

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
 Holly Milbrandt & Dana Dettmar - City of Sanibel
 Lesli Haynes & Lisa Kreiger - Lee County
 Harry Phillips & Maya Robert - City of Cape Coral
 James Evans, Leah Reidenbach, & Rick Bartleson PhD - SCCF (Sanibel-Captiva Conservation Foundation)

Subject: Caloosahatchee & Estuary Conditions Report

Reporting Period: **September 29 – October 5, 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.

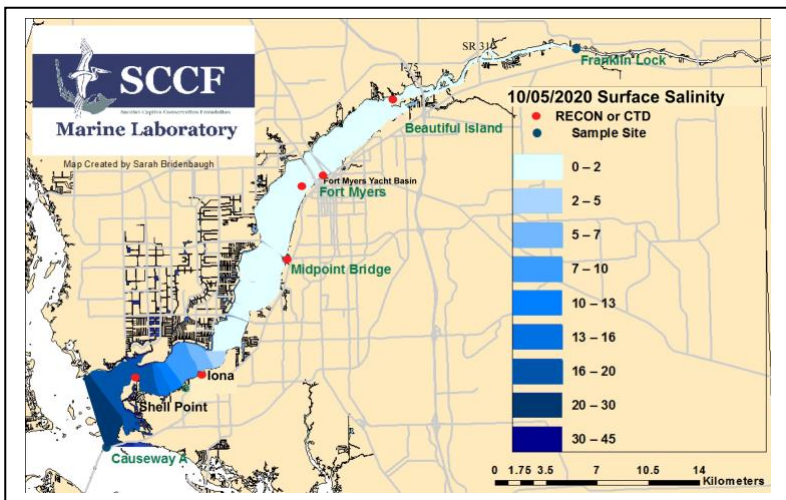
Caloosahatchee Condition Summary: Flows to the Caloosahatchee estuary had a 7-day average of **4,072 cfs at S-79, due to west basin runoff, with a 7-day average of 0 cfs coming from the lake at S-77. The 14-day moving average flow is 3,658 cfs and has been in the damaging flow envelope (>2600 cfs; RECOVER 2020) for the past 24 days.** With sustained flows >2,600 cfs at S-79, we expect low salinities to cause harm to marine organisms in the lower estuary. **Flows to the St. Lucie estuary at S-80 had a 7-day average of 432 cfs, with no water releases directly from the Lake at S-308.**

Recommendation: As the Lake continues to rise, we thank the Corps for taking a cautious, day to day approach to limit additional damaging flows to the Caloosahatchee. Recognizing the current high basin runoff, the approaching dry season, and the forecasted La Niña with drier than normal dry season conditions, we respectfully request no freshwater releases from Lake Okeechobee until watershed flows drop below 2,100 cfs. **Once flows drop below 2,100 cfs, 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.

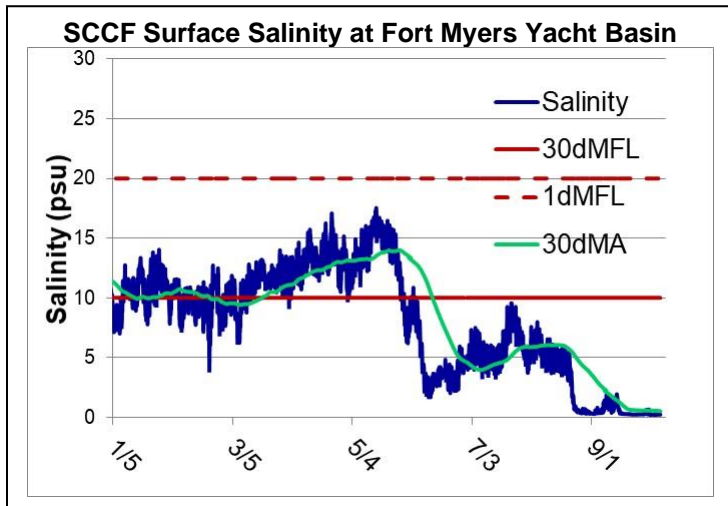
USACE Action: The LORS 2008 guidance allows for releases up to 3,000 cfs at S-79 and up to 1,170 cfs at S-80. For the past 7-days, there have been no direct Lake releases to the estuaries from S-77 or S-308.

Lake Flows: In the past 7 days, **12,344 AF** were discharged from Lake Okeechobee, with **4 AF** to the Caloosahatchee through **S-77**, **13 AF** to the St. Lucie River through **S-308**, **1,212 AF** through **S-310** in Clewiston, and **11,974 AF** to the **EAA** through **S-351**, **S-352**, and **S-354**. There was an average daily backflow of **87 AF** at the **L-8 canal** on 10/1 – 10/5*. Water conservation areas received flows of **13,940 AF**, **22,225 AF**, and **11,689 AF** at **WCA1**, **WCA2**, and **WCA3**, respectively. Everglades National Park received **23,971 AF**.
 *missing data on 9/29 – 9/30, daily average reported

Lake Okeechobee Level: 15.86 ft (low sub-band) **Last Week:** 15.47 ft
Lake Okeechobee Inflow: 14,556 cfs **Lake Okeechobee Outflow:** 774 cfs
Weekly Rainfall Total: WP Franklin 2.10" Ortona 2.21" Moore Haven 1.27"



ACOE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
9/29/2020	4361	932	0
9/30/2020	4416	1238	0
10/1/2020	3759	848	0
10/2/2020	2455	295	0
10/3/2020	2646	511	0
10/4/2020	5330	1896	0
10/5/2020	5538	2144	0
7 day avg	4072	1123	0



Light Penetration

Site	25% I _z	Target Values	Turbidity	Target Values
	meters		NTU	
Fort Myers	0.71	> 1	2.5	< 18
Shell Point	-----	>2.2	-----	< 18
Causeway	1.28	> 2.2	2.9	< 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 10/6/20, sampling by the Lee County Environmental Lab reported no cyanobacteria in the Caloosahatchee.

Upstream of S-79/Franklin Conditions: On 10/6/20 the Olga Water Treatment plant reported chlorides of **51 mg/l**, apparent color **221 CU** and turbidity **1.73 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 **0.5 psu**, within the suitable range for tape grass.

Lower Estuary Conditions: Light levels were very low near the Causeway in San Carlos Bay due to dissolved organic matter. The SCCF RECON at Shell Point is offline.

Water Quality Conditions:

Monitor Site	Salinity (psu) ^a [previous week]	Diss O ₂ (mg/L) ^b	FDOM (qsde) ^c	Chlorophyll (µg/L) ^d
Beautiful Island	0.1 – 0.2 [0.1 – 0.2]	2.1 – 3.2	473	7.8
Fort Myers Yacht Basin	0.2 – 0.7 [0.2 – 0.6]	3.7 – 6.8	461	8.3
Shell Point	----- [3.6 – 29]	-----	-----	-----
McIntyre Creek	21.7 – 26.0	1.9 – 8.0	10.4 – 17.1	2.0 – 5.6
Tarpon Bay	21.1 – 30.2	3.9 – 7.0	14.1 – 32.8	3.1 – 10.8
Wildlife Drive	21.7 – 25.8	0.7 – 14.8	-----	2.3 – 14.4
Wulfert Flats	-----	-----	-----	-----

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 Chlorophyll: BI < 11, FM < 11, SP < 11

Red Tide: On 10/2/20 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, received no patients with toxicosis symptoms.