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: **September 16- 22, 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 **4,659 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 5,436 cfs** and has been **in the damaging flow envelope** (>2,600 cfs; RECOVER 2020) for **20 days. The 14-day moving average flow at S-77 was 0 cfs.**

Recommendation: We ask the USACE to remain reactive to changing conditions in Lake Okeechobee and the Caloosahatchee River and estuary in order to best support the ecological health of this system. In addition, we request the USACE manage flows to the extent practicable to align with RECOVER 2020 optimum flow targets for the Caloosahatchee; being 750– 2,100 cfs as measured 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 are likely 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, normal Lake Operations have resumed 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 which are expected to occur over the next week 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 within the Lake Okeechobee Service Area to assess whether further reductions are warranted in future operational recommendations.

Lake Flows: In the past 7 days the total outflow from Lake Okeechobee was **19 AF** with **19 AF** to the Caloosahatchee through **S-77**, **-16 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 **81,556 AF** from Fisheating Creek, S-71, S-72, S-84s, S-65EX, and S-65EX1. Water conservation areas received flows of **2,567 AF**, **12,483 AF**, and **16,402 AF** at **WCA1, WCA2, and WCA3**, respectively. Everglades National Park received **7,280 AF.**
***Data missing from S-310 and L-8 from 9/16- 9/22, and from S-80 on 9/16 and 9/19.**

Lake Level: 13.17 ft (Zone D3) **Last Week**: **12.98 ft** **Last Year: 15.13 ft**

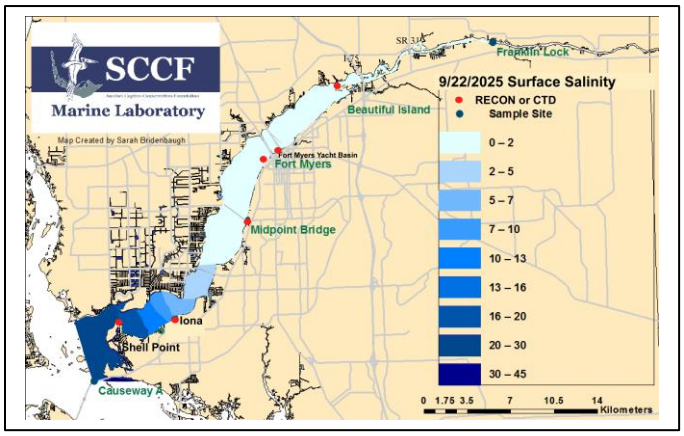
7-Day Lake Recession Rate: + 0.19 ft/ wk.

Lake Okeechobee Inflow: 4,801 cfs **Lake Okeechobee Outflow: 130 cfs**

Weekly Rainfall Total: **WP Franklin: 1.30"** **Ortona: 2.69"** **Julian Keen Jr.: 0.74"**

Cyanobacteria Status: On 9/22/25, sampling for cyanobacteria by the Lee County Environmental Lab reported **no visible cyanobacteria** across all sites.

Red Tide: On 9/19/25, the FWC reported that the red tide organism, *Karenia brevis*, was observed at background concentrations in four samples from Northwest Florida; in Gulf County and offshore of Citrus County. In Southwest Florida over the past week, *K. brevis* was **not observed**.



Light Penetration

Site	25% Iz	Target Values	Turbidity	Target Values
	meters		NTU	
Fort Myers	0.8	> 1	2.6	< 18
Shell Point	1.0	>2.2	1.8	< 18
Causeway	1.8	> 2.2	1.6	< 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 **0.6 psu,** within the suitable range for tape grass. The weekly average was 0.2 psu.
Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **16 psu**, in the optimal range for oysters but below optimal for seagrass. A bloom of *Rhizosolenia* (1 million cells/L, 18 µg chl/L) was present at the Causeway on 9/22/25.

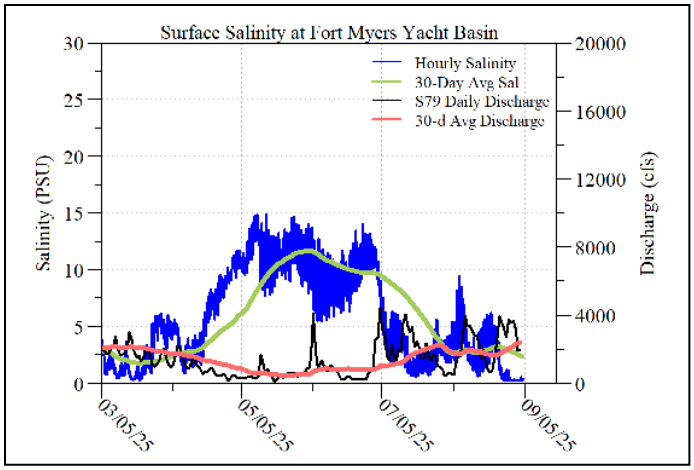
Water Quality Conditions:

Monitor Site	Salinity (psu)[a] [previous week]	Diss O_2 (mg/L)[b]	FDOM (qsde)[c]	Chlorophyll (µg/L)[d]	Temperature (°F)
Beautiful Island	0.2 – 0.2 [0.2 – 0.3]	2.8 - 4.0	160	8.3	82.7 – 87.6
Fort Myers Yacht Basin	0.2 – 0.2 [0.2 – 1.2]	4.0 -5.3	---	---	80.6 – 88.7
Shell Point	5.1 – 29 [5.1 – 31]	3.8 –6.1	100	4.3	82.1– 87.2
McIntyre Creek	21.2 – 25.9 [22.4 – 30.4]	2.3 – 11.2	45.2 – 65.0	3.7 – 12.2	80.6 – 89.6
Tarpon Bay	19.8 – 25.7 [20.0 – 32.2]	3.9 – 10.6	86.0 – 127.8	2.1 – 15.5	82.1 – 88.4
Wulfert Flats	22.9 – 29.0 [26.4 – 30.5]	3.1 – 10.7	----	10.7 – 64.9	81.0 – 89.1

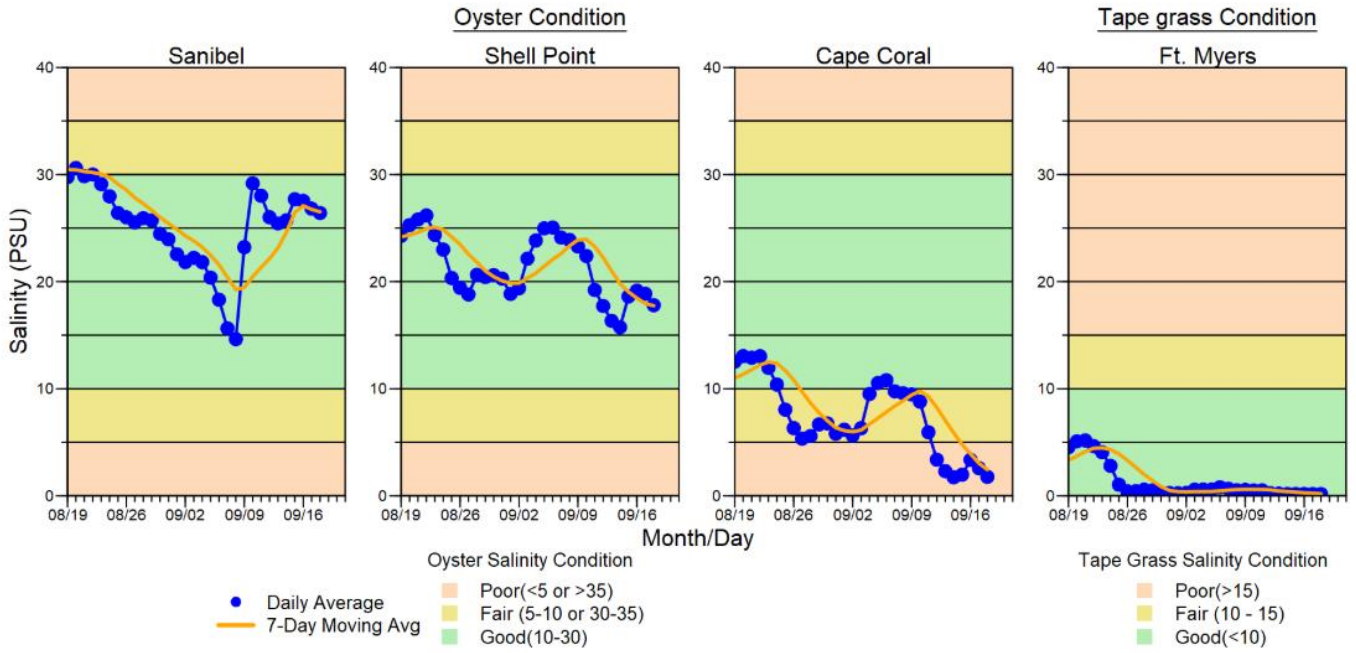
Red values are outside of the preferred range.
[a] Salinity target values: BI < 5, FM < 10, SP = 10 – 30
[b] Dissolved O_2 target values: all sites > 4
[c] FDOM target values: BI < 70, FM < 70, SP < 11
[d] Chlorophyll target values: BI < 11, FM < 11, SP < 11
[f] Temperature target values: < 90
[s] Single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

Shellfish Advisory: Shellfish harvest area #6212 (Pine Island Sound Section 1); Aquaculture Lease is **OPEN** as of 9/17/25 and SHA #6212 Public Reef is **CLOSED** by the Florida Department of Agriculture and Consumer Services (FDACS) as of 8/7/25 due to the presence of *Pyrodinium bahamense.* SHA #6222 (North Matlacha Pass) and SHA #6232 (South Matlacha Pass) are **OPEN** as of 8/31/25.

Wildlife Impacts: In the past week, the CROW wildlife hospital on Sanibel admitted **5 patients** with suspected red tide/toxicosis: 1 juvenile brown pelican (still in care), 3 adult sandwich terns (all deceased) and 1 adult great egret (deceased).



USACE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
9/16/25	4267	634	0
9/17/25	4798	673	0
9/18/25	6215	1212	0
9/19/25	6042	1328	0
9/20/25	4331	982	0
9/21/25	3730	592	0
9/22/25	3233	499	0
7-day avg	**4659**	**846**	**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 9/24/25 at 12:06 PM on a rising tide (1.5 ft).