

MEMORANDUM

TO: Laureen Borochaner, Chief, Engineering Division (USACE)
FROM: John Mitnik, Chief District Engineer (SFWMD)
DATE: April 24, 2025
SUBJECT: System Operational Position Statement April 22, 2025 to April 28, 2025

This Position Statement is to provide operational input for the one-week period from April 22, 2025 to April 28, 2025 based on system conditions and data observed during the previous Monday to Sunday 7-day period.

Current climate conditions: District April rainfall to date is much below normal (20% of normal). The rainfall forecast (issued April 23) calls for much below normal rainfall for the coming 7-day period and near to below normal for the following period.

Climate and weather forecasts: The most recent CPC precipitation outlook for May 2025 is slightly increased chances (33-40%) of below normal rainfall for the entire District. ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025. The 3-month window of May 2025 – Jul 2025 indicates slightly increased chances (33-40%) of above normal rainfall for south Florida. The 3-month window of Jun 2025 – Aug 2025 shows outlook for increased chances (40-50%) of above normal rainfall for the Kissimmee River and north and slightly increased chances (33-40%) of above normal rainfall for the remainder of the District. The 3-month windows of Jul 2025 – Sep 2025 and Aug 2025 – Oct 2025 show increased chances (40-50%) of above Normal rainfall for Lake Okeechobee and north and for the Kissimmee River and north respectively, and slightly increased chances (33-40%) of above normal rainfall for the respective remainder areas of the District. The 3-month windows of Sep 2025 – Nov 2025 shows slightly increased chances (33-40%) of above Normal rainfall for Lake Okeechobee and north and for the Kissimmee River and north respectively, and increased chances (40-50%) of above normal rainfall for the respective remainder areas of the District. The transition into the 2026 – 2026 Dry Season goes through the 3-month window of Oct 2025 – Dec 2025 showing equal chances of below, normal and above normal rainfall (EC) for the entire District. The outlooks for the 3-month windows from Nov 2025 – Jan 2026 to Jan 2026 – Mar 2026 indicate increased chances (40-50%) of below normal rainfall for the entire District.

Hydrologic and tropical outlooks: Current climatological conditions are Normal. Current hydrological conditions are Dry. Based on the conditions at the start of the month the stage is projected to stay in Zone D for the next 2 months.

Water-supply conditions: The Lake Okeechobee seasonal net inflow outlook is Normal to Extremely Wet and at Low risk for water supply. The multi-seasonal net inflow outlook is Normal and at Moderate risk for water supply.

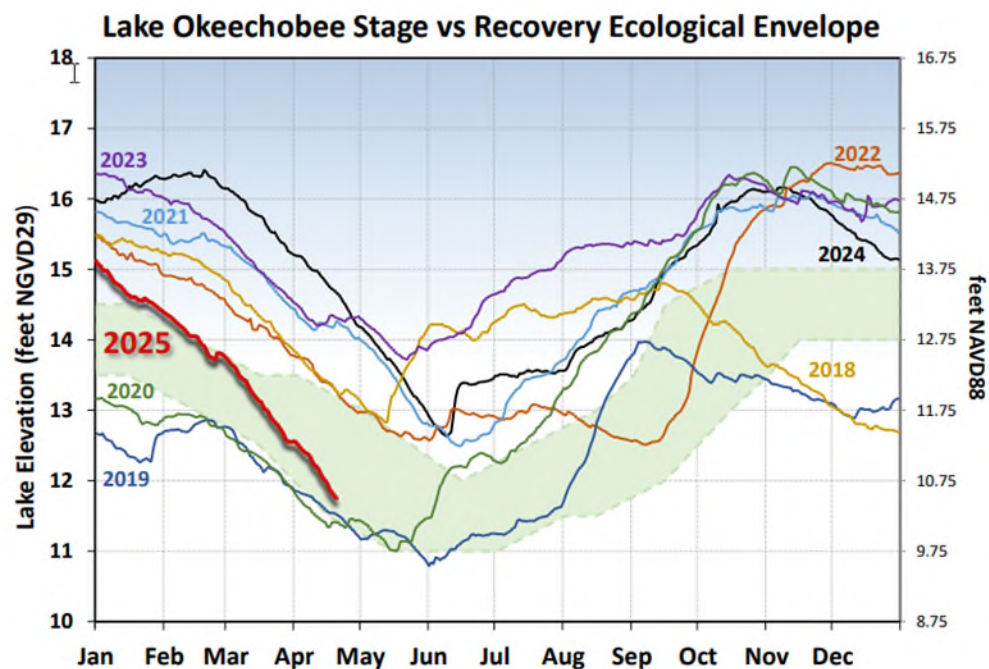
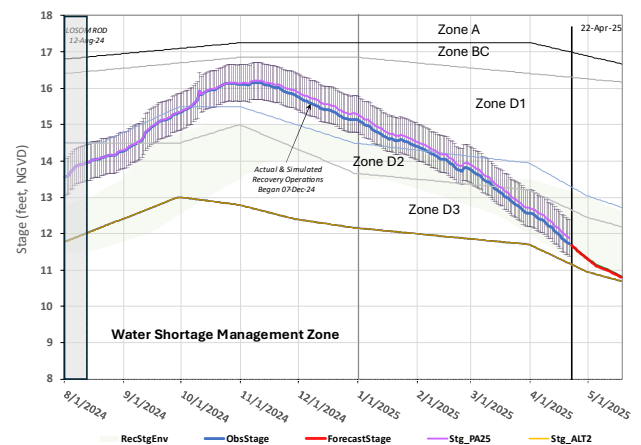
Estuary conditions: For the 7-day period, April 14 to April 20, 2025, total inflow to the Caloosahatchee Estuary averaged approximately 1,000 cfs with about 800 cfs coming from Lake Okeechobee through S-77. Salinities in the upper estuary were within the optimal range (0-10) for tape grass. Salinities were in the optimal range (10-25) for adult eastern oysters at Cape Coral, and in the upper stressed range (>25) at Sanibel and Shell Point. Total discharge to the St. Lucie Estuary was about 100 cfs with no flow coming from Lake Okeechobee, the C-44 Basin, C-23 and C-24 Basin, and about 100 cfs coming from the Tidal Basin. The average salinity in the middle estuary was within the optimum (10-25) for adult eastern oysters.

Lake Okeechobee stage and ecological conditions:

On April 20 the daily average Lake Okeechobee stage was 10.44 feet NAVD88 (11.75 feet NGVD29), which placed it within the lower portion of Zone D (Zone D3 of the PA25 simulation) of the Lake Okeechobee System Operating Manual (LOSOM). Lake stage decreased by 0.33 feet over the preceding 7-day period. The current climate outlook is for La Niña and ENSO-neutral is favored to develop in April. The LOSOM criteria to implement Recovery Operations to lower the lake level into Lake Okeechobee's Recovery Envelope has been triggered. The District has been monitoring conditions in the estuaries given the initiation of the spawning season. As such, the District recommends that USACE should continue non-harmful Recovery Operations for Lake Okeechobee as described in LOSOM recognizing that there is a higher chance to achieve Recovery targets. To maintain favorable salinity levels in the estuaries and begin to conserve water, it is recommended that flow targets for the Caloosahatchee Estuary should be 650 cfs, flow targets for the St. Lucie Estuary should remain at 0 cfs, and the flow target for the Lake Worth Lagoon should remain at 0 cfs. The District will continue to monitor salinity conditions in the estuaries and water supply conditions throughout the system as the dry season progresses to assess future operational recommendations. The USACE typically implements the releases to the estuaries over a 7-day period starting on Saturday and ending on Friday.

Forecast Modeling Based on PA25 Simulation

Lake Okeechobee Hindcast & Forecasts* [S79/S80: 650/0]



The current and seven prior years' annual stage hydrographs for Lake Okeechobee in comparison to the recovery envelope (light green). A shift from the normal ecological envelope to the recovery envelope occurred because the 30-day minimum lake stage (elevations exposed for at least 30 days, nonconsecutively) in the June 1 – July 31, 2023 window was >11.75 feet NAVD88 (13 feet NGVD29).

Navigation and recreation conditions: Currently, there are no planned deviation or declared water shortage impacting navigation or lockages.

STOF water supply conditions: Current Lake Okeechobee stage is sufficiently high that water supply deliveries to the Seminole Tribe of Florida (STOF) Brighton Reservation, if needed, will not be impacted. When Lake Okeechobee stage recedes below 8.75 feet NAVD88 (10 feet NGVD29) and 6.75 feet NAVD88 (8 feet NGVD29), water supply delivery is not achievable via Pump Station G-207 on the Harney Pond Canal and Pump Station G-208 on the Indian Prairie Canal, respectively, as the respective canals become disconnected from Lake Okeechobee.

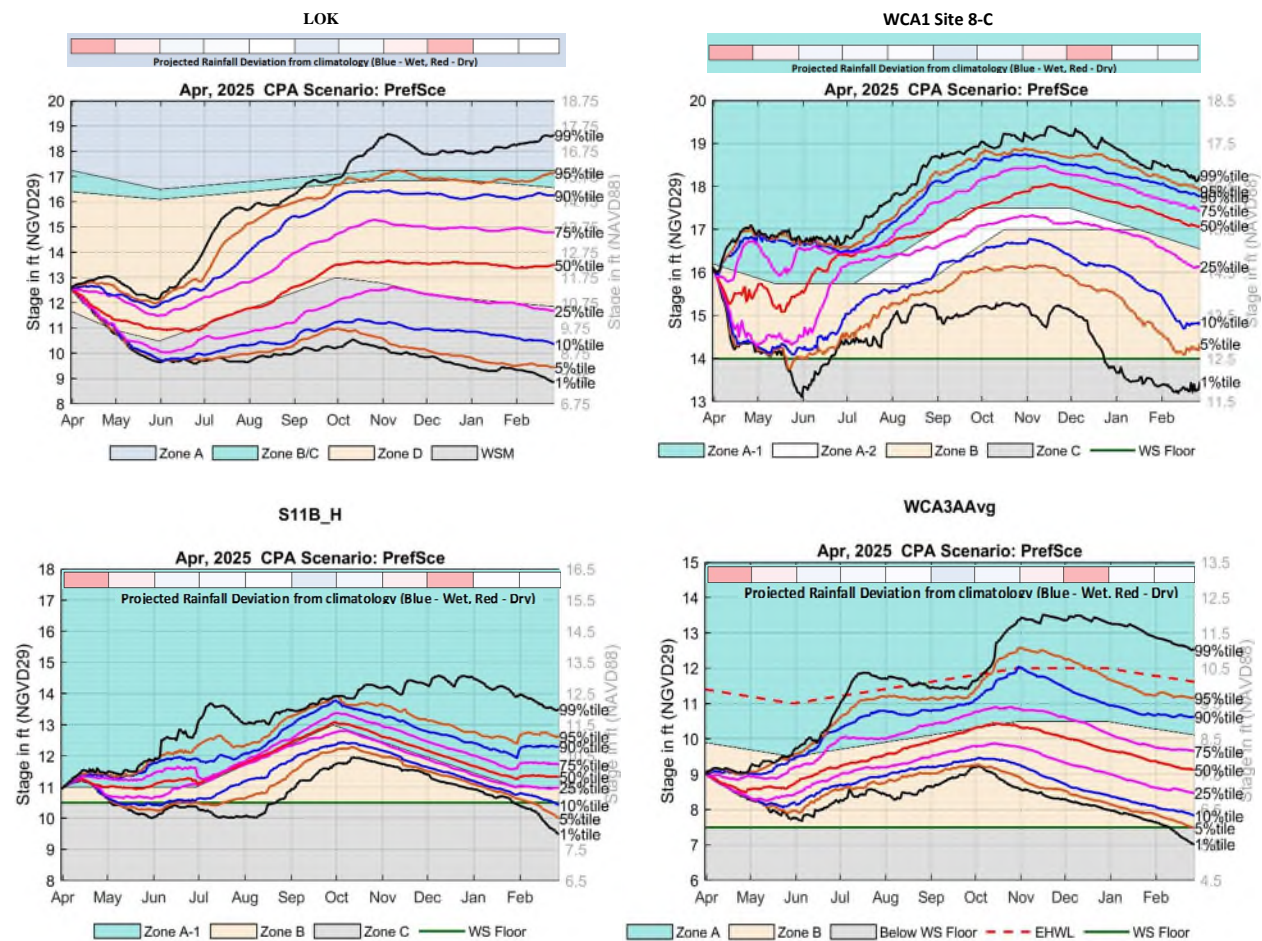
Algal Bloom conditions: The Fish and Wildlife Research Institute reported on April 18, 2025, that *Karenia brevis*, the Florida red tide dinoflagellate, was not observed at bloom concentrations in any samples collected within the District region over the past week. In the most recent non-obscured satellite image from April 17, 2025, NOAA's Harmful Algal Bloom Monitoring System suggests patchy low to moderate bloom activity in most of the nearshore areas of Lake Okeechobee.

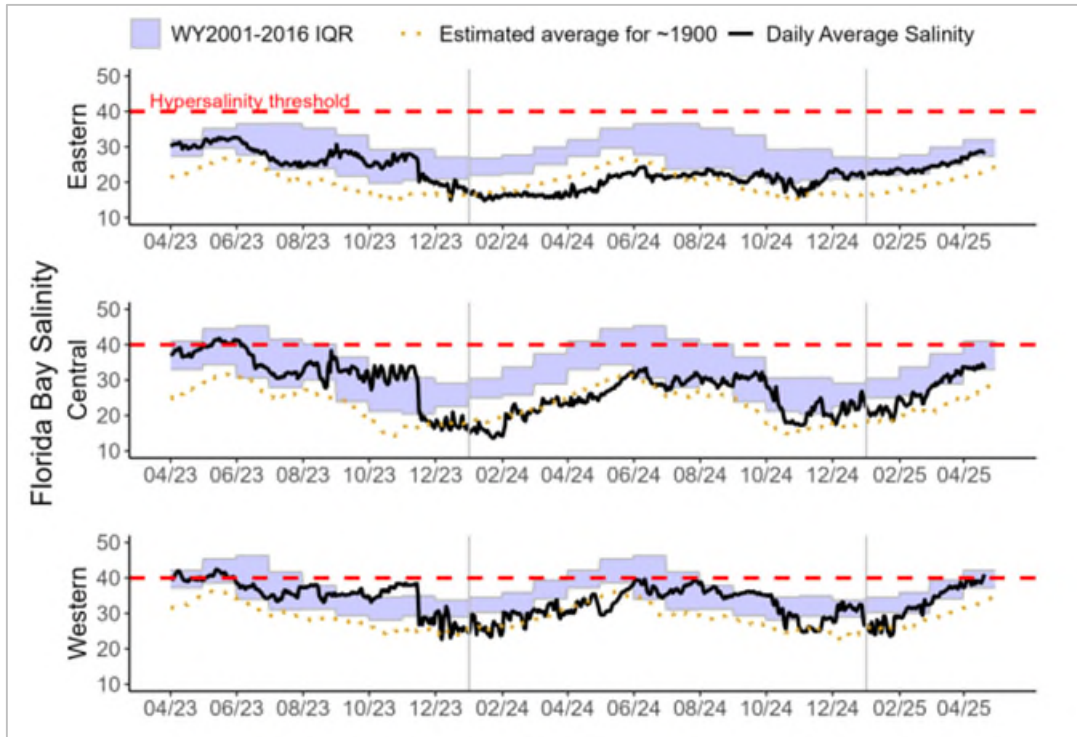
STA conditions: In STA-1E, Central Flow-way is offline for construction activities. An operational restriction is in place in the Western Flow-way for post-construction vegetation grow-in. Online treatment cells are near target stage. In STA-1W, an operational restriction is in place in the Northern Flow-way for vegetation management activities. Treatment cells are near target stage. Vegetation in the Western and Eastern flow-ways is highly stressed. The 365-day PLRs for the Eastern, Western, and Northern Flow-ways are high (≥ 1.0 g/m²/yr). STA-2 Flow-way 3 is offline for a SAV recovery drawdown. Operational restrictions are in place in Flow-ways 2 and 4 for vegetation management activities. Online treatment cells are near target stage. Vegetation in Flow-ways 2 is stressed, and in 5 is highly stressed. The 365-day PLRs for flow-ways 2 are high (≥ 1.0 g/m²/yr). In STA-3/4, Eastern Flow-way is under limitations for post-drawdown vegetation grow-in. Treatment cells are near or above target stage, vegetation in the Central flow-ways is highly stressed, and the 365-day PLRs for the Central and Western Flow-ways are high (≥ 1.0 g/m²/yr). For the current operational period, USACE is requesting maximum practicable regulatory releases be sent south from Lake Okeechobee towards the WCAs. The District will continue to work with the USACE to manage Lake Okeechobee levels in an effort to curtail harmful discharges over this year. To help with this objective the District will move as much water south through the Stormwater Treatment Areas as possible under the current permits, recognizing the existing conditions in the STAs at the conclusion of the wet season, and as regional conditions allow.

WCA conditions: On April 20 the daily average stage in WCA-1 was at 14.15 feet NAVD88 (15.75 feet NGVD29), in Zone B and 0.24 feet below regulation schedule. The daily average stage in WCA-2A was at 8.40 feet NAVD88 (10.00 feet NGVD29), below the floor and 1.04 feet below regulation schedule. The daily average stage in WCA-3A was at 7.04 feet NAVD88 (8.56 feet NGVD29), in Zone B and 1.22 feet below regulation schedule. Over the 7-day period, April 14 to April 20, 2025, a total of 4,100 acre-feet were sent from Lake Okeechobee south to STA-2. No Lake regulatory releases reached the Lake Worth Lagoon through the C-51 canal and passed to the Intracoastal Canal through S-155 and S-41 during this period.

ENP conditions: Releases from WCA-3A to the ENP continue through the S-12C/D and S333 structures. Hydrologic connectivity within the sloughs of ENP are diminishing and any flow through Shark River Slough is minimal. WCA-3A North and much of WCA-2A are now near complete dry out. The ponded conditions in southern WCA3A remain absent, and that region's water depths remain well below average stage. Most of the Big Cypress Basin is now much below soil surface. Stages decreased in Taylor Slough last week and remain below the recent average. Salinity increased on average in Florida Bay compared to last week and is now above the estimated average for 1900 and near the WY2001-2016 Interquartile Range (IQR) 25th percentile in the eastern and central regions, and near the 50th percentile in the western region. The Tamiami Trail Flow Formula (TTFF) recommends 223 cfs of daily target releases from WCA-3A to ENP. The District recommends continuing with the current operations for the releases from WCA-3A in accordance with the Combined Operating Plan.

April 2025 Conditional Position Analysis (CPA) results for Lake Okeechobee, WCA-1, WCA-2A and WCA-3A under LOSOM Recovery Operations.





Eastern (top panel), Central (middle panel) and Western (bottom panel) Florida Bay daily average salinities with WY2001-2016 interquartile (25-75 percentile) ranges (IQR) and estimated historical daily average salinities. The hyper salinity threshold indicates the level at which salinities start to become harmful to seagrass.