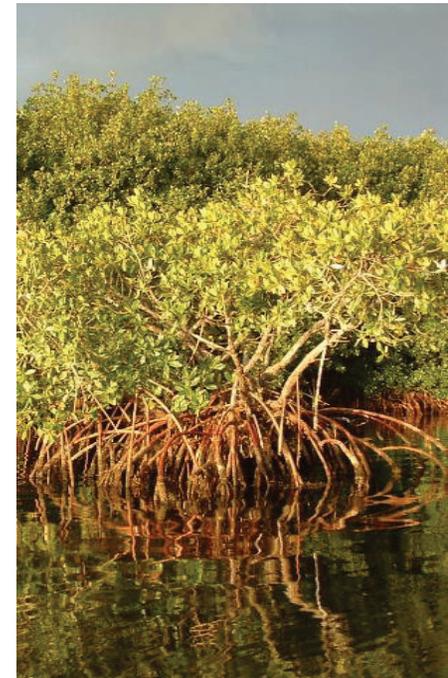


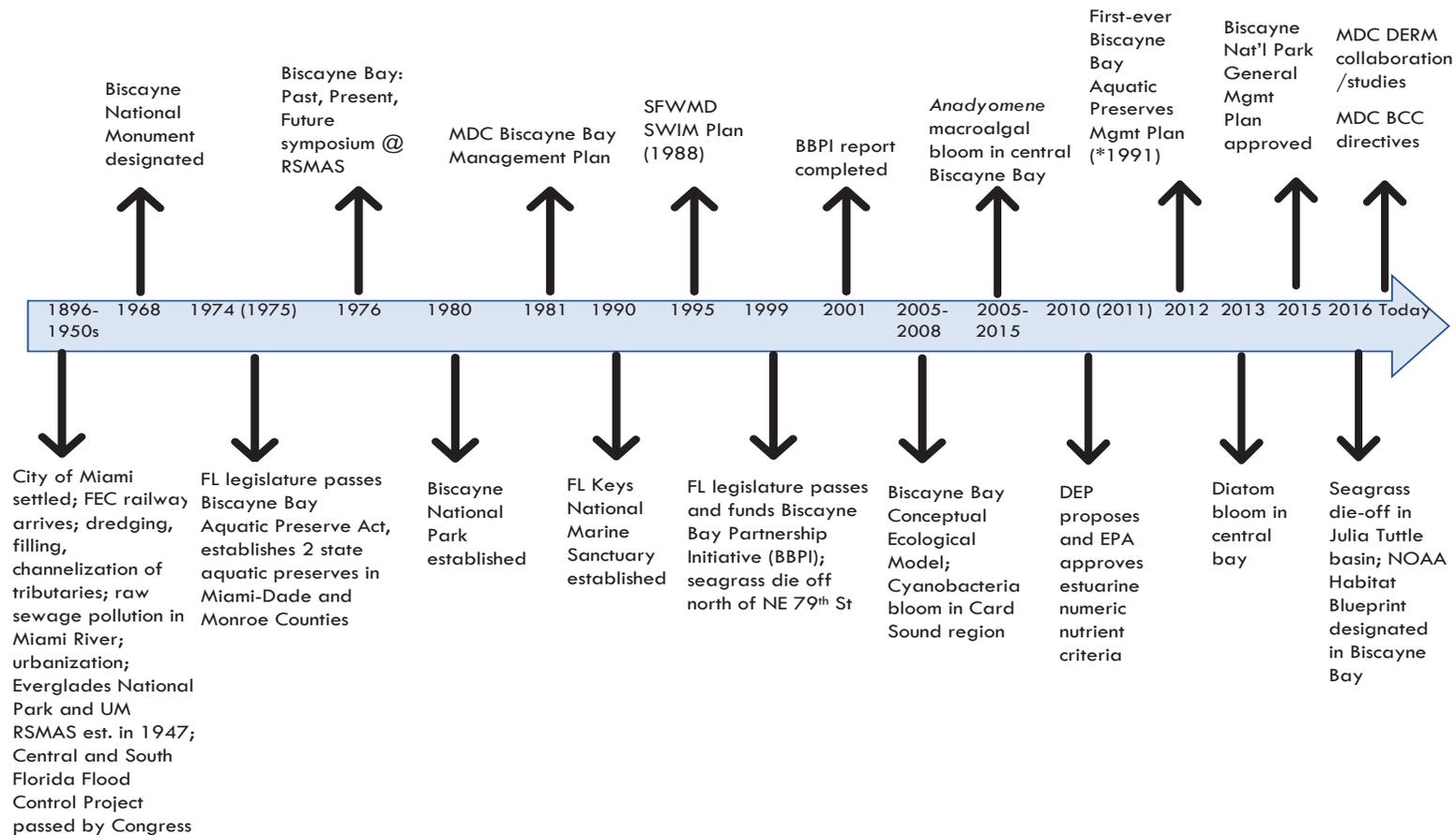
# State of Biscayne Bay Water Quality & Seagrass Habitat

Presentation to the  
Biscayne Bay Task Force  
July 15, 2019

Pamela Sweeney, Manager  
Restoration & Enhancement  
Section  
Natural Resources Division  
RER-DERM

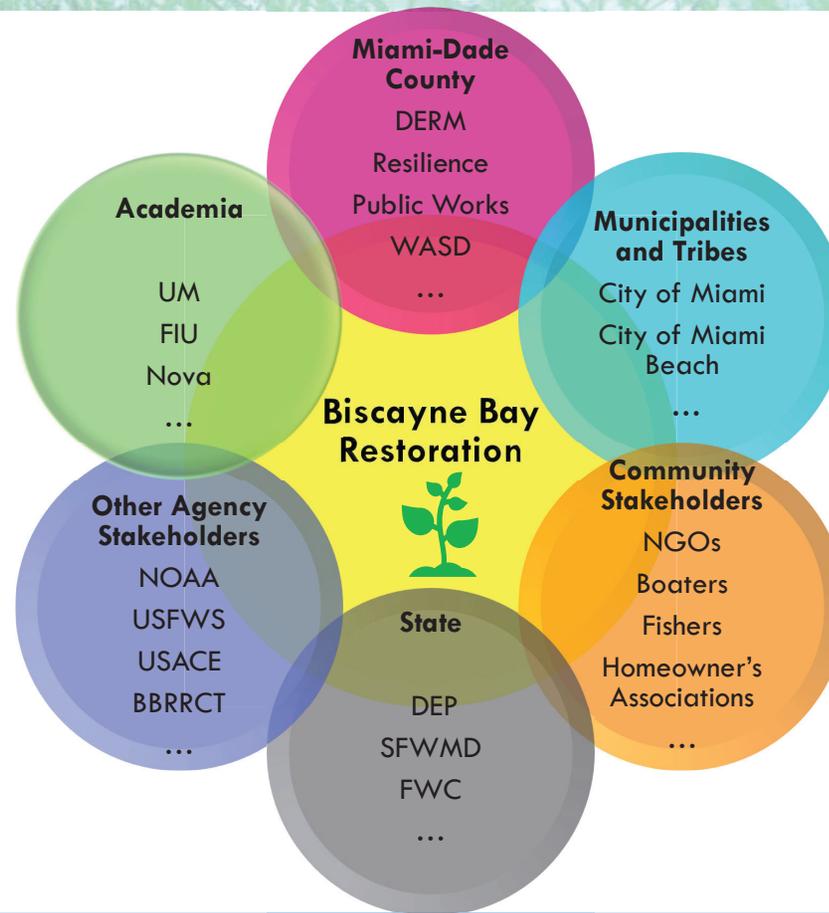


# Management Efforts: A Snapshot



## Next Steps to Consider...

- Establish restoration goals
- Develop and/or refine science-based water quality targets with restoration goals in mind
- Develop and/or refine policy and regulatory requirements
- Expand stakeholder understanding, buy-in, and involvement
- Public and private partners working collaboratively, taking action, and committed to **results**



# The Next Generation

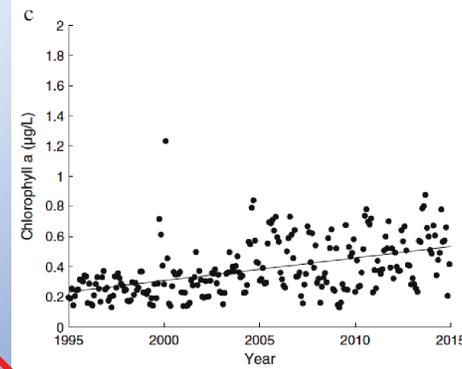
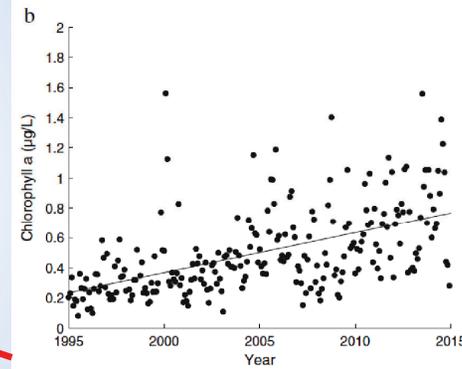
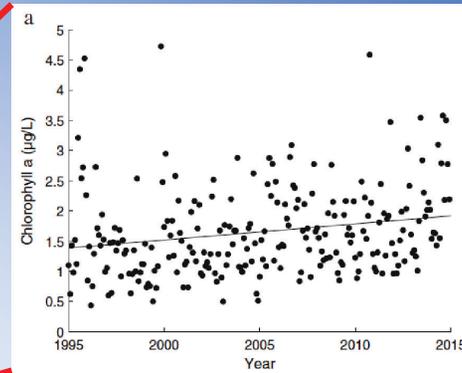
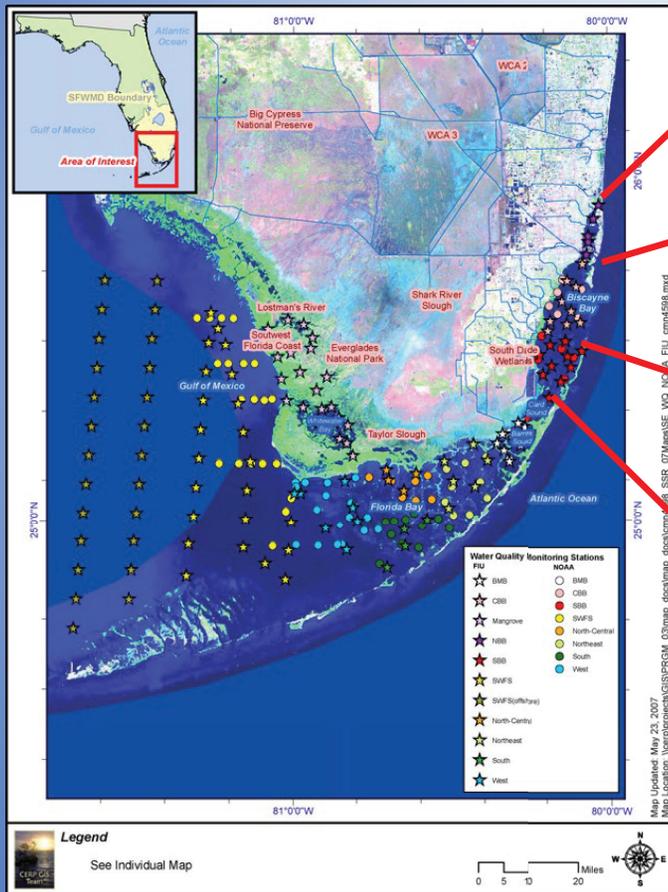


*The Next Generation*  
FDEP Biscayne Bay Aquatic Preserves Plan  
Photo credit: Miguel Hernandez, volunteer

# 2019 BISCAYNE BAY MARINE HEALTH SUMMIT: THE ACTION SUMMIT



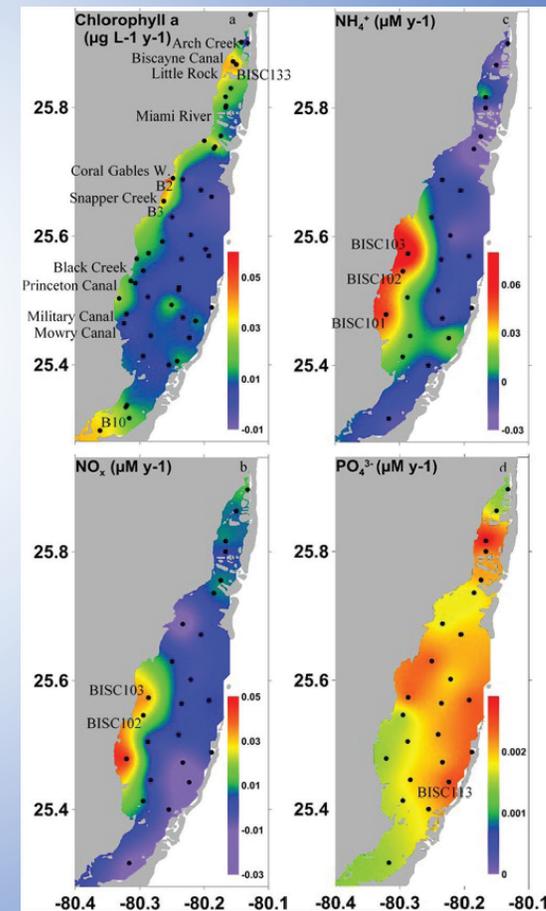
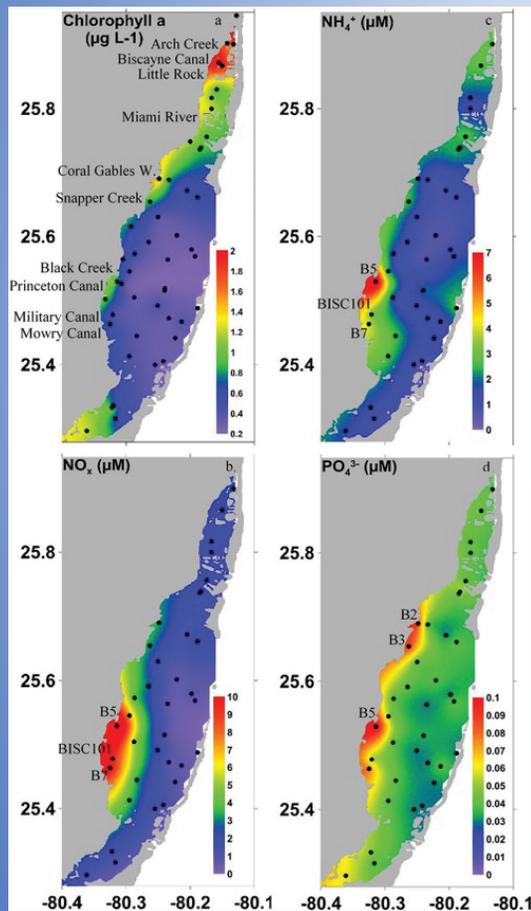
# Biscayne Bay Water Quality



# Biscayne Bay Water Quality Preventing Tipping Points



# Biscayne Bay Water Quality Preventing Tipping Points (Millette et al. 2019)



# 2019 BISCAYNE BAY MARINE HEALTH SUMMIT: THE ACTION SUMMIT



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AMERICA

## Marine Condition Snapshot Biscayne National Park

Sept. 2019

Erik Stabenau & Donatto Surratt  
National Park Service 305.224.4209

Data available at: [EVER Data Request@nps.gov](mailto:EVER_Data_Request@nps.gov)





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## CERP Objectives

“...address near-shore hypersalinity and to improve the ecological condition...”

### Biscayne Bay Coastal Wetlands Project: Phase 1

Partnership between SFWMD and USACE

Comprehensive monitoring and adaptive management plan in place

Current status of primary features:

- **Deering Estate** (S-700) complete
- **Lennar Flow-way** and **Cutler Wetlands** in Planning stages
- **L-31E Culverts** nearing completion
  - Interim Pump Stations in place

\* From 2019 Annual Report



Figure 1. BBCW Phase I project components.

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## Biscayne Bay Coastal Wetlands Project

Sawgrass near L-31E

Freshwater delivery

Nutrient challenges from many fronts



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## Biscayne Bay Coastal Wetlands Project

Sawgrass near L-31E

Freshwater delivery

Nutrient challenges from many fronts

Groundwater salinity reduced by 20 PSU with onset of pumping at S-700

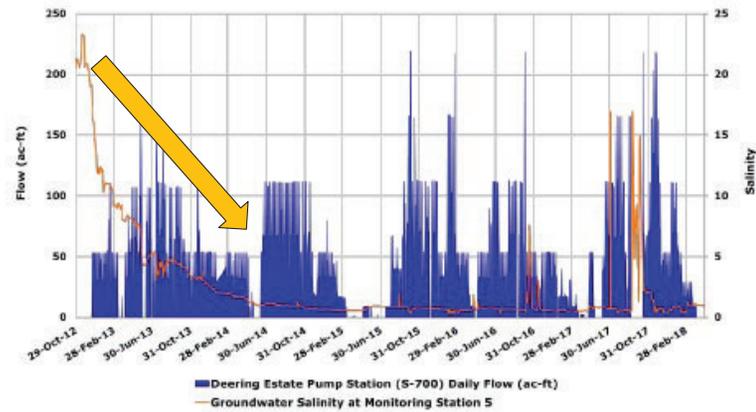


Figure 50. Comparison of groundwater salinity at monitoring station 5 near the historic remnant wetlands of Deering Estate versus S-700 daily flow.

\* From SFWMD 2019 South Florida Annual Report

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## Biscayne Bay Coastal Wetlands Project

Sawgrass near L-31E

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## Conditions - Salinity

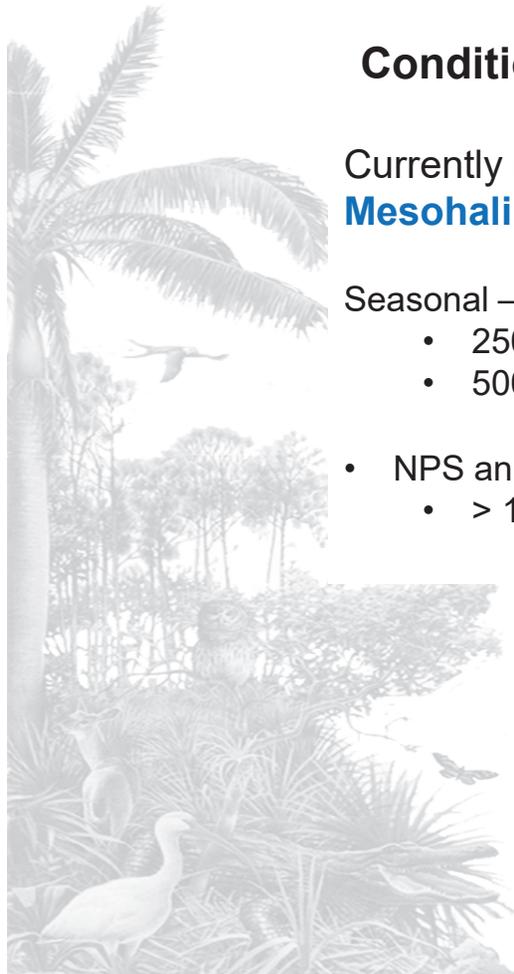
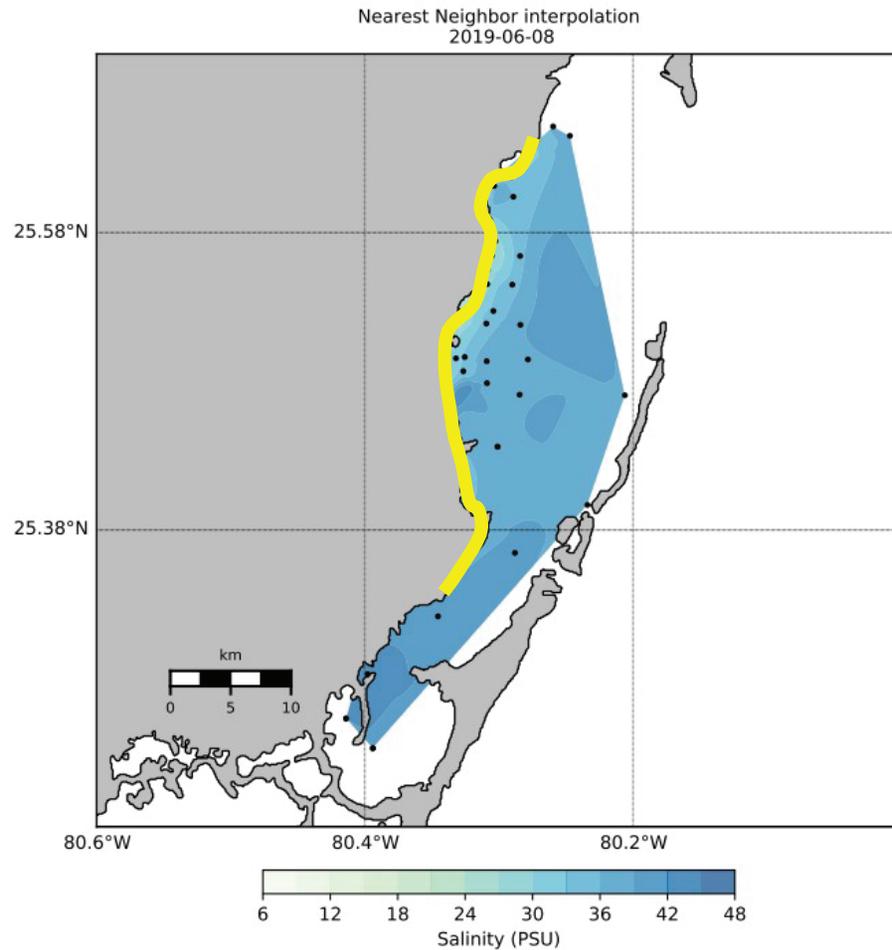
Currently **not** meeting our **Mesohaline** habitat targets

Seasonal – along the coast:

- 250 m (dry)
- 500 m (wet)

• NPS annual, continuous:

- > 10,000 acres

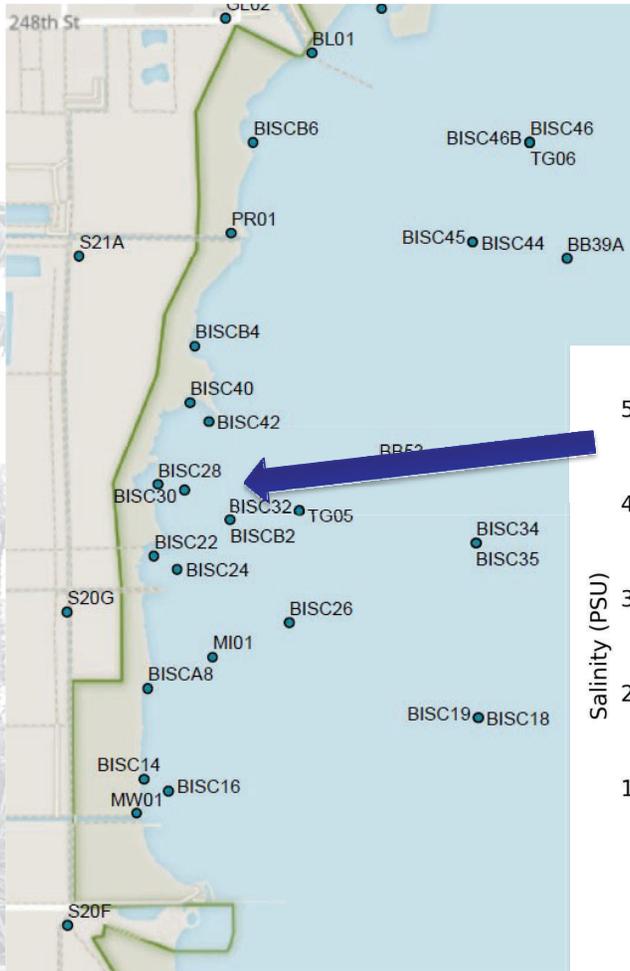


# National Park Service

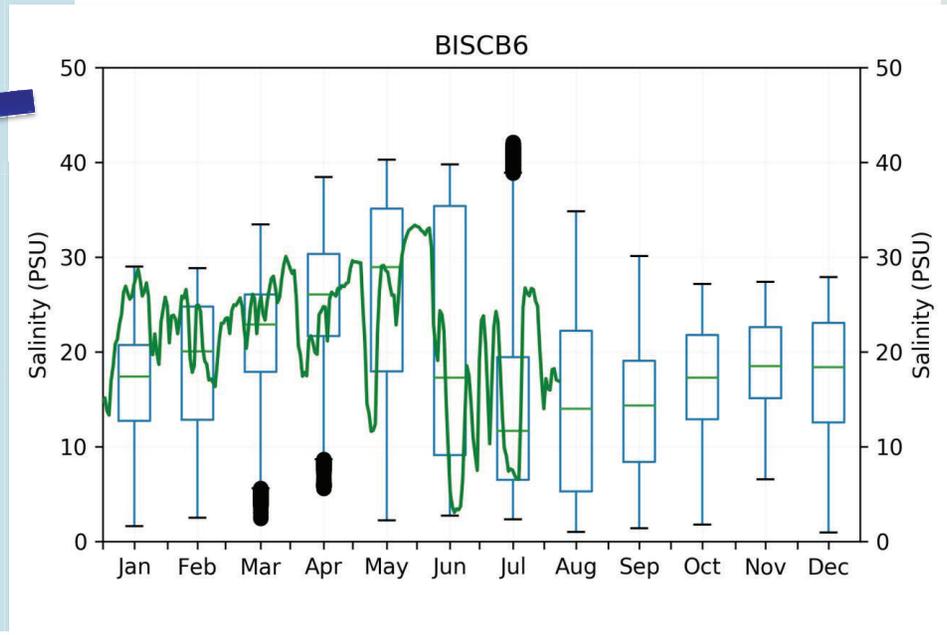
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Near shore salinity  
2019 vs 5-year monthly distribution



# National Park Service

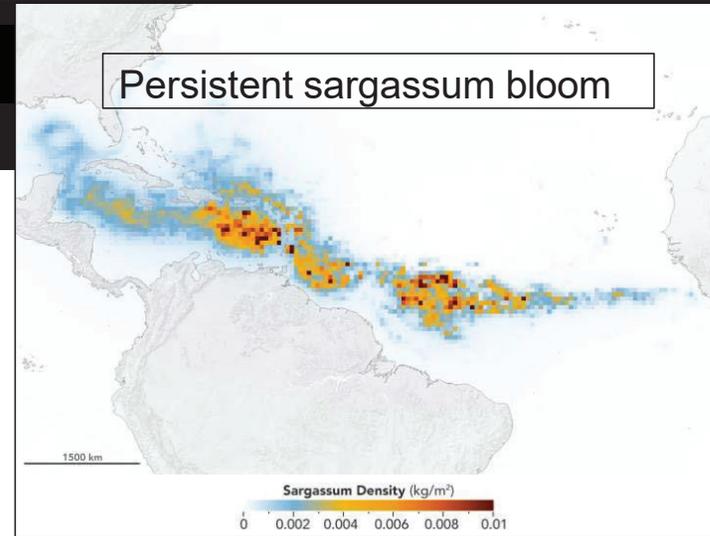
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## Biscayne Bay Coastal Wetlands Project

Sawgrass near L-31E

Freshwater delivery

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