Florida Bay Current Conditions: Another Perfect Storm?

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Everglades Systems Assessment
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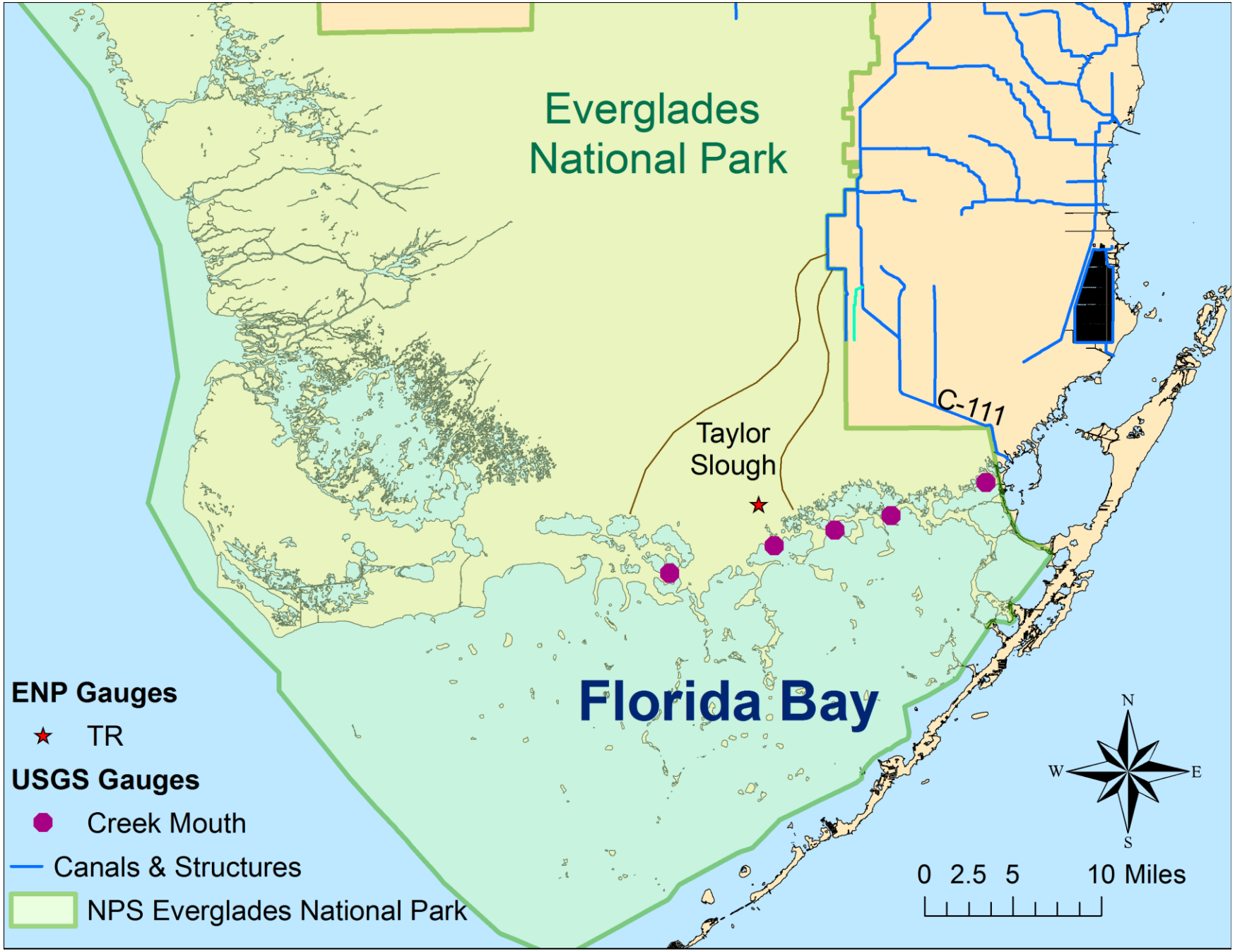
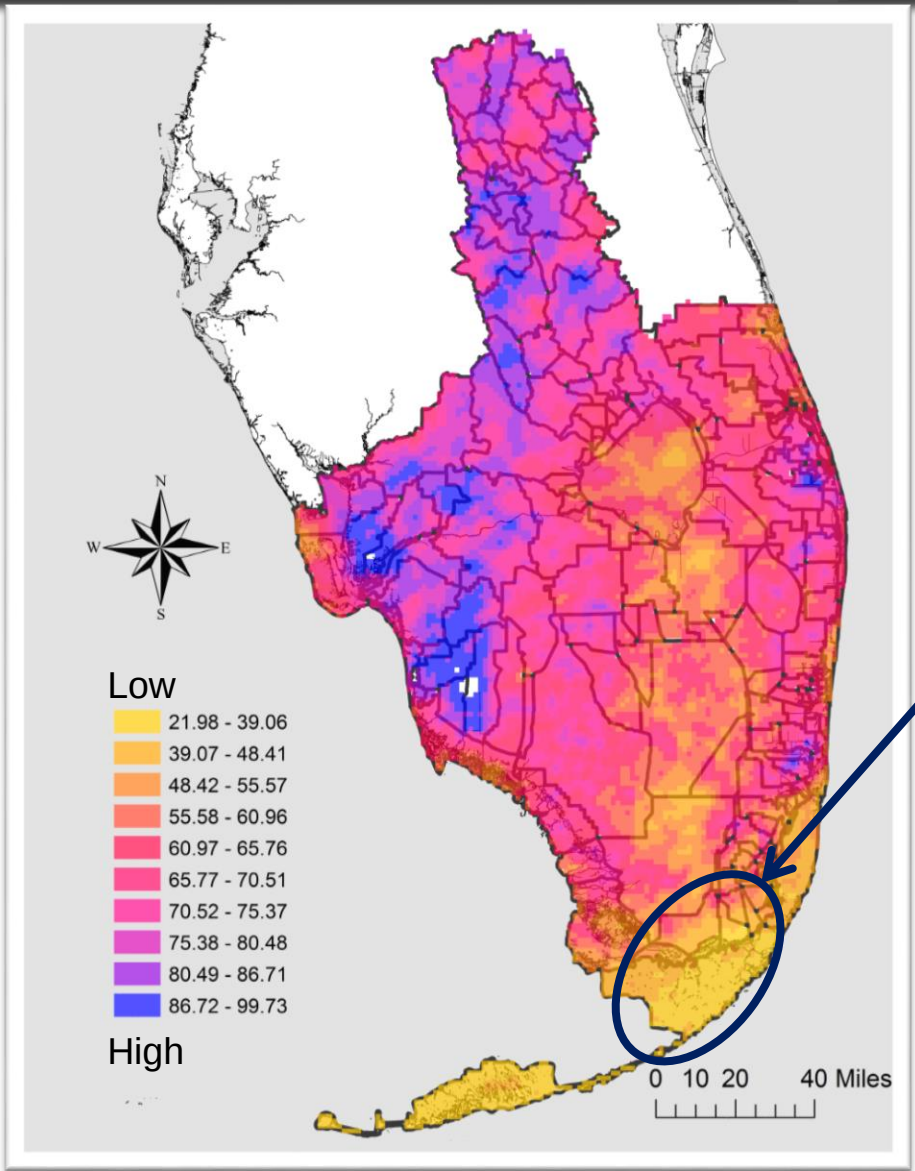

Everglades
National Park
C-111
Taylor
Slough
Florida Bay
ENP Gauges
TR
USGS Gauges
Creek Mouth
Canals & Structures
NPS Everglades National Park
N
W
E
S
0 2.5 5 10 Miles

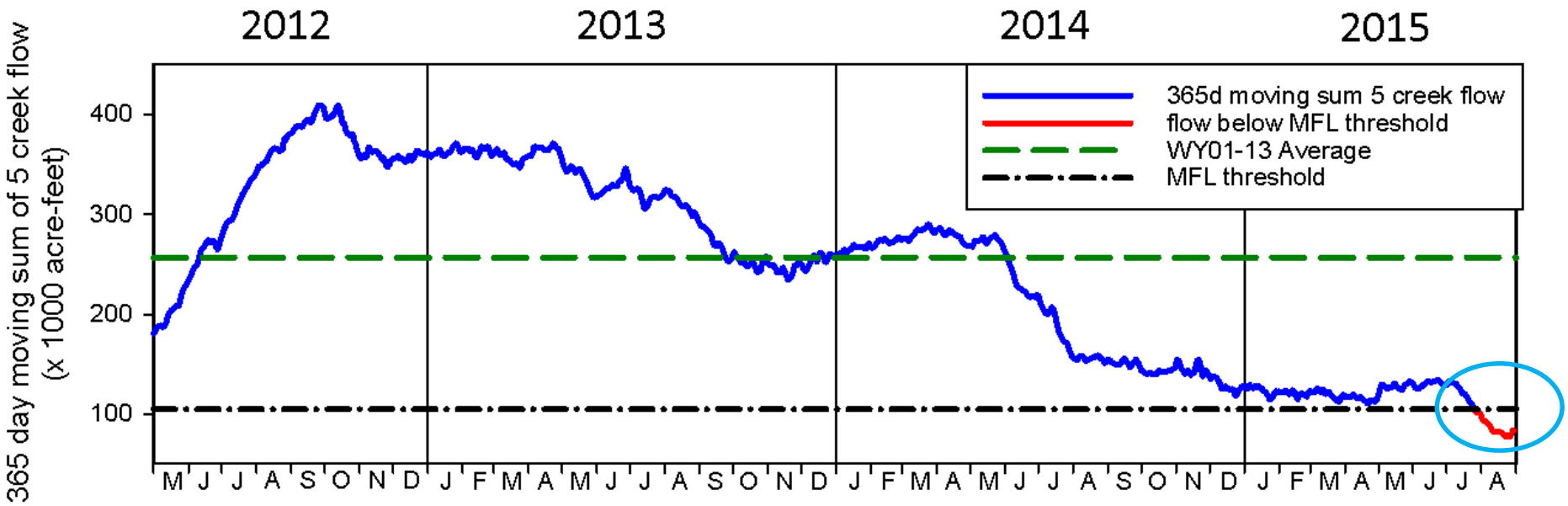
District Rainfall Distribution WY15 & WY16



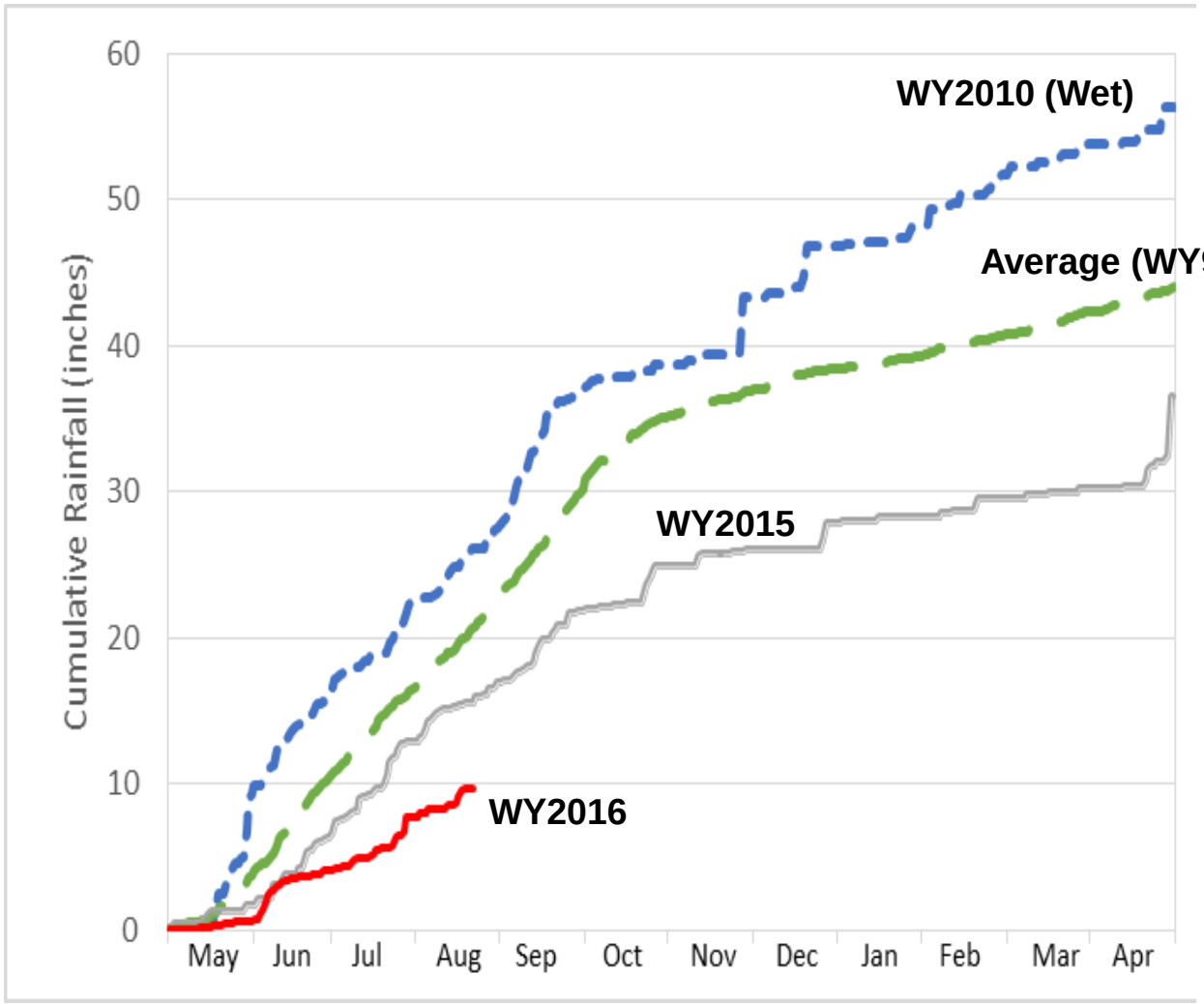
Radar estimated <u>total</u> rainfall from May 2014 through August 2015 show that

<u>Taylor Slough and Florida Bay</u>

received the lowest amounts of rainfall (25-35 in) compared to the rest of the SFWMD (80-90 in)

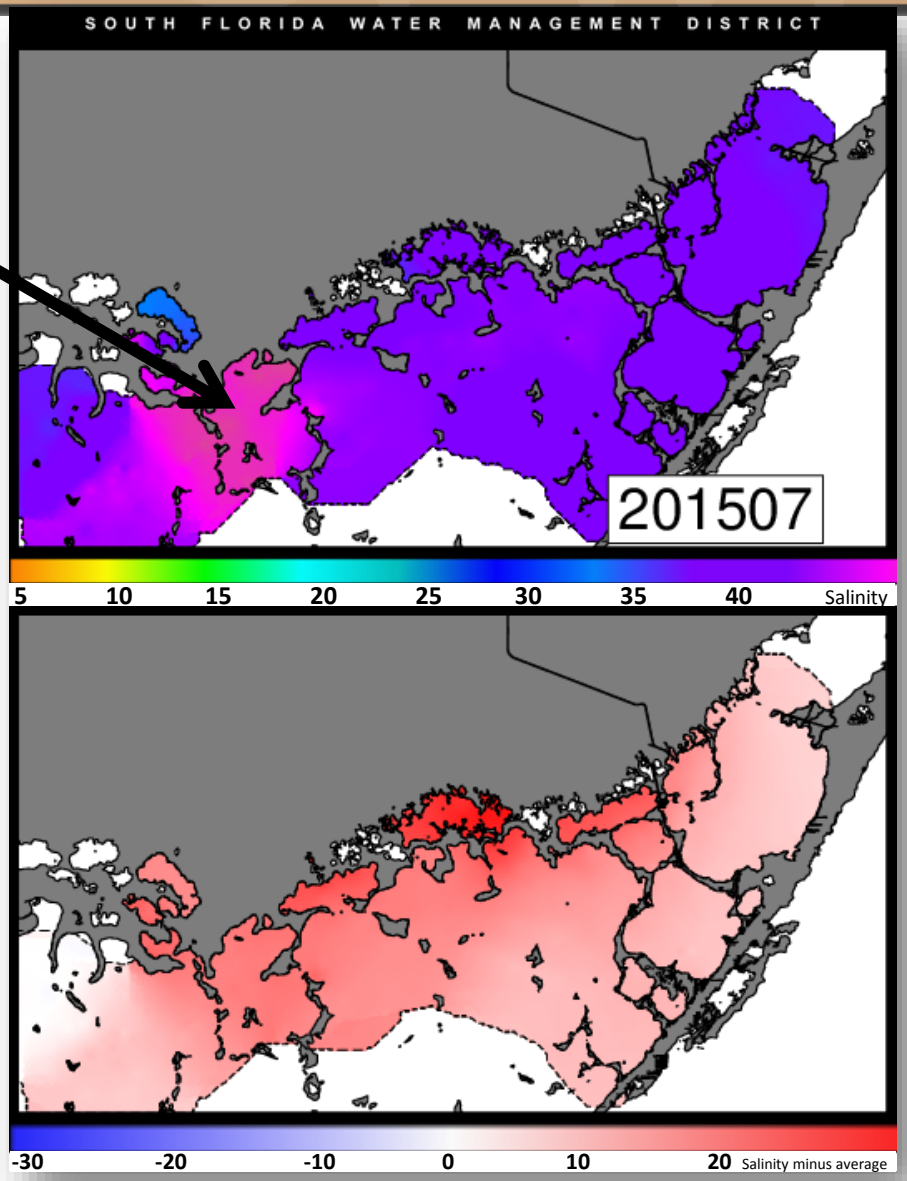

2012
2013
2014
2015
365 day moving sum of 5 creek flow
(x 1000 acre-feet)
400
300
200
100
M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A
365d moving sum 5 creek flow
flow below MFL threshold
WY01-13 Average
MFL threshold

Rainfall Deficit



Mapping Florida Bay Salinity

> 50 Practical Salinity Units (psu)



Late July 2015

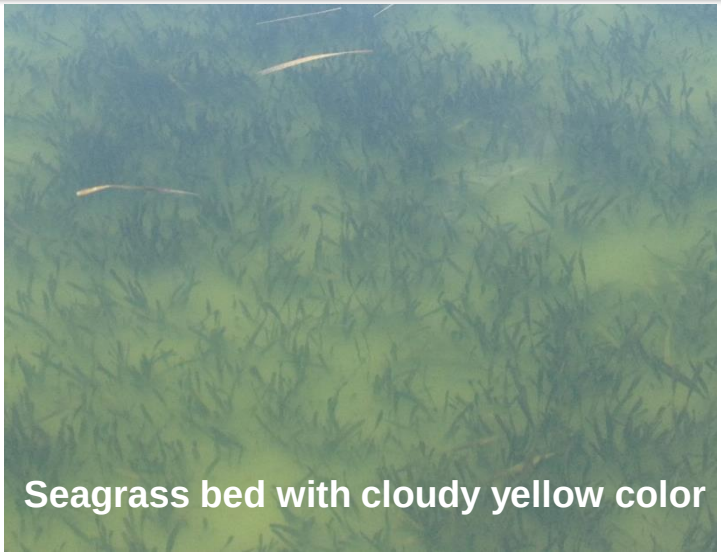
Difference from 2006 – 2014 Average (Jun – Aug)

Current Ecological Conditions in Florida Bay

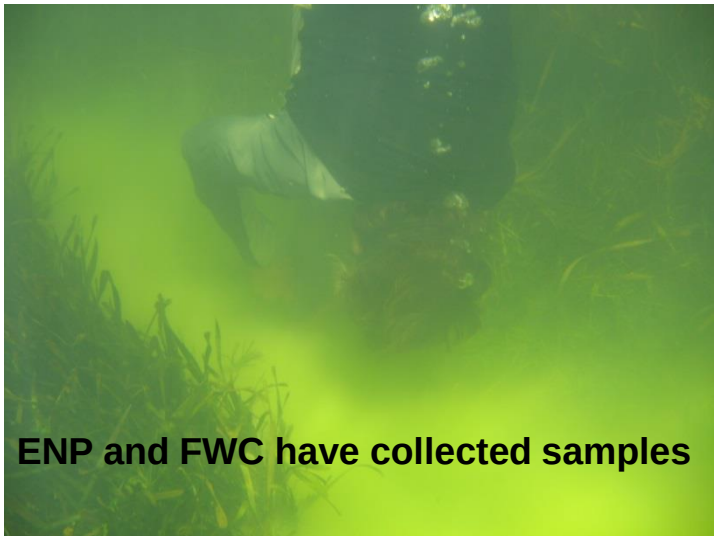
- Distinct patches of dead seagrass
- Little to no SAV in the mangrove creeks

Large floating rafts of dead seagrass - not typical in the bay

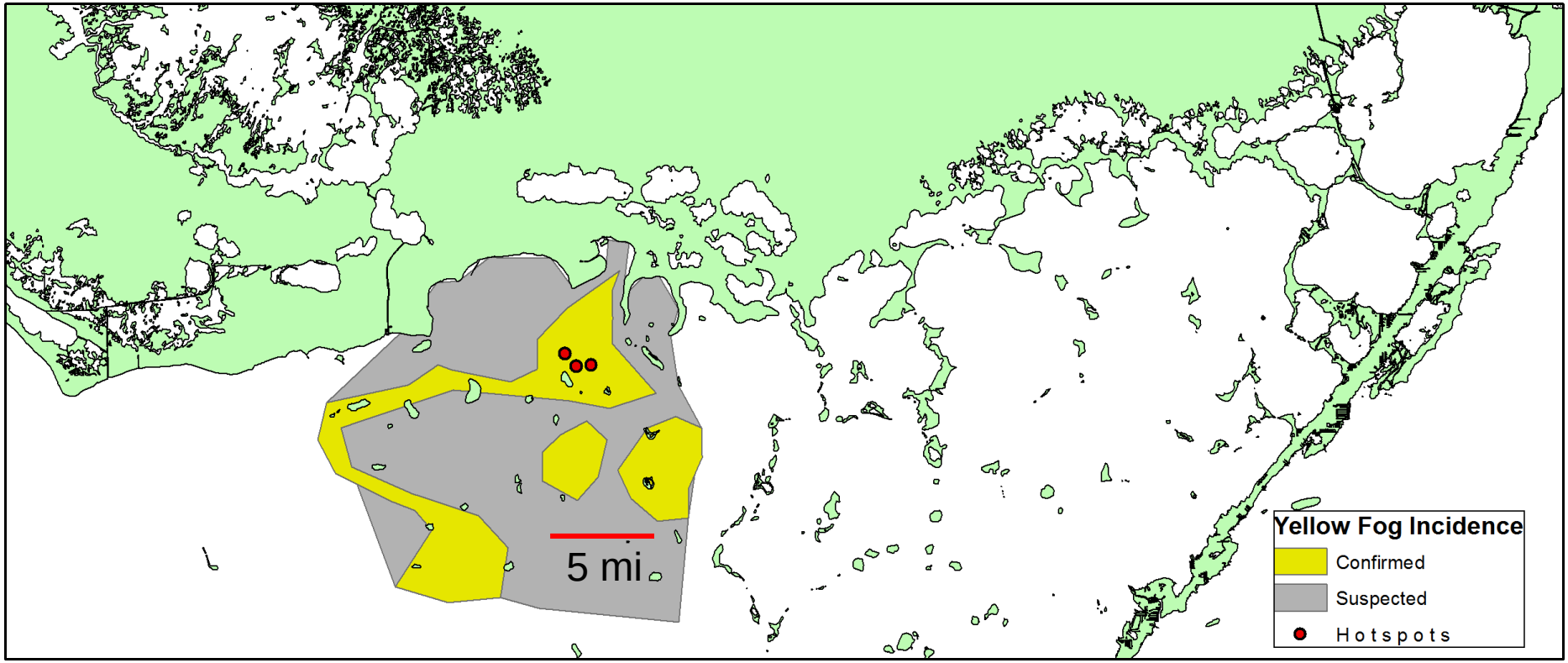
Current Ecological Conditions in Florida Bay



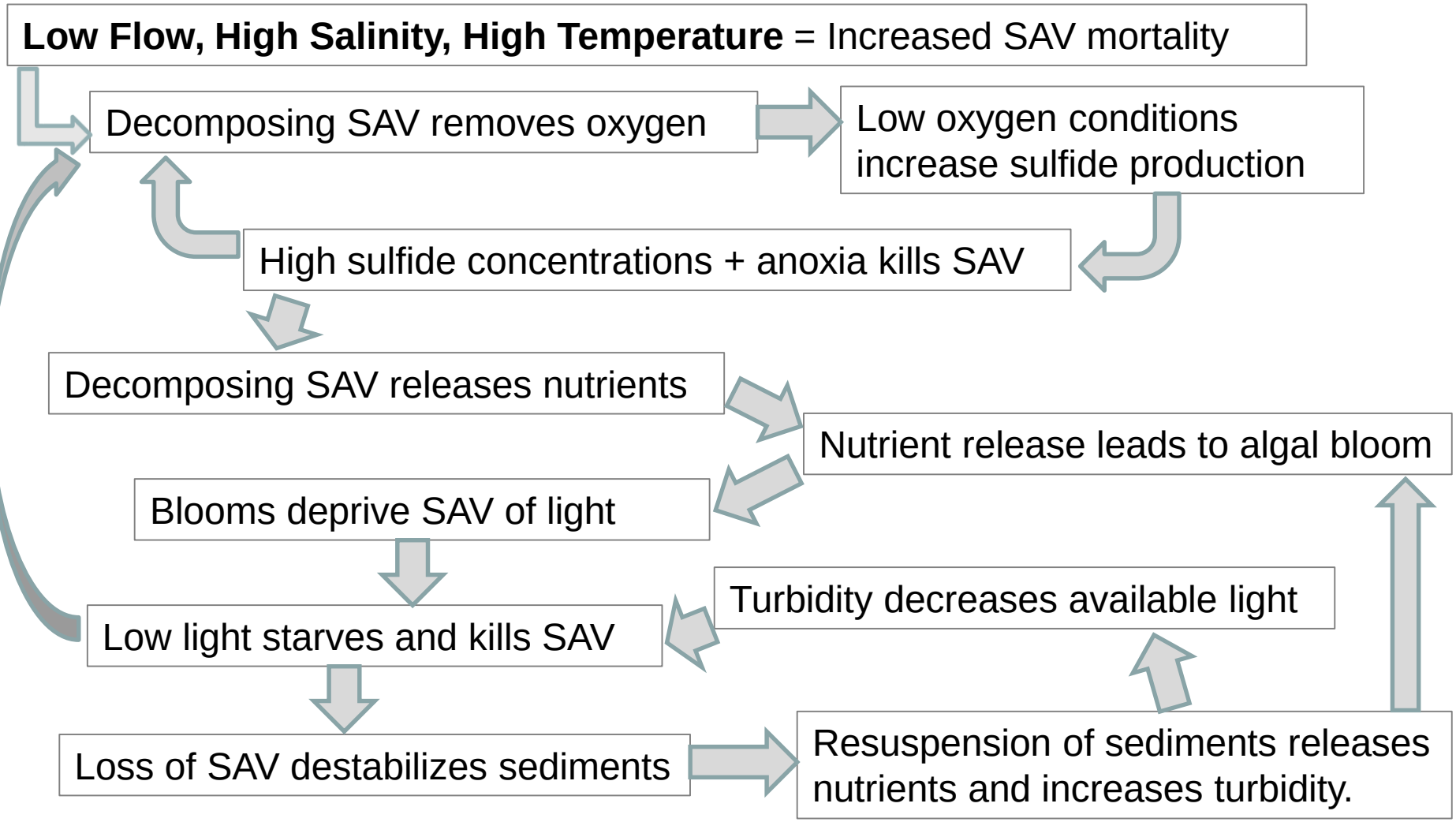
Central Florida Bay "yellow fog" is currently under investigation



Location of Yellow Fog



The "Perfect Storm" Cascade Hypothesis



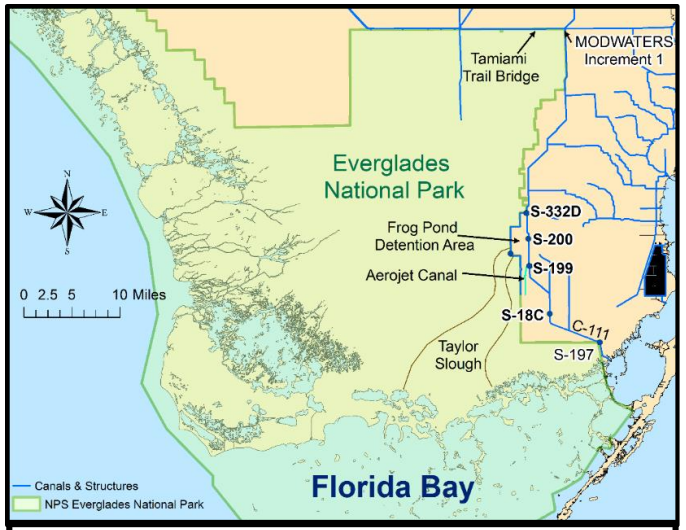
Getting Water to Florida Bay

ModWater
- One Mile Bridge
- S-356 Pump Station
- 8.5 Square Mile Flood Mitigation
- Increment 1 Field Test- ready to operate

C-111 West Spreader Canal Project
- Frog Pond Detention Area-S-200 pump station
- Aerojet Canal Extension S-199 pump station

Tamiami Trail Next Steps- 2.6 Mile Bridge
- FDOT and ENP- advertising for Design-Build

C-111 South Dade
- S-332 pump stations
- Detention areas
- Taylor Slough Bridge
- Degrading southern C-111 Levee
- Northern Detention - Contract 8 FY16 construction



At this point in the drought, water management operations cannot solve the problem in the short term, but what about longer term?