## MEMORANDUM

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

- FROM: John Mitnik, Chief District Engineer (SFWMD) Akin Owosina, Chief, Hydrology & Hydraulics Bureau (SFWMD)
- **DATE:** October 27, 2022

SUBJECT: Operational Position Statement for October 25, 2022 to October 31, 2022

This Position Statement is to provide operational recommendations for the one-week period from October 25, 2022 to October 31, 2022 based on system conditions and data observed during the previous Monday to Sunday 7-day period. On October 24, Lake Okeechobee stage was 15.57 feet NGVD, which places it within the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (LORS). Lake stage increased by 0.40 feet over the preceding 7 days period.

October to date District rainfall is well below normal (~60% of normal). Wet season (WY2023) lasted from May 13 to September 29, 2022 and total rainfall ended above normal (115%). Rainfall forecast (issued October 25) calls for substantially below normal rainfall for the coming 7-day period and below normal for the following one.

<u>Precipitation Outlook:</u> The most recent CPC precipitation outlooks for South Florida for November 2022 indicates slightly increased probabilities of below normal rainfall. The 3-month window of Nov 2022 – Jan 2023 calls for slightly increased chances of below normal rainfall for the most southern third of the District, and increased chances of below normal for the central and northern areas. The outlook for the 3-month windows Dec 2022 – Feb 2023 to Feb 2023 – Apr 2023 is for increased chances of below normal rainfall. 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.

<u>2008 LORS Release Guidance (Part C):</u> With Lake Okeechobee stage within the Low Sub-band, the Tributary Hydrologic conditions in the Very Wet category and the Multi-seasonal Lake Okeechobee Net Inflow outlook in the Normal category, Part C of the 2008 LORS suggests "Maximum Practicable Releases to the WCAs if desirable or with minimum Everglades Impact". Otherwise, no releases.

Over the 7-day period from October 17, 2022 to October 23, 2022 no deliveries 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 not requesting regulatory releases be sent south from Lake Okeechobee towards the WCAs.

<u>2008 LORS Release Guidance (Part D):</u> With Lake Okeechobee stage within the Low Sub-band, the Tributary Hydrologic conditions in the Very Wet category, the Lake stage within 1.0 ft. of the Intermediate Sub-band and the Seasonal Lake Okeechobee Net Inflow outlook in the Normal category, Part D of the 2008 LORS suggests "S-79 up to 3000 cfs and S-80 up to 1170 cfs". In addition, Lake Okeechobee is now above 15.5 feet NGVD, which is above the Ecological Envelope for this time of the year.

For the 7-day period October 17, 2022 to October 23, 2022 total discharge to the St. Lucie Estuary was about 800 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. Total inflow to the Caloosahatchee Estuary averaged approximately 2,100 cfs over the past week with no flows coming from Lake Okeechobee through S-77. Over the past week, salinities remained the same at S-79 and Val I-75 and decreased at Ft. Myers. With the exception of the sensor at Shell Point, all sensors in the Caloosahatchee River estuary are again functioning properly as of October 17, 2022. Salinities in the upper estuary were within the optimal range (0-10) for tape grass. Salinities are within the optimum range (10-25) for adult oysters at Sanibel, and in the damaging range (0-5) at Cape Coral.

To date local basin rainfall in the Caloosahatchee Watershed has contributed to salinity conditions with no need for water from Lake Okeechobee. Daily flows at S-79 are starting to recede below 1,000 cfs. Salinity conditions are either in, or trending toward, the good range for all stations except one, which is anticipated to be in the good range within days. The District recommends the USACE follow 2008 LORS and release a 7-day pulse with an average discharge of 1,200 cfs measured at the S-79 structure to continue to assist with salinity recoveries in the Caloosahatchee and work towards bringing Lake Okeechobee back into the Ecological Envelope. No flows from the lake to the St. Lucie Estuary. This decision should be reassessed as needed based on lake and estuarine conditions. The USACE typically implements the releases to the estuaries over a 7-day period starting on Saturday and ending on Friday.