

Section 7: Analysis of Needs

A. Introduction

For a built-out City, Newton enjoys a wide range of natural resources. The Charles River borders the City for 12 miles; woods, fields, wetlands, lakes, ponds, streams, and rolling hills provide both a variety of wildlife habitats and pleasant, varied environments for Newton’s residents to enjoy. With the ever-increasing value of Newton’s real estate, along with ongoing development pressures, protecting Newton’s diverse, yet limited, open spaces is essential if residents wish to continue enjoying these precious resources. Information about the community’s needs was gathered from several on-line surveys and two large public meetings as well as through the members of the OSRP Committee acting as liaisons for their individual constituencies. The results of these forums and surveys can be found in **Section 10: Public Comment**.

This *Open Space and Recreation Plan* aims to better maintain, enhance, and connect Newton’s open space resources for the invaluable benefits open space confers to residents, neighboring communities, and visitors.

Ongoing maintenance of public open space and recreation areas is a persistent challenge that requires innovative approaches. Making more of the open space and recreation facilities more accessible in an established and built-out City is a significant challenge, but one that must be addressed head-on. Stewardship of publicly owned open space is multi-faceted, and involves improved management planning, efficient management coordination (between departments, organizations, Friends groups, coaches and volunteers), and new sources of financing to augment existing City funding.

Forests, open land, wetlands, rivers, and streams provide vital values and services, such as improved mental and physical health, reduced ground temperatures, cleaner air, reduced floods, and vibrant ecosystems. Woods, fields, and trails provide recreation opportunities and alternative mobility options.

This plan also considers the need for equitable distribution of open space resources throughout the City.

One of the most significant new issues that this Plan addresses is climate change; this Plan aims to address how changing climatic conditions will affect open space, and how open space can help mitigate climate change.

B. Summary of Resource Protection Needs

Maintaining Healthy Natural Environments

Introduction

Given the heavy use Newton’s open space resources receive, there is a need for targeted stewardship of Newton’s most precious open spaces.

The Charles River, Tributary Streams, Lakes, and Ponds

As non-point source pollution continues to impair the Charles River, as well as Newton’s streams, lakes and ponds, there is growing interest in nature-based stormwater-solutions—such as rain gardens, street trees, and bioswales—to slow and filter stormwater before it enters the Charles River or its tributaries. The Center for Urban Forestry encourages communities to use “water retention, flood management, and pollution control strategies” such as, “porous pavement, vegetated swales and filter strips, recharge areas under parking lots, holding tanks and cisterns under playfields, surface area holding ponds, turf grass filters, and riparian retention and treatment areas.”

The City is implementing a massive, 20-year stormwater infrastructure improvement plan that will help it meet the requirements of the City’s National Pollution Discharge Elimination System (NPDES) Municipal

Separate Storm Sewer (MS4) permit by reducing impervious surfaces and retrofitting sites with green infrastructure. The City also focused on green stormwater infrastructure improvements in the Climate Change Vulnerability Assessment and Action Plan and Climate Action Plan. Combining conventional stormwater control methods with green infrastructure will help alleviate flooding and slow and filter stormwater.

Resident concerns about water quality and nutrient overload in Crystal Lake were significant, because occasional blue-green algae blooms threaten pets and swimmers and lead to the closure of the swimming beach.

Currently unprotected parcels that abut the City's water resources should be prioritized for enhanced management and additional protection, as appropriate.

Healthy Natural Areas

316 acres of Conservation Commission land and 239 acres of Parks, Recreation & Culture (PRC) land are devoted to passive use and the preservation of wildlife, and include woods, open fields, wetlands, lakes, and the Charles River. The 2011 Comprehensive Plan calls for the development of a City-wide management plan for stewarding Newton's natural areas, and there is growing interest from the community, especially in light of climate change and the new appreciation for public open spaces that the COVID-19 quarantine has brought.

All natural areas open to the public in Newton are used intensively and require appropriate management. From the proliferation of trails through natural areas to the presence of dogs, human impacts on these natural areas must be managed to ensure that robust habitats are preserved.

Aggressive invasive plants are threatening ecological diversity; native plants, mammals, birds and insects are all threatened by invasive plants. The Newton Conservators, a non-profit local land trust, has organized many invasive plant removal sessions, focusing on Japanese knotweed, Asian bittersweet, glossy buckthorn, and garlic mustard. There is a desire not only to remove invasive plants, but to replace them with native plants that will encourage a thriving, native, biodiverse ecology.

Monitoring of the City's trees for evidence of climate induced stressors, and spreading pests and pathogens, should inform management plans.

Ecological Connectivity

Isolated, fragmented open space poses a problem for wildlife and lowers its ecological value. Wildlife often cannot traverse the developed land between patches of otherwise viable habitat. Green corridors connecting healthy parcels of open space support the movement of wildlife and the persistence of plants, enhancing biodiversity and enabling the survival of species threatened by development. Improvements might include replacing invasive plants with native plants, increasing the numbers of native street trees, incorporating pollinator habitat in parks, including infrastructure (such as culverts) to assist in species' migrations, and enhancing wildlife corridors. Places that would benefit from increased ecological connectivity include areas along the Charles River, areas near the aqueducts, areas near Newton Cemetery and Arboretum, areas near Hammond Pond, and areas with significant wetlands, such as Cold Spring Park and Webster Woods.

Urban Canopy

Trees provide economic, environmental, and aesthetic benefits including improving the quality of air and water; controlling erosion; providing shade and moderating air temperature; absorbing carbon; reducing noise; enhancing appearances; encouraging biking and walking; and increasing property values. Trees help reduce the impacts of climate change by mitigating heat islands, intercepting stormwater, sequestering carbon, filtering air, providing shade that makes pedestrian transportation more comfortable, and providing habitat for wildlife. Many of Newton's plans, including the 2011 *Comprehensive Plan*, the *Complete Streets*

Policy, the *Street Design Guide*, and the 2018 *Climate Change Vulnerability Assessment and Action Plan* have called for increasing the urban canopy. At the current rate of loss of approximately 800 trees per year, the City is just barely planting enough to cover its losses. The Division of Urban Forestry collaborates with the Newton Tree Conservancy (a nonprofit, volunteer group founded in 2008) to plant new trees at a rate of about 850 per year. The City should be sure to maintain an updated street tree inventory, an aggressive urban canopy tree coverage goal, and an updated planting plan. Monitoring and advocating for the repair of gas leaks by National Grid would further promote a healthy urban forest.

Protecting Open Space

Introduction

Publicly owned open space, as enumerated in Section 5: Inventory of Lands of Conservation and Recreation Interest comprises lands devoted to passive and active recreation as well as wildlife and forest conservation. All such areas in Newton are open to the public and are well used.

Better protecting Newton's open space resources was identified a priority. This theme reflects three clear interests: (1) placing stronger legal protections against future development on existing parks and conservation lands, (2) planning for the protection of portions of large, privately owned open space parcels, such as golf courses, and (3) protecting open space resources and Newton's citizens from the impacts of climate change.

Legal Protection

Input from both community meetings as well as the results of the community survey emphasized the desire to protect the City's open spaces in perpetuity. This magnitude of the public response is likely attributable to the inclusion of park spaces on a list of potential sites for the City's proposed new senior center (referred to as NewCAL). There was a strong opposition to converting an existing park to the proposed NewCAL facility; subsequently, all park locations were removed from consideration.

Open space resources in Newton have different levels of protection:

- 1,335 acres of publicly owned open space within Newton are afforded limited legal protection under the **MA Constitutional Amendment Article 97**. Article 97 "of the Articles of Amendment to the Massachusetts Constitution, approved by the Legislature and ratified by Massachusetts voters in 1972, provides that lands and easements taken or acquired for conservation purposes shall not be used for other purposes or disposed of without the approval of two thirds roll call vote of each branch of the legislature. Article 97 is intended to be a legislative 'check' to ensure that lands acquired by state entities and municipalities for conservation purposes are not converted to other inconsistent uses. (Cullina, 2020)
- 80.95 acres of City-owned land in Newton are protected by **Conservation Restrictions**, which provide protection from development in perpetuity. Parcels with Conservation Restrictions include (but are not limited to) Newton Commonwealth Golf Course, Kessler Woods, Nahanton Woods, Winchester Swamp, Oak Grove, Dolan Pond, and Flowed Meadow Conservation area. Other parks and natural areas in the City without Conservation Restrictions should be evaluated to determine their priority for permanent protection.

The City and its partners who hold Conservation Restrictions have ongoing obligations to ensure that encroachments by development or dumping are addressed in a timely manner. The City has added to the inventory of Conservation Restrictions and will work to monitor and address encroachments. Members of the public echoed a suggestion promoted by the State Division of Conservation Services that municipalities undertake an assessment of their open spaces and identify priority parcels that would benefit from having either a confirmatory deed and/or a Conservation Restriction placed on them.

- The three private golf courses in Newton are registered under **Chapter 61B**, which means these properties pay reduced local property taxes at 25 percent of their commercial value, if they are maintained as open space resources. Chapter 61B is an incentive to protect the land under its current use, but it is not a true legal protection. Chapter 61 (which includes sections 61, 61A, and 61B) is a current use tax program, providing landowners with tax abatement incentives in exchange for a commitment to keeping some or all their land undeveloped for specific periods of time. Land enrolled in Chapter 61B must fall into one of two categories: Open Space or Recreation. Land enrolled in Chapter 61B is assessed at no more than 25 percent of its non-Chapter market value. Chapter 61B properties are enrolled on a seven-year basis. If landowners remove their lands from Chapter 61 before expiration, they must pay back-taxes owed and the municipality is awarded the Right of First Refusal.

The City should ensure that its existing open space resources have in place appropriate deed language to ensure that Article 97 protection will be afforded. Priority natural areas should be provided perpetual conservation restrictions.

Golf Courses

The City-owned Commonwealth Golf Course is protected by conservation restrictions. The state-owned Leo J. Martin Golf Course has some level of protection under Article 97 of the state constitution.

Of the 935 acres of privately owned open space in Newton, Newton's three private golf clubs alone account for 542.7 acres (58%) of privately owned open space, and 24% of all open space in Newton. At present, all three private golf clubs are zoned for single-family residential use and all are enrolled in Massachusetts' Chapter 61 Current Use Tax Program under Chapter 61B — open space and/or recreation.

Under Chapter 61B, if the golf courses prepare to sell or convert to a non-Chapter use, the City of Newton (or a designated conservation agency) has the "Right of First Refusal," an "option which must be exercised by the municipality within 120 days of: (1) receiving a notice from the owner that complies with the law (in the case of a sale), or (2) the agreement of the consideration (the market value) in the case of a conversion by the owner." After exercising the First Refusal option, the municipality must then acquire the property within 90 days, unless an extension is agreed upon with the owner. Given the high value of land in Newton, it is important that Newton evaluate and develop a process and strategy for balancing the needs of the City should one of the privately owned golf courses be considered for sale or development.

Protecting Private Open Space for Ecological and Recreational Values

A number of currently privately owned parcels in Newton have the potential to provide public ecological and/or recreational value. Currently, none of these parcels have any form of legal protection and so could be developed or altered and their ecological and recreational value lost. The City should work with landowners to consider ways to protect the highest value portions of these parcels as needs demand and funding allows.

Protecting Open Space and Newton's Citizens from the Impacts of Climate Change

Open space resources can be adversely affected by climate change. Extended periods of heat and drought, more severe flooding, new pests, invasive species, and erosive stormwater runoff can damage native woodlands and meadows. Well-managed natural habitats support native plant diversity, insects and birds. Robust, healthy natural areas will be more resistant to such stresses brought on by climate change. Well-maintained athletic fields with proper drainage infrastructure can support heavy active recreation uses, while reducing the harmful effects of stormwater runoff. Shaded, connected paths and trails between open spaces, schools, and village centers will support more pedestrian activity. A healthy urban forest benefits both wildlife and people.

Newton's 2018 *Climate Vulnerability Assessment and Action Plan* identifies areas in the City that may be more vulnerable to rising temperatures and increased storms and suggests strategies for protecting humans,

property, and green spaces. Open space (wooded areas in particular) and green infrastructure can curb the damaging effects of climate change: rising temperatures, increased stormwater runoff, and diminished ecological communities.

Open space (and wooded areas in particular) can also help to mitigate greenhouse gas contributions through carbon sequestration. Trees currently sequester over 13 percent of all carbon dioxide emissions in their trunks, roots, and foliage. According to Newton's *Climate Action Plan*, the City aims to become entirely carbon neutral by 2050. The *Climate Action Plan* describes a path towards carbon neutrality including numerous ambitious technological strategies, such as electrifying vehicles and increasing renewable energy production, but it also calls for accelerated tree planting.

C. Summary of Community's Needs

Introduction

The National Recreation and Parks Association standards recommend 15 acres of publicly accessible open space per 1,000 people, and the regional standard is 10 acres per 1,000 persons (2019). Newton currently has approximately 24 acres of open space per 1,000 people, with a total population of 88,994 (based on 2017 US Census Bureau population statistics). Open space with public access, however, totals 1,323 acres, constituting 11.5% land area, and provides 14.9 acres of open space per 1,000 people. Newton's open spaces are not evenly distributed throughout the City due, in large part, to historical development patterns (**Figure 2 in Section 5**). Newton's status as a mature, built-out urban environment limits the potential for expanding open space, making maintenance, improvement, and protection of existing resources particularly important.

The Massachusetts Statewide Comprehensive Outdoor Recreation Plan, also known as SCORP, is the state equivalent of an OSRP. It discusses the benefits of protecting land for outdoor recreation and open space, the state of the state (as regards geology, population, development, and economics), the outdoor recreation supply in Massachusetts, outdoor recreation demand, goals and objectives for the state. SCORP has prioritized the needs of the state into four goals:

- Goal 1. Access for Underserved Populations
- Goal 2. Support the Statewide Trails Initiative
- Goal 3. Increase the Availability of Water-based Recreation
- Goal 4. Support the Creation and Renovation of Neighborhood Parks

Newton's process, as well as the six goals that it ultimately developed (below), reflect some of those in the SCORP. In particular, SCORP Goal 1 and Newton Goal 4 are closely aligned and SCORP Goal 4 and Newton Goals 2, 4, and 6 are closely aligned.

- Goal 1: Implementation: Coordinated planning and adequate funding for the management and maintenance of the City's open space resources.
- Goal 2: Maintenance and Improvement: Maintained and improved open space recreational resources (i.e., athletic fields, parks, playgrounds, trails, hard courts, off-leash areas, and other recreational facilities). Natural areas with intact native habitats, limited invasive species, maximized native plants, maintained or reestablished natural hydrology, and improved water quality. Optimized extent and health of the City's urban canopy.
- Goal 3: Accessibility: Maximized accessibility of as many of Newton's Outdoor Recreation Facilities and Natural Open Spaces as feasible.
- Goal 4: Minimized Gaps in the Availability of Open Space Resources: New and improved open space resources in areas of greatest need including, but not limited to, Environmental Justice areas, areas affected by heat island effects, and areas lacking certain types of local open space resources.

- Goal 5: Connectivity: Linked open space resources with accessible paths, bike lanes, and trails.
- Goal 6: Protection: Protected and expanded open space resources.

Maintaining City Recreational Resources

Parks, Athletic Fields, Playgrounds, and Other Recreational Facilities

Newton's 2011 Comprehensive Plan calls for "A master plan for the coordinated improvement of recreational facilities in parks and playgrounds. An evaluation of the existing conditions for recreation in the City's parks has begun and when completed can be the basis for assessing the disparate distribution of active recreational facilities within Newton, the maintenance of currently over-used sites and the need to install special facilities for people with disabilities." (7- 3) Concerns regarding the quality of parks and natural areas ranked very high in the online survey (nearly 70% said that the quality of parks were poor) and in public meetings.

Athletic Fields

Newton has robust and growing athletics programs with thousands of athletes participating in a wide range of sports including football, baseball, lacrosse, soccer, softball and field hockey. Over the past decades: youth athletic organizations have grown, and youth athletics have shifted to "field intensive" sports; playing seasons are both longer and "multi-season"; and adult interest in recreational sports is increasing. As a result, the City's existing playing fields are more heavily used than ever. Given the limited number of fields that the City has and the limited budget that it has for maintenance, Newton, like many cities, has been unable to keep up with its growing maintenance needs and the maintenance frequency is not currently aligned with the amount of use. Challenges for grass fields include lack of irrigation and lack of rest time (harder to accomplish with fields in constant use all spring and fall), which has led to bare patches, uneven surfaces and hazardous playing conditions. In addition, many fields are sited on former wetlands and lie in or near floodplains, and so have drainage problems, especially in the spring and fall, leading to canceled games and degraded field conditions. Residents would like to see improvements in drainage for these facilities, and improvements in field amenities such as lights to increase field utilization.

Newton currently lacks a master plan for capital improvements for its athletic fields and an assessment of how to most strategically use synthetic turf fields to meet the City's needs. Because of the high demand and continued maintenance issues with grass fields, the "multi-purpose field" athletic community (soccer, lacrosse, football, etc.) has unanimously identified the construction of synthetic fields as its highest priority. Synthetic turf fields allow for notably higher utilization (more hours by more athletes) at a more consistent level of quality than grass fields, thus providing a critical part of a balanced portfolio of athletic facilities.

Given the number of synthetic turf field candidates already identified, a program-based approach will enable Newton to successfully manage multiple projects in a more efficient (resources, budget, public input and effort/duration) manner. Some of the key items that will need to be addressed include: Establishing project priority (based on usage, demand by program, current inventory, budget), addressing concerns from the community on environmental impact and player safety, understanding replacement costs and setting up appropriate escrow models to fund replacement as part of an integrated financial plan.

Hard Courts

Newton manages over 100 hard courts throughout the City that range from basketball, tennis, bocce, and pickleball courts. The City has a schedule for the maintenance and replacement of courts, and while there is a strong community of advocates who assist with maintenance, there remains an unmet demand for improvements throughout the City.

Playgrounds

Newton has roughly 65 playgrounds (tot lots for ages 2-5 and play structures for ages 5-12) throughout the City. They are all inspected per playground safety codes. Generally, two are replaced every year through the Capital Improvement Plans. Accessibility improvements are made to others every year. Residents feel that the quality and quantity of playgrounds should be improved.

Aquatic Recreation

Aquatic recreation includes swimming, canoeing, and fishing and is available at several locations in the City including Crystal Lake (the beach receives approximately 35-40,000 check-ins during the 7-week summer season), Gath Pool (the City's only public outdoor pool receives approximately 40,000 check-ins during the 8-9 week summer season), Hammond Pond, Bullough's Pond, and the Charles River. Gath Pool and the Crystal Lake Bath House are used intensively and have significant capital improvement needs. The City's natural water resources have been impacted by pollution, invasive weeds, and algal blooms, which limit their recreational potential. As climate change brings rising temperatures, it will be important to ensure safe and consistent access to cooling, public water facilities. There is also increased interest from the community in splash parks for young children whose families are looking for ways to cool off locally in the summer.

Recreation Programs

The City offers an array of programs from canoeing and kayaking, swimming lessons, nature camps, sports camps, and special needs camps throughout the summer and during school vacations.

The City provides a variety of recreational programs for its elderly, through PRC's Over 55 Recreation programs and through the City's Department of Senior Services run primarily out of the City's Senior Center. The PRC also operates strong year-round therapeutic recreation programs for persons of all ages with disabilities, and specifically, in conjunction with Newton Athletes Unlimited, a 501(c)3. More informal recreational opportunities for the elderly and disabled, such as safe walking paths and sitting places and the removal of barriers which restrict access to recreation facilities, are needed.

Trails

Public input indicates concern about the quality of trails throughout Newton's natural open spaces. Feedback from the community indicated that Cold Spring, Edmands (Cabot Woods), and Nahanton Parks are all in need of trail improvements. Erosion needs to be mitigated and bridges and boardwalks need rehabilitation and improvement. There was also discussion about the need for consistent trail signs and comprehensive maps to create a more user-friendly experience and encourage more people to use and support the parks.

Providing Accessibility

The 2011 *Comprehensive Plan* states as one of its goals to "Enact the Recommendations of the Mayor's Committee for People with Disabilities and of the Parks & Recreation Accessibility Task Force to remove or modify existing barriers to existing facilities." Newton strives to ensure that all future designs incorporate accessible routes and facilities.

Newton, like so many other municipalities, needs to do better at providing access to its open space resources. As illustrated by a participant in an OSRP community meeting, although Zervas Elementary School abuts Cold Spring Park, there is not an accessible entrance from the school to the park and there is limited access within the park. Many of the City's playgrounds and playing fields are not currently accessible, since neither woodchips nor grass paths are accessible. These sites require firm, stable, and level accessible routes to playgrounds and playing fields.

While topography, especially in hilly natural areas, does not always allow for accessible features, Newton must strive to continue to provide trail surfacing that meets accessibility requirements where natural topography allows. Detailed information on accessibility goals and needs can be found in **Appendix B**.

Addressing Gaps in the Availability of Open Space Resources

As per the State of Massachusetts, "Environmental Justice (EJ) is based on the principle that all people have a right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment. Environmental Justice is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits."

The state website goes on to say, "In Massachusetts a community is identified as an Environmental Justice community if any of the following are true:

- Block group whose annual median household income is equal to or less than 65 percent of the statewide median (\$62,072 in 2010); or
- 25% or more of the residents identify as a race other than white; or
- 25% or more of households have no one over the age of 14 who speaks English only or very well - English Isolation"

In 2010, 14.9% of Newton's population lived in Environmental Justice Block Groups.

The City of Newton has a tremendous network of open space and recreation areas that serve City residents. Almost all residences are within a 10-minute walk of an open space resource; however, there are areas of the City where that is not the case, and others where gaps in the types of resources available and gaps in safe and easy access exist (see Section 3, Figure 11: Environmental Justice, Heat Islands, and Distance to Natural Areas). The City must strive to fill these gaps. Two projects in process which do just that are the expansion of the Reverend Ford Playground off Curve Street and the addition of a playground at the future home of the Lincoln-Eliot school at 150 Jackson Road.

Beyond creating new parks, the City should create connections to outdoor resources. Cheesecake Brook is currently a highly channelized stream in the northern part of the City that experiences periodic flooding. It stands out as a location where Newton could invest in green space, stormwater infrastructure and connectivity. One short section of Cheesecake Brook, in the Eddy Street neighborhood, was improved with a pathway, benches, and trees. In 2009 the City commissioned a *Cheesecake Brook Greenway Master Plan Report* that proposed additional paths, benches and nature-based stormwater management improvements such as more trees, bioswales and rain gardens. In 2010, Cheesecake Brook was identified in *Newton's Heritage Landscapes* (13) as a landscape with strong community meaning that needed significant improvement. Improvements to Cheesecake Brook would involve considerable financial investment and ongoing maintenance, but would help to realize the brook's potential to become a green, community asset for a part of the City that is lacking natural areas, experiences periodic flooding, and can be a heat island.

There are two community gardens in Newton. A large garden with over one hundred plots is located at Nahanton Park, and a small garden was recently installed at the Lower Falls Community center. Both are managed by PRC, and there is a waitlist for plots. Given the demand, Newton would do well to consider creating more community gardens, especially in the northern part of the City.

Connecting People with Open Space

Bicycle and Pedestrian Connectivity

Connectivity was a theme that emerged as residents talked about their desire for better bike and pedestrian access to existing open space resources and for ways to better connect underserved, older, and school-age populations. In this plan, the term “connectivity” refers to trails, sidewalks, and paths that promote passive recreation and community connections. Many of Newton’s open spaces are not well connected to one another by bike paths or sidewalks, thus, non-vehicular access is limited. Within the context of connectivity is the goal to ensure universal access of open space to all residents, regardless of ability.

Nearly 100% of youth who responded to the online youth survey said that bike connectivity is urgently needed and should be expanded, especially with an eye to making even distribution of bike lanes throughout the City. Additionally, some residents expressed concerns that bike lanes in high traffic areas lack proper signs and are not safe enough for young children. The City has committed to expanding its bike network, and recent projects planned for Needham Street and West Newton Square and Walnut Street in Newtonville include bike lanes, including Newton’s first protected bike lane. The City is also undertaking an analysis to reconfigure Washington Street from West Newton to Newtonville to include bike lanes.

The City’s *Complete Streets Policy* also supports connectivity, and consistent implementation of the policy should be pursued. Complete streets make roadways more bike and pedestrian friendly; those that incorporate green stormwater infrastructure can additionally lessen stormwater runoff and increase quality of life for residents and the urban ecosystem.

Open space connectivity in Newton should be multi-functional, accessible to all people, and considered on a local and regional scale. As Newton’s population continues to grow and diversify, open space connectivity must meet the needs of a variety of users. Some key features of greenway trails that can guide Newton’s connectivity planning include frequent access points from local on street transportation networks, directional signs to guide users within the greenway trail network, a limited number of at-grade crossings with streets or driveways, and easily accessible connections to destinations (*Cleveland County Rail Trail Masterplan*, 52). When new development occurs in Newton, the City should try to make the creation of trail easements and pedestrian access part of the permitting process in order to enhance the trail system and minimize the need for pedestrians to walk on major streets (*Weston OSRP 2017*, 118).

Regional Connection Needs

The City should work to ensure regionally connected bike and pedestrian facilities. This will entail extending existing paths such as the DCR’s Blue Heron Trail, Upper Falls Greenway, and Commonwealth Avenue Carriageway, to nearby towns and cities. This would provide opportunity for residents in Newton to access other areas and for others to access Newton without using cars. The ACROSS (Access to Conservation Recreation Open Space and Schools) trail loops under consideration by the Newton Planning Department would connect to regional transportation facilities. Establishing more regional networks connecting open space resources will take many years, but the City should consider collaborating with neighboring communities to create a regional trail network master plan.

D. Summary of Management Needs, Potential Change of Use

Potential Change of Use

One of the most significant potential changes of use in Newton is the potential development of one or more of the privately owned golf clubs. See the discussion in the section entitled “Protecting Open Space” under section A. “Summary of Resource Protection Needs”, above.

Public-Private Partnerships

Newton has many strong public-private partnerships that have contributed to the preservation and stewardship of numerous open space resources. Key partners in Newton include, but are in no means limited to, Green Newton, the Newton Conservators, BikeNewton, the Newton Tree Conservancy, Historic Newton, the Newton Historical Society, Chestnut Hill Association, Chestnut Hill Garden Club, and many athletic organizations. There are also numerous Friends groups for specific parks and green spaces throughout Newton, such as the Friends of Crystal Lake, Crystal Lake Conservancy, Bullough's Pond Association, Friends of Kennard, Friends of Hemlock Gorge, and Friends of Cold Spring Park. Many of these non-profit organizations provide great assistance to the City in terms of fundraising, volunteer labor, environmental monitoring, and communicating with the public. The City needs to continue to nurture and strengthen these relationships. The City should also encourage those interested in creating friends group and those who wish to "adopt a space" by supplying information, tips, and contact information on the City's website.

There is discussion of building a community group to advocate and fundraise for recreational facilities. Attendees at the community meetings expressed an interest in helping the City raise funds, improve communication, and address the needs of field users. This additional public-private partnership would help to ensure proper distribution of City resources and could increase the amount of investment in open space projects.

Efficient Management

The Conservation Commission and the PR&C are the primary stewards of municipal open space in Newton. The Conservation Commission manages roughly 316 acres for conservation and passive recreation. PR&C manages 450 acres for both passive and active recreational purposes; 239 acres (53%) of PR&C-managed land is wooded/natural, according to the 2016 National Land Cover Database (NLCD) Tree Canopy data; the remainder of PR&C land is athletic fields, playgrounds, Gath Pool and the Crystal Lake Bathhouse, greenways, medians, etc.

Both the 2011 Comprehensive Plan (7-8) and the 2014-2020 Open Space and Recreation Plan call for the consideration of coordinated management of the City's natural areas and street trees and coordinated management of the City's improved recreation facilities. Such improved coordination of management responsibilities could more efficiently focus City expertise and funding and could provide clearer channels of communication for residents and volunteers. Consistent management across lines of custodianship could benefit Newton in the long run.

Funding

Many community members noted the importance of exploring a variety of funding systems to help pay for renovations and enhancements, such as Community Preservation Act Funds, Community Development Block Grants, state grants, public-private sponsorships, corporate sponsorships, and increased user fees.

Like many communities, the City of Newton has limited funding to direct toward the maintenance of open space and recreation areas. Proposals about sharing duties for maintenance between the Conservation and PR&C departments may improve efficiencies.

Funding for open space efforts has come from a number of sources, including the annual budget, the Newton Commonwealth Golf Foundation, Community Preservation Act (CPA), Land and Water Conservation Funds (LWCF), Parkland Acquisitions and Renovations for Communities (PARC) Grant Program, and Local Acquisitions for Natural Diversity (LAND) Grant Program (*Massachusetts SCORP 2017*, pp. 1-6); in addition to numerous donations raised by Friends groups and individuals.

At the second community meeting, residents expressed additional ideas to more adequately fund open space opportunities including CIP (Capital Improvement Plan) monies, private resident fundraising, new

taxes on developers, rental fees on new facilities, grants from non-profit organizations, and an increased CPA tax levy from 1 to 3 percent.

E. DISTILLING COMMUNITY NEEDS

Through in-depth community engagement, discussions with the OSRP Committee, and considerations of City staff, the community needs discussed at length above were distilled into the following six focus areas.

- Implementation
- Maintenance and Improvement
- Accessibility
- Minimizing Gaps In the Availability of Open Space Resources
- Connectivity
- Protection