MEMORANDUM

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

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

DATE: December 1, 2022

SUBJECT: Operational Position Statement for November 29, 2022 to December 5, 2022

This Position Statement is to provide operational recommendations for the one-week period from November 29, 2022 to December 5, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On November 28, Lake Okeechobee stage was 16.48 feet NGVD, which placed it within the Intermediate Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.17 feet over the preceding 7 days period.

District November rainfall to date is well above normal (~177% of normal) with areas in Kissimmee, Lake Okeechobee and East Caloosahatchee reporting in excess of 200% of normal. Rainfall forecast (issued November 29) calls for below normal rainfall for the coming 7-day period and the following one.

Precipitation Outlook: The most recent CPC precipitation outlook for South Florida for December 2022 indicates increased probabilities of below normal rainfall. The 3-month outlooks for windows from Dec 2022 – Feb 2023 to Feb 2023 – Apr 2023 call for increased chances of below normal rainfall. The 3-month window Dec 2022 – Feb 2023 shows the possibility of substantially increased chances of below normal rainfall for the most northern portions of the SFWMD. All the 3-month windows from Mar 2023 – May 2023 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 November 14, 2022 to November 27, 2022 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 below regulation schedule in Zone A2, stage in WCA-2A is above regulation schedule, and WCA-3A stage is above regulation schedule in Zone A. 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 Wet 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 now 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 November 14, 2022 to November 27, 2022 total discharge to the St. Lucie Estuary was about 2,500 cfs with no flows coming from Lake Okeechobee. The 7-day average salinity in the middle estuary was within the optimal range (10-25) for adult eastern oysters during the first 7-day period but dropped to the stressful range (5-9) in the latest 7-day period. Total inflow to the Caloosahatchee Estuary averaged approximately 1,750 cfs over the past two 7-day periods with no flows coming from Lake Okeechobee through S-77. The 7-day average salinity was in the stressed range for adult eastern oysters at Cape Coral (5-9) during the first 7-day period but increased to the optimal range (10-25) during the latest 7-day period. Salinities were in the stressed range at Sanibel (>25) during both 7-day periods. Shell Point salinity was within the optimal range during the first 7-day period. However, salinity values were not recorded at S-79 and Shell Point for the second 7-day period due to sensor malfunction.

To date local basin rainfall in the Caloosahatchee Watershed has been the main contributor to salinity conditions with little need for water from Lake Okeechobee. At this time the District recommends the USACE follow 2008 LORS and release a 7-day pulse with an average discharge of 2,000 cfs 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.