

**Status of the
Caloosahatchee
and
St. Lucie Estuaries**
November 2004 – May 2005

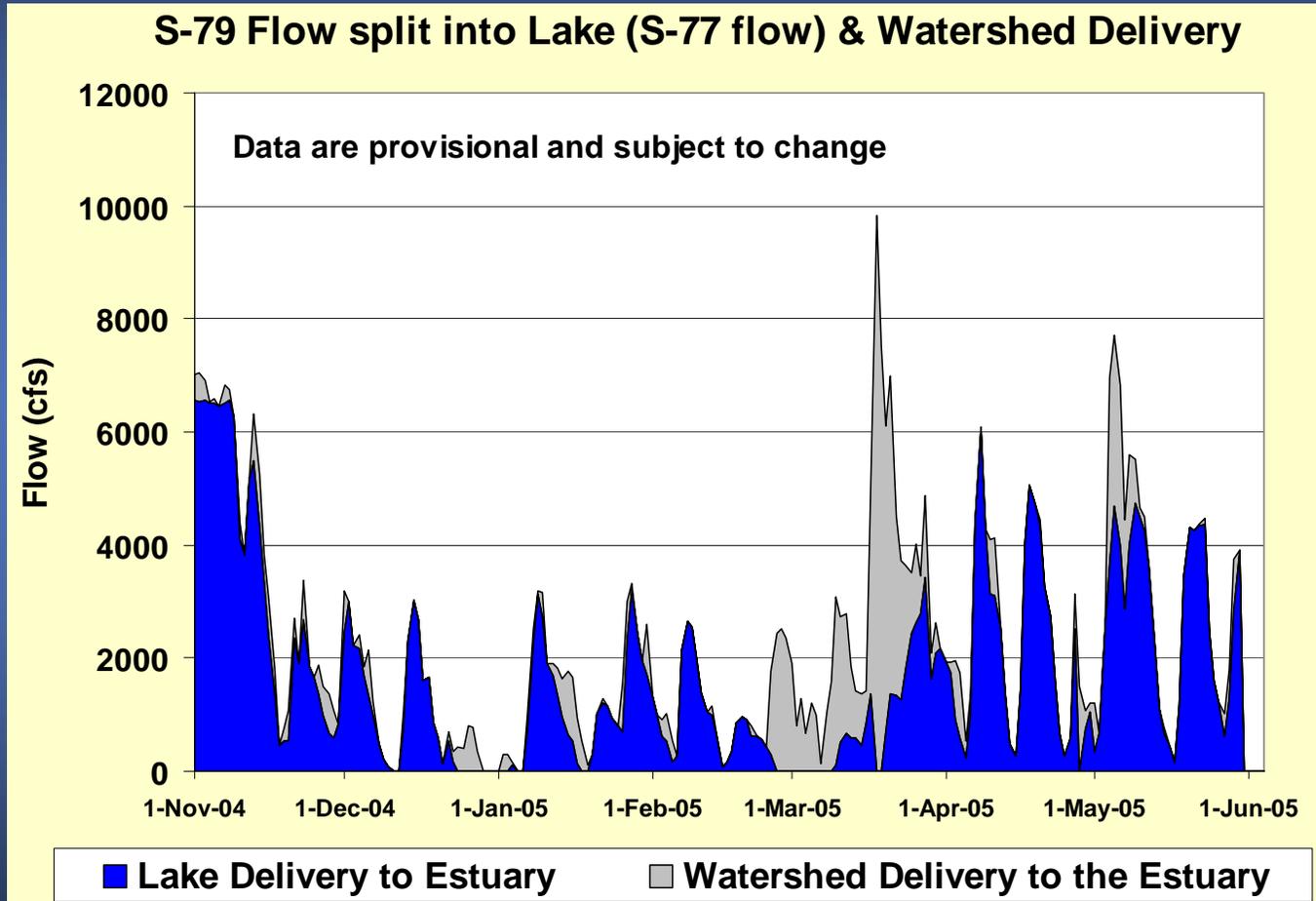


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Lake Operations and the Caloosahatchee Estuary

- **Nov – Dec 23:** End of high steady discharges, 1x Level 3 Pulse (3000 cfs), 3x Level 1 Pulses (1600 cfs).
- **Jan 7 – Feb 16:** 2x Level 1 Pulses (1600 cfs), Partial Pulse (600cfs)
- **Feb 17 – Mar 16:** Environmental Release (600cfs), Partial $\frac{1}{4}$ Pulse
- **Mar 16 – May 27:** 1x Level 1 (1600 cfs), 6x Level 3 Pulses (3000 cfs)
- **May 28 - :** 1x Level 2 (2300 cfs),

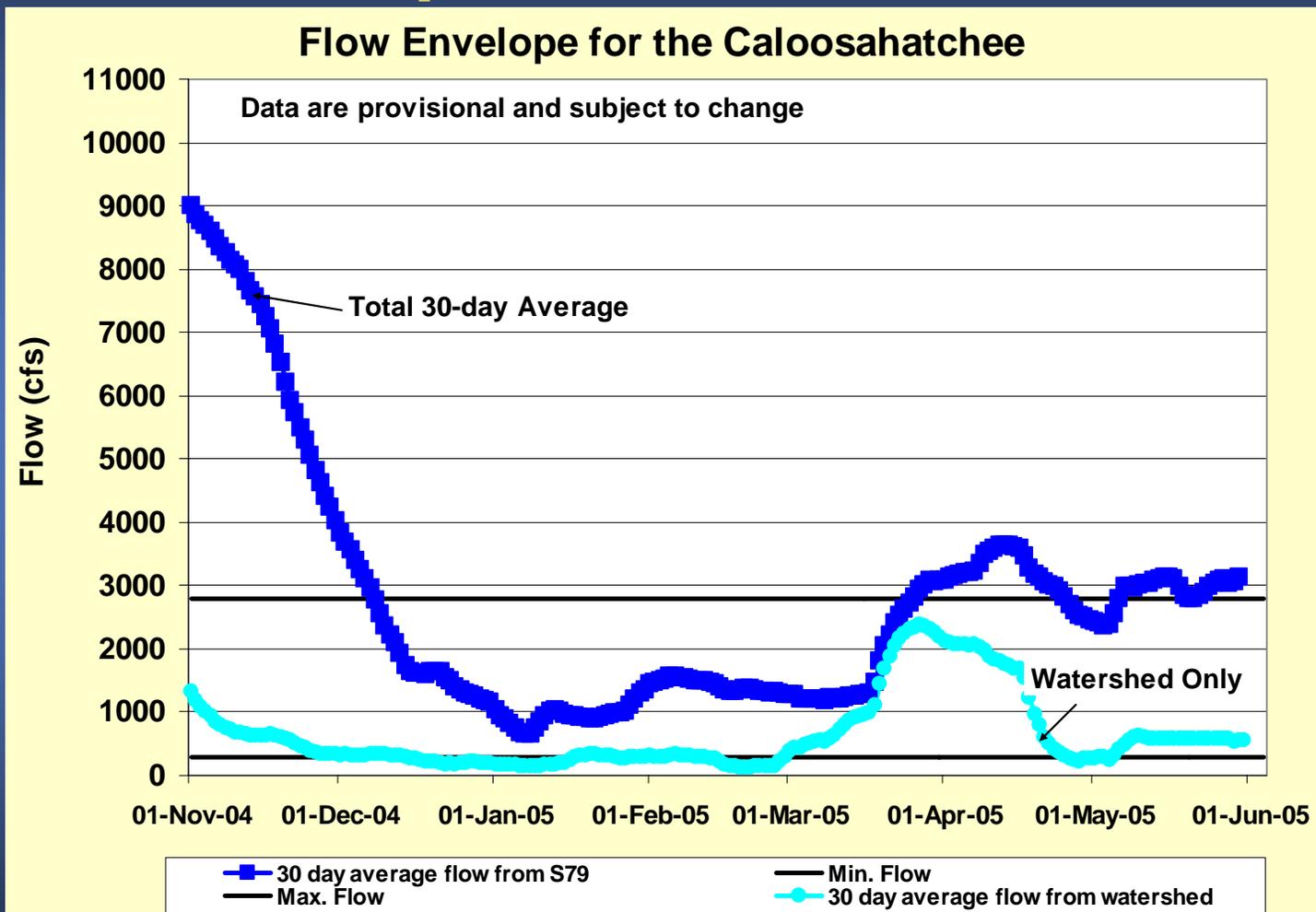
Lake Releases (May 2004 – Nov 2004)



Performance Measures for Caloosahatchee

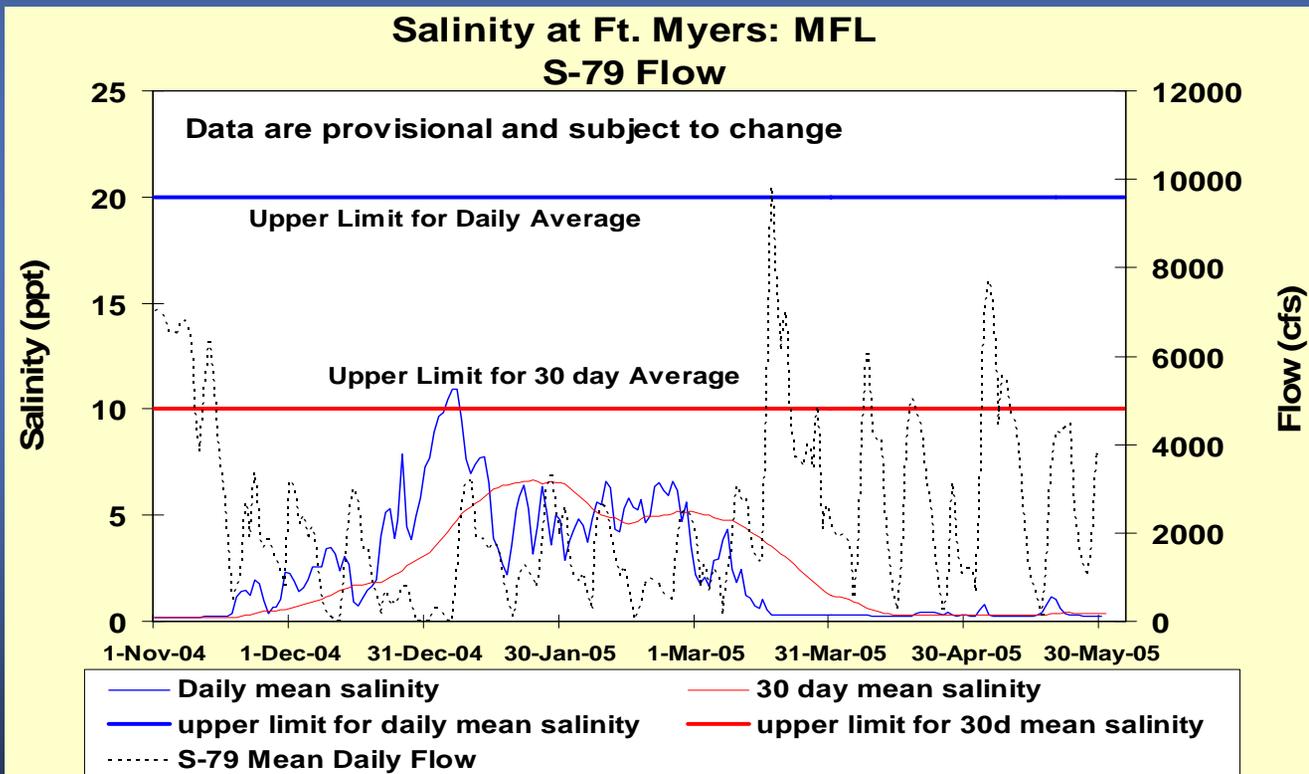
- **Flow Envelope: 300 – 2800 cfs**
- **Salinity at Ft. Myers: MFL**
- **Tape Grass in Upper Estuary:**
Persistence during dry season
- **Seagrass in the Lower Estuary :**
Effects of Discharges

Flow Envelope for the Caloosahatchee

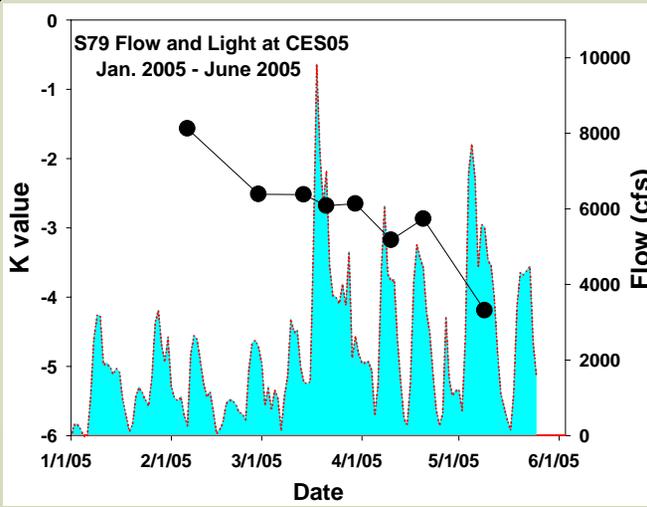
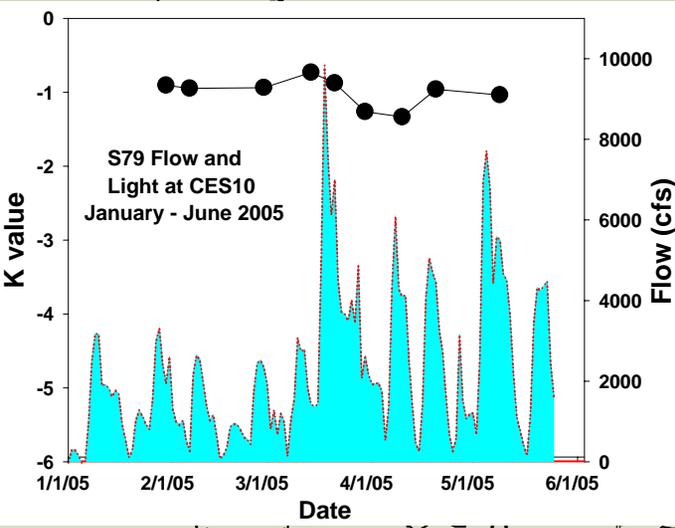
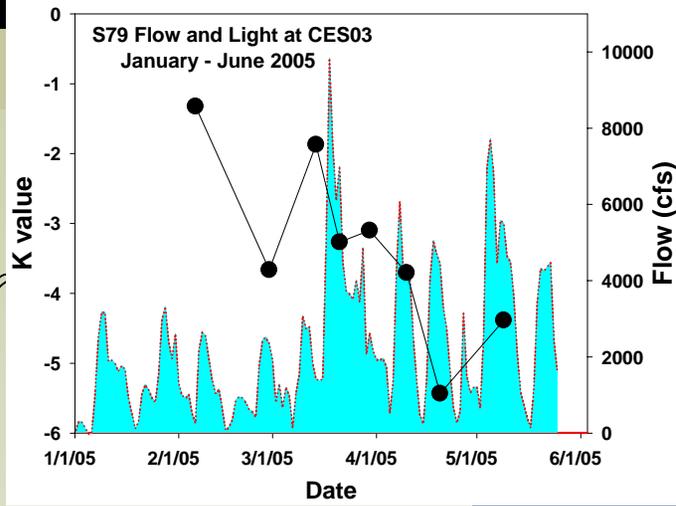
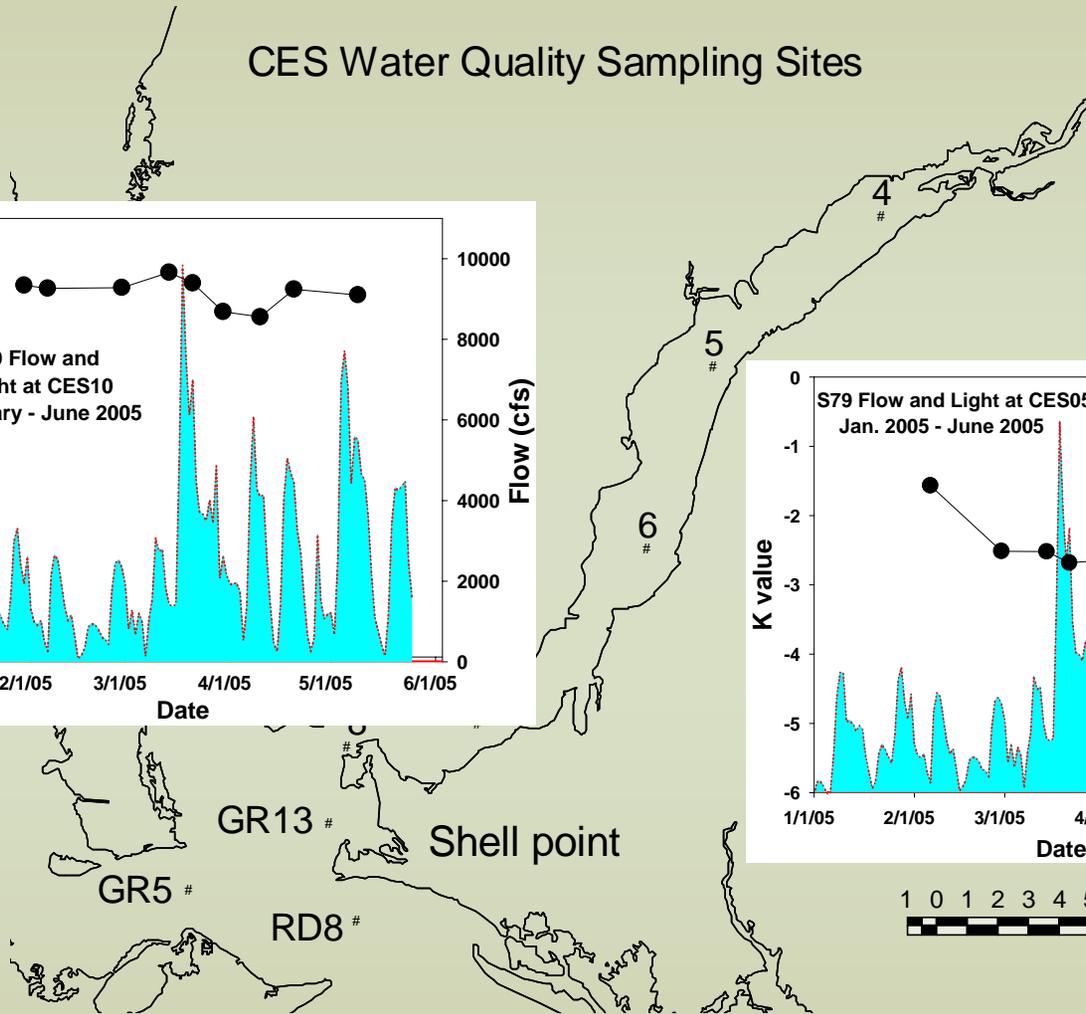


Salinity at Ft. Myers: MFL

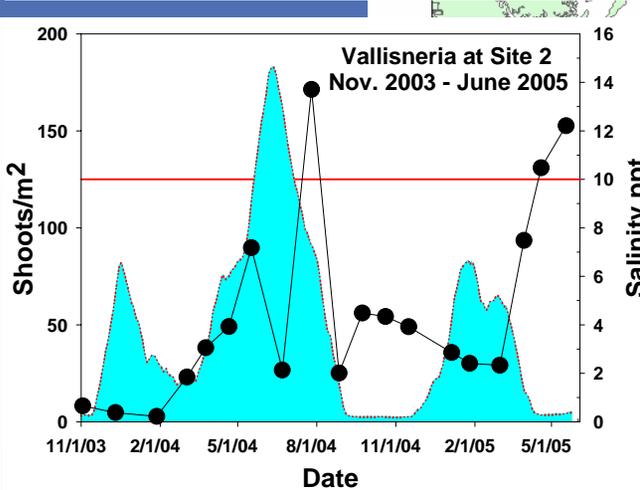
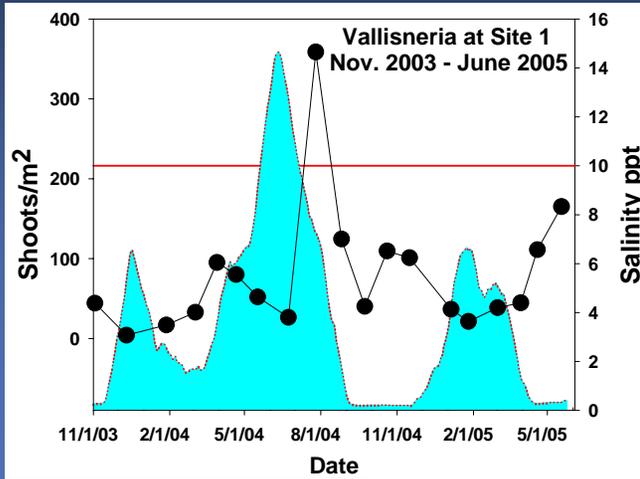
MFL Salinity Criteria at Ft. Myers not Exceeded:



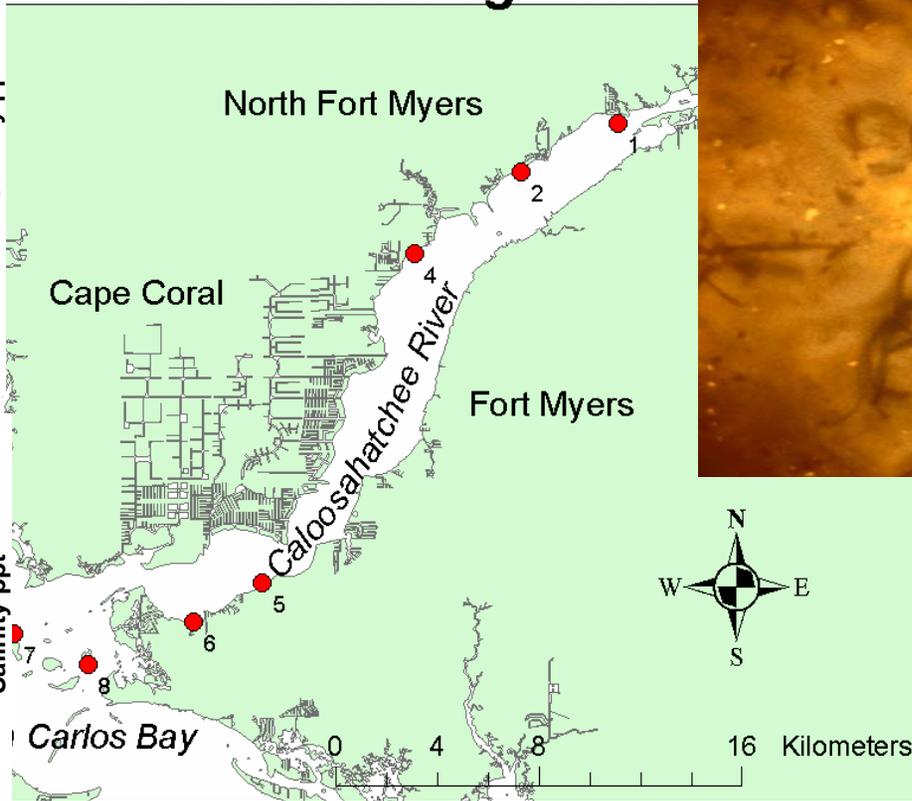
CES Water Quality Sampling Sites



Tape Grass: Dry Season Performance

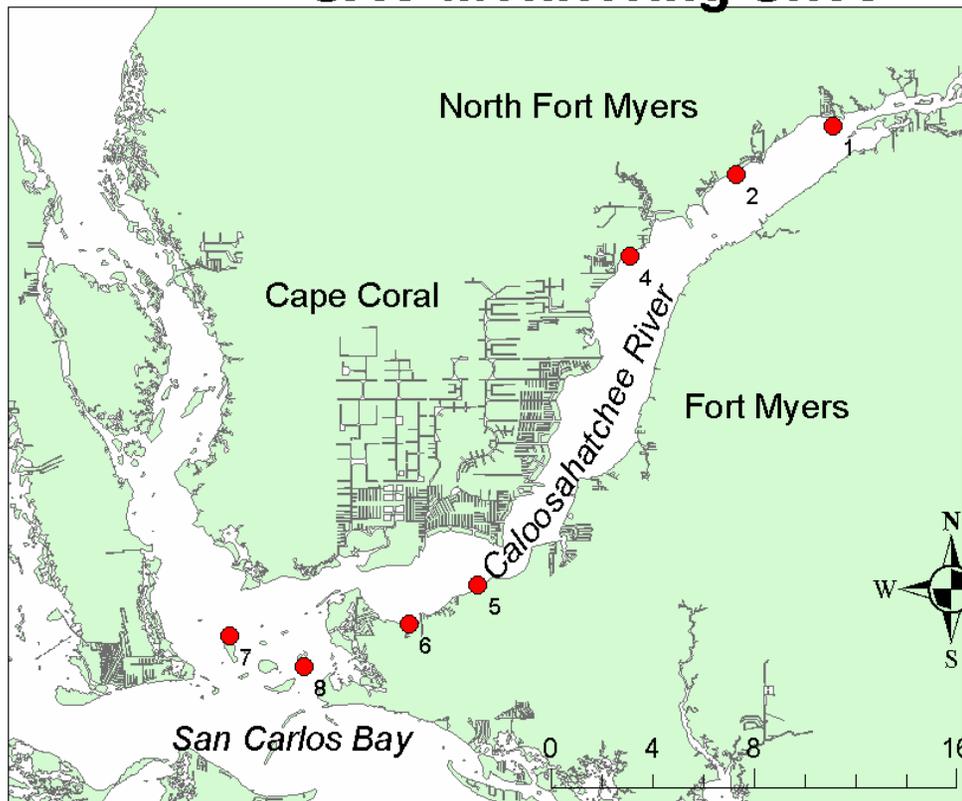


SAV Monitoring Sites

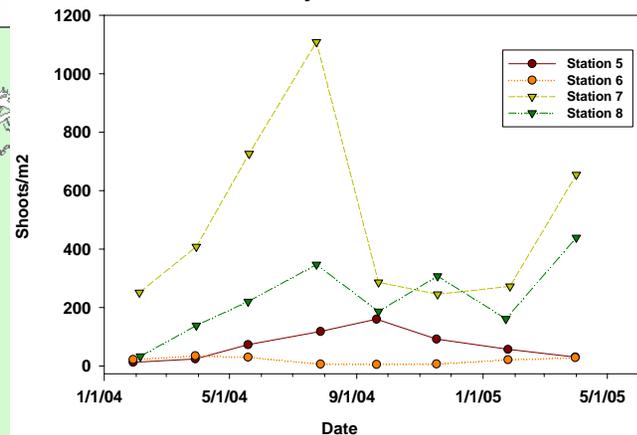


SeaGrass: Dry Season Performance

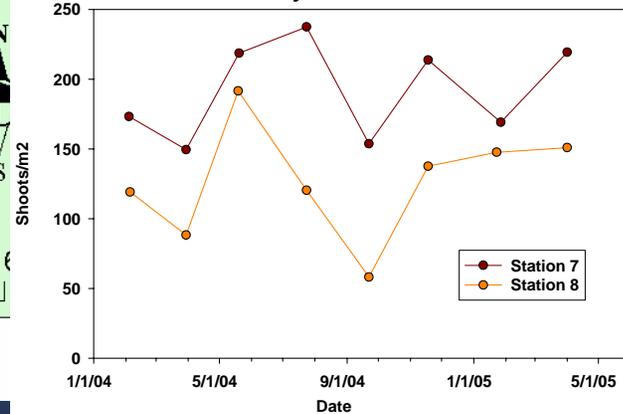
SAV Monitoring Sites



Halodule at Stations 5, 6, 7, and 8
January 2004 - June 2005



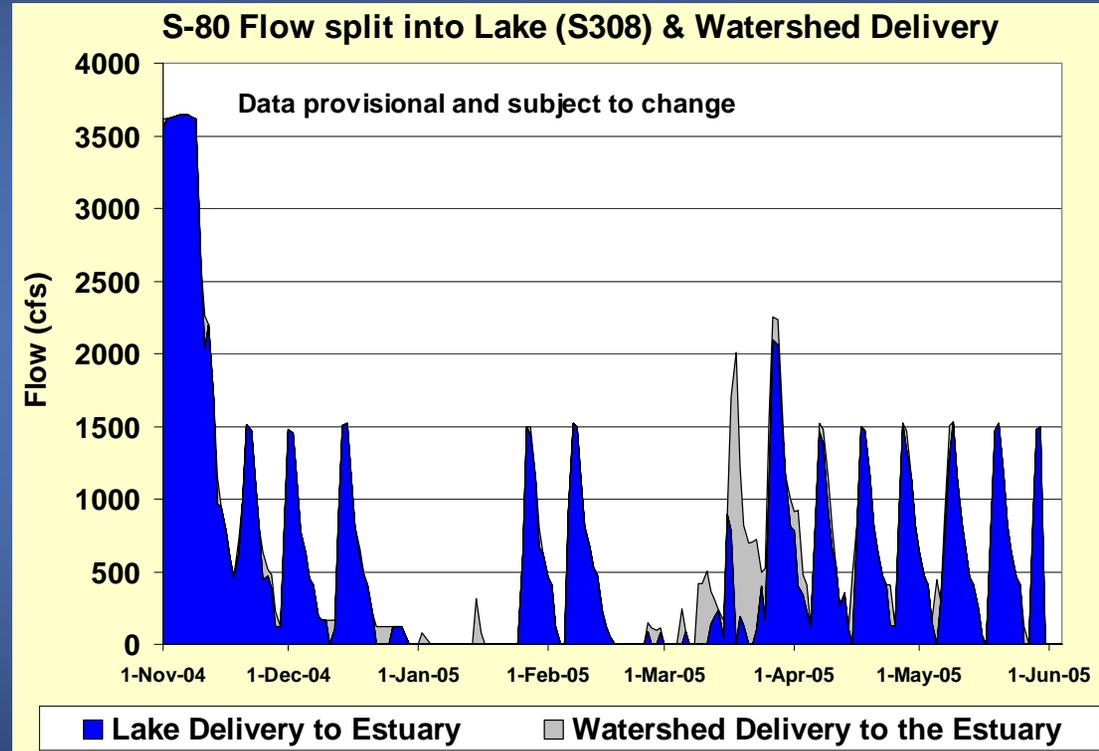
Thalassia at Station 7 and Station 8
January 2004 - June 2005



Lake Operations and the St. Lucie Estuary

- **Nov – Feb 25:** End of high steady discharges, 1x level 3 Pulse (1170 cfs) , 4x Level 1 Pulses (730 cfs)
- **Mar 10 – Mar 26:** partial ¼ Pulse (180 cfs), 1x Level 1 Pulse (730 cfs)
- **Mar 26 – Apr 5:** 1x Level 3 Pulse (1170 cfs)
- **Apr 6 – May 26:** 5x Level 1 Pulses (730 cfs)
- **May 28 - :** 1x Level 1 Pulses (730 cfs)

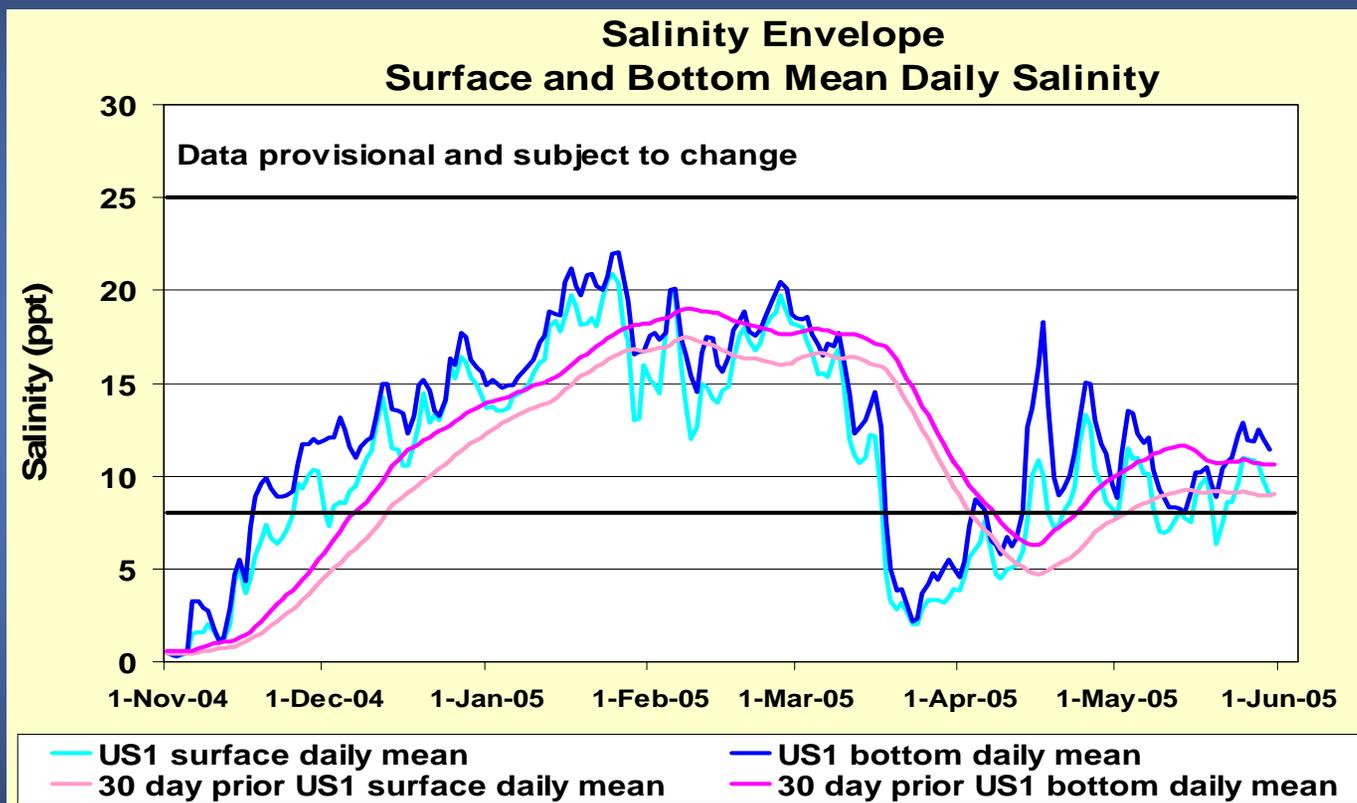
Lake Releases (Nov 2003 – May 2004)



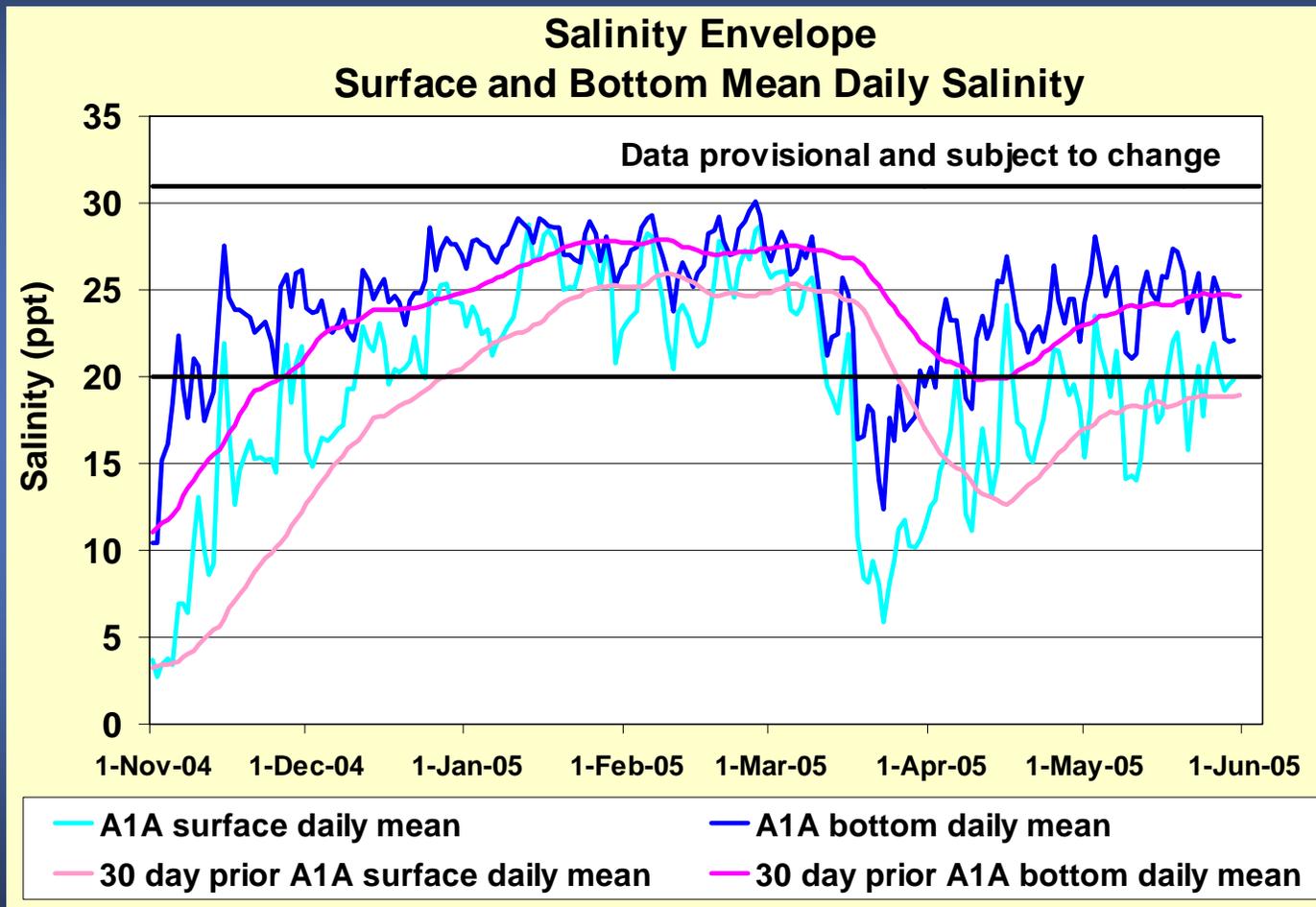
Performance Measures for the St. Lucie

- **Salinity Envelope:** Roosevelt Bridge (U.S. 1)
- **Salinity Envelope:** A1A Bridge
- **Seagrass:** Conditions near St. Lucie Inlet
- **Oyster Spawning:** Settlement of Larvae and Inspection of Adults

Salinity at the Roosevelt Bridge



Salinity at the A1A Bridge

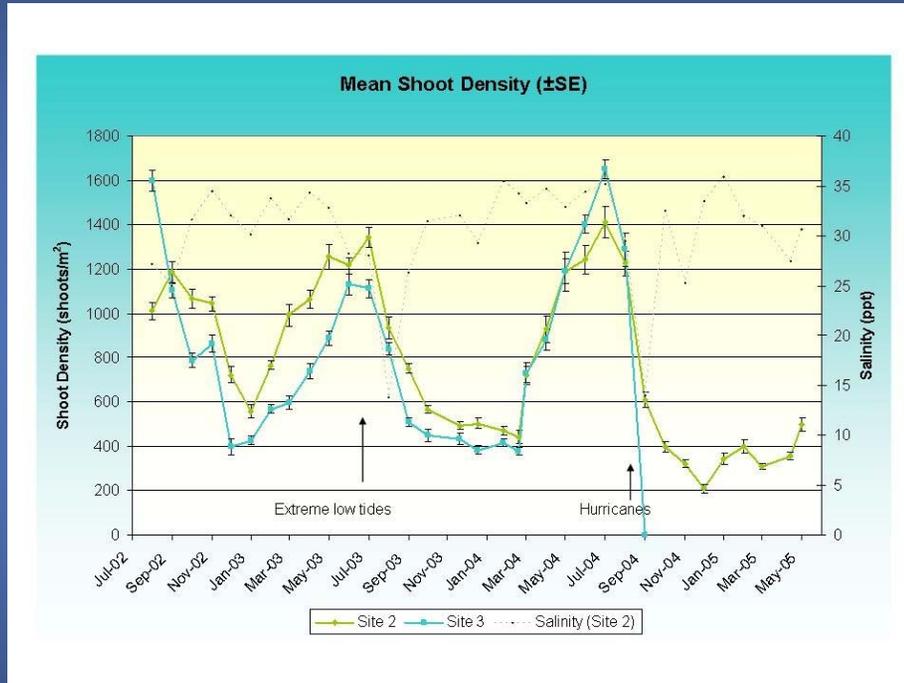


Seagrass Monitoring



- Initiated August '02
- Monthly monitoring
- 2 sites (2, 3)

Seagrass Density



- Shoot Density Lower this Year than in Past Years
- Recovery Continues, Some Re-growth at Station Where Grasses Were Buried.

Oyster Spat



- Oyster Spawning Monitored from Mar 15 - Present
- Adults sampled and spat collectors placed at two locations
- Oysters Began Spawning Week of May 20
- No Settlement to date