LAKE MASSAPOAG
ADVISORY COMMITTEE
90 SOUTH MAIN STREET
SHARON, MASSACHUSETTS 02067
lakecom@townofsharon.net

CYANOBACTERIA MITIGATION PLAN
Alum Treatment June 2025 (before beach opens)

The Lake Massapoag Advisory Committee (LMAC) is working to improve the lake's health. Currently the committee is focusing on the issue of high phosphorus levels in the sediment that fuel toxic cyanobacteria and developing a plan to reduce external phosphorus. The committee will conduct an alum treatment to address this issue and want to update you on the process.

Why alum treatment?

- Alum (aluminum sulfate) treatment is a preventive management approach that addresses the cause of algae blooms rather than treating the bloom itself. One major factor influencing blooms is the release of phosphorus from the sediment in the deeper portions of the lake where oxygen levels drop significantly during the summer. This release of phosphorus, happening together with the warmer summer weather, fuels cyanobacteria blooms.
- This safe treatment is a buffer mixture of aluminum salts. Once alum is added to the water it forms a solid precipitate that rapidly settles to the bottom of the lake and forms a blanket over the sediment where it binds phosphorus and prevents its release.
- The alum treatment is expected to lower the risk of cyanobacteria blooms for 5-10 years, according to the LMAC's consultants.

Where are we?

- We received approval from Annual Town Meeting, Sharon Conservation Commission, Massachusetts Department of Environmental Protection and MA Wildlife's National Heritage Endangered Species Program and have signed a contract with the firm to complete treatment over a six-day period between June 2 and 18, 2025.
- We are planning treatment of the lake at depths greater than 21 feet. The treatment will involve the placement of alum tanks near the boat launch, with delivery boats delivering the product, and monitoring boats checking water quality before, during and after the procedure.
- During this time, the boat launch will be closed to the public and as a precaution, Veterans Memorial Beach will be closed to swimming during treatment days, with public announcements and postings. The lake can be used elsewhere, but please stay away from any boats in transit and the marked treatment area.

Alum treatment is a standard practice

- Alum is a safe and effective way to reduce cyanobacteria in lakes when used correctly by experts.

- Alum has been used successfully in many lakes across Massachusetts, the US and the world to reduce harmful algae.

Why is treating the lake important?

- When there is too much cyanobacteria, the entire lake must be closed until two DPH weekly tests are below the level of concern. This happened to Lake Massapoag in 2021, and to many other Massachusetts lakes in recent years. Smaller localized blooms during the last four years have disrupted swimming at our beaches and camps.
- Not treating the lake can be dangerous. These harmful cyanobacteria can make people, especially children, sick impacting the brain, nervous system and kidneys.
- Pets are at even greater risk, particularly dogs because they are more likely to drink lake water and are attracted to eating cyanobacteria scum on the shoreline.

Is alum safe?

- Shortly after treatment, the aluminum levels in the lake quickly become safe enough for drinking water.
- Aluminum is the third most common element and is found at similar levels in many foods including baby foods, infant formula and human breast milk.
- Alum may only cause harm when people are exposed at levels many times the levels found in treated lakes. Drinking water is often purified with alum and is allowed have levels higher than what will be found in Lake Massapoag in the days following treatment.

Are there alternative approaches?

- LMAC is particularly interested in oxygenation of the deeper waters of the lake. Oxygenation will prevent phosphorus release by preventing the drop in oxygen levels. This method is relatively new and cost-prohibitive at this time but will be considered for the future.

What else do we need to do to improve the health of Lake Massapoag?

- LMAC is also beginning work to stop stormwater runoff and soil erosion, which can bring more phosphorus into the lake. Please save the date for a Community Meeting on the draft plan Thursday May 29, 2025, at the Sharon Community Center, 7-9 p.m. It will also be available on Zoom.
- The LMAC obtained two state grants to develop a comprehensive, long-term (2025-2050) watershed plan to reduce phosphorus coming into the lake from outside sources such as septic systems, fertilizer and street runoff.

The LMAC wants residents to stay informed about what's happening with the lake. The committee encourages everyone to do their part in keeping Lake Massapoag clean and healthy for all to enjoy. See the LMAC website at www.lakemassapoag.net and committee page at www.townofsharon.net.