



AGENDA MEMORANDUM

*Natural Resources
Department*

City Council Regular Meeting Date: February 7, 2023

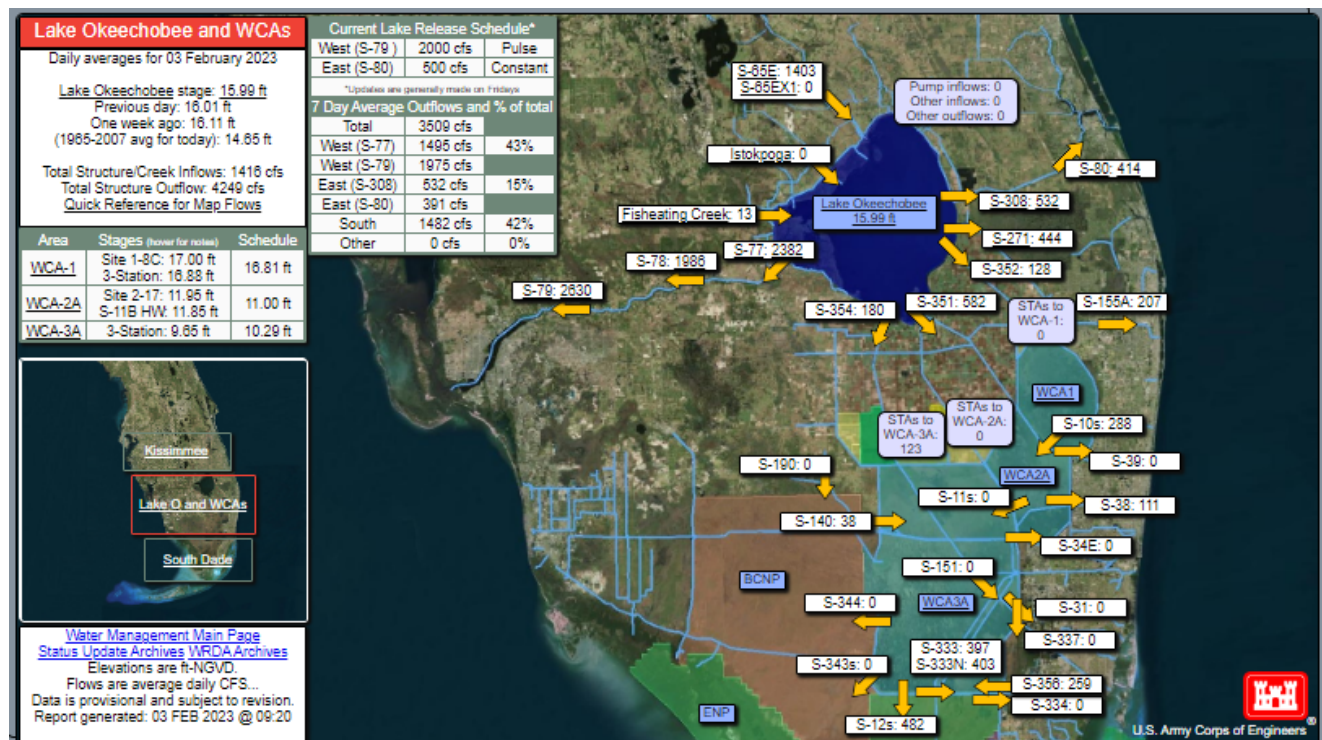
To: City Council
From: Holly Milbrandt, Natural Resources Director
Date: February 3, 2023

SUBJECT: Natural Resources Water Quality Updates

BACKGROUND:

CALOOSA HATCHEE RIVER & ESTUARY CONDITIONS REPORT

Click to view: [January 31, 2023 Caloosahatchee Conditions Report](#)



Sanibel is and shall remain a barrier island sanctuary

CURRENT RAINFALL AND CLIMATE OUTLOOK

SFWMD District rainfall month to date for January 2023 was well below normal at 0.46" (21% of normal).

<https://www.sfwmd.gov/weather-radar/rainfall-historical/monthly>

For the dry season to date (Nov 2-Feb 2), the SFWMD has received 5.69" of rain, which is 88% of normal.

<https://www.sfwmd.gov/weather-radar/rainfall-historical/seasonal>

The NOAA Climate Prediction Center one-month Probability Outlook for February indicates a 40-50% chance of below normal rainfall for south Florida and a 33-40% chance of below normal rainfall for central and north Florida.

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/off15_prpcp.gif

The three-month outlook for Feb-Mar-Apr indicates a 40-50% chance of below normal rainfall.

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead01/off01_prpcp.gif

NOAA ENSO Report (updated on 1/30/2023):

- La Niña is present.
- Equatorial sea surface temperatures (SSTs) are below average across most of the Pacific Ocean.
- A transition from La Niña to ENSO-neutral is anticipated during the February-April 2023 season. By Northern Hemisphere spring (March-May 2023), the chance for ENSO neutral is 82%.
- https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf

ALGAE BLOOMS

Red Tide: FWC Red Tide Update for February 3, 2023

<https://myfwc.com/research/redtide/statewide/>

The red tide organism, *Karenia brevis* was detected in 37 samples from and offshore of Southwest Florida over the past week. Bloom concentrations (>100,000 cells/liter) were present in 10 samples: one in Sarasota County, **eight in Lee County**, and one offshore of Collier County.

In Southwest Florida over the past week, *K. brevis* was observed at very low concentrations in Pinellas County, background to low concentrations in Manatee County, background to medium concentrations in Sarasota County, **very low to medium concentrations in Lee County**, and low and medium concentrations offshore of Collier County.

Reports of fish kills suspected to be related to red tide were received in Southwest Florida from Sarasota and Lee counties over the past week.

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Respiratory irritation suspected to be related to red tide was reported via the Beach Conditions Reporting System over the past week in Southwest Florida in Manatee, Sarasota, and Lee counties.

Large patches of discolored water were observed alongshore of Sanibel and Captiva during a helicopter tour on January 20, 2023. Fish kills were reported/observed on Sanibel's beaches on 1/25 (east beaches), 1/31 (west-end canal), 2/1 (east beaches), and 2/3 (east and west beaches).

Blue-Green Algae: DEP Weekly Update (January 27-February 2, 2023)
<https://floridadep.gov/AlgalBloomWeeklyUpdate>

There were 14 reported site visits in the past seven days with 14 samples collected. Algal bloom conditions were observed by samplers at 10 of the sites.

Satellite imagery from 2/2 shows scattered low bloom potential on Lake Okeechobee. Satellite imagery for the Caloosahatchee and St. Lucie estuaries from 2/2 shows no significant bloom potential in visible portions of either estuary.

Red Drift Algae: No reports

Trichodesmium: No reports

MEETING HIGHLIGHTS & UPDATES

CHNEP Management Committee

January 13, 2023

<https://www.chnep.org/management-committee>

- Hurricane Recovery Discussion with the Federal Interagency Recovery Coordination (IRC) Team
- The Effect of Climate Change on Hurricane Ian — Michael Wehner, Lawrence Berkeley National Laboratory
- Post-hurricane Ian Water Quality Dashboard Presentation — Dr. Miles Medina, UF Center for Coastal Solutions

Harmful Algal Bloom Task Force

January 17, 2023

<http://fwc.adobeconnect.com/hab/>

- Continued support for the task force is included in Executive Order 23-06 (Achieving Even More Now for Florida's Environment)

Herbert Hoover Dike Rehabilitation Ribbon Cutting Ceremony

January 25, 2023

- Completed 3 years of the 2025 target date
- Project cost: \$1.5 billion
- Benefits: Protection of the lakeside communities, additional storage, and operational flexibility for management of Lake Okeechobee

38th Annual Everglades Coalition Conference: A Watershed Moment for America's Everglades

January 26-28, 2023

Ft. Lauderdale Marriot Coral Springs

<https://www.evergladescoalition.org/conference>

Blue-Green Algae Task Force

February 1, 2023

<https://protectingfloridatogether.gov/state-action/blue-green-algae-task-force>

- Progress to Date and Next Steps
 - Onsite Sewage Treatment & Disposal Systems
 - Sanitary Sewer Overflows
 - Stormwater Treatment Systems
 - Water Reuse
 - Biosolids

https://protectingfloridatogether.gov/sites/default/files/documents/Progress%20To%20Date%20And%20Next%20Steps_501.pdf
- Continued support for the task force is included in Executive Order 23-06 (Achieving Even More Now for Florida's Environment)

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**32nd Annual Southwest Florida Water Resources Conference:
Hurricanes of 2022: Effects on the Built and Natural Environments of Southwest Florida**
February 3, 2023
FGCU, Fort Myers
<https://awraflorida.org/event-5048568>

- Hurricane Ian Modeling, Prediction and Comparison to Actual Events (Dr. Mike Savarese, FGCU)
- Post Hurricane Ian Salinization Effects on 12 Urban Stormwater Ponds of Sanibel (Dr. Serge Thomas, FGCU)
- Restoring Access After Hurricane Ian – Sanibel Causeway Emergency and Permanent Repairs (Kati Sherrard, FDOT)

UPCOMING MEETINGS & EVENTS

SFWMD Governing Board Meeting
February 9, 2023
Coral Springs
9:00 AM
<https://www.sfwmd.gov/news-events/meetings>

USACE Groundbreaking ceremony for the Central Everglades Planning Project Everglades Agricultural Area (CEPP EAA) Phase Reservoir
February 22, 2023
By Invitation

Fish and Wildlife Conservation Commission
February 21-22, 2023
Jacksonville, FL
8:30 AM
<https://myfwc.com/about/commission/commission-meetings/february-2023/>

- Overview of the Statewide Nuisance Alligator Program
- Overview of seabird entanglements in fishing gear occurring at the Skyway Fishing Pier State Park, outreach efforts to reduce entanglements, and proposed rules to reduce severe entanglements and further seabird conservation.
- Update on the Nonnative Fish and Wildlife Technical Assistance Group (TAG)

CHNEP 2023 Climate Summit
March 15-16, 2023
The Collaboratory, Fort Myers
<https://www.chnep.org/2023-climate-summit>

LOSOM (Lake Okeechobee System Operating Manual)

The draft EIS/WCP (Environmental Impact Statement/Water Control Plan) for NEPA (National Environmental Policy Act) review was released on July 27, 2022. The 45-day public comment period closed on Monday, September 12, 2022.

Next Steps:

- Corps Agency Technical Review (ATR); Independent External Peer Review (IEPR); DRAFT FWS Biological Opinion
- Final EIS Release: March 2023
- Record of Decision: June 2023

<https://www.saj.usace.army.mil/LOSOM/>

C-43 West Basin Storage Reservoir Update

2-Cell Reservoir, 10,500 Acres, 170,000 ac-ft of storage; Depth ranging from 15'–25'

Pump Station: Substantially Completed in October 2022;
Operational Testing and Monitoring 2023-2024
Reservoir: 60% complete; estimated completion 2024
Operational Testing and Monitoring 2025-2026

C-43 Water Quality Treatment Component

Feasibility Study and Siting Evaluation Completed in December 2020:

- In-reservoir alum treatment was the most cost-effective and could be applied at reservoir inflow pump station

Design & Construction

- Complete Design by the end of 2022
- Procurement and installation in 2023
- Obtain operations permit in 2024 concurrent with the C-43 reservoir operations permit

FUNDING SOURCE: N/A

RECOMMENDED ACTION: N/A