

MEMORANDUM

TO: Lauren Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: February 23, 2023
SUBJECT: Operational Position Statement February 21, 2023 to February 27, 2023

This Position Statement is to provide operational input for the one-week period from February 21, 2023 to February 27, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On February 20, Lake Okeechobee stage was 15.72 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 February rainfall to date is below normal (~62% of normal) mostly from a precipitation event on the south-central and south-east areas of the District on February 5th. Rainfall forecast (issued February 21) calls for much, much below average rainfall for the coming and the following 7-day periods.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for March 2023 indicates increased chances of below normal rainfall for Florida. 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 Mar– May 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 13, 2023 to February 19, 2023, 1,500 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 1,400 acre-feet reached the Lake Worth Lagoon through the C-51 canal during this period. Stage in WCA-1 is above regulation schedule in Zone A1, 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 and the Seasonal Lake Okeechobee Net Inflow outlook 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 is above 14.89 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 13, 2023 to February 19, 2023, total discharge to the St. Lucie Estuary was about 550 cfs, with approximately 400 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 1,900 cfs with about 950 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. The USACE typically implements the releases to the estuaries starting on Saturday and ending on Friday. The Corps should continue to track Red Tide conditions near the Caloosahatchee estuary, and should conditions change during this operational period, the Corps should look to reassess releases as needed.