

MEMORANDUM

TO: Laureen Borochaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
DATE: April 30, 2020
SUBJECT: Operational Position Statement for April 28, 2020 to May 4, 2020

This Position Statement is to provide operational recommendations for the one-week period from April 28, 2020 to May 4, 2020, based on system conditions and data observed during the last 7 days. On April 27, Lake Okeechobee stage was 11.45 feet NGVD, which places it within the Beneficial Use Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.04 feet during the preceding 7 days.

District April rainfall to date is average (99% of average) with substantial spatial variability for the different rainfall areas. District rainfall forecast (issued April 28) predicts below average rainfall for this 7-day period and near 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 20 to April 26, 2020 Lake releases in the amount of 300 acre-feet were sent to STA-1W and 200 acre-feet to STA-2 for maintenance purposes. STA 3/4 received 2,300 acre-feet of lake releases 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 for saltwater intrusion prevention. No Lake releases were sent to the Lake Worth Lagoon through the C-51 canal. Stage in WCA-1 is in 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 21 to April 27, 2020, total discharge to the St. Lucie Estuary averaged approximately 1,420 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 560 cfs over the past week with about 310 cfs coming from Lake Okeechobee. 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 Sanibel. Modified structure and canal operations along the C-43 canal maybe 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 15th 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 a 7-day pulse release (650 cfs average) to the Caloosahatchee Estuary as measured at S-79, to maintain favorable salinity conditions in 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.