

MEMORANDUM

TO: Laureen Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: December 14, 2023
SUBJECT: Operational Position Statement December 12, 2023 to December 18, 2023

This Position Statement is to provide operational input for the one-week period December 12, 2023 to December 18, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On December 11 Lake Okeechobee stage was 15.89 feet NGVD, which placed it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.10 feet over the preceding 7-day period.

District December to date rainfall is much below normal (16% of normal). Rainfall District forecast (issued December 13) calls for substantially much above 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 December 2023 is for increased chances of above normal rainfall (40-50%) for most of the District area, while the southern tip of the peninsula shows slightly increased chances of above normal rainfall (33-40%). The 3-month window of Dec 2023 – Feb 2024 indicates major increased probabilities of above normal rainfall (60-70%). The outlook patterns for the 3-month windows of Jan 2024 – Mar 2024 and Feb 2024 – Apr 2024 show substantially increased chances of above normal rainfall (50-60%) for the areas south of Lake Okeechobee, and a major increase in the probability of above normal rainfall (60-70%) for the remainder of the District. The outlook for the 3-month window Mar 2024 – May 2024 is for slightly increased chances of above normal rainfall (33-40%) for areas south of Lake Okeechobee, and increased chances of above normal rainfall (40-50%) for the remainder 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, the Tributary Hydrologic Conditions in the Normal category and the Multi-Seasonal Lake Okeechobee Net Inflow Outlook in the Wet category, Part C of the 2008 LORS suggests “Up to Maximum Practicable to the WCAs if desirable or with minimum Everglades impact; otherwise, no Releases to WCAs”.

Over the 7-day period from December 4 to December 10, 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 0.03 feet above regulation schedule, stage in WCA-2A is 1.22 feet above regulation schedule in Zone A, and WCA-3A stage is 0.19 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, the Tributary Hydrologic Conditions in the Normal category, the Seasonal Lake Okeechobee Net Inflow outlook in the Normal category, and the Multi-Seasonal Lake Okeechobee Net Inflow Outlook in the Wet category, Part D of the 2008 LORS suggests “S-79 up to 3,000 cfs and S-80 up to 1,170 cfs”. In addition, Lake Okeechobee stage is 0.39 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 December 4 to December 10, 2023, total discharge to the St. Lucie Estuary was about 175 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 2,150 cfs with about 1,350 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 were in the optimal range for adult eastern oysters at Cape Coral and Shell Point (10-25), and in the upper stressed range at Sanibel (>25).

Since 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.