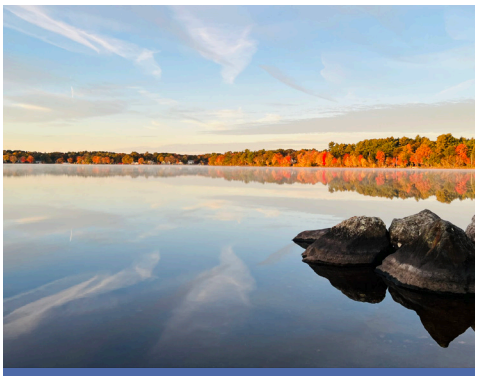
WINTER 2024

love our lake

A message from Sharon's Lake Massapoag Advisory Committee



Top 10 Things You Can Do to Protect Our Lake

1. Only fertilize your lawn once a year in the fall.
   - Cancel spring and summer lawn applications (ask to omit from annual contract).
   - Don't use fertilizer with phosphorous.
   - Avoid herbicides and pesticides.
2. Pump your septic system annually and replace it when needed.
3. Pick up after your pet and put the waste in the trash.
4. Use a car wash. No phosphoric acid, phosphates, or TSP in car, boat, and outdoor cleaning products.
5. Don't feed ducks or geese.
6. Don't put chemicals, oil, or medicine down the drain.
7. Make sure your boat doesn't leak oil.
8. Stop the spread of invasive plants by checking your boat before launching.
9. Redirect downspouts into green areas or install rain barrels.
10. Bag all leaf litter and maintain a natural shoreline.

Lakes have a lifecycle and need help to thrive

A 1984 study predicted Lake Massapoag would be so high in phosphorus and nitrogen that water quality would be ruined and recreational use impeded by 2000.

The Town took action and we gained nearly 40 years of lake health, but there are new challenges from continued development, runoff of excess nutrients, and climate change. The four biggest threats are:

- **Cyanobacteria**, fueled by excess nutrients (especially phosphorus), is the biggest threat to lake health. Cyanobacteria (aka blue-green algae) produce cyanotoxins that are harmful to people and pets.
- **E. coli** from human waste or animal waste is indicative of septic or animal contamination.
- **Invasive weeds**, which outcompete local species, reduce oxygen levels which support aquatic life and impede swimming, boating, and fishing.
- **Climate change** brings more runoff, excess nutrients and bacteria into the lake. Higher heat promotes growth of E. coli, cyanobacteria and weeds. Blue Hills Observatory data indicates 2021 had rainfall and heat well above historical averages, 2022 brought a drought and higher heat, and 2023 had higher rainfall and heat.

The impact:

- Cyanobacteria bloom closed the lake for over 2 weeks in July 2021.
- Community Center Beach was closed 8 times in 2022 due to E. coli and as a result, closed to all swimming in 2023.
- Localized cyanobacteria blooms were frequent from late August to late October in 2021, 2022, and 2023.

Our Solution

To address its challenges, the Lake Massapoag Advisory Committee (LMAC) applied for and received two state grants, MVP Action and DEP 604(b), to develop a Watershed-Based Plan for a Resilient Lake Massapoag 2025-2050.

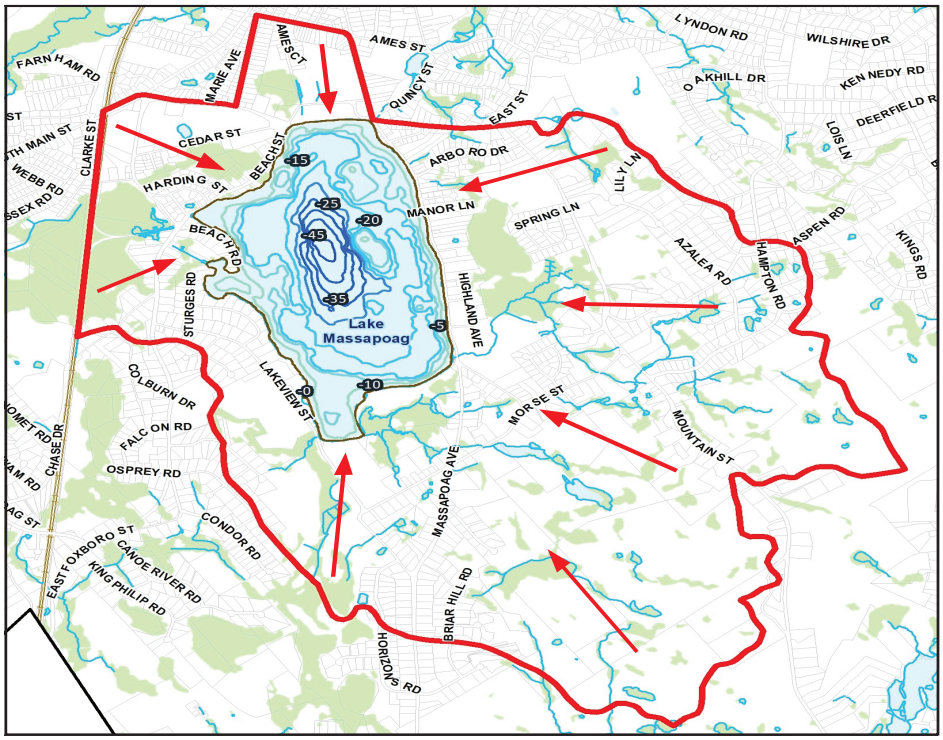
These grants enable in-depth study to guide specific plans to improve the lake's water quality in the face of years of accumulated development and climate change impacts. Our consultants are the Neponset River Watershed Association and TRC Companies.

We are reaching out to residents, schools, camps, community groups, businesses, and stakeholders in a variety of ways, including this newsletter!

The Lake's Watershed

Lake Massapoag is fed by its watershed. A watershed is a land area that drains water into a specific water body. At 392 acres, Lake Massapoag is fed by underground springs, and rain, tributaries, runoff, and storm drains in its larger watershed. The 3.5 square miles of land in the Lake Massapoag Watershed includes:

- 900 homes
- two summer camps
- three schools
- two public beaches
- numerous fields, woods, tributaries



Join the "Love our Lake" campaign!

Based on the new watershed plan, we will work to reduce nutrient runoff into the lake through green infrastructure projects and educating residents. We also need to reduce legacy phosphorous in the lake and are studying options to do so.

Show your commitment to protecting Lake Massapoag! Free yard signs are available on first come, first served basis. To reserve your yard sign and learn more about the lake campaign, visit: **lakemassapoag.net**

Summary of LMAC 2023 Test Results

High phosphorus:

- Deep Hole bottom, Wetland/SHS inflow, Opposite 123 Beach St., Opposite 3 Capen Hill, 240 Massapoag Ave., and Deep Hole surface

High E. coli:

- Community Center Beach: 41% in 2021, 44% in 2022, and 22% in 2023 (nearly 50% during swim season)
- Sucker Brook: 75% in 2021, 75% in 2022, and 50% in 2023

Learn More!

Visit **lakemassapoag.net** to keep up to date on the project and latest water sampling data, learn ways to protect our lake, discover lawn care alternatives, and find out how you can help!

For additional information, watch our latest presentation, *Dive into Lake Massapoag*, on Sharon TV. We are also available to speak to any size group that wants to more information.

About the LMAC

The Lake Management Advisory Committee (LMAC) was created by the Town of Sharon, MA in 1969 and updated at 2022 Town Meeting to expand its membership and scope, with additional resources to address the challenges facing Lake Massapoag.

Its seven members are appointed by the Conservation Commission, Select Board, Planning Board, and Recreation Advisory Committee. The public is welcome to attend the meetings. For more info, email **lakecom@townofsharon.org**

Thanks to: Massachusetts Executive Office of Energy and Environmental Affairs, Municipal Vulnerability Preparedness (MVP) Program, Department of Environmental Protection, Town of Sharon Board of Health, Community Preservation Commission, Conservation Commission, Department of Public Works, Planning Board, Recreation Advisory Committee, Select Board, Water Management Advisory Committee, and our many partners and stakeholders.