

MEMORANDUM

TO: Laureen Borochaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: November 2, 2023
SUBJECT: Operational Position Statement October 31, 2023 to November 6, 2023

This Position Statement is to provide operational input for the one-week period from October 31, 2023 to November 6, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On October 30 Lake Okeechobee stage was 16.21 feet NGVD, which placed it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.08 feet over the preceding 7-day period.

District October rainfall ended well below normal (49% of normal). Rainfall District forecast (issued November 1) calls for below normal rainfall for the coming 7-day period and near normal for the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for November 2023 is for slightly increased chances of above normal rainfall (33-40%). The 3-month window of Nov 2023 – Jan 2024 indicates substantially increased probabilities of above normal rainfall (50-60%). The outlook patterns for the 3-month windows of Dec 2023 - Jan 2024, Jan 2024 – Mar 2024 and Feb 2024 – Apr 2024 show substantially increased chances of above normal rainfall (50-60%) for the lower half of the District, and a major increase in the probability of above normal rainfall (60-70%) for the upper half of the District. The transition between these two zones is located through the middle of Lake Okeechobee, through the south boundary of the EAA and slightly south of the lake for the 3-month above specified windows, respectively. The outlook for the 3-month windows Mar 2024 – May 2024 is for slightly increased chances of above normal rainfall (33-40%) for the lower half of the District and increased probability of above normal rainfall (40-50%) for the upper half of the District. All the 3-month windows from Apr 2024 – Jun 2024 into the transition to the 2024-2025 Dry Season show equal chances of below, normal, and above normal rainfall.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within the Low Sub-band and the Tributary Hydrologic conditions in the Dry category, Part C of the 2008 LORS suggests “No Releases to the WCAs”.

Over the 7-day period from October 23 to October 29, 2023, no regulatory releases were sent from Lake Okeechobee south to the STAs. No Lake regulatory releases reached the Lake Worth Lagoon through the C-51 canal during this period. Stage in WCA-1 is below regulation schedule, stage in WCA-2A is 0.78 feet above regulation schedule in Zone A, and WCA-3A stage is 0.52 feet above regulation schedule in Zone A. For the coming operational period, USACE is not requesting maximum practicable regulatory releases be sent south from Lake Okeechobee towards the WCAs.

2008 LORS Release Guidance (Part D): With Lake Okeechobee stage within the Low Sub-band and the Tributary Hydrologic conditions in the Dry category, Part D of the 2008 LORS suggests “S-79 up to 450 cfs and S-80 up to 200 cfs”. In addition, Lake Okeechobee stage is 0.79 feet above elevation 15.5 feet NGVD which is the stage for the upper boundary of the Ecological Envelope for this time of the year.

For the 7-day period October 23 to October 29, 2023, total discharge to the St. Lucie Estuary was about 275 cfs with no releases coming from Lake Okeechobee. The 7-day average salinity in the middle estuary was in the optimal range (10-25) for adult eastern oysters. Total inflow to the Caloosahatchee Estuary averaged approximately 2,425 cfs with about 1,200 cfs coming from Lake Okeechobee through S-77. Salinities in the upper estuary were within the optimal range (0-10) for tape grass. The 7-day average salinities for adult eastern oysters were in the lower stressed range at Cape Coral (5-10), in the optimal range at Shell Point (10-25), and in the upper stressed range at Sanibel (>25).

Since the end of November 2022, both local basin runoff in the Caloosahatchee Watershed and lake releases through S-77 have maintained salinity in the Caloosahatchee Estuary. The District recommends USACE implement a non-harmful release from Lake Okeechobee to the Caloosahatchee Estuary with an average discharge of 2,000 cfs (7-day pulse) as measured at the S-79 structure and zero lake releases to the St. Lucie Estuary. The USACE typically implements the releases to the estuaries starting on Saturday and ending on Friday. The Corps should continue to track Red Tide and Blue Green Algae conditions, and should conditions change during this operational period, the Corps should look to reassess releases as needed.