State of the state

AGENDA MEMORANDUM

Natural Resources Department

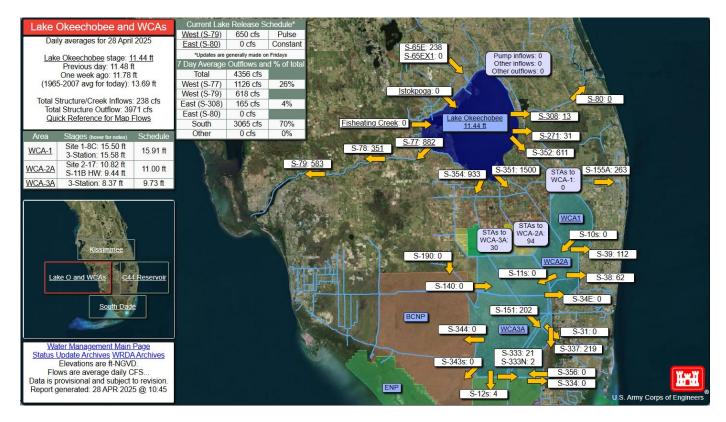
## City Council Regular Meeting Date: May 6, 2025

- To: City Council
- From: Holly Milbrandt, Natural Resources Director
- Date: April 28, 2025

## SUBJECT: Natural Resources Water Quality Updates

### BACKGROUND:

### **CALOOSAHATCHEE RIVER & ESTUARY CONDITIONS REPORT**



Click to view: April 21, 2025 Caloosahatchee Conditions Report

## LAKE OKEECHOBEE RECOVERY OPERATIONS

The Corps began Lake Okeechobee recovery operations (ROs) on December 7, 2024. Recovery operations is a strategy included in LOSOM to address ecological recovery in Lake Okeechobee necessitated by prolonged high lake stages. The goal of lake ROs is to lower lake stages (referred to as a drawdown) during the winter/spring before the onset of the wet season to help expedite the reestablishment of submerged aquatic vegetation (SAV) within the lake.

Water levels in Lake O have been above the ecological envelope (i.e. too high to support seagrass growth) for Lake Okeechobee since Hurricane Ian in 2022. The last time the lake was less than 12-feet was in 2019, at which time there was more than 25,000 acres of submerged aquatic vegetation (SAV). Higher lake levels over the last 5 years have reduced the SAV to less than 5,000 acres.

The operational strategy for RO intends to slowly bring water levels down by making moderate, non-harmful releases to the estuaries and to the Everglades. Recovery operations may only occur when the Lake elevation is in Zone D. Zone D is the largest operational band in LOSOM and allows flows west to the Caloosahatchee of up to 2,000 cfs and provides for no flow east to the St. Lucie.

However, under recovery operations additional flows are authorized. The Corps initiated releases in accordance with the RO limits established in LOSOM:

- up to 2,100 cfs at S-79
- up to 1,400 cfs total St Lucie Estuary (SLE) inflows (accounting for other SLE inflows in addition to S-80)
- up to 300 cfs to the Lake Worth Lagoon at S-271 and S-352
- up to maximum practicable south at S-351 and S-354

As of April 28, 2025, Lake Okeechobee is at 11.44 feet, down nearly 4.5 feet from 15.93 feet when recovery operations began on December 7, 2024. On March 22, 2025, with Lake recession proceeding ahead of schedule and conditions even drier than expected, the Corps reduced releases to the Caloosahatchee from 2,100 cfs to 1,400 cfs at S-79. Flow to the St Lucie was reduced from 1,200 cfs to 500 cfs at S-80. Further reductions were made on April 12, 2025, reducing flows to the Caloosahatchee from 1,400 cfs to 1,000 cfs and reducing flows to the St. Lucie from 500 cfs to 0 cfs. On April 19, 2025 at the recommendation of the SFWMD, the Corps again reduced releases to the Caloosahatchee from 1000 cfs to 650 cfs at S79. Flows of 650 cfs are below the optimal RECOVER range (750-2100 cfs) and may be insufficient to maintain appropriate salinities. It will be critical for the Corps/SFWMD to watch closely and change course as needed to prevent harm to the Caloosahatchee. Approximately 70% of the Lake outflows are moving south.

The desired result of ROs is to achieve a lake stage below 12 feet for 90 days (nonconsecutive) between mid-April and September or to recede below 11.5 feet for at least 60 days (non-consecutive) between May and August. The Lake receded below 12 feet on April 15 and below 11.5 feet on April 26.

## CURRENT RAINFALL AND CLIMATE OUTLOOK

SFWMD rainfall for April to date was <u>below normal</u> at 0.40" (16% of normal). The Southwest Coast received 0.29" (13% of normal). <u>https://www.sfwmd.gov/weather-radar/rainboard</u>

For the 2024-2025 dry season to date (October 10, 2024-April 27, 2025), the SFWMD has received 7.52" of rain (46% of normal); the Southwest Coast received 5.88" (40% of normal). https://www.sfwmd.gov/weather-radar/rainboard

The NOAA Climate Prediction Center one-month Probability Outlook for May 2025 indicates a 33-40% chance of below normal rainfall for Florida. https://www.cpc.ncep.noaa.gov/products/predictions/long\_range/lead14/

The three-month outlook for May-Jun-July 2025 indicates a 33-40% chance of above normal rainfall for Florida.

https://www.cpc.ncep.noaa.gov/products/predictions/long\_range/lead01/off01\_prcp.gif

NOAA ENSO Report (updated on 4/28/2025):

- ENSO-neutral conditions are present.
- Equatorial sea surface temperatures (SSTs) are near-average across most of the Pacific Ocean.
- ENSO-neutral is favored during the Northern Hemisphere summer, with a greater than 50% chance through August-October 2025.
- <u>https://www.cpc.ncep.noaa.gov/products/analysis\_monitoring/lanina/enso\_evolution-status-fcsts-web.pdf</u>

## ALGAE BLOOMS

**Red Tide:** FWC Red Tide Update for April 25, 2025 https://myfwc.com/research/redtide/statewide/

Over the past week, the red tide organism, *Karenia brevis*, was detected at background concentrations in one sample from Northwest Florida. Chlorophyll satellite imagery (USF, NOAA NCCOS) shows clear conditions, without indications of elevated algal biomass

In Southwest Florida over the past week, *K. brevis* was not observed.

Fish kills or respiratory irritation suspected to be related to red tide were not reported over the past week in Florida.



**Blue-Green Algae**: DEP Weekly Update (April18-April 24, 2025) <u>https://floridadep.gov/AlgalBloomWeeklyUpdate</u>

There were 25 reported site visits in the past seven days with 25 samples collected. Algal bloom conditions were observed by samplers at 14 of the sites.

Satellite imagery for Lake Okeechobee from 4/24 is partially obscured by cloud cover and shows moderate to high bloom potential in the Fisheating Creek area and scattered low to moderate bloom potential throughout the rest of the lake.

Satellite imagery for the Caloosahatchee Estuary from 4/24 shows no bloom potential. The satellite imagery for the St. Lucie Estuary from 4/24 shows no bloom potential.

Red Drift Algae: No reports

Trichodesmium: No reports

Sargassum: No reports

## PAST MEETING HIGHLIGHTS & UPDATES

### Gov. DeSantis: Caloosahatchee River reservoir will be ready to divert Lake O water by summer

https://www.news-press.com/story/news/environment/2025/04/23/florida-gov-desantis-touts-long-awaited-everglades-project-for-lee/83211399007/

### SFWMD Governing Board Meeting

April 10, 2025 West Palm Beach, FL https://www.sfwmd.gov/news-events/meetings

- New Governing Board Member Appointments
  - o DeSantis appoints SFWMD board members: Hurley, Spottswood, Roman
- Resolution Proclaiming April 2025 as Water Conservation Month
- Discussion Agenda
  - Declining Water Levels in the Mid-Hawthorn Aquifer in Northeastern Cape Coral
    - The District issued an Emergency Order Declaring a Water Shortage, which imposed Modified Phase III restrictions in the northeast portion of Cape Coral on November 28, 2023, to reduce groundwater withdrawals from the Mid-Hawthorn Aquifer. MidHawthorn Aquifer water levels in the area did not improve sufficiently during the wet season as anticipated and additional restrictions may be warranted in the near future to further curtail water use to prevent significant harm to the Mid-Hawthorn Aquifer until City of Cape Coral's municipal utility services are constructed and operational in the area.
- Public Comment--Southland Rock Mine
  - https://sccf.org/blog/2025/04/23/southland-rock-mine-unanswered-questions/

#### CHNEP Technical Advisory Committee Meeting

April 10, 2025, 2025 9:30-2:00 AM Port Charlotte, FL https://www.chnep.org/technical-advisory-committee

 Water Quality Trends in Southwest Florida Factsheet https://www.chnep.org/\_files/ugd/252fd8\_a9bdb9171bd740808867c7ddeea6964b.pdf

#### **UPCOMING MEETINGS & EVENTS**

SFWMD Governing Board Meeting May 8, 2025 10:00 AM Miami, FL https://www.sfwmd.gov/event/governing-board-meeting-32

CHNEP Management Committee Meeting May 9, 2025 9:30-2:00 AM Port Charlotte, FL https://www.chnep.org/management-committee

South Florida Ecosystem Restoration Task Force Joint Working Group (WG) and Science Coordination Group (SCG) Meeting May 14, 2025 West Palm Beach, FL (SFWMD) https://www.evergladesrestoration.gov/working-group/may142025wgscg

Florida Fish & Wildlife Conservation Commission Meeting May 21-22, 2025 8:30 AM Ocala, FL https://myfwc.com/about/commission/commission-meetings/may-2025/

FUNDING SOURCE: N/A

**RECOMMENDED ACTION: N/A**