

MEMORANDUM

TO: Lauren Borochaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: September 1, 2022
SUBJECT: Operational Position Statement for August 30, 2022 to September 5, 2022

This Position Statement is to provide operational recommendations for the one-week period from August 30, 2022 to September 5, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On August 29, Lake Okeechobee stage was 12.59 feet NGVD, which places it within the Beneficial Use Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.08 feet over the preceding 7 days period.

District August to date rainfall is well below average (~71% of normal). Wet season rainfall to date (WY2023) has been predominately south and southwest of Lake Okeechobee, with the second largest deficit of rainfall being at the Upper Kissimmee Basin (-4.72 inches). Rainfall forecast (issued August 30) indicates below to much below normal rainfall for the coming 7-day period, and near normal for the following 7-day period.

Precipitation Outlook: The most recent CPC precipitation outlooks for South Florida for September 2022 is for equal chances (EC) of below normal, normal and above normal rainfall. The outlooks for the 3-month windows Sep – Nov and Oct – Dec are for slightly increased chances of above normal rainfall and equal chances, respectively. The outlooks for the 3-month windows of Nov 2022 – Jan 2023 and Dec 2022 – Feb 2023 are for slightly increased chances of below normal rainfall, with the former window showing a small area in the Upper Kissimmee with increased chances of below normal rainfall. 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 beginning 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 August 22, 2022 to August 28, 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 in the Base Flow 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 August 22, 2022 to August 28, 2022, total discharge to the St. Lucie Estuary was about 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 1,450 cfs over the past week with about 115 cfs 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 optimal range (10-25) for adult eastern oysters at Cape Coral and in the stressed range at Shell Point and Sanibel (>25). On September 1, 2022, the 30-day average flow at S-79 was 1,183 cfs which is above the minimum flow and level for the Caloosahatchee Estuary of 457 cfs 30-day average.

The District will continue to work with the USACE to manage Lake Okeechobee levels in an effort to curtail the need for harmful discharges and support the lake's project purposes. The USACE should strive to balance operations to maintain the Lake within its ecological envelope while avoiding levels that would risk harmful discharges to the estuaries or water shortage. With the Herbert Hoover Dike rehabilitation more than 90 percent complete and current lake levels, the likelihood of high lake stages threatening the integrity of the Dike for the duration of this wet season is minimal. Additionally, the District continues monitoring the increasing risk of water shortage this season due to the continued development of La Niña conditions for the third year in a row.

To date local basin rainfall in the Caloosahatchee Watershed has been able to sustain appropriate salinity conditions with minimal need of water from Lake Okeechobee, and given recent rains that trend is likely to continue. As the two-week forecast for the Lake Okeechobee watershed is not likely to increase water levels in the Lake, the District

recommends only using Lake Okeechobee water to maintain the Caloosahatchee Estuary minimum flow and level of 457 cfs in a pulse release fashion at S-79. 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.