White Pond Water Quality Monitoring Update, August 3, 2023

CURRENT WATER USE STATUS: **Safe for All Recreational Uses**

SUMMARY:

White Pond water was clear on Tuesday, August 3, 2023.

Water testing for E. coli on Tuesday was 32 CFU/100 ml of E. coli bacteria. This is in accordance with the State Bathing Beach Regulation 105 CMR 445.

The pond has been deemed safe for all recreational uses.

Cyanobacteria Sampling and Bloom Status

Water samples taken August, 3, 2023, were generally clear. The water was very warm with the surface measuring 81 F. Samples taken all three sites contained very low levels of any cyanobacteria.

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 does not appear to be increasing. The next sampling date will be August 15, 2023 and this will be our last sampling date at the pond. The Town Beach closes on Sunday, August 20, 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

Update from Higgins Environmental:

1. July 20th: Higgins Environmental conducted routine field inspection of A-Pods with sonde snapshots in and around traps (two) for PC, Chl-a. There was nothing remarkable to report. Pine needles, sticks and bits of pine sap were removed before and within A-Pod traps. No significant/concentrated cyanoHAB presence is reported based on PC in traps for this material.

2. July 25th, similar to July 20th. A pond perimeter survey (visual) was conducted from a boat. No scums or blooms noted. No shoreline areas of filamentous green algae or similar were observed. (this would be indicative of a inflow of nutrients entering the pond).

3. On July 25th, Higgins Environmental also completed a vertical sonde survey of the eastern deep hole (off the beach) and a secchi disc reading. Water clarity was very good (22.8 to 23.5 feet) given early time (1050 hours) and that the weather was partly clouding with water ripples on the pond surface. There was also a bit of haze in the air, maybe smoke from those fires or just heat. Water temperatures are warmer in the pond, PC was higher than last month and we also had more Chl-a than before. The pond is near peak productivity in terms of biology and organic

compounds (acids, degradation products, etc.) due to the full sun this time of year combined with increased temperatures and heavy rains.

4. July 31st Jon Higgins received notice that a tree came down on their little boat and part of the A-Pod. They did a pond visit and found it looked worse than it was. A tree had fallen over the boat but only a branch was pushing down the back of the boat. A branch was cut with a hand saw and removed along with the end of another branch that extended over and was depressing part of the main A-Pod.

5. On Monday, the first "non-pollen" and non cyanoHAB scum was observed. The scum was a brown scum, oily in appearance and is estimated to possibly be diatoms (a good form of algae) Samples were taken for microscopic analysis and photos were also taken (see below). The PC sonde was not positive for this scum, it decreased a little and Chl-a sonde probe increased in the scum. There were also insects stuck in the oily scum. Based on microscopic analysis and field sonde results (PC and Chl-a) any trapped brown scum or similar will be released back into the pond (behind and away from the A-Pod traps). There was not much volume observed, maybe three gallons of "diatom" scum/suspension mixed with pond water.

Higgins environmental spoke with the Health Division and shared that he is hopeful that the algae present (diatoms) may be indicative of restoration of the natural ecosystem function. Diatoms are the “good algae” and are part of a healthy pond. He feels that this may be possible due to the removal of all the excess amount of cyanobacteria.

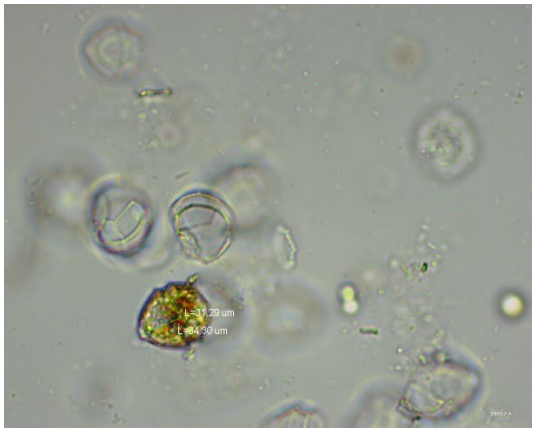

Image 32

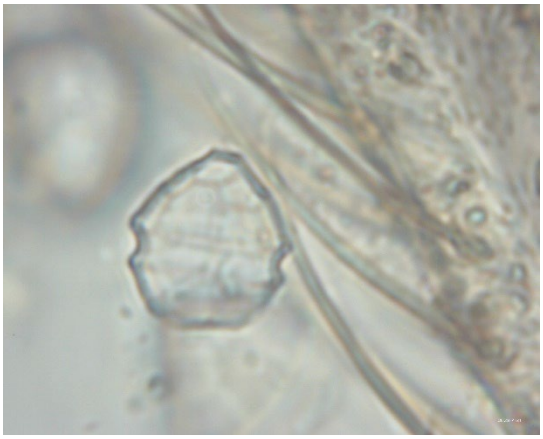

Image 31

Photos taken by Higgins Environmental