

FALL/
WINTER
2023



WEQUAQUET LAKE PROTECTIVE ASSOCIATION, INC.

People that care about Lake Wequaquet



A Word from the WLPA President

Well, the summer has come to an end. The lake was full of activity and almost completely clear of cyanobacteria. I can't help but wonder if those of you who chose not to fertilize your lawns and made an effort to control run off from your properties made the difference. By continually working together while the town is busy installing the sewer system, we increase our chances of enjoying a clean lake for years to come.

As I look out now on the lake, while the leaves have already begun to change their colors and the wildlife is all about, how fortunate we all are to live on such a spectacular resource. As my term as president is shortly coming to an end, I consider myself lucky to have been part of an association that works so hard at its mission of keeping Wequaquet Lake both clean and safe. It has been a pleasure and an honor to serve the WLPA and you, its members. I wish you all a happy and healthy holiday season.

Best regards, Alan Horvitz

APCC EXECUTIVE ANDREW GOTTLIEB DISCUSSES FRESHWATER PROBLEMS AT WLPA 30TH ANNUAL MEMBERSHIP MEETING

Notes compiled by WLPA Secretary Mary Ann Anthony

- The Cape's freshwater ponds and lakes have long been neglected in the efforts to save the marine environment from degradation by pollutants, but freshwater bodies are affected by the same nitrogen loading as salt water environments.
- The degradation of the quality of freshwater bodies, as evidenced by cyanobacteria blooms and closed beaches, has increased public awareness and interest in mitigating the effects of years of neglect.
- There is a greater personal affinity to lakes and ponds than to the marine environment. People love and care about their lake, which is both an opportunity and a frustration. The opportunity resides in the public attention being paid to the problem – they want it fixed now! The frustration is that the cape is at the tipping point of years of abuse combined with the real effects of climate change, warmer water, higher temperatures, harsher storms, all of which contribute to fresh water pollution.
- 90% of estuaries on the cape have poor water quality. Four years ago only 68% were considered poor quality. It will only continue to get worse. The estuary system degrades from the land toward the water, with the amount of good water in the system diminishing as it reaches the bays. Nitrogen is overloading the estuary systems' ability to clean the water.
- The estuary systems won't get better until we stop the nitrogen loading. Even then it will take years for nitrogen to leave the systems.
- The ponds are less bad. Only 40% of ponds have poor water quality, as evidenced by cyanobacteria algae blooms. While the estuaries have years of good water quality data, less is known about fresh water bodies. The data sets are "lousy".
- Lake and pond pollution is driven primarily by septic waste. Phosphorus is a bigger driver than nitrogen. It is a slower mover through the sandy ground. While sewers are an expensive fix to remove nitrogen, phosphorus, and other chemicals from reaching fresh water bodies, stopping lawn fertilizing is the easiest and least expensive fix – it costs nothing to stop fertilizing your lawn.
- Many ponds are on the edge, others are marginal. They are increasingly affected by local weather attributable to climate change; heavy tropical-like rain storms wash lots of chemicals into lakes and ponds from lawns and roads, overloading the ground's ability to absorb runoff and toxic chemicals.
- Heat is a factor too. The average temperature on the Cape is 6 degrees higher than a decade ago, which contributes to the growth of algae blooms.
- Drinking water so far is good on Cape Cod; 16 of 20 water systems are excellent, with 2 "good" (Joint Base Cape Cod and Wellfleet), and 2 "poor" (Otis Air National Guard Base and Yarmouth).
- The "Take Home" is: during the '70's and '80's towns on the Cape zoned to manage the water supply. Since then there has been no protection for the land surface, no management of landscaping, building, paving, and runoff.



Andrew Gottlieb, Executive Director of APCC, Keynote Speaker at WLPA Annual Meeting.

Photo ~ A. Spindell

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TO CONTINUE: PAGE 2 : SOME POLLUTION REDUCING ANSWERS

Gottlieb Presentation Part II

SOME ANSWERS

- Recognize the problem. There is no one "bad guy" to blame, no single industry, such as manufacturing, only individuals and their land use regarding residential building, lawn fertilizing, and septic systems.
- We need improvements in waste water treatment programs to eliminate nitrogen and other toxic chemicals as they are identified. Each town needs to determine the right sequence, timing and financing.
- Minimize manicured lawns. Individual homeowners need to control their landscaping and their yards. Lawns don't like it on the Cape. The soil is sandy, porous, dry, and nutrient poor. You can't force it to support a lush green lawn..
- It does not matter if the fertilizer you use is organic or petro-chemically derived, it has the same nutrient effect on the lake.
- CH.78 is intended to regulate fertilizer use, but the fertilizer system in Massachusetts is broken. The state regulation controls fertilizer use, but it is influenced by the landscaping industry. Towns are the last line of defense. Orleans and Nantucket have banned all use of fertilizer, which is not allowed under state regulations. quality.
- Restore native plants around the lake perimeter. They have deeper roots and can stop runoff, as well as being drought resistant.
- The APCC has staff who will come out to audit your property and suggest good plants to make your yard ecologically friendly. Just beware that some native plant growers use treated seeds that leach chemicals into the ground.
- The state is expecting to finalize new septic system limits for nitrogen load, and other criteria. The Town of Barnstable is in a good spot, with a CWMP (Clean Water Management Plan) in place. Sewers and water treatment facilities are the only good way to remove phosphorus from waste water. Alternative septic systems remove only nitrogen, and cannot adapt to remove PFAS and other yet to be identified contaminants as water treatment plants will do in coming years.

CONCERNING MUSKRAT CONTROL

WLPA Members,

In response to several members' concerns regarding muskrats and their property, the board felt a follow up was in order to underscore what was discussed at the annual membership meeting. Property owners are entitled to hire at their expense a licensed Problem Animal Control agent (<https://www.mass.gov/service-details/problem-animal-control-agents>), who can advise them as to the process of animal removal.

We are told that the muskrats and their kits cannot be relocated and will have to be euthanized if trapped by a wildlife manager.

As reported in our Spring newsletter, muskrats go through a population 'boom' every ten years. Thus the exceptional numbers we saw this past summer. However, nature does provide its population checks and balances with coyotes, foxes, and eagles as natural predators.

To a healthy lake,
The WLPA Board



The 30 th Annual WLPA Meeting was held at the Wequaquet Lake Yacht Club.

Photo ~ A. Spindell

Cormorant on buoy.
WLPA continues to
supplement the cost
of lake buoys.
Harbormaster
always has the
final say in buoy
placements.

~ Photo G. Klun



New England Aquatic Services

2023 Bearse-Wequaquet Fanwort Removal Project

In August 2023 New England Aquatic Services commenced a project to Suction Harvest Fanwort (*Cabomba caroliniana*) from Bearse Pond, Wequaquet Lake, and Gooseberry Cove. The scope of the project was for 33-7 hour days of removal for a total of 231 hours of harvesting time as well as a diver lead survey to provide harvesting locations to the crews. 98 hours were allocated to Bearse Pond, 84 hours were allocated to Gooseberry Cove, and 49 hours were allocated to Wequaquet Lake. The project was completed utilizing three suction harvesting boats and increased hours each day to increase efficiency and decrease the actual duration of the project. In total 312 bags of Fanwort were removed from Bearse Pond and 366 bags of fanwort were removed from Gooseberry Cove, and 124 bags of Fanwort were removed from Wequaquet lake for a total of 802 bags. 802 bags is roughly the equivalent of 12,030 gallons of material. The project was started utilizing divers to lead a survey to identify Fanwort locations for removal. Generally, if we can shift focus to those areas we can prevent them from becoming as thickly infested as we have seen in Bearse and Gooseberry Cove.

Conclusions: We continue to see very positive results from the Suction Harvesting efforts in these three locations. We have seen reduction in populations in the small number of areas in Wequaquet that we have addressed for longer periods, and we have seen significant population densities in both Bearse Pond and Gooseberry Cove. While we did not get the opportunity to address every area of growth in the lakes this year, I recommend the same scope for the maintenance project in 2024.



One of two boats that were suction harvesting fanwort in Bearse Pond. Significant reductions in weed density were noted when comparing 2022 results with 2023 results in both Bearse Pond and Gooseberry Cove.

~ Photo A. Horvitz

Falling Through the Ice

Wequaquet has not had much ice the past two years but if this winter the lake freezes over, below are excerpts from safety tips provided on Mass Gov. org. regarding **Falling Through The Ice**.

Sources to Know

- APCC: site offers an "alert" tab for persons wishing to know the status of water bodies tested by APCC. Go to APCC. Org, and provide your email address for these messages. The Association to Preserve Cape Cod creates an interactive map that shows Cyanobacteria test results for over 22 Cape waterways. The map is found at APCC.org• The APCC site suggests that if you notice scum or discolored water that has a strong odor, avoid contact and notify the health department. Also, a photo of the water can be sent to; cyano@apcc.org. Note location, day, and time that photo was taken.
- CWMP Questions: In addition to the Town of Barnstable Water Resource comprehensive newsletter updates, Paul Ruzala, senior project manager, has provided a phone number and website for answers to questions concerning the Comprehensive Wastewater Management Plans. His number is 508-790-6400. Mr. Ruzala's email address is: paul.ruzala@town.Barnstable.ma.us
- Non Emergency Police To report unsafe boating, excessive noise or other non emergency lake issues call: 508-775-0812.
- WLPA Website: Wequaquetlake.com

If you fall in:

- **Don't panic:** Call for help if there are people nearby.
- **Don't remove winter clothing:** Air trapped in your clothes can provide warmth and help you float.
- **Turn the direction you came from:** Ice you previously walked on should be the safest.
- **Place your hands and arms on an unbroken surface and kick your legs:** If you have ice picks or a pair of nails, use them to pull yourself up onto the ice while kicking.
- **Lie flat and roll away:** Once your torso is on firm ice, roll toward thicker ice to distribute your weight.
- **Find shelter and get warm:** Change out of wet clothing and find warm, dry coverings.

If someone else falls in:

Remember the phrase "Preach-Reach-Throw-Go"

- **Preach:** Call 911 if you can. Shout to the victim to reassure them help is on the way.
- **Reach:** If you can safely reach them from shore, extend an object like a rope, jumper cables, tree branch, or ladder to them.
- **Throw:** Toss one end of a rope or something that will float to the victim.
- **Go:** If the situation is too dangerous for you to perform a rescue, call 911 or go to find help. Untrained rescuers can become victims themselves.

If a pet falls in:

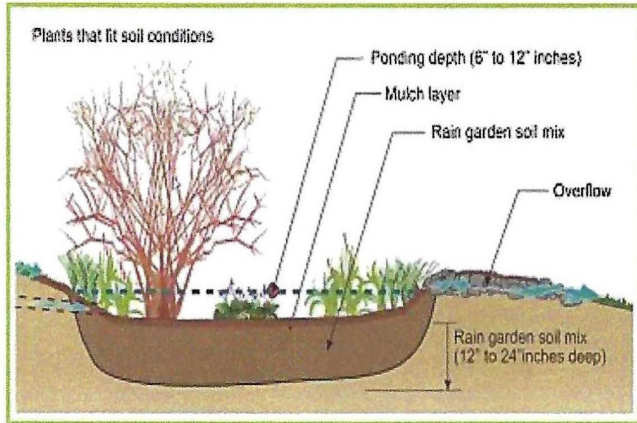
Do not attempt to rescue the pet, go find help. Well meaning pet owners can easily become victims themselves when trying to assist their pets. Remember to always keep pets leashed while walking on or near ice.

From Mass.gov/info ice-strength-and safety

RAIN GARDEN GUIDE

WHAT IS A RAIN GARDEN?

A rain garden has a bowl shape to collect the rain that runs off from a roof, driveway, parking area or yard. This 6 - 9 inch deep basin fills with runoff and allows it to seep into the ground in a few hours. The rain garden plants and soils filter the stormwater and cleanse pollutants that could harm water quality.



flowers, shrubs, trees and grasses that are easy-to-maintain and thrive without fertilizers and pesticides. There is an array of colorful plants that can be obtained at garden centers and home improvement stores, which will provide food and habitat for wildlife.

Letting the runoff soak in, rather than go into the street, replaces the groundwater that keeps streams flowing during dry times. On hot summer days, rain gardens also cool runoff from dark pavement by putting it into the ground. A constant supply of cool, clean groundwater is essential to the health of stream and pond life.

Rain gardens are planted with

WHY BUILD A RAIN GARDEN?



Every time it rains, the runoff from hard surfaces will pick up and carry dirt, bacteria, fertilizers, pesticides and debris, as well as oil and other fluids that drip from cars. By building a rain garden, you will help sustain the health of nearby brooks and ponds. Rain gardens attract birds and beneficial insects like butterflies and bees that pollinate plants, as well as dragonflies that eat mosquitoes. You and your family can learn from and enjoy watching these wildlife habitats that will enrich your yard.

BENEFITS OF RAIN GARDENS

Storm runoff is the leading source of water pollution that can harm aquatic life and spoil recreational uses of lakes and brooks. Creating rain gardens has many water quality benefits:

- Gardens remove dirt, oil and metals in stormwater
- Plants recycle phosphorus and other nutrients
- Microbes in soils reduce bacteria levels in runoff

Rain gardens can help fix soil erosion problems by collecting excess water from rooftops or driveways. These special features can complement any home style, since there are many choices of shapes and plants for a rain garden. Communities across the country are restoring injured streams and reducing water treatment costs by installing rain gardens.



WHERE TO BUILD YOUR RAIN GARDEN

First, walk your yard in the rain and see where runoff from your roof, driveway and patio flows. Choose a spot where runoff naturally goes - the rain garden should be placed between the source of runoff and where it flows out of your yard. If the runoff stays in your yard and already soaks into the ground, you may not need to build a rain garden. It is also a good idea to talk to your neighbor if the garden will be close to the property line.

When choosing the location, your rain garden should be:

- at least 10 feet from the house foundation to avoid water seeping into your basement
- at least 25 feet from a septic tank leach field, or a private well
- located away from underground utilities (call DigSafe at 811 to check for locations of gas pipes and electric lines - at least three days before digging your garden)
- away from wet/soggy places where ponding persists after a storm
- away from tree roots that can be injured when digging the garden