Governing Board Meeting
February 13, 2014

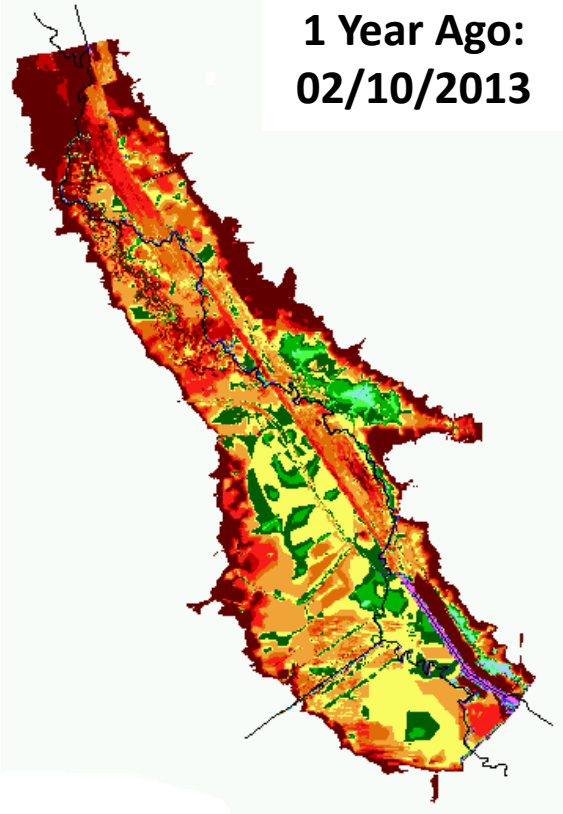
Ecological Conditions Update

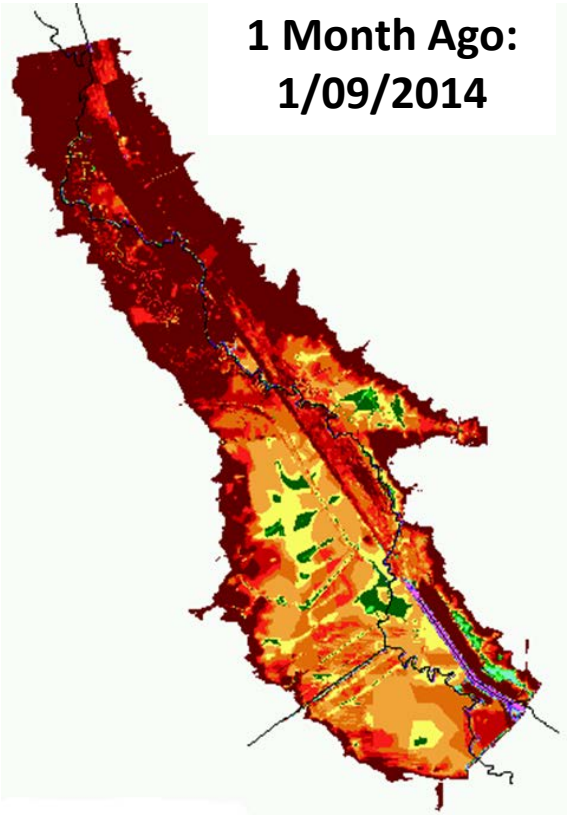
Terrie Bates
Director
Water Resources Division

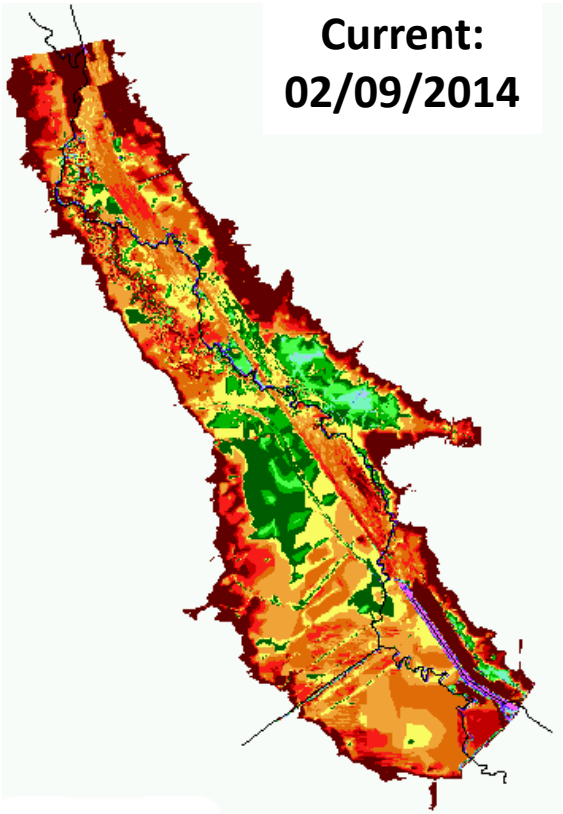
sfwmd.gov

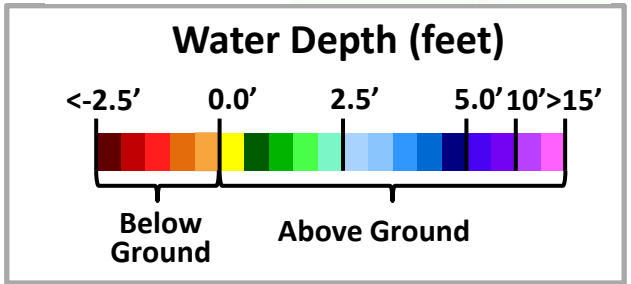
Kissimmee River (Pool C)

Monthly Water Depth Maps



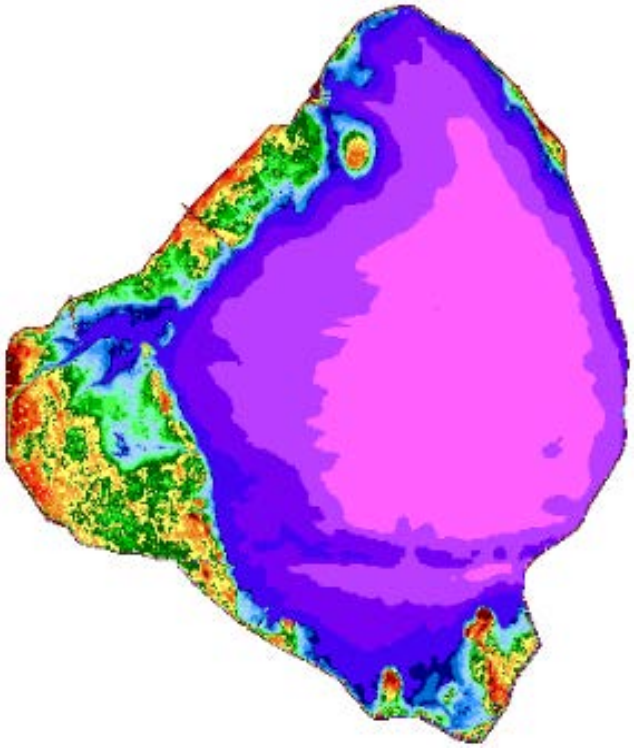






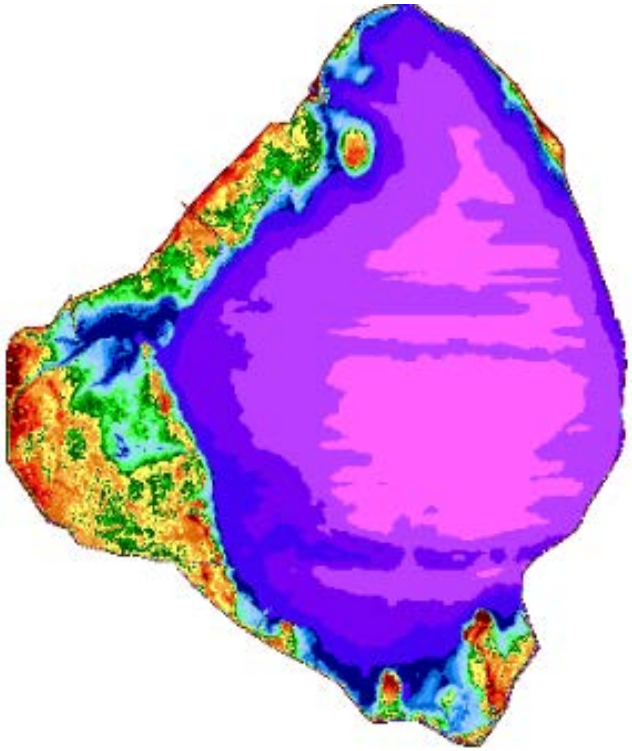
Lake Okeechobee
Water Depth Timeseries Maps

1 Year Ago: 2/10/2013



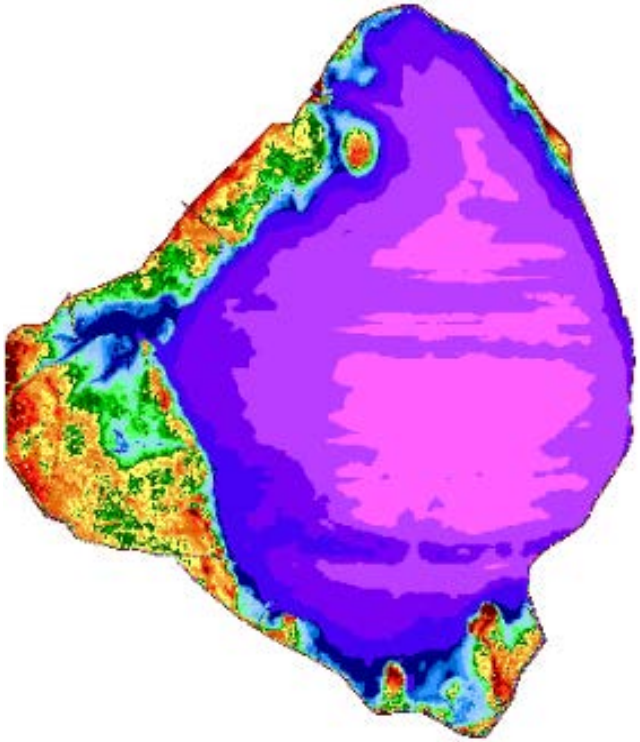
(14.38 ft NGVD29)

1 Month Ago: 1/11/2014



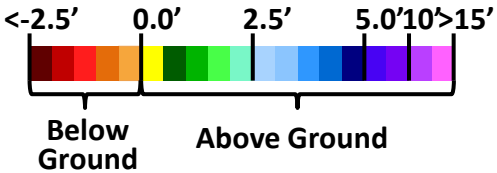
(14.05 ft NGVD29)

Current: 2/10/2014

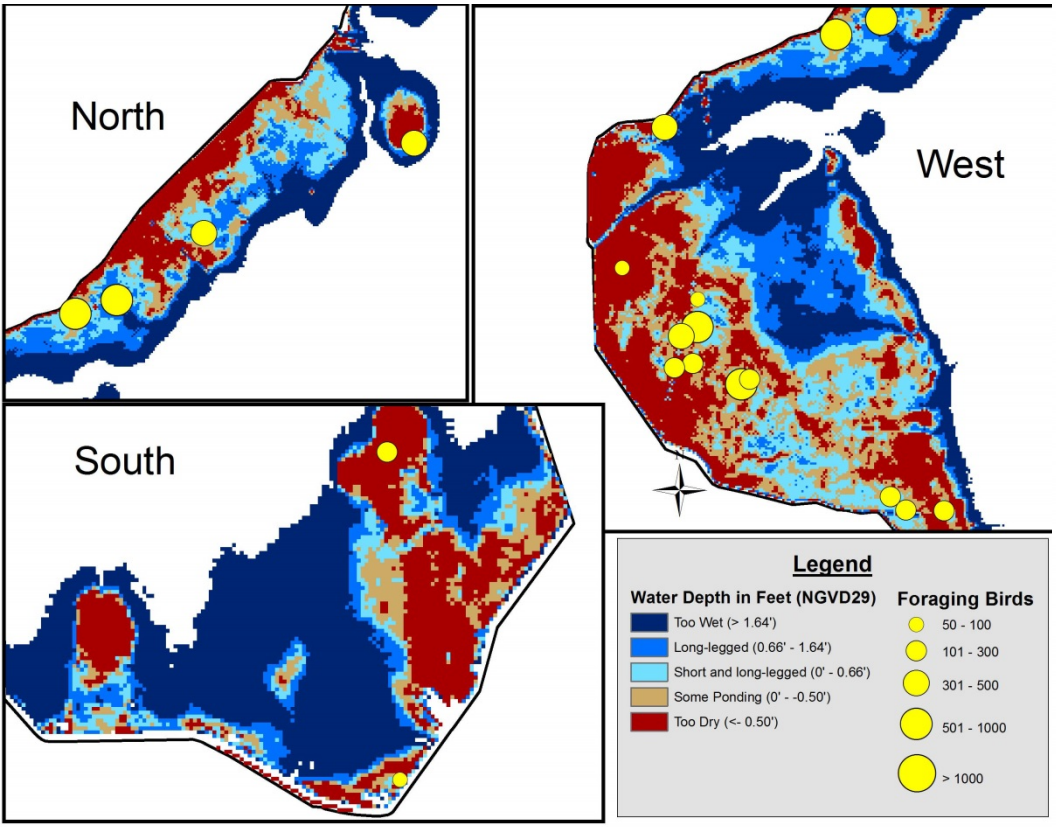


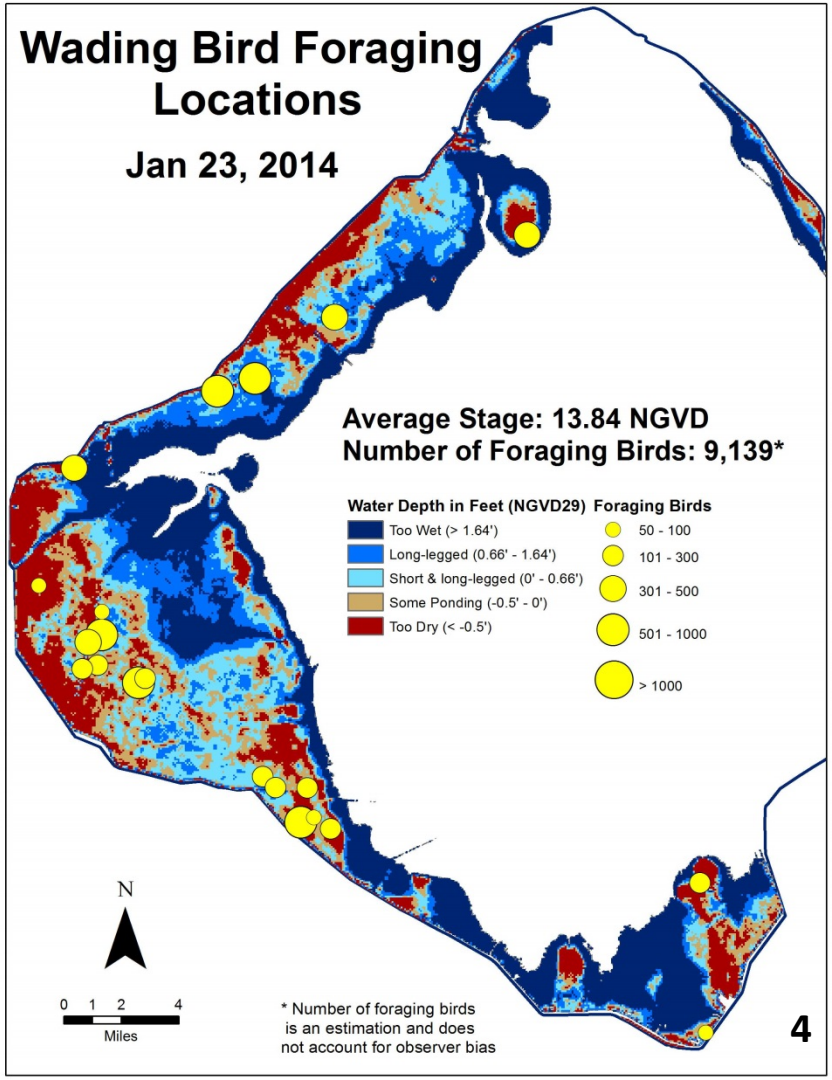
(13.99 ft NGVD29)

Water Depth (feet)



Lake Okeechobee
Wading Bird Foraging



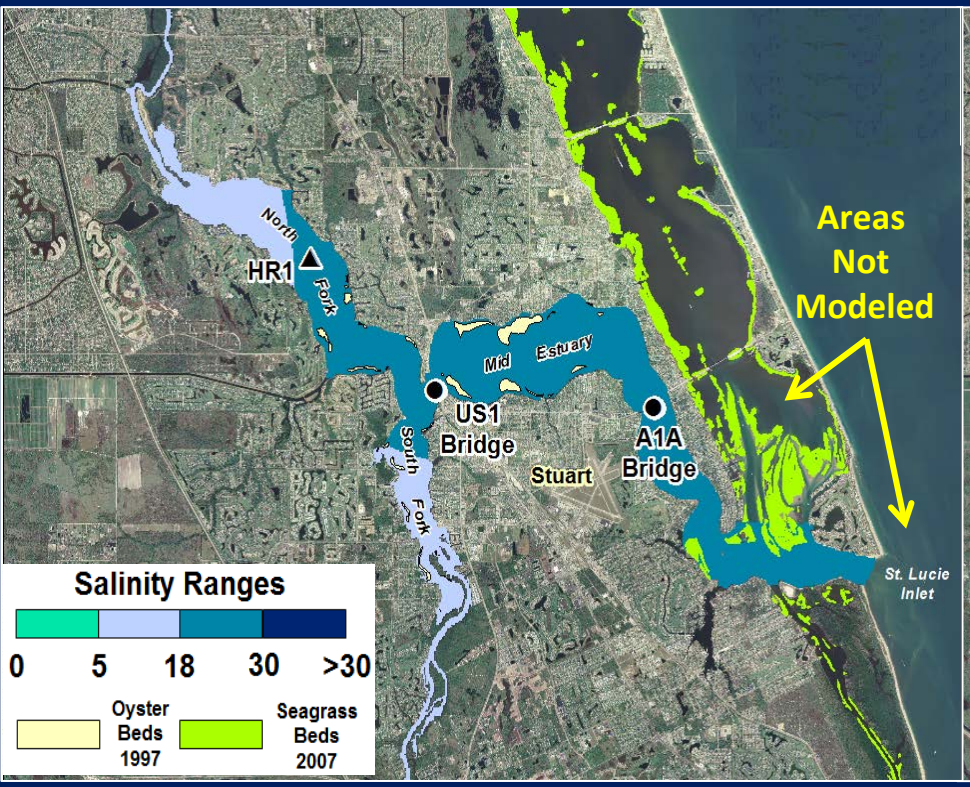


Source of Lake Graphic: Water Depth Assessment Tool (SFWDAT)
Source of Lake Stage Value: USACE/SFWMD Official Stage Value

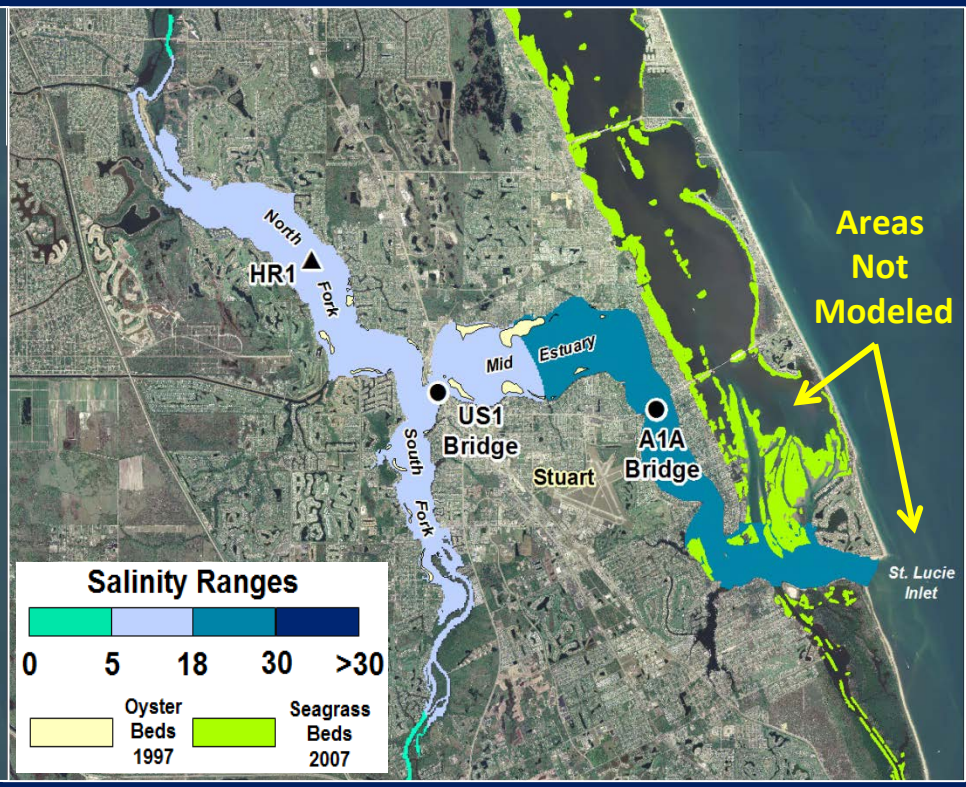
St. Lucie Estuary

Salinity Conditions

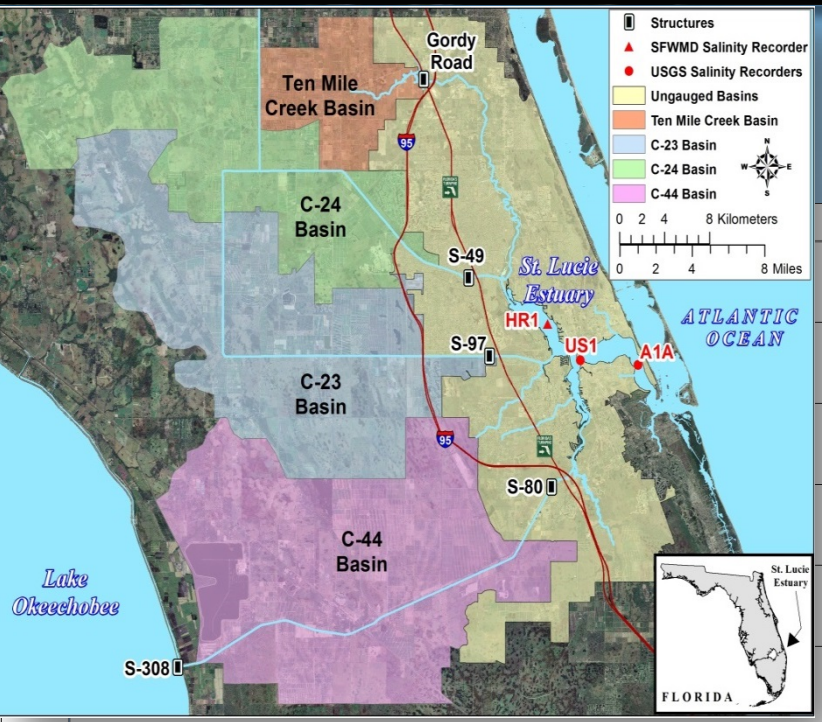
January 6, 2014



February 10, 2014

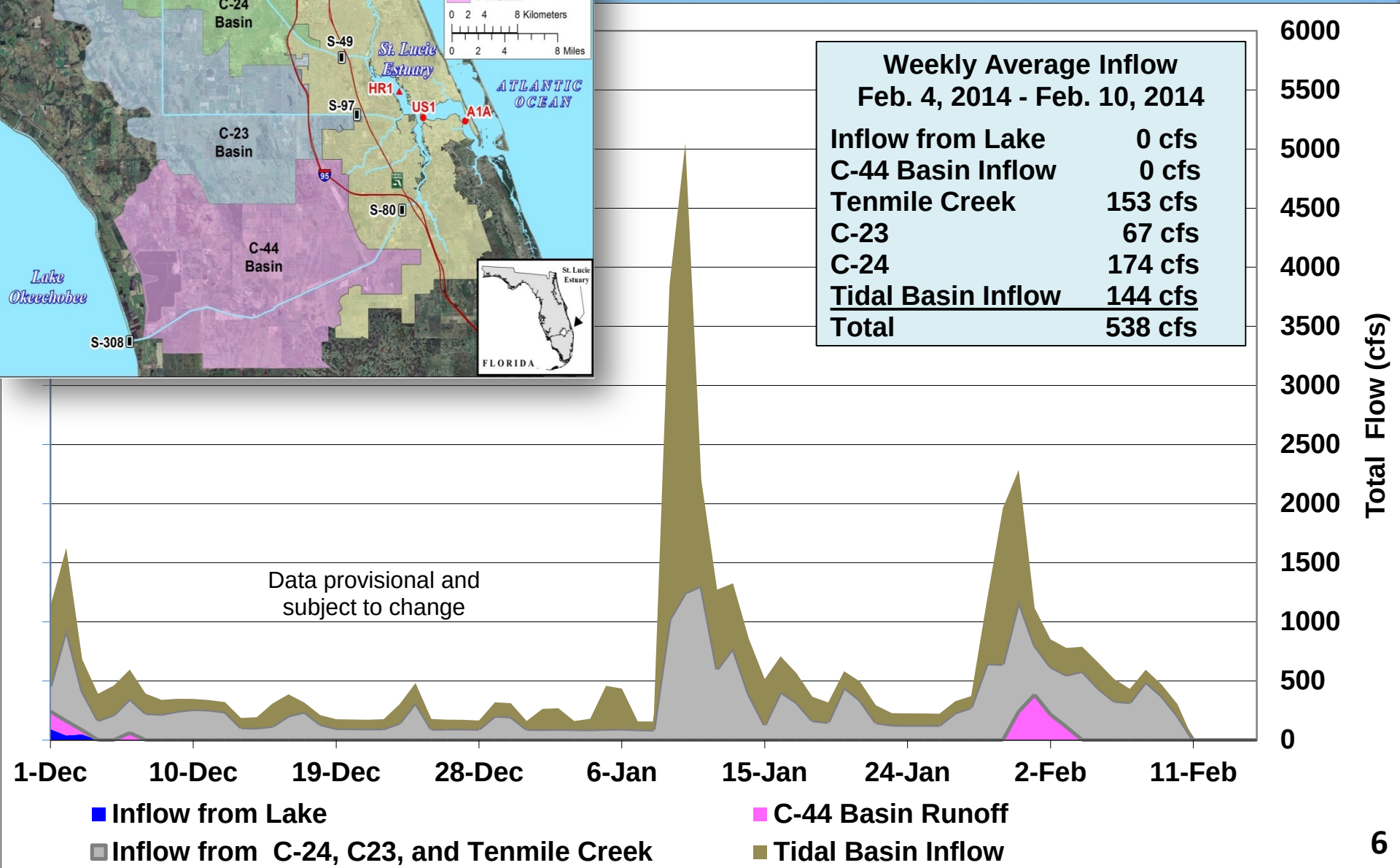


St. Lucie Estuary



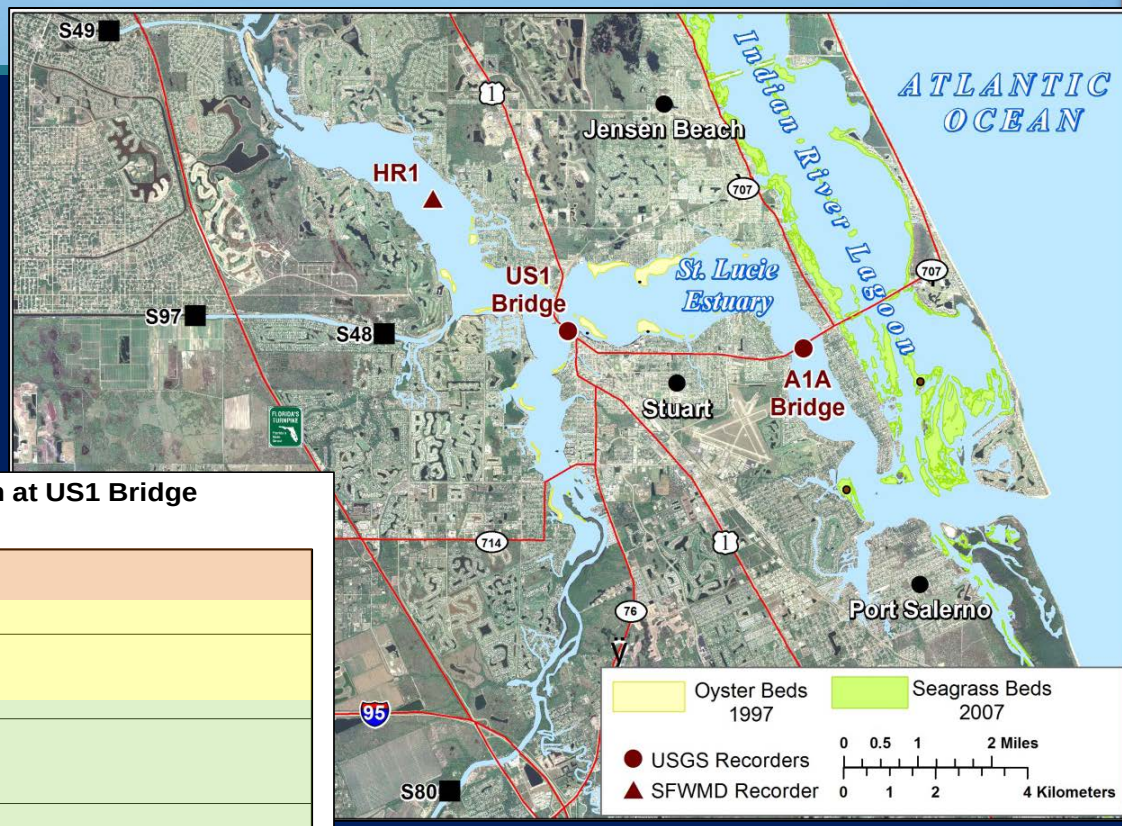
Weekly Average Inflow
Feb. 4, 2014 - Feb. 10, 2014

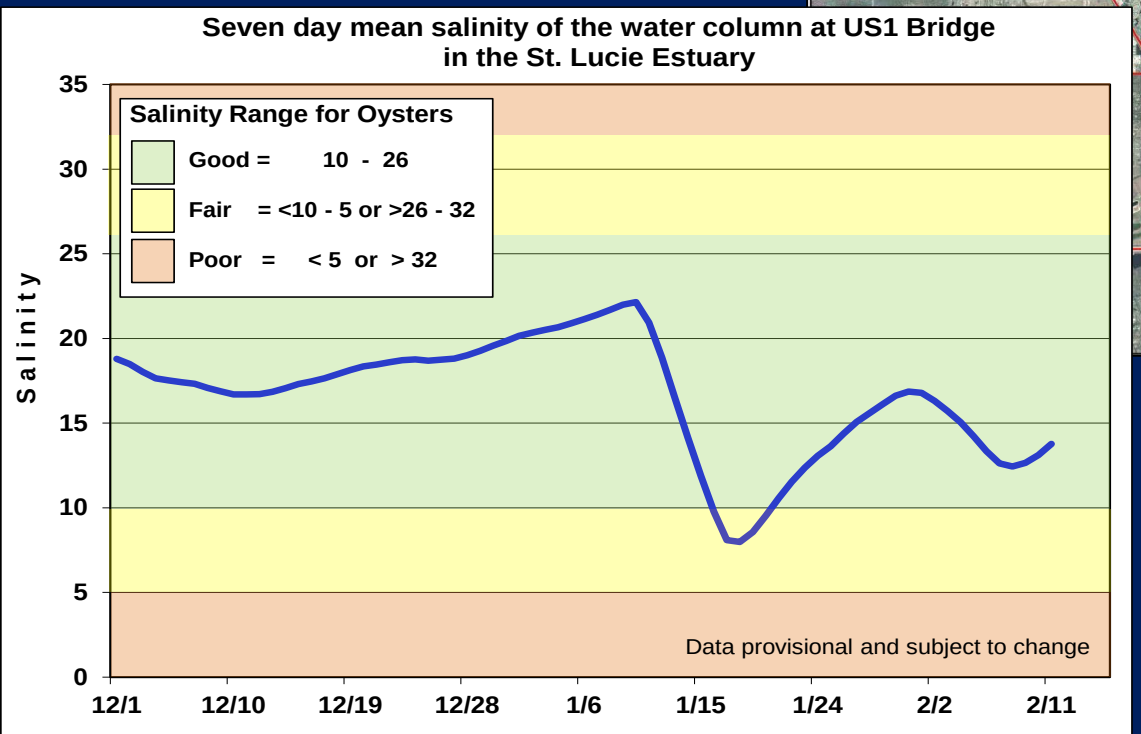
Inflow from Lake	0 cfs
C-44 Basin Inflow	0 cfs
Tenmile Creek	153 cfs
C-23	67 cfs
C-24	174 cfs
Tidal Basin Inflow	144 cfs
Total	538 cfs



St. Lucie Estuary - Oysters

Salinity rapidly dropped into the fair range due to heavy rainfall occurred in mid-January.



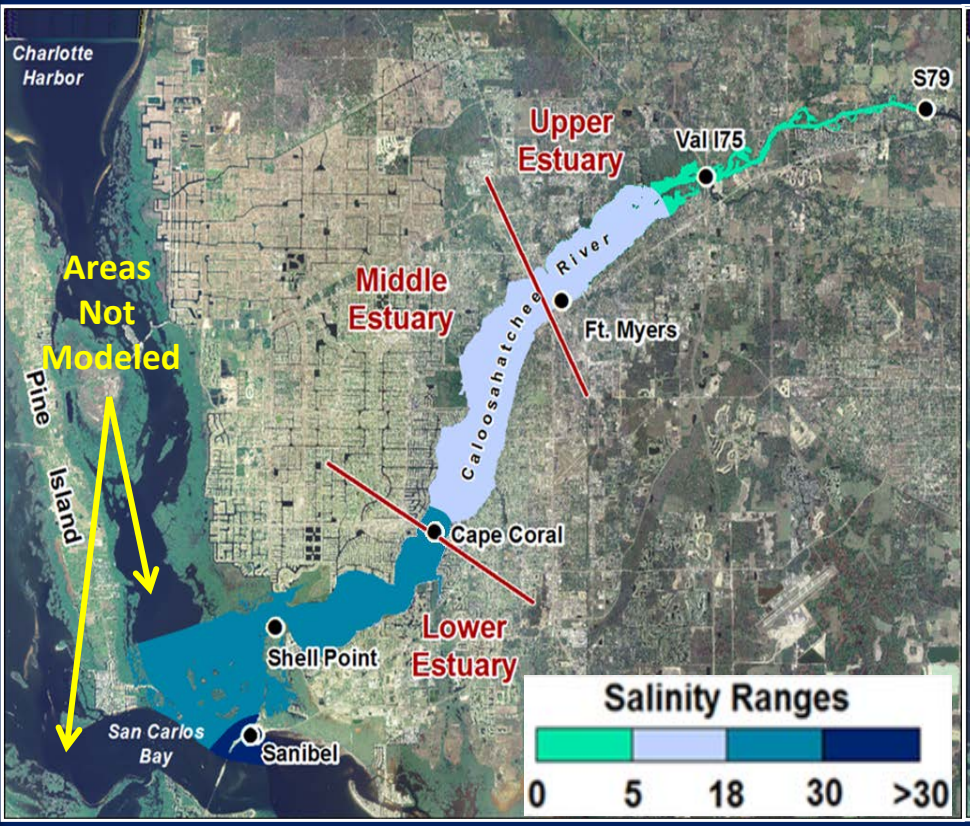


Salinity returned to the good range for adult oysters (green zone) within five days.

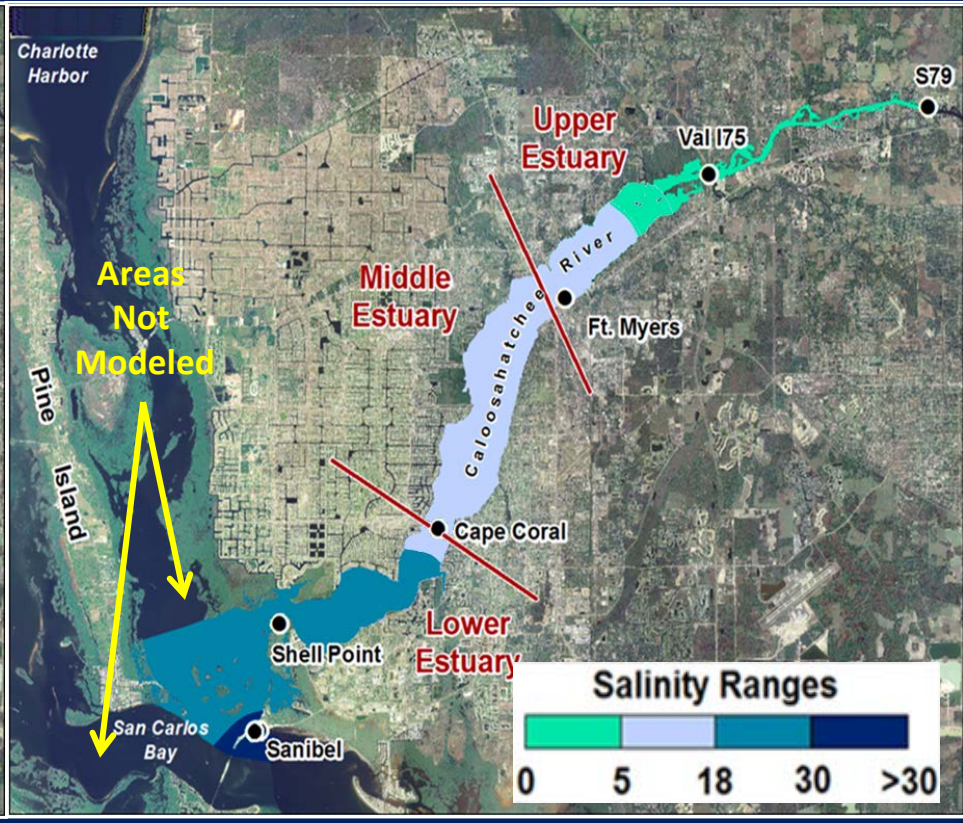
Caloosahatchee Estuary

Salinity Conditions

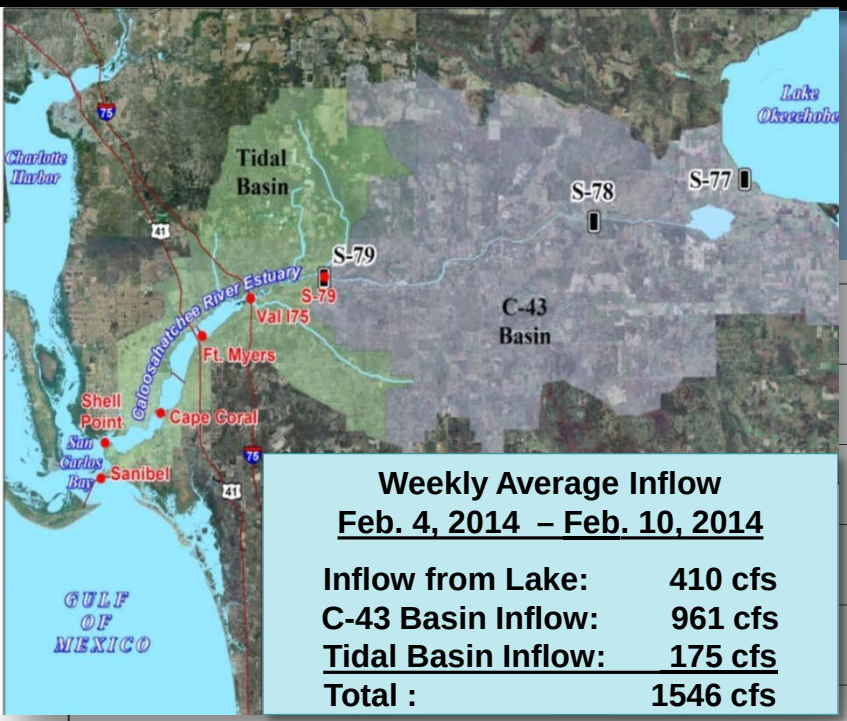
January 6, 2014



February 10, 2014

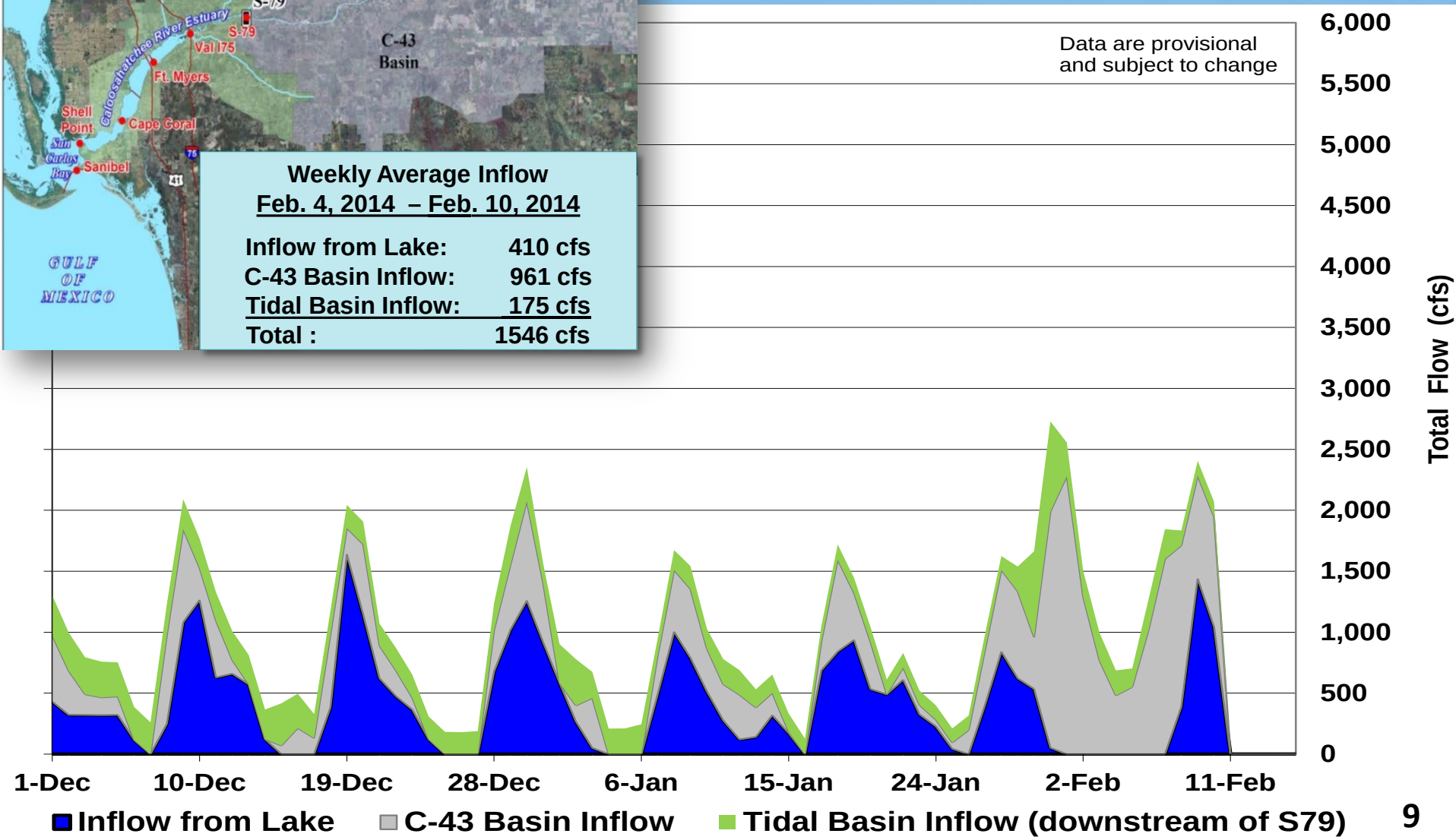


Caloosahatchee Estuary

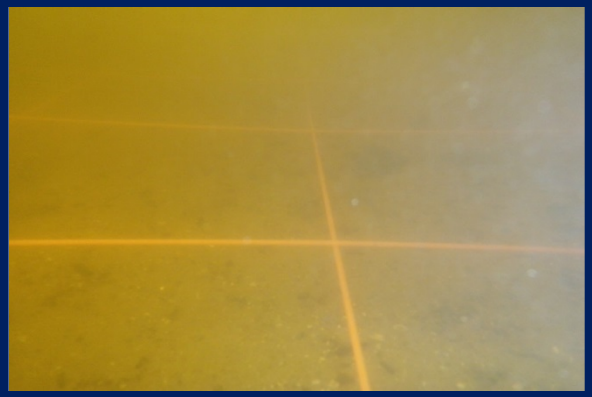


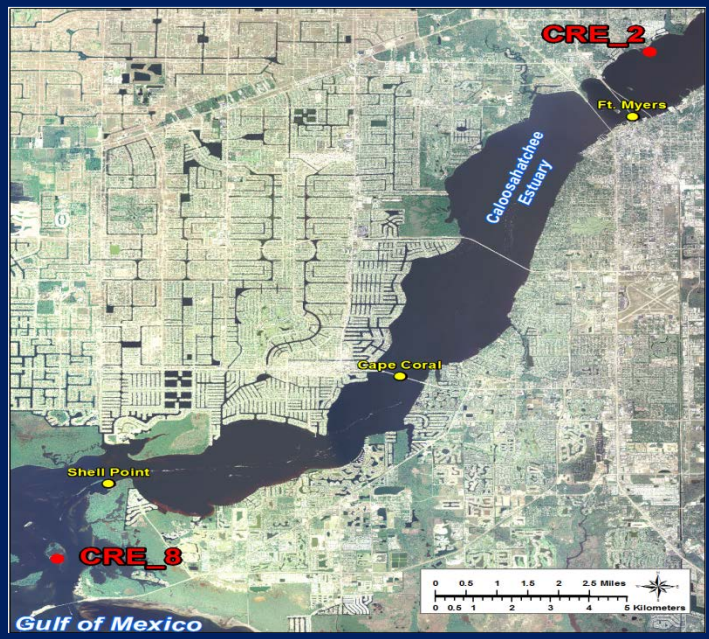
Weekly Average Inflow
Feb. 4, 2014 – Feb. 10, 2014

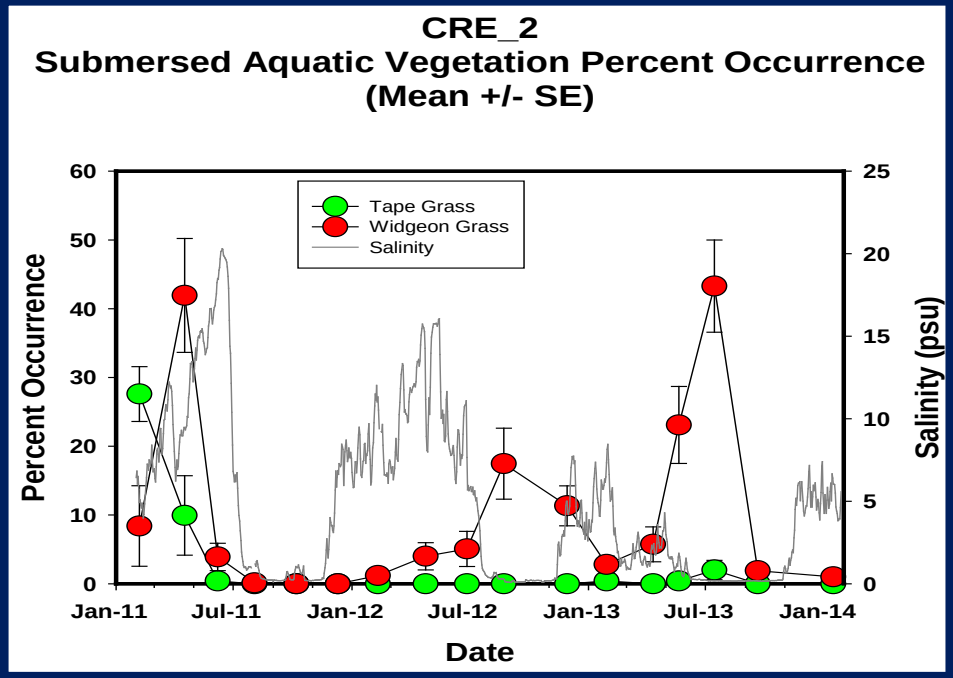
Inflow from Lake:	410 cfs
C-43 Basin Inflow:	961 cfs
Tidal Basin Inflow:	175 cfs
Total :	1546 cfs

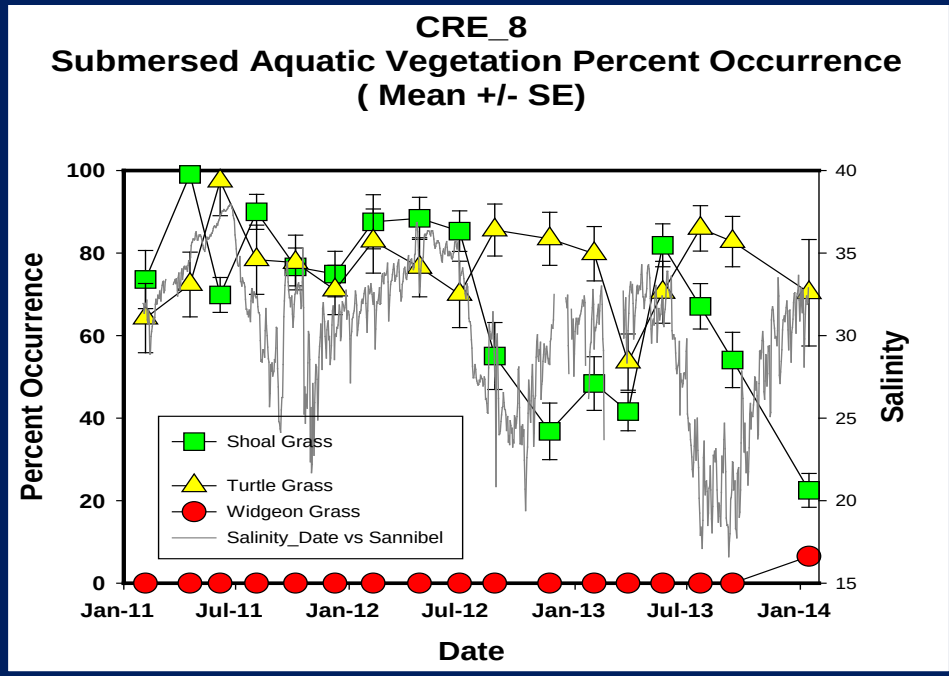


Caloosahatchee Estuary – SAV

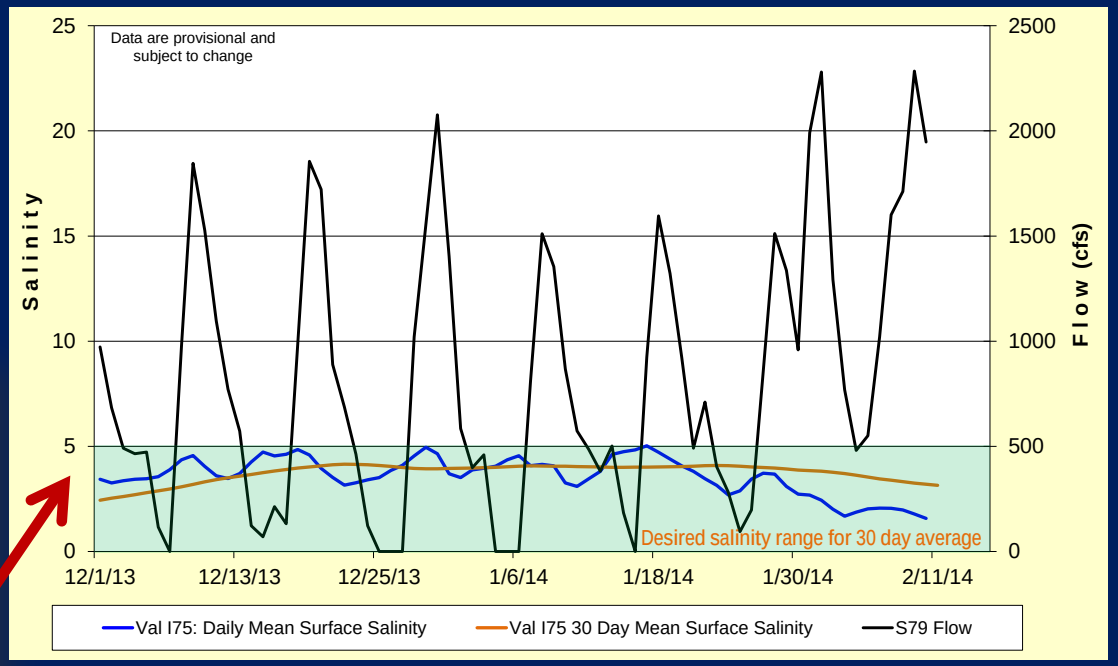


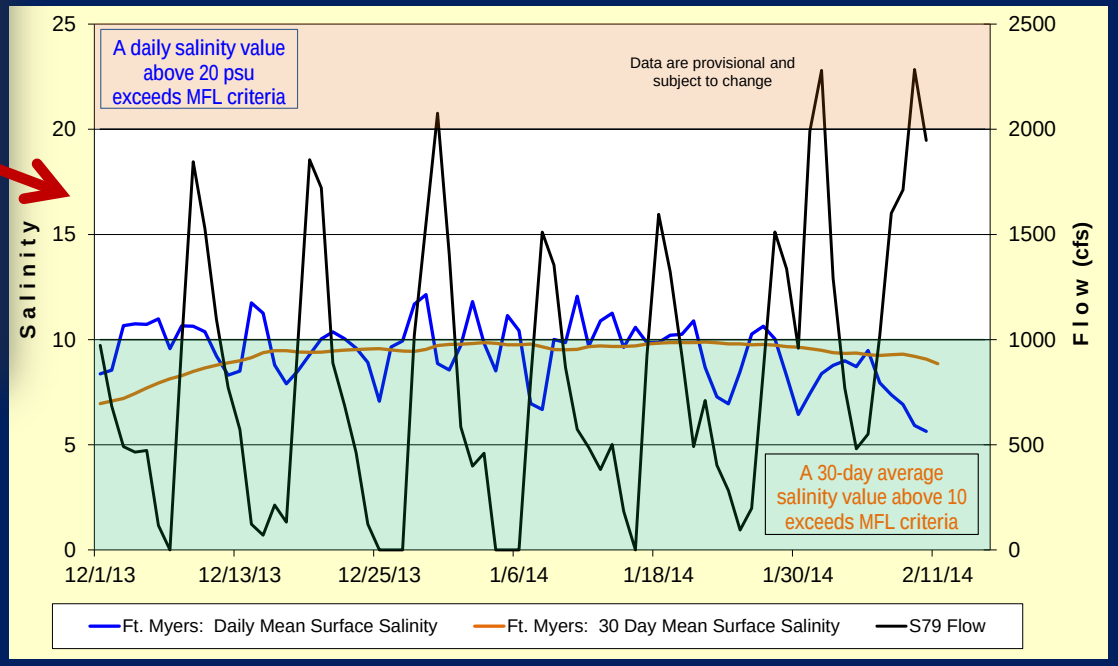






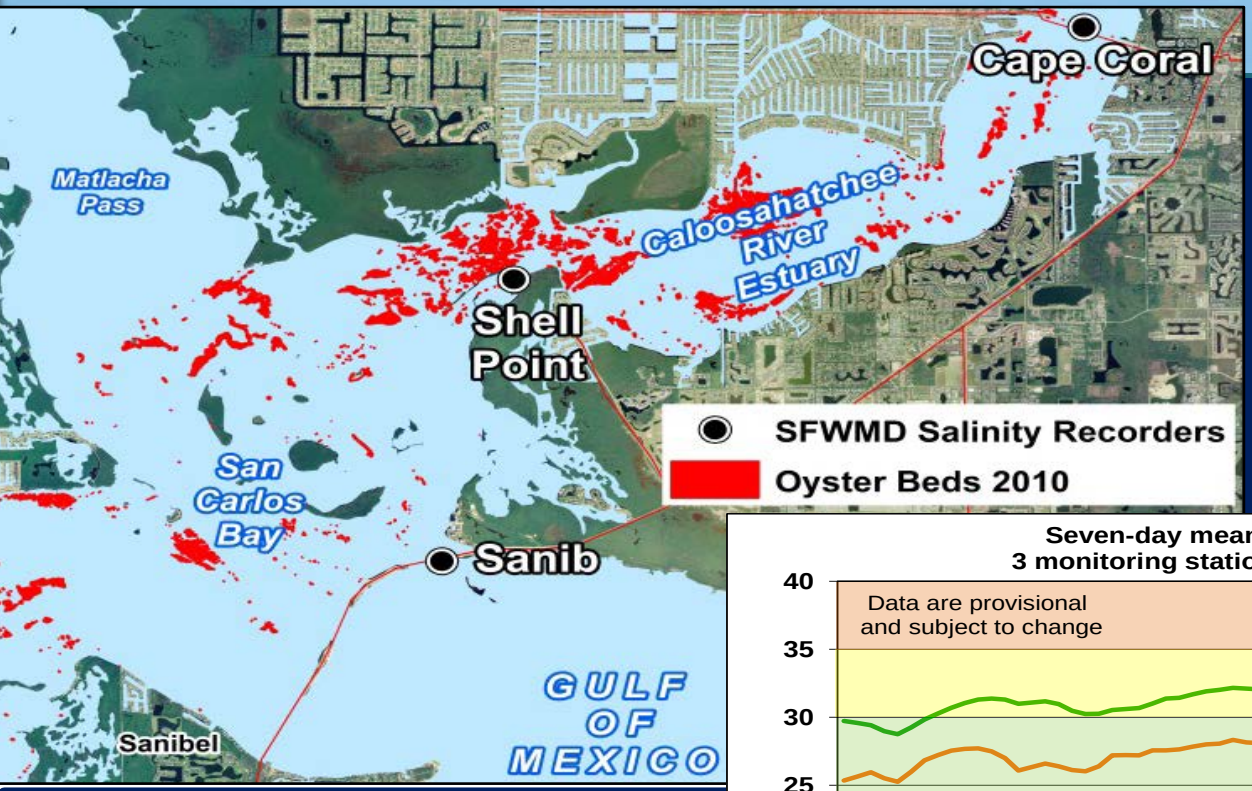
Salinity at Val I-75



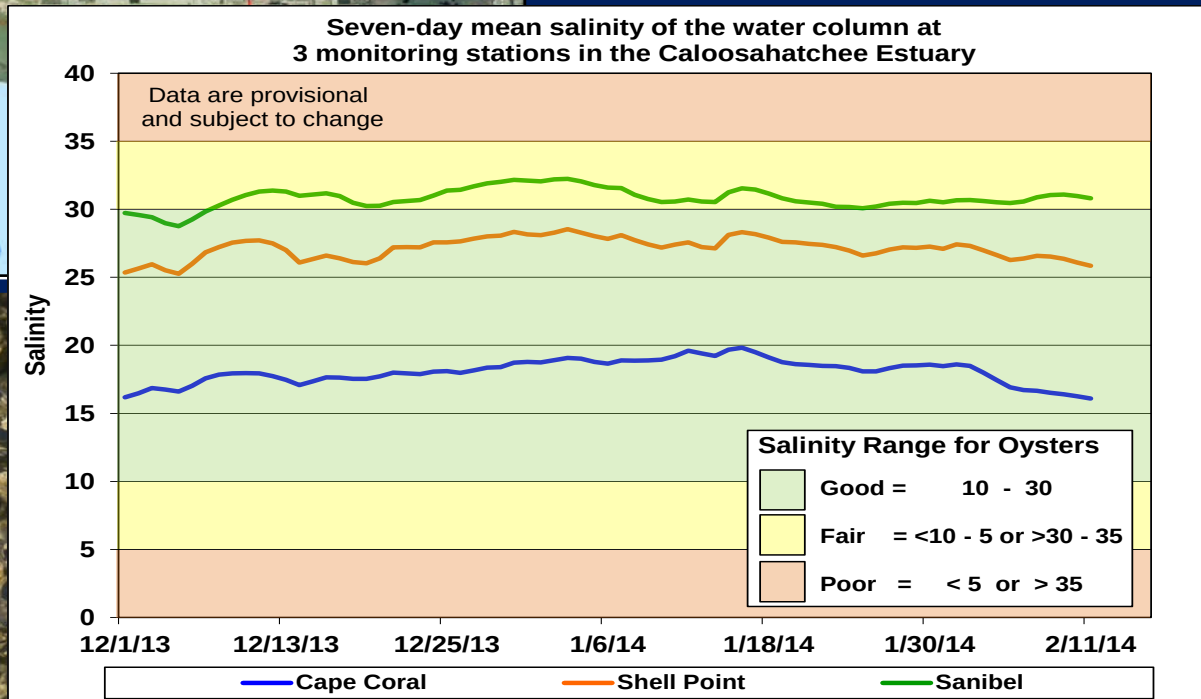


and Ft. Myers

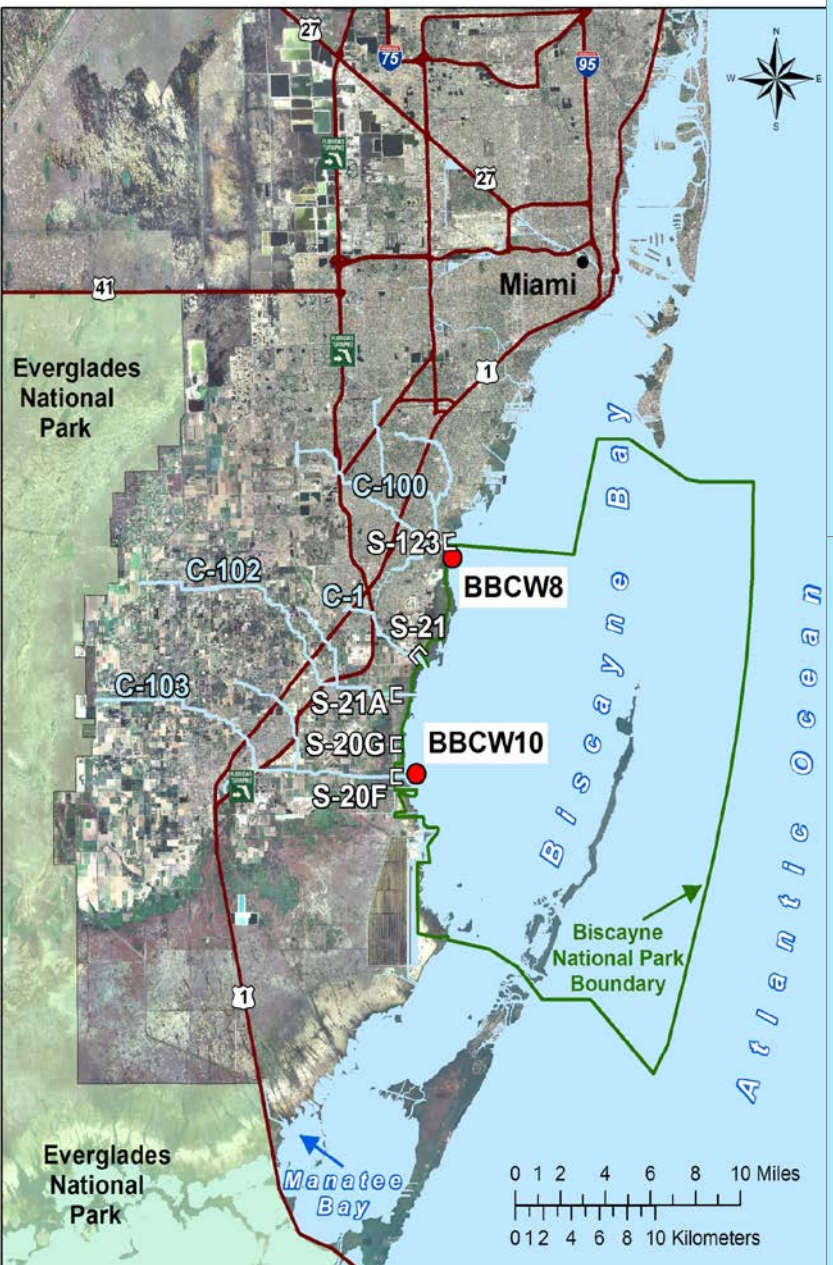
Caloosahatchee Estuary - Oysters

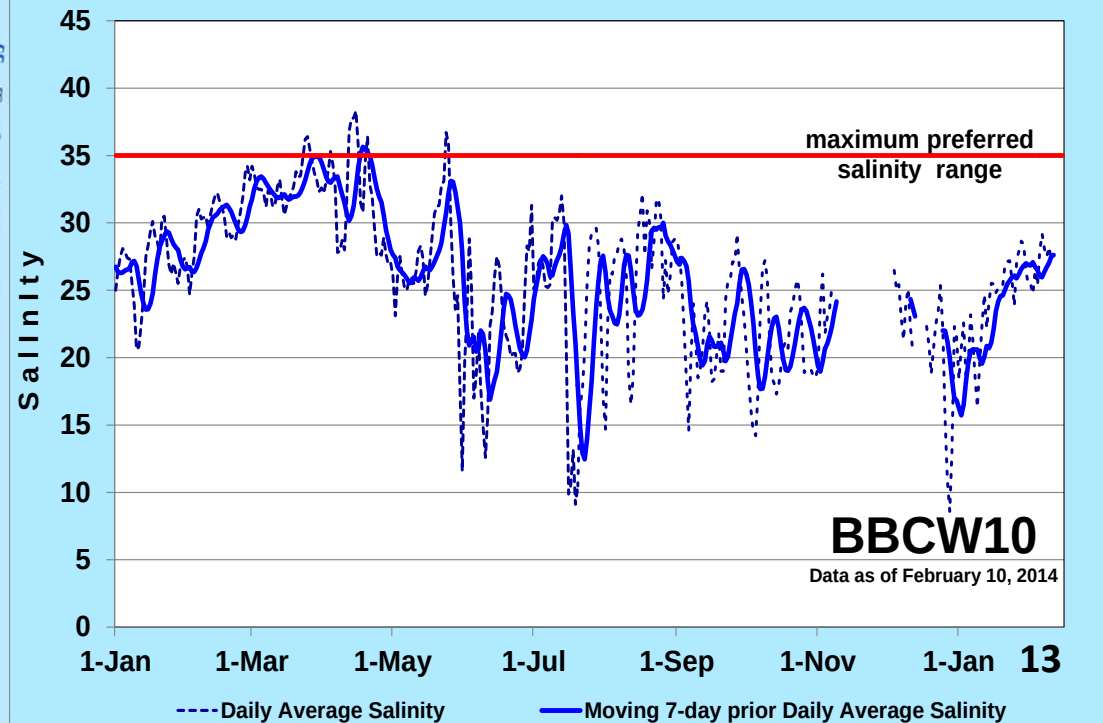


Salinity is in the good range for adult oysters (green zone) until just upstream of the Sanibel Causeway Bridge



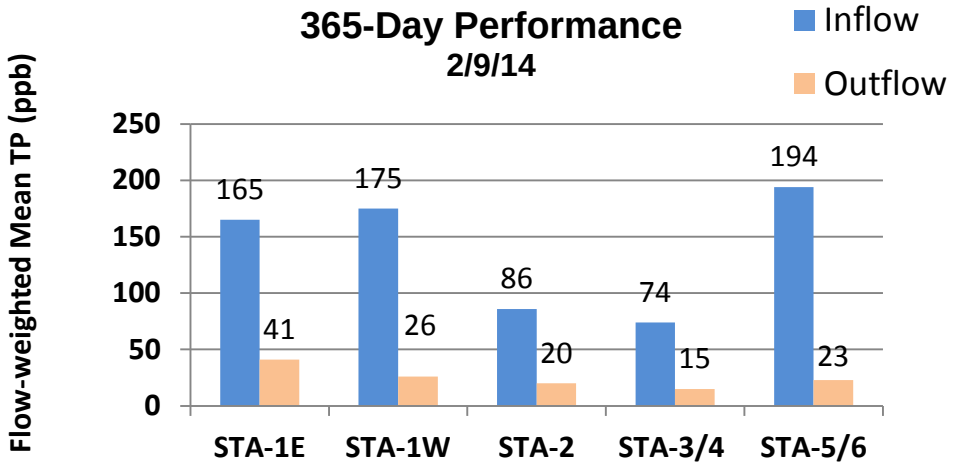
Biscayne Bay



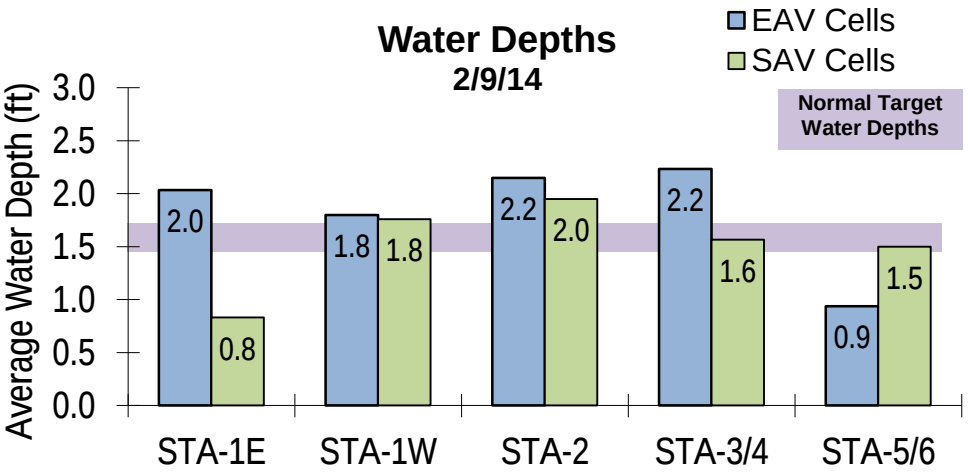


Stormwater Treatment Areas
Phosphorus Performance & Water Depths

- **Outflow TP Range:**
  - 15 ppb (STA-3/4) – 41 ppb (STA-1E)
- **Water Depths**
  - Dry season reduction in stages for vegetation health
  - Dryout conditions in some STA-5/6 emergent aquatic vegetation (EAV) cells



Graph contains preliminary data.



Graph contains preliminary data. STA-1E Cells 1 & 2 and STA-2 Cells 7 & 8 were excluded due to off-line status.

Stormwater Treatment Areas
STA-1E Grading

Grading the remnant levees and berms in the STA-1E Eastern Flow-way where the USACOE Periphyton Stormwater Treatment Area (PSTA) Demonstration Project was located.

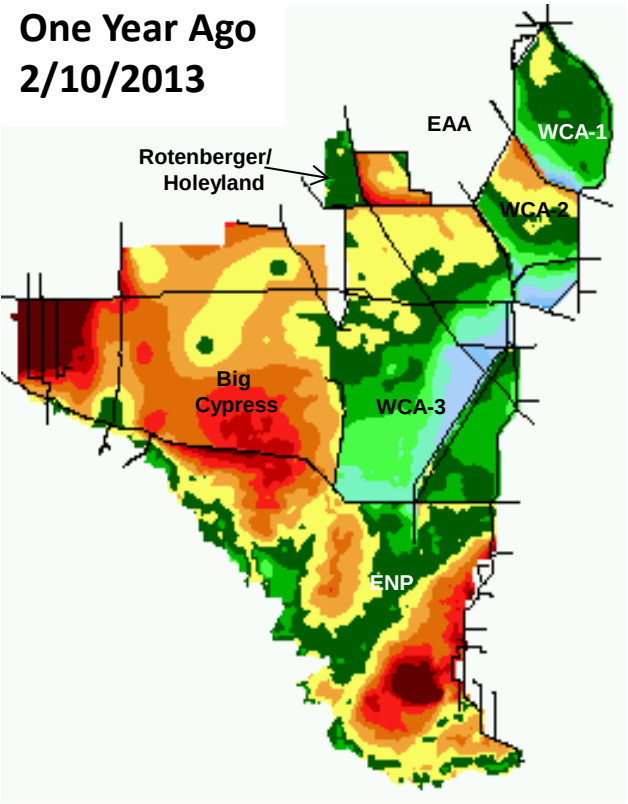
- **Grading underway in STA-1E Cell 2**
  - ✓ Removal of remnant levees associated w/discontinued Periphyton Stormwater Treatment Area project

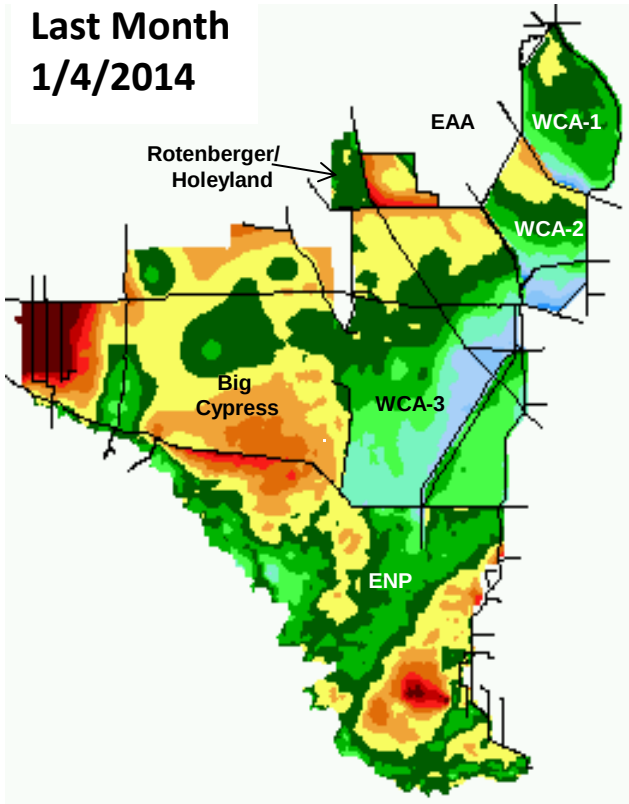
Stormwater Treatment Areas
STA Vegetation

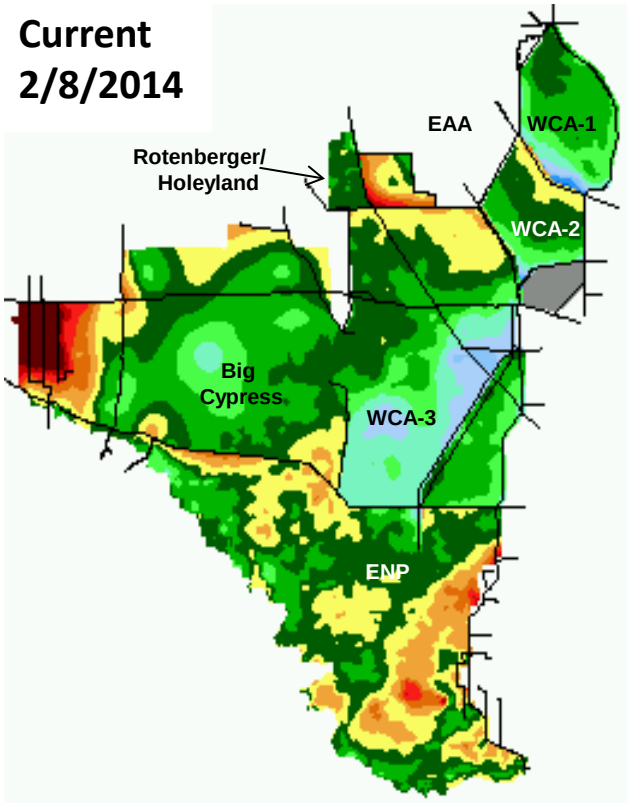
Areas in the middle of STA-1E Cell 7 where floating cattail tussocks will be mechanically removed.

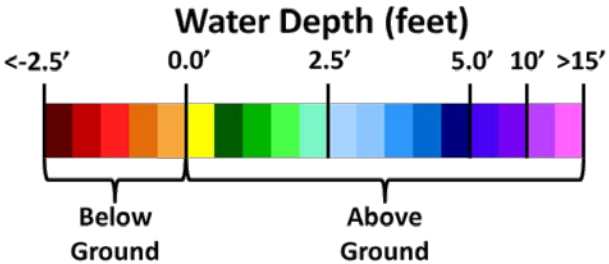
- **Declines in SAV communities**
  - STA-1E, STA-1W, STA-3/4
  - Recovery not expected until late spring
  - Inoculations planned
- **Cattail coverage improving STA-1E Cell 5**
  - Water levels were lowered to allow for natural recruitment
  - Extensive stands of willow treated
- **Floating cattail tussock removal started in STA-1E Cell7**

Greater Everglades
Water Depth Monthly Snapshots

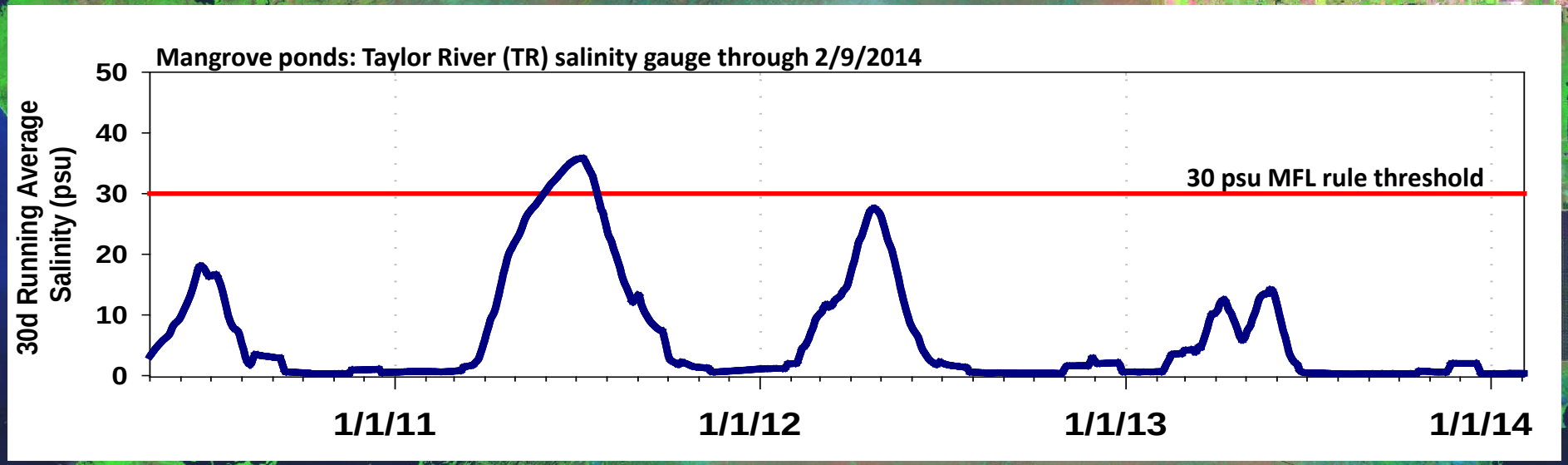




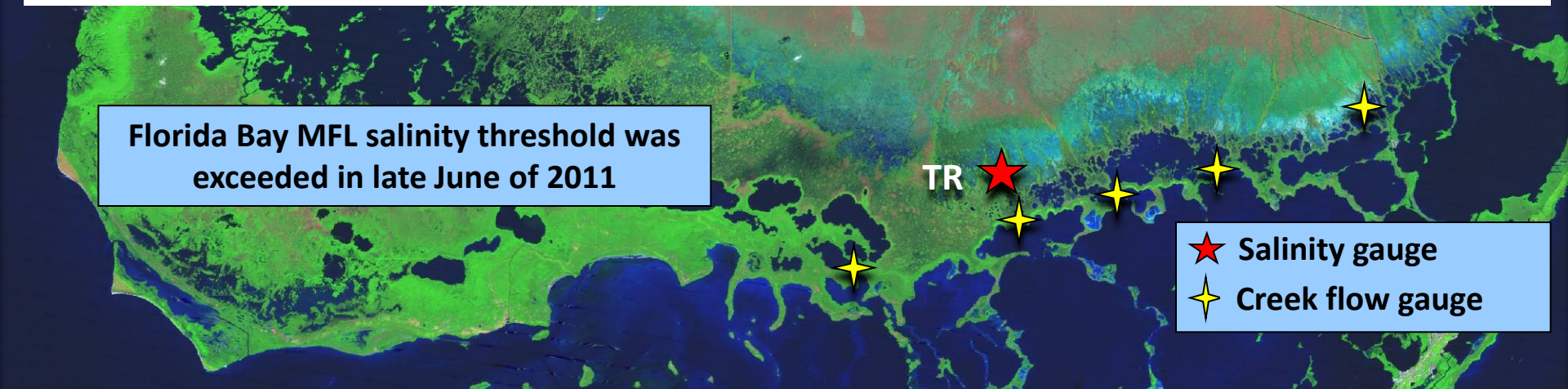




Florida Bay Update



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



Questions?