

Crystal Lake Water Quality Treatment Project

Q&A - May 2022

Why is the lake being treated?

To improve water quality and reduce blue-green algae (also known as cyanobacteria)

Why do I need to stay out of the water?

To allow the boat and operators to have unobstructed lake access so they can focus on the treatment application and not worry about people or pets in the water.

What is the lake being treated with?

Aluminum sulfate and sodium aluminate (liquid)

Are these products safe?

These products are used in purification of drinking water at water treatment plants. When added to water, they cause microscopic and even dissolved impurities to clump together into larger particles and settle. On the bottom, they continue to inactivate phosphorus, a key nutrient for algae. In concentrated form these products can be harmful but at the concentration achieved in the lake under the conditions of treatment there have been no harmful effects to people, pets, or aquatic life in over 20 years of applications in MA.

Is it safe to swim after the treatment?

Swimming is fine by the next day. Same for pets. However, the swim season is not yet officially open.

Will it harm fish?

With a pH range between 6 and 8 and an aluminum concentration <10 mg/L, no harm will be done to any aquatic animal. No problems have occurred in over 20 years of such treatments in lakes in Massachusetts.

How long will the treatment last?

This is the second part of a planned treatment initiated in May 2020. The dose was split in half to allow time for more watershed management and because the efficiency of treatment is improved by spreading it out over several years. The effect on the sediment should last more than a decade but the effect on the water column depends on ongoing inputs from the watershed. The lake may require a "booster" (just like our Covid-19 vaccines) to extend the benefits of this treatment.

If you think of the lake like a leaky rowboat, we need to both patch the leaks and bail the water out of the boat. This treatment bails out the boat and fixes one major leak (the sediment). Duration of benefits depends on how many other leaks there are and how well we patch them. Watershed work has been going on for multiple years but is a slow process with more to do. You can help by properly disposing of yard wastes, picking up after pets, and minimizing fertilizer use.