

MEMORANDUM

TO: Laureen Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMDC)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMDC)
DATE: January 25, 2024
SUBJECT: Operational Position Statement January 23, 2024 to January 29, 2024

This Position Statement is to provide operational input for the one-week period from January 23, 2024 to January 29, 2024 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On January 22 Lake Okeechobee stage was 16.17 feet NGVD, which placed it within the Intermediate Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.12 feet over the preceding 7-day period.

District January to date rainfall is much, above normal (159% of normal). Rainfall District forecast (issued January 24) calls for much below normal rainfall for the coming 7-day period and below to near normal for the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for February 2024 is for a major increase (60-70%) in the likelihood of above normal rainfall for the EAA and areas north and for a substantially increased chances (50-60%) of above normal rainfall for the remainder of the District. The 3-month window of Feb 2024 – Apr 2024 indicates a major increase in the likelihood (60-70%) of above normal rainfall for the Upper Kissimmee basins and substantially increased chances (50-60%) of above normal rainfall for the Lower Kissimmee and areas south. The outlook for the 3-month window of Mar 2024 – May 2024 is for substantially increased chances (50-60%) of above normal rainfall for most of the District, with a major increase (60-70%) for areas in the Upper Kissimmee. The outlook for the 3-month window Mar 2024 – May 2024 shows increased chances of above normal rainfall (40-50%) for Lake Okeechobee and areas north, with the remainder of the District showing slightly increased chances (33-40%) of above normal rainfall. All the 3-month windows from Apr 2024 – Jun 2024 to Oct 2024 – Dec 2024 show equal chances of below normal, normal and above normal rainfall. The 3-month windows of Nov 2024 – Jan 2025 to Feb 2025 – Apr 2025 signal an increased chance of below normal rainfall for south Florida.

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 feet.

Over the 7-day period from January 15 to January 21, 2024 no regulatory releases were sent from Lake Okeechobee south to the STAs due to regional rainfall and conditions in the WCAs. No Lake regulatory releases reached the Lake Worth Lagoon through the C-51 canal during this period either. Stage in WCA-1 is 0.29 feet above regulation schedule (max at 17.5 feet NGVD) and 0.53 feet below max schedule + 0.25 feet. Stage in WCA-2A is 1.62 feet above regulation schedule (max at 13.0 feet NGVD) and 0.48 feet below max schedule + 0.25 feet. WCA-3A stage is 0.19 feet above regulation schedule (max at 10.5 feet NGVD), in Zone A, and 0.06 feet below max schedule + 0.25 feet. For the coming operational period, 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 Wet category, Part D of the 2008 LORS suggests “S-77 up to 4,000 cfs and S-80 up to 1,800 cfs”. In addition, Lake Okeechobee stage is 0.78 feet above elevation 15.39 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, January 15 to January 21, 2024, total discharge to the St. Lucie Estuary was about 2,500 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 4,900 cfs with about 300 cfs coming from Lake Okeechobee through S-77. Salinities in the upper estuary were within the optimal range (0-10) for tape grass. Salinities were in the optimal range for adult eastern oysters at Shell Point (10-25), in the upper stressed range at Sanibel (>25), and in the damaging range (<5) at Cape Coral.

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.