SOUTH FLORIDA WATER MANAGEMENT DISTRICT

System-Wide Ecological Conditions Status Update
June 12, 2008

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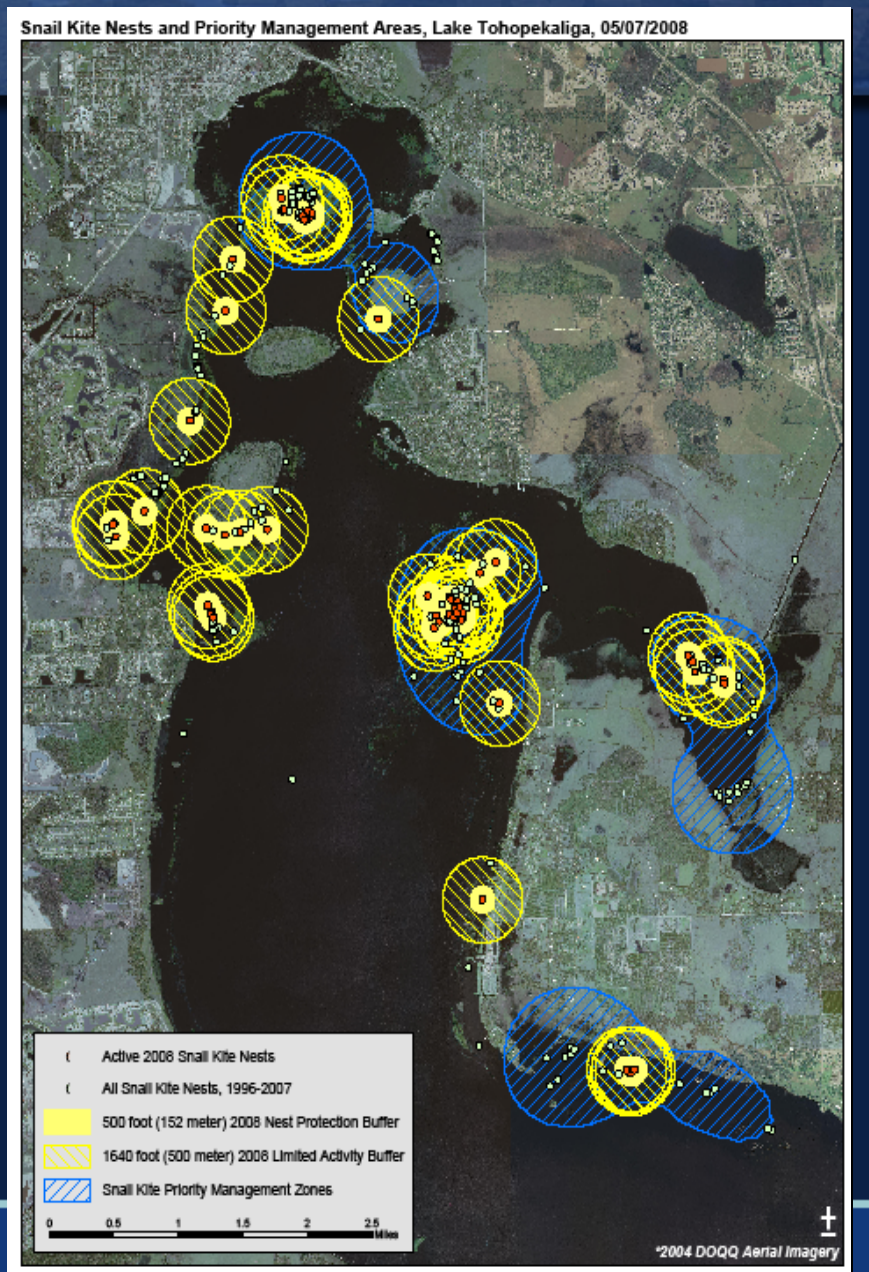
Watershed Management Department

Snail Kite Nesting In Kissimmee Upper Basin

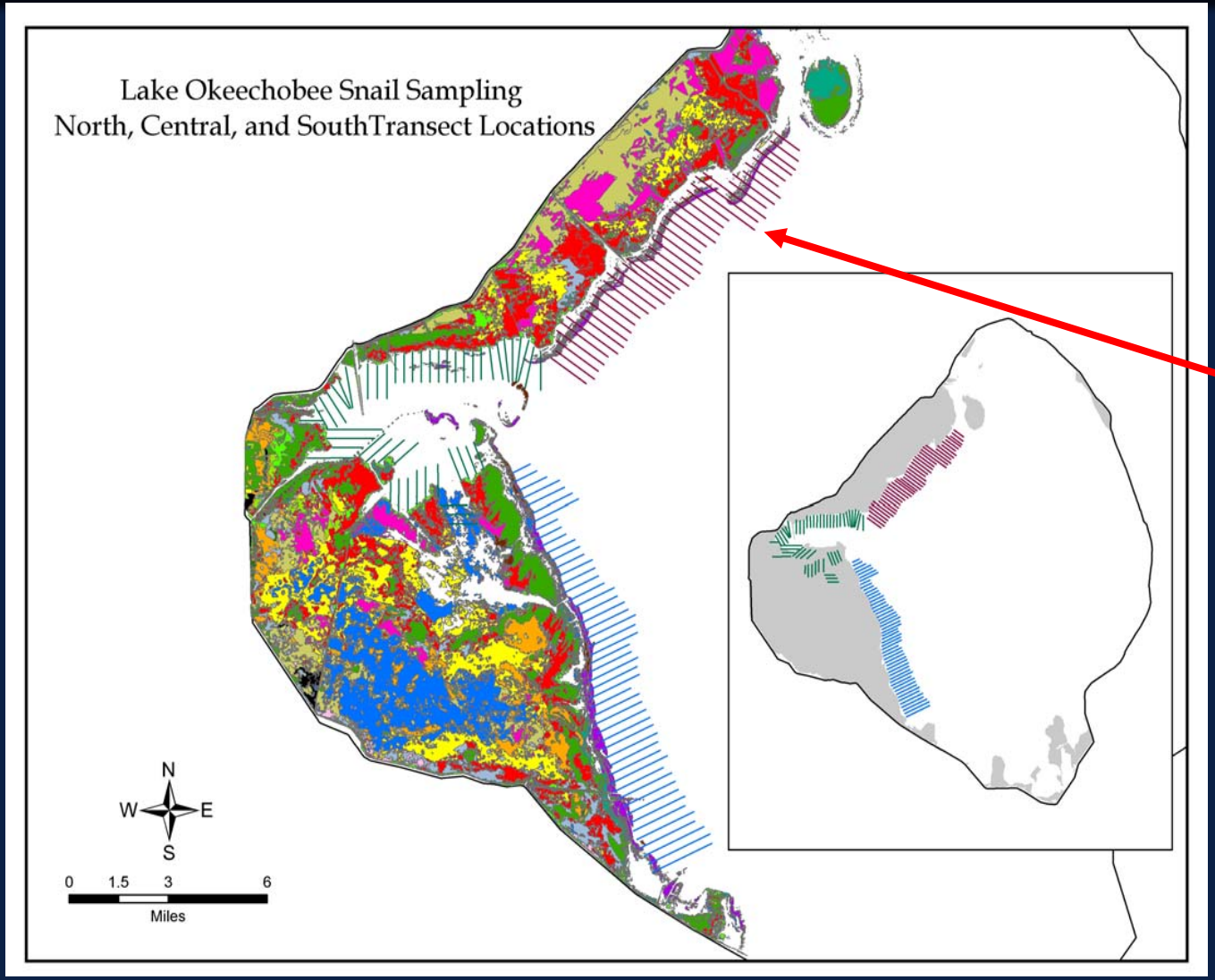
- **SFWMD and USFWS obtained temporary deviation from USACE to maintain 52.5 ft elevation to protect nests**



Kissimmee River Flow Reduction at S-65

- Flow has been reduced to 250 cfs due to dry conditions
- Floodplain in restored area is drying down
- Wading and shore birds utilizing drying pools for foraging

Lake Okeechobee Apple Snail Eggs

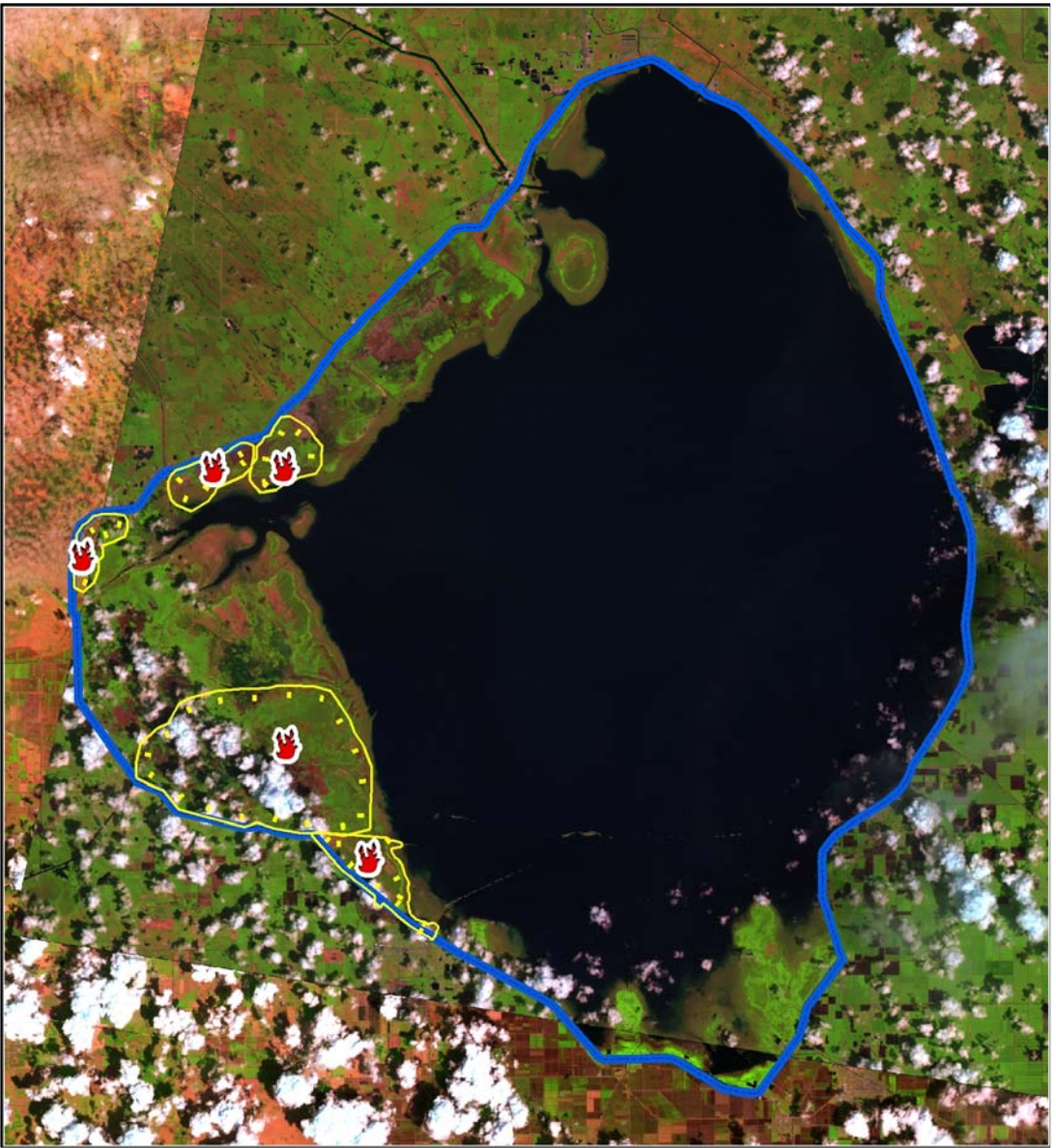


- 128 transects
- Sample monthly thru July
- Found 17 egg clusters in April and 10 egg clusters in May

Disking/Plowing of Lake Sediments

Tire Removal on Kraemer Island

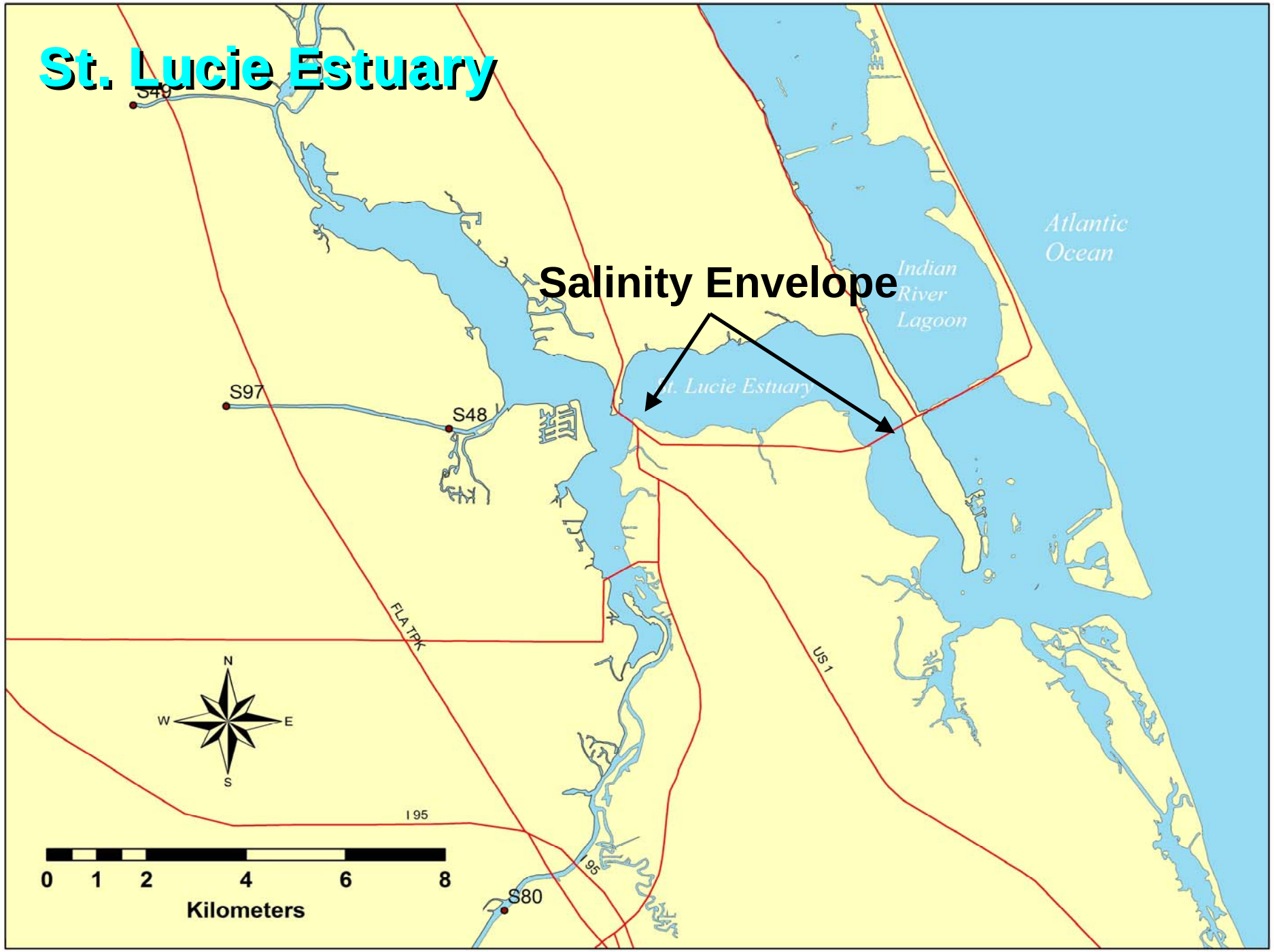
Lake Okeechobee Fires



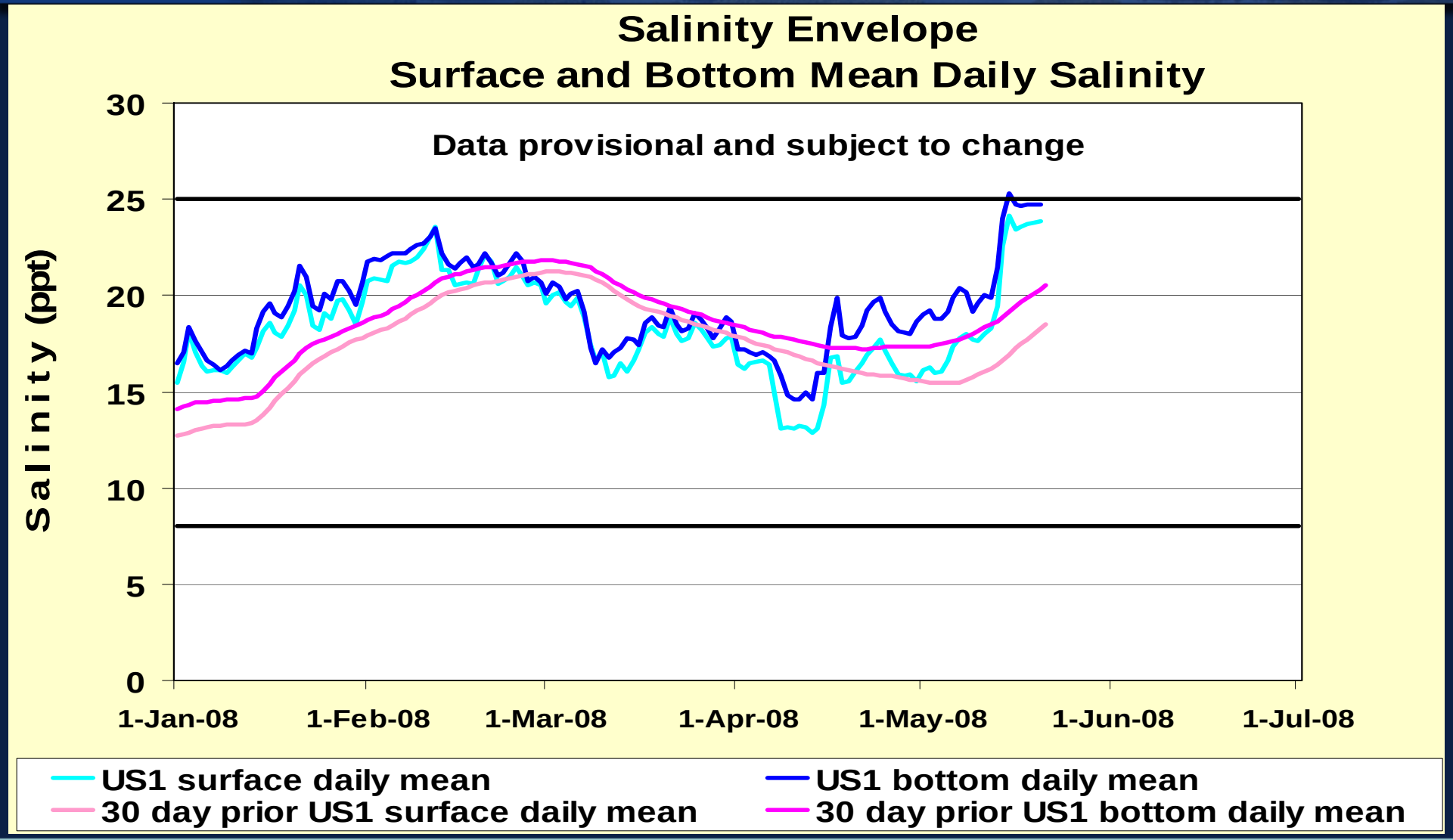
- Active fire continues in Moonshine Bay & between Old Moore Haven Canal and Sportsmen's Run
- Small areas continue to burn in Observation Island area
- Minimal fire activity at Big Bear Beach
- All fires remain within the burn areas

St. Lucie Estuary - Operations

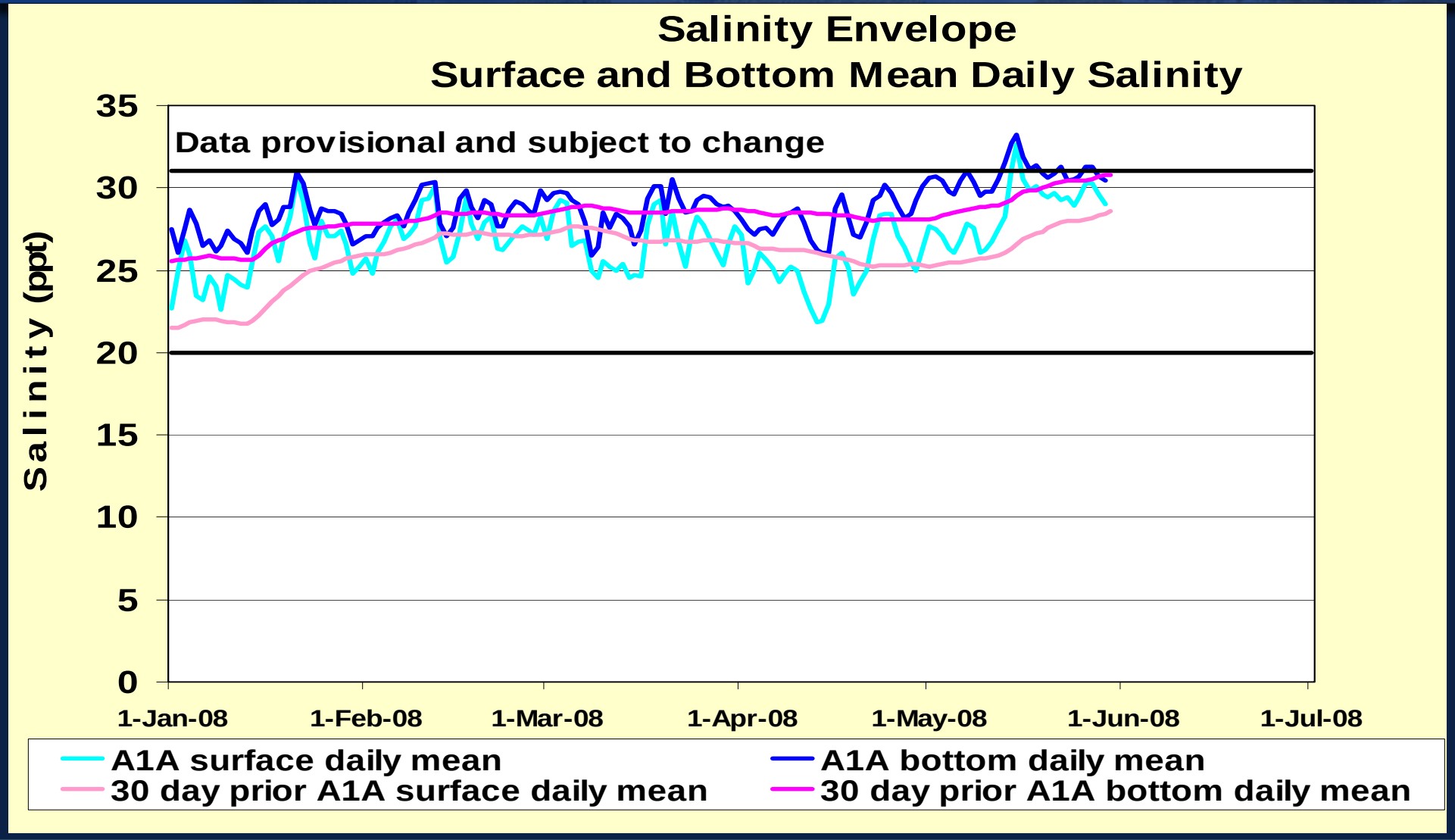
- No discharge from S-80 since September 28, 2006
- C-44 Basin runoff flowing back to the Lake
- Salinity influenced by runoff from other local basins


St. Lucie Estuary
S49
S97
S48
S80
Salinity Envelope
Atlantic Ocean
Indian River Lagoon
St. Lucie Estuary
FLA TPK
US 1
I 95
I 95
N
W
E
S
0 1 2 4 6 8
Kilometers

St. Lucie Estuary Salinity: US 1 Bridge



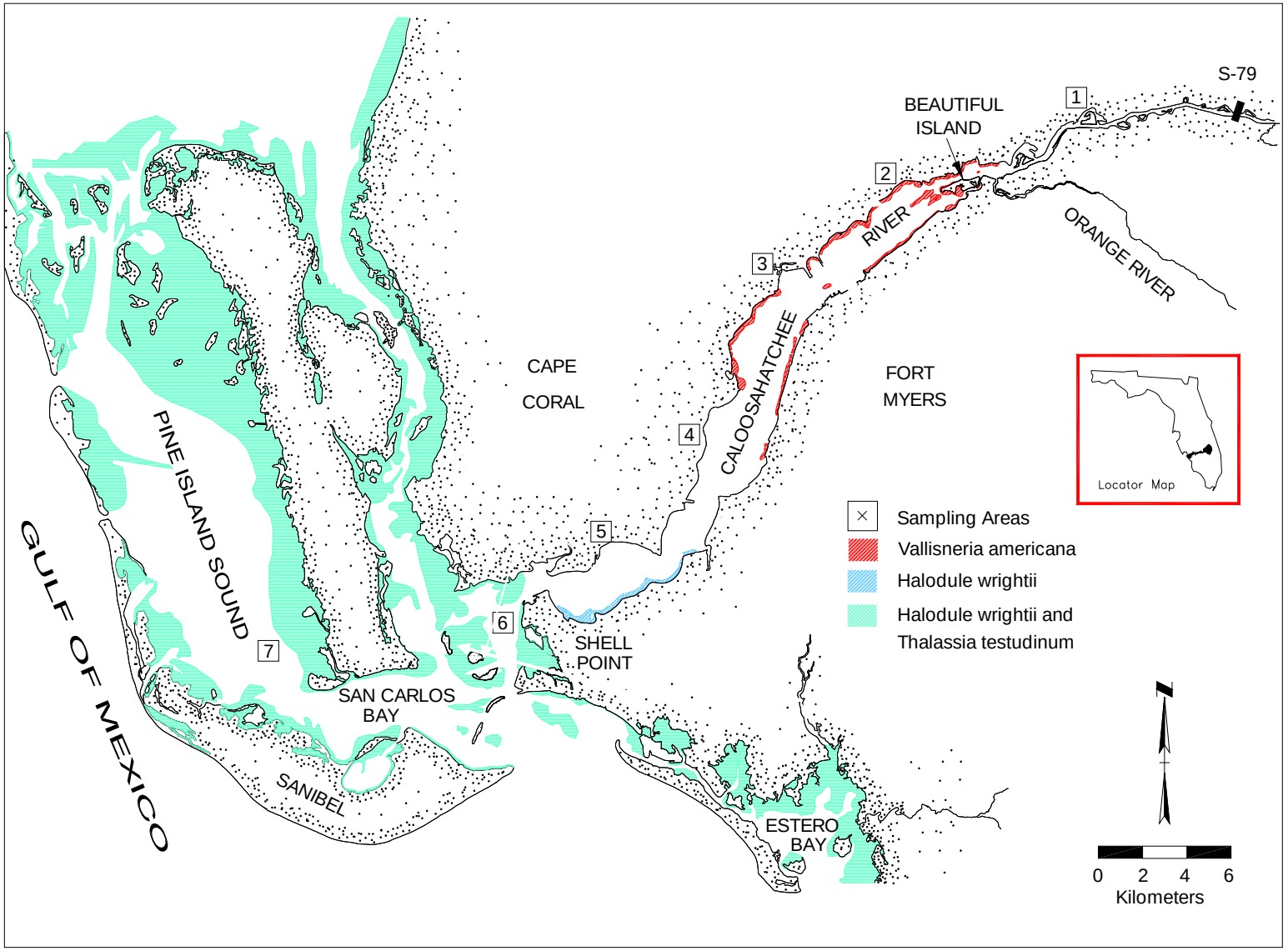
St. Lucie Estuary Salinity : A1A Bridge



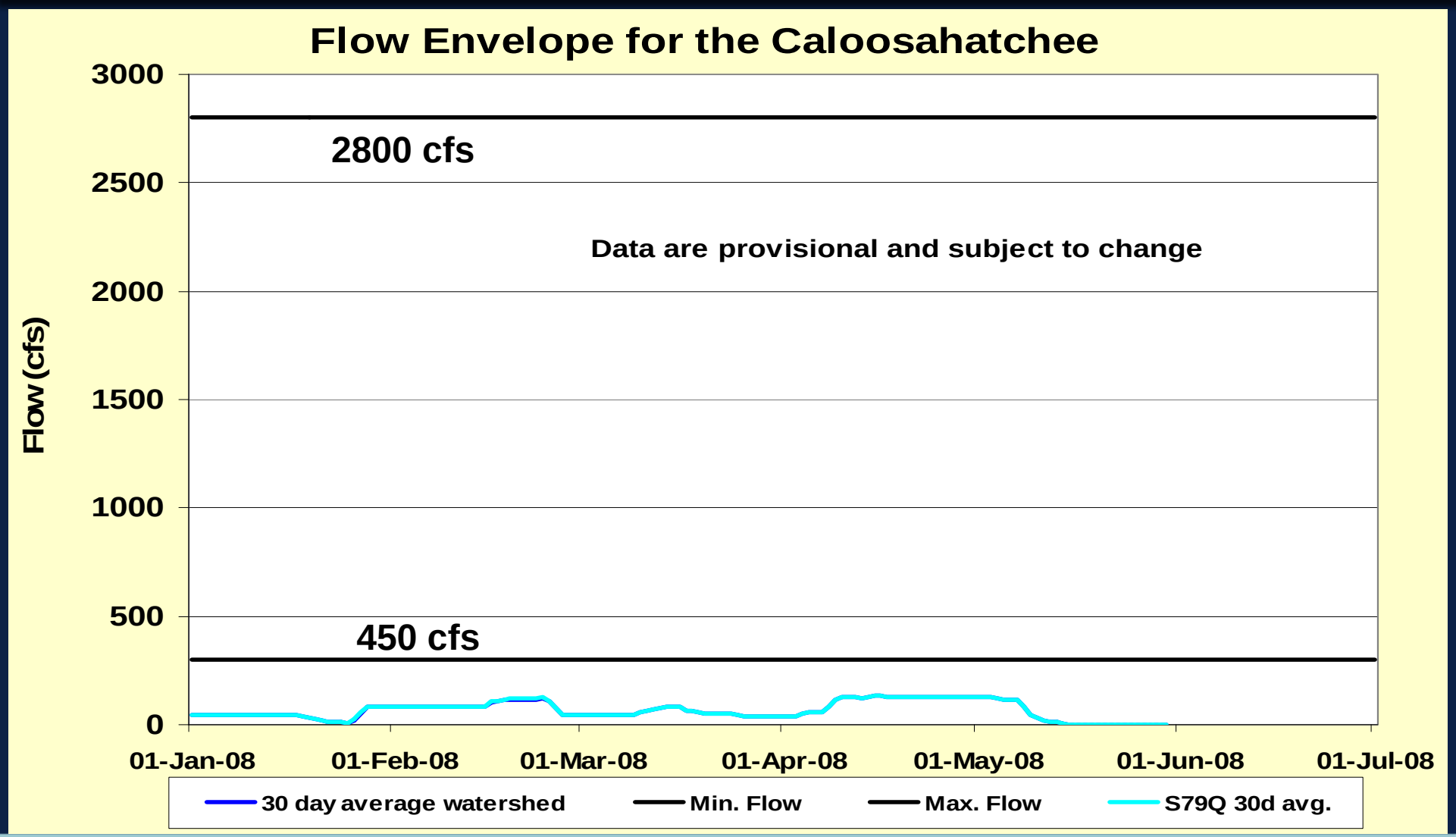
Caloosahatchee Estuary - Operations

- **No significant discharges from Lake Okeechobee to the Caloosahatchee at S-79 since February 15, 2007**

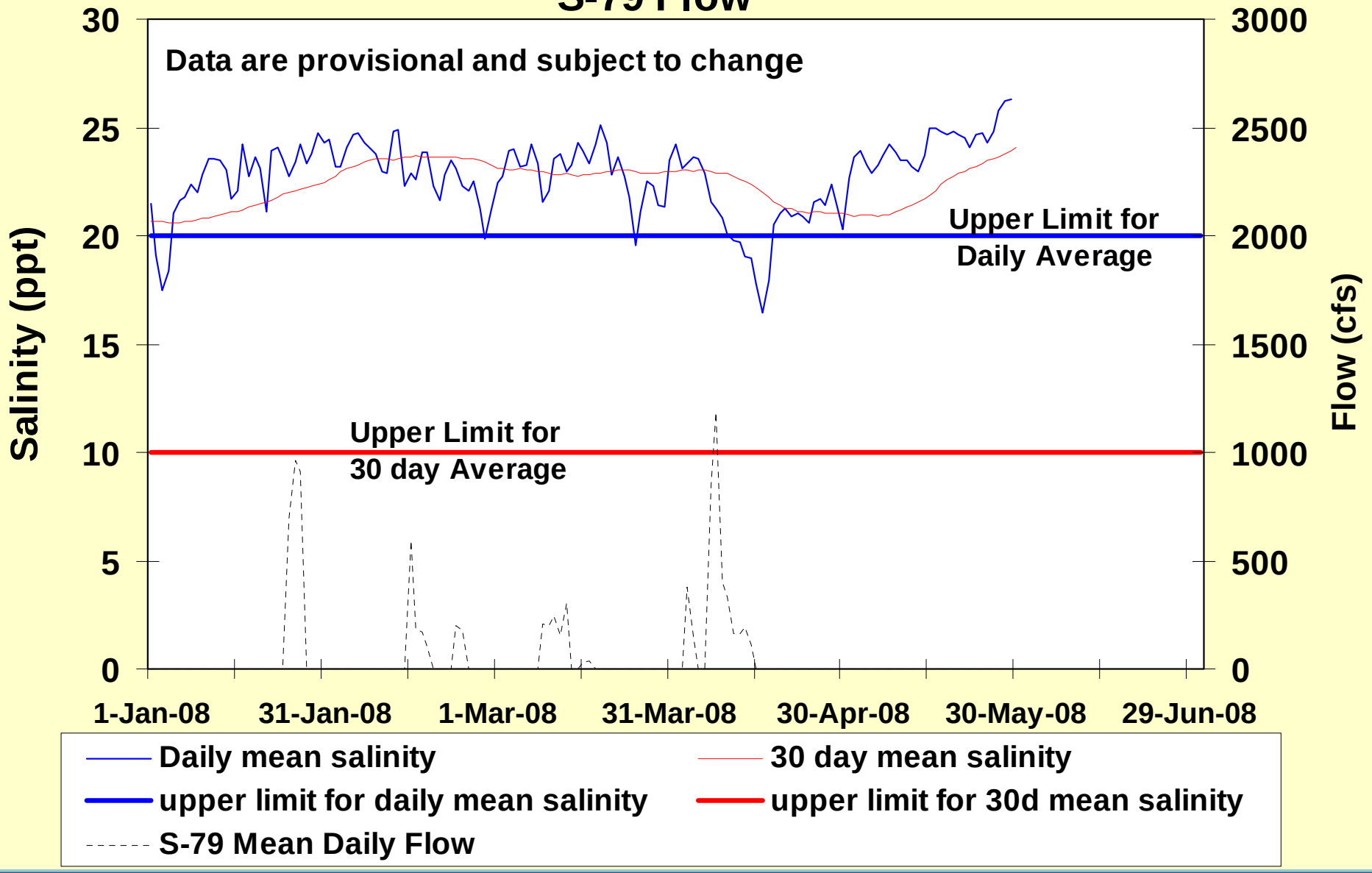
- **Salinity influenced by runoff from West Caloosahatchee Basin (S-78 to S-79) and local Tidal Basin**

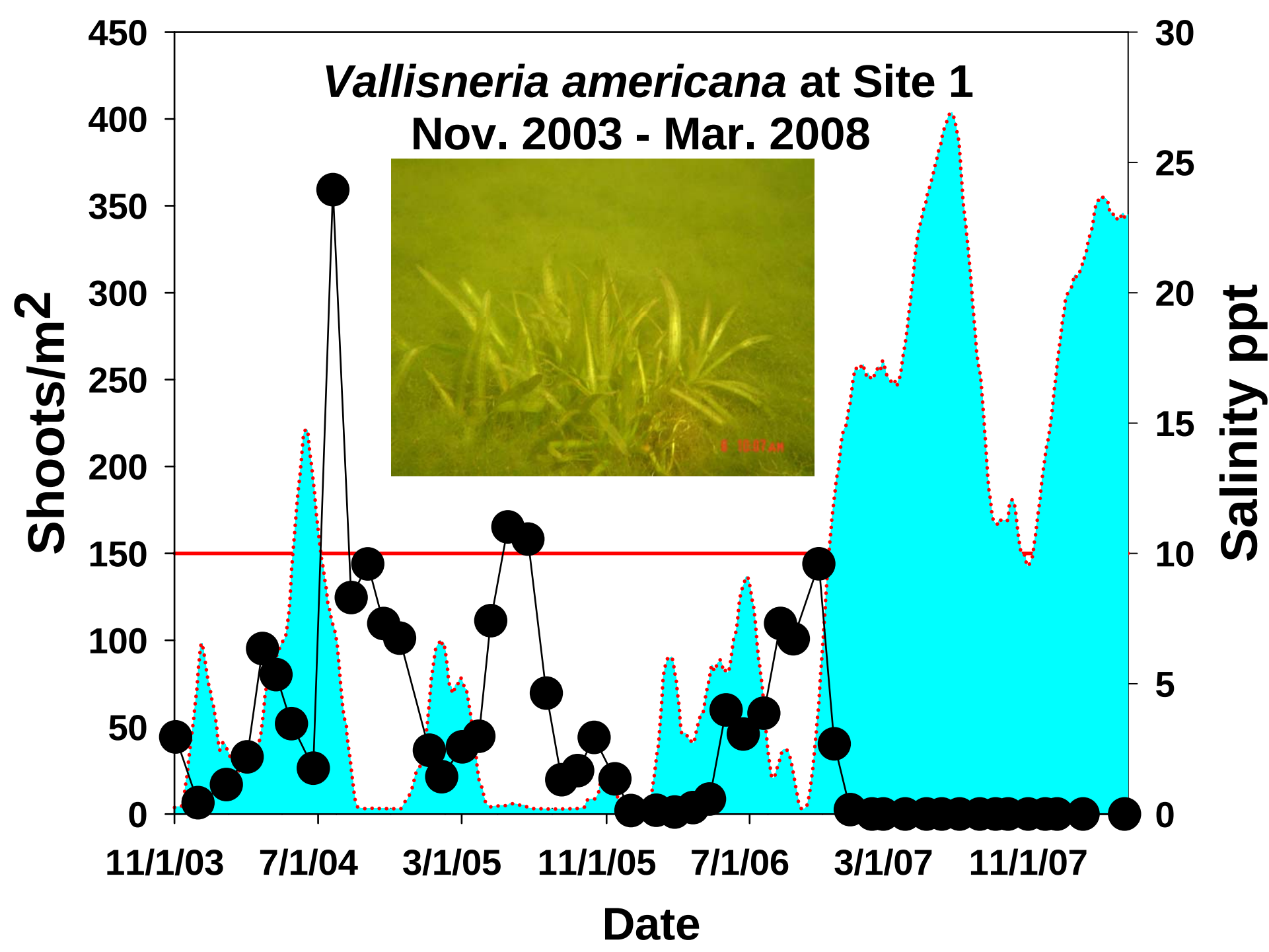

S-79
BEAUTIFUL ISLAND
1
2
3
4
5
6
7
RIVER
ORANGE RIVER
CALOOSAHATCHEE
CAPE CORAL
FORT MYERS
PINE ISLAND SOUND
GULF OF MEXICO
SHELL POINT
SAN CARLOS BAY
SANIBEL
ESTERO BAY
Locator Map
Sampling Areas
Vallisneria americana
Halodule wrightii
Halodule wrightii and Thalassia testudinum
0 2 4 6
Kilometers

Caloosahatchee Salinity: S-79



Surface Salinity at Ft. Myers: MFL
S-79 Flow




Vallisneria americana at Site 1
Nov. 2003 - Mar. 2008
Shoots/m2
Salinity ppt
Date
450
400
350
300
250
200
150
100
50
0
30
25
20
15
10
5
0
11/1/03
7/1/04
3/1/05
11/1/05
7/1/06
3/1/07
11/1/07

Halodule wrightii at Stations 5, 6, 7, and 8
January 2004 - March 2008

Station 5
Station 6
Station 7
Station 8

Shoots/m2

1400
1200
1000
800
600
400
200
0

1/1/04 7/1/04 1/1/05 7/1/05 1/1/06 7/1/06 1/1/07 7/1/07 1/1/08

Date

Oysters in the Caloosahatchee

Oyster density the past 5 years has been relatively stable

Drought conditions have resulted in:

- **Probable expansion of oyster distribution to upstream locations, but…**
- **Disease and predation pressure on adult and juvenile oysters has increased; larval recruitment an order of magnitude lower in 2007 compared to previous years**

Tape Grass Restoration in Caloosahatchee River

- **Establish a viable reproductive population of Tape Grass (*Vallisneria americana*) above the Franklin Lock and Dam (S-79)**

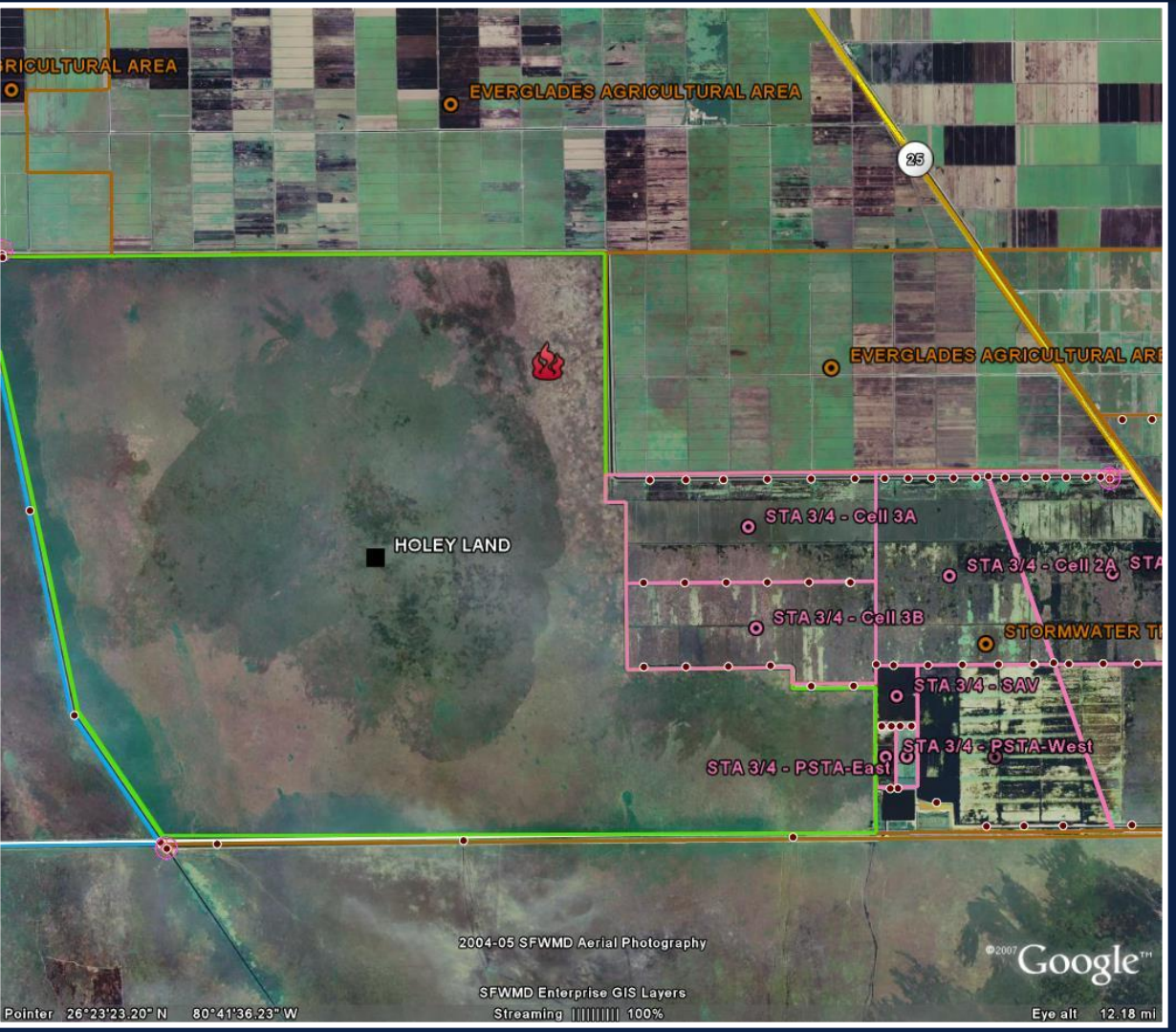
Algae Bloom in the Caloosahatchee

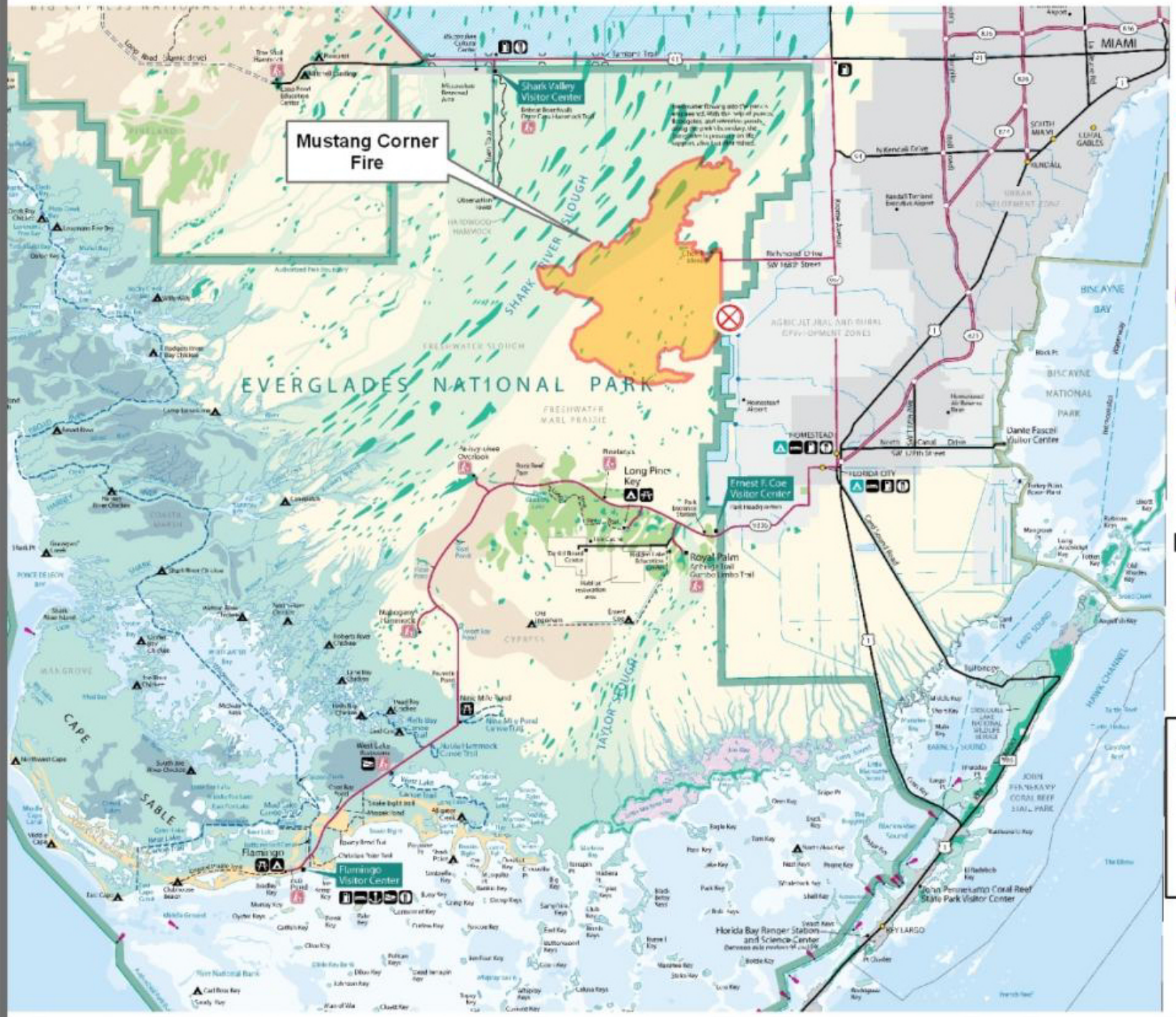
Black-Necked Stilts Nesting in STAs

STA-2 Cell 4

Typical Stilt Nest

Fire in Holey Land Wildlife Management Area

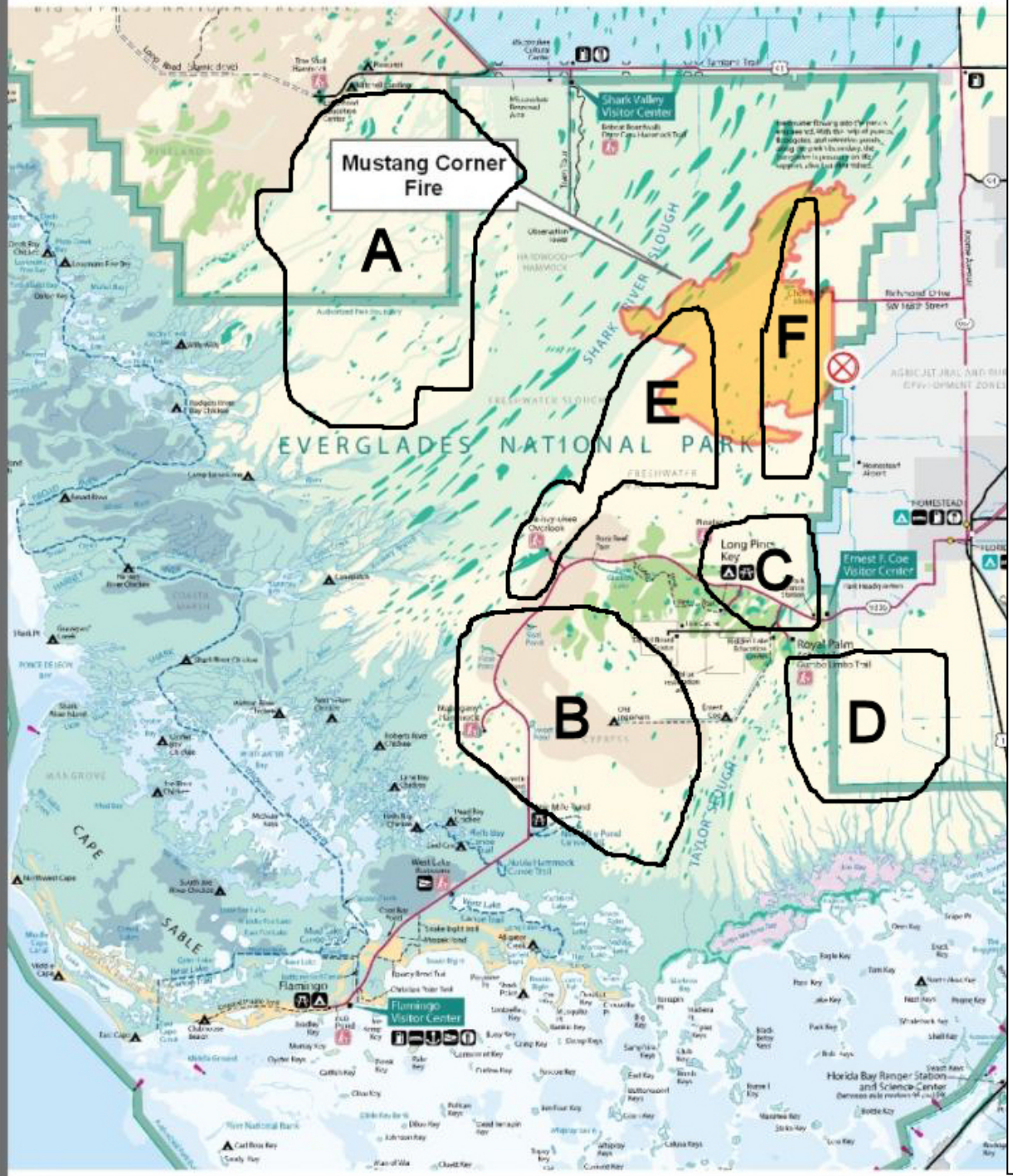




MUSTANG CORNER FIRE
39,465 ACRES

PUBLIC INFORMATION

MAY 22, 2008

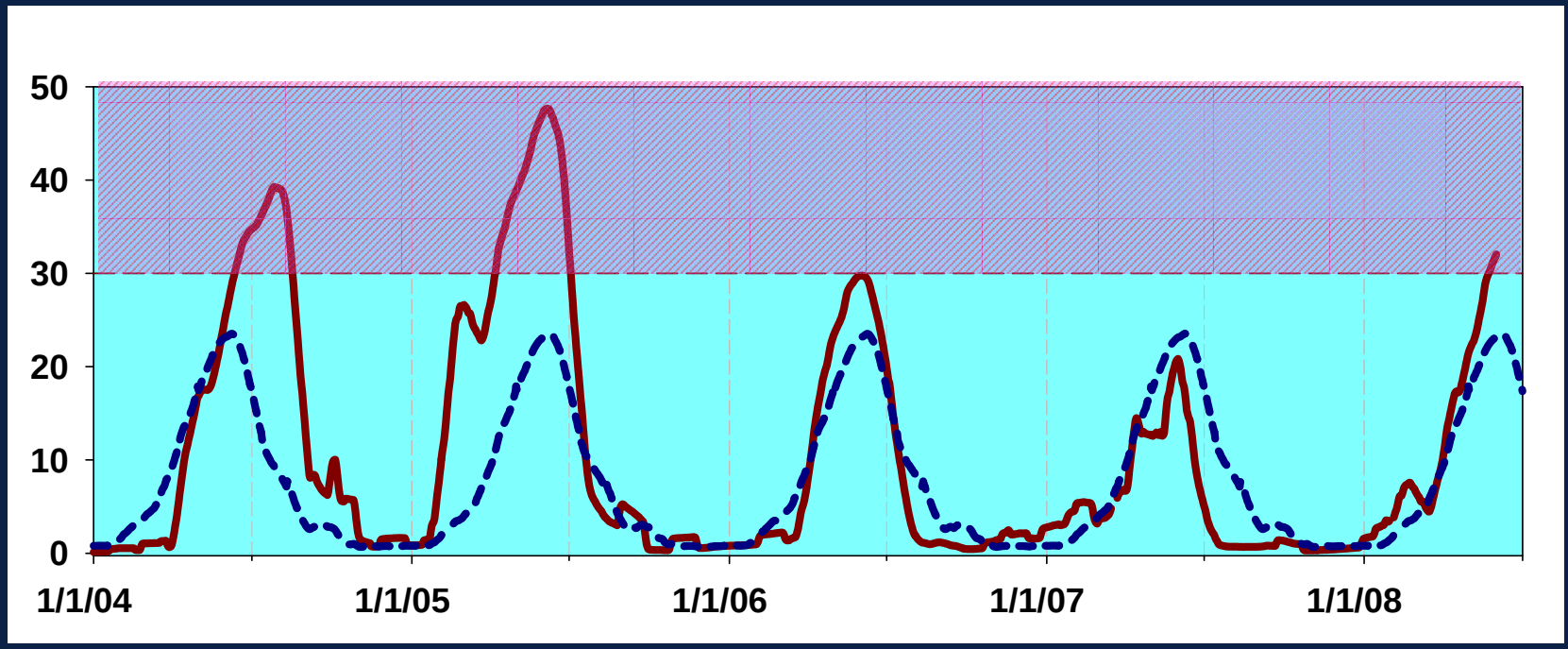


Cape Sable Seaside Sparrow

- The fire burned a portion of sparrow population F and population E
- Effects on nesting, however, are likely to be minimal given this year's lack of nesting activity in population F and low nesting efforts in northern population E
- Population, B, which contains approximately 2000 nests and is having a relatively successful nesting season, is not at risk from the fire
- Post-fire surveys will be conducted by ENP staff to determine the fates of nests in population E


2008.05.17

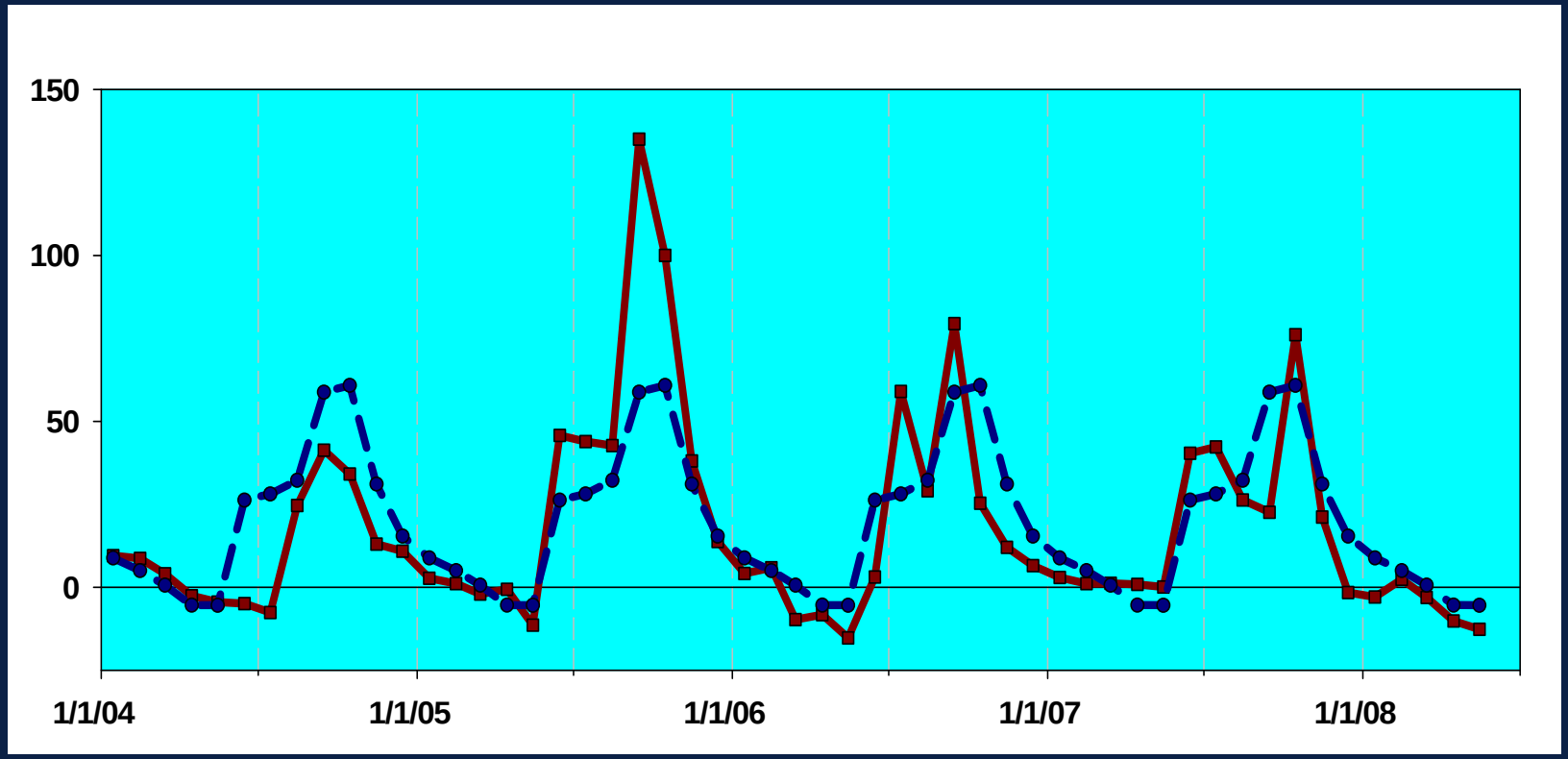
Tracking salinity in mangrove ponds for Florida Bay MFL criteria



Daily value at Taylor River – red line

Long-term mean (WY97 – 07) – dashed line

5 Creek Discharge into Florida Bay



Monthly flow – red line

Long-term mean monthly flow (WY97 – 07) – dashed line