

Brawley Consulting Group, LLC

Land Conservation and Management Services

Memo

Date: July 26, 2026
To: Bantam Lake Protective Association
From: Brawley Consulting Group
Re: Results of Cyanobacteria Monitoring of July 24, 2026

Summary

Based on cyanobacteria cell concentrations in samples collected from the lake on July 24, 2026, and other related water quality data, the risk to the public from cyanobacteria / harmful algal blooms was moderate. Cyanobacteria cell concentrations at the three sampling sites, and the lake average were consistent with the State's Visual Rank Category 2 conditions. Public interventions recommended for Category 2 include reporting to the State, posting cautionary signage, and increased surveillance (CT DPH & CT DEEP 2024).



Methods and Conditions

On Friday, July 24, 2026, the Brawley Consulting Group collected data and water samples from the lake and analyzed those over the next several days as part of the biweekly Cyanobacteria Monitoring Program. Detailed methods have been described in past summaries. Data and samples were collected at North Bay, Center Lake, and South Bay sites. Only field data were collected at Folly Point.

Arrival at the Lake was at approximately 12:00 PM. The lake water clarity appeared fair. Visible surface blooms were not observed. At the time of arrival, the skies were generally clear with passing clouds and winds were light ([Weather Underground 2026](#)).

Cyanobacteria and Algae Community

A total of 24 algae genera were identified in the plankton net or whole water samples. The taxonomic groups with the greatest richness (number of individual genera) were the Chlorophyta (aka green algae) and Cyanophyta (aka blue-green algae or cyanobacteria) with 7

and 8 genera identified, respectively. Chrysophyta (aka golden algae) had a richness of 3 genera. Four other algal groups were represented by 1 or 2 genera each.

Total cell concentrations were moderate and between 26,000 and 32,000 cells/mL among the three sites. Cyanobacteria constituted between 90 and 96% of the total cell concentrations at the three sites (see Table 1 for cyanobacteria cell concentrations). The lake average was 27,177 cells/mL and slightly higher than the July 19th average (Fig. 1).

CT DEEP describes a threshold of 20,000 cells/mL as the cut off between low public risk and moderate public risk from harmful algal blooms in guidance for municipalities. The recommended threshold between moderate and high public risk is 100,000 cyanobacteria cells/mL. The July 24th site concentrations and lake average were at the low end of the range for moderate risk.

The filamentous *Dolichospermum spp.* and *Aphanizomenon spp.* were the co-dominant cyanobacteria at the Center Lake and South Basin sites, while at the North Bay site, *Dolichospermum spp.* was dominant over *Aphanizomenon spp.* Other cyanobacteria genera observed included *Aphanocapsa spp.*, *Gomphosphaeria spp.*, *Microcystis spp.*, *Snowella spp.* and *Woronichinia spp.*

Table 1. Table 1. Site characteristics and cyanobacteria cell concentrations at Bantam Lake on July 24, 2026.

Sites	Cyanobacteria cells (cells/mL)	Total Depth (m)	Secchi Transparency (m)	Temperature Top/Bottom (°C)	Oxygen Top/Bottom (mg/L)
North Bay	24,315	6.03	2.24	24.7 / 22.1	9.2 / 1.0
Center Lake	25,703	7.39	2.06	24.7 / 18.4	9.6 / 0.1
South Bay	31,513	4.44	2.07	24.9 / 23.7	9.3 / 5.5
Folly Point	---	6.20	2.38	25.6 / 20.7	9.4 / 0.1

Water Quality

Several other indicators of cyanobacteria growth and water quality measured as part of this monitoring program were Secchi disk transparencies and relative phycocyanin concentrations. Secchi transparency is a measurement indicating how far light transmits through the water column. The more algae and other particulate matter suspended in the water column, the less Secchi disk transparency will be and vice versa. Secchi transparencies at the 4 sites on July 24th were between 2.0 and 2.3 meters (Table 1). The lake average was 2.19 meters which was slightly lower than the July 19th average (Fig. 2).

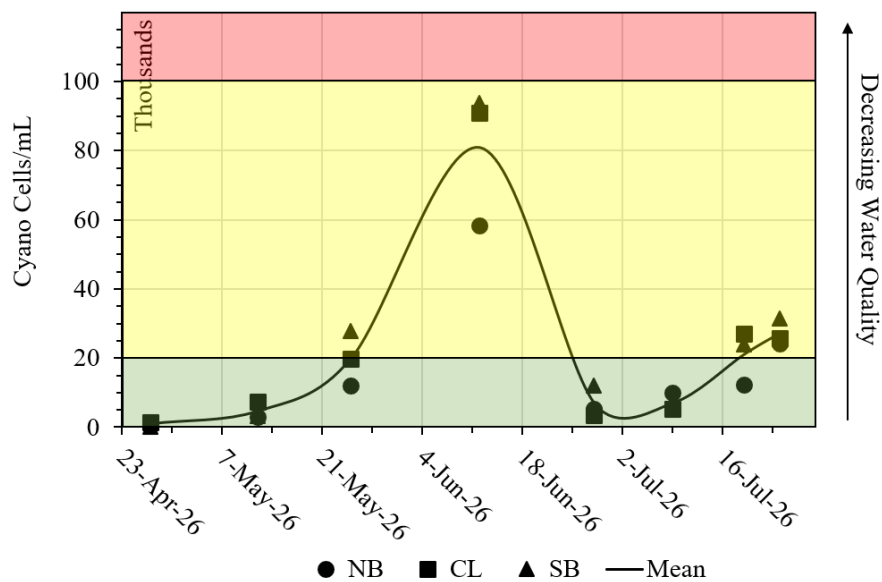


Figure 1. Cyanobacteria cell concentrations at the North Bay (NB), Center Lake (CL), and South Bay (SB) sites in the 2026 season at Bantam Lake. The plot is color coded to represent the CT DEEP's Visual Rank Categories for risk from harmful algal blooms: green = low risk; yellow = moderate risk; red = high risk.

Phycocyanin is a photosynthetic pigment mostly unique to cyanobacteria. It is measured throughout the water column with the fluorimeter in the instrumentation used in the monitoring program. Measures are relative in that a primary standard was not used to calibrate the meter. Although relative, they are useful in that they are comparable to measurements collected at different depths and dates. The averages from the top three meters of the water columns were used here, as they have in the past.

Relative phycocyanin levels on July 24th were low/moderate. The average relative concentrations have been slowly increasing following the marked decrease after the June 25th algicide treatment (Fig. 2). The slow increase is similar to that observed between late April and late May of this year before the exponential increase in relative cyanobacteria biomass.

Algicide Treatment

Because of the exponential cyanobacteria growth reported between late May and mid-June, an algicide treatment of the lake was performed on June 25th by SOLitude Inc. at the request of and funded by the BLPA. Based on the analysis of samples collected and analyzed since June 25th, the treatment appears to have been effective at greatly reducing cyanobacteria growth, cell concentrations and biomass. The exponential cyanobacteria that often results in algae blooms has not been observed since the treatment.

Site Condition

Water temperatures near the surface were approximately 25°C (77°F). North Bay, Center Lake, and Folly Point sites were stratified. The thermocline was situated between 6 and 7 meters at the Center Lake site, between 5 and 6 meters at the North Bay site, and between 6 and 6.5 meters (bottom) at the Folly Point site.

Oxygen concentrations at the stratified sites were high above the thermoclines but decreased to levels <1 mg/L below it. The South Bay water column had high oxygen concentrations throughout.

Oxidation-reduction potentials were <200 mV near the bottom of the Center Lake and Folly Point site indicating that phosphorus from lake sediments at those sites.

Conclusions

The public risk from cyanobacteria at Bantam Lake on July 19, 2026 was low. Cyanobacteria cell concentrations at all sites the lake average were consistent with Visual Rank Category 1 levels. Secchi transparency and relative phycocyanin concentrations were consistent with the cyanobacteria cell concentrations.

There are no public interventions recommended for Category 1 conditions (CT DPH & CT DEEP 2024). Because of the forecasted heat wave, recreational users should be vigilant and avoid cyanobacteria blooms if they form and are observed.

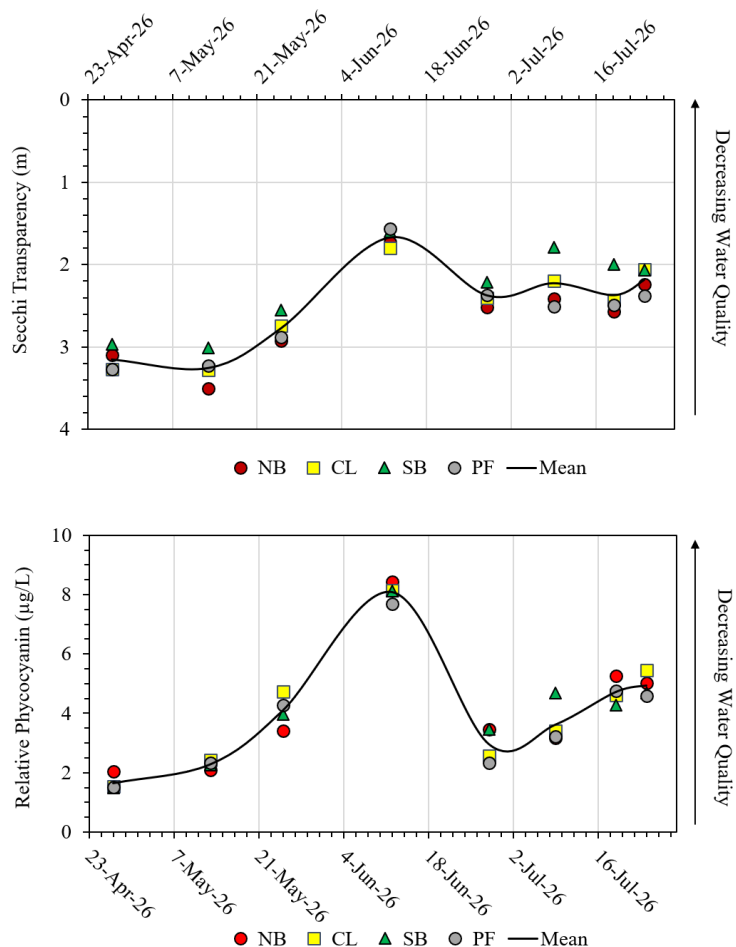


Figure 2. Secchi disk transparency measurements (top) and relative phycocyanin top 3-meter averages (bottom) during the 2026 season. The solid curved line represents the lake averages.

Analysis by



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Literature Cited

Connecticut Department of Public Health and Connecticut Department of Energy and Environmental Protection. 2023. Guidance to Local Health Departments for Blue-Green Algae Blooms in Recreational Freshwaters. See <https://portal.ct.gov/-/media/DPH/EHDW/Blue-Green-Algae-Blooms/Guidance-to-LHD-for-Blue-Green-AlgaeBlooms.pdf>