



PLACE

Spring/Summer 2024

Brookline GreenSpace Alliance is a non-profit membership organization dedicated to the enhancement of open space in Brookline by supporting citizens in caring for their green spaces.

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Lawton Park Community Garden
Larz Anderson Auto Museum
Linden Parks Association

Cover photo: Richardson Bridge, location of the WATERGOAT. See page 4

Editor Marian Lazar

BGSA is a non-profit, tax-exempt organization under section 501(c)(3) of the Internal Revenue Code.

A Campaign to Rescue Raptors

Information and text for this article is from *MassAudubon.org*

Raptors, foxes, coyotes, and other predators keep Massachusetts' ecosystems in balance. But in recent years, shocking numbers of these iconic creatures have been sickened or killed after preying on rodents poisoned with second-generation anti-coagulant rodenticides (SGARs). Mass Audubon's Rescue Raptors initiative supports local campaigns in communities across Massachusetts to reduce the use of these poisons. To succeed, landowners, pest control professionals, and volunteer wildlife advocates in every community in our state must be involved.

Why Raptors Need Our Help

Second Generation Anti-Coagulant Rodenticides (SGARs) are a class of poisons that prevent blood from clotting, causing internal bleeding, organ failure, paralysis, and often death. While the federal government banned the retail sale of due to the dangers posed to children, pets, and wildlife, they remain legal—and widely used—by licensed pest control

professionals in Massachusetts. Although pest control professionals use SGARs to target mice and rats, these deadly poisons move throughout the food chain, with destructive consequences to the entire ecosystem. SGARs work slowly, so after ingesting bait, a rodent may live for several days, during which time it becomes more vulnerable to predators and scavengers. When a predator eats a poisoned rodent, SGARs pass into its own bloodstream in a process known as “secondary poisoning.”

How SGARs Poison our Wildlife and Communities

Just like a rodent that has ingested SGARs, a predator that consumes enough poisoned rodents will develop serious internal bleeding, leading to serious illness or death. In recent years, researchers have documented an alarming number of predators sickened and killed by SGARs. Veterinarians at the New England Wildlife Centers report treating hundreds of poisoned raptors, foxes, and coyotes each year. A recent study found that 100% of Red-tailed Hawks tested at a wildlife clinic in Massachusetts had SGARs in their bloodstreams. And a national study of 303 dead Bald Eagles found that 82% of the sampled birds had been exposed to rodenticides. Many of these birds died from other causes like collisions with vehicles, but exposure to rodenticides reduces an animal's health and alertness, making it less able to hunt and more susceptible to hazards. There's no way to precisely track how many predators have been killed by SGARs in the wild. But the anecdotal evidence suggests that we are systematically weakening species at multiple levels of the food chain.

Learn more about Mass Audubon's advocacy program against SGARs at <https://www.massaudubon.org/take-action/advocate/rescue-raptors>

Charles River Watershed Association's Advocacy Team is campaigning for “An Act Relative to Pesticides, H.825/487” a bill that would require applicators to report the use of lethal rodenticides and for publicly-owned properties like elementary schools, to consider other pest management options to create a safer environment for all. The bill has been reported out favorably and is currently before the House Ways and Means Committee. More information about CRWA's efforts at bit.ly/4aHxCKC

The Town of Brookline does not use SGARs on public property.

President's Message

The signs of spring are all around in Brookline. Flowers are blooming, birds are singing, and leaves are sprouting on the trees. Less visibly, but importantly, spring is budget season for Town government. On February 15 the town administrator unveils the Financial Plan and proposed budget for the coming fiscal year. Between then and the May Town Meeting, the budget is discussed and debated at many public hearings and meetings.

The Brookline GreenSpace Alliance (BGSA) takes a keen interest in the budget for the Town's Parks and Open Space Division. Thanks to Brookline's voters, who in May 2023 voted to approve a tax override, the Division's budget for the 2025 fiscal year includes three new full-time urban forestry positions, including a full-time tree warden. This increase in staff will help the Division to maintain and improve Brookline's tree canopy, and to implement the 2021 Urban Forest Climate Resiliency Master Plan.

Despite this good news, the BGSA is concerned that the Parks and Open Space Division budget may not be adequate to meet all of Brookline's park maintenance needs. When park maintenance is underfunded, the consequence is not just that parks look shabby and unkempt. Athletic fields become unplayable. Trails and play structures become unsafe. Facilities must be closed. And deferred maintenance means that costs only grow over time.

Under the leadership of Director Alexandra Vecchio, the Parks and Open Space Division has worked hard to use existing resources efficiently to maintain Brookline's parks, playgrounds, and other green spaces. The Division has teamed up with park Friends groups to organize volunteer activities such as holding community days to remove invasives, plant bulbs, and clean up trash in Brookline's parks. The BGSA welcomes and encourages these efforts.

The BGSA is nevertheless concerned that it will become increasingly difficult for the Parks and Open Space Division to bridge the gap between what it can do with its current funding and what needs to be done. Over time, the need for park maintenance grows as Brookline adds more parks, Brookline's population increases, and Brookline's residents use parks more frequently—a trend that began during the Covid pandemic and seems to be continuing. More parks and more park users mean more wear and tear, and increased needs for maintenance.

Climate change also adds to the need for park maintenance. In effect, there is a “climate change tax” that requires more spending on parks and open space. Severe storms damage or bring down trees, which then need to be removed or pruned by Town staff. Prolonged periods of drought make it harder for trees to survive, leading to higher expenses for planting new trees and removing dead ones. Trees that are suffering from the stress of temperature swings, severe storms, and drought may be more vulnerable to parasites and diseases. The overall warming trend may encourage the growth of hard-to-remove invasive species. As winter weather alternates between seasonably cold and much warmer temperatures, the freeze/thaw cycle damages masonry and paths.

Brookline may have to face the need to devote more resources to maintaining the parks and open spaces that help make Brookline a great place to live. The BGSA will continue to be an advocate for spending the funds and hiring the staff necessary to keep Brookline's green spaces in a good state of repair.

Sean Lynn-Jones

Sean Lynn-Jones is president of BGSA. He is a former chair of the Brookline Advisory Committee, the Town's finance committee.

Volunteers at a Hall's Pond Community Work Day.
Photo John Schreffler

Introducing

Caroline Reeves for the Muddy Water Initiative



The Muddy Water Initiative (MWI) is a small, grassroots environmental organization based in Boston's Fenway, committed to finding low-cost, community-accessible, volunteer-driven solutions to urban waterway pollution. We focus on direct action, believing that the only way to maintain an optimistic attitude in the face of the global climate crisis is to take individual, positive measures on a personal level to make a visible difference in our communities.

The Muddy Water Initiative is becoming well known for our work cleaning up the Muddy River with our weekly and biweekly volunteer teams. We are particularly well known for our WATERGOAT Project. Funded by state, city, and private monies, the MWI launched its signature device, the WATERGOAT river-surface debris net in Summer of 2020 and since then has been cleaning up the Muddy River with impressive results. The GOAT removes surface trash from the Muddy River that collects at Ipswich Street in Boston's Fenway neighborhood and stops this trash from degrading into micro-plastics which flow from the Muddy through the Charles to pollute our oceans and waterways.

We work with volunteers from local schools, universities, religious organizations, and corporate groups to clean up the river as a showcase for our approach to urban waterway remediation. We also organize citizen science projects to monitor contaminants in the Muddy River and work with Simmons University to measure phosphorus and other pollutants as student projects. We engage in political advocacy for the health of our waterways, design student art projects focused on bringing attention to the river, sponsor public art, and more. Founded in 2019, the Muddy Water Initiative has brought over 1,000 volunteers down to the Muddy River and removed three-quarters of a ton of trash from the River and its banks.

Using best practice debris-removal strategies and generously funded in our first three years by the BPDA Fenway Park Demonstration Project Community Benefits Grants, the Greater Boston Trout Unlimited, the City of Boston Community Preservation Act, private donations, and two state earmarks, the MWI is particularly grateful to the Brookline GreenSpace Alliance, which agreed to become our fiscal sponsor when our original sponsor, the New England Grassroots Alliance, discontinued their sponsorship program. With no paid staff, the Muddy Water Initiative relies on the support of volunteers and donors to continue our important work.

The Muddy Water Initiative's work offers a visible, accessible solution to the distressing and unsightly problem of water surface trash and riverbank trash that ends up in our urban waterways and from there in our oceans. This positivity and enthusiasm has animated all our WATERGOAT and Muddy River work and has resulted in the repeat involvement of many of our volunteers and volunteer teams. The abundant wildlife we have found in and on the banks of the Muddy River—turtles, black-crowned night herons, herring, and more—also benefits from the removal of the hazards that threaten them. This project is a win for all of the River's residents!

This year, the Muddy Water Initiative has organized a Farmers Market at Charlesgate Park on Sundays from June 23 to mid-October to bring attention to the river and to activate the Charlesgate area. We hope that our focus on local foodways and the beauty of the river park will bring more focus on our fabulous Muddy River green and blue spaces.

More information on the Muddy Water Initiative at www.muddywaterinitiative.org and on Facebook.

Muddy River Phosphorus Remediation

Michael Berger

From August 2022 to July 2023, a collaborative team from Simmons University and the Muddy Water Initiative conducted a pilot project to see if it would be possible to reduce the levels of phosphorus in the Muddy River. Excess phosphorus concentrations leads to eutrophication and excess algae growth, and contributes to toxic flora including cyanobacteria in the Charles River and red tide in Boston Harbor. The pilot project used sorbent materials placed in the Muddy between Ipswich and Richardson Bridges to determine if known phosphorus sorbents could reduce phosphorus concentrations. The sponsor of this pilot project was the Muddy Water Initiative, led by Caroline Reeves. Support for sampling and analytical support was led by Professor Michael Berger and students. Partners included the Massachusetts Department of Conservation and Recreation and the Brookline Department of Public Works. Funding was provided by the City of Boston – Community Preservation Act. Two locations were selected for study, one between the Richardson and Ipswich Bridges and one between Willow and Leverett Ponds.

Total phosphorus levels in samples collected at the Richardson Bridge (upstream of the Eutrosorb) and Ipswich Bridge (downstream of the Eutrosorb) were compared. Statistical analyses led to the conclusion that there was no significant difference between the upstream and downstream sampling sites. The results from this study indicate that the phosphorus reduction boom using Eutrosorb did not significantly reduce the total phosphorus concentration in the water column.

Eutrosorb is more effective where there is a high water flow and high phosphorus concentration. It is less effective when chloride concentrations are as high as they are in the Muddy River. These studies concluded that the most effective locations for the installation of Eutrosorb adsorbent would be optimum at the outfalls into the river, or in pipes leading to the outfalls; locations with lower chloride levels and greater water flow.

Additional findings

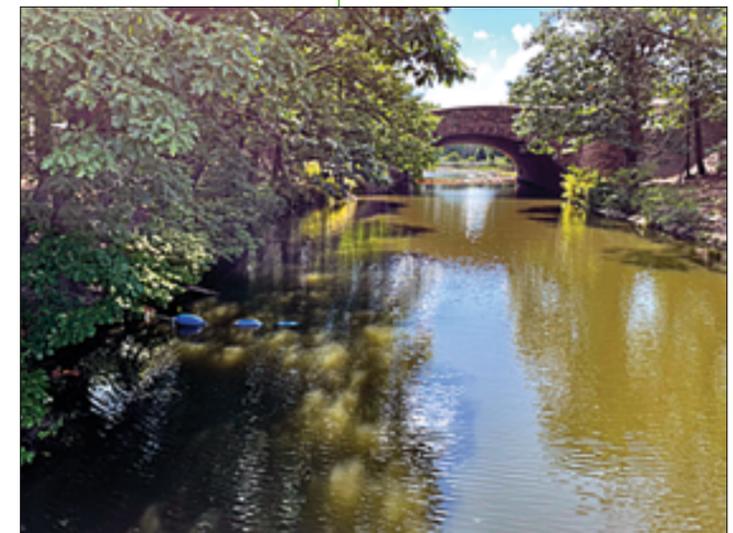
Samples were collected along the Muddy River and analyzed for total phosphorus, chloride, and E coli bacteria. The sample locations were Ward's Pond, Willow Pond, Leverett Pond, the USGS Gauge, Louis Pasteur Bridge, and Ipswich Bridge.

The upper part of the Muddy River generally has total phosphorus concentration below the EPA 2022 limit. The other parts usually exceed the limit. Chloride levels exceed chronic chloride limits at all locations. March samples were extremely high, probably as a result of road salt. Locations from Leverett Pond to Louis Pasteur Bridge were far higher than other areas on March 1, 2023.

What about bacteria? Coliform and E coli bacteria were assayed from samples collected at different locations along the Muddy River. Ward's Pond and Leverett Pond have the lowest levels of bacteria. The USGS Gauge location near Netherlands Road has the most.

In conclusion, it appears that the levels of phosphorus, chloride, and bacteria are still problematic and negatively affect the water quality, especially downstream of Netherlands Road.

Richardson Bridge and the WATERGOAT. The sorbent boom (blue) in the foreground. Photo Michael Berger





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t. 617.277.4777 www.brooklinegreenspace.org info@brooklinegreenspace.org

Get Involved

Have an idea for a park project? Opportunities exist to improve your neighborhood park. Do you have the approval of the Director of the Parks and Open Space Division? Apply for a small grant from the Brookline GreenSpace Alliance.

www.brooklinegreenspace.org.

Or apply for funds from the CPA (Community Preservation Act) www.brooklinema.gov/3541/Community-Preservation-Act-Funding.

Make A Difference! Join the Alliance



The New Tree Preservation Bylaw Now In Effect

The Tree Preservation Bylaw that Town Meeting approved in November 2022 is now in effect. The BGSA hopes that public awareness of the bylaw will encourage compliance and prevent further loss of Brookline's tree canopy. When there is demolition or construction on a residential property, the bylaw protects most trees within 20' of the property line from being cut down or requires that a payment be made into a fund that will be used to plant new trees.

Here are the key provisions: Within all residential districts of the Town, it is prohibited to remove a Protected Tree without a Protected Tree Impact and Removal Permit **during construction or within the 12 months prior to submitting an application for a demolition or building permit.**

A Protected Tree Impact and Removal Permit is required for demolition of an existing structure of 250 gross square feet or greater; construction of any building or structure on a vacant lot; or construction of one or more structures or additions to structures on a lot that increases the Gross Floor Area (GFA) by 50% or greater, as defined by Zoning Bylaw Section 2.07.1.

Check the calendar at www.brooklinegreenspace.org for upcoming events

May 9 BGSA Annual Meeting

May 19 Stewardship Sunday at Hoar Sanctuary

May 20 Tree ID Walk

June 1 Spring Fest

June 9 Stewardship Sunday at Hoar Sanctuary