MEMORANDUM

To: USACE Colonel Brandon L. Bowman, Major Cory Bell, Richard McMillen, SFWMD Governing Board, Executive Director Drew Bartlett, Jennifer Reynolds, Lawrence Glenn, 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

Subject: Caloosahatchee & Estuary Conditions Report

Reporting Period: **March 11- 17, 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 **2,134 cfs** at **S-79** with a 7-day average of **1,979 cfs (93%)** coming from the lake at **S-77. The 14-day moving average flow at S-79 was 2,054 cfs** and has been in the **optimum flow envelope** (750- 2,100 cfs; RECOVER 2020) for **6 days**. **The 14-day moving average flow at S-77 was 1,946 cfs.**

Recommendation: We ask the USACE to structure recovery flows to the CRE in a format that will benefit the ecology of the ecosystems and align with RECOVER 2020 optimum flow targets of 750- 2,100 cfs measured at S-79.

USACE Action: Lake Okeechobee stage is in the middle third of Zone D (Zone D2 of the PA25 simulation) of the LOSOM regulation schedule. The current climate outlook is for La Niña and is expected to persist in the near-term. The District will continue to monitor conditions in the estuaries in anticipation of the onset of spawning season. The District recommends the USACE should continue non-harmful Recovery Operations for Lake Okeechobee as described in LOSOM while looking to implement potential reductions in flows as spawning is initiated this year based on estuarine conditions and climate forecasts. The USACE should continue to track Red Tide and Blue Green Algae conditions, and should conditions change during this operational period, the USACE should look to reassess releases as needed.

Lake Flows: In the past 7 days the total outflow from Lake Okeechobee was **84,168 AF** with **27,570 AF** to the Caloosahatchee through **S-77**, **17,840 AF** to the St. Lucie canal through **S-308** and **38,758 AF** to the EAA through **S-351**, **S-352**, and **S-354**. The total net inflow to the Lake was **6,313 AF** from Fisheating Creek, S-71, S-72, S-84s, S-65EX, and S-65EX1. Water conservation areas received flows of **117 AF**, **287 AF**, and **7,617 AF** at **WCA1, WCA2, and WCA3**, respectively. Everglades National Park received **819 AF.**
***Data missing from S-310 and L-8 from 3/11/25- 3/17/25.**

Lake Level: 13.13 (Zone D2) **Last Week**: **13.43 ft** **Last Year: 15.75**

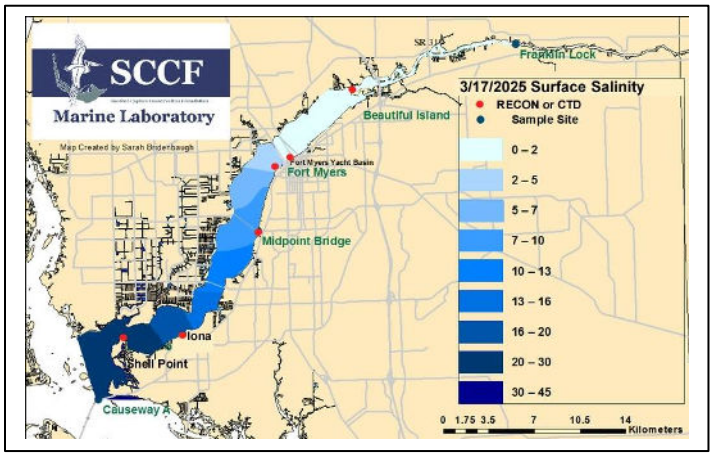
7-Day Lake Recession Rate: -0.30 ft/week

Lake Okeechobee Inflow: 396 cfs **Lake Okeechobee Outflow: 5,458 cfs**

Weekly Rainfall Total: **WP Franklin: 0.40"** **Ortona: 0.48"** **Moore Haven: 0.60"**

Cyanobacteria Status: On 3/17/25, sampling for cyanobacteria by the Lee County Environmental Lab reported **no visible cyanobacteria** across all sites.

Red Tide: On 3/14/25, the FWC reported that the red tide organism, *Karenia brevis*, was detected in 2 samples collected from Florida's Gulf Coast. In **Southwest Florida** over the past week, *K. brevis* was observed at background concentrations in one sample collected from Pinellas County.



Light Penetration

Site	25% Iz	Target Values	Turbidity	Target Values
	meters		NTU	
Beautiful Is	0.8	> 1	4.0	< 18
Shell Point	1.4	>2.2	3.0	< 18
Causeway	3.0	> 2.2	3.2	< 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 average surface salinity at the Fort Myers Yacht Basin was 2.2 psu, in the range for tape grass. A sample from Beautiful Island on 3/12/25 contained 3 million *Skeletonema* filaments/L.

Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was 25 psu, in the optimal range for oysters but below optimal for seagrass. Phytoplankton biomass was low in SCCF's causeway and beach samples during the week.

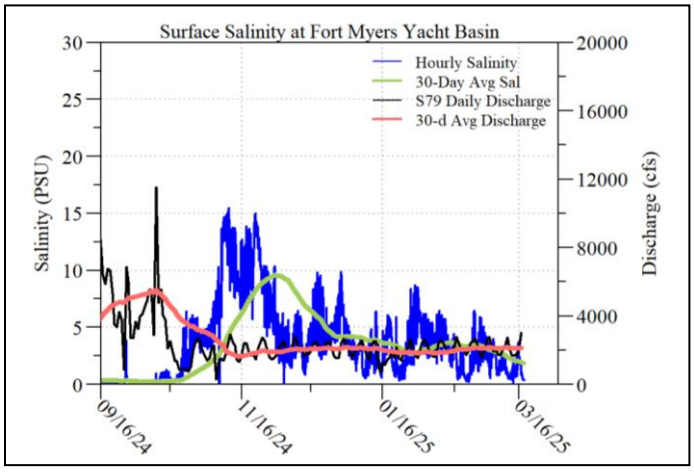
Water Quality Conditions:

Monitor Site	Salinity (psu)[a] [previous week]	Diss O_2 (mg/L)[b]	FDOM (qsde)[c]	Chlorophyll (µg/L)[d]	Temperature (°F)
Beautiful Island	0.3- 0.3 [ND]	5.6 - 9.1	135	4.5	73.8 - 82.5
Fort Myers Yacht Basin	0.5 - 3.8 [0.5- 4.0]	ND	ND	ND	65.9– 77.7
Shell Point	15 - 33 [13 - 33]	5.7 – 7.3	60	1.3	69.1– 75.2
McIntyre Creek	31.5 – 34.5 [29.3 – 33.0]	2.8 – 5.8	15.6 – 43.3	0.9 – 1.8	66.4 – 79.1
Tarpon Bay	29.6 – 35.0 [28.0 – 34.6]	5.2 – 8.4	15.3 – 53.9	0.9 – 3.0	67.2 – 77.3
Wulfert Flats	ND [ND]	ND	-------	ND	ND

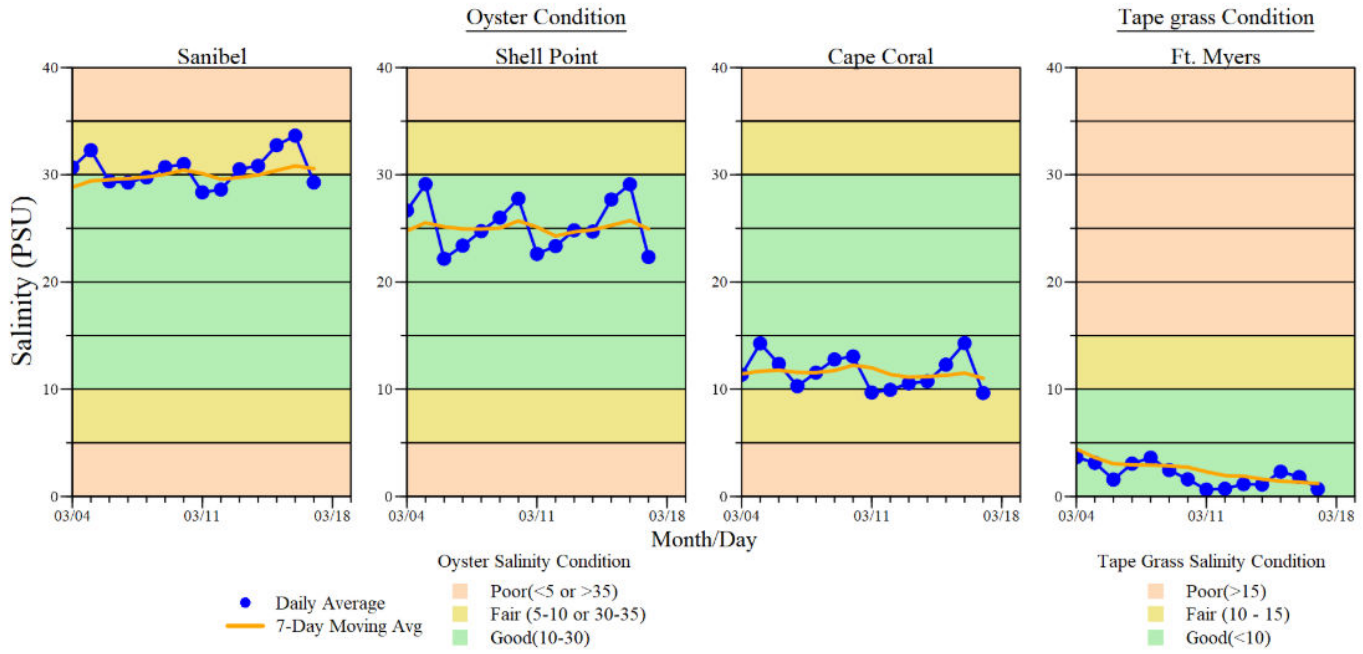
Red values are outside of the preferred range.
[a] Salinity target values: BI < 5, FM < 10, SP = 10 – 30
[b] Dissolved O_2 target values: all sites > 4
[c] FDOM target values: BI < 70, FM < 70, SP < 11
[d] Chlorophyll target values: BI < 11, FM < 11, SP < 11
[f] Temperature target values: < 90
[s] Single 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 **9 patients** with suspected red tide/toxicosis: 1 adult herring gull (still in care), 1 adult lesser black-backed gull (still in care), 1 adult brown pelican (still in care), 1 juvenile brown pelican (deceased), 3 adult royal terns (1 deceased, 2 still in care) and 2 juvenile double-crested cormorants (both deceased).

Shellfish Advisory: Shellfish harvest area #6212 (Pine Island Sound Section 1; Aquaculture Lease and Public Reef) is **CLOSED** due to the presence of *Karenia brevis* as of 11/06/24. SHA #6222 (North Matlacha Pass) is **OPEN** as of 3/13/25. SHA #6232 (South Matlacha Pass) is **CLOSED** by the Florida Department of Agriculture and Consumer Services (FDACS) due to the presence of *Karenia brevis* as of 1/30/25.



ACOE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
3/11/25	2752	1915	2327
3/12/25	2007	1515	2116
3/13/25	1675	1411	1856
3/14/25	1706	1324	1832
3/15/25	1699	1429	1820
3/16/25	2086	1661	1772
3/17/25	3010	1868	2132
7-day avg	**2134**	**1589**	**1979**



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 3-19-25 at 2:07 PM on a slack tide (2.7 ft).