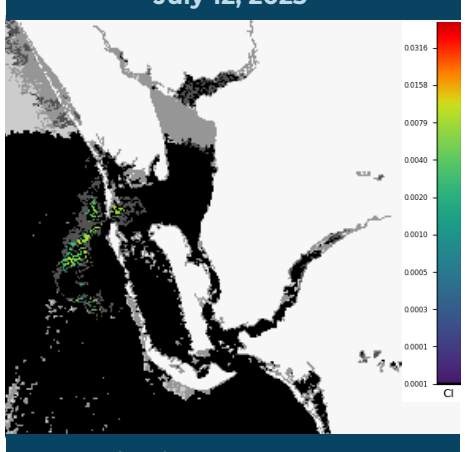
BLUE-GREEN ALGAL BLOOM WEEKLY UPDATE

REPORTING JULY 7 - JULY 13, 2023

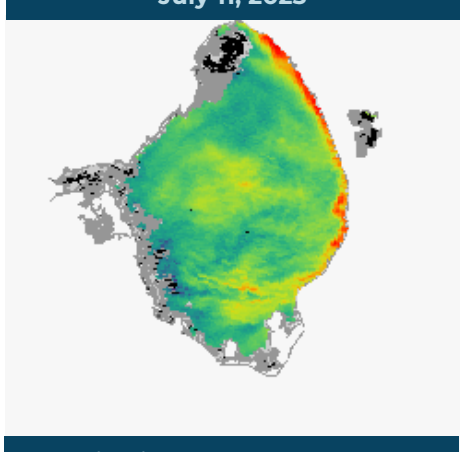
Satellite imagery provided by NOAA - Images are impacted by cloud cover.
A value of 0.004 is nominally equivalent to approximately 20-30 ug/L chlorophyll a of cyanobacteria, and 0.06 would be in the 300-500 ug/L chlorophyll a range.
Please keep in mind that bloom potential is subject to change due to rapidly changing environmental conditions or satellite inconsistencies (i.e., wind, rain, temperature or stage).

Caloosahatchee Estuary
July 12, 2023



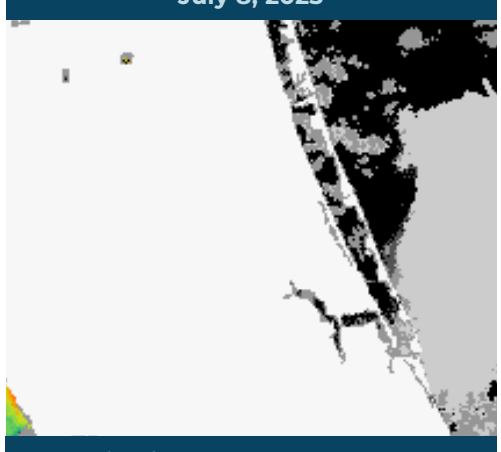
Satellite imagery for the Caloosahatchee Estuary shows no bloom potential.

Lake Okeechobee
July 11, 2023



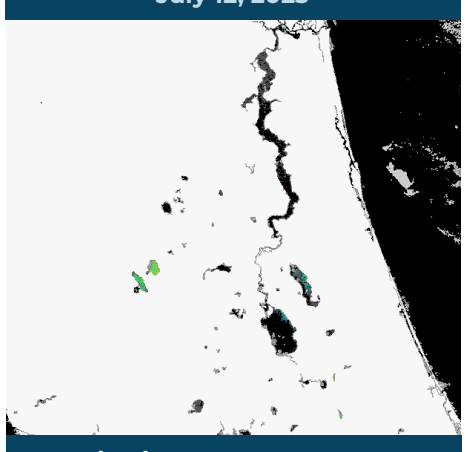
Satellite imagery for Lake Okeechobee shows moderate to high bloom potential over most of the lake, with the most intense bloom potential along the eastern shoreline.

St. Lucie Estuary
July 8, 2023



Satellite imagery for the St. Lucie Estuary shows no bloom potential on visible portions of the estuary.

St. Johns River
July 12, 2023



Satellite imagery for the St. Johns River shows scattered low to moderate bloom potential on Lake George and the mainstem of the river down to Jacksonville.

The Florida Department of Environmental Protection is seeking project proposals for Fiscal Year 2023-24 that will bolster existing efforts to protect and restore Florida's water resources. Seven grants are available, including two new programs enacted this legislative session: the Water Quality Improvement Grant Program and the Indian River Lagoon Water Quality Improvement Grant. Grant programs have different closing dates.

SUMMARY

There were 67 reported harmful algal bloom (HAB) response or HAB routine site visits in the past seven days with 67 samples collected. Algal bloom conditions were observed by samplers at 46 of the sites.

On 7/10-7/13, Florida Department of Environmental Protection (DEP) staff collected 22 HAB response samples. Dominant algal taxa and cyanotoxin results follow each waterbody name.

- **Able Canal - Connie Ave N:** No dominant algal taxon; trace level (0.14 parts per billion [ppb]) cylindrospermopsin detected.
- **Caloosahatchee River - End of Coon Rd:** No dominant algal taxon; no cyanotoxins detected.
- **Caloosahatchee River - Fort Myers Shores:** No dominant algal taxon; no cyanotoxins detected.
- **Caloosahatchee River - N of Loftons Island:** *Microcystis aeruginosa*; no cyanotoxins detected.
- **Caloosahatchee River - Overiver Dr:** *Microcystis aeruginosa*; trace level (0.55 ppb) microcystins detected.
- **Caloosahatchee River - W First St and Altamont:** *Microcystis aeruginosa*; 11 ppb microcystins detected.
- **Hancock Creek - Moody Ramp:** *Microcystis aeruginosa*; no cyanotoxins detected.
- **Lake McCoy - North Lobe:** *Microcystis aeruginosa* and *Dolichospermum planctonicum* co-dominant; no cyanotoxins detected.
- **Ortega River - Imperial Cove Rd:** *Euglenophyceae*; no cyanotoxins detected.
- **Tiger Lake – Center:** *Microcystis aeruginosa*; estimated 2.2 ppb microcystins detected.

Results are pending for samples collected on 7/13 at **Caloosahatchee River - Jaycee Park; Caloosahatchee River - Coral Point Dr; Caloosahatchee River - End of Canal Cir; Caloosahatchee River - Whitecap Cir Dock; Caloosahatchee River - Coral Point Dr; Caloosahatchee River - Horton Park; Caloosahatchee River - McGregor Colonial Park; Lake George; Little Half Moon Lake; Pioneer Lake - NE Shore; Lake Eaton - Ocala Conservation Center Dock**; and **Bonita Lake - S Shore.**

On 7/7-7/12, South Florida Water Management District staff collected nine HAB response samples and 28 Lake Okeechobee HAB routine samples.

- **C43 Canal - S77 (upstream):** No dominant algal taxon; no cyanotoxins detected.
- **C43 Canal - S78 (upstream):** No dominant algal taxon; no cyanotoxins detected.
- **C43 Canal - S79 (upstream):** No dominant algal taxon; no cyanotoxins detected.
- **Lake Okeechobee – S308C (lakeside):** *Microcystis aeruginosa*; 170 ppb microcystins detected.
- **C44 Canal – S308C (canal side):** *Microcystis aeruginosa*; 10 ppb microcystins detected.
- **Lake Okeechobee – S352 (lakeside):** *Microcystis aeruginosa*; 6.8 ppb microcystins detected.
- **Lake Okeechobee – Pahokee Marina:** *Microcystis aeruginosa*; 6.1 ppb microcystins detected.

Results are pending for samples collected on 7/13 at **Lake Okeechobee - S354 (lakeside)** and **Lake Okeechobee - S352 (lakeside)**.
HAB routine samples collected on **Lake Okeechobee** were all dominated by ***Microcystis aeruginosa*** except for station **KISSRO.0** (no dominant algal taxon); **POLESOUT** (co-dominated by ***Cylindrospermopsis raciborskii*** and ***Planktolyngbya limnetica***); and **EASTSHORE** (co-dominated by ***Microcystis aeruginosa*** and ***Dolichospermum circinale***).

Cyanotoxins were not detected at **KISSRO.0**.

Regarding 7/10 sample results for **Lake Okeechobee – S308C (lakeside)**, an innovative technology has been deployed at this location to target blue-green algal cells and the toxins they produce. Post-treatment sampling was conducted on 7/12, and microcystins results range from 30 to 64 ppb. Weekly water quality monitoring is ongoing while toxins are detected. All sampling locations and results are posted to DEP's Algal Bloom Monitoring and Response dashboard. In large systems like Lake Okeechobee, treatments may need to be repeated over the course of the bloom season as untreated bloom waters may migrate into treated areas due to winds and currents. **Residents and visitors are advised to avoid coming into contact with algae and to stay out of the water where a visible bloom is present.**

Trace or estimated levels of microcystins were detected at **LZ2** (estimated 1.1 ppb); **L001** (trace, 0.63 ppb); **NCENTER** (trace, 0.96 ppb); **L005** (trace, 0.80 ppb); **POLESOUT1** (estimated, 1.5 ppb); **POLESOUT** (trace, 0.55 ppb); **KBARSE** (trace, 0.78 ppb); and **PALMOUT** (trace, 0.55 ppb).

Unqualified microcystin levels were detected at **NES191** (3.0 ppb); **NES135** (12 ppb); **EASTSHORE** (100 ppb); **L004** (16 ppb); **L008** (11 ppb); **POLESOUT3** (11 ppb); **POLESOUT2** (3.3 ppb); **CLV10A** (15 ppb); **LZ40** (4.6 ppb); **L006** (9.1 ppb); **PALMOUT3** (6.7 ppb); **PALMOUT2** (3.7 ppb); **PALMOUT1** (2.2 ppb); **LZ30** (10 ppb); **POLE3S** (3.7 ppb); **RITTAE2** (3.6 ppb); **LZ25A** (5.2 ppb); **L007** (6.8 ppb); and **PELBAY3** (4.8 ppb).

On 7/10-7/13, St. Johns River Water Management District staff collected one HAB response and eight HAB routine samples.

- **St. Johns River - Mandarin Point:** No dominant algal taxon; no cyanotoxins detected.
- **Doctors Lake – Center:** No dominant algal taxon; trace level (0.42 ppb) microcystins detected.
- **St. Johns River - Shands Bridge:** No dominant algal taxon; trace level (0.31 ppb) microcystins detected.
- **Stick Marsh – North:** No dominant algal taxon; no cyanotoxins detected.
- **Blue Cypress Lake – Center:** No dominant algal taxon; no cyanotoxins detected.
- **M Canal:** *Microcystis aeruginosa*; no cyanotoxins detected.

Results are pending for samples collected at **Crescent Lake - mouth of Dunns Creek; Lake George - Center**; and **Lake Jesup – Center.**

Last Week

On 7/6, DEP staff collected 13 HAB response samples.

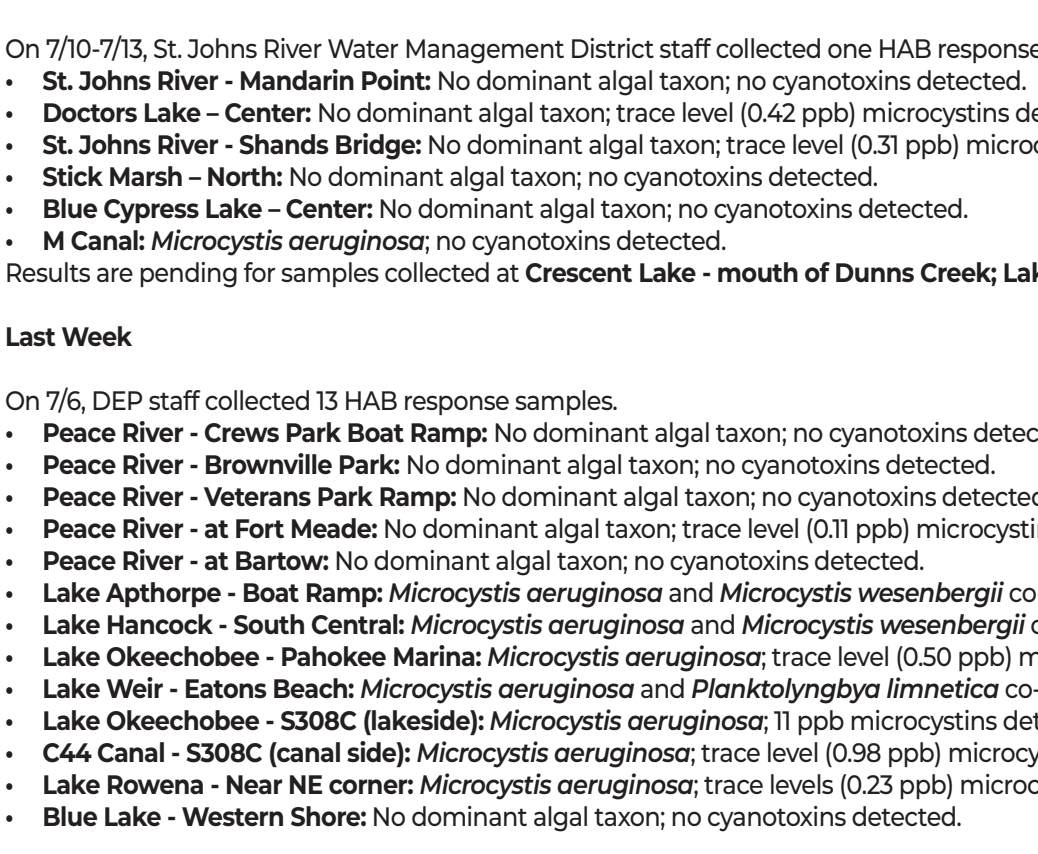
- **Peace River - Crews Park Boat Ramp:** No dominant algal taxon; no cyanotoxins detected.
- **Peace River - Brownville Park:** No dominant algal taxon; no cyanotoxins detected.
- **Peace River - Veterans Park Ramp:** No dominant algal taxon; no cyanotoxins detected.
- **Peace River - at Fort Meade:** No dominant algal taxon; trace level (0.11 ppb) microcystins detected.
- **Peace River - at Bartow:** No dominant algal taxon; no cyanotoxins detected.
- **Lake Apthorpe - Boat Ramp:** *Microcystis aeruginosa* and *Microcystis wesenbergii* co-dominant; no cyanotoxins detected.
- **Lake Hancock - South Central:** *Microcystis aeruginosa* and *Microcystis wesenbergii* co-dominant; trace level (0.40 ppb) microcystins detected.
- **Lake Okeechobee - Pahokee Marina:** *Microcystis aeruginosa*; trace level (0.50 ppb) microcystins detected.
- **Lake Weir - Eatons Beach:** *Microcystis aeruginosa* and *Planktolyngbya limnetica* co-dominant; no cyanotoxins detected.
- **Lake Okeechobee - S308C (lakeside):** *Microcystis aeruginosa*; 11 ppb microcystins detected.
- **C44 Canal - S308C (canal side):** *Microcystis aeruginosa*; trace level (0.98 ppb) microcystins detected.
- **Lake Rowena - Near NE corner:** *Microcystis aeruginosa*; trace levels (0.23 ppb) microcystins and (0.47 ppb) cylindrospermopsin detected.
- **Blue Lake - Western Shore:** No dominant algal taxon; no cyanotoxins detected.

On 7/6, Highlands County staff collected a HAB response sample at **Lake Istokpoga**. The sample was dominated by ***Microcystis wesenbergii*** and had a trace level (0.14 ppb) microcystins detected.

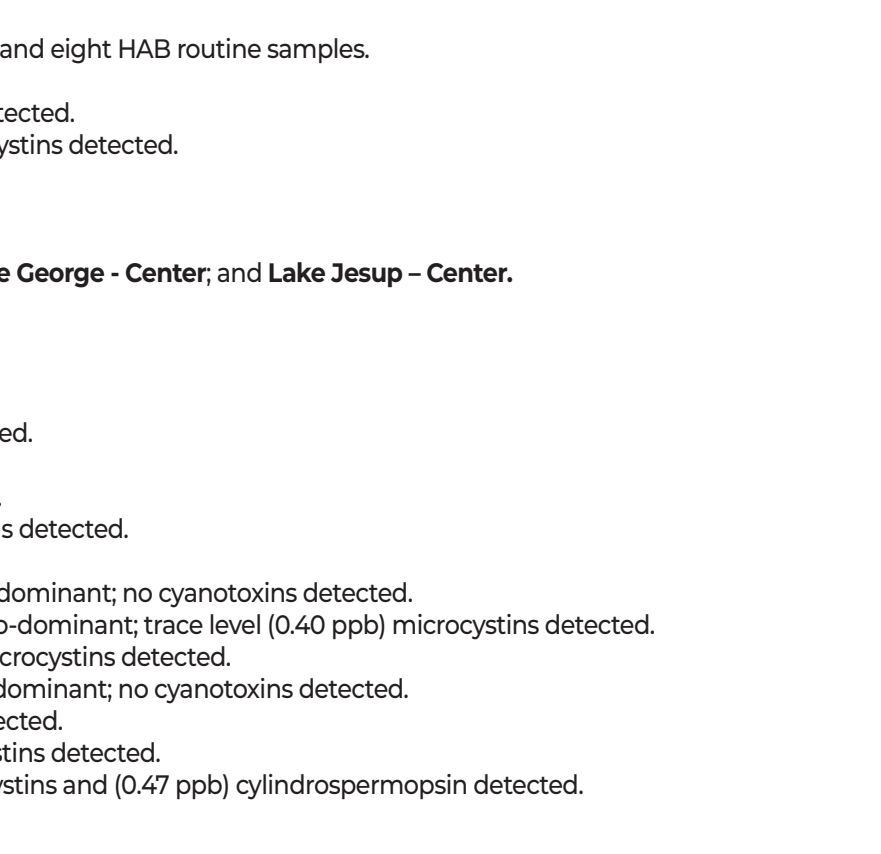
Results for completed analyses are available at FloridaDEP.gov/AlgalBloom.

This is a high-level summary of the sampling events for the reported week. For all field visit and analytical result details, please refer to the complete algal bloom map with data table by clicking the "Field and Lab Details" Quick Link from the Algal Bloom Dashboard. Different types of blue-green algal bloom species can look different and have different impacts. However, regardless of species, many types of blue-green algae can produce toxins that can make you or your pets sick if swallowed or possibly cause skin and/or eye irritation due to contact. We advise staying out of water where algae is visibly present as specks or mats or where water is discolored pea-green, blue-green or brownish-red. Additionally, pets or livestock should not come into contact with algal bloom-impacted water or with algal bloom material or fish on the shoreline.

LAKE OKEECHOBEE OUTFLOWS



SITE VISITS FOR BLUE-GREEN ALGAE



SIGN-UP FOR UPDATES

To receive personalized email notifications about blue-green algae and red tide, visit

PROTECTING TOGETHER

ProtectingFloridaTogether.gov.

REPORT PUBLIC HEALTH ISSUES

HUMAN ILLNESS

Florida Poison Control Centers can be reached 24/7 at 800-222-1222

(DOH provides grant funding to the Florida Poison Control Centers)

OTHER PUBLIC HEALTH CONCERNS

CONTACT DOH

(DOH county office)

FloridaHealth.gov/all-county-locations.

REPORT ALGAL BLOOMS

SALTWATER BLOOM

- **Observe stranded wildlife or a fish kill.**
- **Information about red tide and other saltwater algal blooms.**

CONTACT FWC

800-636-0511 (fish kills)
888-404-3922 (wildlife Alert)

MyFWC.com/RedTide

FRESHWATER BLOOM

- **Observe an algal bloom in a lake or freshwater river.**
- **Information about blue-green algal blooms.**

CONTACT DEP

855-305-3903
(to report freshwater blooms)

FloridaDEP.gov/AlgalBloom