

MEMORANDUM

TO: Lauren Boročaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: January 19, 2023
SUBJECT: Operational Position Statement for January 17, 2023 to January 23, 2023

This Position Statement is to provide operational recommendations for the one-week period from January 17, 2023 to January 23, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On January 9, Lake Okeechobee stage was 16.15 feet NGVD, which placed it within the Intermediate Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.17 feet over the preceding 7-days period.

District January to date rainfall is much below normal (~18% of normal). Rainfall forecast (issued January 17) calls for below average rainfall for the coming 7-day period and near to above average for the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for January 2023 indicates equal chances of below, normal and above normal rainfall. The outlooks for 3-month windows Jan – Mar and Feb – Apr call for increased chances of below normal rainfall. All the 3-month windows from Mar– May well into the transition to the 2024 Dry Season show equal chances of below, normal and above normal rainfall.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within the Intermediate Sub-band, Part C of the 2008 LORS suggests “Maximum Practicable Releases to the WCAs” as long as stages in all downstream WCAs are below the maximum of the upper schedule plus 0.25 ft.

Over the 7-day period from January 9, 2023 to January 15, 2023 1,400 acre-feet of regulatory releases were sent from Lake Okeechobee south to the Water Conservation Areas through STA-2. No Lake regulatory releases reached the Lake Worth Lagoon through the C-51 canal. 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 Intermediate Sub-band, and the Tributary Hydrologic conditions in the Normal category, Part D of the 2008 LORS suggests “S-77 up to 4000 cfs and S-80 up to 1800 cfs”. In addition, Lake Okeechobee is above 15.45 feet NGVD, which is stage for the upper line of the Ecological Envelope for this time of the year.

For the 7-day period January 6, 2023 to January 12, 2023, total discharge to the St. Lucie Estuary was about 150 cfs, with no flow 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 2,000 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 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 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 (7-day steady) as measured at the S-80 structure. 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 (7-day steady) 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 in the estuary, and should conditions change during this operational period, the Corps should look to reassess releases as needed.