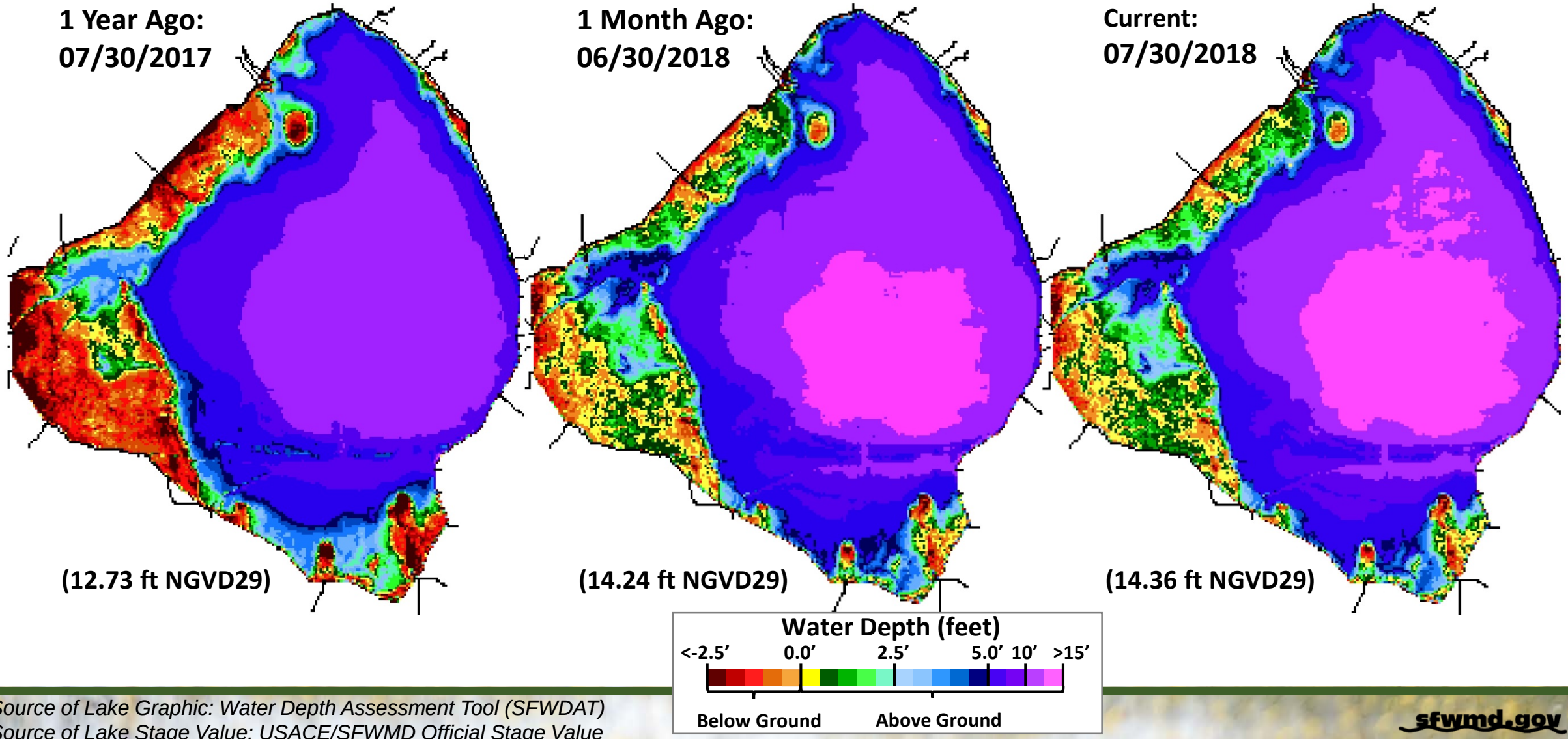
Water Resources Analysis Coalition
August 2, 2018

Ecological Conditions Update

Terrie Bates
Division Director, Water Resources

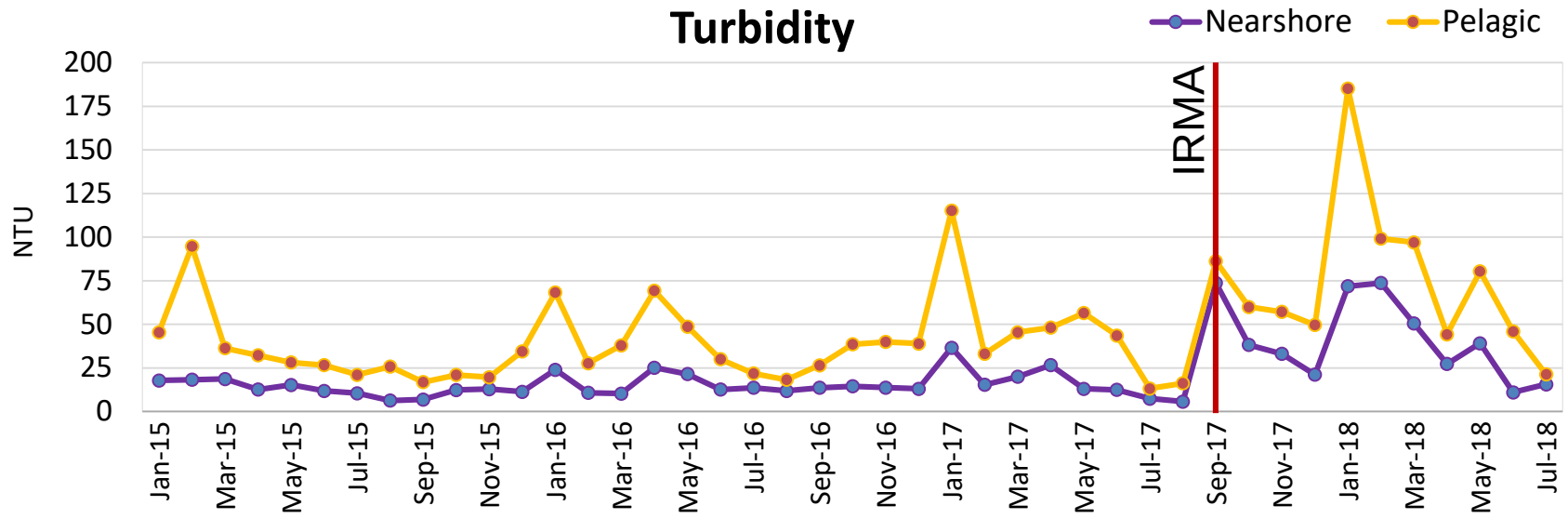
Kissimmee Prairie State Preserve floodplain
Phase IV Kissimmee River Restoration Area

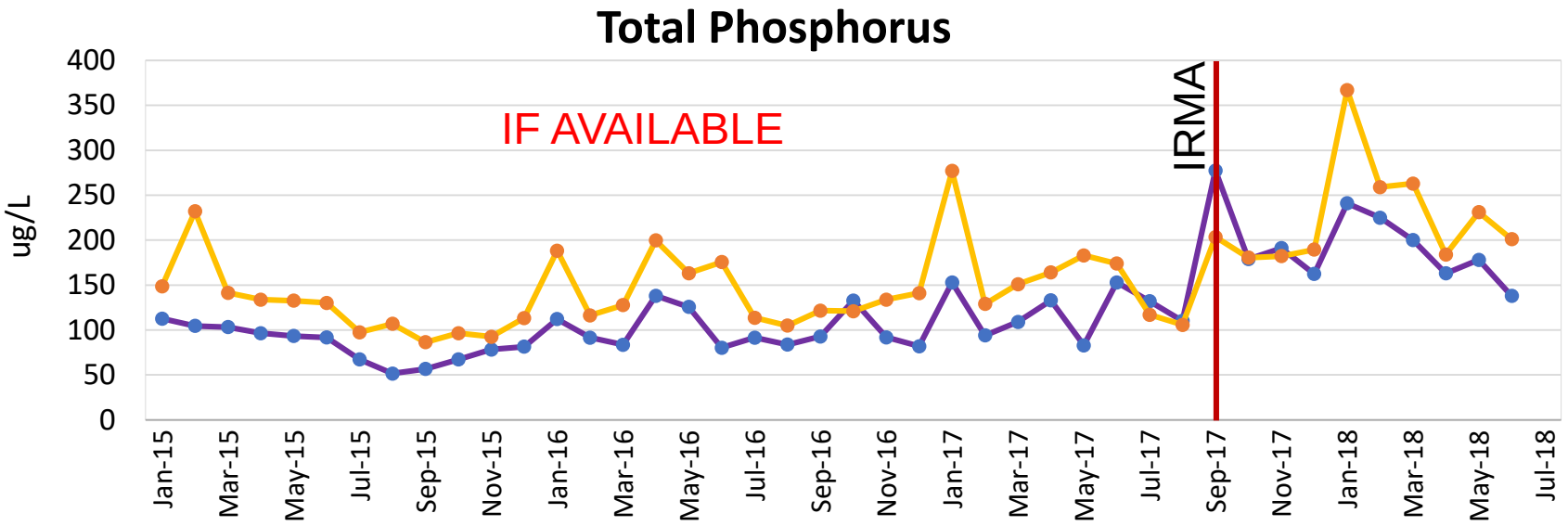
Lake Okeechobee Water Depth Maps

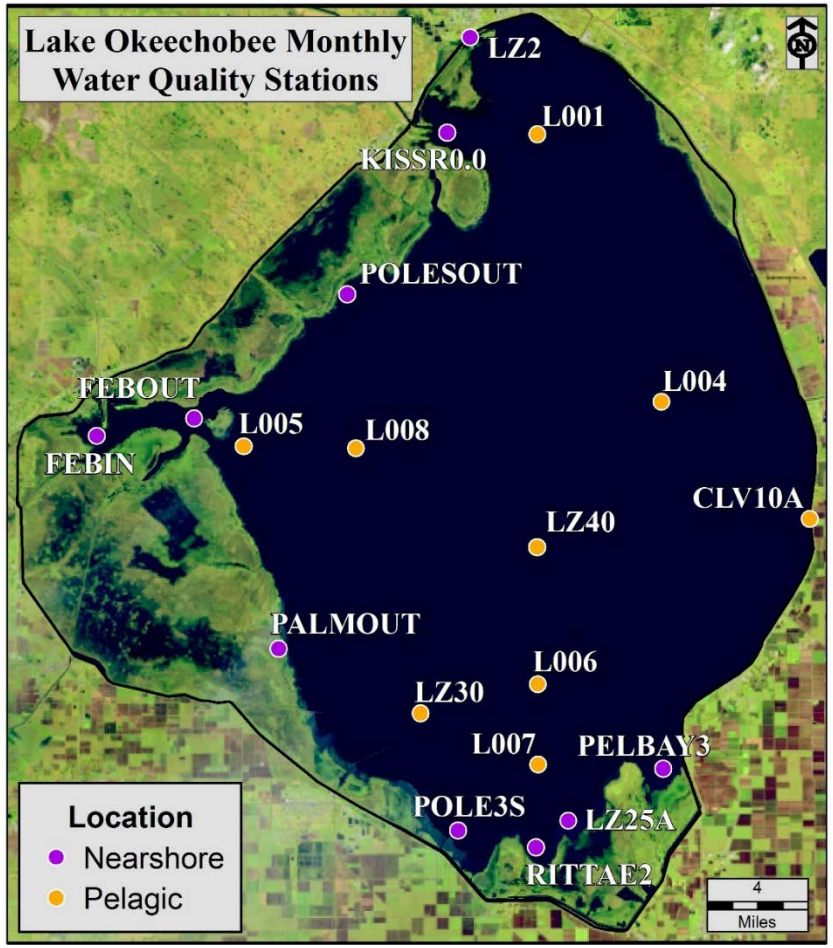


Source of Lake Graphic: Water Depth Assessment Tool (SFWDAT)
Source of Lake Stage Value: USACE/SFWMD Official Stage Value

Lake Okeechobee Water Quality

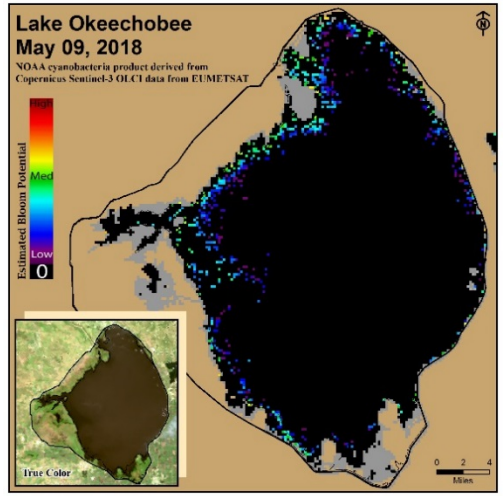


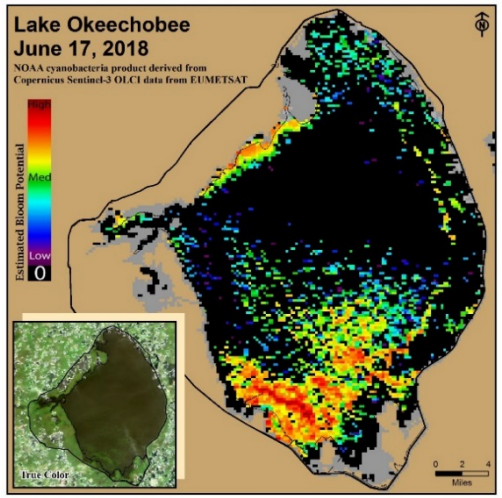


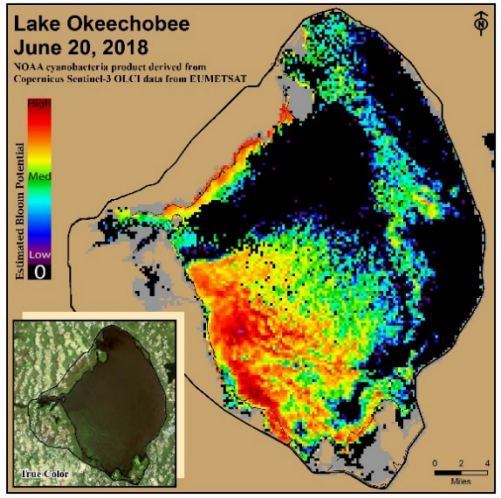


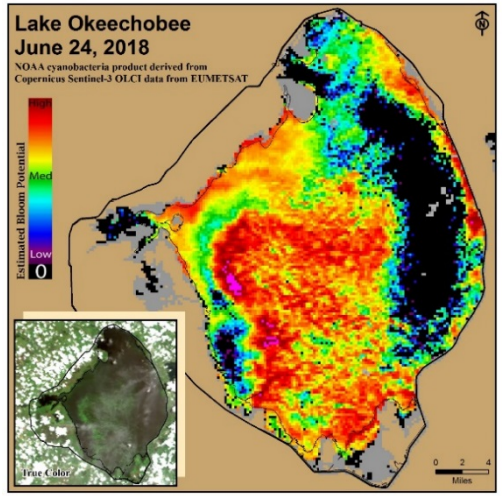
Lake Okeechobee Cyanobacteria Bloom Potential

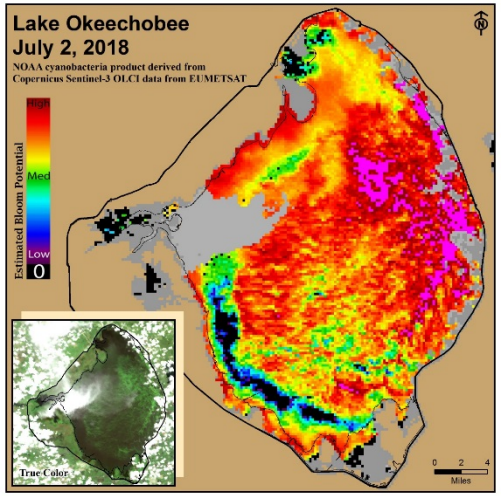
NOAA cyanobacteria product derived from Copernicus Sentinel-3 OLCI data from EUMETSAT

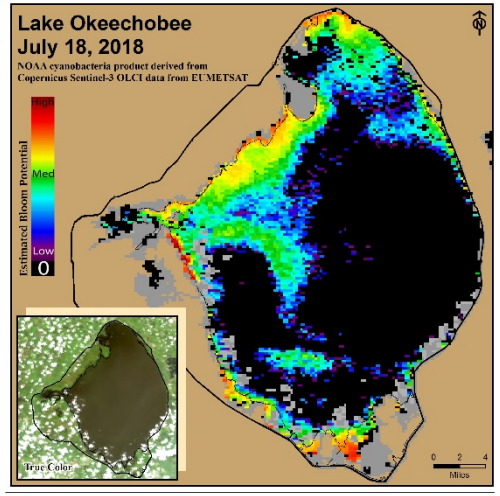


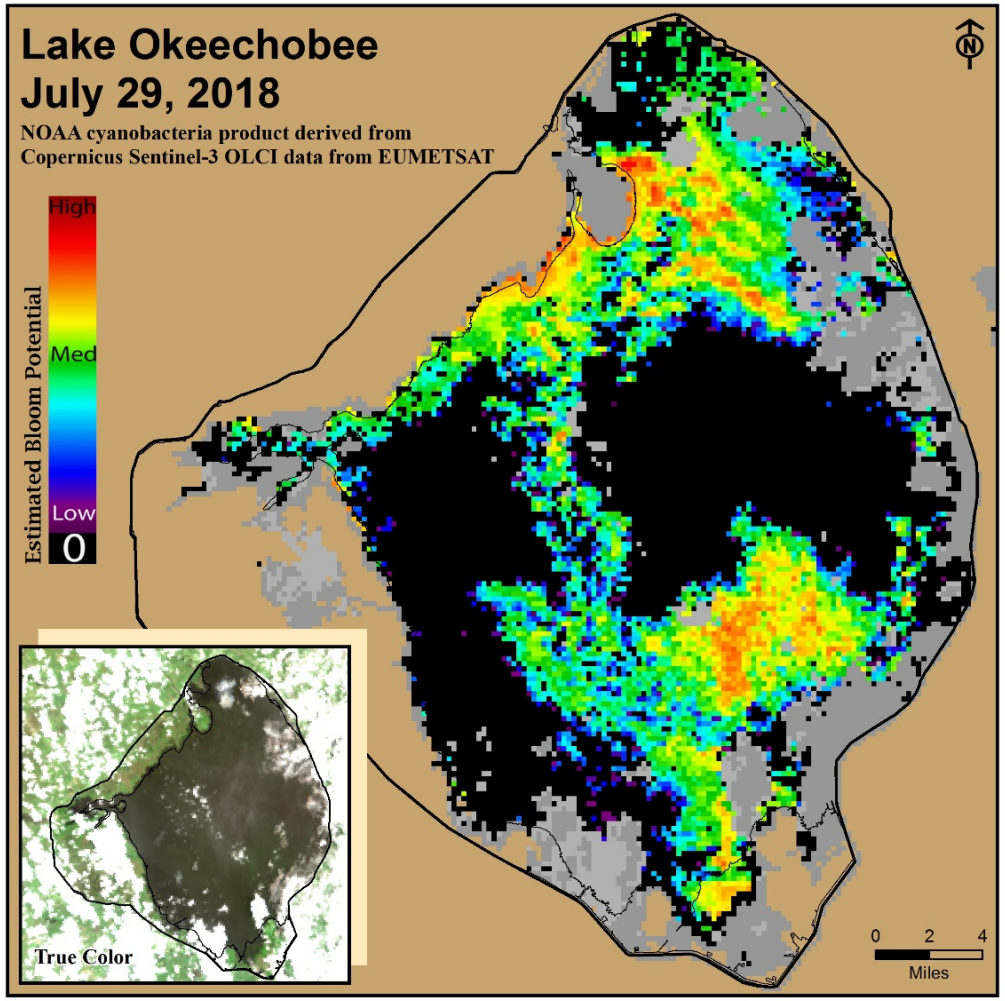










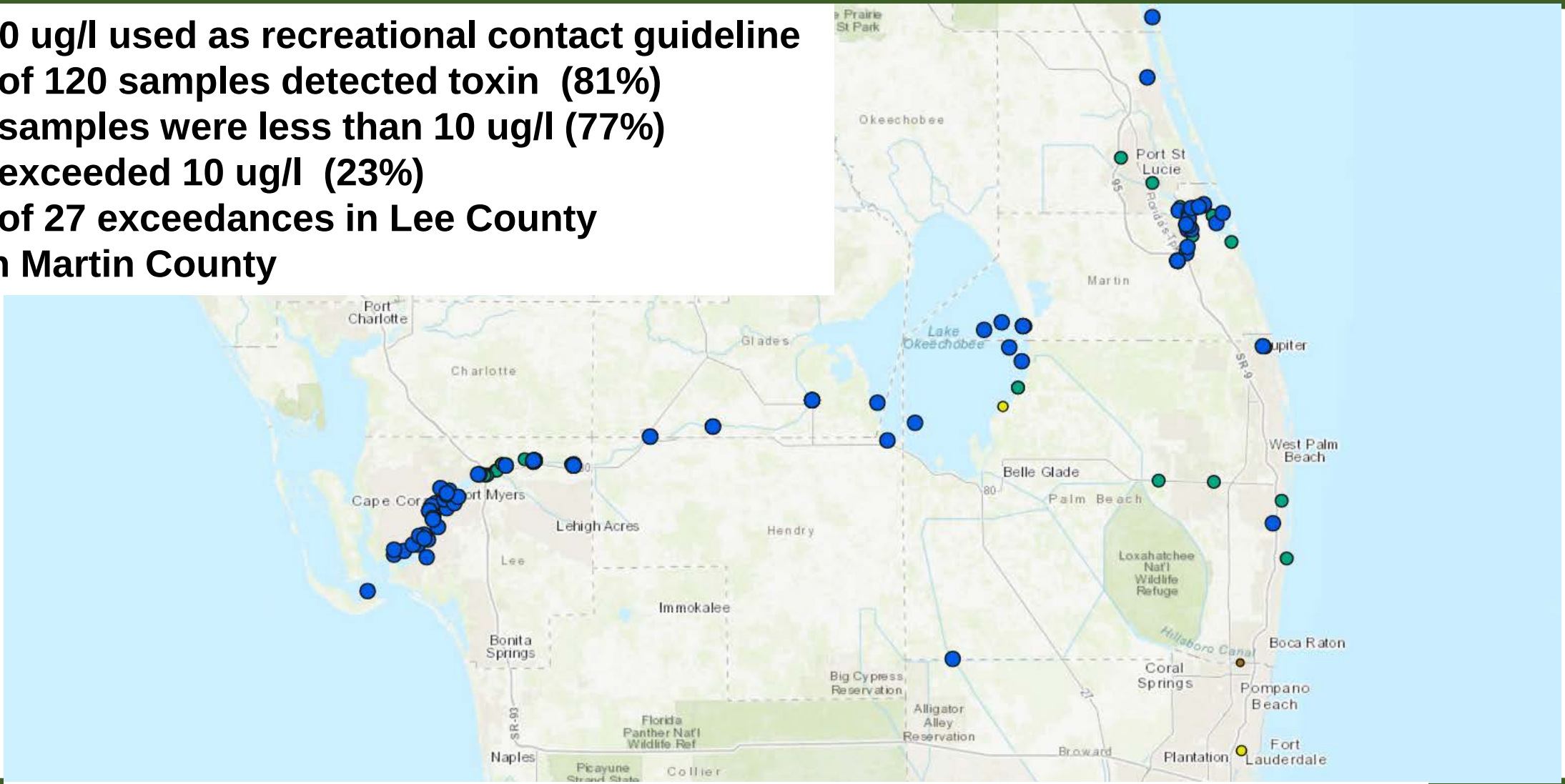


Unvalidated and Experimental Data

Gray = Cloud Cover

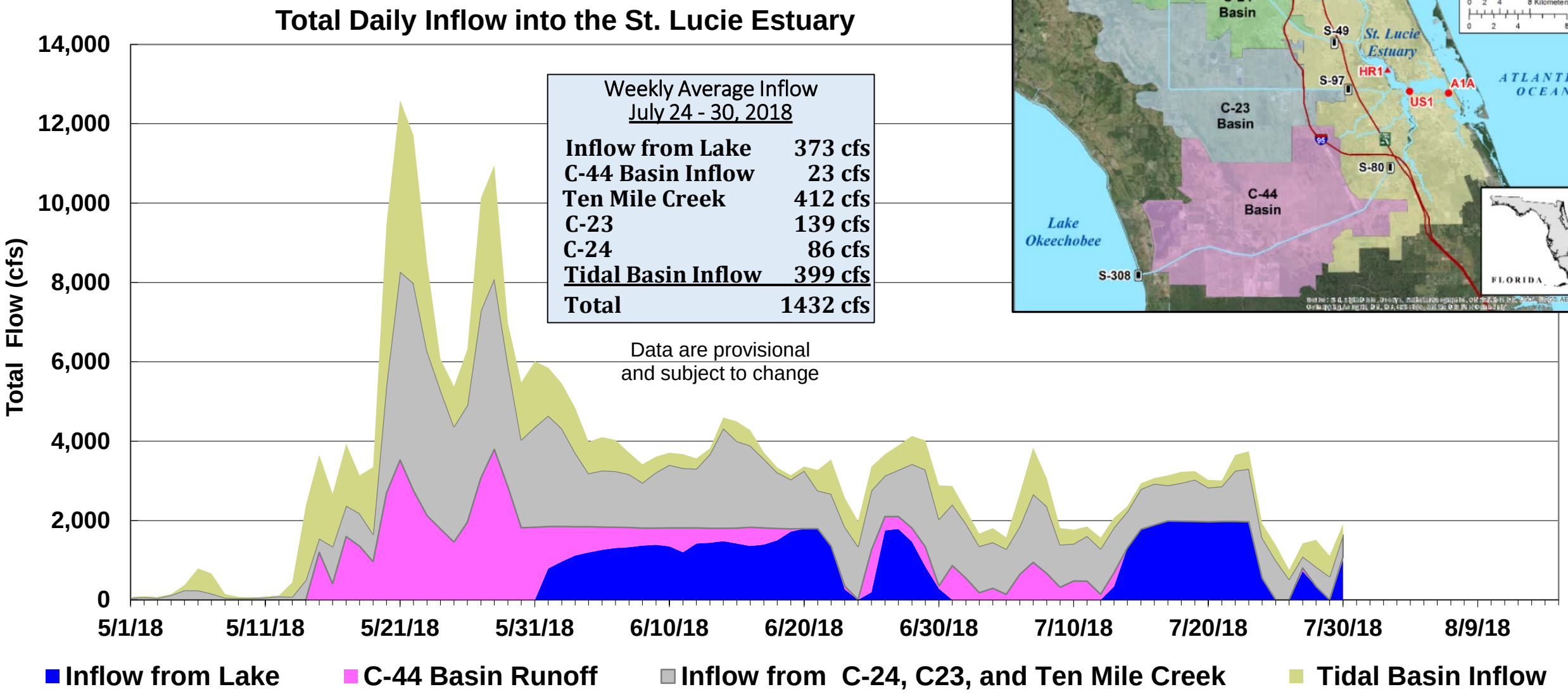
DEP Algal Bloom Monitoring & Response

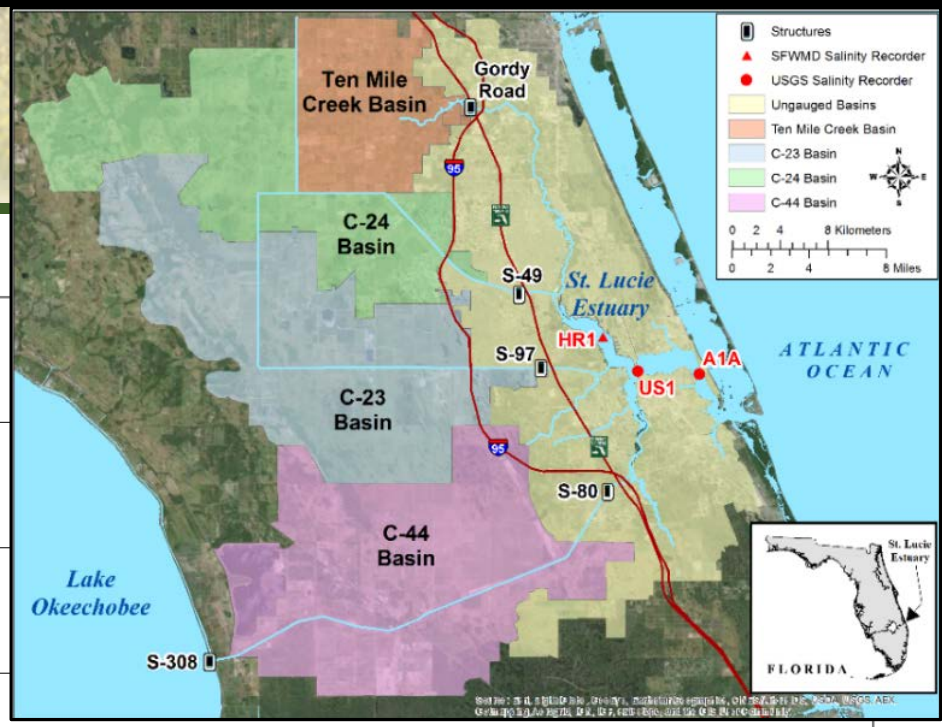
- **< 10 ug/l used as recreational contact guideline**
- **97 of 120 samples detected toxin (81%)**
- **70 samples were less than 10 ug/l (77%)**
- **27 exceeded 10 ug/l (23%)**
- **23 of 27 exceedances in Lee County**
- **2 in Martin County**



https://depnewsroom.wordpress.com/algal-bloom-monitoring-and-response/

St. Lucie Estuary

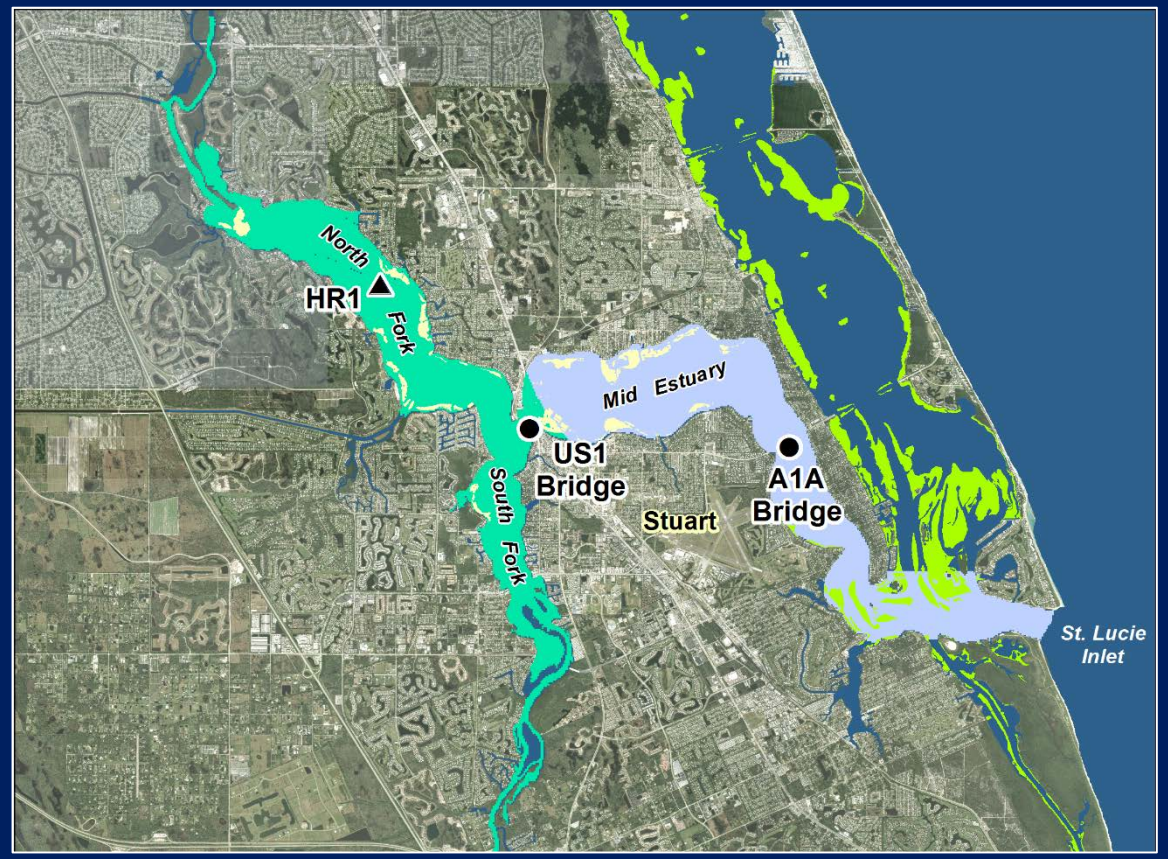




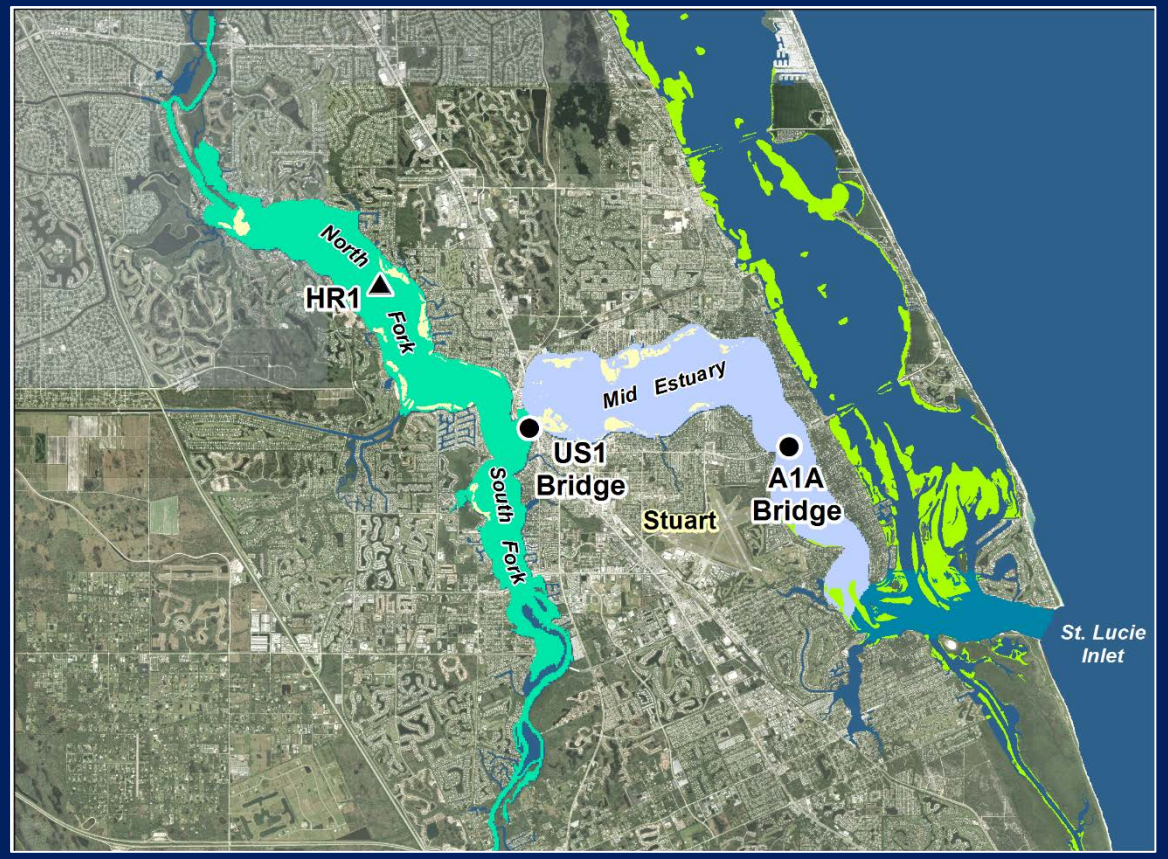
St. Lucie Estuary

Salinity Conditions

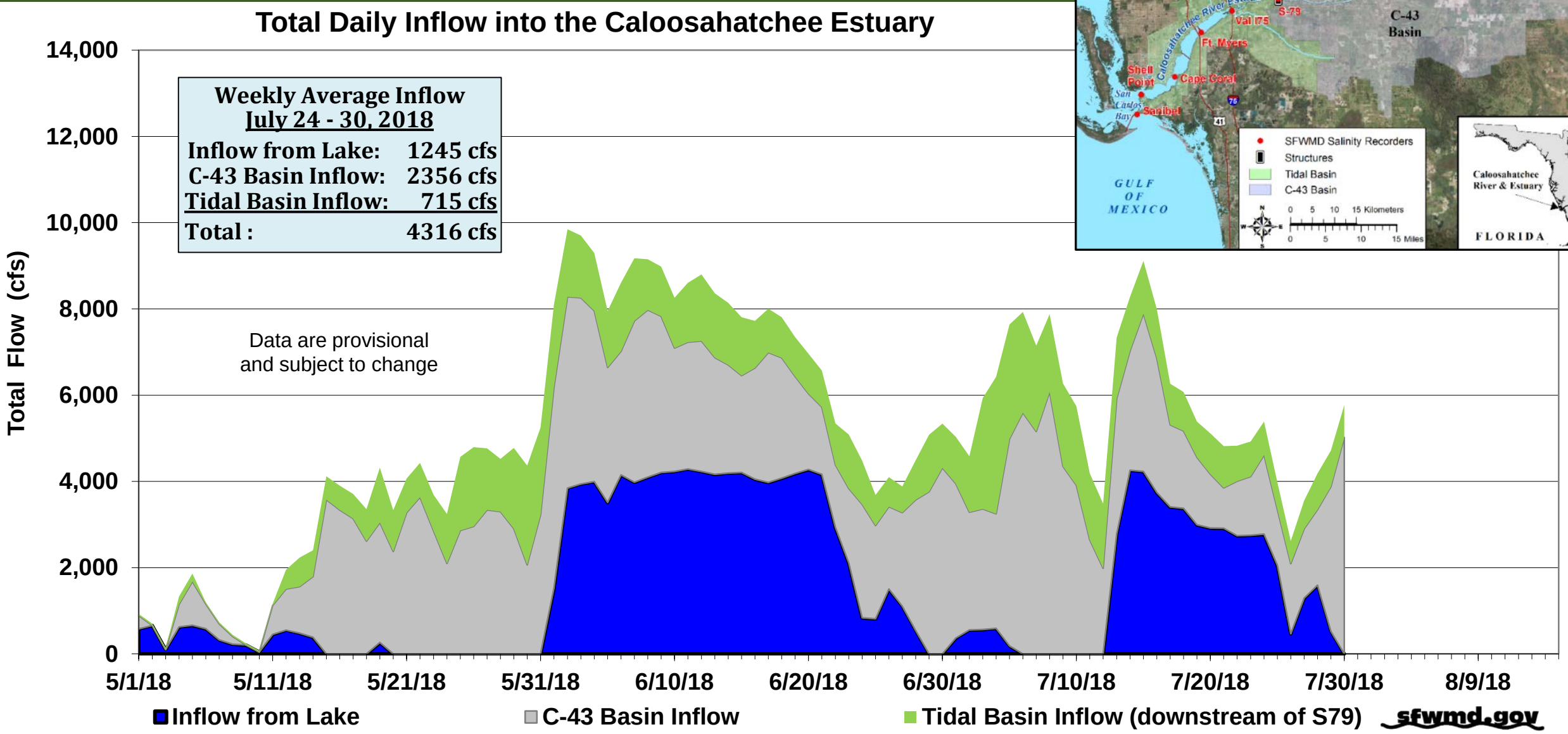
July 9, 2018

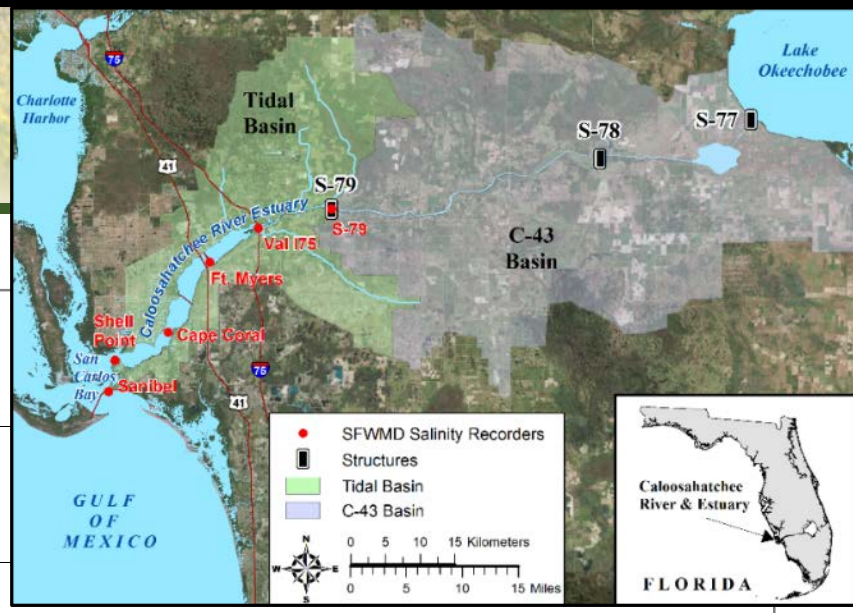


July 30, 2018



Caloosahatchee Estuary





Caloosahatchee Estuary

Salinity Conditions

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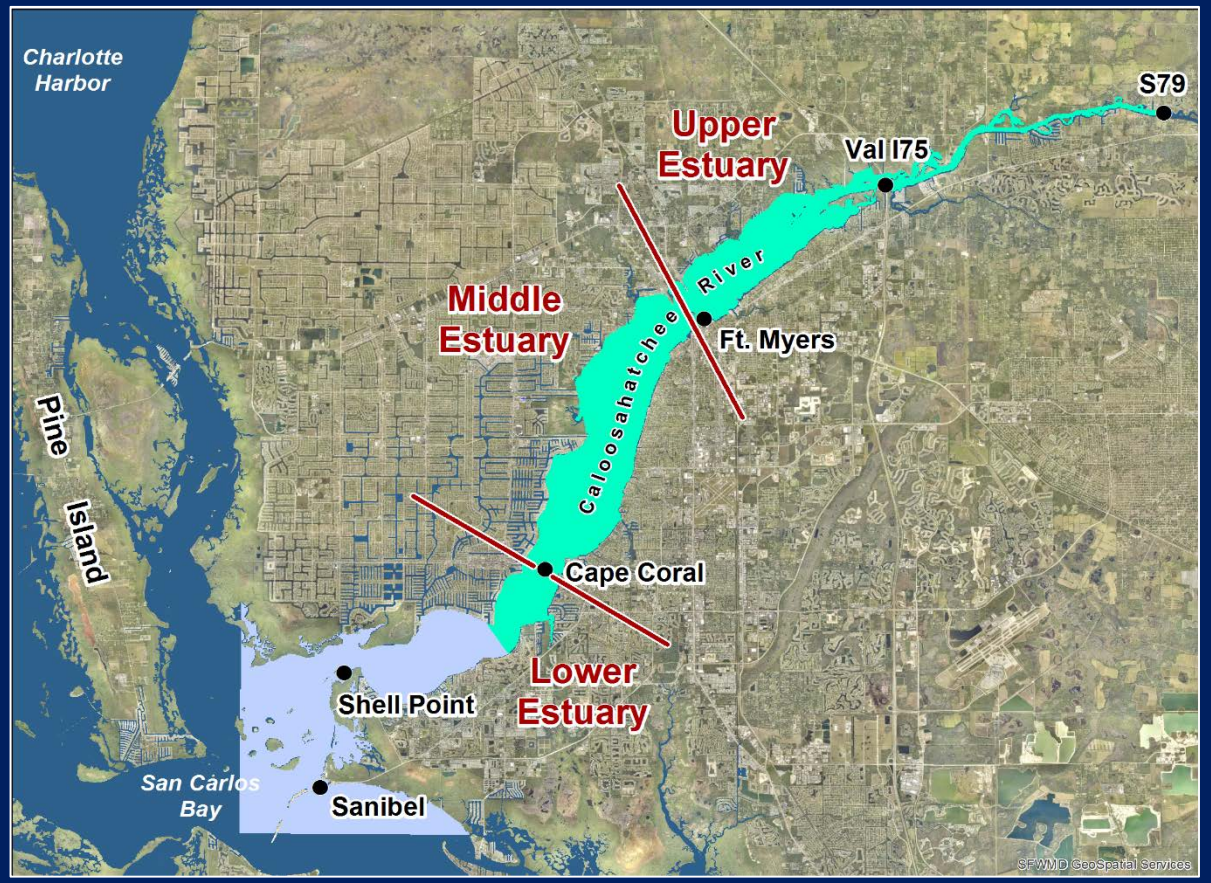

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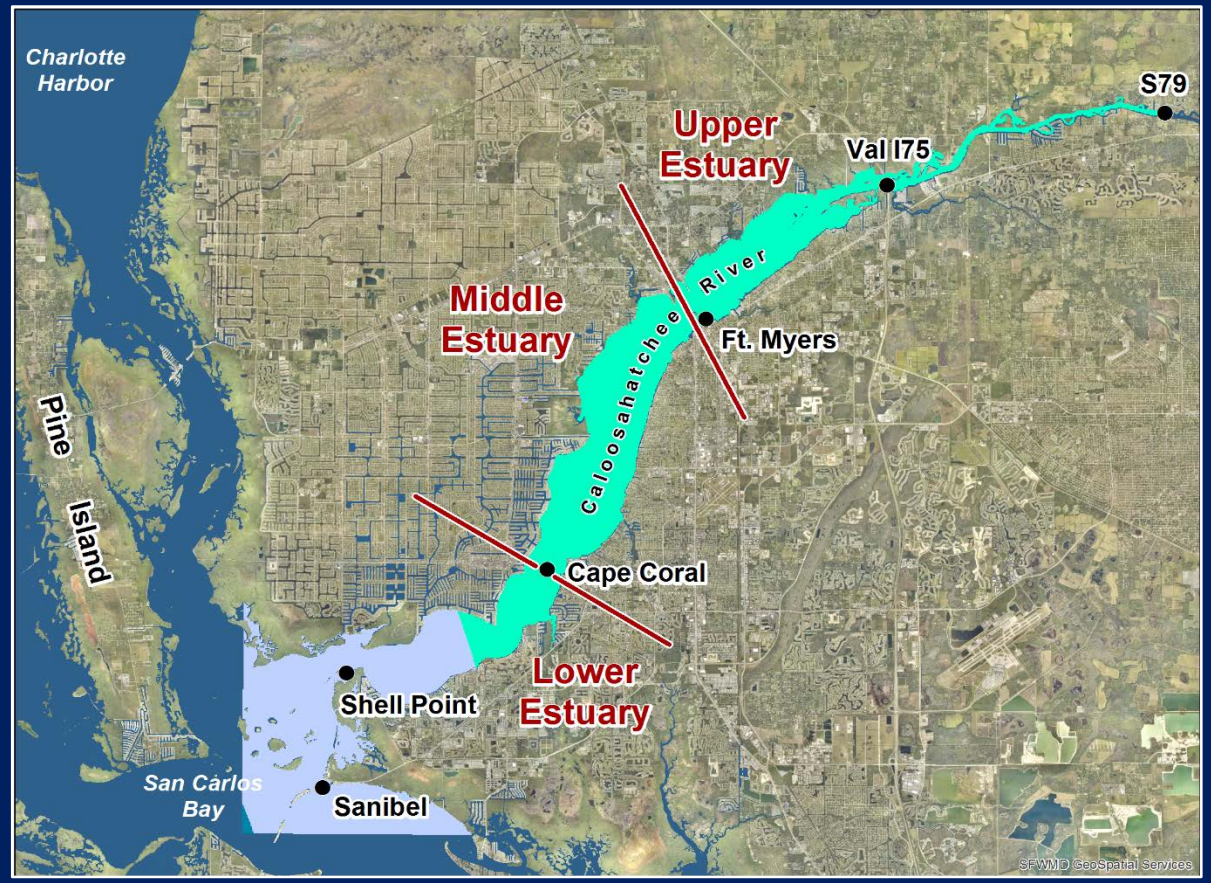
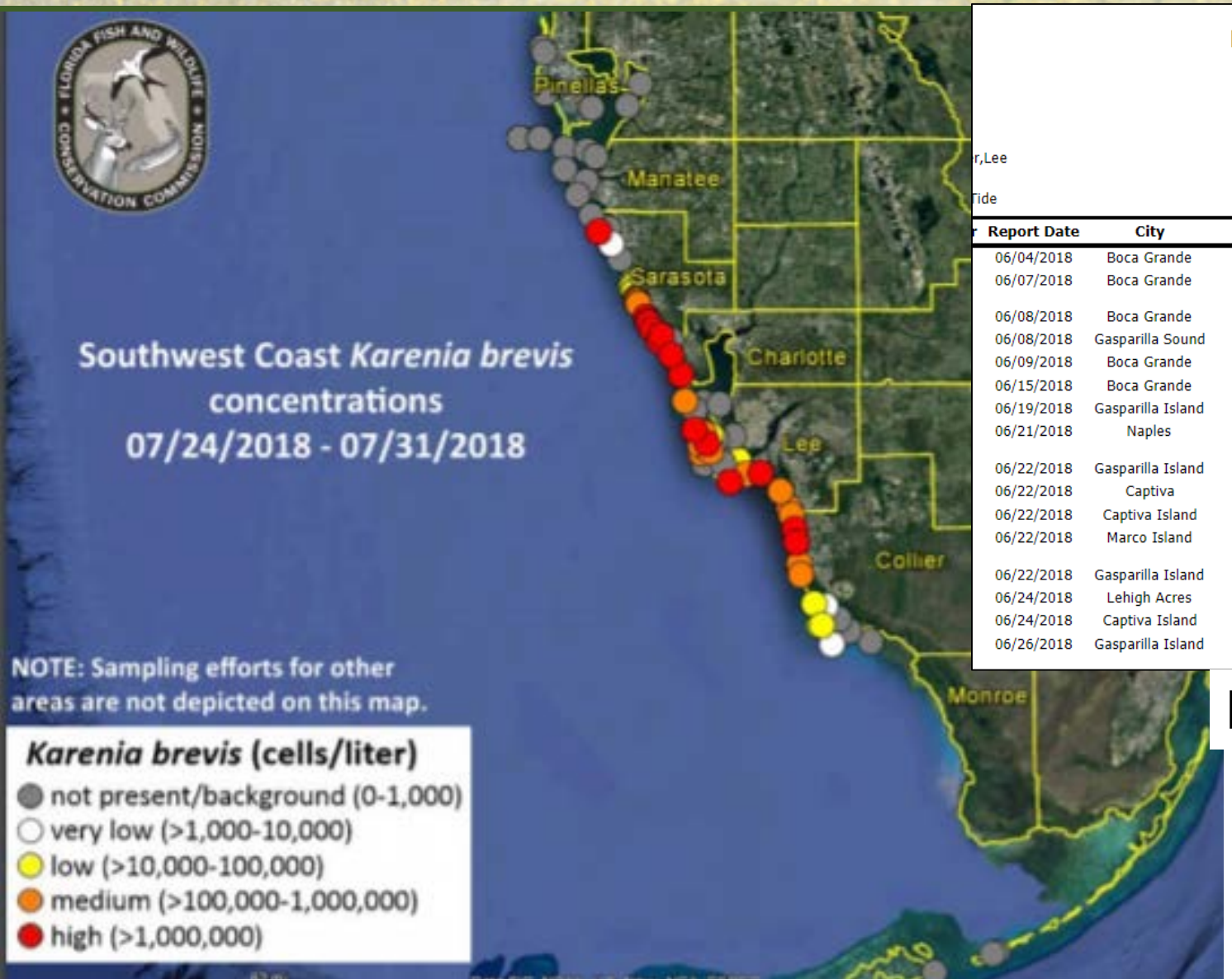


FWC Red Tide Tracking & Reporting



Fish Kill Database Search Result Report

From: 6/1/2018 To: 8/1/2018

Fish and Wildlife Research Institute

r,Lee

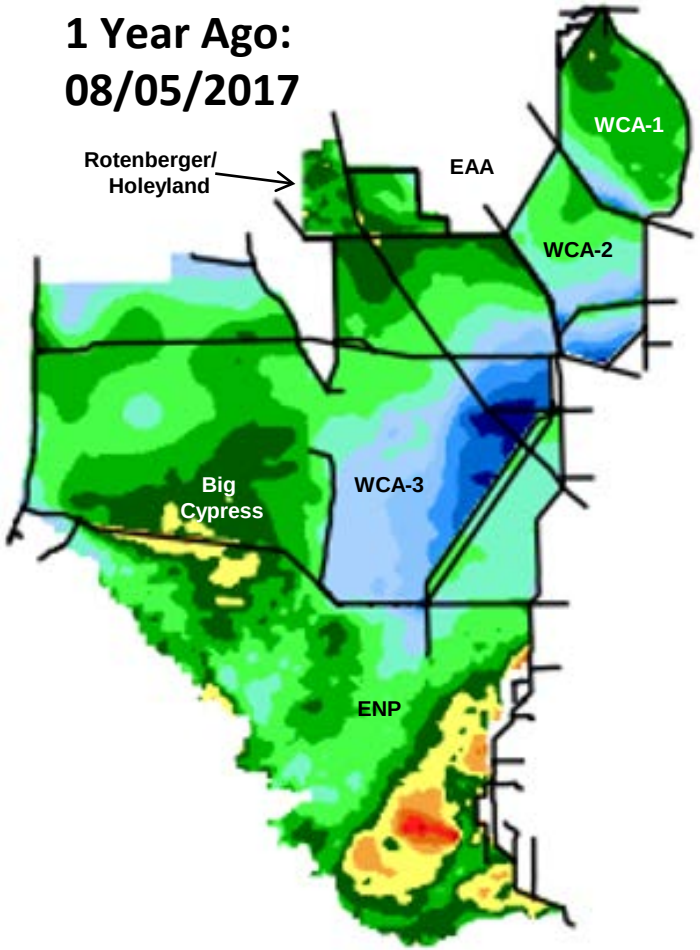
Tide

r Report Date	City	County	Call Category	Water Body Name	Specimen Count	Comments
06/04/2018	Boca Grande	Lee	Fish Kill	GOM - Gasparilla Pass		Mullet
06/07/2018	Boca Grande	Lee	Fish Kill	GOM - Boca Grande Beach		Puffer, Bream, Catfish, Jack Crevalle
06/08/2018	Boca Grande	Lee	Fish Kill	Gasparilla Sound		Species Unidentified
06/08/2018	Gasparilla Sound	Lee	Fish Kill	GOM - Boca Grande Beach		Species Unidentified
06/09/2018	Boca Grande	Lee	Fish Kill	GOM - Boca Grande Pass		Species Unidentified
06/15/2018	Boca Grande	Lee	Fish Kill	GOM - Boca Grande Beach		Species Unidentified
06/19/2018	Gasparilla Island	Lee	Fish Kill	GOM - Gasparilla Island Beach		Species Unidentified
06/21/2018	Naples	Collier	Fish Kill	GOM - Big Marco Pass - Sand Dollar Is		Grouper, Tarpon, Baitfish, Burrfish, Hardhead Catfish
06/22/2018	Gasparilla Island	Lee	Fish Kill	GOM - Boca Grande		Snook, Grouper
06/22/2018	Captiva	Lee	Fish Kill	North Captiva Pass		Goliath Grouper
06/22/2018	Captiva Island	Lee	Fish Kill	GOM - Captiva Beach		Goliath Grouper
06/22/2018	Marco Island	Collier	Fish Kill	GOM - Crystal Shores Marriott		Oyster Toadfish, Puffer, Eel, Catfish
06/22/2018	Gasparilla Island	Lee	Fish Kill	GOM - Gasparillia Beach		Species Unidentified, Grouper
06/24/2018	Lehigh Acres	Lee	Fish Kill	GOM - Captiva Beach		Frogfish
06/24/2018	Captiva Island	Lee	Mortality - Sea Turtle	GOM - Captiva Beach		Goliath Grouper, Sea Turtle
06/26/2018	Gasparilla Island	Lee	Fish Kill	GOM - Boca Grande Beach		Species Unidentified, Puffer, Tarpon, Flounder, Sheepshead,

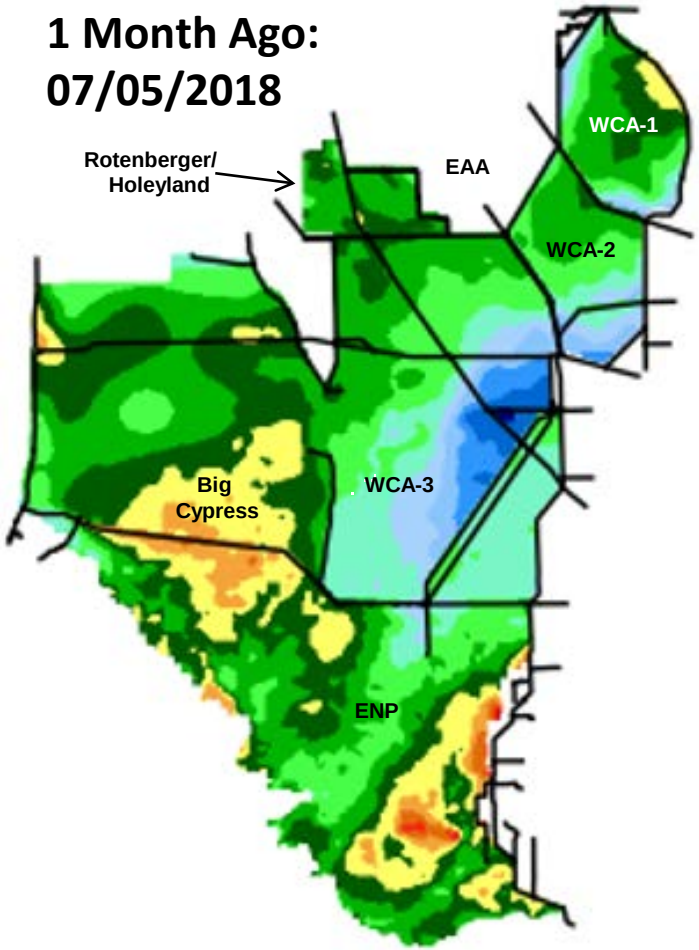
http://myfwc.com/research/redtide/

Everglades Water Depth Maps

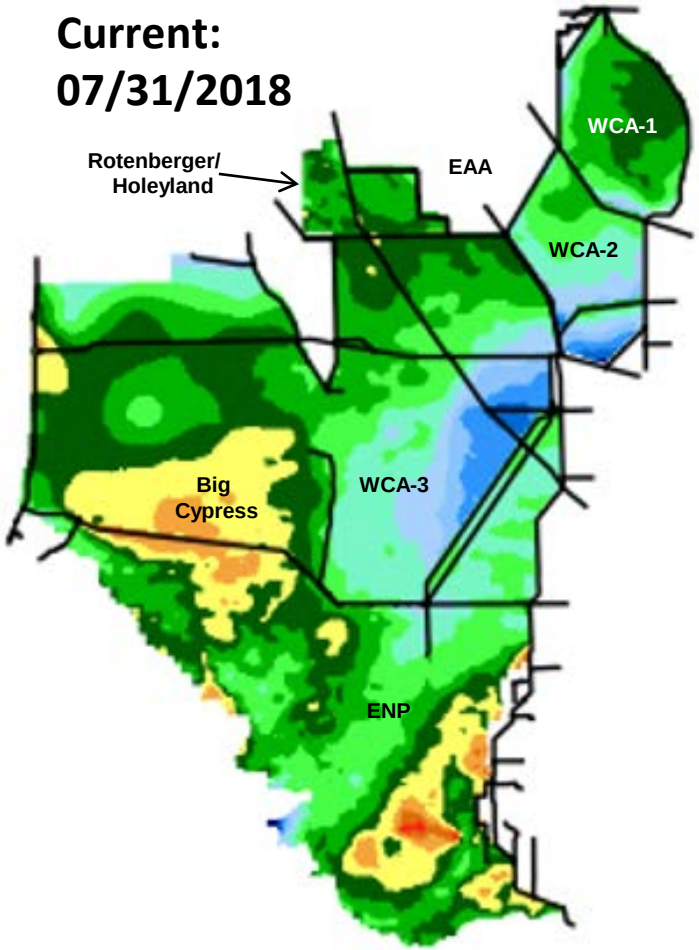
1 Year Ago:
08/05/2017

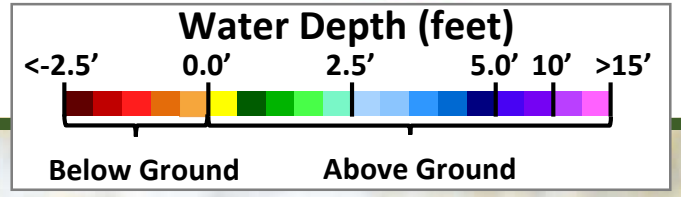
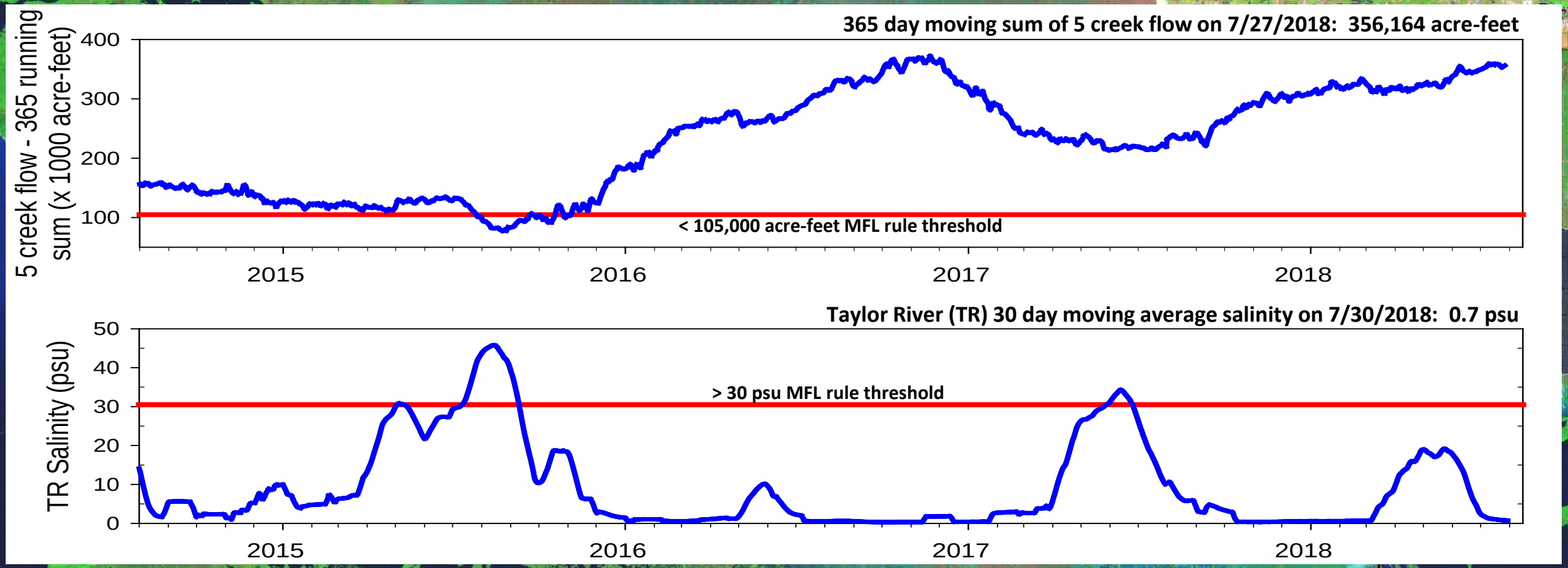


1 Month Ago:
07/05/2018



Current:
07/31/2018





Florida Bay MFL