



PLACE

Fall/Winter 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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Friends of Sargent Pond
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Friends of Waldstein Park
Garden Club of Brookline
Griggs Park Neighborhood Association
Lawton Park Community Garden
Larz Anderson Auto Museum
Linden Parks Association

Cover photo: Snowy woods near Lost Pond

Editor Marian Lazar

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

Funding for Brookline's Open Spaces

As Brookline faces a likely large projected budget deficit for in the coming fiscal year 2026—over \$1.3 million for town departments and over \$6 million for the schools—there is a real risk that the Brookline Parks and Open Space Division of the Department of Public Works may be level-funded for the coming fiscal year FY26. We must look at this in the context of the last several years. The Parks and Open Space Division has not recovered from budget cuts made during the Covid pandemic: personnel cuts that were necessitated then have not been fully funded and vacant positions have not been filled. So cuts to the Parks budget, or even level funding, would not provide for current needs or expectations we put on this Division.

The Parks and Open Space Division maintains over 120 properties and 500 acres of Town-owned park and recreation facilities. “The goal is to provide a network of well-maintained parks and open spaces that fulfill the passive and active recreational needs of the community, preserve the historic, and cultural integrity of the landscape, enhance the environmental resilience within the Town, and provide access to all. The Division coordinates implementation of the Climate Action Plan across the Department of Public Works; supports ecological initiatives in collaboration with other Divisions and Departments; develops partnerships, education and outreach to support the Town’s natural resources, parks and open spaces and the residents’ ability to enjoy and connect to them.” Conservation including administering the Wetlands Protection Act, public grounds—over 485 acres of public land, school grounds—32 acres of landscaped areas around ten public schools, forestry maintaining over 60,000 shade trees, cemetery—the 48.5 acres of the Walnut Hills Cemetery and the Old Burying Ground, and the skating rink comprise the six elements under the care of the Division.

A few of the accomplishments of FY 24 include:

- Designing and installing three accessible public parklets in commercial areas
- Implementing interpretive signage to support passive education opportunities in Fisher Hill Reservoir Park
- Establishing and implemented sustainable event guidelines for all parks and open space community events in coordination with the Highway and Sanitation Division
- Developing Standard Operating Procedures (SOP) for Community Events Marketing, our Public Tree-Planting Program, and our Green Dog Program Administration and Management
- Conducting a tree inventory of public trees located at Skyline Park and Amory Playground and added this dataset to the existing GIS-based database of trees as outlined in the Urban Forest Climate Resiliency Master Plan
- Completing the Design Review process for Monmouth Playground
- Completing the Design Review process for Skyline Park trails, comfort station, and pavilion
- Supporting the Town’s Rodent Control Action Plan by adding an additional 22 Big Belly trash and recycling receptacles in the parks and public grounds.

President's Message

The November 2024 Town Meeting considered two warrant articles of special interest to the Brookline GreenSpace Alliance (BGSA), which recommended favorable action on each. Town Meeting approved both articles by large majorities.

Article 16 amended Brookline’s Tree Preservation Bylaw to extend protection to more trees on private property and in areas zoned for commercial use. Proponents, including several motivated and knowledgeable petitioners who had not previously brought a warrant article to Town Meeting, argued that trees combat climate change by sequestering carbon and also limit the effects of climate change by cooling the air and managing stormwater runoff. Large, mature trees play a particularly important role as “carbon rock stars.” Supporters pointed out that Brookline’s tree canopy has been shrinking due to the removal of trees on private property.

Despite Town Meeting’s decisive vote in favor, Article 16 faces an uncertain future. Town Counsel Joe Callanan has argued that the new bylaw is unconstitutional because it, in effect, takes private property. Former Town Counsel Joslin Murphy disagrees. Even if Article 16 survives potential legal challenges, implementing it will require adding Town staff and vehicles. The BGSA stands ready to support implementation of Article 16 and to ensure that Brookline’s Parks and Open Space Division is able to implement the new bylaw without reducing its ability to maintain trees on public property.

Article 18 was filed as the result of growing concern that Second-Generation Anticoagulant Rodenticides (SGARs) intended to kill rats are instead poisoning and killing the birds of prey that hunt rodents. Although the rat infestation in Brookline is a serious problem, the best response is an Integrated Pest Management strategy that denies rats access to food sources instead of trying to poison rats. Article 18 called for Brookline to file a Home Rule Petition with the state legislature that, if approved, would give the Town the authority to ban or otherwise regulate (SGARS). Proponents of Article 18 argued that other communities are requesting similar legislation and that by joining this budding movement Brookline could help to generate momentum for banning SGARS.

Like Article 16, Article 18 was notable for mobilizing Brookline residents who had not been active in local politics or Town Meeting. The filing of the article coincided with the emergence of a new group, the Friends of Brookline Raptors (<https://friendsofbrooklineraptors.org>), that urged Town Meeting members to support Article 18.

It remains to be seen whether Article 18 will achieve its goals of reducing or eliminating the use of SGARS. The state legislature may not approve Brookline’s Home Rule Petition or move toward imposing a statewide ban on SGARS. In any case, Article 18 has called attention to the risks of rodenticides and helped mobilize opposition to the use of SGARS. BGSA supports these efforts to protect raptors.

Shortly after Town Meeting ended, Tom Brady, Brookline’s longtime tree warden and town arborist, announced that he would be leaving his current position of urban forestry manager to become director of public works in Watertown. Tom’s many contributions to Brookline include his work on the Urban Forest Climate Resiliency Master Plan and multiple Open Space Plans, a major role in the Muddy River Restoration Project, and, above all, a magnificent urban forest. He also has been a great friend to BGSA and has led many very popular tree identification walks. We thank Tom for all he has done for Brookline and wish him every success in his future endeavors.

Sean Lynn-Jones

Sean Lynn-Jones is president of BGSA.

What A Year!

A Carlton Street Footbridge Update

In September 2023, Brookline celebrated the reopening of the Carlton Street footbridge. Since then, the renovated span has proved to be very popular, and it has won several awards.

The number of people using the footbridge has greatly exceeded expectations. According to counts conducted by Brookline’s Department of Public Works (DPW), almost 100 pedestrians and cyclists cross the bridge each hour during peak periods. That is three times as many peak-hour users as had been projected by a study commissioned by the Town in 2001, when Brookline was beginning to assess the benefits of reopening the Carlton Street footbridge.

The Carlton Street footbridge and those who played a leading role in its renovation were honored with five awards during 2024. Some recognized the renovation project itself, as well as Bill Smith of Brookline’s DPW. Others recognized the DPW or the Kleinfelder engineering firm, employer of Andre Martecchini, who provided consulting services for the project.

Preservation Massachusetts gave its Paul and Niki Tsongas Award to Bill Smith and the Carlton Street footbridge project. The American Public Works Association named Brookline’s DPW a National Award Winner, Public Works Project of the Year. The American Council of Engineering Companies gave a National Recognition Award for Engineering Excellence to Kleinfelder. The Brookline Neighborhood Alliance and the Brookline GreenSpace Alliance gave Bill Smith awards in recognition of his work on the footbridge and other projects.

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Climate Change and Brookline: Expected and Unexpected Consequences

To the surprise of some, climate change in the short term may be a good thing for Brookline. Two to three degrees of warming has taken some of the bite out of New England's harsh winters and has brought earlier springs. This warming will speed up in the decades to come, though, and the positive and negative consequences of these changes will likely magnify over time. Here we discuss some effects of climate change in Brookline, including some that residents may not be familiar with.

Summer heat waves

The increasing frequency and length of heat waves means that air conditioners have become more of a necessity, especially for vulnerable populations like the elderly and people facing health challenges. Outdoor sports, gardening, and other work activities are sometimes cancelled or rescheduled to avoid extreme heat waves. High temperatures also cause heat stress in birds and plants. Birds may be less likely to breed, and nestlings, which are more susceptible to dehydrating or overheating, may die. Plant growth can slow, and leaves can be damaged from sunburn. Plants can also wilt and die without adequate rain or irrigation.

Longer growing seasons

With earlier springs, late autumns, and longer growing seasons, people can enjoy more time gardening and can cultivate a wider variety of plants. Nurseries and farms have longer periods to grow and sell their products. However, longer growing seasons can also increase the prevalence of plant and animal pests, invasive species, and diseases, putting native species at risk. They may increase the population of ticks and mosquitoes that spread diseases that affect human health, such as Lyme Disease, West Nile Virus, and Eastern Equine Encephalitis. Longer growing seasons also add to the demand for

water for vegetation, particularly during hot summer months, putting more strain on Brookline's water supply and infrastructure.

Milder winters

The amount of rain relative to snow is increasing during winter, and when precipitation falls as snow it does not last on the ground as long as it used to. Less snow means less work shoveling snow and many plants can benefit from warmer winters. Magnolias are growing better in our yards, and soon we will be able to grow camellia, crepe myrtles, and other species adapted to warmer climates. However, less snow makes it harder to sustain winter sports such as outdoor ice skating and skiing, which increasingly relies on human-made snow. Without a blanket of snow as insulation, some trees and shrubs are more prone to root damage and small animals like insects can die when weather turns bitter cold and freezes the soil where they live.

Extreme rains and floods

More rain is falling in stronger downpours. Much of Brookline is built on former wetlands and

mudflats, and the drainage infrastructure is not designed to handle extreme rainfalls. If we were to see extreme rain like what fell in Asheville, North Carolina earlier this year, basements and streets could flood, especially near the Muddy River and Chestnut Hill. Below-ground rail transit stations could fill with water, putting the MBTA out of action. Sections of major roads like Beacon Street, Brookline Avenue, Boylston Street, and Harvard Avenue might become impassable rivers.

Drought and fires

Between extreme rainfalls, drought is becoming more common, as we experienced this past autumn. Trees respond to drought by shedding leaves to save water, and birds depart early for their wintering grounds. Drought increases the risk of ground fires in woods and brushy areas. These fires can threaten homes and other buildings, especially to the south of Route 9. And fires in surrounding communities can create clouds of smoke and hazardous air quality in Brookline, as we saw during recent fires in New England.

Sea level rise and storm surges

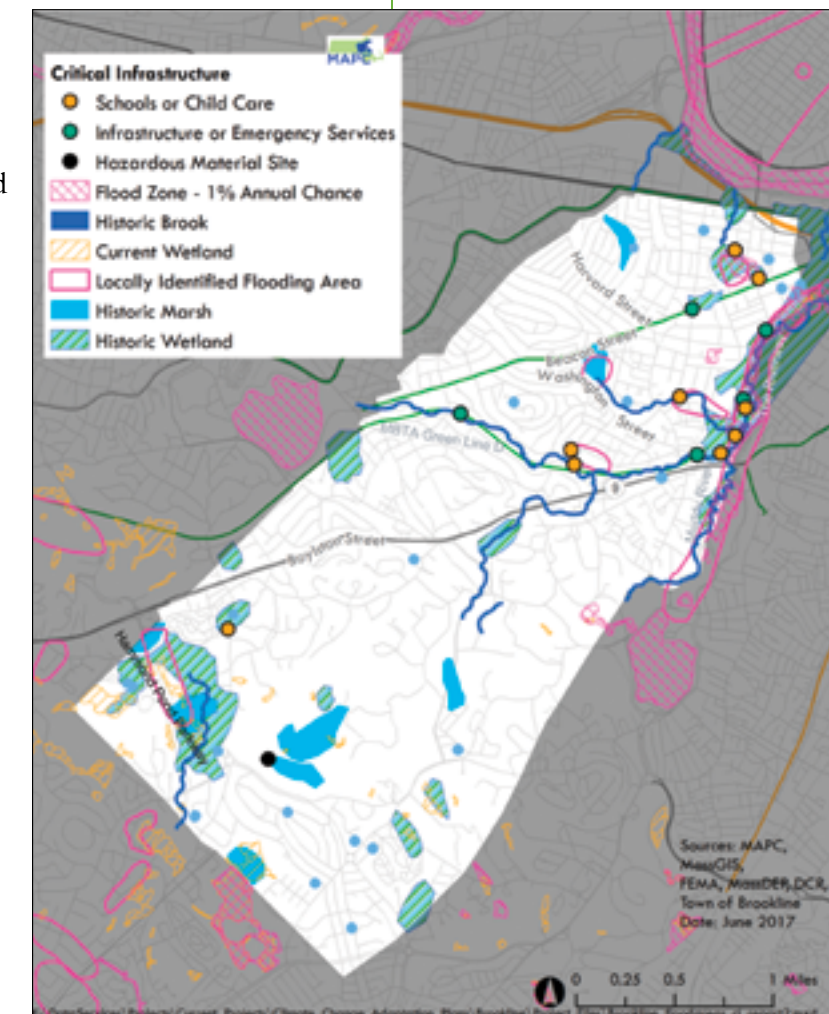
The dams and sea walls protecting Boston are designed for the ocean and weather of the last century. Since 1910 sea level in Boston has risen by about 10 inches. If Boston gets hit by a hurricane or major storm during a high tide, seawater will surge into the Charles River Basin, and could flood much of the Back Bay area from Kenmore Square to the Public Garden and along the Muddy River to Brookline Village. Such events are more likely in coming decades as sea levels continue to rise and hurricanes become more intense.

What should we do?

It's easy to become overwhelmed by these changes and the challenges they pose. However, there are actions we can take to keep our community healthy. First, we should work as individuals and together to reduce our emissions of carbon dioxide and other greenhouse gases that cause climate change. Second, we should make sure that the systems of Brookline and Boston are designed and maintained to deal with the changing conditions, especially flooding and heat waves. We cannot reverse climate change immediately, but we can build resiliency. Third, we should protect and expand our greenspace, including planting more trees to cool local temperatures, manage stormwater, prevent soil erosion, and provide habitat for our local animals that must cope with climate change too. Last, we should talk about climate change and the need to adapt. Talking can increase understanding, build social momentum, and inspire action. And effective action is what we need.

Richard B. Primack and Pamela H. Templer

Richard Primack and Pamela Templer are Professors at Boston University, and Templer is a Brookline resident and member of the Tree Planting Committee.

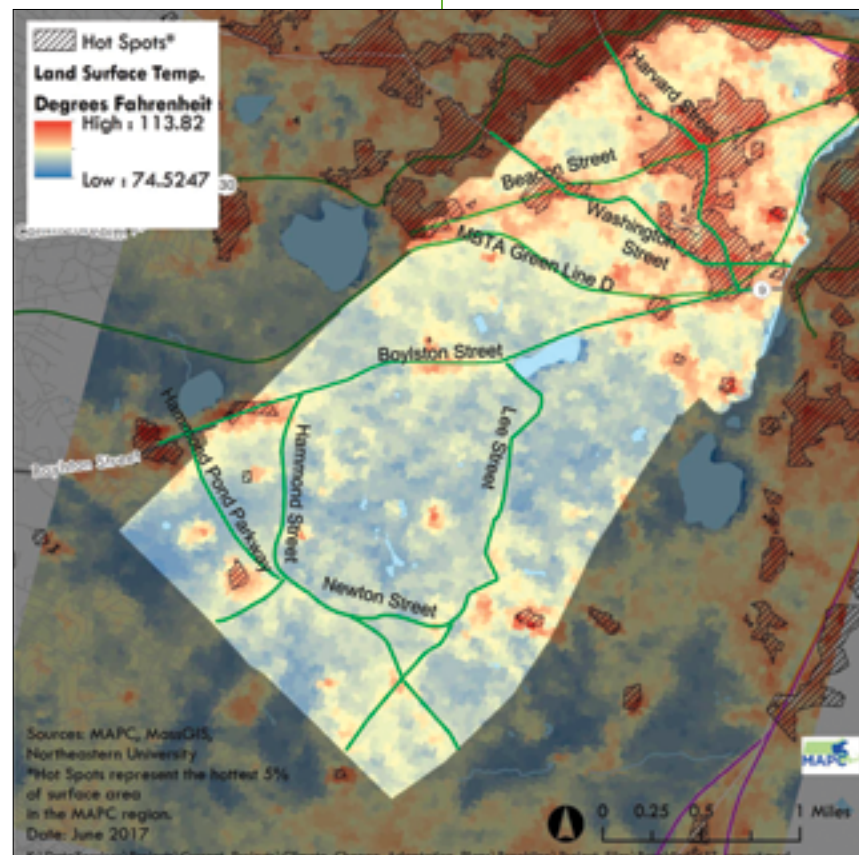


Flood zones, historic wetlands, and historic brooks in Brookline. Note that the entire northeast of Brookline in the vicinity of the Muddy River is susceptible to flooding, including sections of the Green Line, Boylston Street (Route 9), and the Riverway; other flood susceptible areas occur in Chestnut Hill around the Hammond Pond Parkway and various sections of Beacon Street.

Town of Brookline Climate Vulnerability Assessment and Action Plan, December 2017

Hot spots in Brookline are concentrated north of the Green Line D Branch, and are found mainly in areas near Harvard Street and Beacon Street.

Town of Brookline Climate Vulnerability Assessment and Action Plan, December 2017.



Invasive Ornamentals in the Garden: Identification and Replacement

Volunteers and town staff devote hundreds of work hours a year to removing invasive plants from our public green spaces. Understanding how the plants were introduced and why they are troublesome may help us avoid similar problems in the future. In most cases, invasive plants were introduced intentionally as garden ornamentals on private property. From there, seeds dispersed through water, wind and wildlife onto public properties where invasive intruders crowded out native plants. Starting in 2006, Massachusetts banned the sale of invasive plants on its Prohibited Plant List, yet the legislation does not require the removal of plants already on private properties. Property owners must take it upon themselves to learn about invasives and the problems they cause. Below are invasive plants found regularly in Brookline's green-spaces, along with alternative native plants that provide similar ornamental value. Native plants are essential for our local insect populations, and the well-being of our local insects facilitates the survival of all other life up the food chain. Most of the time, invasive plants provide no comparable ecological benefits.

Lesser Celandine (*Ficaria verna*), also known as Fig Buttercup, has a yellow flower that appears in early spring and grows in dense mats. Native to Europe, Africa, Asia, and Siberia, it was introduced as ornamental ground cover in the mid-1800s. It displaces native plants with an underground system of rhizomes that crowd out other plants' root systems. Tenacious and nearly impossible to remove without chemicals, it has infiltrated conservation areas where chemicals cannot be used. A nearly identical native plant, without invasive tendencies, is Marsh Marigold (*Caltha palustris*).



Lesser Celandine

Yellow Flag Iris (*Iris pseudacorus*) is a perennial native to Europe, Africa, and Asia that was introduced as a garden ornamental in the 1900s. It has also been used for erosion control and absorption of bacteria and heavy metals in wetland rehabilitation projects. Yellow iris spreads quickly in wetlands and forms dense mats of rhizomes that are almost impossible to remove. Native alternatives with yellow flowers of similar height include woodland sunflower (*Helianthus divaricatus*), yellow wild indigo (*Baptisia tinctoria*) and any of the goldenrods.

Multiflora Rose (*Rosa multiflora*) is an invasive perennial imported from Asia. Banned in many states including Massachusetts, it is nevertheless sold online and continues to be used as a garden ornamental. Grow-



Multiflora Rose

ing up to 15 feet high and 15 feet wide, it uses other plants and trees as scaffolding while crowding out their leaves and smothering them. Native alternatives include New England Rose (*Rosa nitida*), Swamp Rose (*Rosa palustris*), and Pasture Rose (*Rosa carolina*).

Japanese Barberry (*Berberis thunbergii*) is an invasive shrub introduced from Asia in the 1870s. Popular as a landscaping plant, it forms dense thorny thickets and provides vibrant color. Its red fruits are attractive to birds who disseminate the seeds on public lands where it displaces native shrubs. Native landscaping alternatives with vibrant red color include Red Twig Dogwood (*Cornus sericea*), Smooth Sumac (*Rhus glabra*), and Winterberry (*Ilex verticillata*).

Purple Loosestrife (*Lythrum salicaria*) is a perennial, native to Europe and Asia that spreads quickly throughout wetlands and displaces native plants through the spread of its seeds. Each mature plant can produce up to three million seeds annually. Once established, Purple Loosestrife can dominate an area to the complete exclusion of all other plants. The annual cost of removing Purple Loosestrife from public lands was calculated in the 1990s at \$45 million, yet its seeds are still widely available for sale via online sources. Native alternatives with similar color include Anise hyssop (*Agastache foeniculum*), New England Blazing Star (*Liatris novae-angliae*), and Blue Vervain (*Verbena hastata*).

Similar stories of landscaping that went out-of-control can be told for Glossy Buckthorn (*Frangula alnus*), Autumn Olive (*Elaeagnus umbellata*), Burning Bush (*Euonymus alatus*), Japanese honeysuckle (*Lonicera japonica*), Asiatic Bittersweet (*Celastrus orbiculatus*), and many other invasives. To ensure we are doing no harm to the environment, we can and should learn what plants we have on our properties, replace invasives with native alternatives, and conduct research using authoritative resources before putting new plants into the ground. Attention to our landscaping choices can save taxpayer money while protecting native wildlife.

Ann Frechette

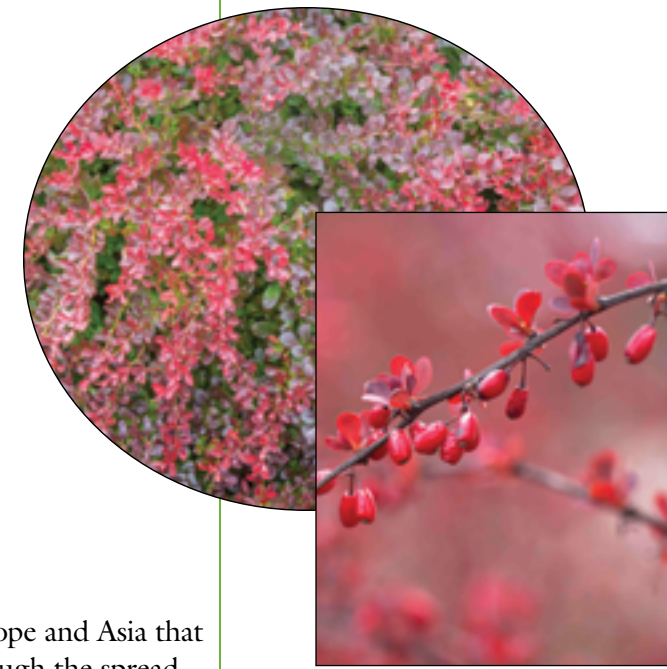
Ann Frechette is co-president of Friends of Hall's Pond and a member of the BGSA Board of Directors

Resources

Massachusetts Prohibited Plant List: <https://www.mass.gov/info-details/massachusetts-prohibited-plant-list>

Mass Audubon Guide to Invasive Plants: <https://www.massaudubon.org/nature-wildlife/invasive-plants-in-massachusetts>

Native Plant Alternatives: <https://plantfinder.nativeplanttrust.org/Plant-Search>



Japanese Barberry
Above: shrub
Below: detail of branch and fruit



Purple Loosestrife

Yellow Flag Iris





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Funding for Open Space - continued from page 2

FY 25 Objectives for Parks & Open Space include:

- Completing the construction of Monmouth Playground (Strategic Plan Obj. 1.3B)
- Commencing construction of Skyline Park trails, landscape improvements, comfort station, and pavilion
- Completing construction bid documents for Schick Park
- Commencing construction of Amory tennis courts, comfort station, parking lot, and Hall's Pond Boardwalk
- Completing the updated seven-year Open Space and Recreation Plan
- Completing a Pollinator Garden Plan that outlines the location, care, and maintenance of pollinator gardens in the public way
- Establishing at least one new community garden, possibly in partnership with Brookline Schools, that utilizes compost generated by Brookline residents through our Black Earth partnership
- Developing tree planting guidelines and best practices for planting in commercial areas
- Completing the trail enhancement and rehabilitation at D Blakely Hoar Sanctuary
- Organizing a minimum of four new public events in Brookline's parks and open spaces that encourage stewardship, maintenance, and increased beautification with public support
- Completing engineering and construction bid documents for the restoration and preservation of historic structures at Larz Anderson Park
- Reviewing the current Brookline Wetlands Bylaw and Regulations to more effectively incorporate climate resiliency and adaptation best practices when protecting wetland resource areas

Join the Alliance



We ask a lot of our Parks & Open Space Division. When we look at the responsibilities and goals of this Division and its impact on quality of life in Brookline, let's keep in mind that we must invest adequately to get the benefits of well-maintained green spaces and a healthy environment. We must prove our values by properly funding this Division at least at pre-Covid levels.

Town information is taken from the Brookline FY2025 Financial Plan.

Arlene Mattison

Arlene Mattison is the former president of BGSA and member of the Board of Directors