MEMORANDUM

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

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

DATE: April 15, 2021

SUBJECT: Operational Position Statement for April 13, 2021 to April 19, 2021

This Position Statement is to provide operational recommendations for the one-week period from April 13, 2021 to April 19, 2021 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On April 12, Lake Okeechobee stage was 14.16 feet NGVD, which places it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage decreased by 0.14 feet during the preceding 7 days.

April District rainfall to date is well above normal (158% of normal), with most of the rain falling within the last 7-days. Rainfall forecast (issued April 13) predicts above average rainfall for the northern portions of the District and below average for the southern areas, for the coming 7-day period. Rainfall for the second 7-day period is expected to be above average in the north and near average in the south.

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 April 5, 2021 to April 11, 2021, regulatory releases in the amount of 4,000 acre-feet were sent from Lake Okeechobee to STA-2. Approximately 2,000 acre-feet of Lake Okeechobee water reached other STAs for maintenance purposes. An approximate volume of 1,100 acre-feet was sent from the Lake Okeechobee to 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 falling in the Normal category, the Seasonal and the Multi-seasonal Lake Okeechobee Net Inflow Outlooks in the Wet and Normal categories respectively, 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 April 5, 2021 to April 11, 2021, total discharge to the St. Lucie Estuary was around 675 cfs with about 190 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 1,100 cfs over the past week with nearly 800 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 was observed off the mouth of the Caloosahatchee Estuary at background to low concentrations.

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 800 cfs south from Lake Okeechobee, in addition to water supply needs, for delivery to the Everglades.

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 pulse release fashion, measured at S-79, at a non-harmful level of 1,000 cfs 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.