MEMORANDUM

TO: Laureen Borochaner, Chief, Engineering Division (USACE)

FROM: John Mitnik, Chief District Engineer (SFWMD)
Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)

DATE: April 1, 2021

SUBJECT: Operational Position Statement for March 30, 2021 to April 5, 2021

This Position Statement is to provide operational recommendations for the one-week period from March 30, 2021 to April 5, 2021 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On March 29, Lake Okeechobee stage was 14.53 feet NGVD, which places it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.26 feet during the preceding 7 days.

March District rainfall to date is well below normal (28% of normal), with Eastern Broward County showing the smallest deficit (still below normal). All other basins are well below normal (less tha 30% of normal). Upper and Lower Kissimmee are at 12% of Normal. Rainfall forecast (issued March 30) predicts below average rainfall for the coming 7-day period and well below average rainfall for the following 7-day period.

Precipitation Outlook: The most recent CPC precipitation outlook for April 2021 for south Florida is for increased chances of below normal rainfall. The 3-month window of Apr-Jun is forecast to have equal chances of above-normal, normal, and below-normal rainfall. The outlooks for the 3-month windows from May-Jul to Sep-Nov is for slightly increased to increased chances of above-normal rainfall. The outlook for the remainder of the 3-month windows from Oct-Dec and into 2022 is for equal chances of above-normal, normal, and below-normal rainfall.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within the Low Sub-band, the Tributary Hydrologic Conditions in the Normal category, and the Multi-seasonal Lake Okeechobee Net Inflow Outlook in the Normal category, Part C of the 2008 LORS suggests “Up to Maximum Practicable Releases to WCAs if desirable or with minimum Everglades Impact; otherwise no releases to the Everglades”.

Over the 7-day period from March 22, 2021 to March 28, 2021, regulatory releases in the amount of 5,900 acre-feet were sent from Lake Okeechobee to STA-2 and 1,300 acre-feet were sent to STA-1E to bring cells to target stages. Approximately 2,000 acre-feet of Lake Okeechobee water reached the Lake Worth Lagoon through the C-51 canal. Stage in WCA-1 is above schedule (Zone A1), stage in WCA-2A is above schedule (Zone A), and WCA-3A stage is below schedule (Zone B). For the coming operational period, the USACE is requesting maximum practical regulatory releases be sent south from Lake Okeechobee towards the WCAs.

2008 LORS Release Guidance (Part D): With Lake Okeechobee stage in the Low Sub-band, the Tributary Hydrologic Conditions in the Normal category, the Seasonal and the Multi-seasonal Lake Okeechobee Net Inflow Outlooks in their respective Normal categories, 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 March 22, 2021 to March 28, 2021, total discharge to the St. Lucie Estuary was around 550 cfs with about 500 cfs coming 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 1,900 cfs over the past week with nearly 1,300 cfs coming from Lake Okeechobee. Salinity conditions are in the good range for Tape Grass at Val I-75 and at Ft. Myers. Salinity conditions for adult eastern oysters are in the good range at Shell Point and Cape Coral and in the fair range at Sanibel. Additionally, Karenia brevis continue to be observed off the mouth of the Caloosahatchee Estuary.

The District will continue to work with the USACE to manage Lake Okeechobee levels in an effort to curtail harmful discharges over this year. Generally speaking, the District and Corps should strive to move as much water out of the lake without harming natural resources and other critical resources while there are no harmful algae blooms on Lake Okeechobee. At this time, this involves releases that maintain appropriate salinity in the estuaries and ensuring the Stormwater Treatment Areas don’t sustain long term damage from extended high volume flows. Current District operational objectives are to move approximately 500 cfs south from Lake Okeechobee, in addition to water supply needs, for delivery to the Everglades. The District anticipates deliveries to the Everglades to increase as the dry season continues and vegetation management efforts in the Stormwater Treatment Areas continue. In addition, current District operational objectives are to move approximately 200 cfs to the Lake Worth Lagoon, utilizing water from both Lake Okeechobee and the L8 Flow Equalization Basin, in an effort to manage salinity levels in the Lake Worth Lagoon.

Given the seasonal dry forecast condition for south Florida, and current lake levels, the District recommends USACE continue discharge to the Caloosahatchee Estuary in a steady release fashion, measured at S-79, at a non-harmful level of 2,000 cfs while continuing to monitor estuary conditions and make any adjustments as necessary. In addition, the District recommends that the USACE continue discharge to the St. Lucie Estuary ramping up in a pulse release fashion, measured at S-80, at a non-harmful level of 500 cfs (7-day average) while continuing to monitor estuary conditions and make any adjustments as necessary. This decision should be reassessed as needed based on estuarine conditions. The USACE typically implements the releases to the estuaries over a 7-day period starting on Saturday and ending on Friday.