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AGENDA MEMORANDUM

Natural Resources Department

City Council Regular Meeting Date: July 15, 2025

- To: City Council
- From: Holly Milbrandt, Natural Resources Director
- **Date:** July 3, 2025

SUBJECT: Natural Resources Water Quality Updates

BACKGROUND:

CALOOSAHATCHEE RIVER & ESTUARY CONDITIONS REPORT



Click to view: July 1, 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 Corps concluded Recovery Operations on May 28, 2025, with Lake Okeechobee at 10.93 feet, down 5 feet from when recovery operations began. Since then, with continued lake recession and dry conditions, the Corps further reduced releases to the Caloosahatchee to 250 cfs, at the recommendation of the SFWMD. These flow reductions resulted in more than 38 days with flows in the stressful range, at a critical time for oyster spawning. With the Lake elevation recently entering the water shortage management zone, there is the potential to eliminate all flow to the Caloosahatchee from Lake Okeechobee, relying solely on the rainy season basin flows to meet beneficial flow targets.

Date	Flow	Reduced Flow
March 22, 2025	2,100 cfs	1,400 cfs
April 12, 2025	1,400 cfs	1,000 cfs
April 19, 2025	1,000 cfs	650 cfs
May 3, 2025	650 cfs	500 cfs
June 7, 2025	500 cfs	250 cfs

As of July 3, 2025, Lake Okeechobee is at 11.24 feet and one of the two desired results of ROs has been met. The Lake receded below 11.5 feet on April 26 and has now exceeded the 60-day target by 9 days. The Lake receded below 12 feet on April 15 and is approaching the 90-day target (79 days).

CURRENT RAINFALL AND CLIMATE OUTLOOK

SFWMD rainfall for June was <u>below normal</u> at 7.24" (84% of normal). However, there was a high degree of variability across the District with the western portions of the District receiving above normal rainfall (94-110% of normal) and the southeast portions of the District severely below normal (39-56% of normal).

https://www.sfwmd.gov/weather-radar/rainboard

For the 2025 wet season to date (May 22, 2025-July 2, 2025), the SFWMD has received 10.27" of rain (98% of normal). However, there was a high degree of variability across the District with the western portions of the District receiving above normal rainfall (103-122% of normal) and the southeast portions of the District severely below normal (56% of normal). https://www.sfwmd.gov/weather-radar/rainboard

The NOAA Climate Prediction Center one-month Probability Outlook for July 2025 indicates equal chances of below normal, normal, and above normal rainfall for Florida. <u>https://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/</u>

The three-month outlook for July-Aug-Sep 2025 indicates a 33-40% chance of above normal rainfall for the southern half of Florida. <u>https://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead01/off01_prcp.gif</u>

NOAA ENSO Report (updated on 6/30/2025):

- ENSO-neutral is present.
- Equatorial sea surface temperatures (SSTs) are near average across most of the Pacific Ocean.
- ENSO-Neutral is likely in the Northern Hemisphere summer 2025 (82% chance in June-August) and may continue into winter 2025-26, though confidence is lower (48% chance of Neutral and 41% chance of La Niña in November-January).* <u>https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolutionstatus-fcsts-web.pdf</u>

ALGAE BLOOMS

Red Tide: FWC Red Tide Update for July 2, 2025 https://myfwc.com/research/redtide/statewide/

Over the past week, the red tide organism, *Karenia brevis,* was not observed in samples collected statewide.

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 (June 20-26) <u>https://floridadep.gov/AlgalBloomWeeklyUpdate</u>

There were 64 reported site visits in the past seven days with 64 samples collected. Algal bloom conditions were observed by samplers at 16 of the sites.

The most recent useable satellite imagery for Lake Okeechobee from 6/25 shows low to moderate bloom potential on approximately 35% of the lake.

The most recent useable satellite imagery for the Caloosahatchee Estuary from 6/25 is partially obscured by cloud cover and shows no bloom potential on visible portions of the estuary.

The most recent useable satellite imagery for the St. Lucie Estuary from 6/25 is partially obscured by cloud cover and shows no bloom potential on visible portions of the estuary.

Red Drift Algae: Several reports in early June of algae deposits on Sanibel's beaches.

Trichodesmium: No reports

Sargassum: No reports

PAST MEETING HIGHLIGHTS & UPDATES

SFWMD Governing Board Meeting

June 5, 2025 West Palm Beach, FL https://www.sfwmd.gov/event/governing-board-meeting-32

- Chair Goss comments on Southland Rock Mine Project https://sfwmd.granicus.com/player/clip/534?meta_id=33652
- Central Everglades Planning Project (CEPP) Update

SFWMD Statement on Florida FY26 Budget

https://www.sfwmd.gov/news-events/news/statement-sfwmd-governing-board-chair-chauncey-goss-governor-ron-desantis-signing

Harmful Algal Bloom Task Force

June 10, 2025 View video: https://www.youtube.com/live/QwtaAX0_a-s https://myfwc.com/research/redtide/taskforce/meeting/

USACE Project Delivery Team (PDT) meeting on the Central Everglades Planning Project (CEPP), Everglades Agricultural Area (EAA), A-2 Stormwater Treatment Area (STA) Interim Operational Plan

June 30, 2025

Virtual

https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Central-Everglades-Planning-Project/

 The A-2 STA is under construction by the SFWMD. USACE has evaluated operational alternatives and selected a preference to facilitate SFWMD's operation of the STA upon construction completion. USACE and the South Florida Water Management District (SFWMD) will provide an update on the optimized preferred alternative.

UPCOMING MEETINGS & EVENTS

SFWMD Governing Board Meeting

July 10, 2025 9:00 AM West Palm Beach, FL https://www.sfwmd.gov/event/governing-board-meeting-32

- Four Corners Rapid Infiltration Northern Everglades Watersheds Water Retention and Nutrient Load Reduction Project Service Agreement Amendment
 - The Northern Everglades and Estuaries Protection Program (NEEPP) has established the Caloosahatchee River Watershed Protection Plan to improve the hydrology, water quality, and aquatic habitat within these watersheds. Public-private partnerships have been proven as a cost-effective and expeditious approach to provide regional water storage and water quality improvements. As part of NEEPP, the Four Corners Rapid Infiltration Project (ALJO Groves, LC), located in Lee County, is a public-private partnership supporting the Caloosahatchee River Basin Management Action Plan. When the project contract was executed in 2022, it was estimated that the project would provide an average water storage benefit of 20,000 acre-feet per year. Since then, the service provider has demonstrated that the project can capture and store additional stormwater runoff, in excess of the original project benefits, through the use of additional infrastructure and resources located outside the project's footprint on adjacent land. The parties wish to amend the scope of work so to increase project storage benefits and increase project payments.

USACE Bi-annual Central Everglades Planning Project (CEPP) Informational Meeting

July 11, 2025 10:00 AM Virtual https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Central-Everglades-Planning-Project/

• To inform stakeholders and the public regarding USACE and South Florida Water Management District progress on implementation and all phases of the Central Everglades Planning Project (CEPP), a key project of the Comprehensive Everglades Restoration Plan (CERP).

SFWMD Caloosahatchee (C-43) Reservoir Ribbon Cutting

July 15, 2025 10:30 AM By invitation

> The Caloosahatchee Reservoir is an 18-square-mile project that supports water quality in the Caloosahatchee Estuary. It will reduce harmful discharges of water from Lake Okeechobee to the Caloosahatchee Estuary during the wet season and provide beneficial freshwater to the estuary during the dry season. This project is part of the state-federal Comprehensive Everglades Restoration Plan (CERP) to restore the environment and make our water resources more resilient. It will hold approximately 170,000 acre-feet of water (55 billion gallons).

CHNEP Technical Advisory Committee Meeting

August 7, 2025 9:30 AM-2:00 PM Punta Gorda, FL https://www.chnep.org/technical-advisory-committee

FUNDING SOURCE: N/A

RECOMMENDED ACTION: N/A