

White Pond Water Quality Monitoring Update, June 29, 2023

CURRENT WATER USE STATUS: Safe for All Recreational Uses

SUMMARY:

White Pond water was observed to be free of bloom accumulation with pollen still observed in parts of the pond.

Water testing for E. coli on Tuesday was 8 CFU/100 ml of E. coli bacteria. This is in accordance with the State Bathing Beach Regulation 105 CMR 445. Sampling and lab analysis of water for cyanobacteria continued with the fourth week of sampling. There was some presence of both *Microcystis* and *Dolichospermum* cyanobacteria. However, whole lake water samples did not contain high levels of estimated toxin. The pond has been deemed safe for all recreational uses.

Cyanobacteria Sampling and Bloom Status

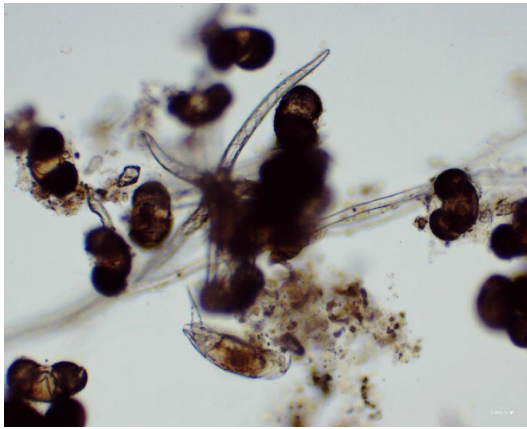
Water samples taken June 27, 2023 continued to contain pollen, however the water was generally clear. Samples taken all three sites showed a mix of *Microcystis* and *Dolichospermum*.

Microcystin toxin levels at White Pond this week are estimated to be low in the entire pond.

Water samples will be taken in two weeks as the current growth rate does not indicate a bloom is imminent. The next sampling date will be July 11, 2023. Residents are encouraged to report a bloom on our report a Bloom link if any changes in water quality or a suspect bloom is observed.

→ [Report a Bloom](#)

A-Pod HAB Trap update



1. June 16th, Higgins environmental removed an estimated 50 pounds of mostly pine pollen - which weighed out on June 20th (after drying) at 70 pounds.

2. June 20st, removed another approximately 100 pounds of mostly pollen today. This is drying out and will be weighed on Friday June 23rd. I also placed possibly another 50+ pounds into a C-Pod for later processing, drying and weighing.

- I took sonde snapshots in and around A-Pods. PC indicates cyanoHABs now present at low concentrations before traps and concentrated in traps (and now C-Pod).

- CyanoHABs were present visually as clusters in and around floating pollen.

- Samples of pollen (pine) for microscopic analysis - see attached photo. Classic pine pollen. I also saw active microbial and micro-zooplankton grazing on "plant matter". Annotation on the attached photo did not come through on the attachment. The pine pollen looks like a "cap with ear muffs". Micro-zoop looks like a type of shrimp in form with a beak - it was actively grazing when I took the photo and I could see its stomach contents. Lots of other microbial activity on this mostly pollen sample.

3. on June 20th, I started to see some cyanoHABs associated with pollen in front of the traps. I took a microscope image of the pollen (sent last week) and of the cyanoHABs - I thought it looked like dolichospermum under the scope but confirmatory lab microscopy ID this as Microcystis. In the field the cyanoHABs were a blue-green color (consistent with microcystis) whereas dolichospermum is more of a mustard yellow color. Anyway, on June 20th, the cyanoHABs were associated (in and surrounding) patches of pine pollen (also confirmed by microscopy analysis).

4. Lab results came back for our Pine Pollen sample. Similar to the oak pollen sample, pine pollen also includes notable amounts of nutrients. For phosphorus - pine pollen had 2,820 mg/kg; oak pollen had 2,710 mg/kg. For reference cyanoHABs recovered last year had from 2,040 to 3,630 mg/kg (highest cyanoHAB phosphorus concentration from the fall of 2021).

Findings:

We are starting to see some likely cyanoHAB growth, focused on/around pollen. Its part of every water bodies life cycle (i.e., new nutrients added by pollen in this case, existing life forms (cyanoHABs, micro-zoops and other microbial life) taking advantage of the pollen food source and multiplying). I removed much of the pollen and cyanoHABs in and just before the A-Pod traps.

I feel good that the A-Pods have been effective, with my extra help, at removing pollen from White Pond. Based on June 20 pollen weighed and estimated removals, we are greater than 300 pounds of pollen removed in June....whose nutrients would otherwise be available to cyanoHABs.