

MEMORANDUM

TO: Lauren Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: October 20, 2022
SUBJECT: Operational Position Statement for October 18, 2022 to October 24, 2022

This Position Statement is to provide operational recommendations for the one-week period from October 18, 2022 to October 24, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On October 17, Lake Okeechobee stage was 15.17 feet NGVD, which places it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.64 feet over the preceding 7 days period.

October to date District rainfall is below normal (~74% of normal). Wet season (WY2023) lasted from May 13 to September 29, 2022 and total rainfall ended above normal (115%). All District rainfall areas fall in the 104-125% of normal range, with areas south and southwest of Lake Okeechobee being the highest in this range. Upper Kissimmee shows a surplus of 6.76" while Lower Kissimmee is slightly above 100% normal. Rainfall forecast (issued October 19) calls for substantially below normal rainfall for the coming 7-day period and below normal for the following one.

Precipitation Outlook: The most recent CPC precipitation outlooks for South Florida for October 2022 and for the 3-month window of Oct-Dec are for equal chances (EC) of below normal, normal and above normal rainfall. The outlook for the 3-month windows Nov 2022 – Jan 2023 is for increased chances of below normal rainfall for Lake Okeechobee and areas north of the Lake, while south of the Lake the outlook is for slightly increased chances of below normal rainfall. The 3-month window of Dec 2022 – Feb 2023 exhibits increased chances of below normal rainfall for most of the District, and slightly increased chances of below normal rainfall for the southern areas of the District. The outlooks for the 3-month windows Jan 2023 - Mar 2023 and Feb 2023 - Apr 2023 are for increased chances of below normal rainfall. The outlook for the end of the 2023 dry season is for equal chances, transitioning into slightly increased chances of above normal rainfall for the first half of the 2023 wet season.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within the Low Sub-band, the Tributary Hydrologic conditions in the Very Wet category and the Multi-seasonal Lake Okeechobee Net Inflow outlook in the Normal category, Part C of the 2008 LORS suggests "Maximum Practicable Releases to the WCAs if desirable or with minimum Everglades Impact". Otherwise, no releases.

Over the 7-day period from October 10, 2022 to October 16, 2022 no deliveries from Lake Okeechobee were sent south to the STAs. No Lake regulatory releases reached the Lake Worth Lagoon through the C-51 canal. Stage in WCA-1 is below regulation schedule in Zone A2, stage in WCA-2A is above regulation schedule, and WCA-3A stage is above regulation schedule in Zone A. For the coming operational period, the USACE is not requesting 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 Very Wet category, the Lake stage within 1.0 ft. of the Intermediate Sub-band and the Seasonal Lake Okeechobee Net Inflow outlook in the Normal category, Part D of the 2008 LORS suggests "S-79 up to 3000 cfs and S-80 up to 1170 cfs".

For the 7-day period October 10, 2022 to October 16, 2022 total discharge to the St. Lucie Estuary was about 2,600 cfs with no flows 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 3,900 cfs over the past week with no flows coming from Lake Okeechobee through S-77. All deployed South Florida Water Management District water quality sensors in the estuary were affected by the storm and ceased to function on September 28, 2022. Salinity was only reported for the entire week at Val I-75 and part of the week at Cape Coral. Salinity at Val I-75 was 0.3 on the surface and bottom, and Cape Coral was 3 on the surface and 4 on the bottom.

To date local basin rainfall in the Caloosahatchee Watershed has contributed to salinity conditions with no need for water from Lake Okeechobee, and given recent rains, that trend continues. The District recommends the USACE follow 2008 LORS and release a 7-day pulse with an average discharge of 1,200 cfs measured at the S-79 structure. No flows from the lake to the St. Lucie Estuary. In addition, the District also recommends that the USACE not deliver an active algae bloom from the Lake through S-77 during this period. This decision should be reassessed as needed based on lake and estuarine conditions. The USACE typically implements the releases to the estuaries over a 7-day period starting on Saturday and ending on Friday.