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: **December 2- 8, 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 **392 cfs** at **S-79** with a 7-day average of **473 cfs** (83%) coming from the lake at **S-77. The 14-day moving average flow at S-79 was 380 cfs** and has been **below the optimum flow envelope** (<750 cfs) for **44 days. The 14-day moving average flow at S-77 was 365 cfs.**

Recommendation: The 14-day moving average flow at S-79 has remained below the optimum flow envelope (750- 2,100 cfs) for the past **44 days**. Salinity levels have risen above the optimum range for tape grass (<10 psu) in the upper estuary and above the optimum range for oysters (10-25 psu) in the lower estuary (RECOVER 2020). We recommend that supplemental releases from S-77 be made to ensure S-79 flows remain above a targeted steady release of at least 750 cfs to maintain necessary salinity levels in the Caloosahatchee estuary.

USACE Action: On November 30 the daily average Lake Okeechobee stage was 12.36 feet NAVD88 (13.66 feet NGVD29), which placed it within the lower portion of Zone D (Zone D3 of the PA25 simulation) of the Lake Okeechobee System Operating Manual (LOSOM). Lake stage decreased by 0.13 feet over the preceding 14-day period. La Niña conditions are present and favored to persist in the next couple of months. The District will continue to monitor conditions in the estuaries, as well as the systemwide conditions. With the initiation of the dry season, Normal Lake Operations continue pursuant to the considerations in LOSOM as informed by PA25. It is recommended that flow targets for the Caloosahatchee Estuary should rely on 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 350 cfs; flow targets for the St. Lucie Estuary and Lake Worth Lagoon should remain at 0 cfs consistent with Normal Operations within Zone D.

Lake Flows: In the past 7 days the total outflow from Lake Okeechobee was **14,393 AF** with **6,607 AF** to the Caloosahatchee through **S-77**, **0 AF** to the St. Lucie canal through **S-308** and **7,786 AF** to the EAA through **S-351**, **S-352**, and **S-354**. The total net inflow to the Lake was **7,484 AF** from Fisheating Creek, S-71, S-72, S-84s, S-65EX, and S-65EX1. Water conservation areas received flows of **190 AF**, **277 AF**, and **226 AF** at **WCA1, WCA2, and WCA3**, respectively. Everglades National Park received **3,510 AF.**

***Data missing from S-310 and L-8 from 12/2- 12/8 and from S-80 on 12/3 and 12/5- 12-8.**

Lake Level: 13.63 (Zone D3) **Last Week**: **13.66 ft** **Last Year: 15.56 ft**

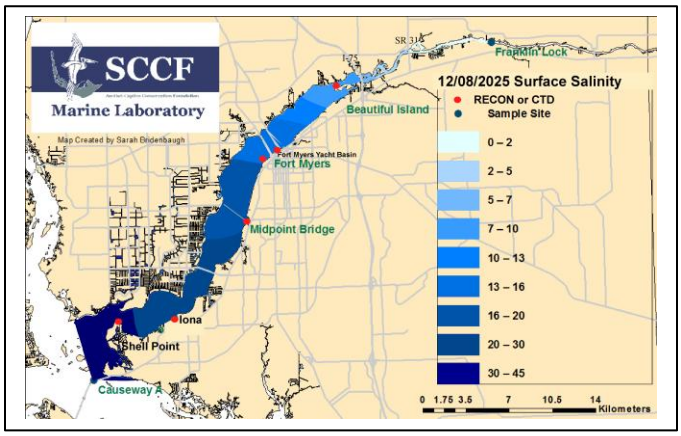
7-Day Lake Recession Rate: -0.03 ft/ wk.

Lake Okeechobee Inflow: 332 cfs **Lake Okeechobee Outflow: 1,222 cfs**

Weekly Rainfall Total: **WP Franklin: 1.00"** **Ortona: 0.41"** **Julian Keen Jr.: 0.35"**

Red Tide: On 12/5/25, the FWC reported that the red tide organism, *Karenia brevis*, was observed in **20 samples** from Northwest Florida. In Southwest Florida over the past week, *K. brevis* was not observed.

Cyanobacteria Status: On 12/8/25, sampling for cyanobacteria by the Lee County Environmental Lab reported *Microcystis* and *Aphanizomenon* as **present at the Alva Boat Ramp,** appearing as some light streaks.



Light Penetration

Site	25% Iz	Target Values	Turbidity	Target Values
	meters		NTU	
Fort Myers	1.0	> 1	2.5	< 18
Shell Point	1.8	>2.2	1.6	< 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 has been over 10 psu for 18 days and was **13 psu, above the suitable range for tape grass**. The weekly average was 16 psu.

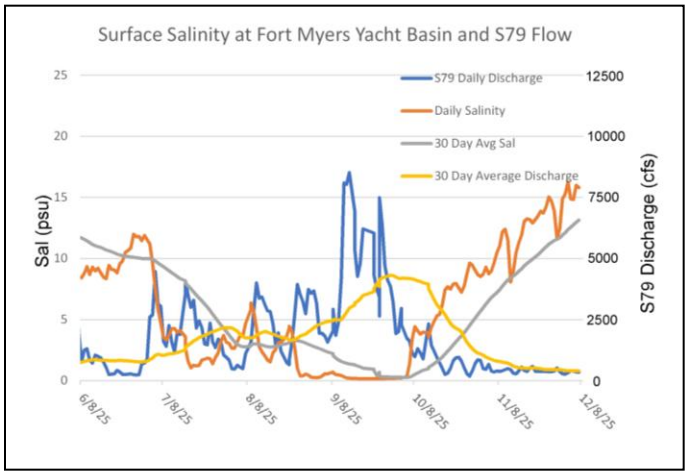
Lower Estuary Conditions: The weekly average salinity at the Shell Point RECON was **31 psu**, in the optimal range for seagrass but above optimal for oysters. The dominant phytoplankton in SCCF samples from Sanibel beaches during the week were diatoms including *Guinardia* chains and no *Karenia* cells were found.

Water Quality Conditions:

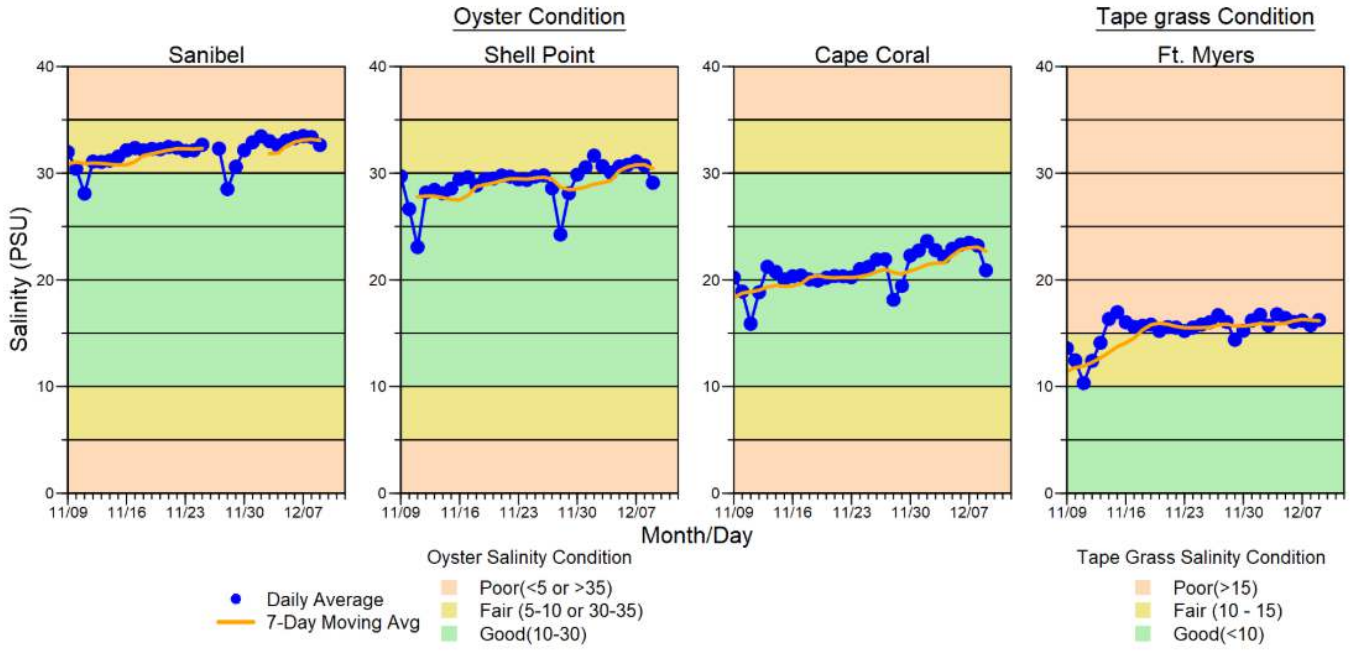
Monitor Site	Salinity (psu)[a] [previous week]	Diss O_2 (mg/L)[b]	FDOM (qsde)[c]	Chlorophyll (µg/L)[d]	Temperature (°F)
Beautiful Island	8.0 - 11 [8.1 - 9.7]	4.5 -6.6	130	6.8	74.0 – 83.2
Fort Myers Yacht Basin	13 – 18 [11 – 16]	5.8- 7.8	100	4.1	70.3– 77.3
Shell Point	26 – 34 [21 – 34]	5.4 - 7.2	35	1.8	69.9– 76.0
McIntyre Creek	32.0 – 33.3 [32.2 – 33.2]	3.5 – 8.0	18.7 – 33.0	1.1 – 2.1	70.7 – 78.0
Tarpon Bay	32.7 – 35.1 [31.3 – 32.9]	5.3 – 7.7	16.1 – 47.2	1.2 – 1.9	70.5 – 76.2
Wulfert Flats	---- [34.0 – 35.3]	----	----	----	----

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 and Public Reef is **OPEN** by the Florida Department of Agriculture and Consumer Services (FDACS) as of 9/24/25. SHA #6222 (North Matlacha Pass) and SHA #6232 (South Matlacha Pass) are **OPEN** as of 12/6/25.



USACE Daily Reports			
Date	S79 Flow (cfs)	S78 Flow (cfs)	S77 Flow (cfs)
12/2/25	325	224	205
12/3/25	410	244	381
12/4/25	389	170	526
12/5/25	352	171	512
12/6/25	347	388	741
12/7/25	379	358	719
12/8/25	541	170	224
7-day avg	**392**	**246**	**473**



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