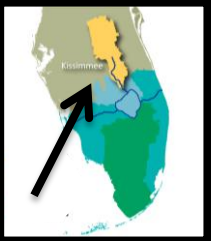
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Governing Board Meeting
August 11, 2011

Ecological Conditions Update

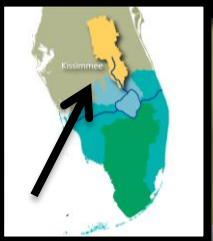
Terrie Bates

Director, Water Resources Division



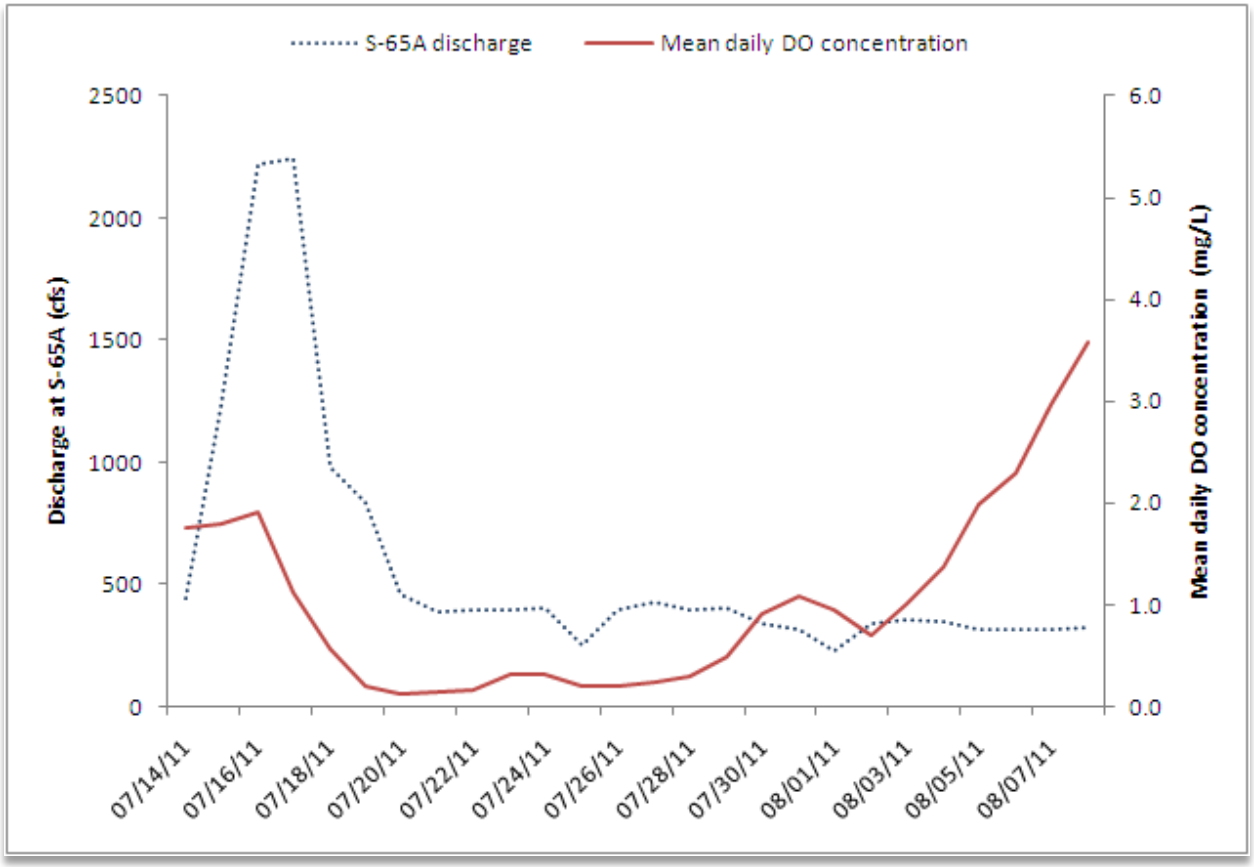
Kissimmee Basin

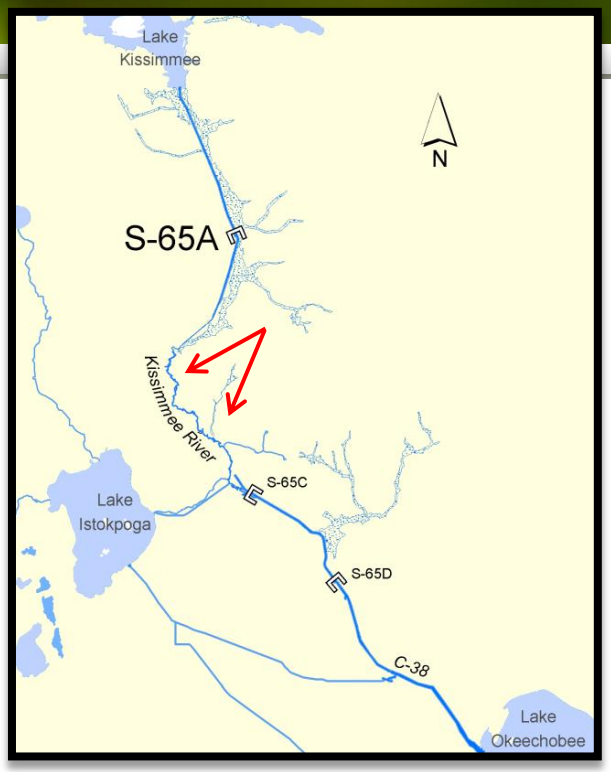
Thunderheads over Lake Toho in July



Kissimmee Basin

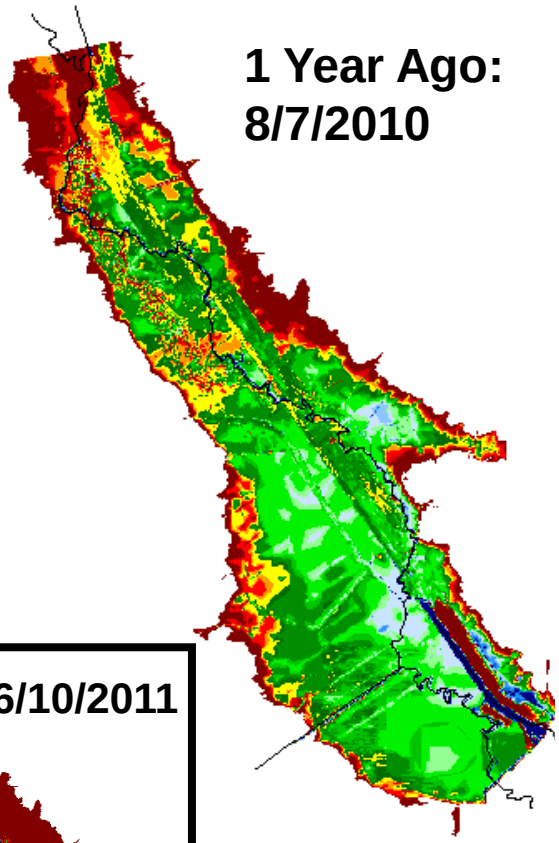
Increase in discharge at S-65A drops Dissolved Oxygen Levels

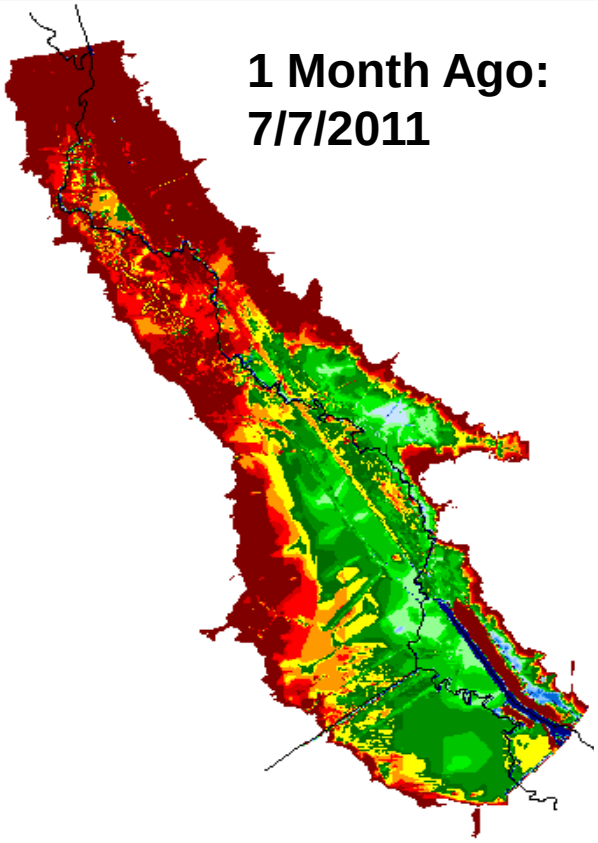


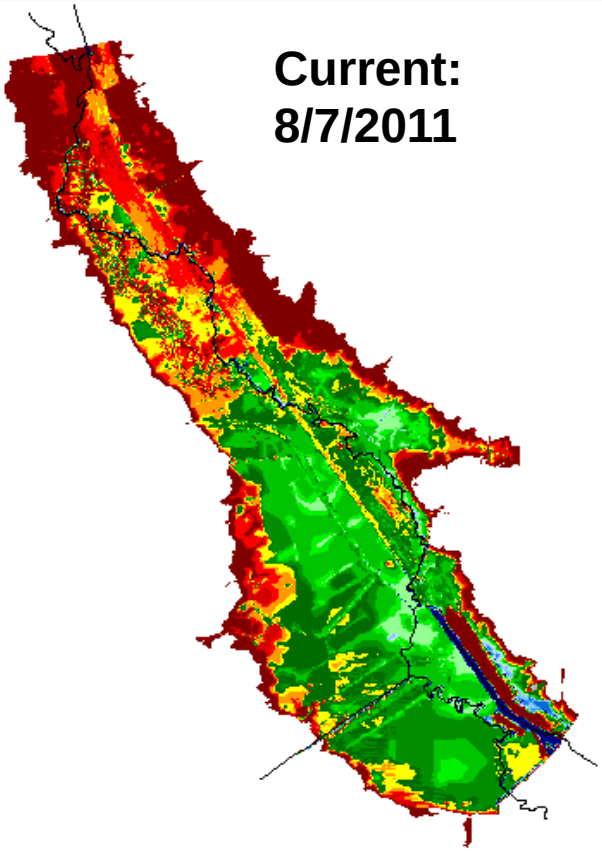


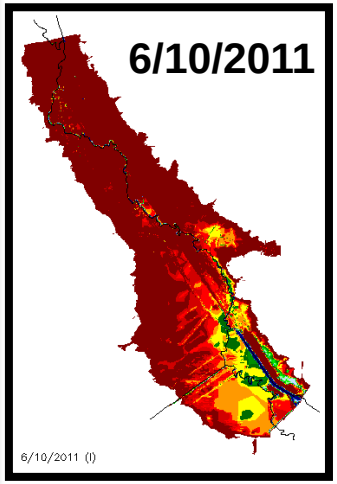
Kissimmee Basin

Kissimmee River Floodplain Water Depth Maps

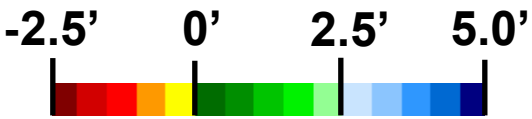






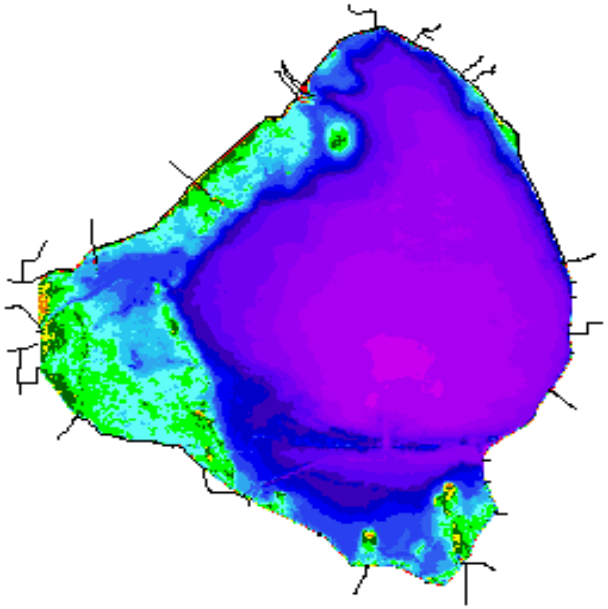


Water Depth (feet)



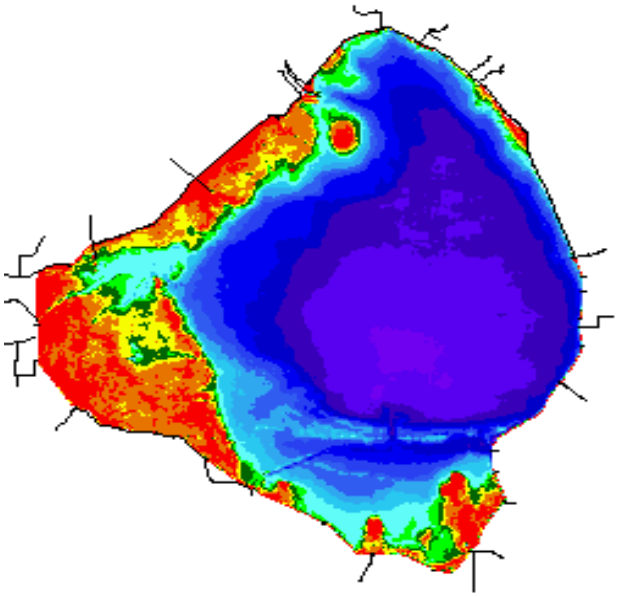
Lake Okeechobee
Water Depth Timeseries Maps

1 Year Ago: 08/08/2010



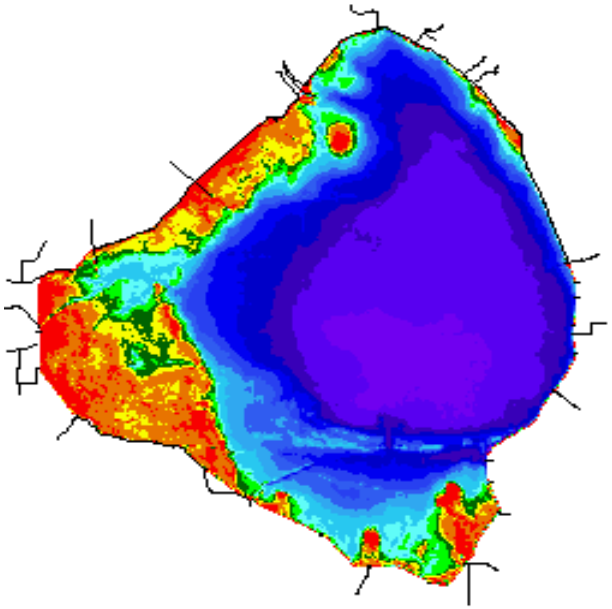
(13.78 ft NGVD29)

1 Month Ago: 07/08/2011



(9.92 ft NGVD29)

Current: 08/08/2011

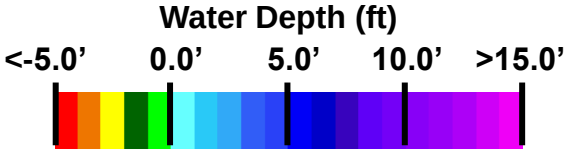


(10.28 ft NGVD29)

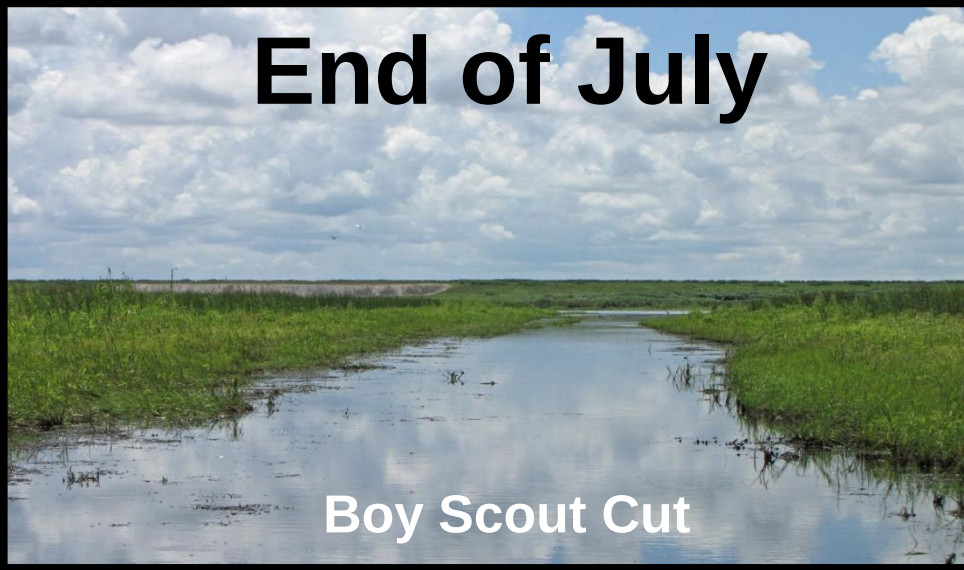
Lowest lake stage this year:
9.53 ft NGVD29 (06/24/11)

Record low lake stage:
8.82 ft NGVD29 (7/2/07)

CURRENT LAKE LEVEL:
(10.29 ft NGVD29 08/10/11)



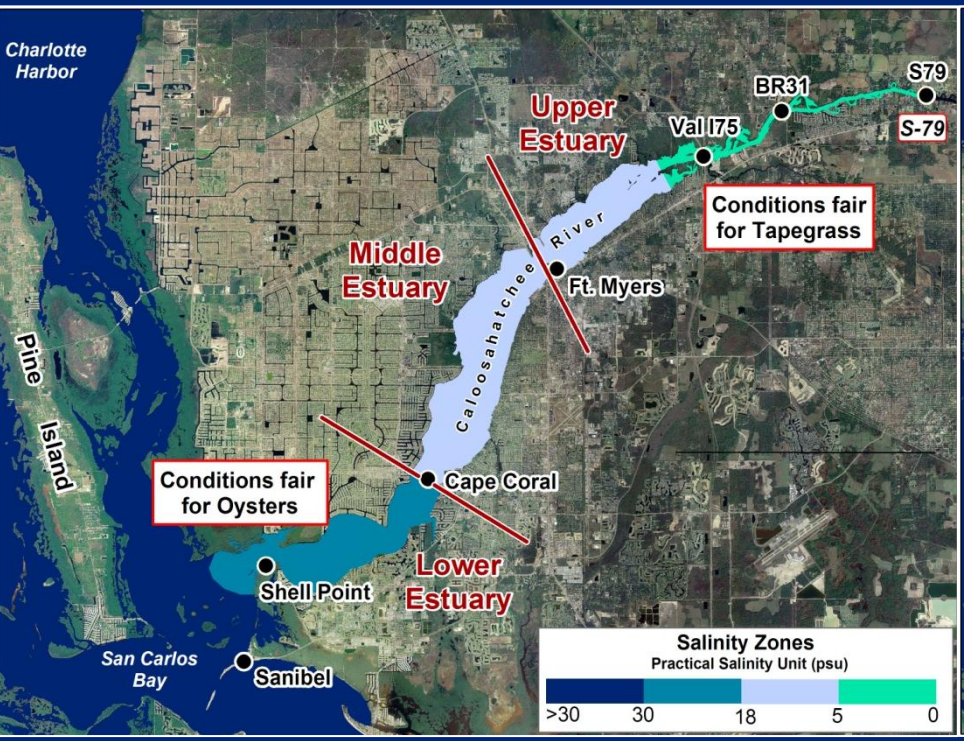
Lake Okeechobee



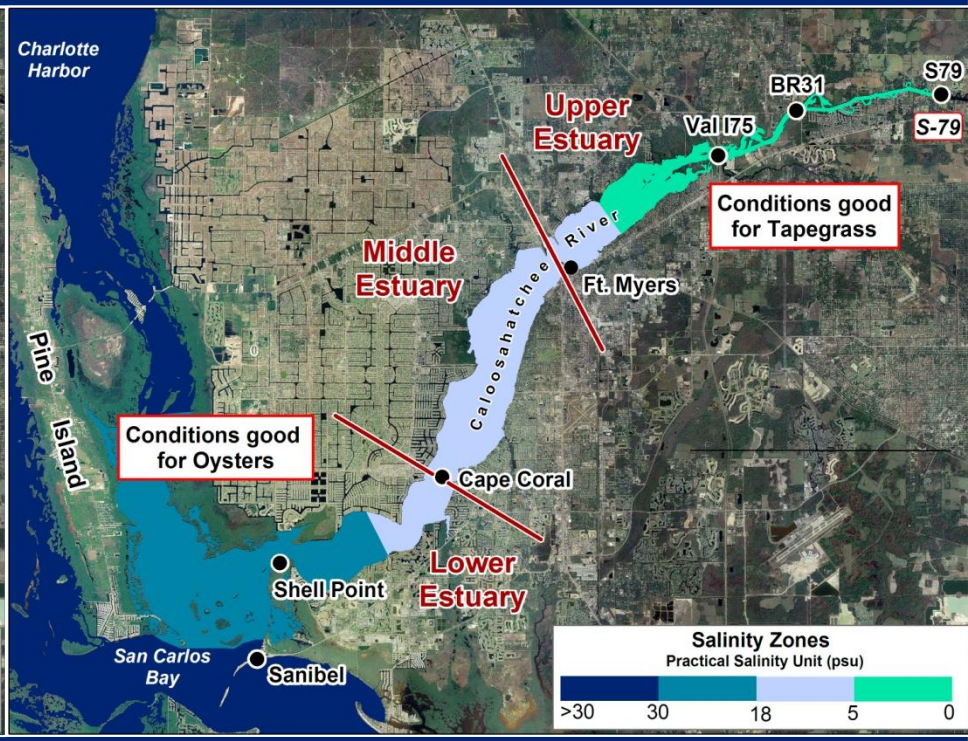
Caloosahatchee Estuary

Salinity Conditions

July 11, 2011



August 8, 2011

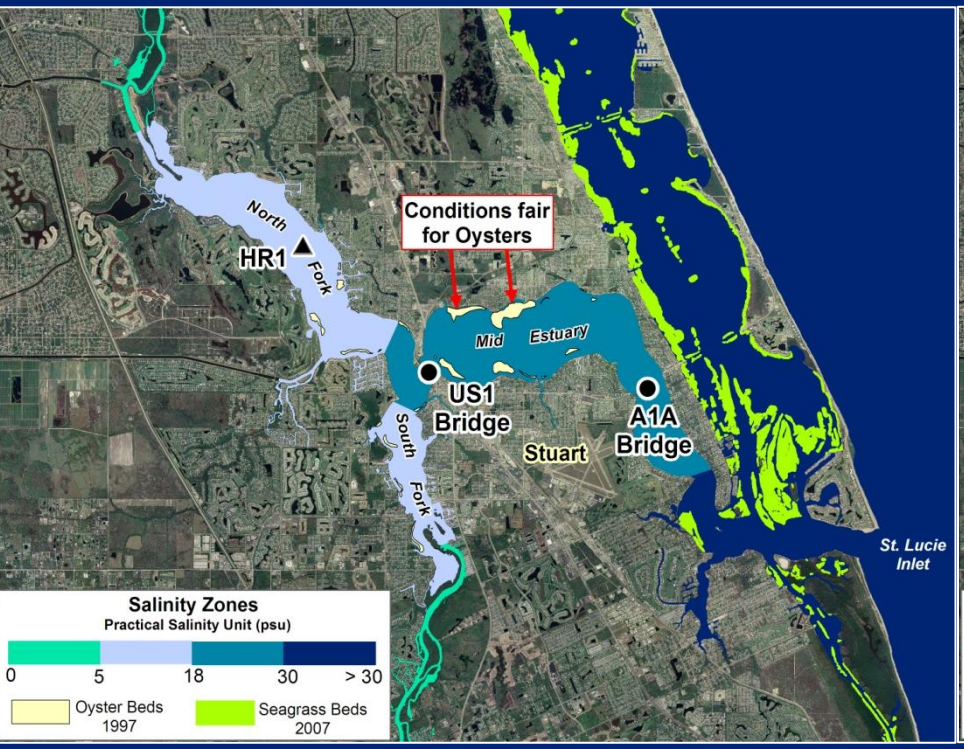


NOTE: Optimal Range for Oysters: 14 – 28 psu Optimal Range for Tape Grass: 0 – 5 psu

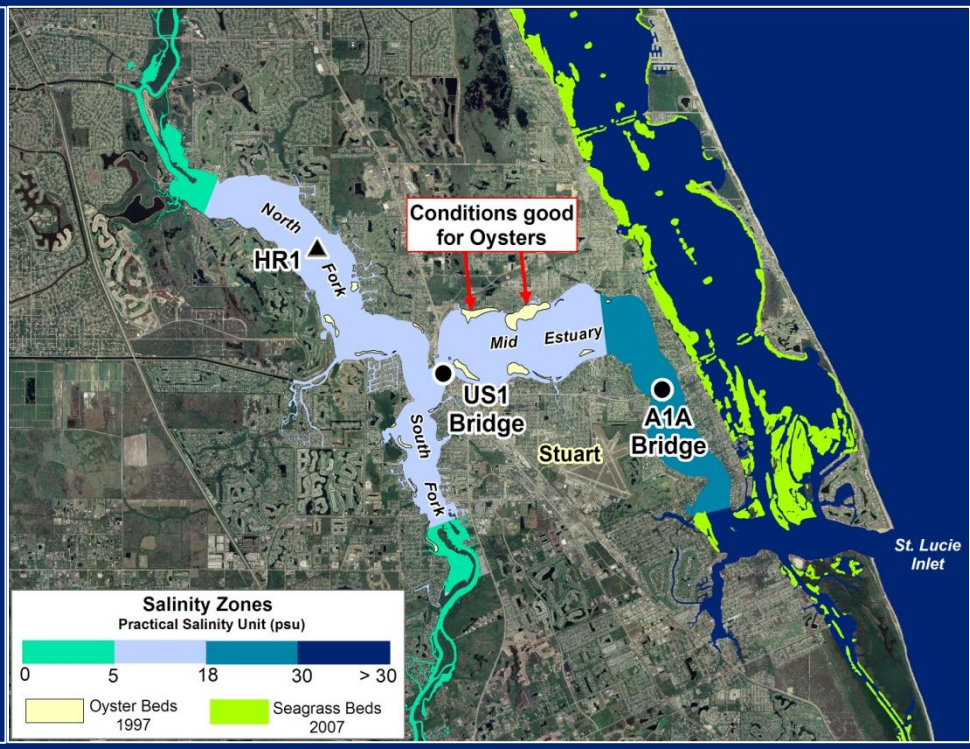
St. Lucie Estuary

Salinity Conditions

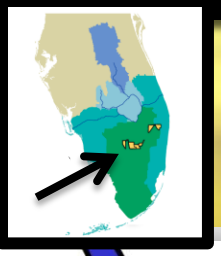
July 11, 2011



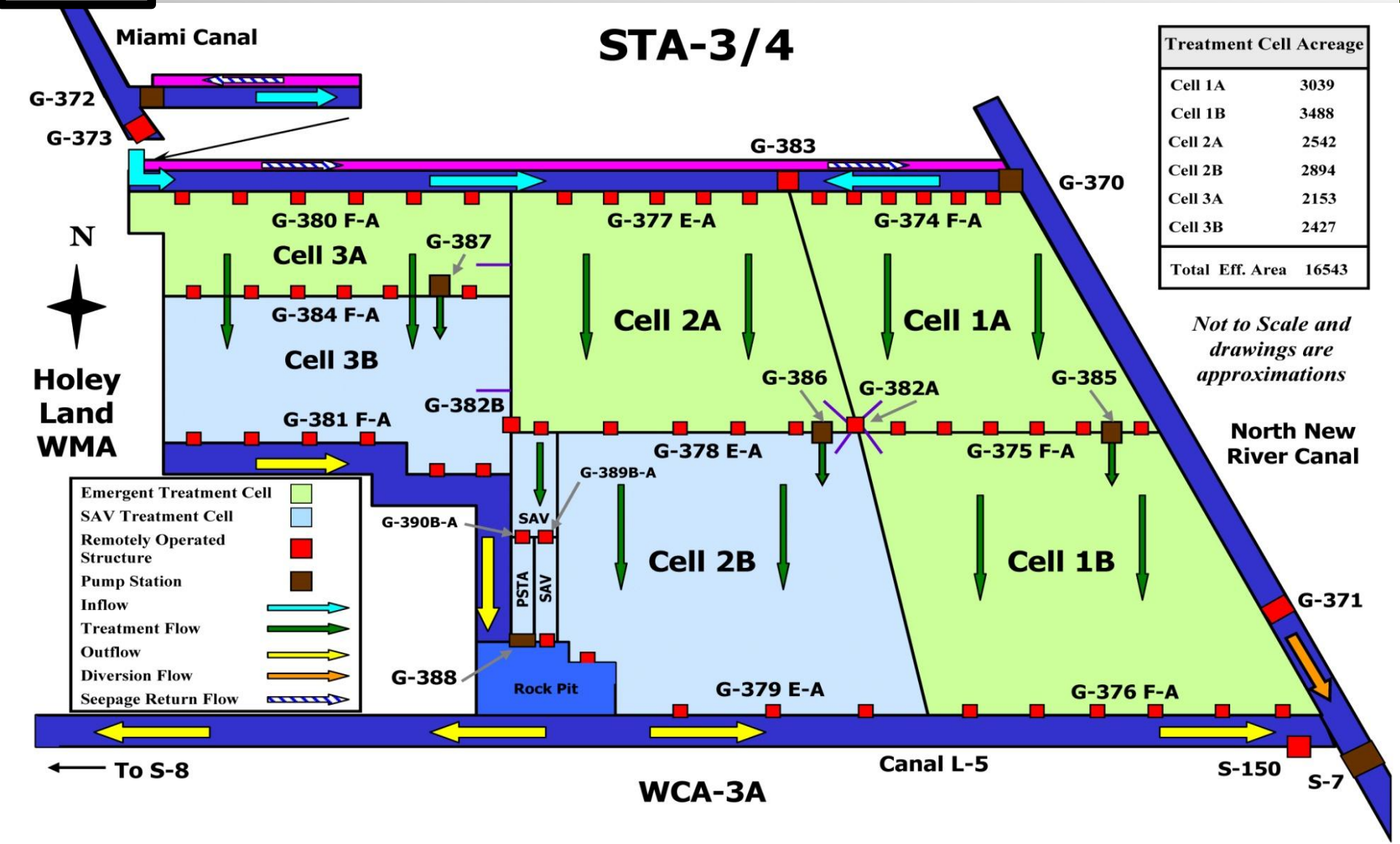
August 8, 2011



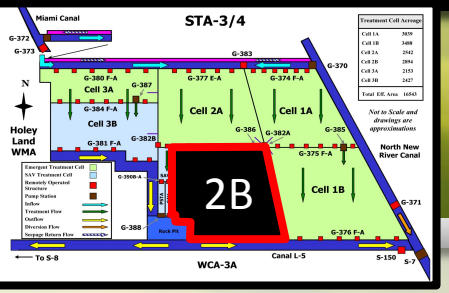
NOTE: Optimal Range for Oysters: 14 – 28 psu



Stormwater Treatment Area 3/4



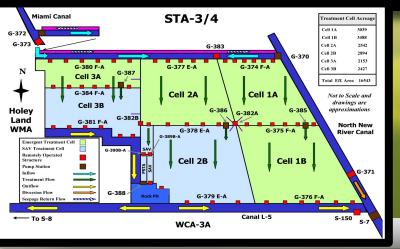
Treatment Cell Acreage	
Cell 1A	3039
Cell 1B	3488
Cell 2A	2542
Cell 2B	2894
Cell 3A	2153
Cell 3B	2427
Total Eff. Area	16543



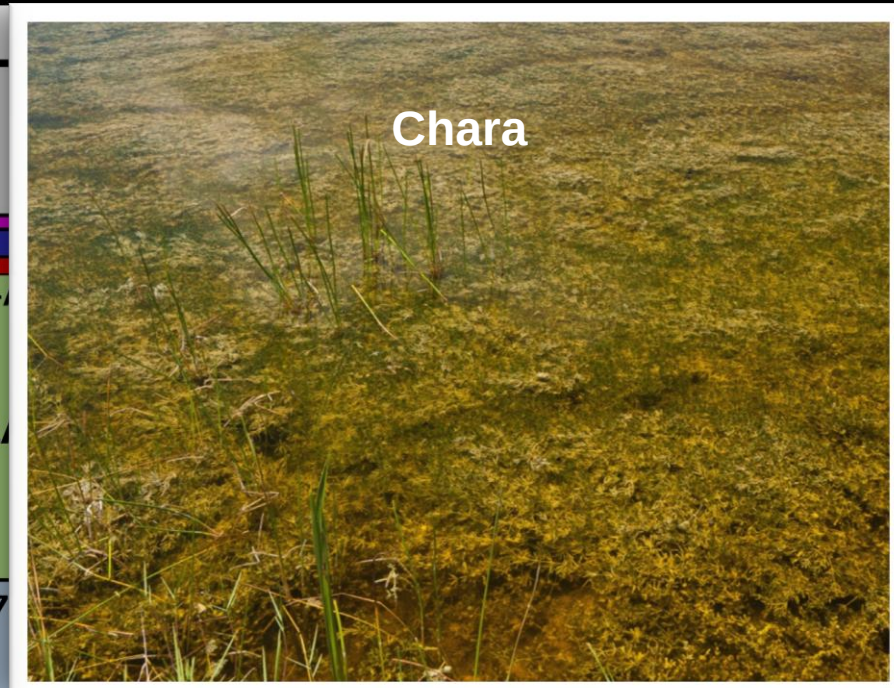
Stormwater Treatment Area 3/4

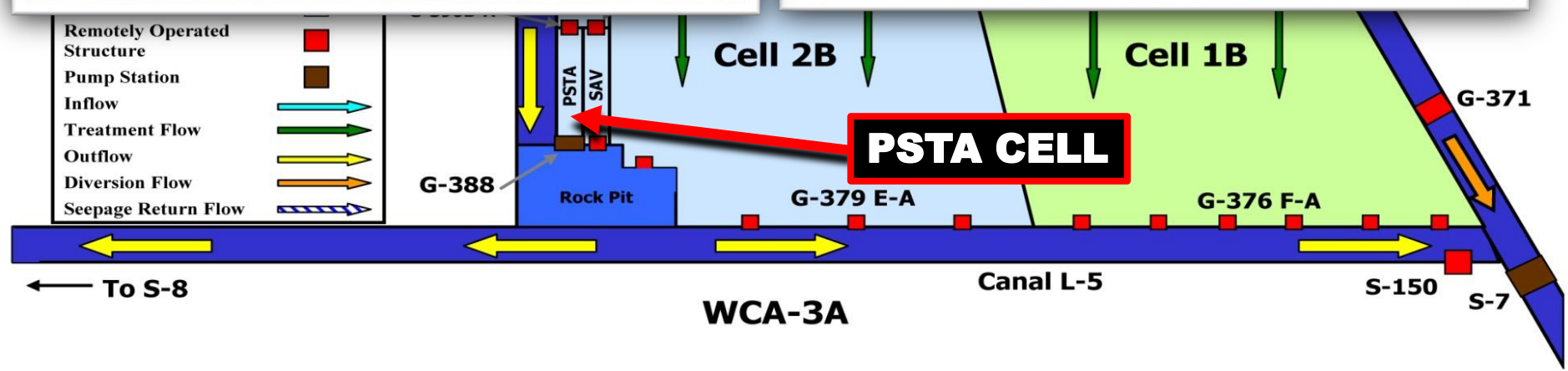
Dr. ShiLi Miao examining new cattail growth (8/5/11)

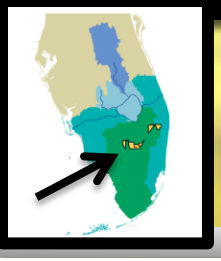
New Chara growth in the southern portion of Cell 2B, post dry out (8/5/11)



Stormwater Treatment Area 3/4, PSTA Cell







STA 2 Schematic

STA-2

S-6
G-338
L-7 CANAL
HILLSBORO CANAL
G-328
G-339
G-336 F-A
G-337
G-434
G-438 A-E
G-438 F-J
Cell 5
Cell 6
G-337A
G-333 E-A
G-329 D-A
Cell 2
G-443B
G-443A
G-367 F-A
Cell 3
Cell 1
North New River Canal
STA-3/4
Cell 4
L-6 CANAL
G-330 E-A
G-368
G-334
G-335
G-436
G-441
G-435
G-333 A-F
Cell 7
Cell 8
G-336G
G-442
G-445
DEGRADED LEVEE
G-371
L-5 Canal
S-150
S-7
WCA-3A
WCA-2A
N

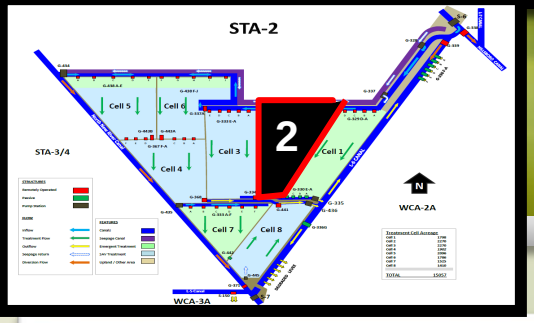
STRUCTURES
- Remotely Operated
- Passive
- Pump Station

FLOW
- Inflow
- Treatment Flow
- Outflow
- Seepage return
- Diversion Flow

FEATURES
- Canals
- Seepage Canal
- Emergent Treatment
- SAV Treatment
- Upland / Other Area

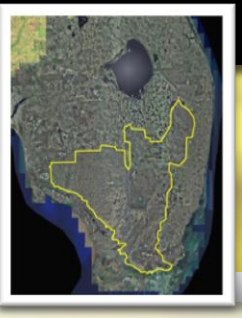
Treatment Cell Acreage

Cell 1	1798
Cell 2	2270
Cell 3	2270
Cell 4	1902
Cell 5	2096
Cell 6	1786
Cell 7	1525
Cell 8	1410
TOTAL	15057

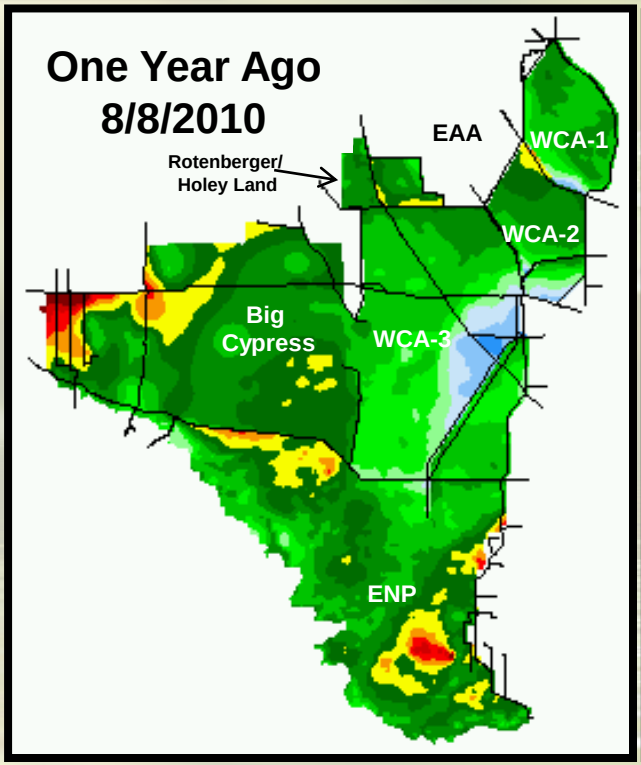


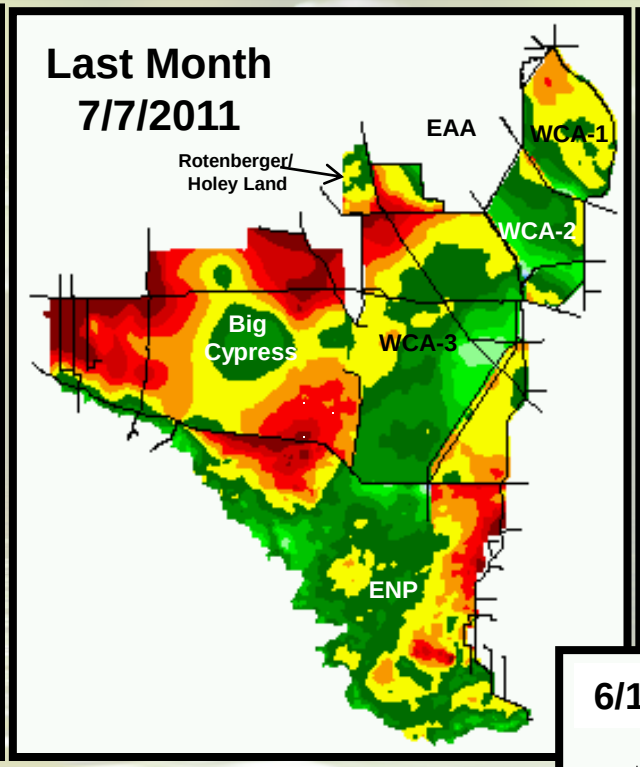
STA 2 Vegetation Conversion - Cell 2

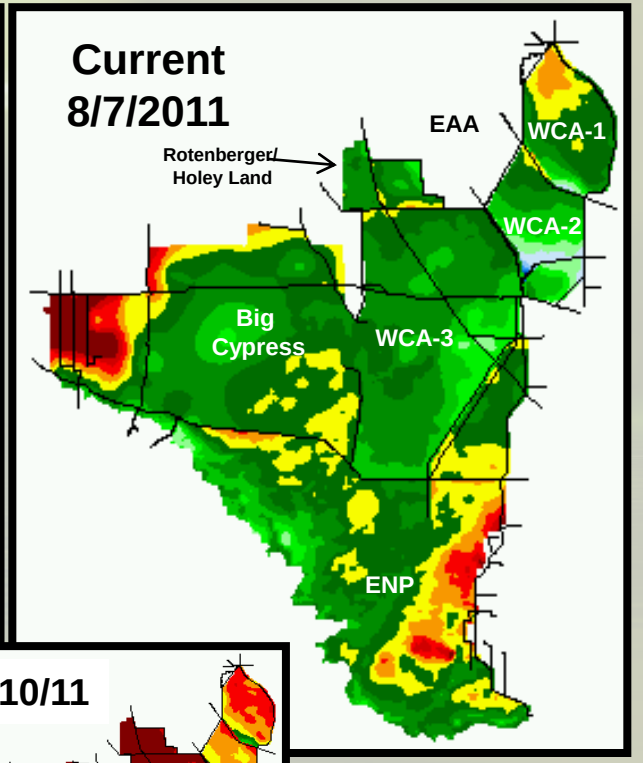
- Conversion of southernmost portion from cattail to submerged aquatic vegetation (SAV)
- Establishment of SAV has been slow, likely due to extreme hydrologic conditions
- Inoculation helps accelerate establishment of desired species

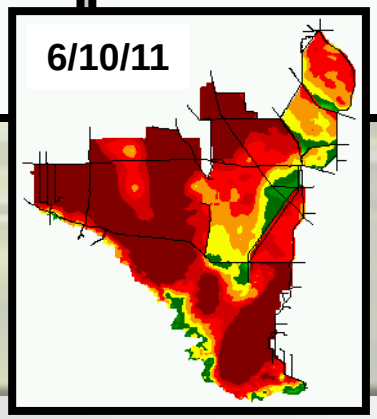


Greater Everglades
Water Depth Monthly Snapshots



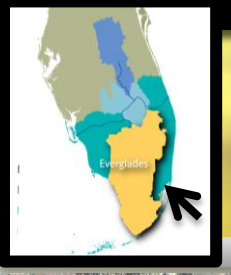




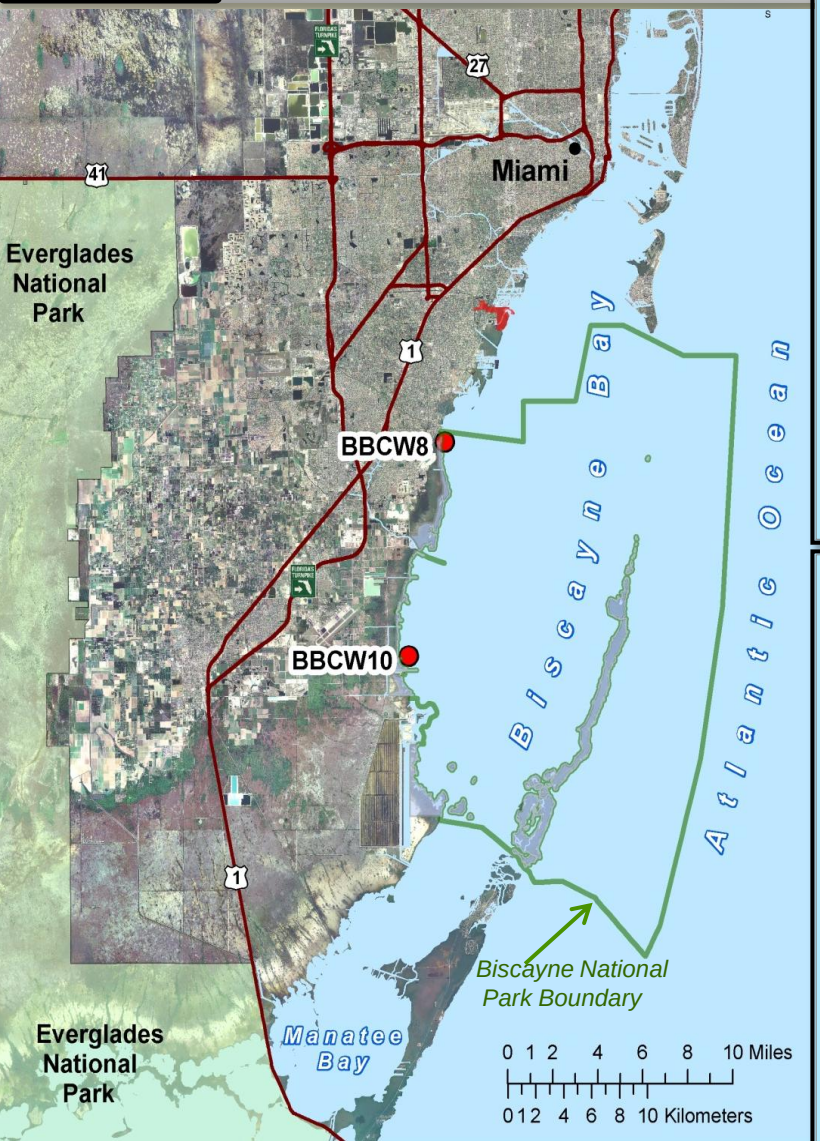


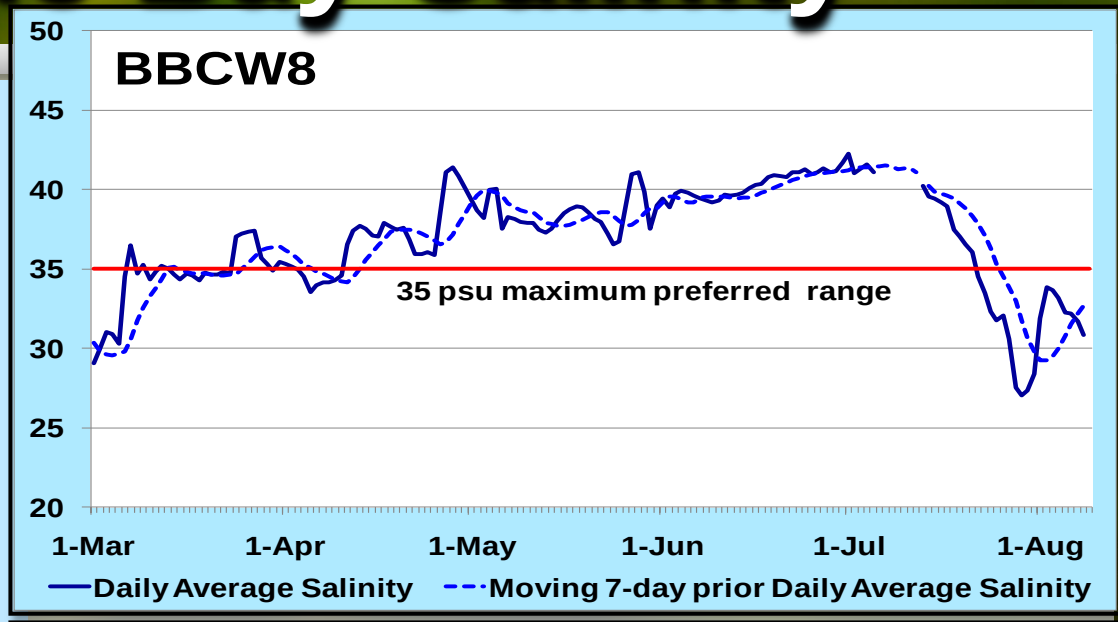
Water Depth (feet)

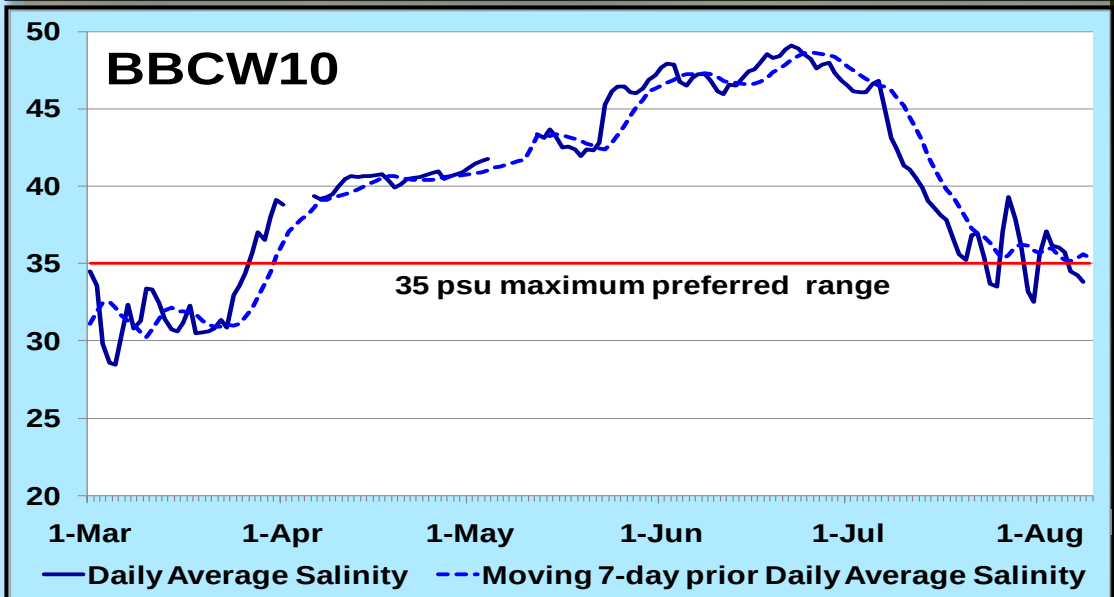
-2.5’ 0’ 2.5’ 5.0’



Biscayne Bay Salinity







Thank You