

MEMORANDUM

TO: Laureen Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: August 17, 2023
SUBJECT: Operational Position Statement August 15, 2023 to August 21, 2023

This Position Statement is to provide operational input for the one-week period from 15, 2023 to August 21, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On August 14 Lake Okeechobee stage was 15.35 feet NGVD, which placed it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.05 feet over the preceding 7-day period.

District August rainfall to date is near normal (~90% of normal). Rainfall District forecast (issued August 16) calls for above to much above rainfall for the coming 7-day period and above normal for the following one (low confidence).

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for August 2023 and the 3-month window of Aug-Oct is for equal chances of below normal, normal, and above normal rainfall. The 3-month windows Sep-Nov and Oct-Dec show slightly increased chances of above normal rainfall. The 3-month window of Nov 2023-Jan 2024 shows increased chances of above normal rainfall. The 3-month windows of Dec 2023-Feb 2024 and Jan 2024-Mar 2024 indicate substantially increased chances of above normal rainfall for south Florida. The outlook for the 3-month window Feb 2024-Apr 2024 is for slightly increased chances of above normal rainfall. The remainder windows ending Oct 2024 indicate equal chances of below normal, 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 Wet category, and the Multi-Seasonal Lake Okeechobee Net Inflow outlook in the Wet Category, Part C of the 2008 LORS suggests "Maximum Practicable Releases to the WCAs if desirable or with minimum Everglades impact; otherwise, no releases to the WCAs".

Over the 7-day period from August 7 to August 13, 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 0.23 ft above regulation schedule, stage in WCA-2A is 0.94 ft above regulation schedule, and WCA-3A stage is 0.80 ft above regulation schedule, in Zone A. For the coming operational period, USACE is requesting maximum practicable regulatory releases be sent south from Lake Okeechobee towards WCA-3A.

2008 LORS Release Guidance (Part D): With Lake Okeechobee stage within the Low Sub-band, the Tributary Hydrologic conditions 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 1.88 ft above elevation 13.47 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 August 7 to August 13, 2023, total discharge to the St. Lucie Estuary was about 1,450 cfs with no releases coming from Lake Okeechobee. The 7-day average salinity in the middle estuary was in the lower stressed range (5-10) for adult eastern oysters. Total inflow to the Caloosahatchee Estuary averaged approximately 2,975 cfs with about 525 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 Shell Point (10-25), in the lower stressed range at Cape Coral (5-10), 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 District will continue to deliver water to the Northwest portion of WCA-3A in accordance with District scientists recommendation to the maximum extent practicable. 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.