

MEMORANDUM

TO: Laureen Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: January 4, 2024
SUBJECT: Operational Position Statement January 2, 2024 to January 8, 2024

This Position Statement is to provide operational input for the one-week period from January 2, 2024 to January 8, 2024 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On January 1, Lake Okeechobee stage was 15.99 feet NGVD, which placed it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.04 feet over the preceding 14-day period.

District December 2023 rainfall was much, much above normal (169% of normal) with most of the rainfall happening on Saturday December 16 (1.78"). Rainfall District forecast (issued January 3) calls for much above normal rainfall for the coming 7-day period and near to above normal for the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for January 2024 is above normal rainfall for the areas north of Lake Okeechobee with 50-60% chances and for the remainder of the District with 40-50% chances. The 3-month window of Jan 2024 – Mar 2024 indicates above normal rainfall for most of the District area with 60-70% chances and for the southern tip of the peninsula with 40-50% chances. The outlook for the 3-month window of Feb 2024 – Apr 2024 is above normal rainfall for areas north of Lake Okeechobee with 60-70% chances, and for the remainder of the District with 50-60% chances. The outlook for the 3-month window Mar 2024 – May 2024 over the District is for above normal rainfall with chances ranging from 33 to 60%. 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 14-day period from December 18 to December 31, 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 0.42 feet above regulation schedule, stage in WCA-2A is 1.64 feet above regulation schedule in Zone A, and WCA-3A stage is 0.2 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 Wet 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 0.49 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 two 7-day periods, December 18, 2023 to December 24, 2023 and December 25, 2023 to December 31, 2023, total discharge to the St. Lucie Estuary was about 200 cfs during both periods, with no flow coming from Lake Okeechobee during either period. The 7-day average salinity in the middle estuary was within the optimal range (10-25) for adult eastern oysters for both periods. Total inflow to the Caloosahatchee Estuary averaged approximately 2,100 cfs and 2,550 cfs over the past two 7-day periods with about 1,200 cfs and 1,000 cfs coming from Lake Okeechobee through S-77 during the two periods, respectively. Salinities in the upper estuary were within the optimal range (0-10) for tape grass during both 7-day periods. The 7-day average salinity was in the optimal range (10-25) for adult eastern oysters at Cape Coral and Shell Point and in the upper stressed range (>25) at Sanibel for both periods.

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.