

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: **August 18 – 24, 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.

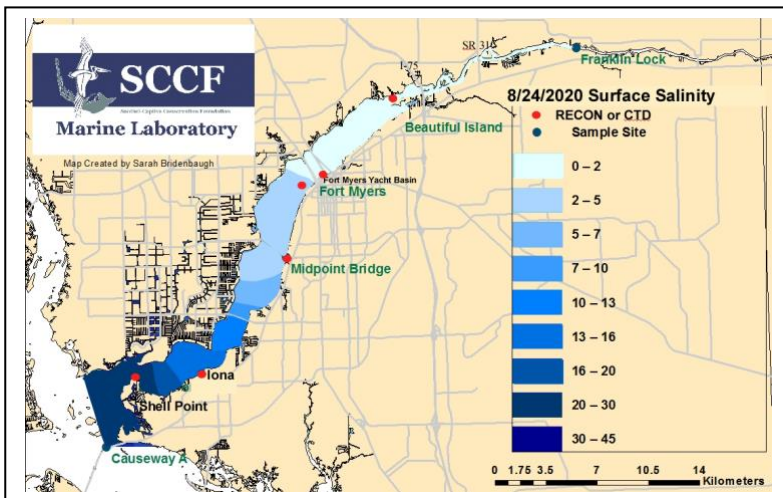
Caloosahatchee Condition Summary: Flows to the Caloosahatchee estuary had a 7-day average of **3,946 cfs at S-79**, mostly due to west basin runoff, with a 7-day average of **183 cfs coming from the lake at S-77**. Water quality and clarity around Sanibel remains good.

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.

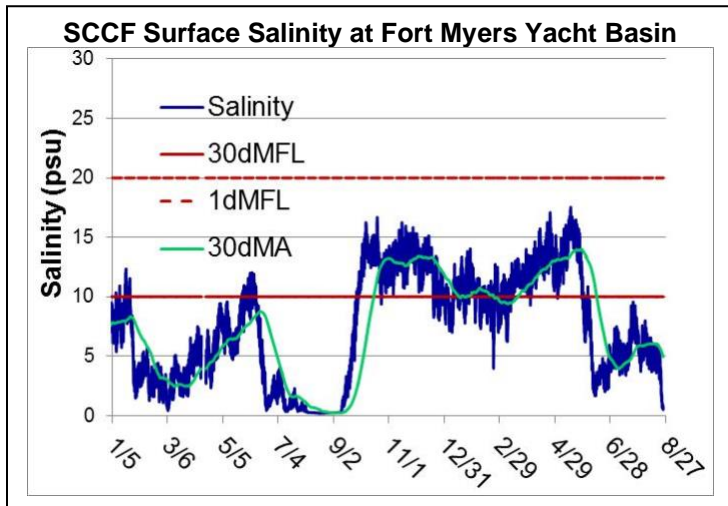
USACE Action: On 5/8/20 the Corps announced it will continue pulse releases to the Caloosahatchee from Lake Okeechobee at a 7-day average of **650 cfs at S-79**. Releases to the St. Lucie estuary at **S-80** will remain at **zero cfs**.

Lake Flows: In the past 7 days, **2,626 AF** was discharged from Lake Okeechobee, with **2,563 AF** to the Caloosahatchee thru **S-77**, **0 AF** to the **EAA** and **63 AF** thru **S-310**. There was a backflow of **1,258 AF** from the St. Lucie estuary through **S-308**, and a backflow of **6,626 AF** at the **L-8 canal**. Water conservation areas received flows of $\geq 17,846$ AF*, $\geq 18,685$ AF*, and $\geq 3,747$ AF* at **WCA1, WCA2, and WCA3**, respectively. Everglades National Park received $\geq 23,673$ AF.
 *missing data on 8/22/20

Lake Okeechobee Level: 14.13 ft (Low Sub Band) Last week: 13.86 ft
Lake Okeechobee Inflow: 4,867 cfs Lake Okeechobee Outflow: ---- cfs
Weekly Rainfall Total: WP Franklin 3.79" Ortona 3.61" Moore Haven ≥ 5.97 "



ACOE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
8/18/2020	590	397	494
8/19/2020	1380	294	640
8/20/2020	2012	563	144
8/21/2020	4865	1320	0
8/22/2020	7756	1985	0
8/23/2020	6070	1458	0
8/24/2020	4948	791	0
7 day avg	3946	973	183



Site	Light Penetration		Turbidity	Target Values
	25% I _z	Target Values		
	meters		NTU	
Fort Myers	0.61	> 1	4.2	< 18
Shell Point	0.82	>2.2	1.5	< 18
Causeway	1.73	> 2.2	2.2	< 5

25% I_z 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 8/25/20, sampling by the Lee County Environmental Lab reported no cyanobacteria in the Caloosahatchee.

Upstream of S-79/Franklin Conditions: On 8/25/20 the Olga Water Treatment plant reported chlorides of **44 mg/l**, apparent color **283 CU** and turbidity **1.51 NTU**. No visible algae were reported at the plant intake the past week. The plant is online at 1400 GPM.

Upper Estuary Conditions: The 30-day average surface salinity at the Fort Myers Yacht Basin was **5.0 psu**, within the suitable range for tape grass.

Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **24 psu**, within the optimal range for oysters and seagrass.

Water Quality Conditions:

Monitor Site	Salinity (psu) ^a [previous week]	Diss O ₂ (mg/L) ^b	FDOM (qsde) ^c	ChlorophyllII (µg/L) ^d
Beautiful Island	0.2 – 1.4 [0.6 – 1.6]	2.6 – 6.2	-----	2.4 – 5.2
Fort Myers	0.5 – 8.2 [3.6 – 6.5]	3.8 – 8.0	279	8.6
Shell Point	----- [17 – 32]	-----	204	1.8
McIntyre Creek	-----	-----	-----	-----
Tarpon Bay	30.3 – 34.3	2.9 – 7.3	5.5 – 36.5	3.3 – 16.5
Wildlife Drive	26.1 – 31.7	0.5 – 11.9	-----	1.9 – 26.8
Wulfert Flats	29.2 – 30.8	2.5 – 8.9	-----	3.0 – 45.4

Red values are outside of the preferred range.
^a Salinity target values: BI < 5, FM < 10, SP = 25 – 32
^b Dissolved O₂ target values: all sites > 4
^c FDOM target values: BI < 70, FM < 70, SP < 11
^d ChlorophyllII: BI < 11, FM < 11, SP < 11

Red Tide: On 8/21/20 FWC reported that the red tide organism, *Karenia brevis*, was observed background concentrations in three samples collected offshore of Sarasota County and in one sample collected offshore of Charlotte County. [Click here for the FWC status of red tide.](#)

Wildlife Impacts: The past week CROW, the wildlife hospital on Sanibel, had **1 royal tern with red tide symptoms. He is still receiving treatment at CROW.**