2025 Cyanobacteria Monitoring Report for Town of Chatham, Chatham, Massachusetts

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1. SUMMARY

In 2025, the Association to Preserve Cape Cod (APCC) continued cyanobacteria monitoring in Chatham for the town of Chatham following similar monitoring conducted from 2019 to 2024. View Table 1 for an overview of all sampling events conducted by APCC and Friends of Chatham Waterways (FCW) in 2025 from May 27, 2025, through October 28, 2025. For ponds being monitored for the Cape Cod Regional Pond Monitoring Program (CCRPMP) that were not monitored for cyanobacteria - a grant from the Southeast New England Coastal Watershed Restoration Program to the Cape Cod Commission provided funding for cyanobacteria monitoring of Barclay Pond during 2024 and 2025.

Table 1. Summary of all sampling events that took place in Chatham for the town of Chatham in 2025.

Pond Name & sampling location	Sampling Frequency	# of Sampling Events	Highest Risk Tier reached in 2025	Highest Town Action taken in 2025
Barclay	Monthly	3	Acceptable	-
Goose	Biweekly	13	Potential for Concern	Warning
Lovers Lake, site 1	Biweekly	13	Potential for Concern	Warning
Lovers Lake, site 2	Biweekly	13	Potential for Concern	Warning
Schoolhouse	Biweekly	12	Acceptable	-
Stillwater	Biweekly	14	Potential for Concern	Warning
White	Biweekly	12	Acceptable	-
Total	-	80	-	-

View Table 2 for an overview of all toxin testing conducted throughout the 2025 season.

Table 2. Summary of all toxin testing that took place in Chatham for the town of Chatham in 2025 and of the number of measurements that exceeded MDPH guidelines per sampling location.

Pond Name & sampling location	# of Microcystin Strip Tests (APCC)	# of Microcystin ELISA Tests (BCDHE)	# of Anatoxin-a Strip Tests (APCC)	# of Anatoxin-a ELISA Tests (BCDHE)	# of Microcystin exceedances (>8ug/L)	# of Anatoxin-a exceedances (>60ug/L)
Goose Pond	-	-	1	-	-	-
Lovers Lake, Site 2	-	-	1	-	-	-
Stillwater	-	-	2	1	-	-

APCC shared all monitoring results with the town of Chatham, FCW and the public throughout the season via emailed updates, e-newsletters, frequent updates to our online map at https://apcc.org/our-work/science/community-science/cyanobacteria/, and written reports,

including this report. This report should be printed in color, as some sections are color-coded. For the full dataset see Attachment 1.

2. BACKGROUND

APCC's Cyanobacteria Monitoring Program partners with officials at the municipal, county, state, and federal levels, as well as local pond associations and residents, to conduct cyanobacteria monitoring in select Cape Cod ponds. Each season, water samples are collected biweekly for monitoring of cyanobacteria and the results are shared with local officials and the general public through reports, emails, and an interactive map of monitoring results provided on our website (https://apcc.org/cyano). APCC's goals are to raise public awareness of the health and ecological risks posed by harmful cyanobacteria blooms (HCBs), collect scientific monitoring data, help inform proper responses to cyanobacteria blooms, protect public health, monitor priority ponds across the Cape, and motivate public action to address the causes of HCBs by improving water quality.

Cyanobacteria are an ancient group of photosynthetic microorganisms common in freshwater systems on Cape Cod, in the U.S., and worldwide. Under the right conditions, they can multiply rapidly and form harmful cyanobacteria blooms (HCBs). According to the Centers for Disease Control and Prevention (CDC), certain common cyanobacteria genera can produce toxins known as cyanotoxins that can be harmful to humans (https://www.cdc.gov/harmful-algal-blooms/about/?CDC_AAref_Val=https://www.cdc.gov/habs/general.html). There are many different genera of cyanobacteria present in Cape Cod freshwater ponds, with *Microcystis* and *Dolichospermum* being two of the most common. Cyanobacteria can produce a variety of toxins, many of which are still not fully understood. Our monitoring efforts have focused primarily on one of the best studied toxins, microcystin, which is commonly produced by *Microcystis*. As of 2025, APCC has also begun more regular monitoring for anatoxin-a, a toxin commonly produced by *Dolichospermum* as well as other cyanobacterial genera. HCBs have increased worldwide, including in the U.S., due to nutrient enrichment and rising water temperatures due to climate change. As the occurrence of HCBs increases the need for cyanobacteria monitoring and awareness of potential health risks has increased. Additional resources on cyanobacteria are provided in Appendix 1.

Cape Cod ponds are commonly used for recreation, including swimming, boating, paddle boarding, fishing, as well as for dog walking and swimming. Due to the increasing prevalence of HCBs and the resulting increased threat of public exposure to cyanobacteria and their toxins, MDPH has toxin standards for microsystin and anatoxin-a and provides guidelines for municipal officials to post and remove advisories at ponds based on established thresholds for cyanobacteria risks in recreational waters (https://www.mass.gov/info-details/guidelines-for-cyanobacteria-at-recreational-freshwater-locations). Frequent cyanobacteria monitoring of ponds provides fact-based data for resource managers to track cyanobacteria trends in their ponds throughout the season, apply relevant public health criteria, and proactively post and remove recreational advisories. Cyanobacteria monitoring data also provides information on pond health and water quality and helps to address data gaps caused by lack of conventional pond water quality monitoring data.

3. METHODS AND MONITORING OVERVIEW

FCW and APCC conducted cyanobacteria monitoring at seven locations in Chatham during the 2025 season, following methods outlined in APCC's Quality Assurance Project Plan (QAPP), based on the EPA's Cyanobacteria Monitoring Collaborative (CMC) QAPP. These methods have been in use since the program's inception in 2017 and ensure that monitoring is scientifically sound and consistent across seasons.

Field sampling occurred primarily on a biweekly basis from May 27, 2025, through October 28, 2025, with weekly monitoring triggered when a pond reached the "Potential for Concern" or "Use Restriction Warranted" risk categories.

A total of 80 sampling events were conducted, and collected samples were analyzed for cyanobacteria genus composition and phycocyanin, a pigment used as a proxy for cyanobacteria biomass. FCW and APCC collects several types of phycocyanin samples to assess different parts of the water column and bloom conditions. These include a <50 µm sample (to assess small-celled cyanobacteria), a Whole-Lake-Water (WLW) sample (to assess overall presence in the water column), and Bloom Forming Colony (BFC) sample collected using a plankton net towed along the water surface. The BFC phycocyanin sample results are used for risk assessment purposes. Genus dominance was defined as ≥70% of colonies under microscopy. For details on the methodology see the link to Cape Cod Cyanobacteria Monitoring Program (CCCMP) Quality Assurance Project Plan (QAPP) 2024-2029 on APCC's website https://apcc.org/our-work/science/community-science/cyanobacteria/.

Each sampling event also included visual scum assessments, which were documented using APCC's standardized photo guide (Attachment 2.) to classify confirmed cyanobacteria scums as "insignificant" or "significant." Confirmed significant scums are treated as potential toxin risk even in the absence of elevated phycocyanin levels.

Since 2022, APCC has partnered with the Barnstable County Department of Health and Environment (BCDHE) Water Quality Lab for testing of the cyanobacteria toxin microcystin. The County Lab is a state-certified facility that uses an EPA-approved ELISA protocol. In 2025, toxin testing continued under this partnership, now also including anatoxin-a testing.

To provide more timely toxin information in 2025 in advance of receiving results from BCDHE, APCC utilized a handheld AbraScan digital strip test reader with Gold Standard Diagnostics microcystin and anatoxin-a test strips as a screening tool. Screening was only conducted for samples from ponds categorized as "Potential for Concern" or "Use Restriction Warranted" based on scum and/or phycocyanin levels, and only when microscopic analysis identified dominance of *Microcystis* spp. (for microcystin testing) or *Dolichospermum* spp. (for anatoxin-a testing). Microcystin strip test results ≥4 µg/L were sent to the BCDHE Water Quality Lab for confirmatory analysis. Samples dominated by *Dolichospermum* spp. were generally not tested for microcystin, based on historic APCC data indicating a lack of correlation between this genus and microcystin production. Most anatoxin-a strip test detections were also forwarded to the BCDHE Water Quality Lab for confirmatory analysis, as the strip test screening method is still under evaluation.

Sampling results are provided in biweekly reports to local municipal officials and pond associations and uploaded to APCC's interactive cyanobacteria risk map (apcc.org/cyano), which updates every six hours on weekdays during the monitoring season and is publicly accessible. APCC also provides an email registry signup on our website designed to update interested residents and visitors when harmful cyanobacteria blooms are identified. A quick link to sign up for the Cyanobacteria Alert is on our homepage (https://apcc.org/our-work/science/community-science/cyanobacteria/cyanobacteria-alert/).

4. ASSESSING RISK

In 2025, APCC revised its cyanobacteria risk tier system to better reflect the conditions observed in Cape Cod ponds and to improve the consistency and clarity of public risk communication. These revisions were informed by analysis of APCC's cyanobacteria monitoring data (2022–2024), including phycocyanin levels and microcystin concentrations, as well as practical experience managing the program and coordinating with both MDPH and town health departments. The result is a system that offers standardized, science-based guidance to help communities assess potential health risks while leaving decisions on the issuance of Warnings and Public Health Advisories to local health officials.

The risk tier framework continues to use three categories; each tier is defined as pictured in the 2025 Risk Tier Table in Figure 1 and detailed description in Appendix 2.

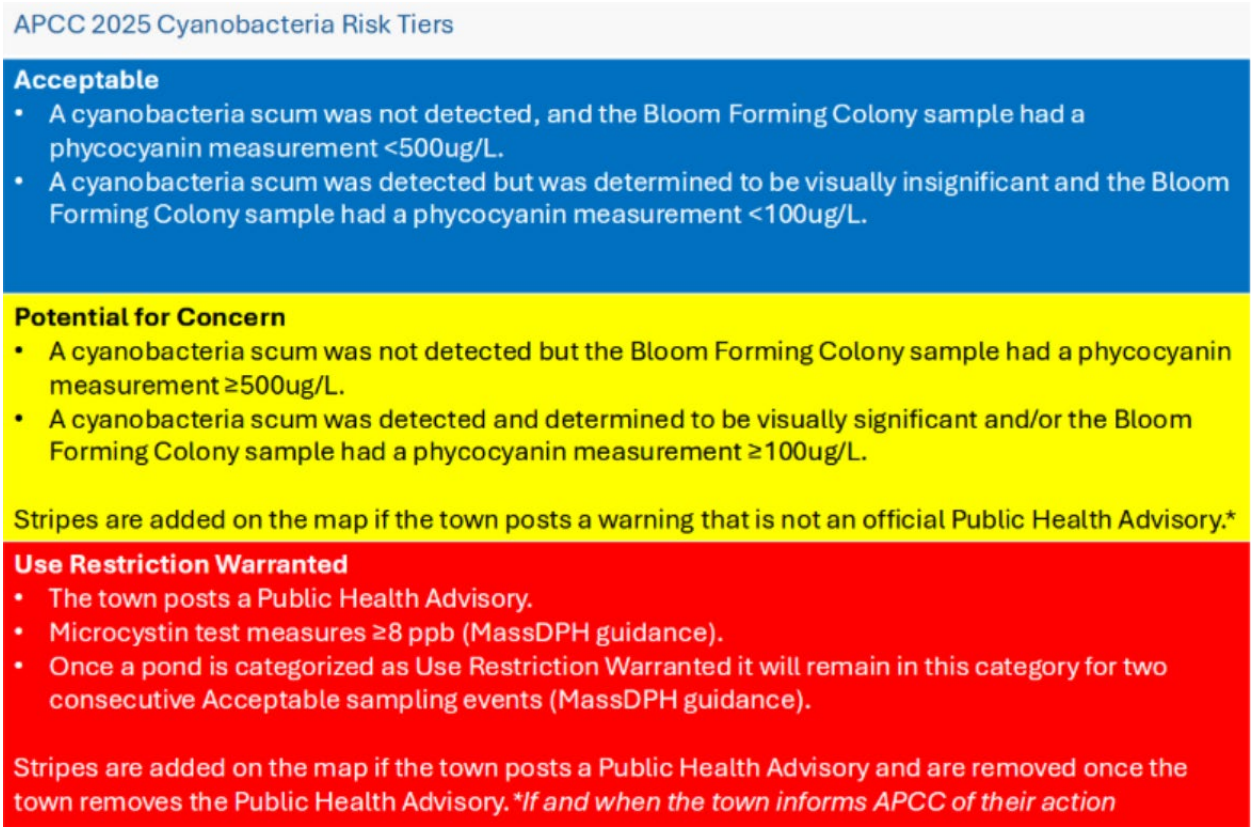

Figure 1. APCC 2025 Cyanobacteria Risk Tiers

While APCC does not rely on cyanobacteria cell counts, its risk categories are generally consistent with Massachusetts Department of Public Health (MDPH) guidelines, which recommend issuing advisories when cell counts exceed 70,000 cells/mL, visible scums are present, microcystin concentrations exceed 8 µg/L, or anatoxin-a concentrations exceed 60 µg/L.

APCC's risk map reflects through the use of stripes to show when a managing agency has issued an official Warning or Advisory. These are removed once the agency lifts the warning.

It's important to note that APCC does not issue Public Health Advisories. Instead, APCC provides independent, science-based data interpretation and standardized risk assessment to support informed decision-making across Cape Cod at both the town and personal level. Managing agencies retain full authority to issue Public Health Advisories based on their own protocols. At the same time, individual users can use APCC's consistent, Cape-wide risk assessments to better understand cyanobacteria conditions and make personal decisions based on their own level of risk tolerance.

2025 Sampling Locations

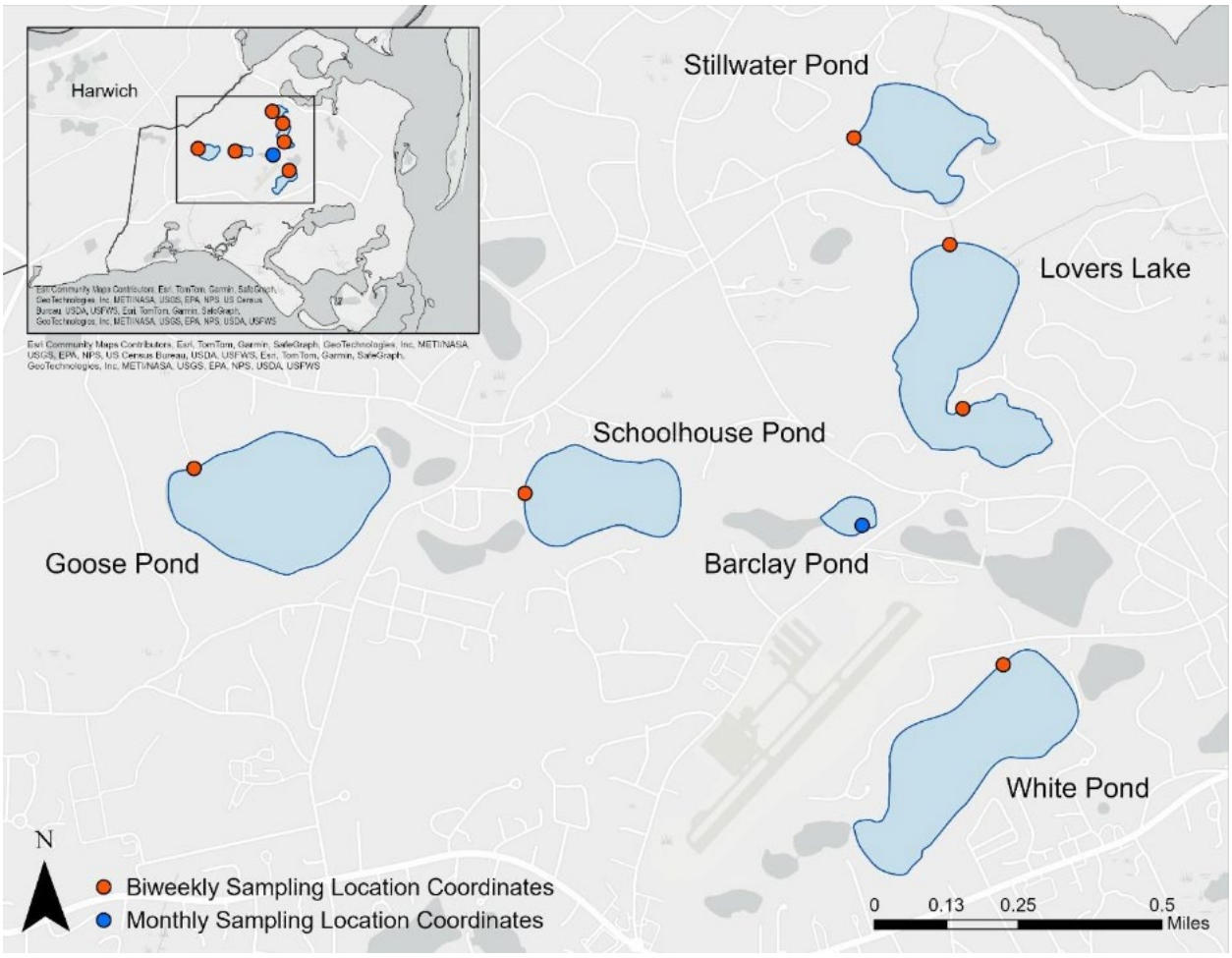

Figure 2. Sampling Locations for the town of Chatham in 2025.

5. RESULTS

During the 2025 monitoring season, FCW and APCC collected, and APCC analyzed samples from seven locations within the town of Chatham (see Table 1). Monitoring focused on assessing cyanobacteria presence, biomass (via phycocyanin), and microcystin and anatoxin-a toxin levels under the revised Risk Tier framework.

5.1 Cyanobacteria Presence and Biomass

Cyanobacteria monitoring results, Risk Categories, and risk communication are described in this section. For each pond, a graph is provided to describe results and risk categories for each sampling event. A complete table of results is provided in Attachment 1 containing all data collected for the town of Chatham in 2025. The full Risk Category criteria are included in Appendix 2. See Figure 3 for the median phycocyanin measurements per pond across 2025 sampling events.

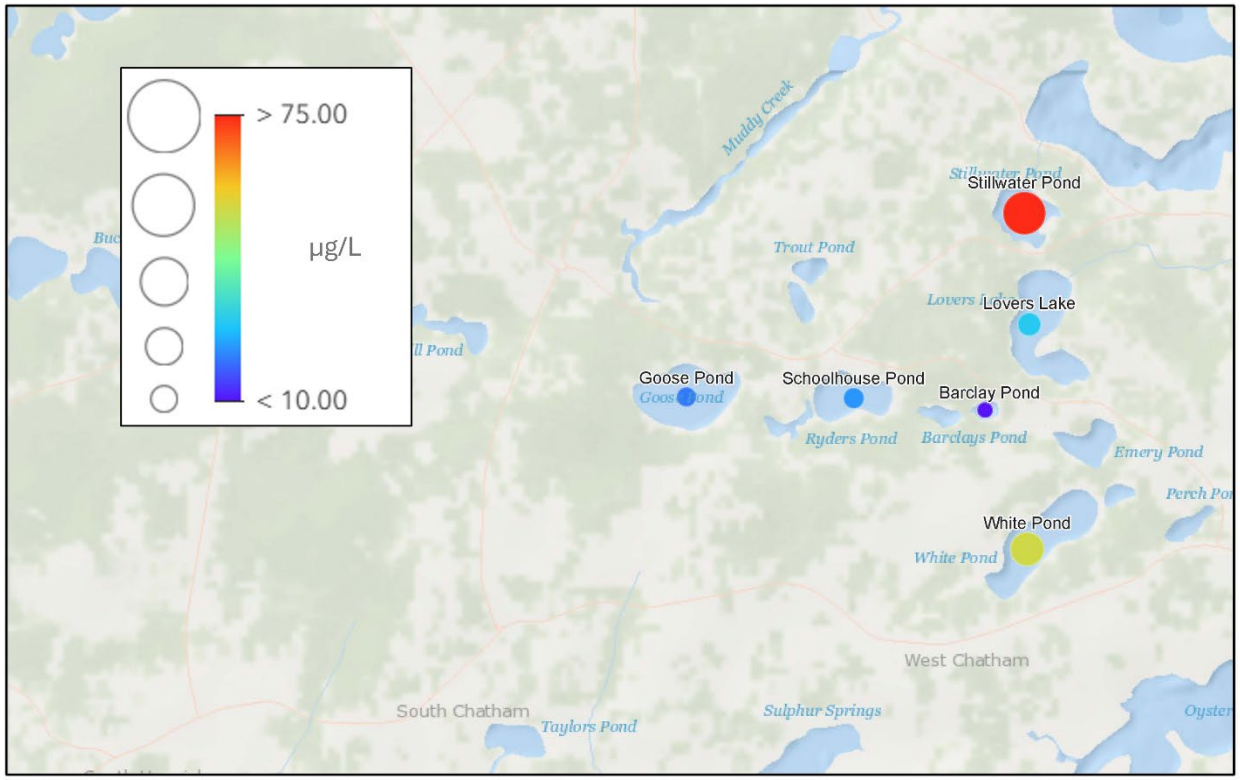

Figure 3. Median Bloom-Forming-Colony phycocyanin measurements per monitored pond in town of Chatham across the 2025 season. The larger and more yellow/red the dot, the higher the median biomass.

Pond 1. Barclay Pond:

During the 2025 monitoring season, Barclay Pond contained no concerning cyanobacteria results at the time and place of each sampling event, keeping the pond in APCC's "Acceptable" category for the entire season (see Figure 4 below).

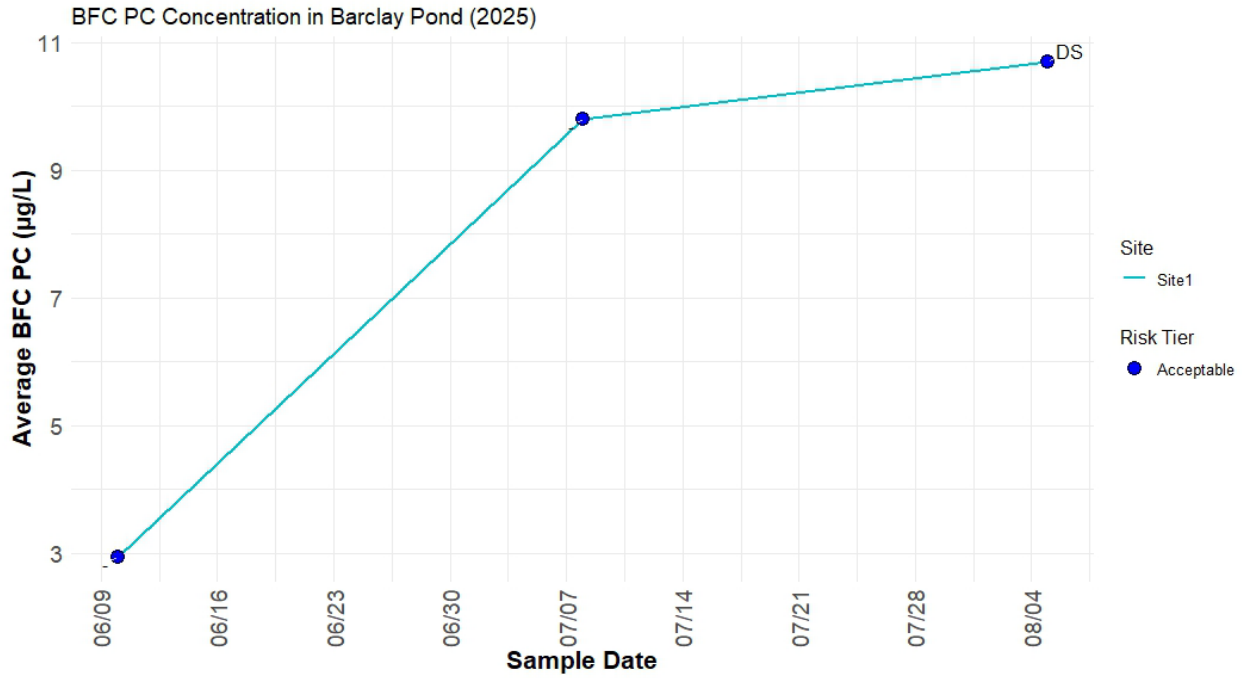

Figure 4. Barclay Pond: BFC PC, dominant genus (>70%), risk tier reflected on APCC's map per sampling event. The dominant genus abbreviations on this graph are *Dolichospermum* (DS) and none (-).

Pond 2. Goose Pond:

During the 2025 monitoring season, Goose Pond experienced changes in cyanobacteria levels beginning with a "Potential for Concern" on June 10, which triggered weekly sampling. The cyanobacteria population reduced in the subsequent weeks, which placed it in APCC's "Acceptable" Risk Category for the remainder of the season (see Figure 5 below).

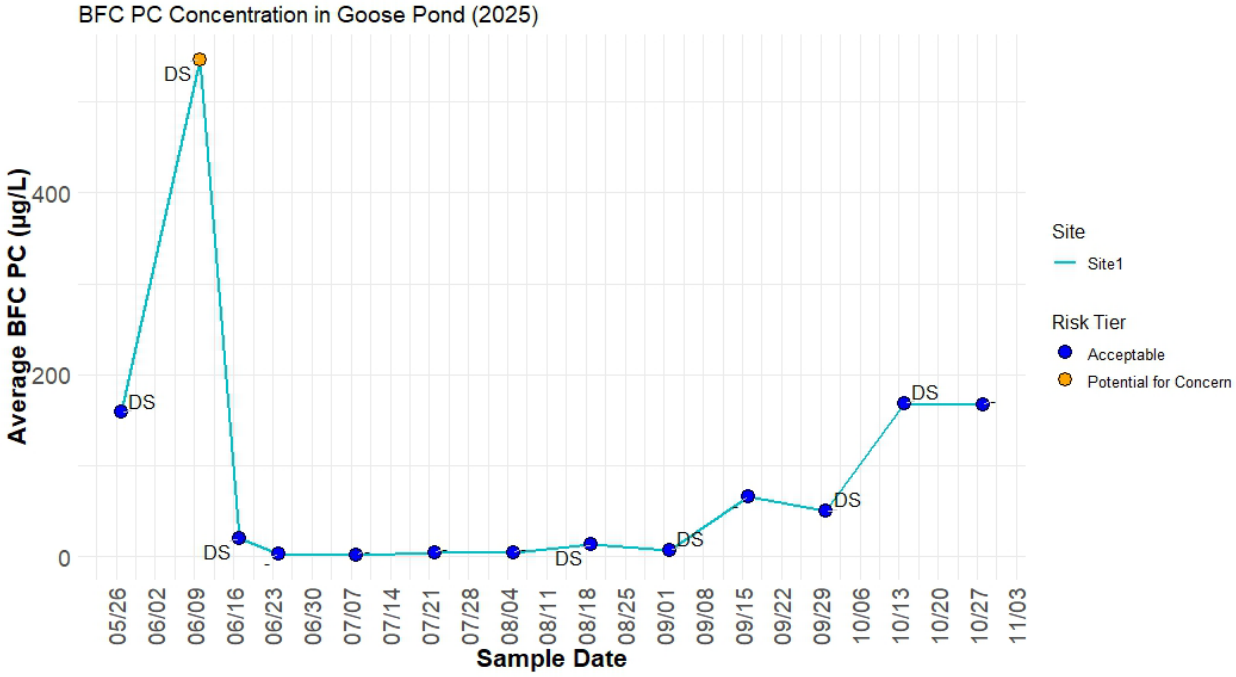

Figure 5. Goose Pond: BFC PC, dominant genus (>70%), risk tier reflected on APCC's map per sampling event. The dominant genus abbreviations on this graph are *Dolichospermum* (DS) and none (-).

Pond 3. Lovers Lake:

During the 2025 monitoring season, Lovers Lake experienced changes in cyanobacteria levels beginning with a "Potential for Concern" on June 10, which triggered weekly sampling. The cyanobacteria population reduced in the subsequent weeks, which placed it in APCC's "Acceptable" Risk Category for the remainder of the season (see Figure 6 below).

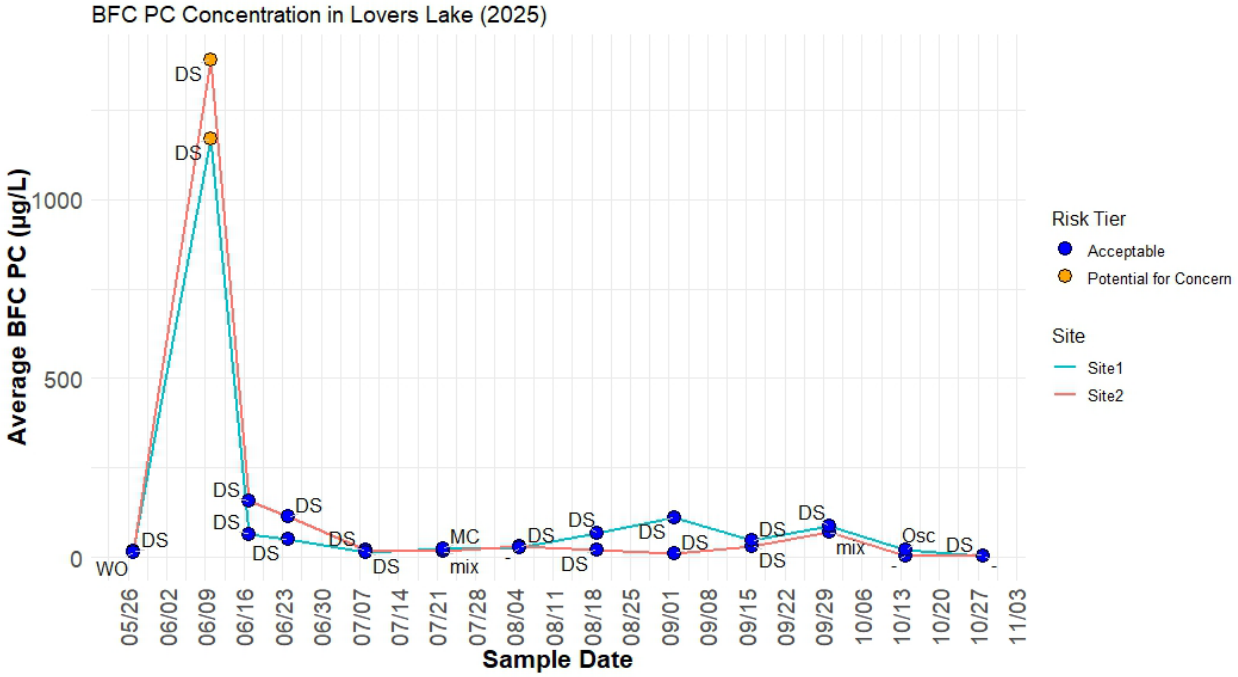

Figure 6. Lovers Lake: BFC PC, dominant genus (>70%), risk tier reflected on APCC's map per sampling event. The dominant genus abbreviations on this graph are *Dolichospermum* (DS), *Microcystis* (MC), *Woronichinia* (WO), *Oscillatoria* (Osc), mixed (mix) and none (-).

Pond 4. Schoolhouse Pond:

During the 2025 monitoring season, Schoolhouse Pond contained no concerning cyanobacteria results at the time and place of each sampling event, keeping the pond in APCC's "Acceptable" category for the entire season (see Figure 7 below).

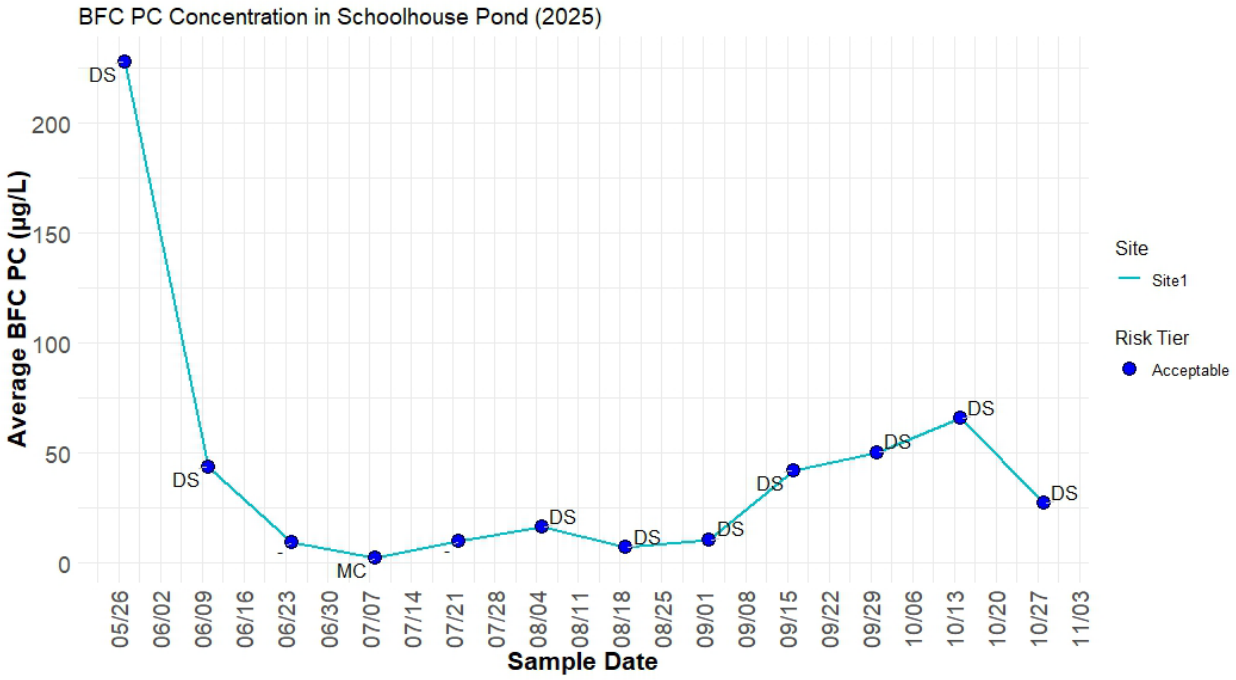

Figure 7. Schoolhouse Pond: BFC PC, dominant genus (>70%), risk tier reflected on APCC's map per sampling event. The dominant genus abbreviations on this graph are *Dolichospermum* (DS), *Microcystis* (MC), and none (-).

Pond 5. Stillwater Pond:

During the 2025 monitoring season, Stillwater Pond experienced changes in cyanobacteria levels beginning with a "Potential for Concern" on June 10, which triggered weekly sampling. The cyanobacteria population reduced in the subsequent weeks, which placed it in APCC's "Acceptable" Risk Category for the remainder of the season (see Figure 8 below).

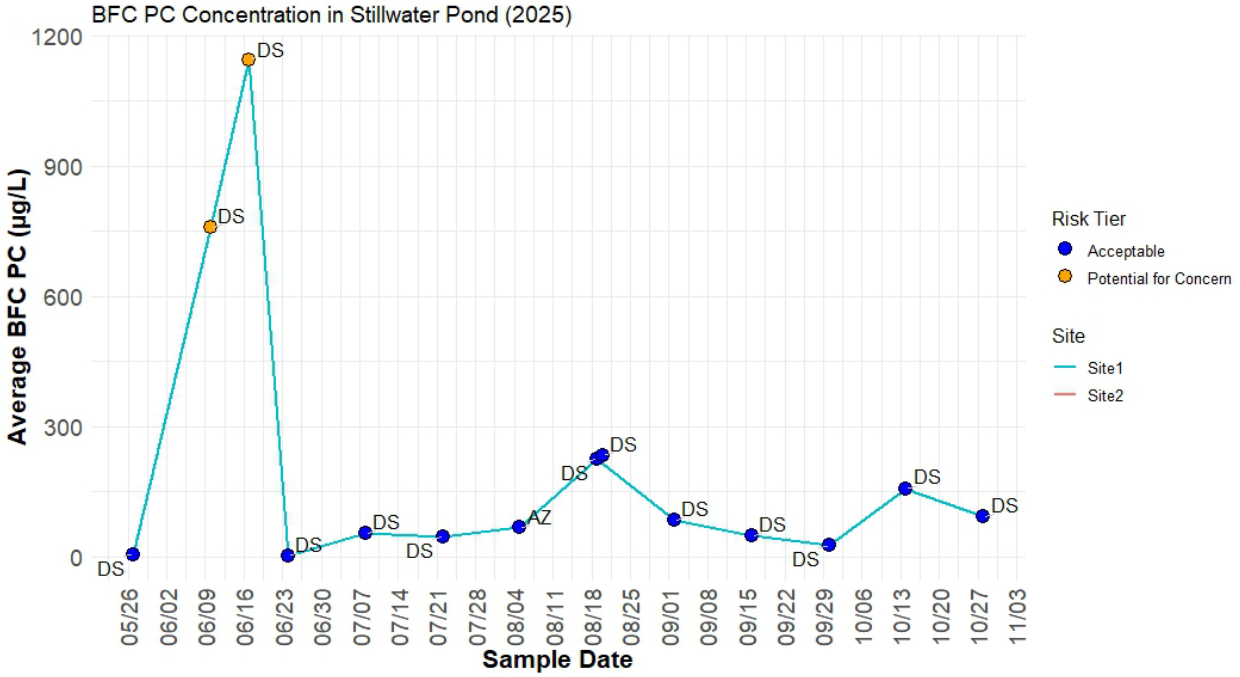

Figure 8. Stillwater Pond: BFC PC, dominant genus (>70%), risk tier reflected on APCC's map per sampling event. The dominant genus abbreviations on this graph are *Dolichospermum* (DS) and *Aphanizomenon* (AZ).

Pond 6. White Pond:

During the 2025 monitoring season, White Pond contained no concerning cyanobacteria results at the time and place of each sampling event, keeping the pond in APCC's "Acceptable" category for the entire season (see Figure 9 below).

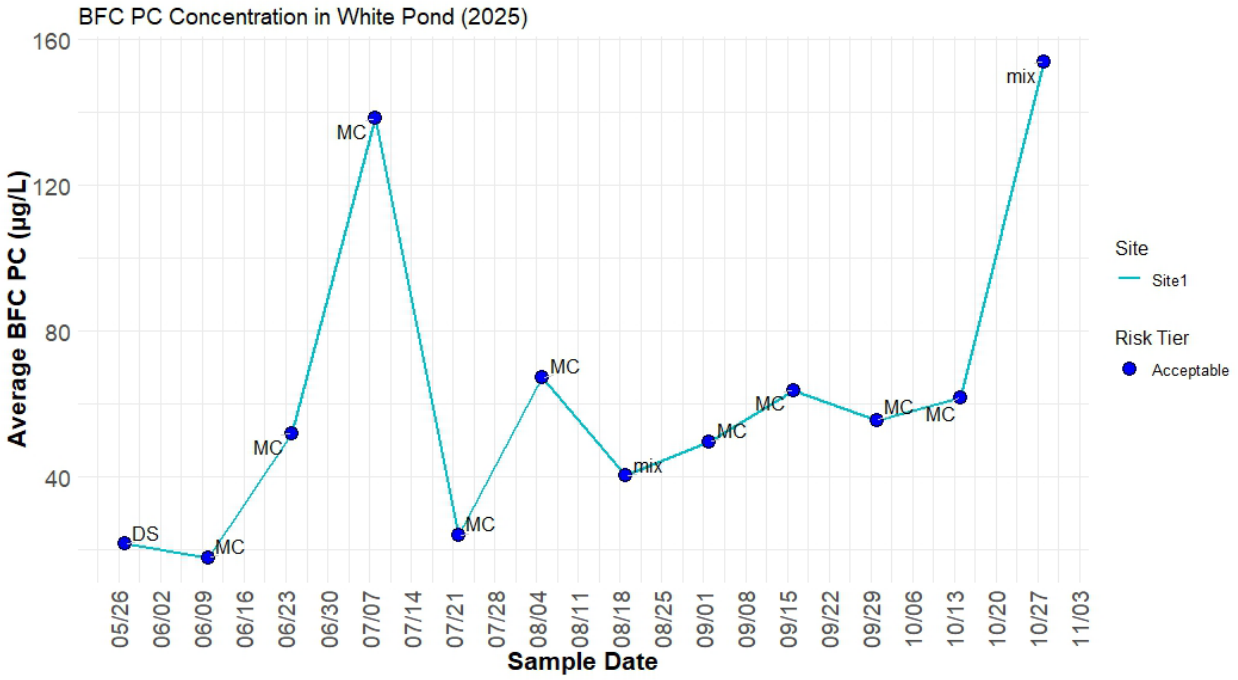

Figure 9. White Pond: BFC PC, dominant genus (>70%), risk tier reflected on APCC's map per sampling event. The dominant genus abbreviations on this graph are *Dolichospermum* (DS), *Microcystis* (MC), and mixed (mix).

5.2 Toxin Screening and Confirmatory Testing

APCC conducted four anatoxin-a strip tests during the 2025 season based on cyanobacteria genus dominance. One sample was submitted for confirmatory laboratory analysis at BCDHE following preliminary field results that met or exceeded screening thresholds or were used to study screening result reliability. For all toxin results see Table 3. below.

Table 3. Anatoxin-a samples collected at each sampling location during 2025.

Pond name	Site	Date	Strip Test Result (ug/L)	BCDHE Result (ug/L)
Goose Pond	1	6/12/2025	nd	-
Lovers Lake	2	6/12/2025	nd	-
Stillwater	1	6/12/2025	nd	-
Stillwater	1	6/18/2025	~.4	1.8

5.3 Advisory Issuance and Resolution

Throughout the season, two ponds had official Warning or Advisory postings related to cyanobacteria issued by a managing agency. An overview of the Risk Tiers each monitored pond was assigned to during the 2025 season in Figure 10.

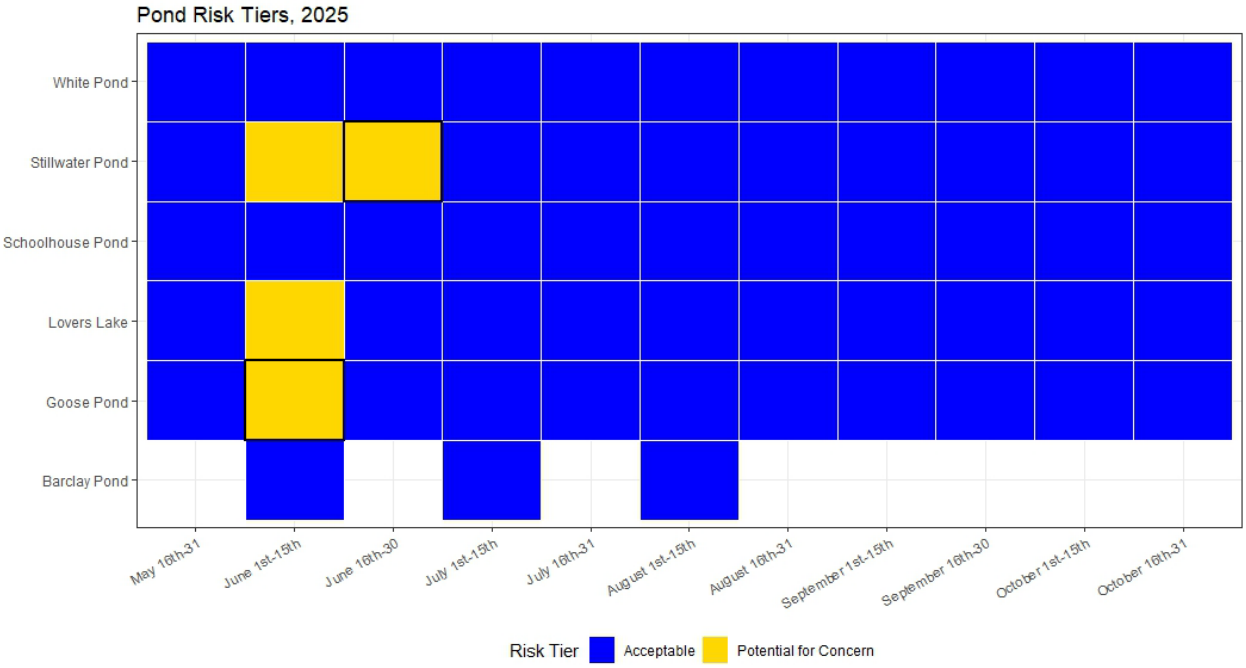

Figure 10. Town of Chatham summary of the risk tiers reflected on APCC's Cyano Map throughout the 2025 season. If town action was taken and a Warning or a Public Health Advisory was posted the "time window" has a bold black frame. If there is no black bold frame, no official town action was taken. If a time window for a given pond is blank, no sampling event took place during that window. If multiple sampling events took place during a given time window, the highest assigned risk tier during that time is reflected here.

6. RECOMMENDATIONS

Based on the results from the 2025 monitoring season and previous monitoring work, APCC provides the following recommendations:

Recommendation 1: Continue annual cyanobacteria monitoring. Monitoring over multiple years for full seasons provides greater understanding of the cyanobacteria community in Barclay Pond, Goose Pond, Lovers Lake, Schoolhouse Pond, Stillwater Pond and White Pond. More seasons of data will allow us to draw better predictions year after year. Continued monitoring will also allow for the ability to track degradation in the ponds as increased occurrence of harmful cyanobacteria blooms point to larger issues of pond impairment. Monitoring efforts will shed light on the ponds most in need of protection and restoration.

Recommendation 2: Reduce nutrient loading to freshwater ponds. Algal blooms and cyanobacteria blooms in ponds are associated with nutrient loading to ponds. Furthermore, there is mounting evidence that nitrogen, as well as phosphorus, is involved in stimulating algal blooms in freshwater ponds. Residents living adjacent to ponds and within the pond watershed should reduce sources of nutrient pollution flowing from their properties towards the pond. Excess fertilizer use, septic systems around ponds, poor stormwater management infrastructure, and a lack of adequate vegetation buffers exacerbate nutrient loading of ponds. Eliminating, or at the very least minimizing, fertilizer use, replacing septic systems with municipal collection and treatment that remove more nutrients, treating stormwater runoff before it enters wetlands or ponds, and planting native vegetated buffers where none exist will help to protect pond water quality.

Recommendation 3: Recognize that scientific understanding of the causes of HCBs continues to evolve. In addition to managing nutrients, climate change, including the currently warming atmosphere and altered rainfall patterns, is believed to play a significant role in the increasing frequency and intensity of harmful cyanobacteria blooms (https://www.publish.csiro.au/MF/MF18392). Residents and officials should understand that there may be many factors that cause HCBs on Cape Cod. Continued monitoring of cyanobacteria and water quality will lead to increased understanding and awareness, a safer public, and hopefully improved health of our freshwater ponds.

Recommendation 4: Consider carefully before planning or undertaking pond restoration and protection options. If a pond is impacted by HCBs, here are some steps to consider:

- Identify the important uses and desirable features of the pond and surrounding areas.
- Consider the natural evolution of a pond over time, from open water to vegetated marsh to wet meadow.
- Identify potential causes of HCBs (e.g., stormwater runoff, fertilized lawns, etc.);
- Identify potential actions to promote pond health and reduce HCBs.
    - For a comprehensive list of actions that residents, municipalities, and state agencies can take to promote pond health, visit APCC's State of the Waters: Cape Cod website (https://capecodwaters.org/action-plan/#ponds-hom), specifically, the Action Plan for ponds.
    - Under the Freshwater Initiative, the Cape Cod Commission developed a Pond Restoration Technologies matrix to identify potential methods for pond protection and restoration (https://ww2.capecodcommission.org/fwi/index.html). Each pond is unique, and restoration technology that works for one pond may not work well for another. Evaluate whether potential actions to reduce HCBs may impact other pond characteristics or aquatic organisms that are important for pond health. Treating a single problem without considering the effects on other pond resources could potentially harm the entire pond ecosystem and its resources.
- Develop a comprehensive plan for pond protection and restoration that addresses the causes as well as the symptoms of impaired pond health.
- Planning for pond restoration should be done to address not only short-term solutions but also medium-term and long-term solutions.

- Develop a watershed management plan and continue to engage residents around the pond and within the watershed about best land care practices, pond ecology, etc.

7. ACKLNOWLEDGEMENTS

APCC collaborates with many local, regional, state and federal partners, including organizations, homeowner associations, pond associations, water quality committees, municipal staff from Cape Cod, and state and federal agencies and organizations. Partners include scientists affiliated with Barnstable County Department of Health and the Environment, the Cape and Islands Health Agents Coalition, Massachusetts Department of Public Health, Massachusetts Department of Environmental Protection, the U.S. Environmental Protection Agency, and Massachusetts Bays National Estuary Partnership. Funding was provided by the Mary-Louise Eddy and Ruth N. Eddy Foundation, the Bilezikian Family Foundation, the Cape Cod 5 Foundation, the Eversource Energy Foundation, Inc., the Palmer Foundation, private foundation grants, dues, and donations from APCC members.

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9. APPENDIX 1-4

Appendix 1. Resources on Cyanobacteria

Harmful cyanobacteria blooms in freshwater bodies are the subject of numerous reports published by scientists, state and federal agencies, and organizations, some of which are listed here:

- The World Health Organization recognized the public health consequences of cyanobacteria in water in 1999 (https://cdn.who.int/media/docs/default-source/wash-documents/water-safety-and-quality/toxic-cyanobacteria---1st-ed.pdf?sfvrsn=338a8c22_1&download=true).
- The Centers for Disease Control (CDC) call cyanotoxins "among the most powerful natural poisons known" (https://stacks.cdc.gov/view/cdc/36648). The https://www.cdc.gov/harmful-algal-blooms/media/pdfs/habsphysician_card.pdf states that swallowing water containing cyanobacteria can damage the central nervous system, liver or kidneys; skin contact can cause allergic dermatitis and conjunctivitis; and inhalation of aerosols containing cyanobacteria or their toxins can cause wheezing, coughing, chest tightness, and shortness of breath.
- New England Interstate Water Pollution Control Commission (https://neiwpcc.org/our-programs/wetlands-aquatic-species/habs/) is an interstate commission that helps the states of the Northeast preserve and advance water quality. NEIWPCC's webpage states that "the frequency of HAB occurrence is on the rise and cyanobacteria toxicity has been associated with human health impacts including skin rashes, gastrointestinal and respiratory disease, and liver damage. Effects can be even more pronounced (potentially even fatal) in animals ranging from cattle to dogs. HABs have direct implications to the use of recreational waterbodies for contact recreation, the susceptibility of public water supplies to toxins, and the overall degradation of our aquatic resources."
- U.S. Environmental Protection Agency (EPA):
    - "Monitoring and Responding to Cyanobacteria and Cyanotoxins in Recreational Waters." (https://www.epa.gov/habs/visually-identifying-signs-cyanobacterial-bloom)
    - EPA Office of Ground Water and Drinking Water webpage. Managing Cyanotoxins in Public Drinking Water Systems. (https://www.epa.gov/sites/default/files/2016-09/documents/method-546-determination-total-microcystins-nodularins-drinking-water-ambient-water-adda-enzyme-linked-immunosorbent-assay.pdf)

    - EPA webpage on nutrient pollution and HABs. (https://www.epa.gov/habs/visually-identifying-signs-cyanobacterial-bloom)
    - EPA webpage on Cyanobacteria HABs. (https://www.epa.gov/habs)
- State agencies, including New York (https://www.health.ny.gov/environmental/water/drinking/bluegreenalgae/), Rhode Island (https://dem.ri.gov/environmental-protection-bureau/water-resources/research-monitoring/cyanobacteria-blue-green-algae), and New Hampshire (https://www.des.nh.gov/water/healthy-swimming/healthy-swimming-mapper) have cyanobacteria monitoring programs and provide guidance concerning public health and environmental risks posed by cyanobacteria.
- Commonwealth of Massachusetts:
    - Cyanobacteria webpage: (https://www.mass.gov/guides/cyanobacterial-harmful-algal-blooms-cyanohabs-water)
    - Massachusetts Department of Public Health (MDPH) website on "Guidelines for cyanobacteria in freshwater recreational water bodies." (https://www.mass.gov/info-details/guidelines-for-cyanobacteria-at-recreational-freshwater-locations)

Appendix 2. APCC's Cyanobacteria Risk Categories.

Risk Category Descriptions

Acceptable
Definition: No concerning cyanobacteria results at the time and place of sampling. To the best of APCC's knowledge and monitoring results, toxin levels are below State standards for recreational usage of the pond with respect to cyanobacteria and toxins.

Map color is blue.
Formerly the Low Warning Tier.
Recommended Sampling Frequency: Biweekly.
Recommended Action: None.

Potential for Concern
Definition: Monitoring results or the presence of cyanobacteria scum at the time and place of sampling indicate a potential for increased risk for exposure to cyanobacteria toxins. While these conditions may pose lower health risks to adults, risks are higher for children or pets based on lower body mass, particularly if contaminated water is incidentally ingested. Children may inadvertently consume pond water while swimming and pet exposure can result from drinking or ingesting pond water or from grooming after swimming.

Map color is yellow.
Map color yellow with crosshatching indicates a municipal pet advisory has been issued.

Formerly the Moderate Warning Tier

Sampling Frequency: Weekly, unless APCC is notified to hold off on weekly sampling by the client.

Recommended Action:
1. APCC will screen a GRAB sample for microcystin using toxin strip test if microscopy determines the sample is *Microcystis* dominant. If the screening result is equal to or higher than 4ppb APCC will provide a GRAB sample for toxin analysis to the Barnstable County Water Quality Lab for confirmatory testing.

2. A "Pet Advisory" or similar advisory may be posted in accordance with each town's policies and procedures until the pond returns to Acceptable status.

3. Sampling is increased to weekly until all results are once again in the "Acceptable" category, unless APCC is notified to hold off on weekly sampling by the client.

Use Restriction Warranted

Definition: Monitoring results at the time and place of sampling indicate the pond is unsafe for recreation by humans and pets based on the presence of microcystin at or above state standards (8 ppb microcystin) OR based on determination by a municipal health agent(s) resulting in a closure for any other reason related to cyanobacteria. Recreational risk to adults is moderate following exposure. Recreational risks are especially high for children and pets following exposure through accidental ingestion of contaminated water. Children may inadvertently consume pond water while swimming and pet exposure can result from ingestion or directly drinking pond water or from grooming after swimming. Due to lower body masses, children and pets are more susceptible to cyanobacteria risks than adults.

Map color is red.

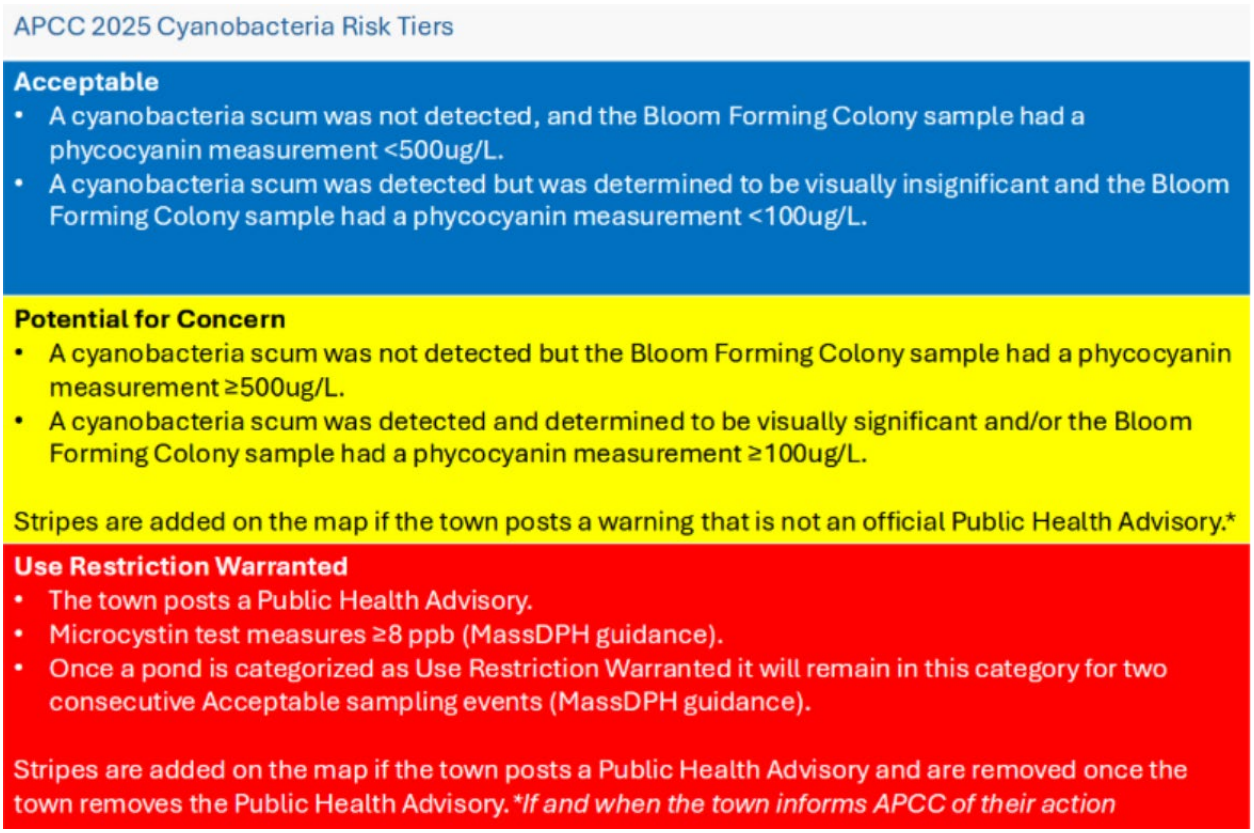
Map color red with crosshatching indicates a municipal advisory has been issued.

Formerly the High Warning Tier.
Sampling Frequency: Weekly, unless APCC is notified to hold off on weekly sampling by the client.

Recommended Action:
1. APCC will screen a GRAB sample for microcystin using toxin strip test if microscopy determines the sample is *Microcystis* dominant. If the screening result is equal to or higher than 4ppb APCC will provide a GRAB sample for toxin analysis to the Barnstable County Water Quality Lab for confirmatory testing.

2. The town should post a recreational advisory or similar advisory according to municipal policies and procedures and otherwise notify the public to avoid contact and exposure until the pond meets criteria to be reopened or the advisory is lifted by the local health agent.

3. Sampling will be conducted weekly (unless APCC is notified by client to hold off on weekly sampling) and the pond will remain in the “Use Restriction Warranted” category until there are two consecutive “Acceptable” sampling events according to APCC’s 2025 Risk Tier Table.



Contact: Julie Hambrook, APCC Cyanobacteria Monitoring Program Email: jhambrook@apcc.org

Appendix 3. Barclay Pond, Goose Pond, Lovers Lake, Schoolhouse Pond, Stillwater Pond and White Pond 2019-2025 Cyanobacteria Risk Comparison.

As of 2025, APCC has completed seven seasons of cyanobacteria monitoring for the town of Chatham. The tables below detail APCC's communication of cyanobacteria risk for Barclay Pond, Goose Pond, Lovers Lake, Schoolhouse Pond, Stillwater Pond and White Pond each season. Red indicates a "Use Restriction Warranted" or "High Warning Tier" designation, yellow indicates a "Potential for Concern" or "Moderate Warning Tier" designation, and blue indicates an "Acceptable" or "Low Warning Tier" designation. The coloring indicates the worst-case from any location in the pond. Even if a sampling event took place outside of the pictured time window, the worst risk tier displayed on the map during that time window was used to create the tables. See previous APCC reports for the town of Chatham for more information on findings and risk communication in these sampling seasons.

Barclay Pond 2024 – 2025 Cyanobacteria Risk Comparison												
	June		July		August		September		October		November	
Year	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-31st	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-30th
2024												
Note that APCC updated the risk assessment framework in 2025.												
2025												

Goose Pond 2019-2025 Cyanobacteria Risk Comparison												
	June		July		August		September		October		November	
Year	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-31st	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-30th
2019												
2020												
2021												
2022												
2023												
2024												
Note that APCC updated the risk assessment framework in 2025.												
2025												

Lovers Lake 2019-2025 Cyanobacteria Risk Comparison												
	June		July		August		September		October		November	
Year	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-31st	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-30th
2019												
2020												
2021												
2022												
2023												
2024												
Note that APCC updated the risk assessment framework in 2025.												
2025												

Schoolhouse Pond 2019-2025 Cyanobacteria Risk Comparison												
	June		July		August		September		October		November	
Year	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-31st	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-30th
2019												
2020												
2021												
2022												
2023												
2024												
Note that APCC updated the risk assessment framework in 2025.												
2025												

Stillwater Pond 2019-2025 Cyanobacteria Risk Comparison												
	June		July		August		September		October		November	
Year	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-31st	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-30th
2019												
2020												
2021												
2022												
2023												
2024												
Note that APCC updated the risk assessment framework in 2025.												
2025												

White Pond 2019-2025 Cyanobacteria Risk Comparison												
	June		July		August		September		October		November	
Year	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-31st	1st-15th	16th-30th	1st-15th	16th-31st	1st-15th	16th-30th
2019												
2020												
2021												
2022												
2023												
2024												
Note that APCC updated the risk assessment framework in 2025.												
2025												

Appendix 4. Sampling Locations

- Barclay Pond – Path off George Ryder Road near Old Queen Anne Road intersection.
  GPS Coordinates: 41.69370963, -69.98805167

- Goose Pond – Conservation Area off Old Queen Anne Road.
  GPS Coordinates: 41.69434184, -70.00724919

- Lovers Lake (Site 1) – Residence off Old Comers Road (Private)
  GPS Coordinates: 41.69782609, -69.98521681

- Lovers Lake (Site 2) – Neighborhood boat launch off Lake Shore Drive (Private)
  GPS Coordinates: 41.69782609, -69.98521681

- Schoolhouse Pond – Public beach off Schoolhouse Pond Road.
  GPS Coordinates: 41.69429158, -69.99651249

- Stillwater Pond – Boat launch at the end of Stillwater Road (Private).
  GPS Coordinates: 41.70314237, -69.98554709

- White Pond – Boat launch off Wilfred Road.
  GPS Coordinates: 41.68706118, -69.9853614