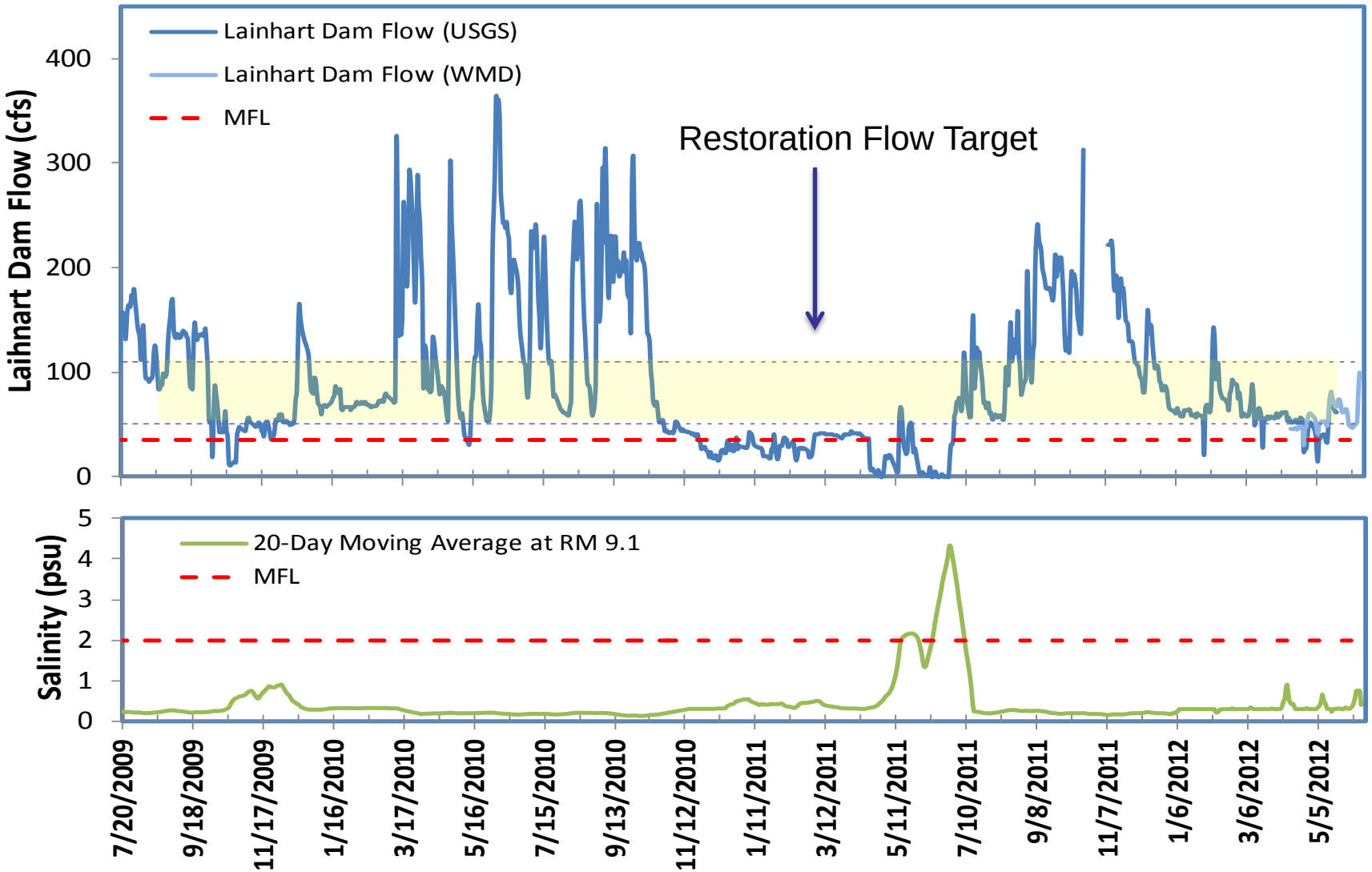


NOTE: Good Range for Oysters: 10 – 30

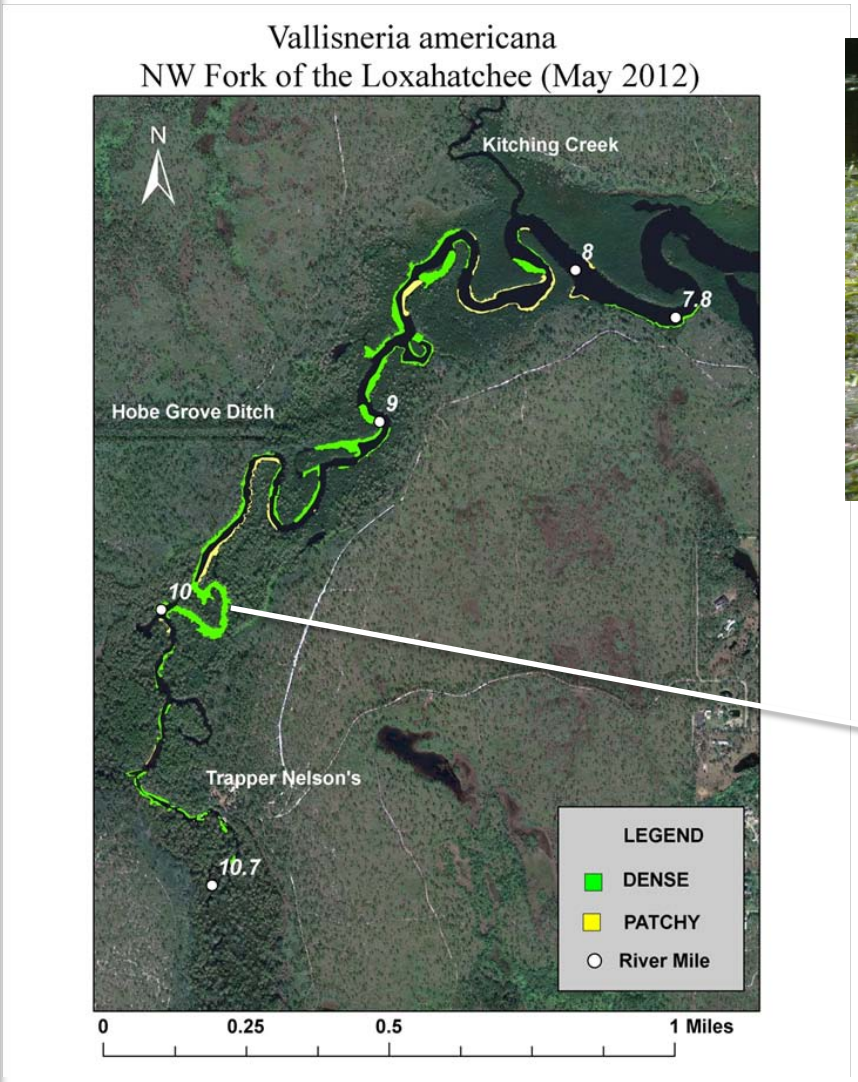
NW Fork of Loxahatchee River: Minimum Flow & Level



NW Fork of Loxahatchee River: Minimum Flow & Level



Northwest Fork of Loxahatchee River: *Vallisneria* Reconnaissance



In many areas, tapegrass was exposed at low tide.

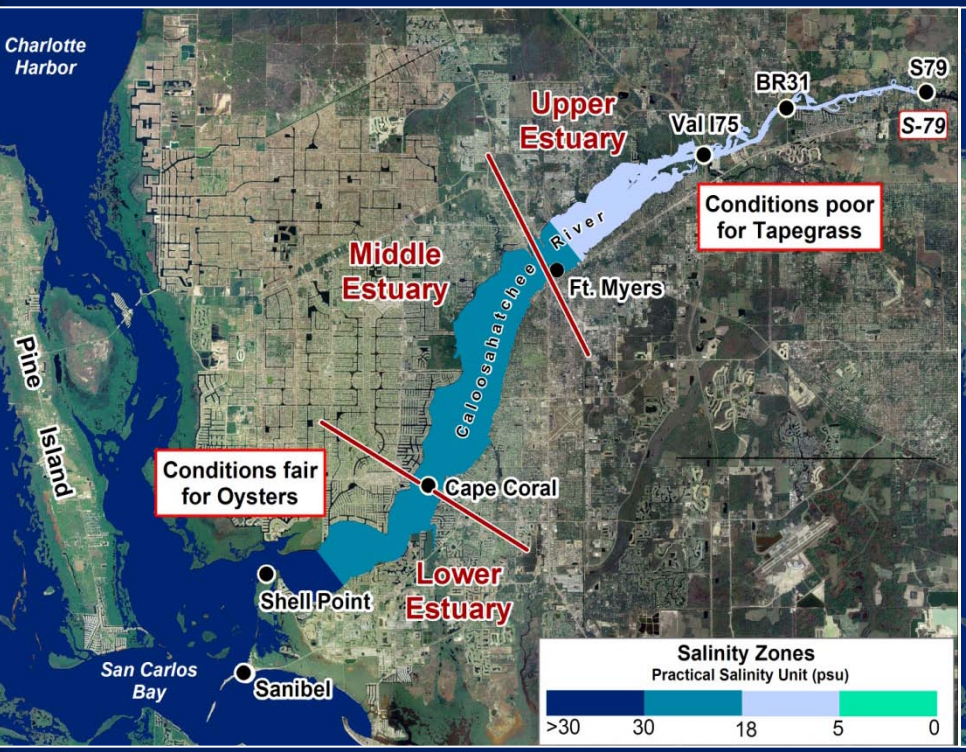
Dense bed at Trapper Nelson's

Northwest Fork of Loxahatchee River: *Vallisneria* Reconnaissance

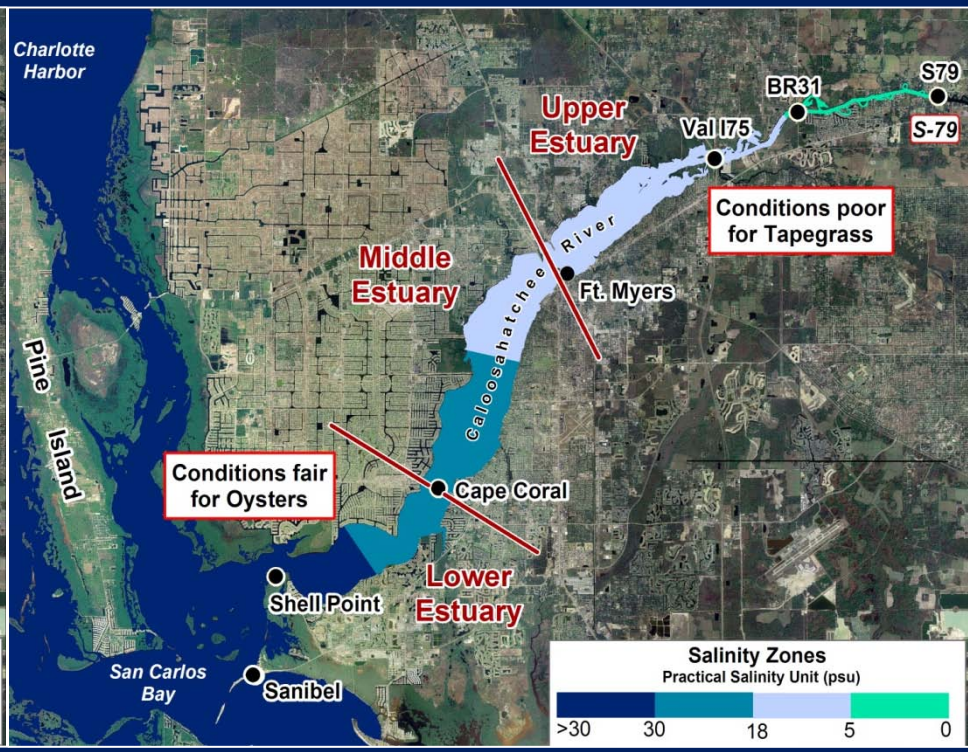
Caloosahatchee Estuary

Salinity Conditions

May 7, 2012



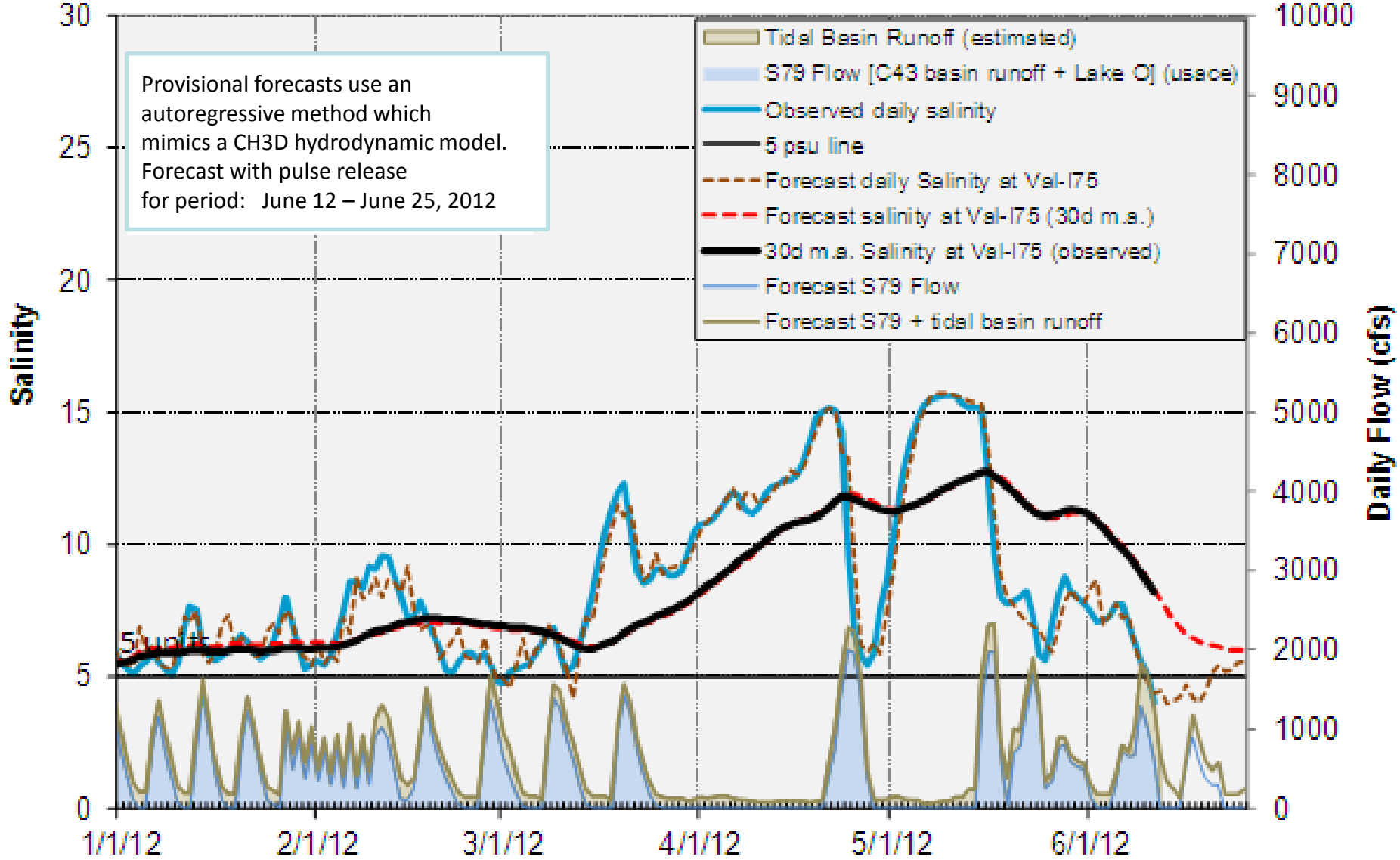
June 11, 2012



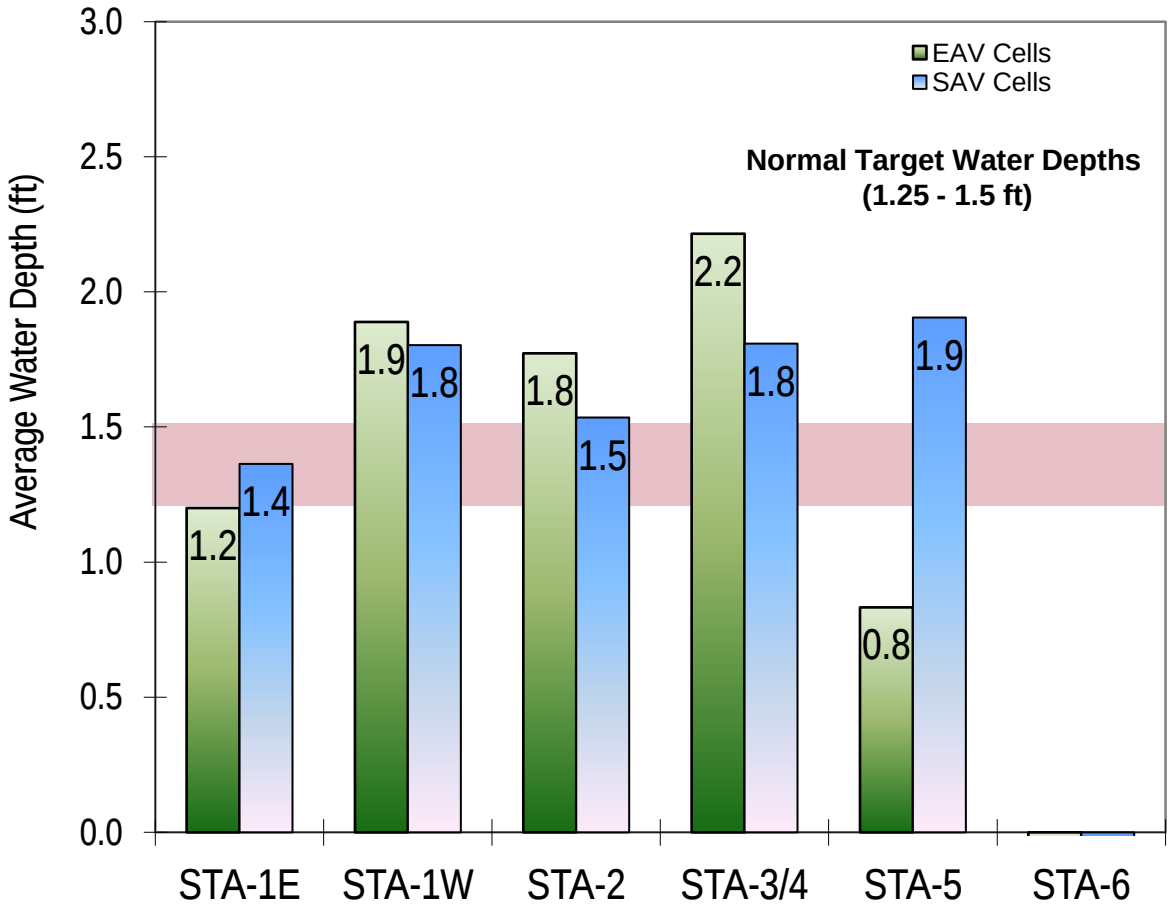
NOTE: Good Range for Oysters: 10 – 30 Optimal Range for Tape Grass: 0 – 5

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

Forecast 1: S-79 =300 cfs & TBR = 270 cfs



STA Water Depths



- **Water depths are at or above target**
  - For all STA cells/flow-ways except for STA-5 cells 1A, 2A, 3A, 3B and all cells at STA-6
- **Water levels were maintained throughout the dry season in most treatment cells**

STA Vegetation Management

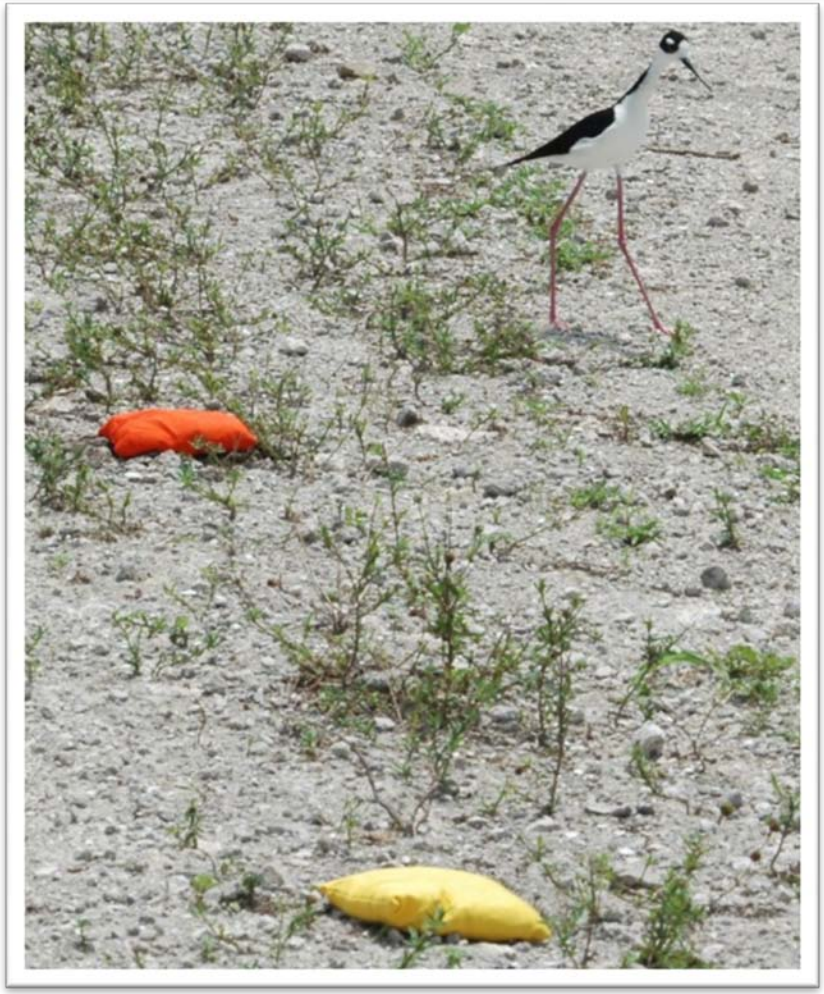
- Aerial herbicide application in STA-3/4 Cell 1B for vegetation conversion
- Compartments B & C in preparation of start-up
- Vegetation strips degraded in STA-3/4 PSTA cell to improve hydraulics (*below*)

Everglades STA Avian Surveys

(as of 6/11/12)

- No Snail Kite nests
- Least tern colony at STA-1E G-319 pump station construction site
- 21 Black Necked Stilt nests
  - STA-1E (Cell 5: 9 nests)
  - Compartment C: (11 nests)
  - STA-3/4 PSTA (3 nests)

Nest locations having no impact on operations, except for STA-3/4 PSTA

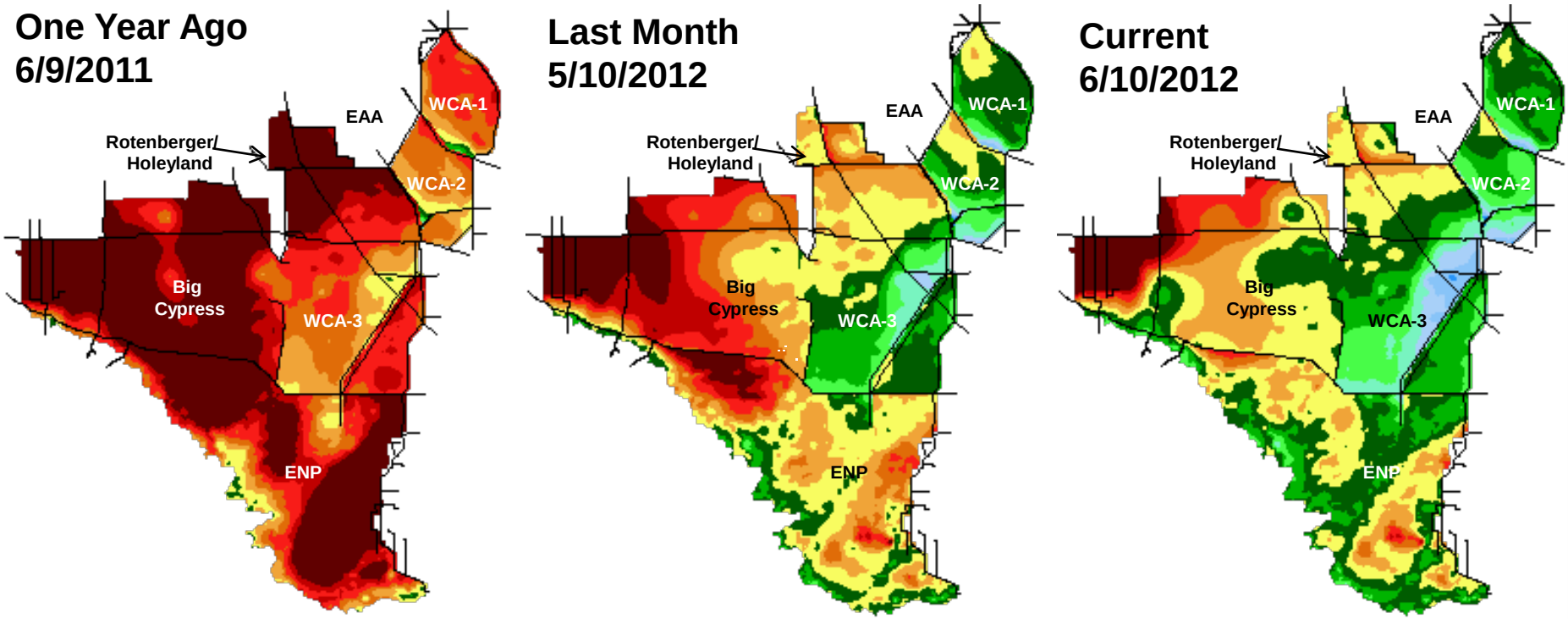


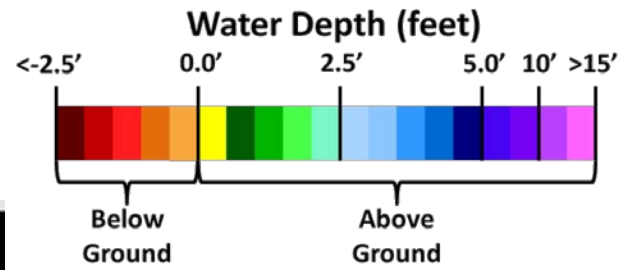
Bean bags mark location of a black necked stilt nest.

STA-6 Redundant Levee Removal

- Levee no longer necessary
- Use fill for Compartment C Environmentally Sensitive Area construction

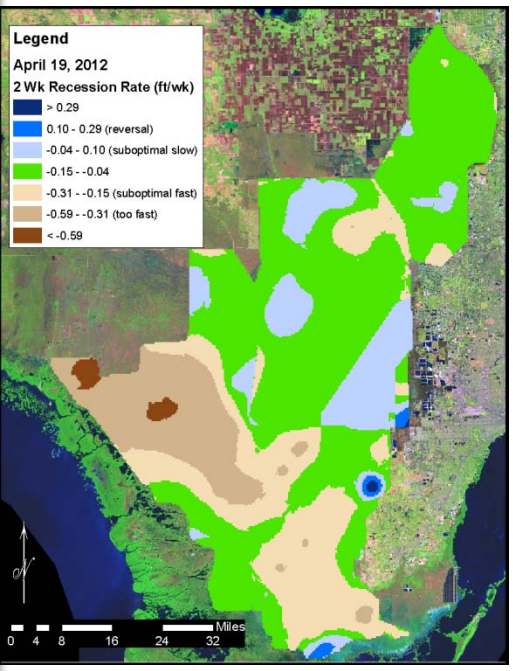
Greater Everglades
Water Depth Monthly Snapshots

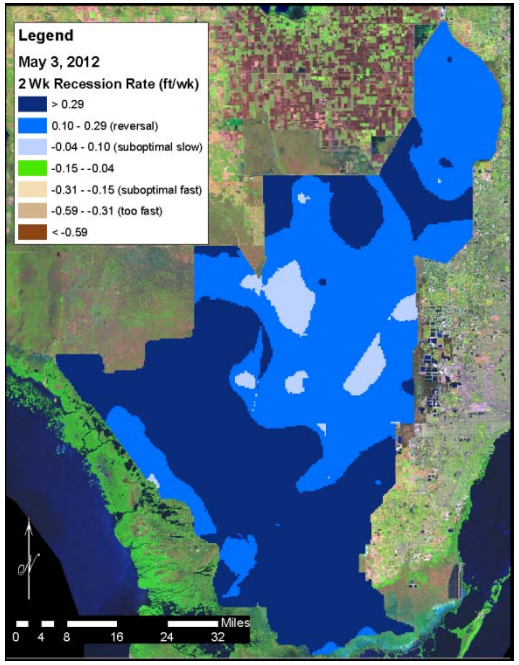




Greater Everglades
Wading Bird Update June 2012

Recession rate affects wading bird habitat suitability for foraging





- **Recession rate determines how prey concentrate or disperse.**
- **Over 2 weeks, the WCAs went from optimal foraging (green) to poor foraging (blue)**

White Ibis: A foraging generalist, nested relatively late with some abandonments

Roseate Spoonbill: Foraging specialist, nested early in WCA3A with few abandonments

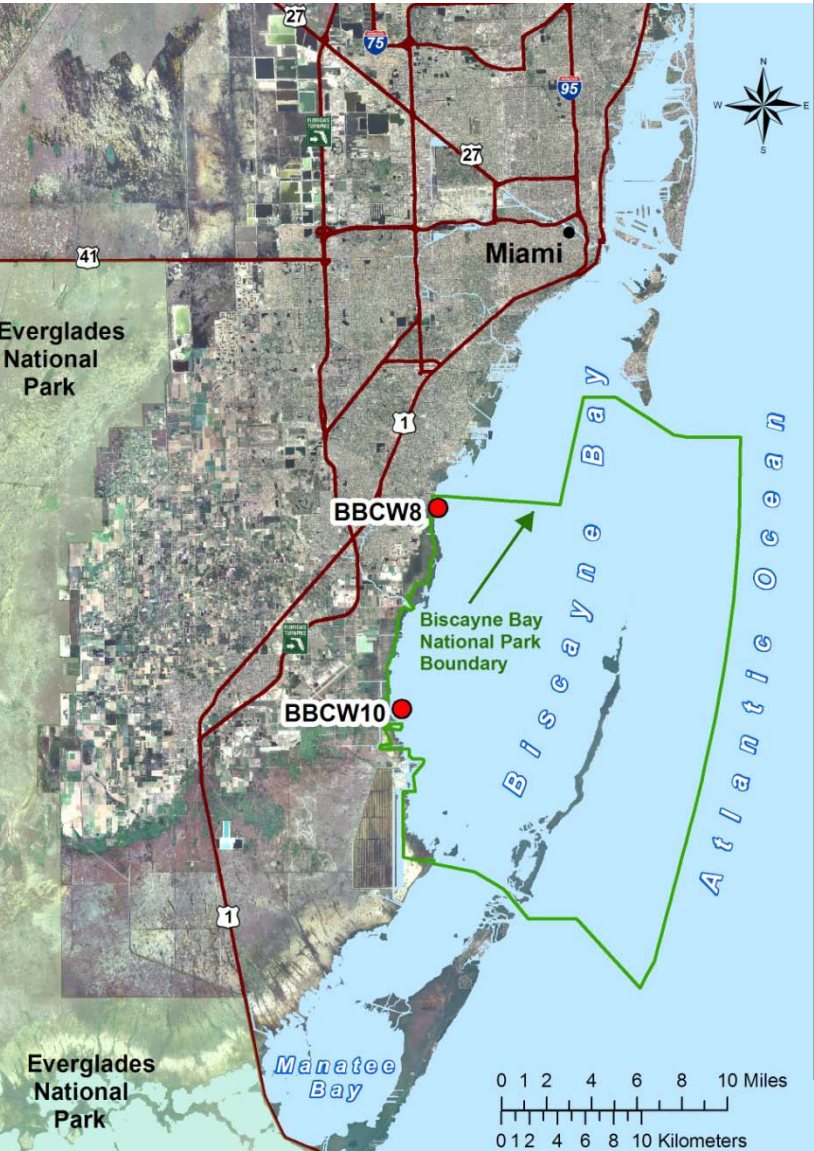
Wood Stork: Foraging specialist, nested late - most abandonments per attempt

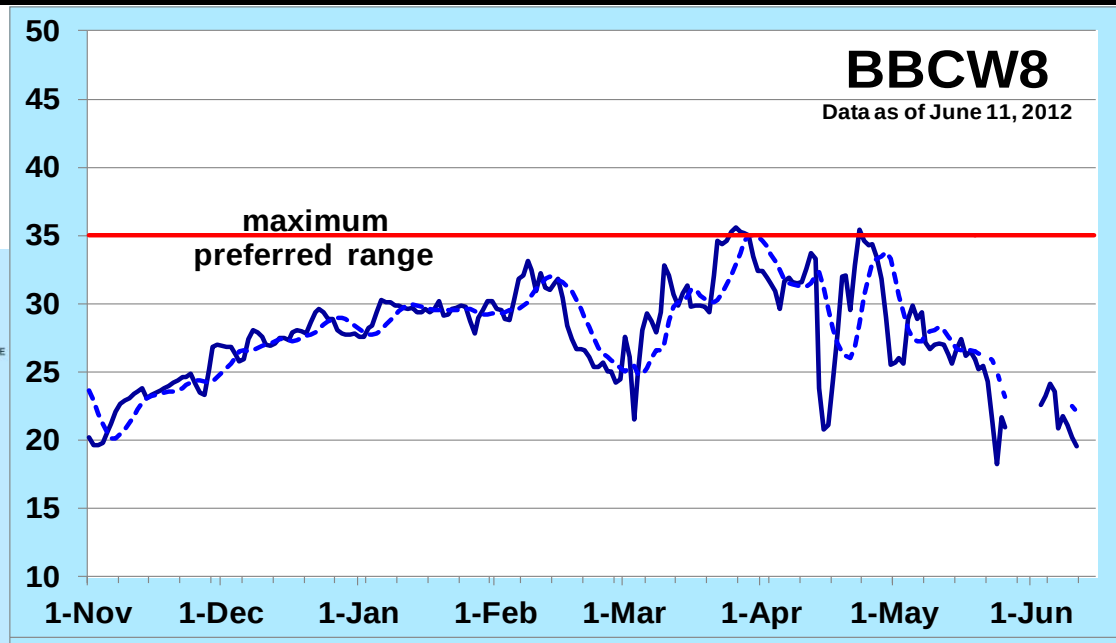
Greater Everglades

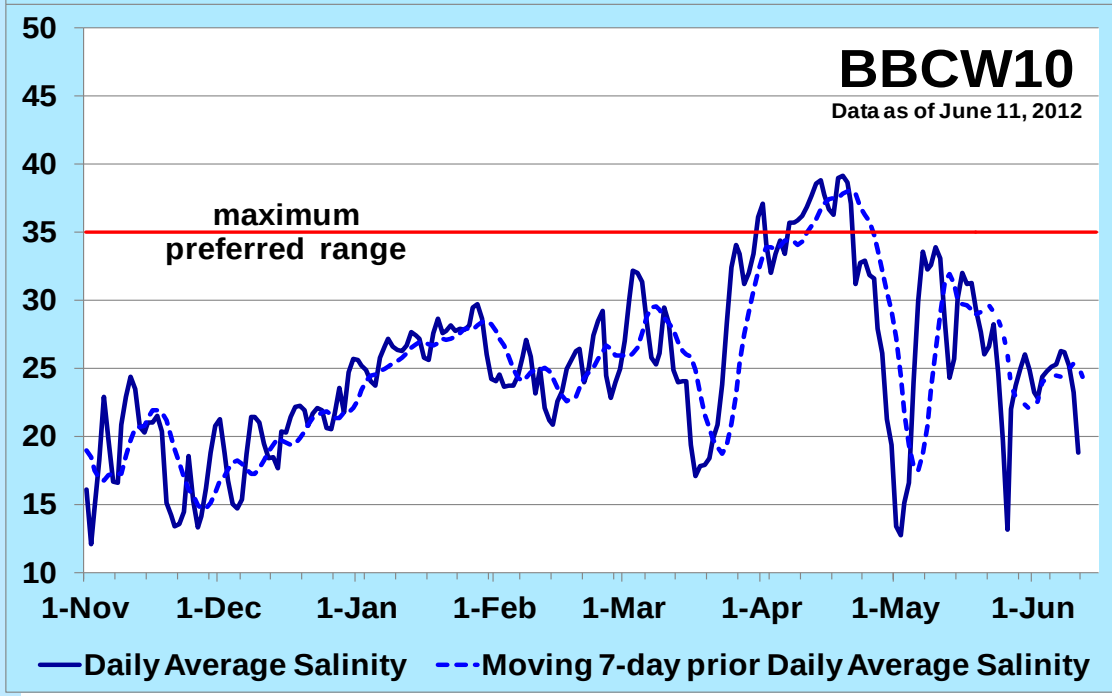
Rising water levels in the Water Conservation Areas an Everglades National Park have resulted in:

- Substantial reduction in potential for muck fire occurrence
- Significant decrease in foraging birds and increase in nest abandonment (especially wood storks), although branching ibis and spoonbills holding out against reversal
- Recovery of aquatic prey species, especially crayfish, which experience a population explosion during a wet season following a severe drought

Biscayne Bay Salinity







Thank You