BLUE-GREEN ALGAL BLOOM WEEKLY UPDATE

REPORTING AUGUST 21 - 27, 2020

SUMMARY

There were 44 reports of visits in the past seven days (8/21 – 8/27), with 44 samples collected. Algal bloom conditions were observed by the samplers at 14 sites.

Satellite imagery for **Lake Okeechobee** and the **Caloosahatchee and St. Lucie estuaries** from 8/25 showed approximately 15% coverage of low to moderate algal bloom potential on the lake. Highest bloom potential was observed along the northwest shore. No bloom potential was observed on the visible portions of either estuaries.

Satellite imagery for the **St. Johns River** from 8/26 did not show any bloom potential on **Lake George** or the main stem of the **St. Johns River**. **Crescent Lake** showed high bloom potential on the northern two-thirds of the lake, with the southern third of the lake obscured by cloud cover. 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).

On 8/24, South Florida Water Management District (SFWMD) staff collected samples from the **C43 canal - S77 structure (upstream)** and on **Lake Okeechobee – S308C structure (lakeside)**. Neither sample had a dominant algal taxon and no cyanotoxins were detected in either sample.

On 8/24, Florida Department of Environmental Protection (DEP) staff collected two samples at **Harbor Isles Lake – Southern Lobe** and **Harbor Isle Lake – NW Lobe**. Both samples were dominated by *Microcystis aeruginosa*. The **Southern Lobe** sample had 28 parts per billion (ppb) total microcystins and the **NW Lobe** sample had 45 ppb total microcystins. The city of St. Petersburg is finalizing paperwork for a lake management company to treat the lake with a hydrogen peroxide product to control the cyanobacteria and oxidize the microcystins. Similar treatment earlier this year significantly improved bloom and cyanotoxin conditions in the lake temporarily.

On 8/25, city of Cape Coral staff collected samples from **Makai Canal**, **Highlander Canal** and **Boris Canal**. **Makai and Highlander canals** were both co-dominated by *Microcystis aeruginosa* and *Microcystis wesenbergii*. The **Makai Canal** sample contained 23 ppb total microcystins, and the **Highlander Canal** sample contained only trace levels (0.97 ppb) total microcystins. The **Boris Canal** sample shipment was delayed and analytical results are still pending.

On 8/25, St. Johns River Water Management District (SJRWMD) staff collected a sample from **Lake Jessup – off Grassy Point**. The sample was co-dominated by *Microcystis aeruginosa* and *Cylindrospermopsis raciborskii*. The sample had 3.1 ppb cylindrospermopsin and a trace level (0.27 ppb) of total microcystins detected.

On 8/25 and 8/26, SFWMD staff collected samples from **Lake Okeechobee** at the following stations. Cyanotoxin results are included in parentheses following each station name: **KISSRO.0** (non-detect); **LZ2** (trace, 0.35 ppb); **NES191** (non-detect); **L001** (non-detect); **NES135** (trace, 0.44 ppb); **NCENTER** (non-detect); **EASTSHORE** (non-detect); **L004** (3.8 ppb); **L008** (1.1 ppb); **L005** (trace, 0.40 ppb); **POLESOUT** (trace, 0.57 ppb); **POLESOUT1** (trace, 0.34 ppb); **POLESOUT2** (trace, 0.83 ppb); **POLESOUT3** (4.4 ppb); **KBARSE** (1.4 ppb); **CLV10A** (non-detect); **LZ40** (12.0 ppb); **PALMOUT** (trace, 0.36 ppb); **PALMOUT1** (trace, 0.27 ppb); **PALMOUT2** (non-detect); **PALMOUT3** (12.0 ppb); **LZ30** (non-detect); **POLE3S** (non-detect); **RITTAE2** (non-detect); **LZ25A** (non-detect); **L007** (non-detect); **L006** (1.6 ppb); and **PELBAY3** (non-detect).

Microcystis aeruginosa was the dominant taxon in all the samples with total microcystin levels greater than 1 ppb. Six stations (**POLESOUT** and **POLESOUT1**, **KISSR0.0**, **L001**, **NCENTER** and **EASTSHORE**) were dominated by *Cylindrospermopsis raciborskii*, and one station **(CLV10A)** was dominated by *Planktolyngbya limnetica*.

On 8/26, SJRWMD staff collected a sample from **Stick Marsh – North**, **Blue Cypress Lake – Center**, **St. Johns River – Shands Bridge**, **St. Johns River - Mandarin Point**, **Lake Monroe – Center** and **Doctors Lake**. Only the **Shands Bridge** sample had a dominant algal taxon, which was *Microcystis aeruginosa*. A trace level (0.41 ppb) of cylindrospermopsin was detected in the **Shands Bridge** sample. No cyanotoxins were detected in the other samples; however, saxitoxin results are still pending.

On 8/27, DEP staff collected a sample from the **Indian River Lagoon - Marina Park Dock**. Results are still pending.

On 8/27, Orange County staff collected a sample from **Lake Roberts SE**. Results are still pending.

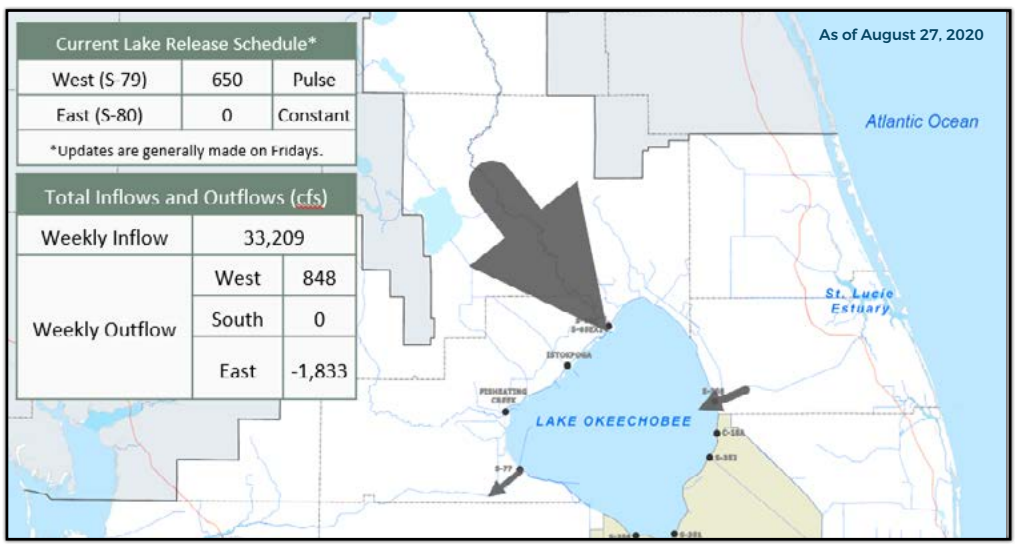
Last Week

On 8/17, city of Cape Coral staff collected a sample from **Makai Canal**. The sample was submitted to Greenwater Laboratories for analysis. The cyanotoxin result is now available. The sample contained 3.3 ppb total microcystins.

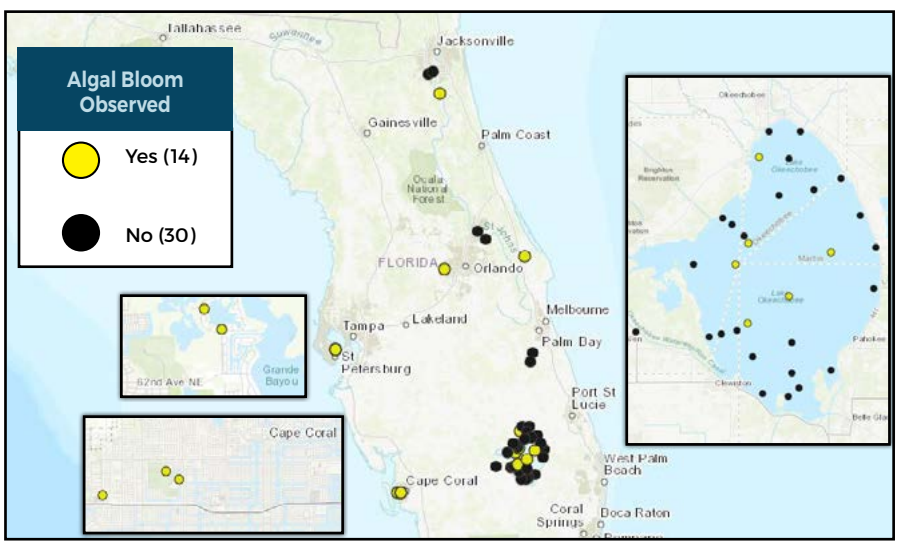
On 8/20, DEP staff collected a sample from **Scott Lake – West**. Analysis results are now available. The sample was co-dominated by *Microcystis aeruginosa* and *Microcystis wesenbergii*. The sample had a trace level (0.43 ppb) of total microcystins detected.

This is a high-level summary of the sampling events for the reported week. For all field visit and analytical result details, please refer 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 to stay out of water where algae is visibly present as specks, mats or water is discolored pea-green, blue-green or brownish-red. Additionally, pets or livestock should not come into contact with the algal bloom-impacted water, or the algal bloom material or fish on the shoreline.

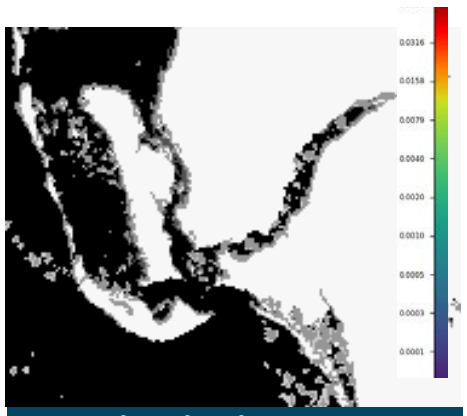
LAKE OKEECHOBEE OUTFLOWS



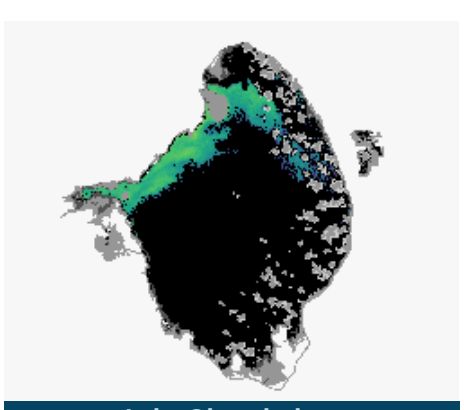
SITE VISITS FOR BLUE-GREEN ALGAE



Satellite Imagery provided by NOAA - Images are impacted by cloud-cover

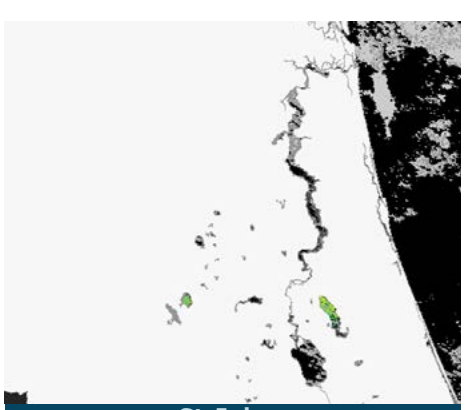


Caloosahatchee Estuary
August 25, 2020



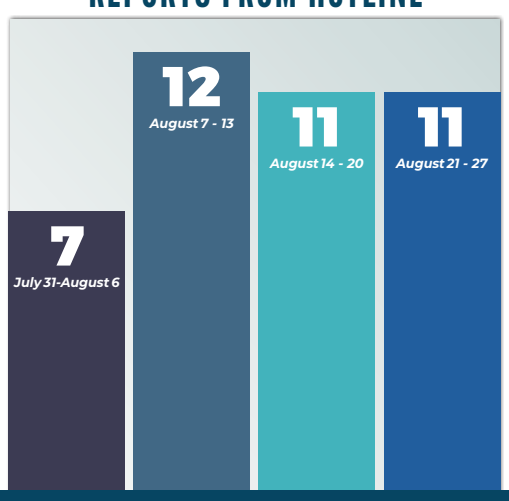
Lake Okeechobee
August 25, 2020

St. Lucie Estuary
August 25, 2020



St. Johns
August 26, 2020

REPORTS FROM HOTLINE



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.html

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

Learn more about Florida's Algal Bloom Monitoring and Response visit our Water Quality website to check the current status and to receive updates.

PROTECTING TOGETHER

ProtectingFloridaTogether.gov