

MEMORANDUM

TO: Lauren Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: September 22, 2022
SUBJECT: Operational Position Statement for September 20, 2022 to September 26, 2022

This Position Statement is to provide operational recommendations for the one-week period from September 20, 2022 to September 26, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On September 19, Lake Okeechobee stage was 12.83 feet NGVD, which places it within the Beneficial Use Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.28 feet over the preceding 7 days period.

District September to date rainfall is well above average (~150% of normal). Despite recent substantial rainfall activity, wet season rainfall to date (WY2023) has been predominately south and southwest of Lake Okeechobee. Upper and Lower Kissimmee Basins reduced deficits to near -1.2 and -1.0 inches, respectively. Rainfall forecast (issued September 20) is for below normal rainfall for the coming 7-day period and much above normal rainfall for the following 7-day period.

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 Beneficial Use Sub-band, Part C of the 2008 LORS does not suggest releases to the WCAs to manage lake stages.

Over the 7-day period from September 12, 2022 to September 18, 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 below regulation schedule, and WCA-3A stage is below regulation schedule in Zone B. 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 Beneficial Use Sub-band, Part D of the 2008 LORS does not suggest releases to the St. Lucie and Caloosahatchee Estuaries to manage Lake stages.

For the 7-day period September 12, 2022 to September 18, 2022 total discharge to the St. Lucie Estuary was about 3,350 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 7,250 cfs over the past week with no flows coming from Lake Okeechobee through S-77. Salinities were in the optimal range (0-10) for tape grass in the upper estuary. Salinities were in the damaging range (<5) for adult eastern oysters at Cape Coral, in the optimal range (10-25) at Shell Point, and in the stressed range at Sanibel (>25). On September 21, 2022, the 30-day average flow at S-79 was estimated about 3,450 cfs which is above the minimum flow and level for the Caloosahatchee Estuary of 457 cfs 30-day average.

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 is likely to continue. The District recommends allowing the basin runoff to manage salinity conditions in the Caloosahatchee Estuary for the next week. 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.