

MEMORANDUM

To: Army Corps of Engineers Colonel Pantano, Lt. Colonel Kinard, Kim Taplin, Anthony Rodino, Steve Sullivan, SFWMD Melissa Meeker, Tommy Strowd, Terrie Bates, Susan Gray, DEP Herschel Vinyard

From: Periodic Scientists Conference Call Participants
Paul Tritaik & Tara Wertz - J.N. "Ding" Darling National Wildlife Refuges Complex
James Evans-City of Sanibel
Keith Kibbey-Lee County Environmental Lab
Rae Ann Wessel & Rick Bartleson Ph.D. -Sanibel Captiva Conservation Foundation

Subject: Caloosahatchee & Estuary Condition Report

Date: 22 November, 2011

This report provides a scientific assessment of the current conditions in the Caloosahatchee River and Estuary and how these conditions affect the health, productivity and function of the system.

Caloosahatchee Condition Summary

Lake Okeechobee Level: 13.85' (**Base Flow Band**) Last wk: 13.81' Last year 1313'

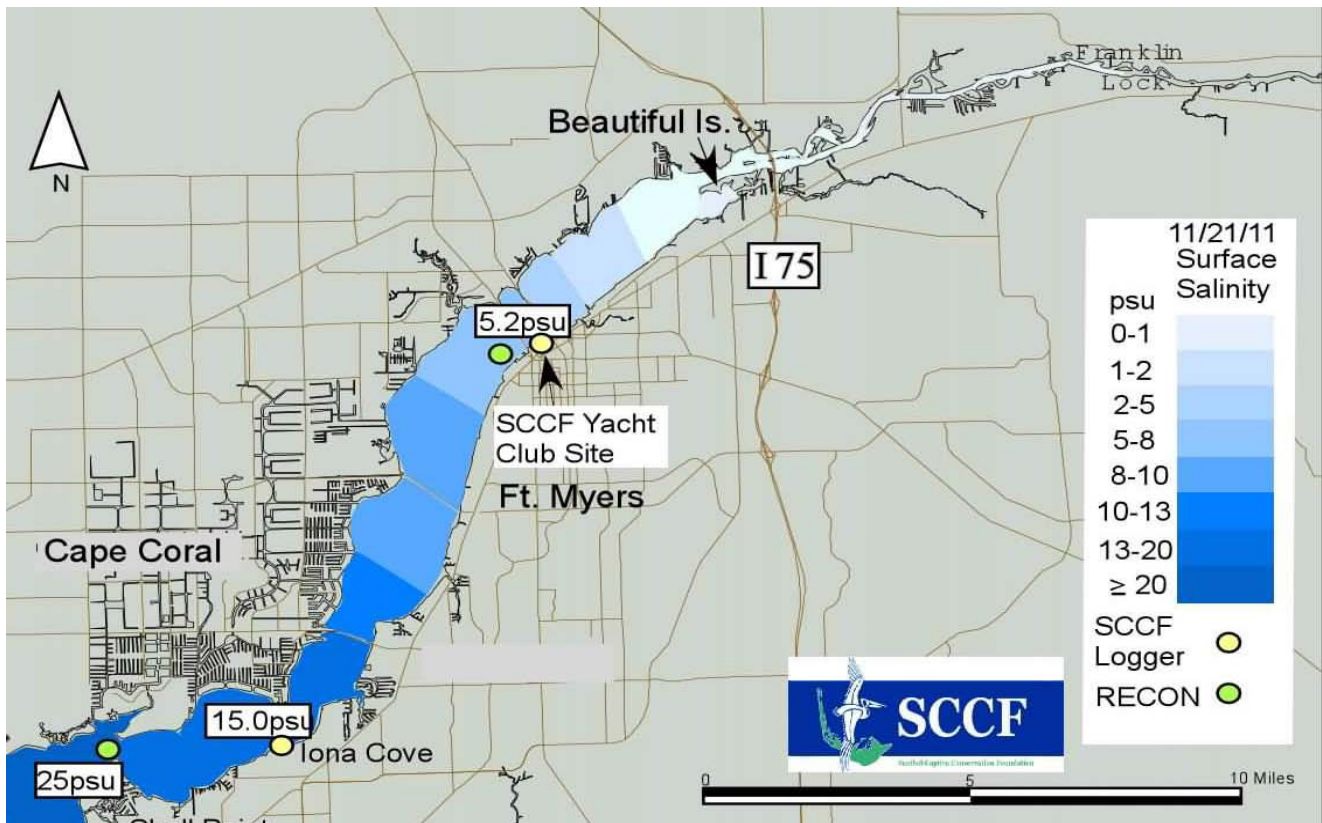
Weekly Rainfall: WP Franklin 0.2", Ortona 1.03", Moore Haven 0.31"

Salinity Ft. Myers: 2.1 - 7.8 psu surface data (SCCF sonde Ft Myers Yacht Basin) Prev. wk: 0.25 –0.33 psu
3.5 – 12 psu (SCCF RECON Marker 52) previous week: 0 -10 psu

MFL Status: Daily salinity at Fort Myers \leq 10 psu
30-day moving average = 2.3 psu Target \leq 10 psu at surface **In compliance**

Salinity Shell Point: 13.5 – 34 psu (SCCF RECON sensor) previous week: 11 – 31 psu

Olga Water Treatment Plant Chloride: 50 mg/L



Flow:

Flows to the Caloosahatchee estuary through S79 this past week averaged 257 cfs. Flows are entirely from the watershed with no flow from the Ortona basin and no contribution from Lake Okeechobee. Salinities increased throughout the river measuring up to **12 psu** at mid depths on a tidal cycle at Fort Myers, 11 – 22.1 psu at Iona and 13.5- 34 psu at Shell Point.

*** From ACOE Website Daily Reports**

Date	Day	S79 Flow* (cfs)	S78 Flow* (cfs)	S77 Flow* (cfs)
11/15/11	Tue	0	0	0
11/16/11	Wed	278	0	132
11/17/11	Thu	488	0	NR
11/18/11	Fri	270	0	NR
11/19/11	Sat	253	0	NR
11/20/11	Sun	362	0	NR
11/21/11	Mon	150	0	NR
Average Flow		257	0	

Water levels in Lake Okeechobee rose 0.04 ft over last week and measuring 0.72 ft above last year's level at this time.

Upstream of S79/Franklin Conditions: Fair.

The Lee County Health Department continues the Caloosahatchee Caution Advisory for residents and visitors.

Upper Estuary Condition: Fair.

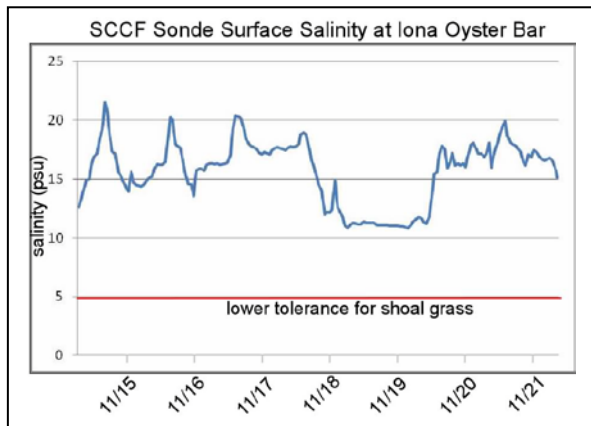
No phytoplankton blooms have been reported. CDOM remains high at Fort Myers with values of 197 qse. In Iona CDOM is much higher at 143 qse contributing to limited light penetration and light availability for submerged aquatic vegetation within the river.

**CE- Caloosahatchee Estuary
SCB-San Carlos Bay**

Definition of 25% Iz: I = irradiance and z = depth.

The target depths for the Caloosahatchee and San Carlos Bay are 1m and 2.2m. The SCB site is at Punta Rassa.

Caloosahatchee Stations	Chlorophyll (µg/l)	CDOM (qse)	Turbidity (NTU)	25% Iz Light (meters)
Maximum Values	< 11	CE <70 SCB <11	CE < 18 SCB < 5	CE = 1 m SCB =2.2m
Fort Myers	1.2	197	2.8	0.46
Iona	1.2	143	2.8	0.6
San Carlos Bay	0.15	44	4.6	1.34



Lower Estuary Condition: Fair.

Salinities at Shell Point have increased slowly as a result of lower freshwater inflows, ranging from 11 to 31 psu. This falls mostly within the preferred range for oysters. CDOM and turbidity continue to limit light penetration to less than the minimum depth (2.2 m) needed to sustain submerged aquatic vegetation (SAV) health.

Oysters:

The Condition Index is good, ranging between 1.99 – 3.83. The preferred range is > 2.

Disease (Dermo) prevalence is not good with 100%, all stations reporting. Disease Intensity is low ranging between 0.42 – 1.01 (scale 0 = no infection, 1 = low, 3 = medium, 5 = heavy).

Recruitment is good for this time of year ranging from at 1.33 – 8.53

Red Tide:

The *Karenia brevis* bloom that started 9/26 currently extends alongshore and offshore of Sanibel Island (southern Lee County) and northern Collier County.