White Pond Water Quality Monitoring Program Update June23, 2022

CURRENT WATER USE STATUS: SWIM AT YOUR OWN RISK

SUMMARY: Water sampling conducted on June 21 shows that cyanobacteria levels have dropped significantly compared to samples taken June 15. The cyanobacteria genus *Dolichospermum* remains dominant in water samples. Although this type of cyanobacteria can cause blooms, it is much less likely to produce microcystin toxin. Estimated levels of microcystin toxin remain very low in all sample sites taken June 21. Pond users may continue to see evidence of last week's small cyanobacteria bloom. Because toxin levels are low, the pond is open to swimming even though a bloom may still be visible in some places. Users should be aware that exposure to cyanobacteria can cause dermal reactions such as rashes. For this reason, the pond will be posted as Swim At Your Own Risk as long as a visible bloom is present. Pond users should avoid contact with areas of visible blooms and rinse off with clean fresh water as soon as possible after exposure.

IMPORTANT: Teenagers and children have been observed at the pond using paddle boards to approach and crash into the floating arms of the A-Pod HAB traps. The floating fabric of the A-Pods can be easily damaged and is an important part of the cyanobacteria collection system. All pond users are asked to stay away from the A-Pods. Parents are asked to explain to children how the A-Pods work; that the floats and curtains in the water are integral to the treatment process and should not be disturbed; and that town is using the A-Pods to improve water quality for all users of the pond. For more information on how the A-Pod units work, please see https://blog.cyanos.org/2021/04/19/a-pod-hab-trap-and-removal-process-jonathan-b-higgins

Cyanobacteria Sampling and Bloom Status

Water samples taken June 21 show that cyanobacteria levels have dropped significantly compared to samples taken June 15. According to Nancy Leland of Lim-Tex, who is conducting the water sampling program, this is not unusual. Sometimes cyanobacteria numbers increase rapidly during late spring (as was seen in the past two weeks when the small bloom emerged) and then may drop off for a period of time. We have seen this pattern in other summers on White Pond, where blooms have waxed and waned throughout the summer. Weekly sampling will continue to document cyanobacteria numbers and toxin concentrations and this data will be used to issue water use advisories as appropriate.

As was seen in the June 15 samples, the cyanobacteria genus *Dolichospermum* remains dominant in water samples. Although this type of cyanobacteria is a common cause of blooms, it is much less likely to produce microcystin toxin. Estimated microcystin toxin levels in the June 21 samples remain extremely low.

Pond users who are interested in learning more about the sampling program can visit the White Pond Reports webpage https://concordma.gov/3126/Bloom-Reports . Two documents on this page provide more information about the sampling protocol and rationale being used in the White Pond water sampling program.

White Pond Monitoring Addendum Oct 29 2021
https://concordma.gov/DocumentCenter/View/37187/White-Pond-Monitoring-Addendum-Oct-29-2021

Evaluation of Size Structure in Freshwater Cyanobacteria
https://concordma.gov/DocumentCenter/View/37186/Evaluation-of-Size-Structure-in-Freshwater-Cyanobacteria

A-Pod HAB Trap update

All three A-Pod units have been slightly repositioned to optimize capture of cyanobacteria. This will likely continue throughout the summer, depending on changes in wind and water currents.

All A-Pod units are capturing suspended solids. The main unit was capturing a concentrated area of bloom (HAB) last week, while the smaller units have generally been collecting some amounts of cyanobacteria, as well as pollen and leftover pine-pollen flowers.