

Lake Massapoag Advisory Committee - Updates

December 21, 2021 Update

The Lake Management Study Committee met December 13, 2021 to discuss and vote on a Proposed 2022 Warrant Article to expand the membership, scope and budget for its activities to address the growing challenges to Lake Massapoag. Last summer's harmful algal blooms and E. coli counts closed the entire lake for two weeks, Community Center Beach frequently, and Veterans Memorial Beach and some of the camp beaches on occasion.

There was discussion of the proposed warrant article and budget. Following discussion on several points, the proposed article was voted and approved to forward to the relevant boards and committees for review, and review and input from Town Counsel, with further work on the budget as cost estimates are received.

In addition, the committee reviewed the following materials which summarize 2021 algae sighting reports; a chart and maps of Town Board of Health E. coli testing sites, Neponset River Watershed Association water quality testing program, and DPW stormwater drain testing; and 2017-2021 summary trends of BOH test results at Town swimming areas, and at non-swimming areas (inflow and upstream sites).

October 26, 2021 Update

The Lake Management Committee met October 13, 2021 to review the challenges to the Lake during the summer season from E. coli and blue-green algal blooms. Memorial Beach and Camp Everwood had one E. coli closing in late June and mid-July, respectively, while the Community Center Beach closed for 10 days starting July 10, and again on August 9 for E. coli. Sharon Board of Health (BOH) follows state guidelines for beach closings, retesting, and reopening from weekly E. coli testing during beach season.

In addition, the entire lake and all activity was closed from July 15 - 28 for sightings of blue-green algae, until two successive weekly tests by the MA Department of Health (DPH) determined that cyanotoxin levels were below the action level. After that, beach closing decisions were based on visual algal sightings. Both beaches were day to day, with Memorial Beach closing occasionally for short periods, and the Community Center Beach repeatedly; it was closed for the season early on August 11th. See the sheets on the lake's 2021 E. coli test results for swimming areas, and for non-swimming inflow areas, prepared from BOH data.

With the end of the beach season on August 23rd, BOH announced and posted that people should not swim if blue-green algae were visible, and that swimming was at your own risk, with no lifeguards. Evidence of algal blooms have continued to move around the lake into mid-October (see photos from September 25 and October 12), and volunteers have begun tracking them on the BloomWatch tracking app, <https://cyanos.org/bloomwatch/>.

At the meeting, the Committee discussed the history of professional invasive weed surveys and remediation efforts (herbicidal treatments of the lake in 2014 and of the lagoon near the south end of the lake in 2018, and annual diver-assisted suction harvesting (DASH) for weed control in the southern end and in Fletcher's Cove. It reviewed, weed survey results for 2018-2021, and plans for 2022 herbicidal

treatment and DASH (the latter may include the Memorial Beach swimming area east side, as weeds there are a swimming and safety hazard, while not invasive).

The Committee then discussed the blue-green algae and cyanotoxin closures and warnings for the lake, what factors cause it, and what can be done to remediate algal blooms, improve identification and timely testing for cyanotoxin levels, and reduce the chances of them occurring in the future. The Committee reviewed an information sheet prepared, Cyanotoxin Identification Resources. We had more intense rainfall this year, see Blue Hills Weather data, and chart on Lake Massapoag water levels. We have little control over the weather, but can test upstream in three problem inflow areas identified by the Conservation Administrator: Sucker Brook, Memorial Beach outlet, and Fletcher's Cove.

The Committee will contract for professional assessment and recommendations for nutrient balancing (treatments to lower phosphate levels), and explore remediation through potential filtering at inflow sites identified as hot spots. It will recommend testing upstream on hot spots, explore collaboration with Neponset River Watershed Association, www.neponset.org, in its monthly testing program for E. coli, phosphates and dissolved oxygen, and report on the need for upstream remediation efforts if indicated.

In addition, the Committee, Conservation Commission, town residents and town government can work together to help lower phosphates, E. coli, and other harmful inflows into the lake while paying close attention to managing the outflows, and publishing up to date information on the web. It discussed educating town residents on what happened this summer, and why we need to prepare for the lake's vulnerability to more intense rainfall and take action, what residents and the town can do to help in terms of curbing use of phosphate lawn fertilizer in the summer months, better maintenance of septic systems, proper disposal of pet waste, geese abatement, etc.

We also discussed developing a collaborative Lake Massapoag website where people can access Lake beach information, test results, lake level readings, and helpful information on threats, resources, plans and actions on a user friendly, timely basis. Attached is a draft of helpful websites and resources for information, Web Resources on Lake Massapoag.

The Committee also discussed expanding its charge and broadening its membership, which would require a Warrant Article at Town Meeting to update the charge and membership when it was established by Article 47 in 1969 as an advisory committee to the Conservation Commission (ConCom), with two seats each appointed by ConCom, Planning Board, and Select Board, and an annual budget of \$2,000 (since raised to \$6,500).

There are many other town departments involved with oversight and use of the lake or various remediation efforts; including the Recreation Department, Board of Health, and the Department of Public Works; and many other stakeholders who abut, enjoy, and use the lake which for many is Sharon's most distinctive, prominent and valued natural and recreational resource.