

MEMORANDUM

TO: Lauren Borochaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: August 11, 2022
SUBJECT: Operational Position Statement for August 9, 2022 to August 15, 2022

This Position Statement is to provide operational recommendations for the one-week period from August 9, 2022 to August 15, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On August 8, Lake Okeechobee stage was 12.87 feet NGVD, which places it within the Base Flow Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.09 feet over the preceding 7 days period.

District August to date rainfall is below average (~60% of normal). Wet season rainfall to date (WY2023) has been predominately south and southwest of Lake Okeechobee, with the largest deficit of rainfall being the Upper Kissimmee Basin (-4.95 inches). Rainfall forecast (issued August 10) indicates much below normal rainfall for the coming and near to below normal for the following 7-day period.

Precipitation Outlook: The most recent CPC precipitation outlooks for South Florida for August is for equal chances of below, normal and above normal rainfall. The outlooks for the 3-month window Aug – Oct are for slightly increased chances of above normal rainfall. The outlooks for the 3-month windows of Sep – Nov and Oct - Dec is for equal chances of below, normal and above normal rainfall. The outlooks for the 3-month windows from Nov 2022 - Jan 2023 to Dec 2022 - Feb 2023 are for slightly increased chances of below normal rainfall. The outlooks for the 3-month windows from Jan 2023 - Mar 2023 and Feb 2023 – Apr 2023 are for increased chances of below normal rainfall.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within the Base Flow Sub-band, the Tributary Hydrologic Conditions in the dry category, Part C of the 2008 LORS suggests “No Releases to the WCAs”.

Over the 7-day period from August 1, 2022 to August 7, 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 above regulation schedule in Zone A1, stage in WCA-2A is above regulation schedule in Zone A, and WCA-3A stage has just receded below the regulation schedule. 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 suggests “S-79 Up to 450 cfs and S-80 Up to 200 cfs”.

For the 7-day period August 1, 2022 to August 7, 2022, total discharge to the St. Lucie Estuary was about 250 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 1,100 cfs over the past week with about 100 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 Shell Point and in the stressed range (>25) at Sanibel.

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 dry season due to the continued development of La Niña conditions for the third year in a row.

Local basin rainfall in the Caloosahatchee Watershed may be able to sustain appropriate salinity conditions without the need for additional water from Lake Okeechobee. Since the two-week forecast for the Lake Okeechobee watershed may not increase water levels in the Lake, the District recommends only using Lake water to maintain 457 cfs (the Caloosahatchee River Minimum Flow and Level) 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.