

MEMORANDUM

TO: Lauren Borocharner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: September 15, 2022
SUBJECT: Operational Position Statement for September 13, 2022 to September 19, 2022

This Position Statement is to provide operational recommendations for the one-week period from September 13, 2022 to September 19, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On September 12, Lake Okeechobee stage was 12.56 feet NGVD, which places it within the Water Shortage Management Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.03 feet over the preceding 7 days period.

District September to date rainfall is about average (~108% of normal). Wet season rainfall to date (WY2023) has been predominately south and southwest of Lake Okeechobee, with the Upper and Lower Kissimmee Basins having deficits around -3.8 and -4.4 inches, respectively. Rainfall forecast (issued September 13) is for much above normal rainfall for the coming and below to near normal for the following 7-day periods.

Precipitation Outlook: The most recent CPC precipitation outlooks for South Florida for September 2022 are for equal chances (EC) of below normal, normal and above normal rainfall for the District area south of a line bisecting Lake Okeechobee from the southwest coast to the northeast coast, and for slightly increased chances of above normal for the area north of the same line. 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 Water Shortage Management 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 5, 2022 to September 11, 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 Water Shortage Management 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 5, 2022 to September 11, 2022, total discharge to the St. Lucie Estuary was about 650 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 3,750 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 optimal range (10-25) for adult eastern oysters at Shell Point and in the stressed range at Cape Coral (<10) and Sanibel (>25). On September 15, 2022, the 30-day average flow at S-79 was estimated about 2,100 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 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 allowing the basin runoff to sustain the 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.