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: **May 20- 26, 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 **432 cfs** at **S-79** with a 7-day average of **562 cfs** (100%) coming from the lake at **S-77. The 14-day moving average flow at S-79 was 614 cfs** and has been **below the optimum flow envelope** (<750 cfs) for **29 days. The 14-day moving average flow at S-77 was 437 cfs.**

Recommendation: The Corps must manage releases from Lake Okeechobee to ensure flows at S-79 are meeting the currently stated flow schedule. Aside from flows supplemented by basin runoff from rainfall, actual flows at S-79 have been consistently lower than the posted 500 cfs constant flow schedule, creating potentially damaging salinity levels in the estuary. With daily flows well below the RECOVER 2020 optimum flow envelope of 750- 2,100 cfs and the 14-day average flow at S-79 below optimum for 29 consecutive days, harm to the Caloosahatchee estuary is likely if this trend continues. For weeks, salinities have been above the optimum salinity envelope for oysters (10- 25 psu; RECOVER 2020), a trend that may have long-term impacts on populations. We respectfully request that the Corps take all necessary measures to provide beneficial flows to the Caloosahatchee in accordance with the stated schedule, though optimum flows would be in the 750- 2,100 cfs range.

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 continues to monitor conditions in the estuaries, as well as the systemwide conditions, as the dry season progresses. As such, the District recommends that USACE should continue non-harmful Recovery Operations for Lake Okeechobee as described in LOSOM recognizing that there is a higher chance to achieve Recovery targets. The forecast has changed into wetter conditions around Lake Okeechobee (but not as much on the Lake) for the next two weeks. To maintain favorable salinity levels in the estuaries and begin to conserve water, it is recommended that flow targets for the Caloosahatchee Estuary should ensure the delivery of the Minimum Flow and Level via a targeted steady release of 500 cfs and operational changes at S-77, S-78, and S-79 should be implemented to ensure the 500 cfs is delivered on a daily basis; flow targets for the St. Lucie Estuary should remain at 0 cfs, and the flow target for the Lake Worth Lagoon should remain at 0 cfs. However, weather conditions may be signaling the beginning of the wet season. The beginning of the wet season is the end of Recovery operations according to LOSOM, at which time the operational decisions fall back into Zone D operations supported by PA25. The District will continue to monitor salinity conditions in the estuaries and water supply conditions throughout the system as the dry season progresses to assess future operational recommendations.

Lake Flows: In the past 7 days the total outflow from Lake Okeechobee was **29,982 AF** with **7,818 AF** to the Caloosahatchee through **S-77**, **202 AF** to the St. Lucie canal through **S-308** and **21,962 AF** to the EAA through **S-351**, **S-352**, and **S-354**. The total net inflow to the Lake was **5,726 AF** from Fisheating Creek, S-71, S-72, S-84s, S-65EX, and S-65EX1. Water conservation areas received flows of **2,567 AF**, **1,257 AF**, and **0 AF** at **WCA1, WCA2, and WCA3**, respectively. Everglades National Park received **248 AF.**

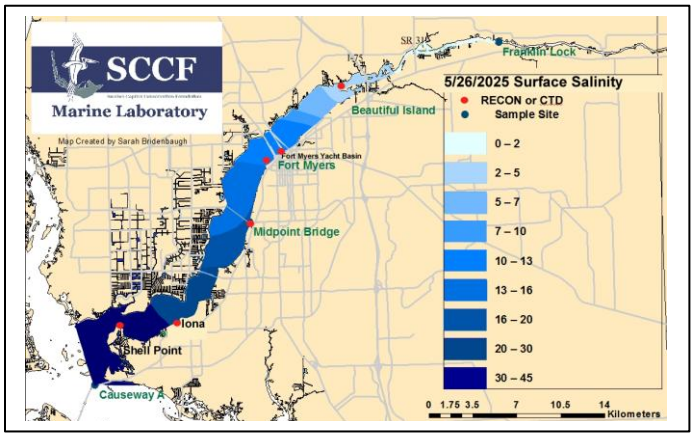
***Data missing from S-310 and L-8 on 5/20/25- 5/26/25 and from S-78 on 5/23 & 5/26.**

Lake Level: 10.94 ft (Zone D3) **Last Week**: **11.14 ft** **Last Year: 13.19 ft**

7-Day Lake Recession Rate: -0.20 ft/week

Lake Okeechobee Inflow: 1,275 cfs **Lake Okeechobee Outflow: 1,629 cfs**

Weekly Rainfall Total: **WP Franklin: 1.42"** **Ortona: 1.40"** **Julian Keen Jr.: 1.51"**



Light Penetration

Site	25% Iz	Target Values	Turbidity	Target Values
	meters		NTU	
Fort Myers	1.2	> 1	4.0	< 18
Shell Point	1.9	>2.2	1.6	< 18
Causeway	4.5	> 2.2	1.2	< 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.*

Cyanobacteria Status: On 5/27/25, sampling for cyanobacteria by the Lee County Environmental Lab reported **abundant** concentrations of primarily *Dolichospermum* and some *Microcystis* at the **Alva Boat Ramp,** appearing as heavy streaks with accumulation visually present. Specks of *Microcystis* were present **upstream of the Franklin Locks** and specks of *Dolichospermum* and cyano filaments were present at the **Davis Boat Ramp**.

Red Tide: On 5/23/25, the FWC reported that the red tide organism, *Karenia brevis*, was detected at background concentrations in one sample collected from Sarasota County and three samples offshore of Monroe County.

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 10 days. The weekly average was 12 psu.

Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **32 psu**, in the optimal range for seagrass, but **above optimal for oysters**.

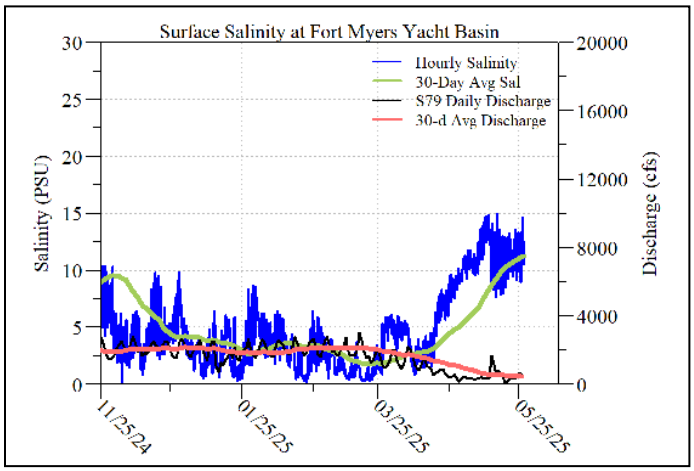
Water Quality Conditions:

Monitor Site	Salinity (psu)[a] [previous week]	Diss O_2 (mg/L)[b]	FDOM (qsde)[c]	Chlorophyll (µg/L)[d]	Temperature (°F)
Beautiful Island	2.2 – 5.2 [2.5 – 5.4]	2.1 – 5.9	110	7.5	88.1 – 93.1
Fort Myers Yacht Basin	6.1 – 12 [6.1 – 12]	-------	65	3.8	85.9 – 92.9
Shell Point	24 – 36 [24 – 35]	4.0 – 7.6	30	1.6	86.5 – 90.0
McIntyre Creek	34.3 – 35.9 [34.0 – 35.6]	1.6 – 6.4	19.4 – 34.6	0.8 – 2.5	85.4 – 92.8
Tarpon Bay	34.4 – 36.8 [34.2 – 35.8]	3.0 – 9.6	6.4 – 29.8	0.8 – 2.6	85.9 – 91.5
Wulfert Flats	35.5 – 36.6 [35.4 – 36.3]	2.9 – 9.1	-------	1.5 – 15.2	86.9 – 91.9

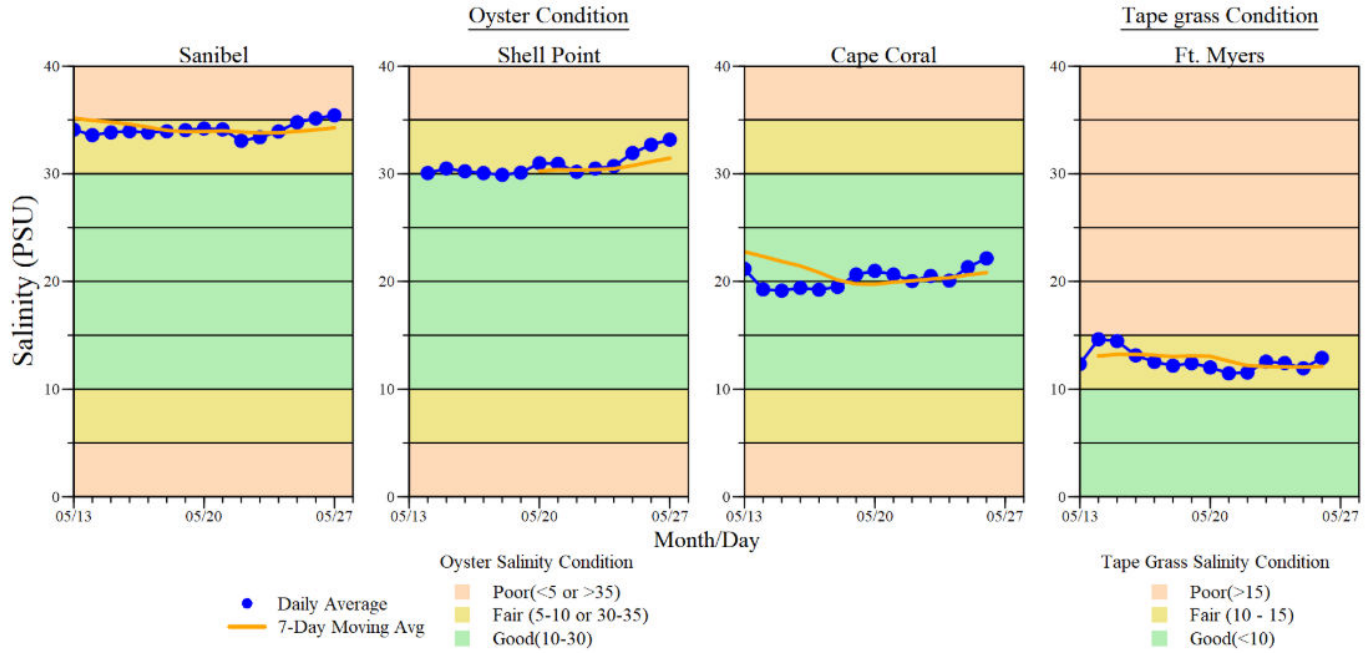
Red values are outside of the preferred range.
[a] Salinity target values: BI < 5, FM < 10, SP = 10 – 30
[b] Dissolved O_2 target values: all sites > 4
[c] FDOM target values: BI < 70, FM < 70, SP < 11
[d] Chlorophyll target values: BI < 11, FM < 11, SP < 11
[f] Temperature target values: < 90
[s] Single 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 juvenile osprey (still in care) and 1 adult ibis (deceased).

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 4/3/25. SHA #6222 (North Matlacha Pass) is **OPEN** as of 4/15/25. SHA #6232 (South Matlacha Pass) is **OPEN** as of 3/21/25.



ACOE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
5/20/25	192	299	604
5/21/25	356	233	668
5/22/25	408	220	768
5/23/25	332	NR	684
5/24/25	482	315	620
5/25/25	638	316	315
5/26/25	615	315	275
7-day avg	**432**	**283**	**562**



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 5-27-25 at 2:07 PM on a falling tide (3.2 ft).