

MEMORANDUM

TO: Lauren Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: March 9, 2023
SUBJECT: Operational Position Statement March 7, 2023 to March 13, 2023

This Position Statement is to provide operational input for the one-week period from March 7, 2023 to March 13, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On March 6 Lake Okeechobee stage was 15.37 feet NGVD, which placed it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.21 feet over the preceding 7-day period.

District March to date rainfall is much, much below normal (~15% of normal). Rainfall forecast (issued March 7) calls for below to near average rainfall for the coming 7-day period and above average the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for March 2023 is for equal chances of below, normal and above normal rainfall. The 3-month window of Mar – May indicates increased chances of below normal rainfall for the southern half of the Florida peninsula. All the 3-month windows from Apr– Jun to the end of 2024 Wet Season show equal chances of below, normal and above normal rainfall. The precipitation outlook for the first half of the 2023-2024 Dry Season indicated slightly increased chances of 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 February 27, 2023 to March 5, 2023, 1,700 acre-feet of regulatory releases were sent from Lake Okeechobee south to the Water Conservation Areas through STA-2. Lake regulatory releases in the amount of 1,500 acre-feet reached the Lake Worth Lagoon through the C-51 canal during this period. Stage in WCA-1 is below regulation schedule in Zone B, stage in WCA-2A is above regulation schedule, and WCA-3A stage is below regulation schedule in Zone B. For the coming operational period, the USACE is 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 is above 14.66 feet NGVD, which is stage for the upper line of the Ecological Envelope for this time of the year.

For the 7-day period February 27, 2023 to March 5, 2023, total discharge to the St. Lucie Estuary was about 300 cfs, with approximately 200 cfs coming from Lake Okeechobee. The 7-day average salinity in the middle estuary was within the optimal range (10-25) for adult eastern oysters. Total inflow to the Caloosahatchee Estuary averaged approximately 2,100 cfs with about 1,550 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 (10-25) and in the upper stressed range at Shell Point and Sanibel (>25).

Since the end of November, both local basin runoff in the Caloosahatchee Watershed and lake releases through S-77 have maintained salinity in the Caloosahatchee Estuary. In an effort to bring Lake Okeechobee back towards the Ecological Envelope the District supports the USACE following 2008 LORS 2022-2023 Dry Season strategy, to implement non-harmful releases to the Caloosahatchee Estuary with an average discharge of 2,000 cfs (7-day pulse) as measured at the S-79 structure, as well as non-harmful releases to the St. Lucie Estuary with an average discharge of 500 cfs as measured at the S-80 structure, using the lake releases volume banked during previous weeks when actual releases were less than the LORS 2008 maximum releases allowed. Simultaneously, while continuing to implement maximum practicable regulatory releases south from Lake Okeechobee towards the WCAs, the District will direct a non-harmful average discharge of 100 cfs from Lake Okeechobee to the Lake Worth Lagoon when USACE is directing Lake Okeechobee 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.