

## MEMORANDUM

**TO:** Laureen Borochaner, Chief, Engineering Division (USACE)  
**FROM:** John Mitnik, Chief District Engineer (SFWMD)  
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)  
**DATE:** April 23, 2020  
**SUBJECT:** Operational Position Statement for April 21, 2020 to April 27, 2020

This Position Statement is to provide operational recommendations for the one-week period from April 21, 2020 to April 27, 2020, based on system conditions and data observed during the last 7 days. On April 20, Lake Okeechobee stage was 11.41 feet NGVD, which places it within the Beneficial Use Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.06 feet during the preceding 7 days.

District April rainfall to date is below average (80% of average) with substantial spatial variability for the different rainfall areas. District rainfall forecast (issued April 21) predicts above average rainfall for this 7-day period and below average to above average for the following period.

Precipitation Outlook: The most recent CPC precipitation outlook for May 2020 calls for slightly increased chances of above-normal rainfall for the entire District. The 3-month windows of May-Jul and Jun-Aug also show slightly increased chances of above-normal rainfall for the entire District. All the other the 3-month windows to the end of the 2020 wet season call for equal chances of above-normal, normal, or below-normal rainfall. The outlook indicates increased chances of below-normal rainfall for the beginning of the 2020-2021 south Florida dry season.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within 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 April 13 to April 19, 2020 Lake releases in the amount of 1,500 acre-feet were sent to STA-1W to bring cells up to target stages. STA 3/4 received 3,900 acre-feet to help improve ecosystem conditions in NW WCA-3A, provide water supply to the Big Cypress Reservation, and to provide an in-kind volume to support canal level maintenance in southern Miami-Dade County. No Lake releases were sent to the Lake Worth Lagoon through the C-51 canal. Stage in WCA-1 is borderline between Zone A1 and Zone A2 of the regulation schedule. Stage in WCA-2A is in Zone B of the regulation schedule and below the floor elevation requiring in-kind deliveries before water can be released from WCA-2A. WCA-3A stage is in Zone E of the regulation schedule and the headwater at structure S-333 is below the floor elevation requiring in-kind deliveries before water can be released from WCA-3A.

2008 LORS Release Guidance (Part D): With Lake Okeechobee stage in 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 April 14 to April 20, 2020, total discharge to the St. Lucie Estuary averaged approximately 1,100 cfs with no releases from Lake Okeechobee. The 7-day average salinity at the US1 Bridge is in the good range for adult oysters. Total inflow to the Caloosahatchee Estuary averaged approximately 290 cfs over the past week with about 160 cfs coming from Lake Okeechobee due to adverse wind conditions and canal stages preventing water from being discharged from Lake Okeechobee. This is less than the adopted Minimum Flow and Level (MFL) for the Caloosahatchee Estuary. Salinity conditions are in the good range for Tape Grass at Val I-75 and fair range at Ft. Myers. Salinity conditions for adult eastern oysters are in the good range at Cape Coral and in the fair range at Shell Point and in the poor range at Sanibel. Modified structure and canal operations along the C-43 canal are needed to maintain flows in order to achieve the MFL and improve salinity conditions.

The District, in coordination with the Florida Department of Environmental Protection (FDEP), has considered the current system conditions and the application of the SFWMD's Lake Okeechobee Adaptive Protocols (AP) because the lake stage is in the Beneficial Use Sub-band and above the Lake Okeechobee Water Shortage Management zone. The April 15<sup>th</sup> Dynamic Position Analysis results estimate the likelihood of the lake stage falling below 11.0 feet NGVD by June 1, 2020 to be greater than 50%, and the likelihood of the lake stage being at or below 10.5 feet NGVD by June 1, 2020 to be approximately 40%. The AP recommendation is for "No S-77 release to the Caloosahatchee Estuary unless GB recommends otherwise". At this time, the District recommends to continue a

7-day pulse release to achieve the MFL for the Caloosahatchee Estuary as measured at S-79, to avoid significant harm to the Caloosahatchee Estuary. The Corps should implement operational changes to structures and canal levels along the C-43 Canal to deliver sufficient water to meet both water supply demands and Caloosahatchee Estuary deliveries. The USACE typically implements the releases to the estuaries over a 7-day period starting on Saturday and ending on Friday. Furthermore, the District recommends that releases be reevaluated on a weekly basis in order to increase flexibility of decision making based on current conditions.