

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: **July 8- 14, 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 **1,974 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 2,301 cfs** and has been in the **stress flow envelope** (2,100- 2,600 cfs; RECOVER 2020) for **1 day** after **10 days** in the **optimum flow envelope** (750- 2,100 cfs). **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 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 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 **-30,901 AF** with **0 AF** to the Caloosahatchee through **S-77**, **-30,901 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 **26,451 AF** from Fisheating Creek, S-71, S-72, S-84s, S-65EX, and S-65EX1. Water conservation areas received flows of **9,365 AF**, **11,910 AF**, and **7,005 AF** at **WCA1**, **WCA2**, and **WCA3**, respectively. Everglades National Park received **125 AF**.

*Data missing from S-310 and L-8 on 7/8- 7/14, S-78 on 7/9 and 7/11- 7/14, S-351 on 7/11- 7/12, S-80 on 7/13 and ENP on 7/8- 7/9 and 7/13- 7/14.

Lake Level: 11.53 ft (Zone D3)

Last Week: 11.41 ft

Last Year: 13.53 ft

7-Day Lake Recession Rate: +0.12 ft/week

Lake Okeechobee Inflow: 2,757 cfs

Lake Okeechobee Outflow: 56 cfs

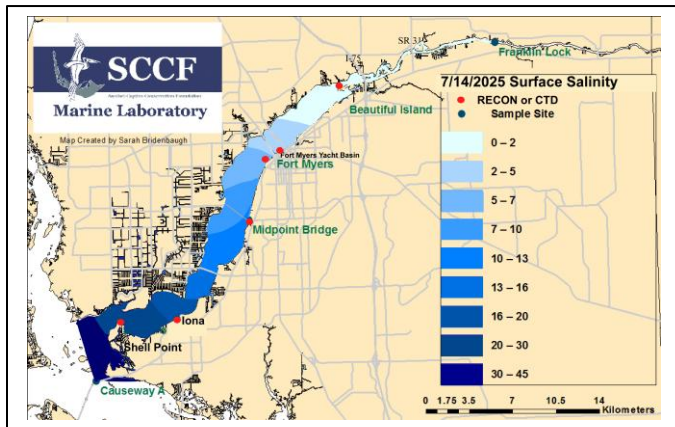
Weekly Rainfall Total: WP Franklin: 5.67"

Ortona: 3.27"

Julian Keen Jr.: 3.99"

Cyanobacteria Status: On 7/14/25, sampling for cyanobacteria by the Lee County Environmental Lab reported **no visible cyanobacteria** across all sites.

Red Tide: On 7/11/25, the FWC reported that the red tide organism, *Karenia brevis*, was **not observed** in samples collected statewide.



Light Penetration

Site	25% Iz		Turbidity	
	meters		NTU	
Beautiful Is	0.7	> 1	2.6	< 18
Shell Point	1.7	> 2.2	1.3	< 18
Causeway	3.4	> 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 **8.3 psu**, within the suitable range for tape grass. The weekly average was 3.9 psu.

Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **26 psu**, in the optimal range for seagrass and oysters. Diatoms, *Chaetoceros* and *Pseudo-nitzschia*, were the dominant net plankton genera on 7/14/25.

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	0.3 – 0.7 [0.6 – 6.0]	1.6 – 5.0	175	6.8	85.3 – 92.6
Fort Myers Yacht Basin	1.8 – 6.5 [2.4 – 13]	-----	----	----	85.0 – 91.5
Shell Point	16 – 33 [19 – 35]	3.4 – 6.8	40	1.5	84.6 – 90.8
McIntyre Creek	29.6 – 32.8 [27.4 – 33.9]	1.5 – 4.8	24.5 – 39.6	1.4 – 3.7	85.7 – 93.7
Tarpon Bay	29.6 – 34.0 [30.0 – 34.4]	3.0 – 8.7	14.9 – 30.6	1.3 – 3.5	86.5 – 91.4
Wulfert Flats	30.9 – 33.0 [30.1 – 33.4]	0.7 – 7.1	-----	5.4 – 15.2	86.2 – 92.1

Red values are outside of the preferred range.

^a Salinity target values: BI < 5, FM < 10, SP = 10 – 30

^b Dissolved O₂ target values: all sites > 4

^c FDOM target values: BI < 70, FM < 70, SP < 11

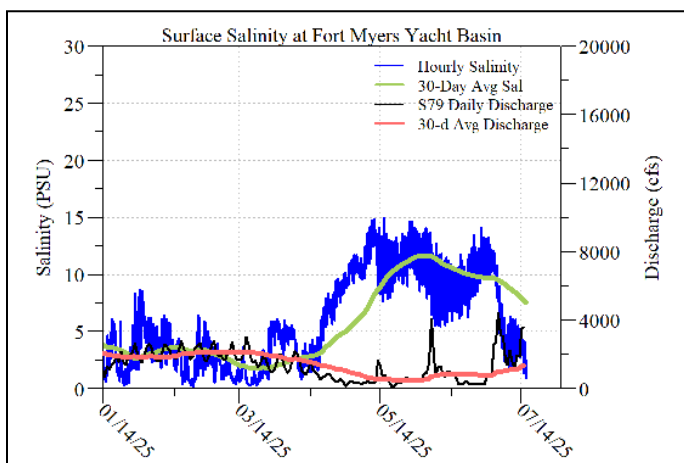
^d Chlorophyll target values: BI < 11, FM < 11, SP < 11

^f Temperature target values: < 90

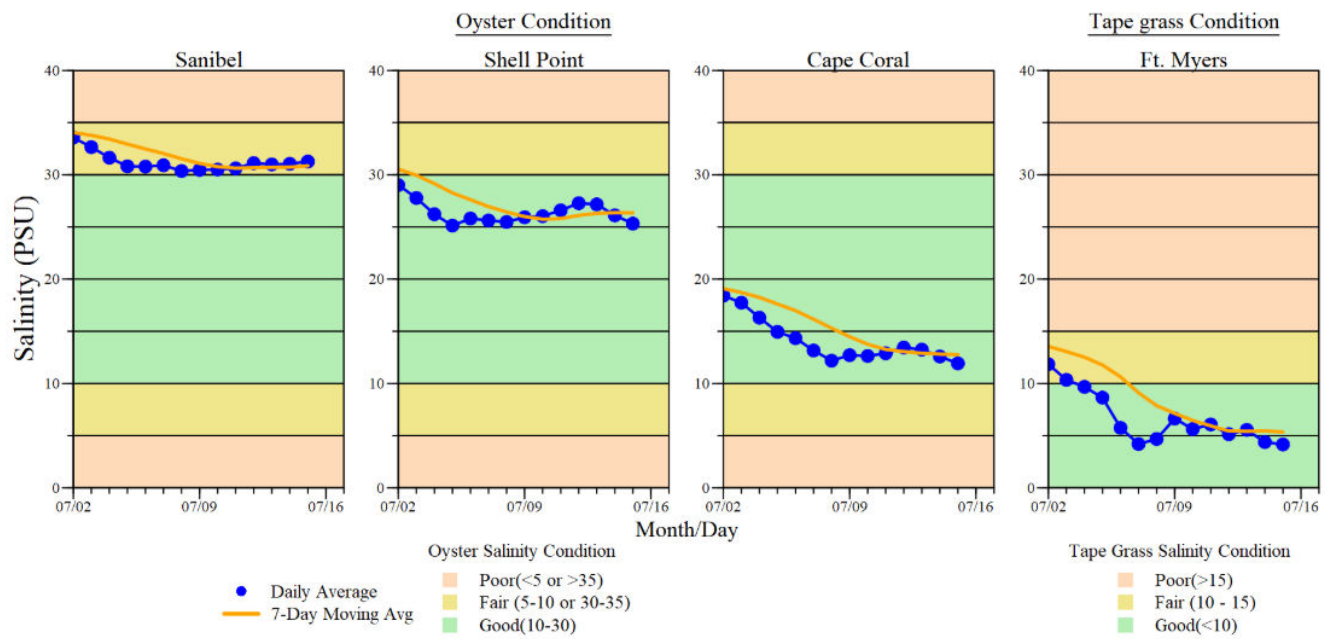
^s Single sonde lower and surface layer or surface grab lab measurement
ND: no data

Wildlife Impacts: In the past week, the CROW wildlife hospital on Sanibel admitted **3 patients** with suspected red tide/toxicosis: 1 adult laughing gull (deceased), 1 juvenile red-footed booby (deceased) and 1 adult white ibis (deceased). SCCF documented 1 sea turtle stranding in the past week, a deceased loggerhead in Pine Island Sound.

Shellfish Advisory: Shellfish harvest area #6212 (Pine Island Sound Section 1; Aquaculture Lease and Public Reef) is **CLOSED** by the Florida Department of Agriculture and Consumer Services (FDACS) as of 7/9/25 as a precautionary measure due to presence of *Pyrodinium bahamense*. SHA #6222 (North Matlacha Pass) and SHA #6232 (South Matlacha Pass) are **OPEN** as of 6/18/25.



USACE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
7/8/25	1407	202	0
7/9/25	2256	730	0
7/10/25	1577	644	0
7/11/25	1176	NR	0
7/12/25	1957	NR	0
7/13/25	1886	NR	0
7/14/25	3559	NR	0
7-day avg	1974	525	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