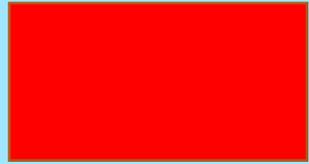


# **Rhode Island HAB-Cyano Coordination Meeting**

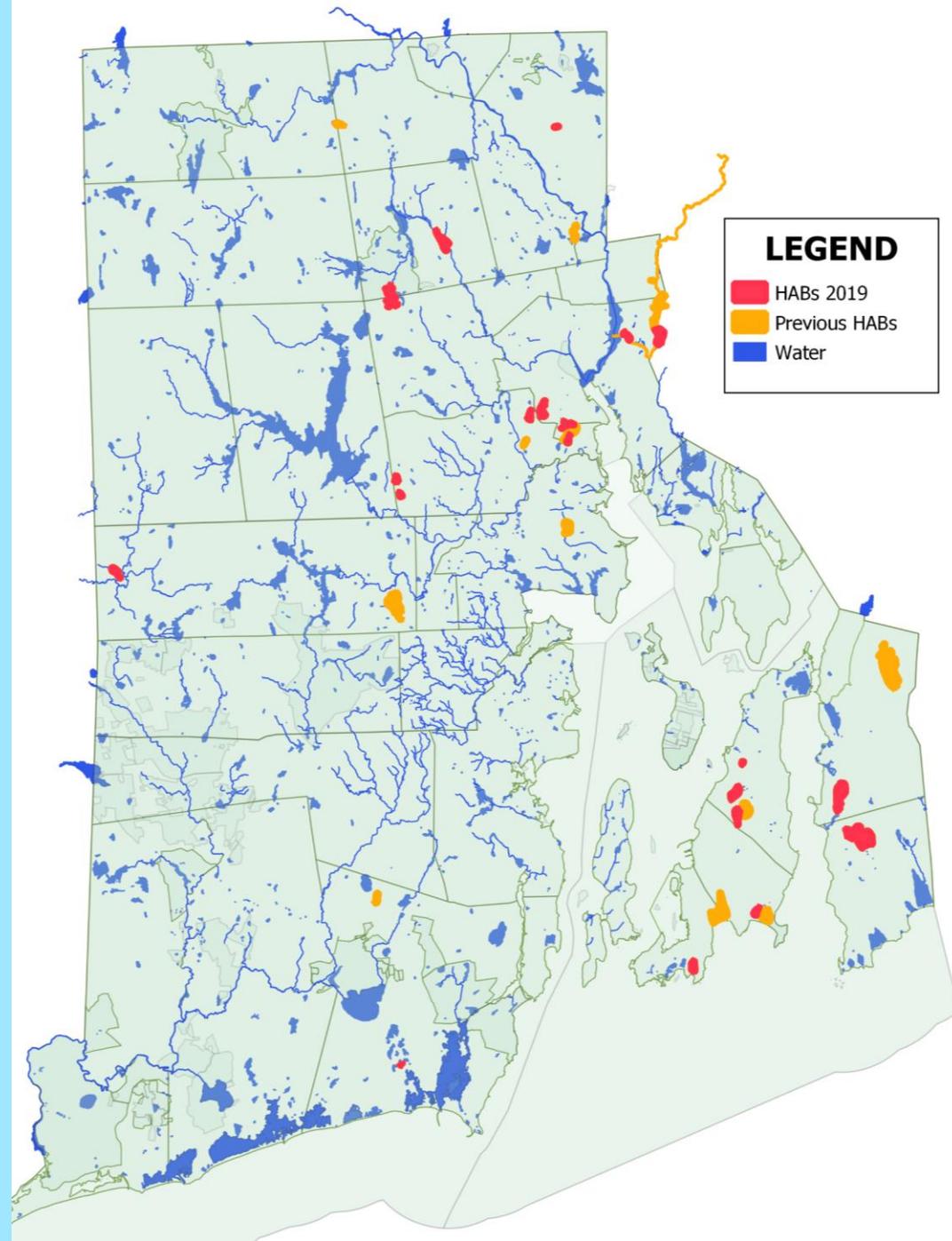
**Thursday, June 11, 2020**

# Previous Harmful Algae Blooms in Rhode Island



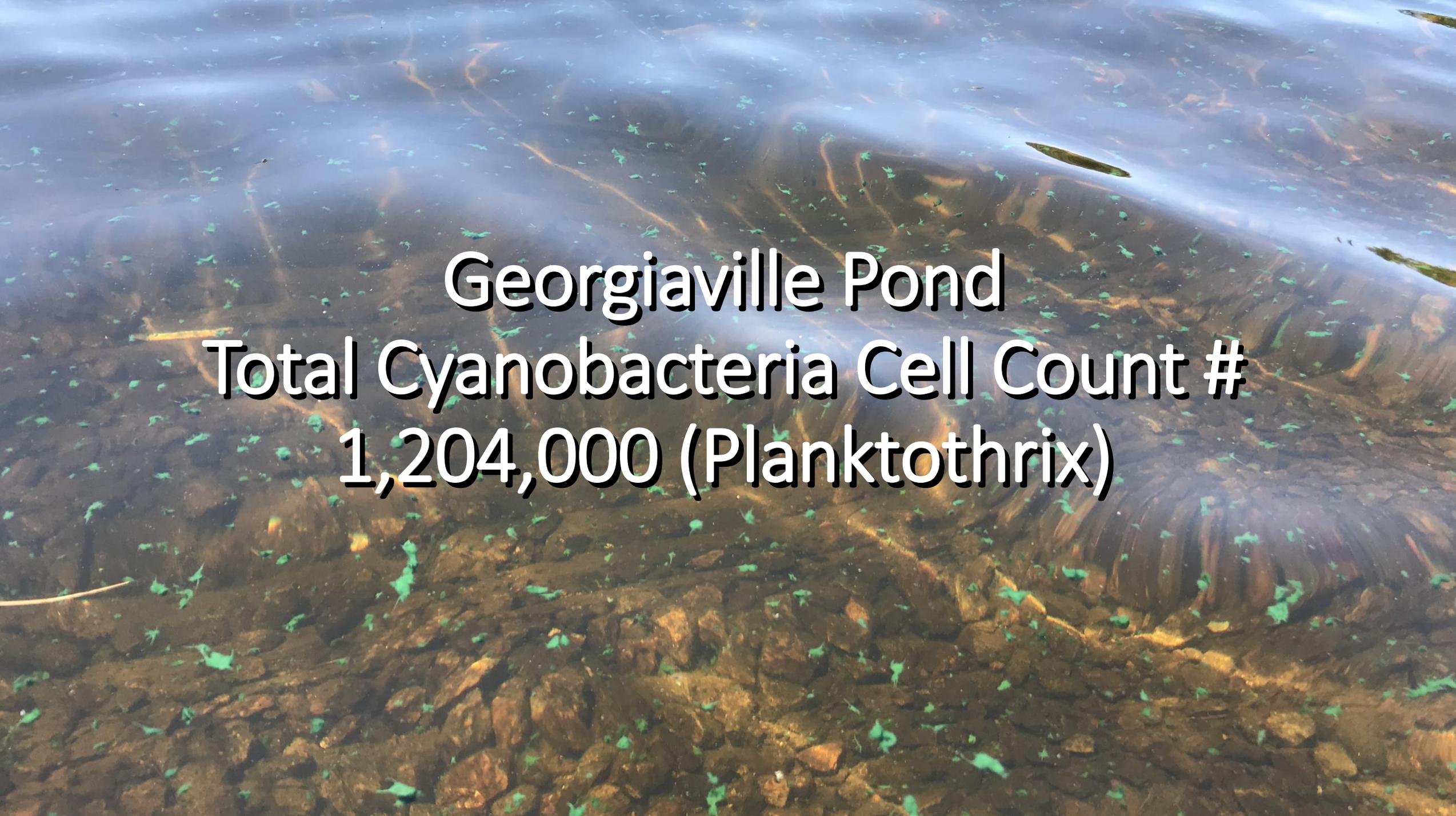
Represents 2019 HABs

- In 2019, 20 site visits were conducted by RIDEM staff in response to calls about potential algae/cyanobacteria blooms.
- A total of 28 samples were submitted for analysis in 2019.
- This led to the issuance of health advisories on 14 waterbodies.

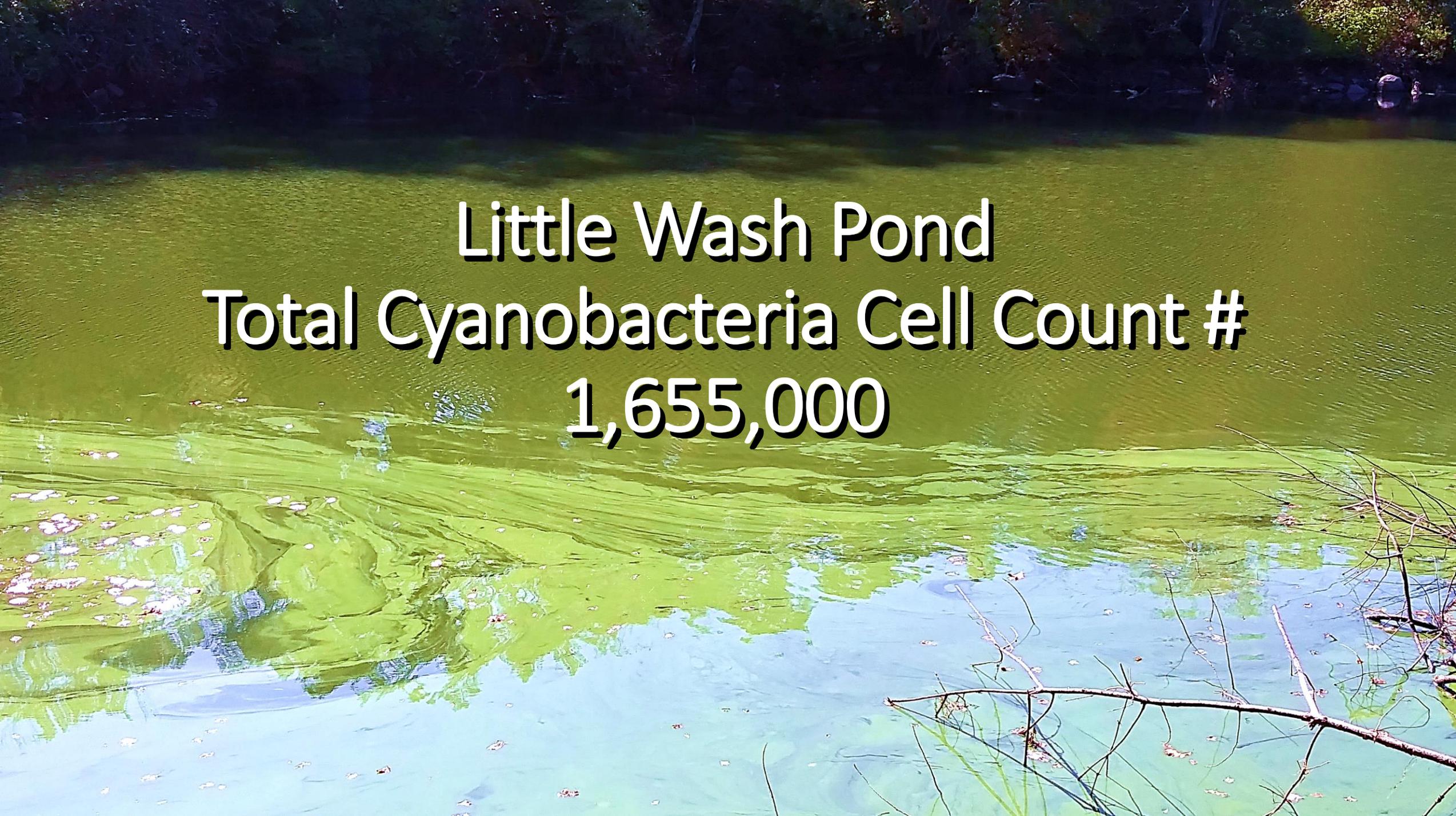


# Sample Results for 2019 HAB Advisories

Waterbody	Toxin Results (Anatoxin) (Microcystin)	Cyanobacteria ID/ Cell Count	Total Cyanobacteria Cell Count #	Waterbody	Toxin Results (Anatoxin) (Microcystin)	Cyanobacteria ID/ Cell Count	Total Cyanobacteria Cell Count #
Almy Pond	Anatoxin-A (3.2 ug/l)	Anabaena/10,350 Aphanizomenon/47,600 Microcystis/14,000	71,950	Carbuncle Pond	Non-detect	Anabaena/62,100	62,100
Sisson Pond	Non-detect	Anabaena/21,850 Microcystis/278,600 Woronichinia/1,000,000	1,300,450	Little Pond (Sandy Pond)	Non-detect	Sample 1: Anabaena/230, Aphanizomenon/420,000	420,230
J.L. Curran Reservoir	Non-detect	Anabaena/9,200 Aphanizomenon/184,800	194,000			Sample 2: Anabaena/230, Aphanizomenon/728,000, Microcystis/1,400	729,400
Pleasure Lake-RWP	Non-detect	Anabaena/22,310 Aphanizomenon/11,200	39,110	Slack Reservoir	Non-detect  Microcystin (1.3 ug/l)  Microcystin (50 ug/l)	Sample 1: Anabaena/13,800 Sample 2: Anabaena/380 Microcystis/9,800, Woronichinia/17,500	13,800 28,680
Roosevelt Lake-RWP	Microcystin (8.2 ug/l)	Anabaena/46,000 Microcystis/84,000 Woronichinia/150,000	280,000			Sample 3: Anabaena/2,300,000 Microcystis/67,200, Woronichinia/25,000,000	27,367,200
Elm Lake- RWP	Non-detect	Anabaena/11,500 Aphanizomenon/1,792,000	1,804,620			Watson Reservoir	Non-detect
Mashapaug Pond	Non-detect	Anabaena/10,120 Aphanizomenon/109,200 Microcystis/5,600 Woronichinia/10,000	134,920	Melville Ponds	Microcystin (3.7 ug/l)	Anabaena/29,000 Aphanizomenon/53,200 Microcystis/19,600	102,700
Georgiaville Pond	Non-detect	Sample 1: Planktothrix/112,000	112,000	Little Wash Pond	Non-detect	Sample 1: Anabaena/1,610,000 Woronichinia/45,000	1,655,000
		Sample 2: Planktothrix/1,204,000	1,204,000			Sample 2: Anabaena/1,610,000 Microcystis/14,000, Woronichinia/10,000	1,634,000
		Sample 3: Anabaena/230 Microcystis/4,200, Planktothrix/280	4,710				

An underwater photograph of a pond. The water is dark and murky, with numerous small, bright green, star-shaped organisms (cyanobacteria) scattered throughout. The bottom of the pond is visible, showing dark, rocky or pebbly terrain. The lighting is somewhat dim, creating a blueish-green tint to the water.

**Georgiaville Pond**  
**Total Cyanobacteria Cell Count #**  
**1,204,000 (Planktothrix)**

A photograph of a pond with a thick, green cyanobacteria bloom covering the water's surface. The water is a vibrant green color, and the bloom is dense and textured. In the background, there are dark trees and foliage. In the foreground, there are some thin, bare branches extending into the water. The text is overlaid on the center of the image.

**Little Wash Pond**  
**Total Cyanobacteria Cell Count #**  
**1,655,000**



**Carbuncle Pond**  
**Total Cyanobacteria Cell Count #**  
**62,100 (Anabaena)**

A photograph of a reservoir during autumn. The water in the foreground is heavily stained with a bright green cyanobacteria bloom, which is also visible on the shoreline covered in fallen leaves. The background shows trees with vibrant red and orange foliage under a clear sky. The text is overlaid in the center of the image.

**Slack Reservoir**  
**Total Cyanobacteria Cell Count #**  
**27,367,200**

# DOH and DEM jointly issue a recreational health advisory for any of the three conditions:

1. Confirmed cyanobacteria-dominated bloom or lake-wide visible cyanobacteria scum or mat
2. Cyanobacteria cell count  $>70,000$  cells/mL
3. Toxin (Total Microcystin) level  $\geq 4$  ppb ( $\mu\text{g/L}$ )

Lifting of advisories occurs after two successive and representative sampling rounds, more than two weeks apart, demonstrate that all conditions have been met.

# Role of RIDEM – Office of Water Resources

- Respond to reports from the public and others about potential cyanobacteria blooms
- Ability to conduct routine/surveillance monitoring is dependent upon funding
- Coordination with RIDOH on confirmation of cyanobacteria bloom and issuance of public health advisory

# Role of RIDEM

- Division of Agriculture - seasonal notice to Veterinarians
- Division of Enforcement - notice to EPOs
- Division of Fish and Wildlife - if necessary, post advisories at state boat ramps and modify trout stocking schedules
  - Notify organizations at affected waterbodies: ARE programs, Fish and Wildlife staff, fishing tournaments, partnership organizations, agencies, or volunteers.

# Role of RI Department of Health

- Consult with RIDEM-Water Resources on need for advisories
- Announce advisories via press releases
- Relay information via public media
- Send letter and suggested signage format to and coordinate with municipalities
- Coordinate with other agencies/divisions
- Discuss of pro-active public health advisory for Newport Water Supply Reservoirs
- RIDOH Lab - Toxin analysis and cyanobacteria ID and count

# Role of URI Watershed Watch

- Point of contact for volunteers and others observing blooms
- Distribute advisories to listservs:
  - Watershed Watch
  - Save The Lakes

# RIDEM Website Updates

- <http://www.dem.ri.gov/bluegreen>

**Current Advisories**

Seasonal monitoring for cyanobacteria in 2019 is finished, but the public is reminded to avoid contact with any body of water that is bright green or has a dense, floating algal mat on the water's surface.

**Past Advisories**

<input type="checkbox"/>	Waterbody	Town	Advisory Posted	Advisory Li...
1	Watson Reservoir	Little Compton	10/12/2018	12/8/2018
2	Gardiner Pond	Middletown	10/12/2018	12/8/2018
3	Little Pond aka Sandy	Warwick	9/21/2018	11/7/2018
4	Spectacle Pond	Cranston	9/10/2018	12/8/2018
5	Tarkiln Pond	North Smithfield/Bur...	8/31/2018	11/7/2018
6	Pleasure Lake	Providence	8/21/2018	11/7/2018
7	Georgiaville Pond	Smithfield	8/17/2018	
8	Japanese Gardens	Providence	8/10/2018	
9	Edgewood Lake	Providence	8/10/2018	
10	Willow Lake	Providence	8/10/2018	
11	Blackamore Pond	Cranston	8/10/2018	
12	Slack Reservoir	Smithfield-Johnston	7/31/2018	

102 records

Download CSV

**What you should do:**

- Do not swim, play, or fish in water that appears to have a bloom.
- Do not let your pets swim or play in water experiencing a bloom.
- If you or your pet comes into contact with waters experiencing a bloom, wash with soap and water immediately.
- Visit the RI Department of Health website for more information

**RESOURCES**

- [Cyanobacteria \(Blue-green Algae\) Factsheet](#)
- [Controlling Algae in Your Pond](#)
- [Five Reasons Why Feeding Waterfowl is Harmful](#)
- [Ten Things You Can Do To Help Clean RI Waters](#)
- [Eutrophic Ponds Approved TMDL](#)
- [Septic System Checkup Manual](#)
- [2012 RI Lakes Report](#)
- [Cyanobacteria Monitoring Program](#)
  - [2011 Report](#)
  - [2012 Report](#)
  - [2013 Report](#)

DEM RHODE ISLAND

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View the latest updates on DEM's response to COVID-19, including guidance for farmers, commercial fishing, and information on State Park & Beaches.

OFFICE OF WATER RESOURCES / WATER QUALITY / SURFACE WATER QUALITY / CYANOBACTERIA (BLUE-GREEN ALGAE)

## Cyanobacteria (Blue-Green Algae)

1 of 4

Film on surface of water from blue-green algae can look like spilled paint

Lakes & Ponds Resources

- Overview of Lakes in RI
- Nutrients in Lakes
- Aquatic Invasive Species
- Lake/Pond Water Quality
- Cyanobacteria
- Recreation
- How to Protect My Lake

Report A Bloom

Cyanobacteria, also known as blue-green algae, are naturally found in many freshwater

# Proposed Budget for Monitoring (2020)

## **EPA multi-purpose grant funding will support:**

- **One full-time seasonal employee to conduct pre-emptive surveillance on the 25 affected waterbodies. They will monitor bloom conditions and collect a one-time confirmatory sample with additional capacity to possibly “lift” public health advisories should conditions improve.**
- **Anticipated capacity (129 samples) to screen other vulnerable waterbodies and/or collect additional samples at affected waterbodies.**
- **Analysis of 154 samples for cyanotoxins and cell count (and ID)**
- **Allows the state to conduct routine monitoring on waterbodies with confirmed cyanobacteria blooms and lessens reliance upon the public.**

# Proposed Waterbodies for Monitoring (2020)

2020 Proposed Waterbodies
Almy Pond
Blackamore Pond
Carbuncle Pond
Central Pond
J.L. Curran Reservoir
Mashapaug Pond
Melville Ponds
Omega Pond
Slack Reservoir
Spectacle Pond
Stafford Pond
Ten Mile River
Turner Reservoir
Warwick Pond