

MEMORANDUM

TO: Lauren Boročaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: October 13, 2022
SUBJECT: Operational Position Statement for October 11, 2022 to October 17, 2022

This Position Statement is to provide operational recommendations for the one-week period from October 11, 2022 to October 17, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On September 26, Lake Okeechobee stage was 14.53 feet NGVD, which places it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.56 feet over the preceding 7 days period.

District September rainfall was well above average (~191% of normal), but District rainfall for October to date is well below normal (~31% of normal). Wet season rainfall to date (WY2023) shows all District rainfall areas in the 99-121% of normal range, with areas south and southwest of Lake Okeechobee being predominately above 100% of normal. Upper Kissimmee shows a surplus of 5.75" while Lower Kissimmee is barely above 100% normal. Rainfall forecast (issued October 10) is for near to below normal the coming and following 7-day periods.

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 Dry category, Part C of the 2008 LORS suggests "No releases to the WCAs".

Over the 7-day period from October 3, 2022 to October 9, 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 more than 1.0 ft. below the Intermediate Sub-band and the Multi-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".

For the 7-day period October 3, 2022 to October 9, 2022 total discharge to the St. Lucie Estuary was about 2,900 cfs with no flows coming from Lake Okeechobee. The 7-day average salinity in the middle estuary was within the stressful range (5-9) for adult eastern oysters. Total inflow to the Caloosahatchee Estuary averaged approximately 5,100 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. The sensor at the Val I-75 station began reporting again on October 5, 2022. Salinity is only reported for the period October 5-9, 2022 at the Val I-75 site where the average was 0.2 on the surface and 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 650 cfs measured at the S-79 structure. 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.