

MEMORANDUM

To: USACE Colonel Andrew D. Kelly, LTC Todd F. Polk, Richard McMillen, Kim Taplin, SFWMD Governing Board, Executive Director Drew Bartlett, Jennifer Reynolds, Lawrence Glenn, DEP Secretary Noah Valenstein

From: Periodic Scientists Conference Call Participants
 Kevin Godsea & Jeremy Conrad - J.N. "Ding" Darling National Wildlife Refuge (NWR) Complex
 James Evans & Holly Milbrandt - City of Sanibel
 Lesli Haynes & Lisa Kreiger - Lee County
 Harry Phillips & Maya Robert - City of Cape Coral
 Leah Reidenbach & Rick Bartleson, PhD - Sanibel Captiva Conservation Foundation

Subject: Caloosahatchee & Estuary Condition Report

Reporting Period: **July 28 – August 03, 2020**

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

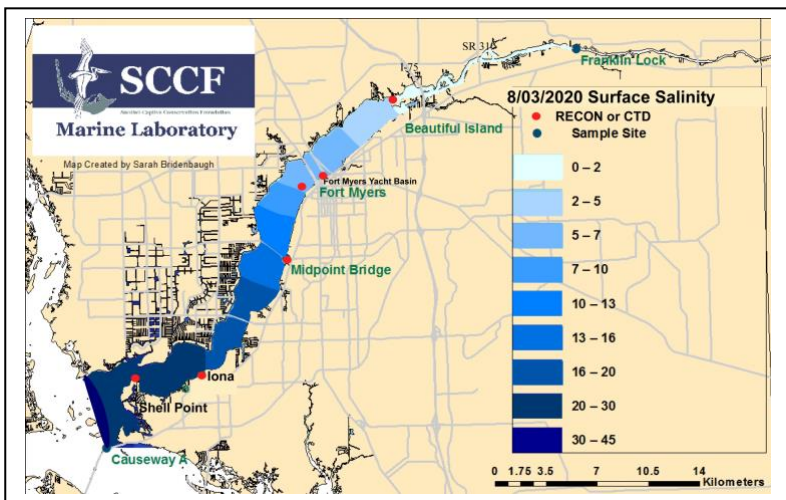
Caloosahatchee Condition Summary: Flows to the Caloosahatchee estuary had a 7-day average of **1,537 cfs at S-79, within the optimum flow envelope of 750 – 2,100 cfs for the maintenance of healthy salinity levels throughout the estuary.** Water clarity around Sanibel and Cape Coral remains good with flows at S-79 in the optimal range.

Recommendation: In order to maintain optimum salinities in the estuary and avoid damaging high flows during the wet season, we request 7-day average flows be maintained between 750 – 2,100 cfs at S-79. This is consistent with the 2020 RECOVER optimum flow envelope for the Caloosahatchee estuary.

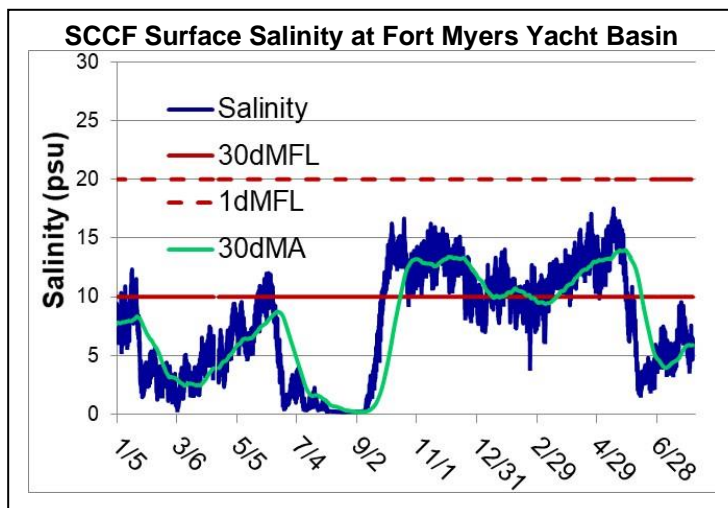
USACE Action: On 5/8/20 the Corps announced it will continue pulse releases to the Caloosahatchee from Lake Okeechobee at a 7-day average of **650 cfs at S-79.** Releases to the St. Lucie estuary at **S-80** will remain at **zero cfs.**

Lake Flows: In the past 7 days, **26 AF** was discharged from Lake Okeechobee, with **26 AF** to the Caloosahatchee thru **S-77** and **0 AF** to the **EAA.** There was a backflow of **2,538 AF** from the St. Lucie estuary through **S-308,** a backflow of **6,011 AF** at the **L-8 canal,** and a backflow of **316 AF** thru **S-310.** Water conservation areas received flows of **29,653 AF, 32,752 AF,** and **15,126 AF** at **WCA1, WCA2, and WCA3,** respectively. Everglades National Park received **23,770 AF.**

Lake Okeechobee Level: 13.33 ft (Base Flow Sub Band) **Last week: 13.01 ft**
Lake Okeechobee Inflow: 6,454 cfs **Lake Okeechobee Outflow: -442 cfs**
Weekly Rainfall Total: WP Franklin 0.32" Ortona 0.05" Moore Haven 0.60"



ACOE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
7/28/2020	2663	983	0
7/29/2020	1750	827	0
7/30/2020	2396	774	0
7/31/2020	1221	787	0
8/1/2020	1449	587	0
8/2/2020	699	150	0
8/3/2020	580	150	0
7 day avg	1537	608	0



Light Penetration				
Site	25% Iz	Target Values	Turbidity	Target Values
	meters		NTU	
Fort Myers	0.61	> 1	1.5	< 18
Shell Point	1.36	>2.2	0.8	< 18
Causeway	2.58	> 2.2	0.9	< 5

25% Iz is the depth (z) where irradiance (I) is 25% of surface irradiance. Target values indicate the depth of light penetration needed for healthy seagrass.

Cyanobacteria Status: On 8/4/20 sampling by the Lee County Environmental Lab reported the presence of the cyanobacteria species *Microcystis* at the Alva Bridge and the Davis Boat Ramp.

Upstream of S-79/Franklin Conditions: On 8/3/20 the Olga Water Treatment plant reported chlorides of **61 mg/l**, apparent color **115 CU** and turbidity **0.42 NTU**. No visible algae were reported at the plant intake the past week. The plant is offline.

Upper Estuary Conditions: The 30-day average surface salinity at the Fort Myers Yacht Basin was **5.9 psu**, within the suitable range for tape grass.

Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **26 psu**, within the optimal range for oysters.

Water Quality Conditions:

Monitor Site	Salinity (psu) ^a	Diss O ₂ (mg/L)	FDOM (qsde) ^b	Chlorophyll (µg/L) ^c
Beautiful Island	0.9 – 2.2	3.7 – 5.9	279	16
Fort Myers	3.7 – 7.6	3.3 – 8.0	86.7	2.6
Shell Point	18.0 – 33	2.8 – 5.9	17.1	5.9
McIntyre Creek	29.7 – 32.3	2.3 – 8.3	-----	1.4 – 4.2
Tarpon Bay	29.7 – 32.8	3.2 – 7.7	7.8 – 15.5	2.2 – 22.3
Wildlife Drive	30.0 – 32.5	0.6 – 11.0	-----	1.9 – 10.0
Wulfert Flats	19.2 – 32.0	3.3 – 10.7	-----	1.8 – 45.7

Red values are outside of the preferred range.

^a Salinity target values BI < 5, FM < 10, SP = 25 – 32

^b FDOM target values BI < 70, FM < 70, SP < 11

^c Chlorophyll (ug/L) BI < 11, FM < 11, SP < 11

Red Tide: On 7/31/20 FWC reported that the red tide organism, *Karenia brevis*, was not observed in samples collected statewide over the past week. [Click here for the FWC status of red tide.](#)

Wildlife Impacts: The past week CROW, the wildlife hospital on Sanibel, had **2 patients with red tide symptoms: 2 brown pelicans. 1 died and 1 still at CROW.**