

MEMORANDUM

TO: Laureen Borochaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: January 18, 2024
SUBJECT: Operational Position Statement January 16, 2024 to January 22, 2024

This Position Statement is to provide operational input for the one-week period from January 16, 2024 to January 22, 2024 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On January 15 Lake Okeechobee stage was 16.05 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 January to date rainfall is much, much above normal (204% of normal). Rainfall District forecast (issued January 17) calls for above normal rainfall for the coming 7-day period and near to above normal for the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for January 2024 is for substantially increased chances (50-60%) of above normal rainfall for the areas north of Lake Okeechobee and increased chances (40-50%) of above normal for the remainder of the District. The 3-month window of Jan 2024 – Mar 2024 indicates a major increase in the likelihood (60-70%) of above normal rainfall for most of the District and substantial increased chances (50-60%) of above normal rainfall for the southern tip of the peninsula. The outlook for the 3-month window of Feb 2024 – Apr 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 into the transition to the 2024-2025 Dry Season show 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, 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 January 8 to January 14, 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 0.38 feet above regulation schedule, stage in WCA-2A is 1.69 feet above regulation schedule in Zone A, and WCA-3A stage is 0.31 feet above regulation schedule in Zone A. For the coming operational period, USACE is not requesting maximum practicable regulatory releases be sent south from Lake Okeechobee towards the WCAs due to existing conditions in 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 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 0.55 feet above elevation 15.5 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 8 to January 14, 2024, total discharge to the St. Lucie Estuary was about 400 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 2,500 cfs with about 800 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 lower stressed range for adult eastern oysters at Cape Coral (5-10), in the optimal range at Shell Point (10-25), 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 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.