



Ecological Conditions Update

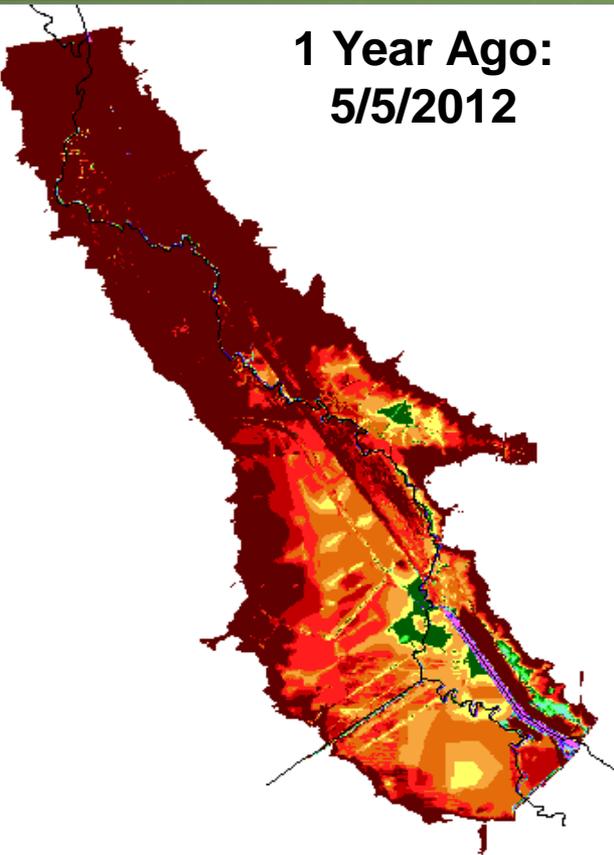
Terrie Bates
Director, Water Resources Division

Governing Board Meeting
May 9, 2013

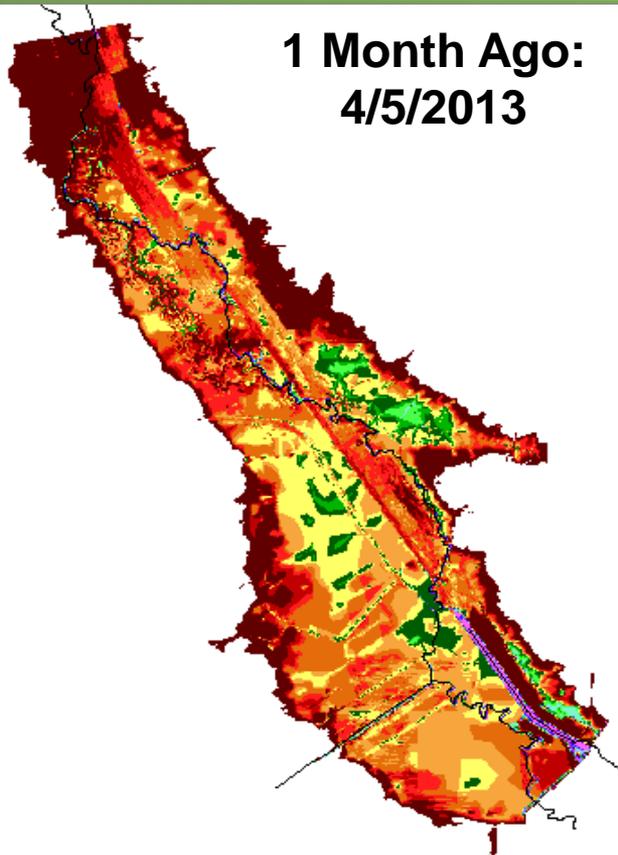
Kissimmee River (Pool C)

Monthly Water Depth Maps

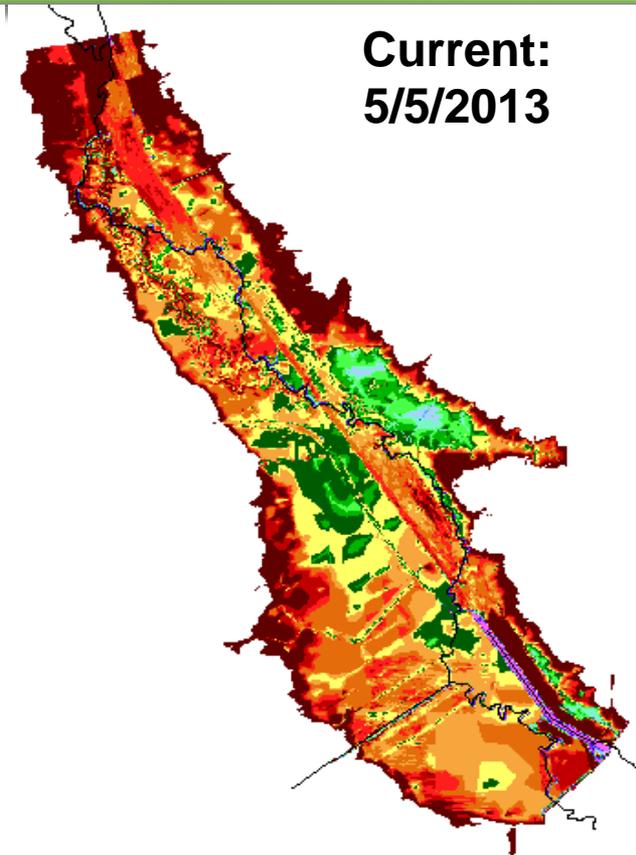
1 Year Ago:
5/5/2012



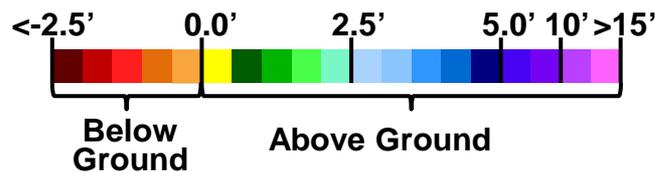
1 Month Ago:
4/5/2013



Current:
5/5/2013

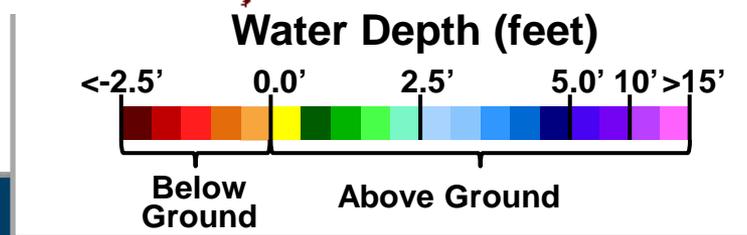
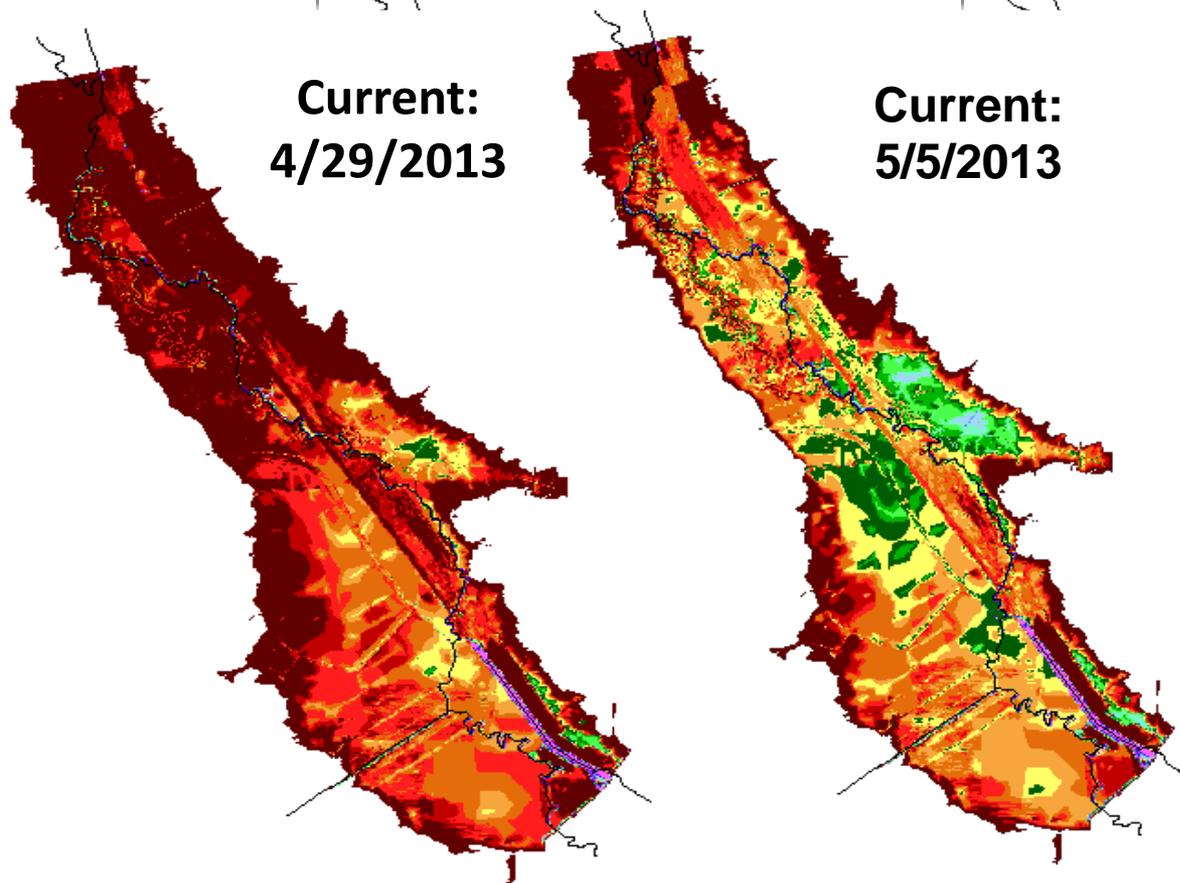


Water Depth (feet)

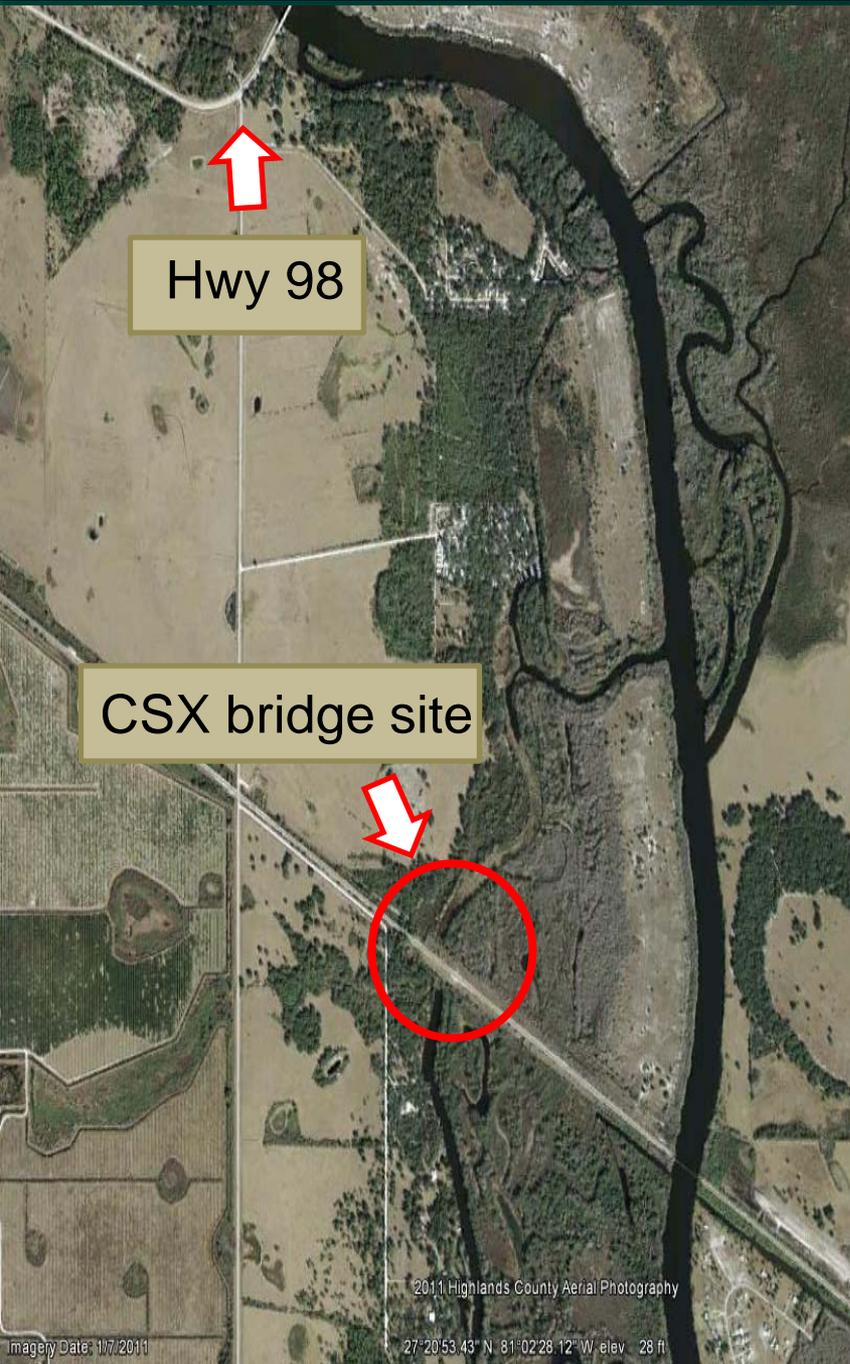


Kissimmee River (Pool C)

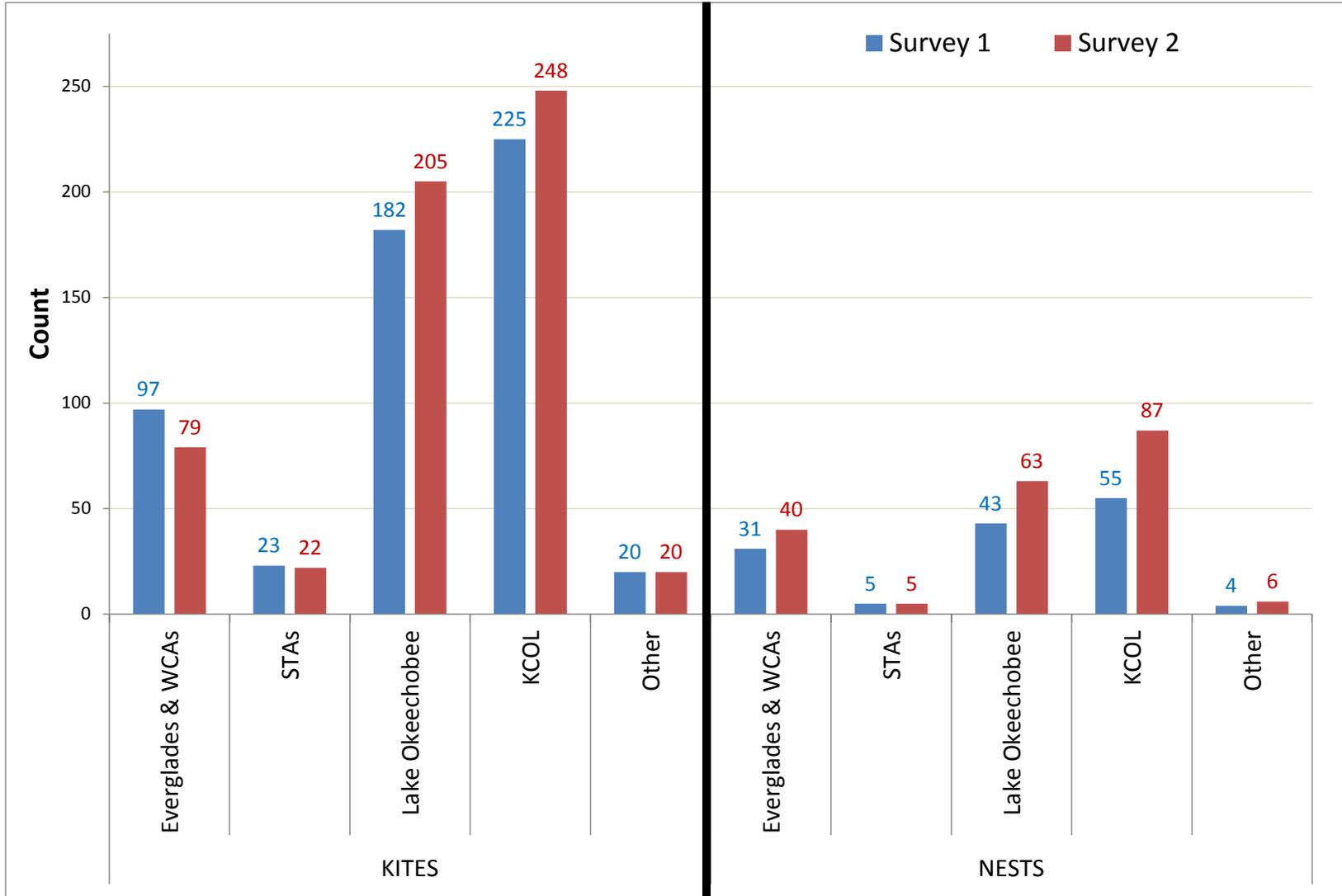
Monthly Water Depth Maps





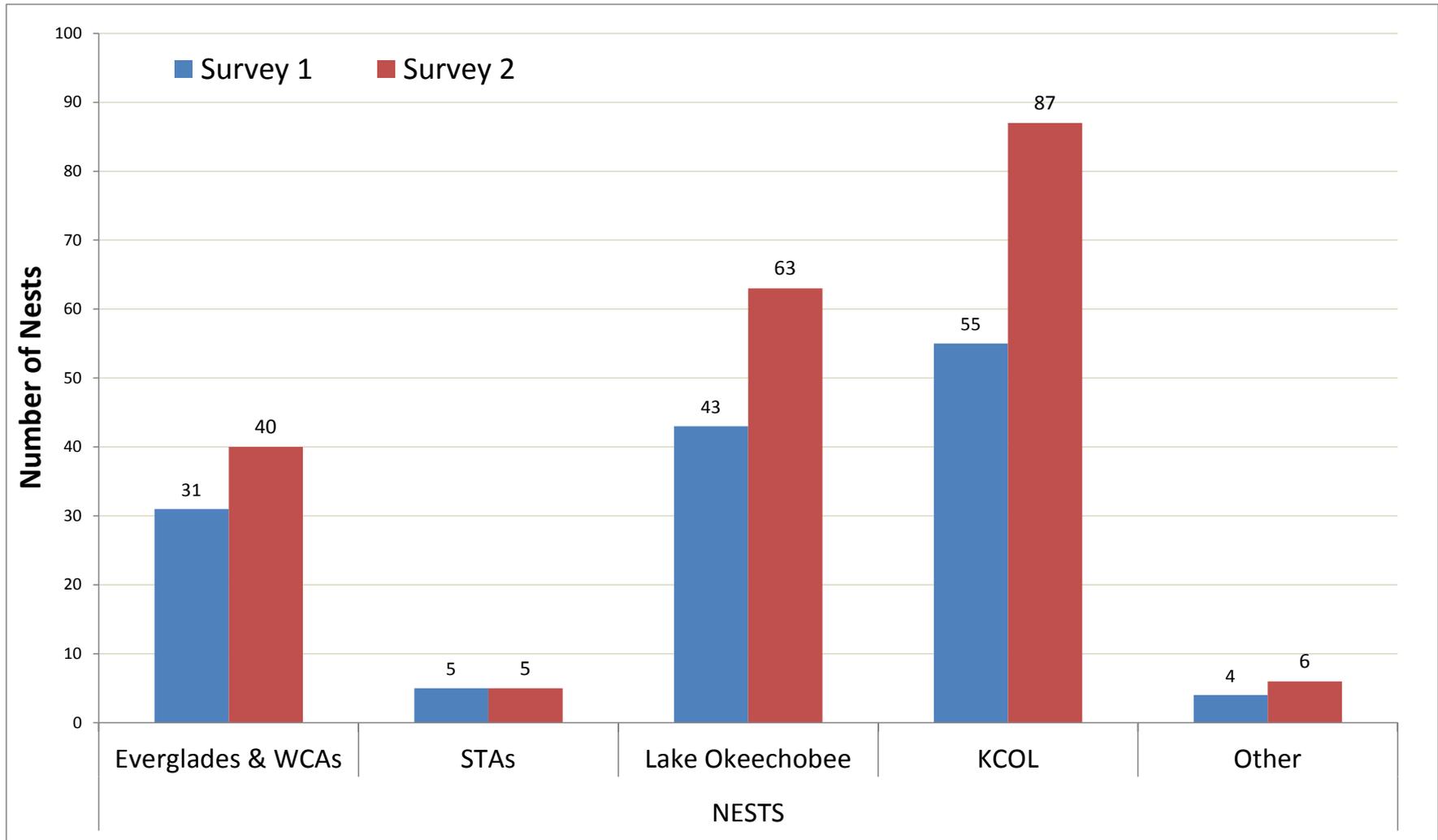


Regional Snail Kite 2013 Survey 1 (March) and Survey 2 (April)



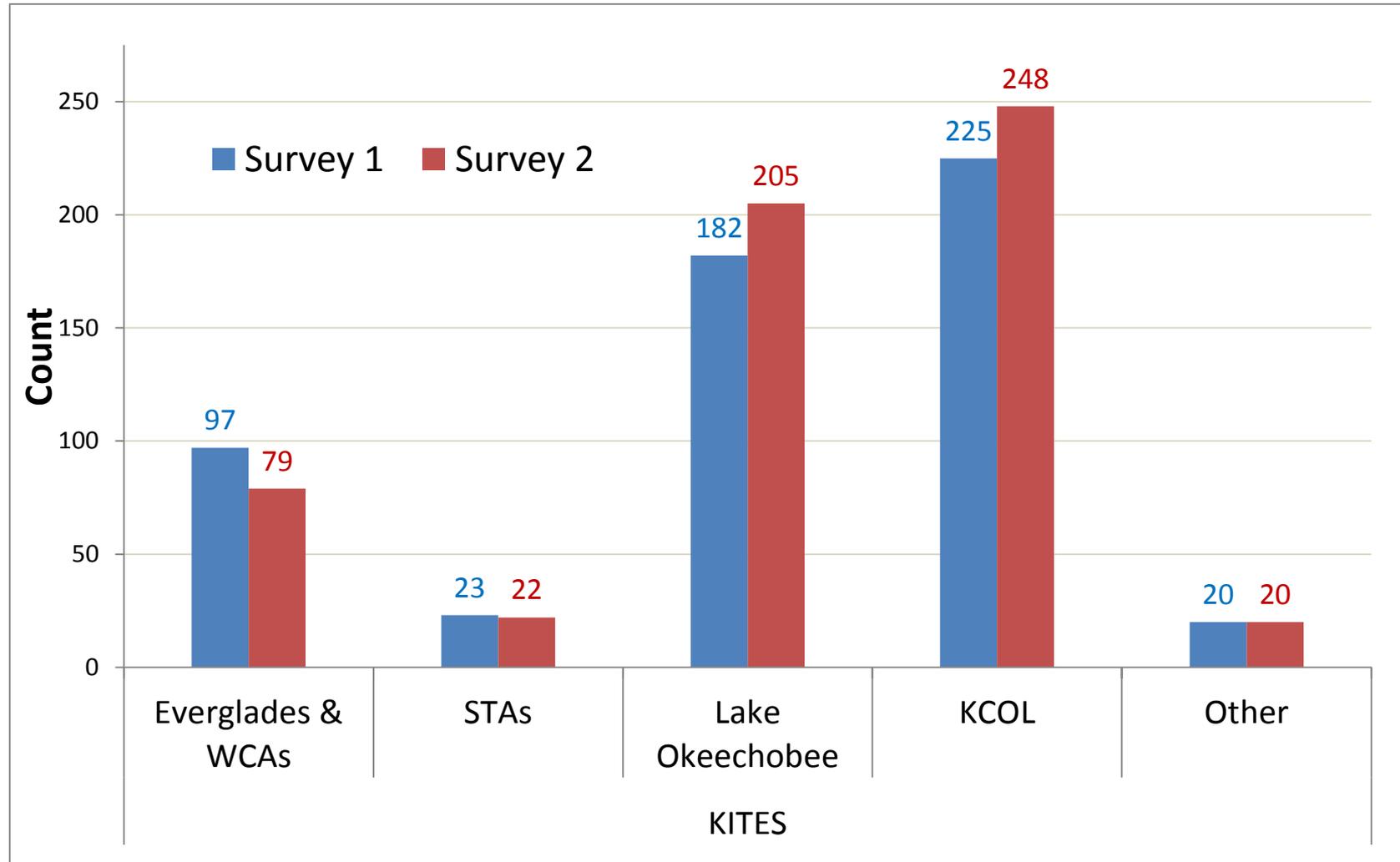
Regional Snail Kite 2013

Survey 1 (March) and Survey 2 (April)



Regional Snail Kite 2013

Survey 1 (March) and Survey 2 (April)

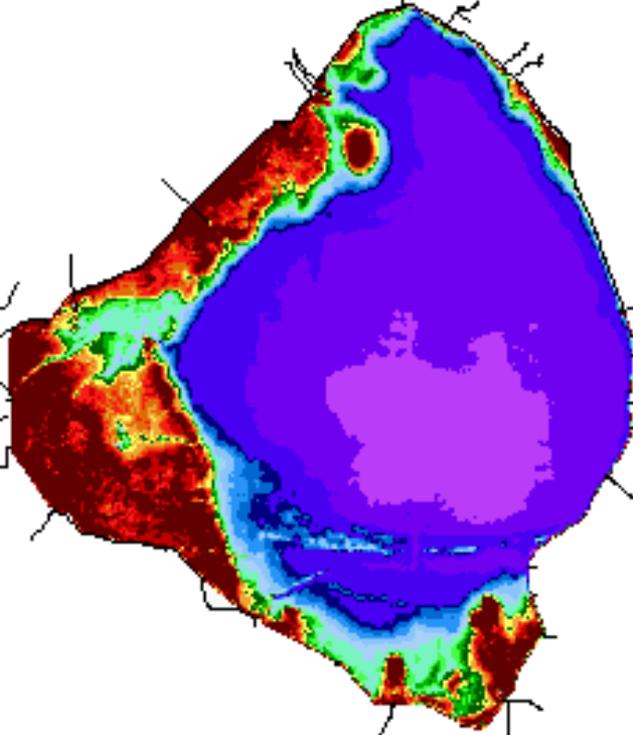


Lake Okeechobee Water Depth Timeseries Maps

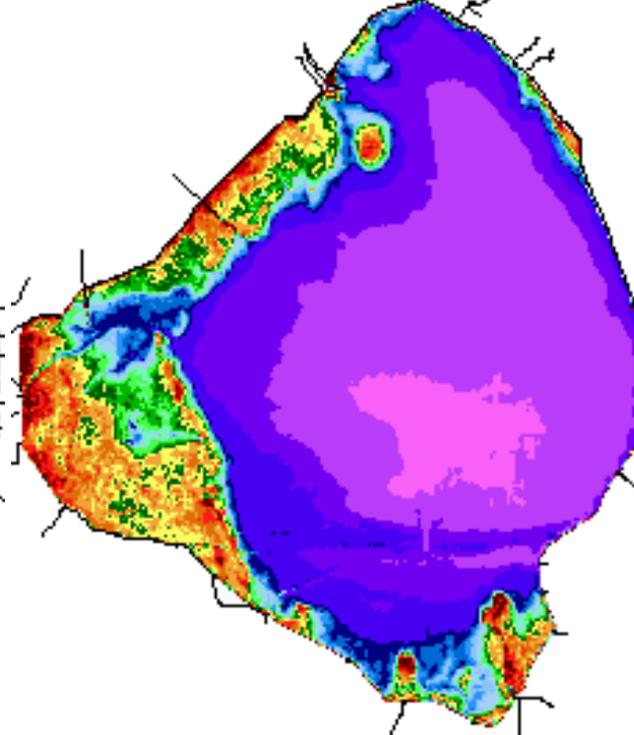
1 Year Ago: 5/6/2012

1 Month Ago: 4/6/2013

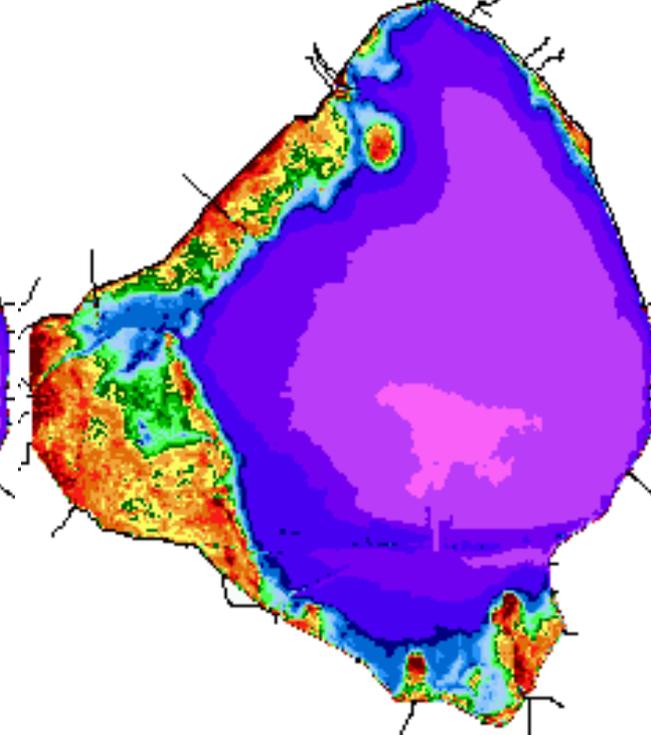
Current: 5/6/2013



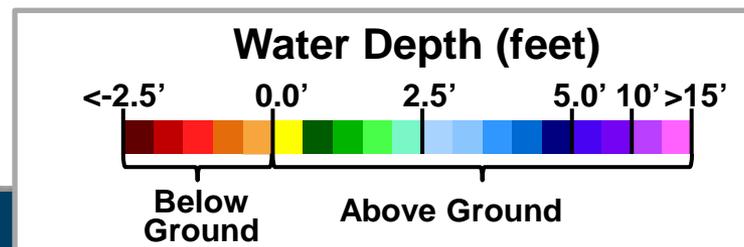
(11.61 ft NGVD29)



(13.73 ft NGVD29)



(13.58 ft NGVD29)

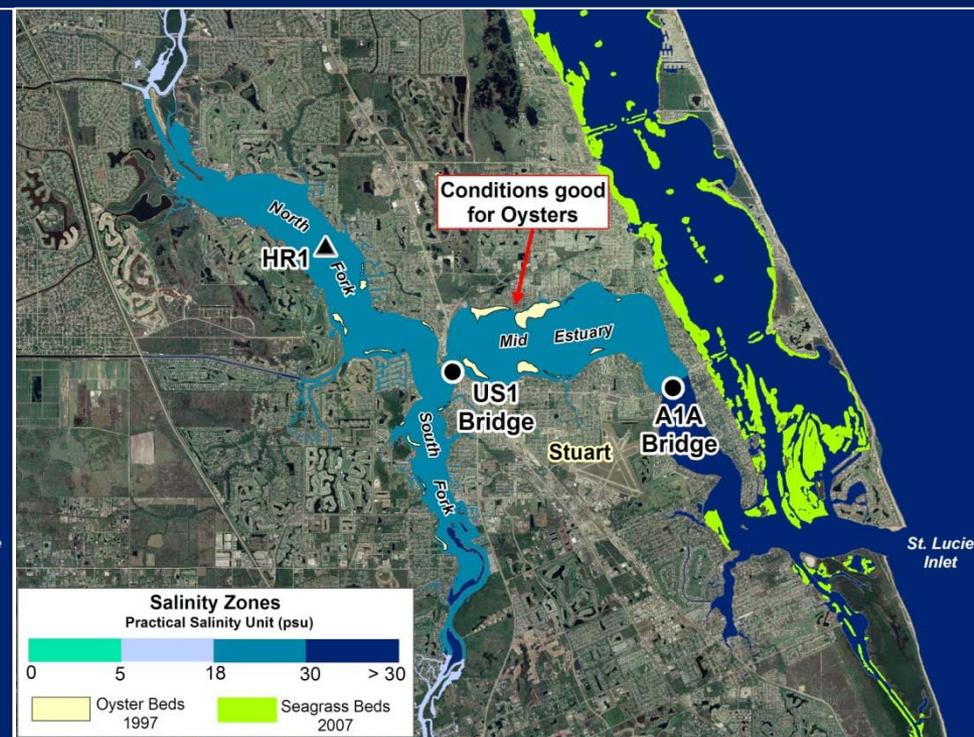
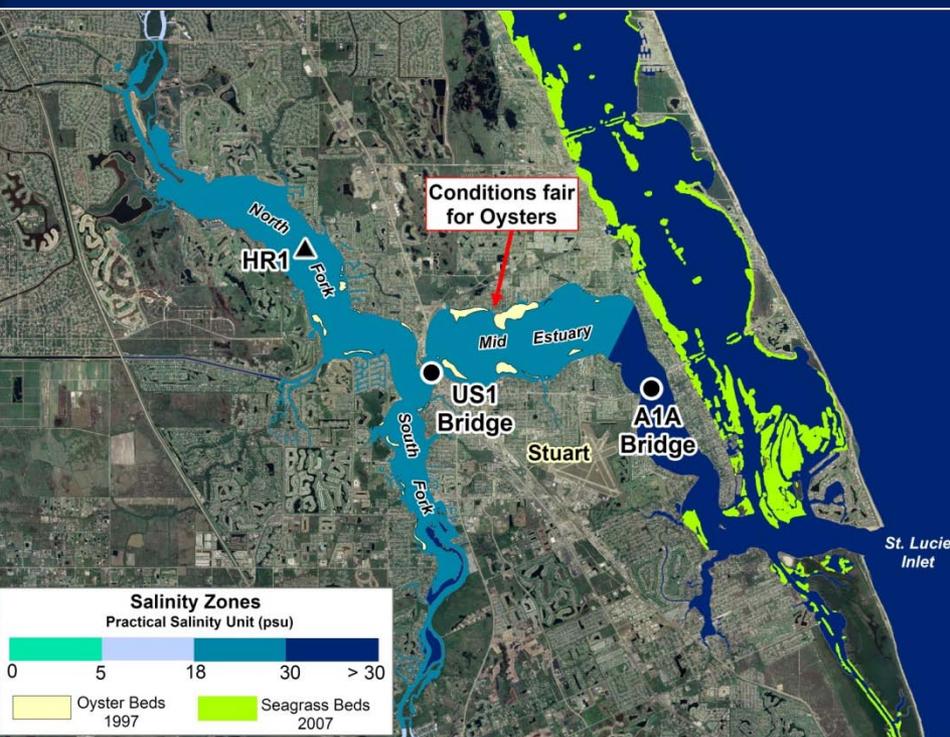


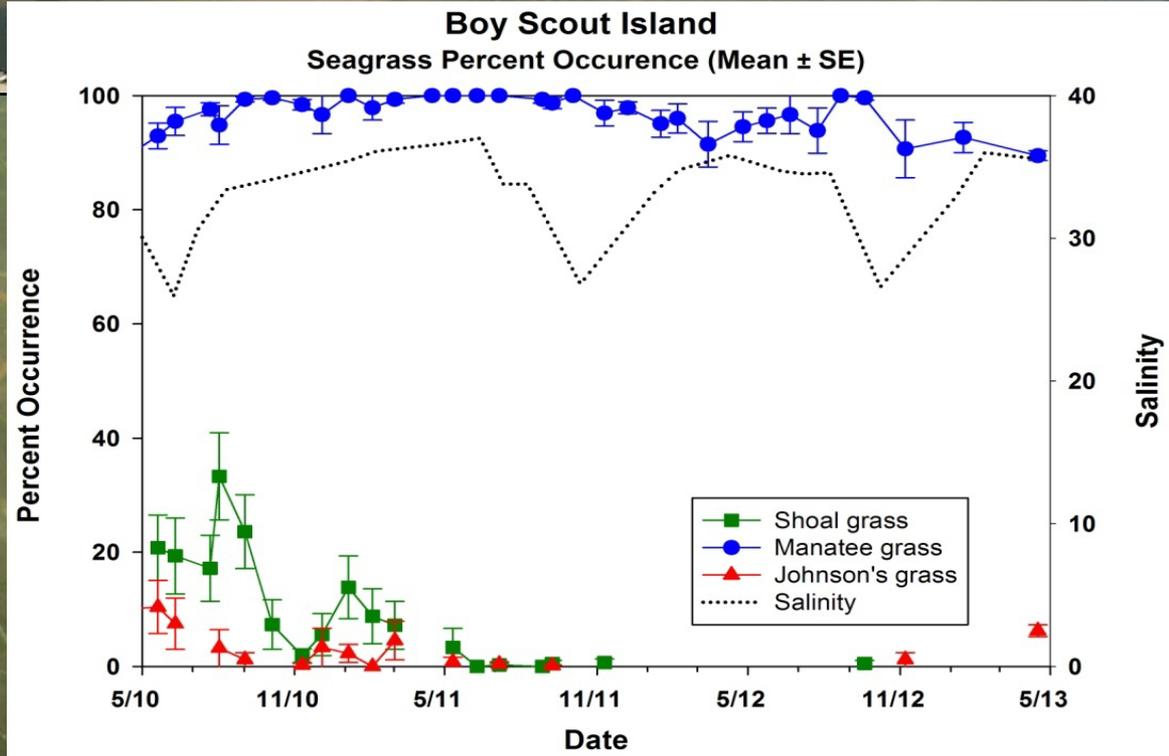
St. Lucie Estuary

Salinity Conditions

April 8, 2013

May 6, 2013



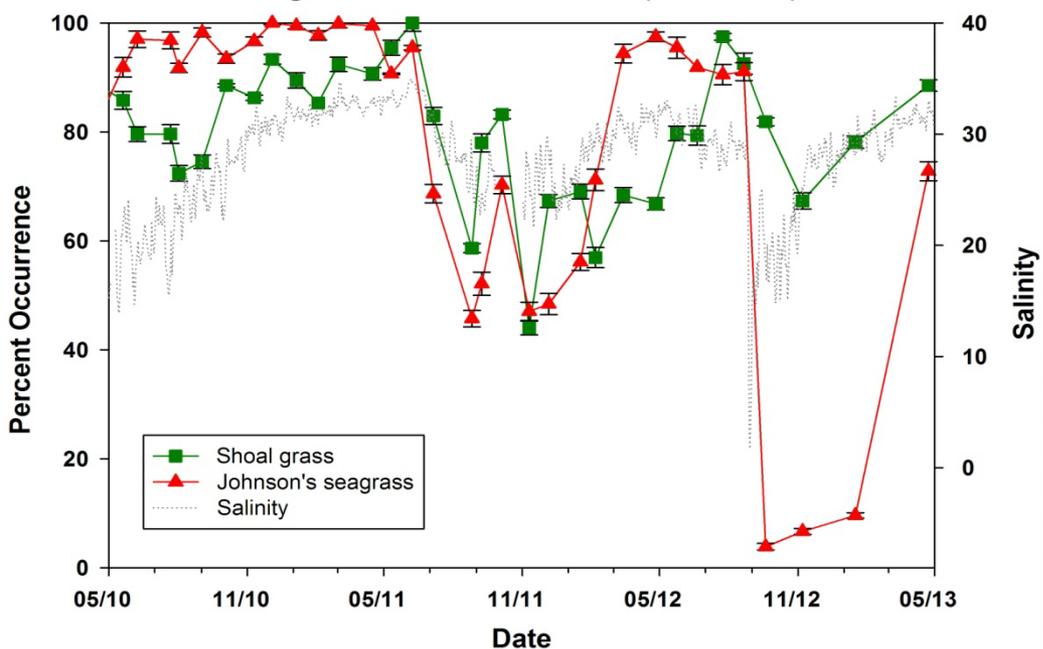




Willoughby Creek

Willoughby Creek

Seagrass Percent Occurrence (Mean \pm SE)

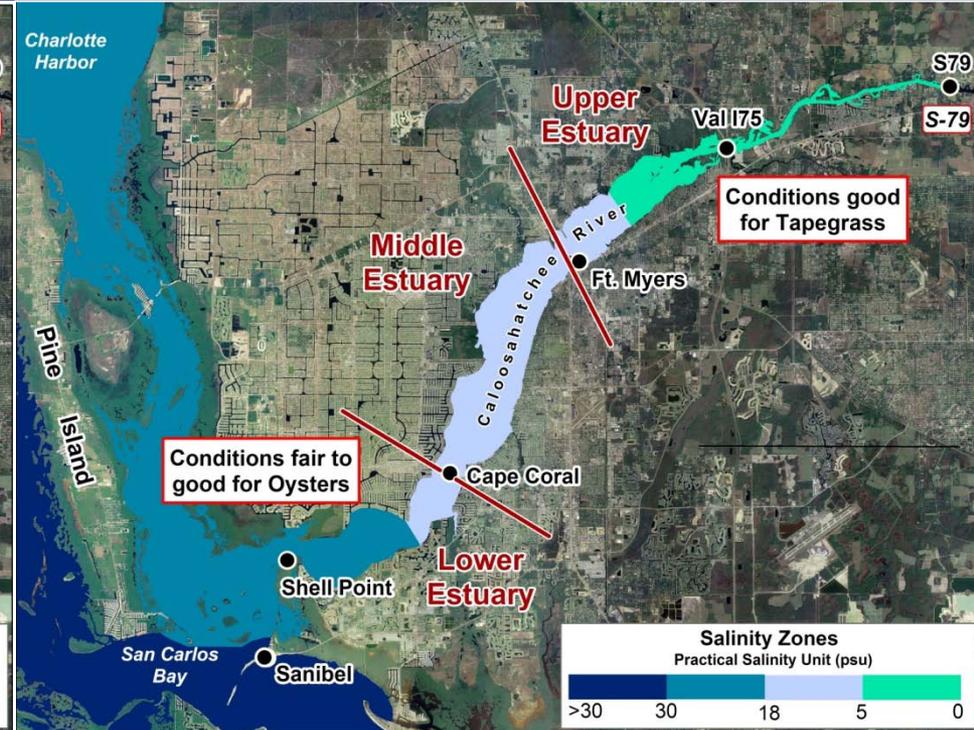
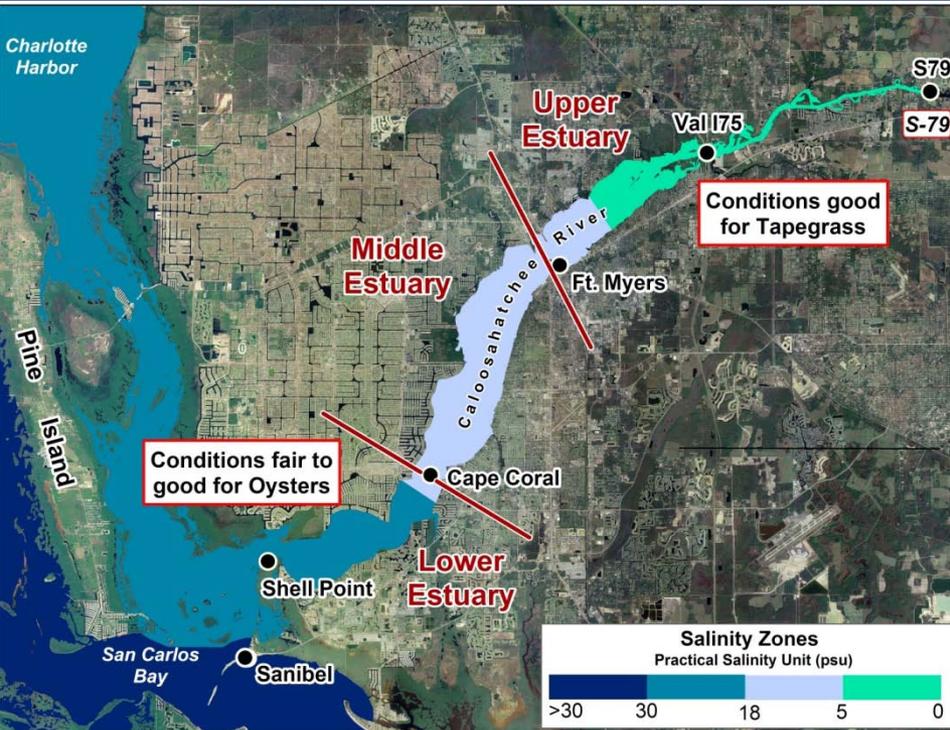


Caloosahatchee Estuary

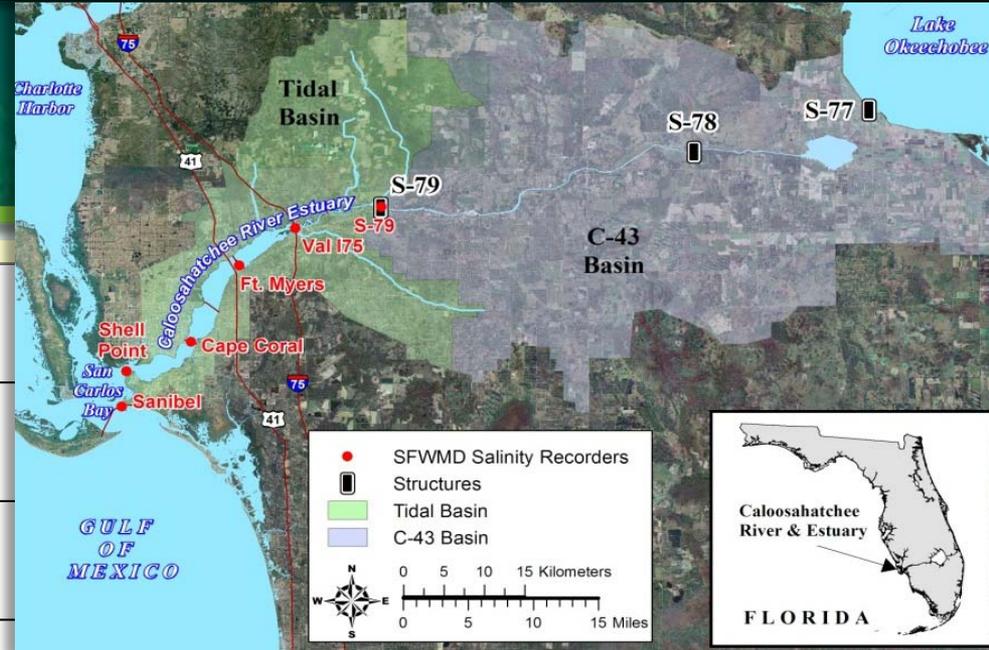
Salinity Conditions

April 8, 2013

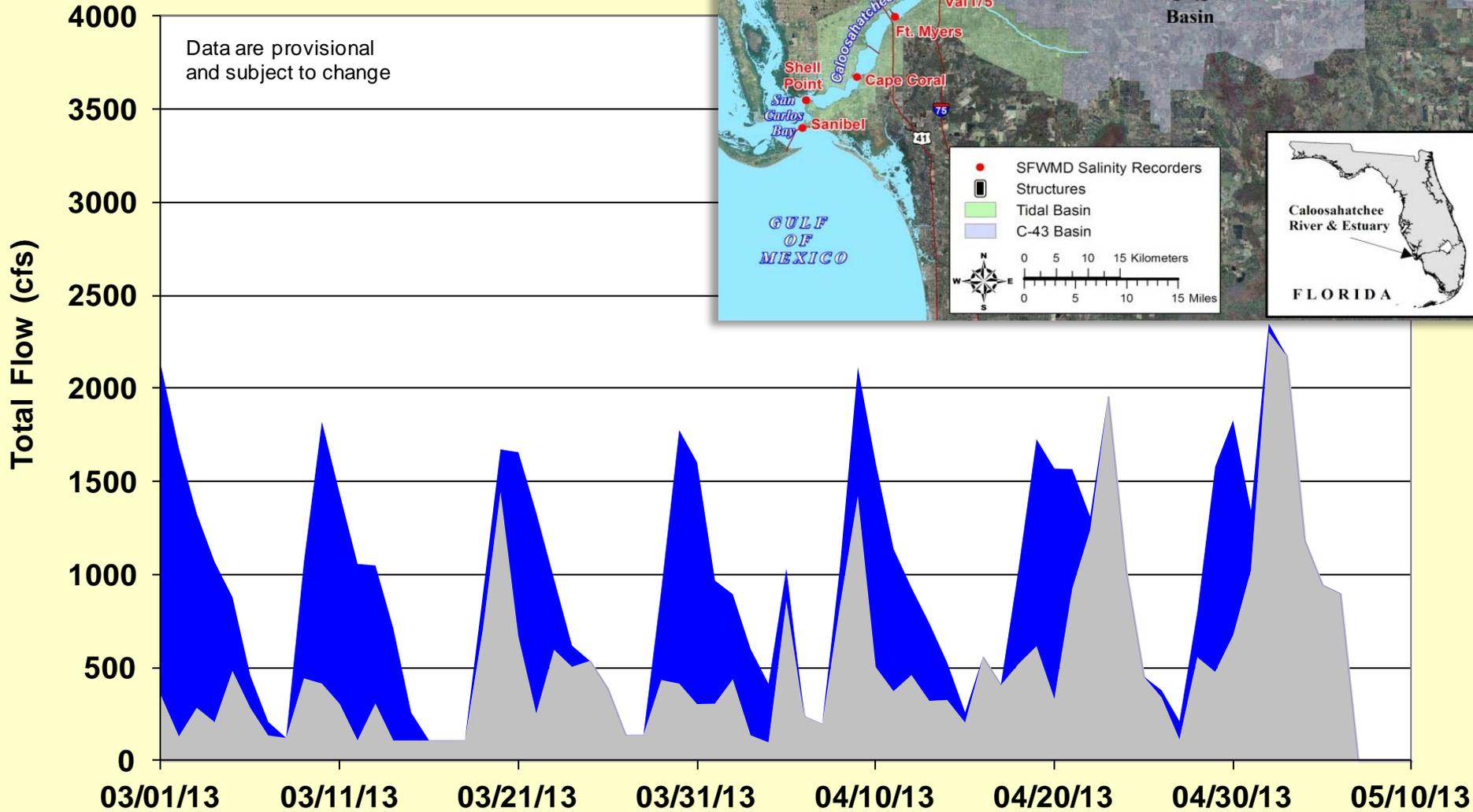
May 6, 2013



Caloosahatchee Estuary



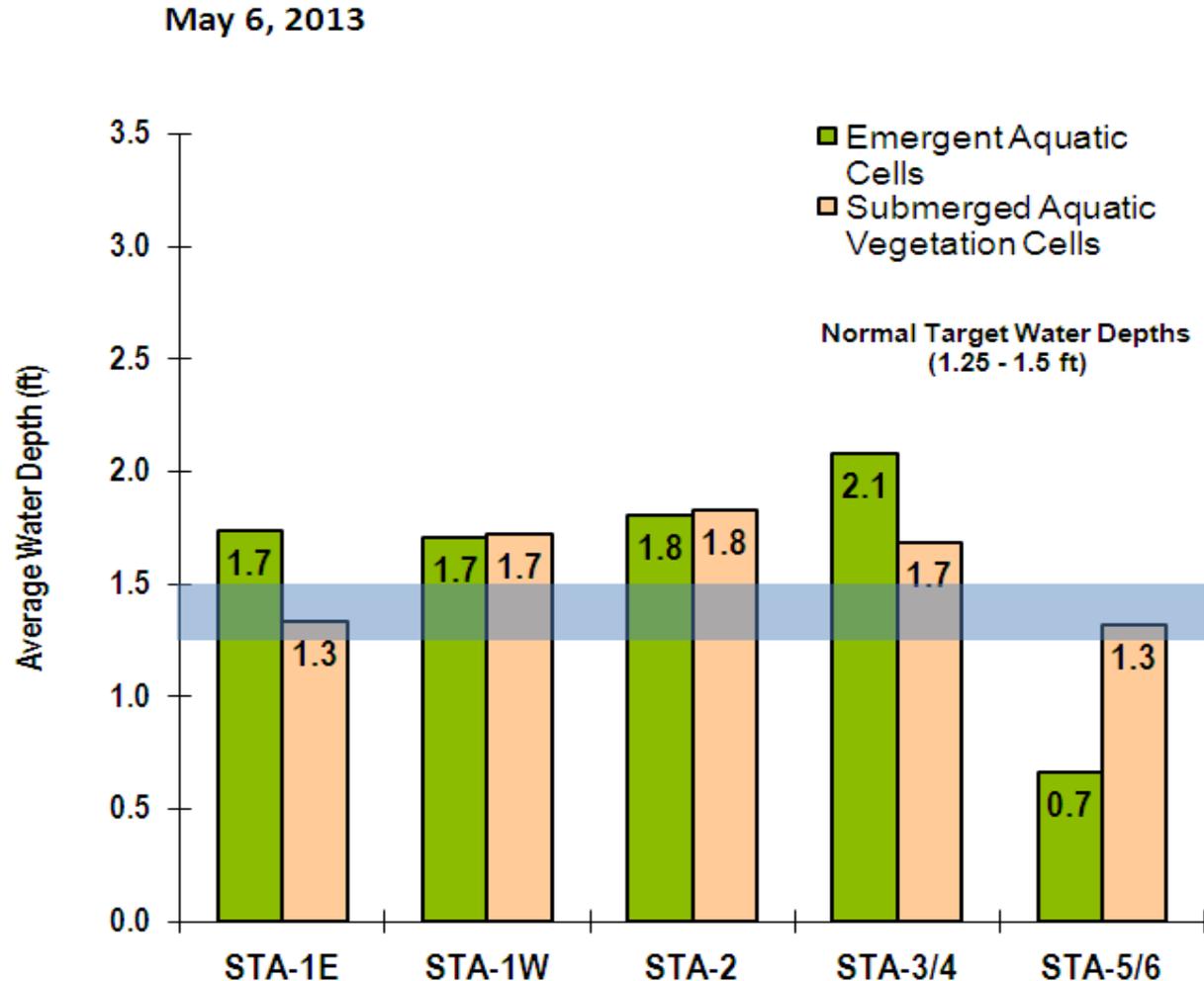
Data are provisional and subject to change



■ Inflow from Basins: C-43 (upstream) and Tidal Basins* (downstream) ■ Inflow from Lake

Stormwater Treatment Areas Water Depths

- Most STA water depths at or near target
 - Some Cells in STA-5/6 below target
- Newly constructed STA-2 Cells 7 & 8 hydrated for start-up monitoring



Stormwater Treatment Areas

Migrating Birds

- 2 new Snail Kite nests in STA-1E Cell 4N
 - Target water stages established & operational restraints/restricted access remain in effect to protect nests
 - Good survival success from previous nests (80%)
- Black-neck stilt nests found:
 - 1 in STA-3/4 PSTA cell
 - 9 in STA5 Cells 1B/2B/3B
 - So far, no other nests have been found in any of the STAs
 - Numerous individuals observed in some treatment cells



Snail kite (top) and black-neck stilt (bottom) in flight.

Photo by Brian Garrett

Stormwater Treatment Areas Vegetation Management Activities

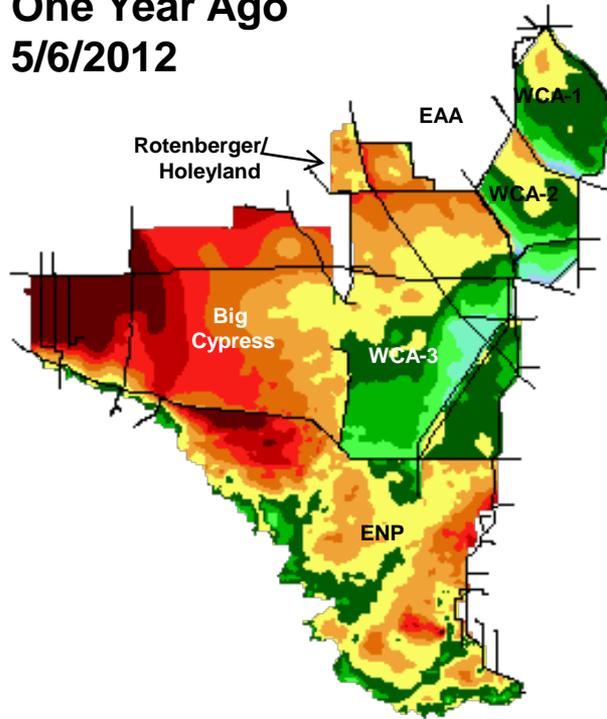
- Water depths reduced to benefit vegetation communities
 - STA-1E Cell 6, STA-3/4 Cell 2A & STA-5/6 Cells 5-1B and 5-2B
- Vegetation in newly constructed STA-5/6 Cell 4B well established
- Decline observed in submerged aquatic vegetation (SAV)
 - STA-1E, STA-1W, STA-3/4
 - Winter die-back and herbivore possible causes
 - Research is being conducted to further investigate



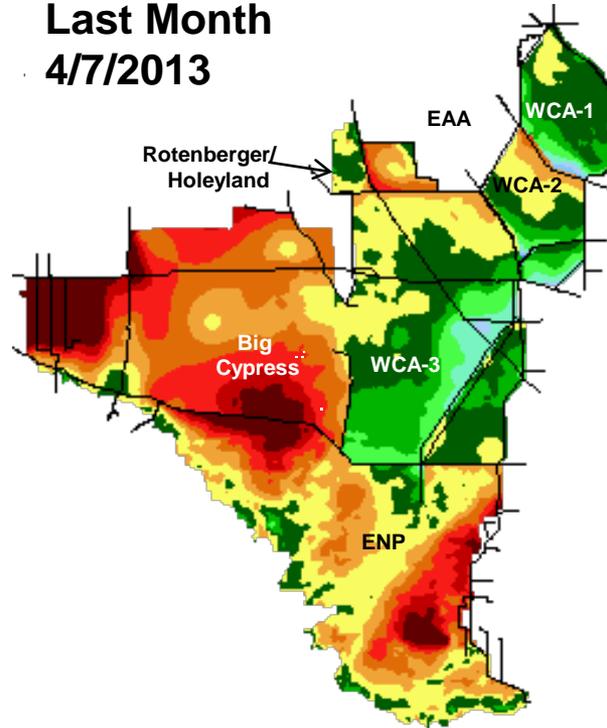
Sparse SAV in the STA

Greater Everglades Water Depth Monthly Snapshots

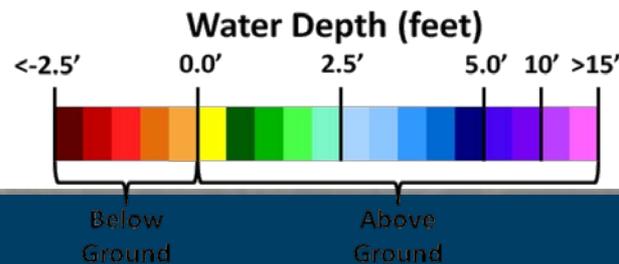
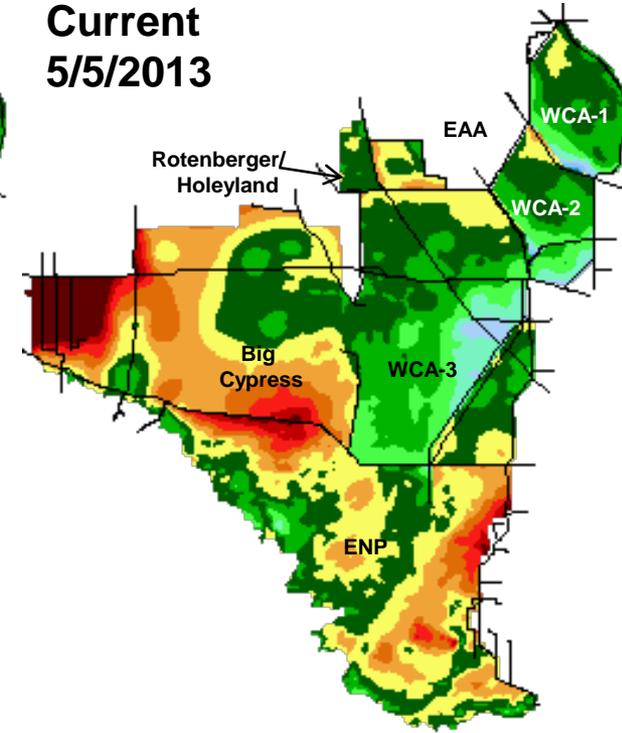
**One Year Ago
5/6/2012**



**Last Month
4/7/2013**



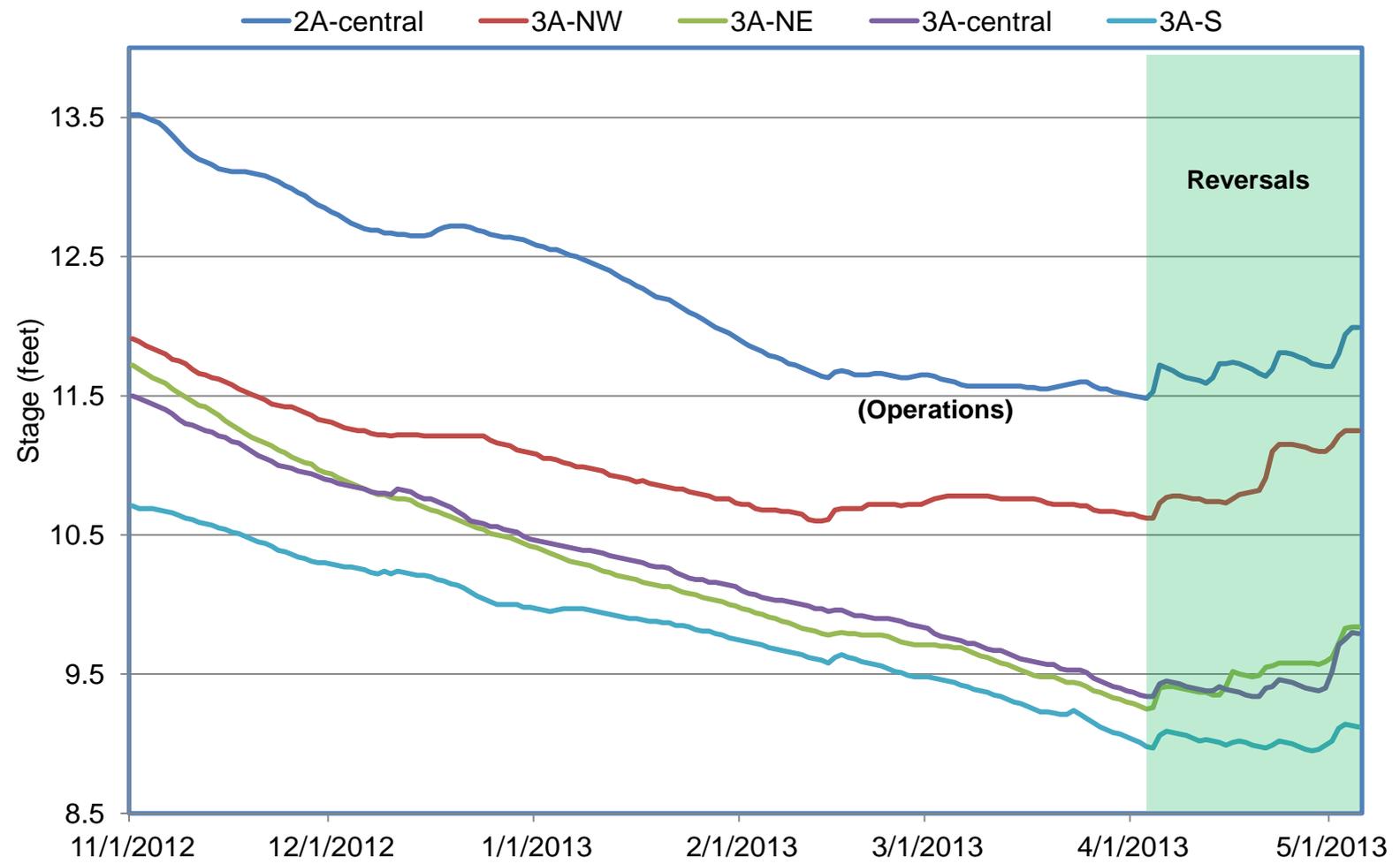
**Current
5/5/2013**



Greater Everglades April Water Level Reversals



Water Conservation Areas
Dry season water levels, 2012-2013



Greater Everglades Mid-season Wading Bird Update



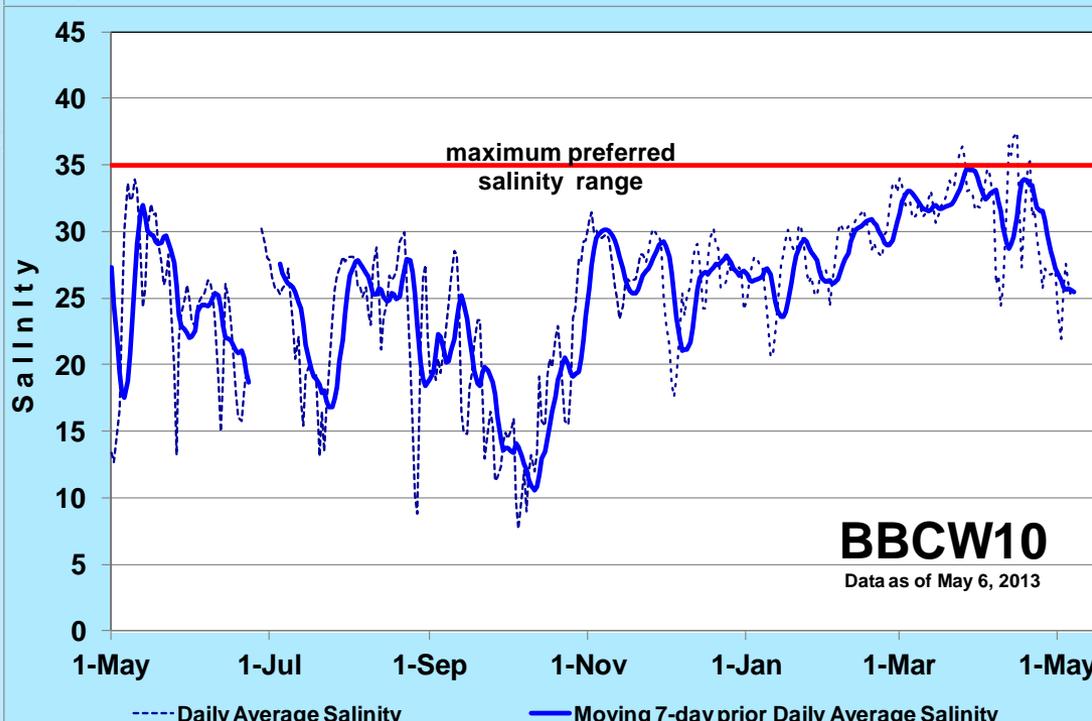
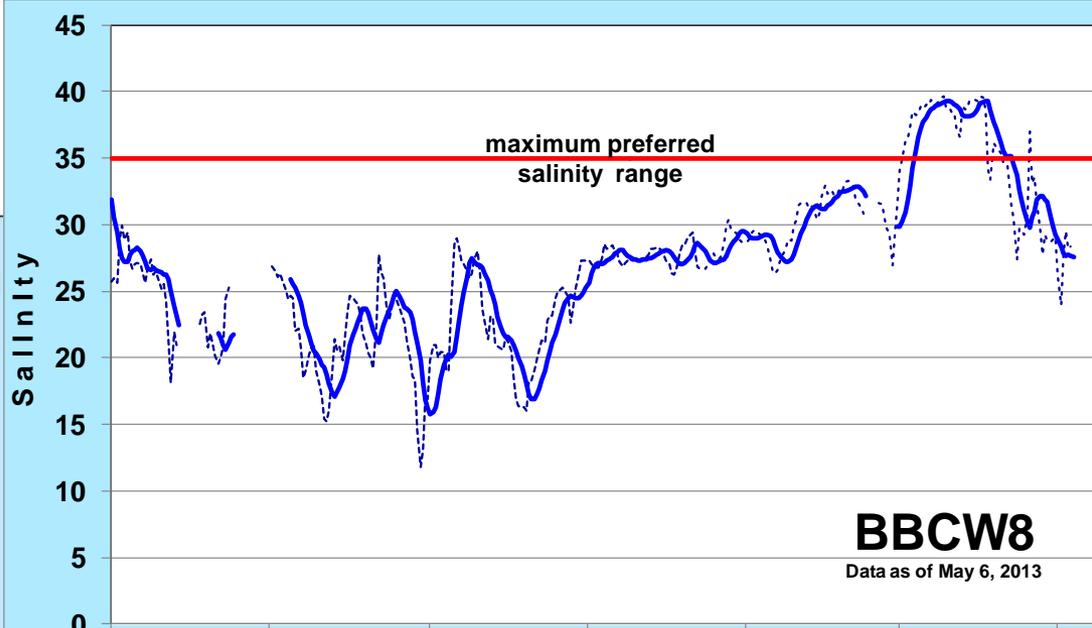
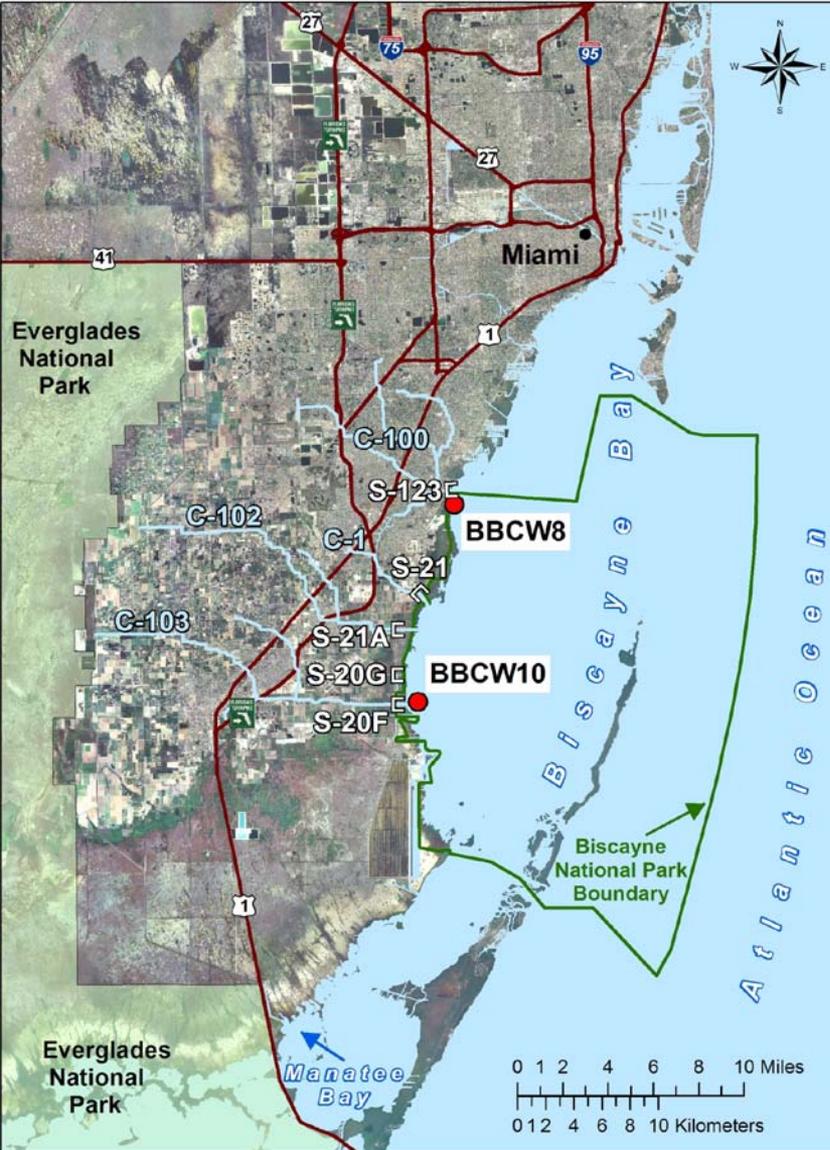
- The water level reversals have altered conditions for wading birds
- White Ibises were the wading birds most harmed by reversals (nest numbers fell from around 8000 nests to 500 at Alley North colony)



Wood storks and healthy chicks. Photo by M. Cook

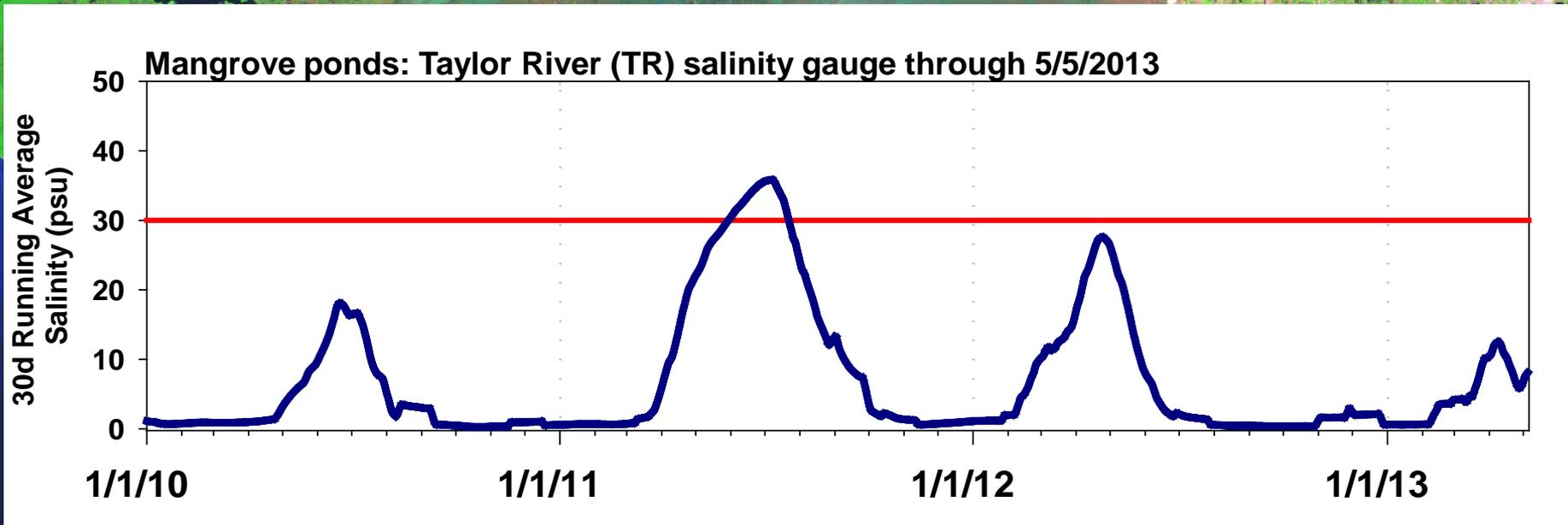
- Wood Storks in the northern Everglades are doing surprisingly well in spite of the reversals, and nest numbers are similar to those in early April before the heavy rains
- Wood Storks in the ENP and coastal colonies are faring poorly

Biscayne Bay Salinity



--- Daily Average Salinity — Moving 7-day prior Daily Average Salinity

Tracking Salinity in Florida Bay



Florida Bay MFL salinity threshold was exceeded in late June of 2011



THANK YOU

