MEMORANDUM

To: USACE Colonel Brandon L. Bowman, Major Cory Bell, Richard McMillen, SFWMD Governing Board, Executive Director Drew Bartlett, Jennifer Reynolds, DEP Secretary Alexis Lambert

From: Periodic Scientists Conference Call Participants
Kevin Godsea & Avery Renshaw - J.N. "Ding" Darling National Wildlife Refuge (NWR) Complex
Holly Milbrandt & Dana Dettmar - City of Sanibel
Allie Pecenka, Rick Bartleson PhD & Matt Depaolis- Sanibel-Captiva Conservation Foundation
With contributions from Harry Phillips & Maya Robert PhD- City of Cape Coral

Subject: Caloosahatchee & Estuary Conditions Report

Reporting Period: **June 10- 16, 2025**

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 Conditions Summary: Flow to the Caloosahatchee Estuary had a 7-day average of **835 cfs** at **S-79** with a 7-day average of **0 cfs** (0%) coming from the lake at **S-77. The 14-day moving average flow at S-79 was 1,254 cfs** and has been **in the optimum flow envelope** (750- 2,100 cfs; RECOVER 2020) for **12 days** after **38 days below the optimum flow envelope** (<750 cfs). **The 14-day moving average flow at S-77 was 1 cfs.**

Recommendation: We request that flows to the Caloosahatchee at S-79 be within the optimum flow envelope to best support estuarine health during the onset of the wet season. Given the reduced flow schedule with a lake release target of 250 cfs and additional flows expected to be supplemented by basin runoff, we request that modeling continue to account for realized vs projected precipitation as it impacts S-79 flows. In the event basin runoff does not supplement S-79 flows to reach the optimum flow envelope, we request that additional releases from S-77 be made to achieve optimum flows of 750- 2,100 cfs at S-79.

USACE Action: Lake Okeechobee stage is in the lower portion of Zone D (Zone D3 of the PA25 simulation) of the LOSOM regulation schedule. ENSO-neutral conditions are present and is favored during the summer. The District will continue to monitor conditions in the estuaries, as well as the systemwide conditions, as the wet season progresses. With the initiation of the wet season, and the termination of Recovery Operations, Normal Lake Operations will resume pursuant to the considerations in LOSOM as informed by PA25. To maintain favorable salinity levels in the estuaries and begin to conserve water, it is recommended that flow targets for the Caloosahatchee Estuary should rely on rainy season basin flows to ensure the delivery of the Minimum Flow and Level, but use Lake Okeechobee flows from S-77 to ensure S-79 flows remain above a targeted steady release of 250 cfs; flow targets for the St. Lucie Estuary and Lake Worth Lagoon should remain at 0 cfs consistent with Normal Operations within Zone D. The District will continue to monitor salinity conditions in the estuaries and water supply conditions throughout the system as the wet season progresses to assess future operational recommendations.

Lake Flows: In the past 7 days the total outflow from Lake Okeechobee was **-2,036 AF** with **5 AF** to the Caloosahatchee through **S-77**, **-2,041 AF** to the St. Lucie canal through **S-308** and **0 AF** to the EAA through **S-351**, **S-352**, and **S-354**. The total net inflow to the Lake was **6,694 AF** from Fisheating Creek, S-71, S-72, S-84s, S-65EX, and S-65EX1. Water conservation areas received flows of **1,160 AF**, **3,296 AF**, and **8,279 AF** at **WCA1, WCA2, and WCA3**, respectively. Everglades National Park received **1,029 AF.**
***Data missing from S-310 and L-8 on 6/10- 6/16 and from S-78 on 6/10 and 6/14.**

Lake Level: 11.18 ft (Zone D3) **Last Week**: **11.16 ft** **Last Year: 13.39 ft**

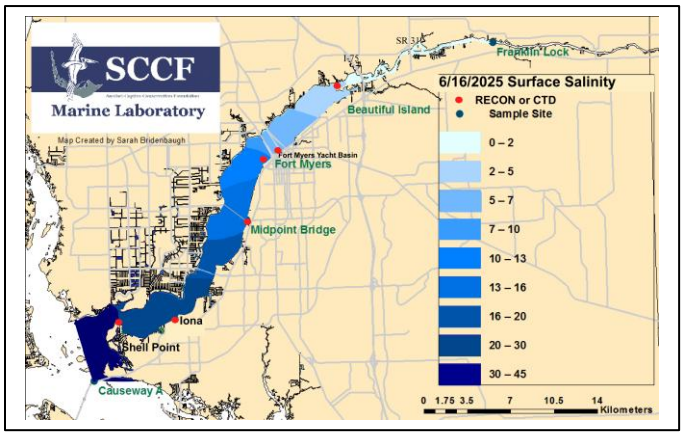
7-Day Lake Recession Rate: +0.02 ft/week

Lake Okeechobee Inflow: 480 cfs **Lake Okeechobee Outflow: 0 cfs**

Weekly Rainfall Total: **WP Franklin: 1.18"** **Ortona: 1.10"** **Julian Keen Jr.: 0.71"**

Cyanobacteria Status: On 6/16/25, sampling for cyanobacteria by the Lee County Environmental Lab reported *Dolichospermum, Microcystis* and cyano filaments as present **upstream of the Franklin Locks** and at the **Davis Boat Ramp**, appearing as sparse streaks with accumulation.

Red Tide: On 6/13/25, the FWC reported that the red tide organism, *Karenia brevis*, was detected at **background concentrations** in two samples from **Southwest Florida**; from Manatee and Charlotte counties.



Light Penetration

Site	25% Iz	Target Values	Turbidity	Target Values
	meters		NTU	
Fort Myers	1.2	> 1	2.6	< 18
Shell Point	1.9	>2.2	1.7	< 18
Causeway	4.1	> 2.2	2.2	< 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.*

Upper Estuary Conditions: The 30-day moving average surface salinity at the Fort Myers Yacht Basin was **11 psu**, in the stress range for tape grass (10- 15 psu; RECOVER 2020) and has been **over 10 psu for 29 days**. The weekly average was 8.8 psu. Blooms of dinoflagellates (Alva) and Coscinodiscus (Beautiful Is) occurred on 6/5/25 and 6/6/25 respectively.

Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **30 psu**, in the optimal range for seagrass, but **above optimal for oysters**.

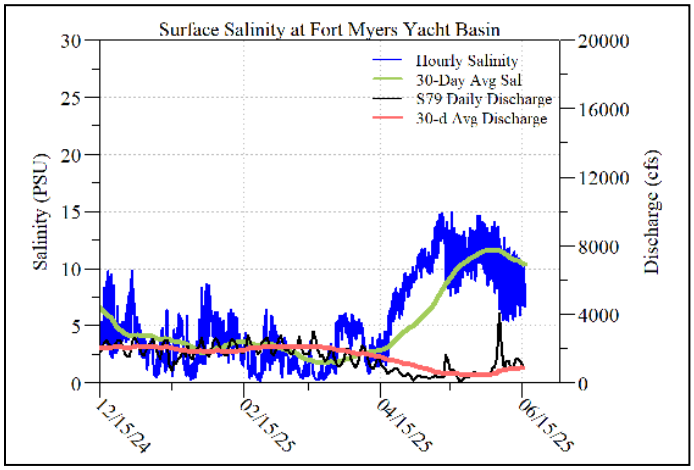
Water Quality Conditions:

Monitor Site	Salinity (psu)[a] [previous week]	Diss O_2 (mg/L)[b]	FDOM (qsde)[c]	Chlorophyll (µg/L)[d]	Temperature (°F)
Beautiful Island	1.6 – 3.3 [2.9 – 5.5]	1.5 – 6.6	127	6.0	87.0– 92.1
Fort Myers Yacht Basin	5.6 – 12 [8.7 – 15]	-------	65	3.5	84.7 – 89.9
Shell Point	24 – 36 [29 – 36]	4.3 – 7.2	30	1.3	86.1 – 90.3
McIntyre Creek	35.2—36.1 [33.5 – 36.9]	0.8 – 5.1	13.6 – 34.2	1.2 – 2.3	85.6 – 91.7
Tarpon Bay	35.5 – 36.7 [34.2 – 36.8]	2.4 – 8.4	8.2 – 18.6	0.8 – 5.4	86.1 – 91.1
Wulfert Flats	35.0 – 35.8 [34.2 – 36.2]	0.6 – 6.8	-------	8.1 – 31.4	86.4 – 91.9

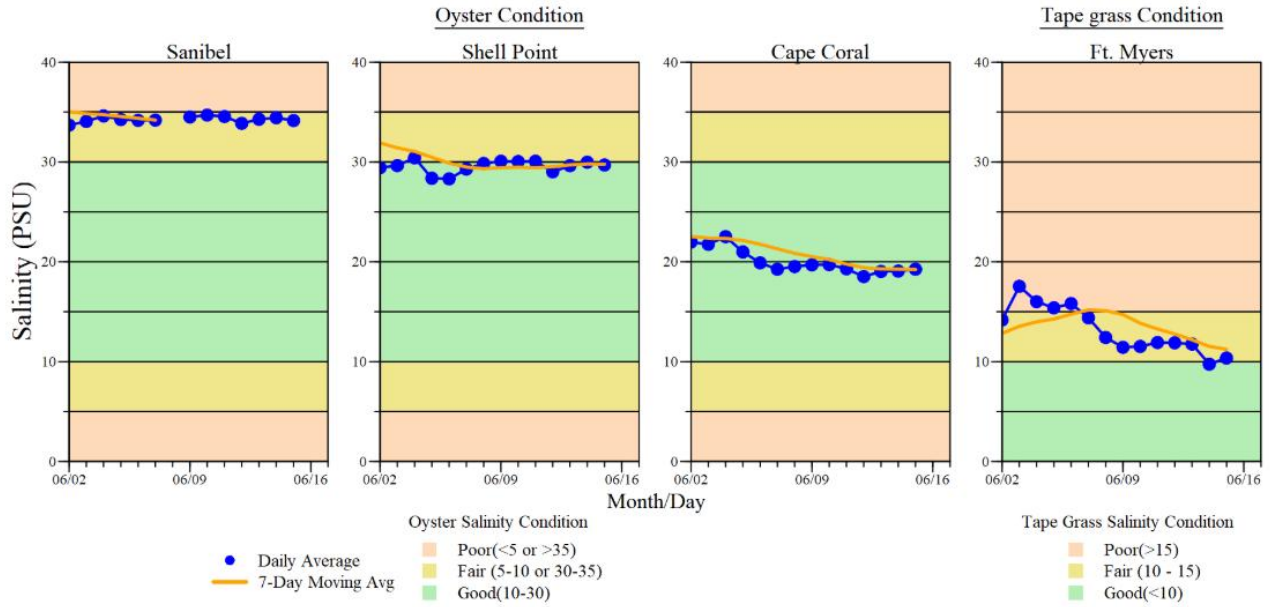
Red values are outside of the preferred range.
[a] Salinity target values: BI < 5, FM < 10, SP = 10 – 30
[b] Dissolved O_2 target values: all sites > 4
[c] FDOM target values: BI < 70, FM < 70, SP < 11
[d] Chlorophyll target values: BI < 11, FM < 11, SP < 11
[f] Temperature target values: < 90
[s] Single sonde lower and surface layer or surface grab lab measurement
ND: no data

Wildlife Impacts: In the past week, the CROW wildlife hospital on Sanibel admitted **2 patients** with suspected red tide/toxicosis: 1 adult white ibis (deceased) and 1 adult black crowned night heron (deceased). SCCF documented 1 sea turtle stranding, a deceased loggerhead on Sanibel.

Shellfish Advisory: Shellfish harvest area #6212 (Pine Island Sound Section 1; Aquaculture Lease and Public Reef) is **OPEN** by the Florida Department of Agriculture and Consumer Services (FDACS) as of 6/6/25. SHA #6222 (North Matlacha Pass) and SHA #6232 (South Matlacha Pass) are **CLOSED** as of 6/11/25 as a precautionary measure due to the presence of *Psuedo-nitzschia Spp*.



USACE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
6/10/25	834	453	0
6/11/25	722	428	0
6/12/25	1045	646	0
6/13/25	995	648	0
6/14/25	936	571	0
6/15/25	773	390	0
6/16/25	542	282	0
7-day avg	**835**	**488**	**0**



Daily average bottom salinity data for the last 14-days from sampling locations within the tidal Caloosahatchee River Estuary relative to oyster health (Sanibel, Shell Point and Cape Coral) and tape grass (*Vallisneria americana*) health (Ft. Myers only) conditions.
*Ft. Myers sensor is in the lower strata

Water clarity at Lighthouse Beach Park on 6-17-25 at 1:46 PM on a rising tide (1.8 ft).

Red drift algae deposits on Sanibel Island beaches on 6/13/25.