MEMORANDUM

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

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

DATE: January 5, 2023

SUBJECT: Operational Position Statement for January 3, 2023 to January 9, 2023

This Position Statement is to provide operational recommendations for the one-week period from January 3, 2023 to January 9, 2023 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On January 2, Lake Okeechobee stage was 16.36 feet NGVD, which placed it within the Intermediate Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.01 feet over the preceding 7-days period.

District December rainfall was below normal (~79% of normal). Rainfall forecast (issued January 4) calls for much below average rainfall for the coming 7-day period and near to slightly below average for the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for January 2023 indicates equal chances of below, normal and above normal rainfall. The 3-month outlooks for 3-month windows Jan – Mar and Feb – Apr call for increased chances of below normal rainfall. All the 3-month windows from Mar– May well into the transition to the 2024 Dry Season show equal chances of below, normal and above normal rainfall.

2008 LORS Release Guidance (Part C): With Lake Okeechobee stage within the Intermediate Sub-band, Part C of the 2008 LORS suggests "Maximum Practicable Releases to the WCAs" as long as stages in all downstream WCAs are below the maximum of the upper schedule plus 0.25 ft.

Over the two 7-day periods from December 19, 2022 to January 1, 2023 no regulatory releases 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 above regulation schedule in Zone A1, stage in WCA-2A is above regulation schedule, and WCA-3A stage is below regulation schedule in Zone B. For the coming operational period, the USACE is requesting maximum practicable regulatory releases be sent south from Lake Okeechobee towards the WCAs.

2008 LORS Release Guidance (Part D): With Lake Okeechobee stage within the Intermediate Sub-band, and the Tributary Hydrologic conditions in the Normal category, Part D of the 2008 LORS suggests "S-77 up to 4000 cfs and S-80 up to 1800 cfs". In addition, Lake Okeechobee is above 15.5 feet NGVD, which is the upper line of the Ecological Envelope for this time of the year.

For the two 7-day periods, December 19, 2022 to December 25, 2022 and December 26, 2022 to January 1, 2023, total discharge to the St. Lucie Estuary was about 350 cfs and 300 cfs, respectively, with no flow coming from Lake Okeechobee during either period. The 7-day average salinity in the middle estuary was within the optimal range (10-25) for adult eastern oysters for both periods. Total inflow to the Caloosahatchee Estuary averaged approximately 3,350 cfs and 3,100 cfs over the past two 7-day periods with about 1,200 cfs and 1,100 cfs coming from Lake Okeechobee through S-77 during the two periods, respectively. Salinities in the upper estuary were within the optimal range (0-10) for tape grass during both 7-day periods. The 7-day average salinity was in the optimal range (10-25) for adult eastern oysters at Cape Coral and Shell Point and in the upper stressed range (>25) at Sanibel for both periods.

Since the end of November, both local basin runoff in the Caloosahatchee Watershed and lake releases through S-77 have maintained salinity in the Caloosahatchee Estuary. At this time the District recommends the USACE follow 2008 LORS and release a 7-day pulses with an average discharge of 2,000 cfs each as measured at the S-79 structure to work towards bringing Lake Okeechobee back into the Ecological Envelope. No flows from the lake to the St. Lucie Estuary are recommended at this time. The USACE typically implements the releases to the estuaries starting on Saturday and ending on Friday. The Corps should continue to track Red Tide conditions in the estuary, and should conditions change during this operational period, the Corps should look to reassess releases as needed.