Newton's Open Space and Recreation Plan
2020-2027

Prepared per the requirements of the Mass. Exec. Office of Energy and Environmental Affairs

September 1, 2020

City of Newton, Massachusetts
Open Space and Recreation Plan

2020-2027

Mayor
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Parks and Recreation Department
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Recreation and Open Space Advisory Committee

Prepared per the requirements of the Massachusetts Executive Office of Energy and Environmental Affairs, Division of Conservation Services (EOEEA/DCS)

September 1, 2020

Acknowledgements

The City of Newton wishes to thank the following people and organizations for their assistance and contributions in the preparation of this Plan.

Students from the Conway School of Landscape Design (Rowan Cignoni, Cara Montague, and Samantha Peikes) for helping to coordinate public input and draft this Plan update with revised text and maps.

Jennifer Steel and Claire Rundelli (Environmental Planners for the City of Newton) for shepherding the Plan update process, providing updated information, supporting for the Conway School students, and editing the final drafts.

Open Space and Recreation Advisory Committee (listed alphabetically below with name and affiliation) for leading the open space planning effort and offering valuable input.

- Nicole Banks *(Commissioner of Parks, Recreation, and Culture)*
- Al Cecchinelli (*Parks, Recreation, and Culture Commission)*
- Jayne Colino (*Council on Aging)*
- Rick Dinjian *(Newton Little League)*
- Quinn Etchie (*Youth Commission)*
- Jini Fairley *(ADA Coordinator)*
- Nicole Freedman *(BikePed Connectivity/Complete Streets/Transportation)*
- Doug Greenfield (*GIS)*
- Michael Halle *(Transportation/BikePed Connectivity)*
- Barney Heath *(Director of Planning and Development)*
- Gabriel Holbrow *(Community Planning)*
- Susan Lunin *(Conservation Commission/Community Preservation Commission)*
- Luis Perez Demorizi *(Parks, Recreation & Culture Dept.)*
- Carol Schein *(Parks, Recreation & Culture Dept.)*
- Justin Traxler *(Newton Girls Soccer)*
- Beth Wilkinson (*Newton Conservators/Tree Conservancy/Urban Tree Commission)*
- Jonathan Yeo *(City of Newton Executive Office)*
- Jeff Zabel *(Agricultural Commission/Conservation Commission)*

All residents who responded to the online survey (administered by students from the Conway School), responded to the Youth Survey (administered by Quinn Etchie), attended one or more of the public forums (led by students from the Conway School), attended one or more of the public hearing/meetings of the Zoning and Planning Committee and Planning and Development Board, or submitted individual comments on the draft Plan.

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Section 1: Plan Summary

Newton's 2020-2027 *Open Space and Recreation Plan* (OSRP) is built on an analysis of the City's diverse and precious open space resources and the City's complex open space and recreation needs.

This plan defines open space as both land in a relatively natural state and land used for active outdoor recreation. These resources range from public parks and conservation areas to small recreation areas and grassy medians. These open spaces are home to an assortment of native plants and wildlife, biodiverse wetlands, prized water resources, heavily used athletic fields and facilities, well-loved playgrounds, tot lots, community gardens, and a precious urban tree canopy. Open spaces provide considerable environmental and public health benefits and the presence of open space directly contribute to the aesthetic appeal and character of Newton.

This plan builds on the successes from the 2014-2020 OSRP, while acknowledging the ongoing need for improvement. There is continued diligence to protect the remaining open space resources in the community, including pursuing the acquisition of more open space, but there is also a great desire on the part of the community to improve the stewardship of both active and passive recreation areas.

The most striking difference between this Plan and the last is the clear acknowledgement of the challenges that climate change will bring to Newton. Over the past seven years Newton has written a *Climate Action Plan*, which outlines goals for a carbon-neutral Newton by 2050, and a *Climate Change Vulnerability and Assessment Action Plan* to identify and develop a mitigation plan that addresses the rising temperatures and increasing flood risks that threaten Newton. Protecting, stewarding, and connecting Newton's natural areas and recreation spaces, with climate change in mind, can bolster the resilience of valued green spaces and ensure that open space continues to benefit the city by improving air quality, intercepting stormwater, regulating surface temperatures, and encouraging bicycle and pedestrian use. Many of the action steps identified in this OSRP aim to support Newton's climate change resilience goals, for the health of its people and its environments.

Accomplishing the goals of this OSRP will require a wide array of actions. While some recommended actions are location specific projects (e.g., park improvements and trail creation), others call for creating community capabilities (e.g., strengthening public-private partnerships, reconsidering departmental management jurisdictions, and identifying creative funding strategies).

The following list outlines key themes of Newton's 2020-2027 OSRP Update. While many factors were discussed and considered during the update process, these factors emerged as warranting immediate attention and follow-through:

- Maintaining, improving, and protecting the City's open space resources including but not limited to natural areas, athletic fields, parks, aquatic facilities, water resources, and the urban tree canopy to ensure that healthy and resilient open space in Newton can persist for future generations. This will entail collaborations between City departments, community organizations, and volunteers to foster public-private partnerships, meet funding needs, and develop master plans.
- Increasing diverse, open spaces resources in the parts of the city that have fewer conservation areas and parks and reduced tree cover.
- Expanding universal accessibility, within parks and along pedestrian trails.
- Developing more bicycle and pedestrian linkages to open spaces by expanding existing trail networks and building new connections where possible.
- Permanently protecting natural areas and parks for wildlife and passive recreation.
- Continuing to integrate climate change mitigation and adaptation into open space stewardship, connectivity, protection, and accessibility efforts.

Section 2: Introduction

A. DEFINITIONS OF OPEN SPACE TERMINOLOGY USED IN THIS PLAN

The definitions of terms as used throughout this Plan are as follows.

- **Open Space Resources** = natural open spaces and outdoor recreation facilities.
    - **Natural Open Spaces** = areas that are predominantly wooded, or have meadows, wetlands, waterbodies, and waterways that provide habitat and ecological diversity value, recreational value, and services such as shade, slowing runoff and improving water quality.
    - **Outdoor Recreation Facilities** = areas predominantly developed and managed primarily for recreational purposes, including: multipurpose athletic fields, baseball fields, general use grassy areas, picnic areas, tennis courts, basketball courts, playgrounds, tot lots, and aquatic facilities such as pools, bath houses, spray parks, and canoe launches.
- **Accessibility** = ensures equal access for people with disabilities to the built environment, where feasible, in accordance with the requirements and guidelines of the Massachusetts Architectural Access Board (MAAB), the Americans with Disabilities (ADA) Standards, and the Forest Service Trails Accessibility Guidelines (FSTAG). Incorporation of universal design principles provides accessibility to all residents and visitors of all abilities. Accessible features include, among other things, parking, routes to amenities (beaches, pools, fields, courts, trails, etc.) and to and within facilities, restrooms, play structures, and much more. Firm and stable surfaces free of tripping hazards and protruding objects, at least 3 feet wide, and no more than a 5% slope are some of the accessibility guidelines for an accessible path/walkway.

B. STATEMENT OF PURPOSE

This Open Space and Recreation Plan (OSRP) “plan update” has been carefully crafted to meet the requirements of the State Division of Conservation Services and to create an actionable roadmap for the City of Newton to achieve its many open space and recreation goals.

This Open Space and Recreation Plan (OSRP) is a “plan update” to the OSRP update completed in 2014.The greatest changes to the 2014 OSRP arose as a result of shifting demands for open space resources, a growing need to address climate change, and other environmental issues that threaten Newton’s open space. Fortunately, Newton contains a strong coalition of advocates across City government and nonprofit organizations who support protecting the City’s existing open space, enhancing bicycle and pedestrian connections between open spaces, improving recreational opportunities, and caring for the City’s vibrant and functioning natural communities.

Newton recognizes the vital role that open spaces plays in addressing the impacts of climate change, transportation, and public health. From the floodplains along the Charles River to neighborhood playgrounds, open space resources play a vital role in both the natural and cultural environments of Newton. Newton’s desirable residential character, convenient location, stellar school system, and cherished

open spaces, have led to intense development pressure and high real estate values. This desirability challenges the City's ability to maintain existing and create or protect new open space resources that will satisfy the broad suite of needs of residents of all ages and abilities. The complexity of ecosystems, growing development pressures, and increased interest in passive and outdoor recreation complicate the City's overall open space resource needs. This moves the City to continue assessing and improving the stewardship of Newton's wide variety of open spaces and guiding future development in ways that will benefit the public, preserve open space resources, and address issues of inequity in the distribution and access to open space.

This OSRP update builds on Newton's recent successes (see list below) and is designed to enhance and protect Newton's valuable natural and recreational resources in a time of escalating real estate values and tight budgets. The City of Newton recognizes the extraordinary value of open space resources and presents this Plan to help provide the passive and active recreational needs of its residents.

C. PLANNING PROCESS and PUBLIC PARTICIPATION

Planning Process Overview

The Conway team and members of the OSRP Committee received public input through a variety of public forums, included the following:

- A Public Outreach Online Survey launched January 30, 2020 and open through February 14, 2020, which received 1,360 responses.
- A Youth Online Survey Regarding Open Space and Recreation, which received 27 responses.
- An initial Open Space and Recreation Plan Public Working Session, held at City Hall on Thursday, February 6, 2020.
- A follow-up Open Space and Recreation Plan Public Working Session, held at the Price Center on March 4, 2020.

All comments received were duly considered by the Conway team, the City staff, the OSRP Committee, the Zoning and Planning Committee (ZAP), the Planning and Development Committee, and City leadership in finalizing the Plan.

Open Space and Recreation Planner's Workbook (2008)

Newton's Open Space and Recreation Plan Update effort has been undertaken consistent with Massachusetts Executive Office of Energy and Environmental Affairs, Division of Conservation Services (EOEEA) guidelines as described in the Open Space and Recreation Planner's Workbook (2008).

OSRP Advisory Committee

Newton's OSRP Advisory Committee has been instrumental in leading the open space planning process. This committee was approved by Mayor Ruthanne Fuller and consists of a broad range of participants including representatives from City departments, recreation leagues, local non-profit organizations, Friends groups, and dedicated community members. All members were selected for their individual knowledge and their ability to reach out to and serve as a conduit to and from their respective broader constituencies (see **Table 1**).

Table 1. OSRP Advisory Committee Members		
Name	**Represented Organization**	**Primary Local Constituents**
Nicole Banks	Parks, Recreation & Culture Commissioner	Parks, Recreation, and Culture staff
Al Cecchinelli	Parks, Recreation & Culture Commission	Recreational sports leagues, playground advocates
Jayne Colino	Council on Aging	Council on Aging, NewCAL (new senior/community center) advocates
Rick Dinjian	Newton Little League	Youth Athletics, Athletic Fields Groups
Quinn Etchie	Youth Commission	Youth Commission
Jini Fairley	ADA Coordinator	Commission on Disability
Nicole Freedman	BikePed Connectivity/Complete Streets/Transportation	Safe Routes to School, Riverside Greenway Working Group
Doug Greenfield	GIS	n.a.
Michael Halle	Transportation/BikePed Connectivity	Transportation Advisory Group
Barney Heath	Director of Planning and Development	Planning staff
Gabriel Holbrow	Community Planning	Planning Department
Susan Lunin	Conservation Commission/Community Preservation Commission	Conservation Commission, Community Preservation Committee
Luis Perez Demorizi	Parks, Recreation & Culture Dept.	Parks, Recreation, and Culture staff, OLAWG, Friends groups and Adopt-a-Space
Claire Rundelli	Conservation Commission	Annual maintenance contractor, conservation area stewards
Carol Schein	Parks, Recreation & Culture Dept.	Parks, Recreation, and Culture staff
Jennifer Steel	Conservation Commission	Annual maintenance contractor, conservation area stewards
Justin Traxler	Newton Girls Soccer	Youth Athletics, Athletic Fields Groups
Beth Wilkinson	Newton Conservators/Tree Conservancy/Urban Tree Commission	Green Newton, Newton Conservators, Tree Conservancy, Urban Tree Commission
Jonathan Yeo	City of Newton Executive Office	Mayor's Office
Jeff Zabel	Agricultural Commission/Conservation Commission	Agricultural Commission, Conservation Commission

The OSRP Advisory Committee met 6 times. The first meeting, on December 20, 2019, was a kick-off meeting to introduce the Advisory Committee members to the OSRP and the update process. The following two meetings of the Advisory Committee, on January 14, 2020 and February 12, 2020, were attended by the Conway School students and included discussions about the previous OSRP, Jennifer Steel's preliminary revised goals, prioritization of open space needs. Subsequent meetings with the Advisory Committee were reviews of draft materials provided by the Conway School students and brainstorming related to specific actions and prioritization of objectives. It should be noted here that representation on the OSRP Advisory Committee was carefully considered to ensure representation of all City interest groups and geographic areas, including the City's environmental justice areas.

Early databases and drafts of the plan update were circulated to Committee members, who shared them with their constituencies and provided extensive comments, edits, and additions.

Information gathering, inventory updates, and data expansion and validation

City staff (primarily the Conservation Commission Office staff, the Parks, Recreation, & Culture Department staff, the ADA Coordinator, and the GIS Coordinator), worked with City databases and with community conservation and recreation organizations to ensure that databases were up to date, accurate, and complete. Inventories were expanded (such as adding detailed trails information). Field verification was undertaken.

Graduate Students from the Conway School of Landscape Design and Planning

A **team of three graduate students from the Conway School of Landscape Design and Planning**, Rowan Cignoni, Cara Montague, and Samantha Peikes, drafted the initial 2020-2027 OSRP update.

Public input and participation were maximized through a variety of channels, venues, and modalities.

Guidance from Jennifer Steel and Claire Rundelli

After every meeting and public session, the Conway School students met with these City staff to debrief, wrestle with challenges, and plan next steps. The Conway students gave their Winter Formal Presentations on February 28, 2020 at the Conway School of Landscape Design at 88 Village Hill Road in Northampton, MA. They shared their findings, conclusions, and suggestions. Following the presentation, final changes to the students' draft were discussed.

Public working sessions and online surveys

The first public working session was held on February 6, 2020 with 50 attendees. This working session was held at the City Hall War Memorial. The information gained from this working session formed a foundation for understanding the different open spaces that Newton residents value and which open spaces they felt should be improved.

The second public working session was held on March 4, 2020 with 25 attendees and was primarily focused on generating action steps and recommendations, building on issues discussed at the first public working session. This working session included a presentation from the Conway School students. The presentation summarized the aspects of open space that Newton residents value most, open space needs, how to plan and prioritize open space for the future in the face of climate change, and general recommendations. This material was accompanied with graphic analyses and maps. The presentation was followed with an opportunity for participants to provide specific actions they felt needed to be in the plan and their reasoning behind its priority.

The online community survey and the youth on-line survey, results summarized in Section 6 and available in more detail in **Section 10**, was administered from early February to mid-March 2020. The community survey received roughly 1,200 responses, with participants from all villages; the youth survey received 27 responses from the Youth Commission and Newton North and Newton South high school students.

The public working sessions and the on-line community survey were publicized as broadly as possible through all available channels, including:

- Newton city website
- Postings at Newton City Hall
- Newton Conservators outreach
- Newton's sports leagues outreach
- Other community group outreach
- City and public school newsletters

- Village "Area Council" updates
- Standard notification of public board and committee meetings and associated agendas on the City website
- Notices in the local newspaper, the Newton Tab

Newton's Planning & Development Board (P&D) and Zoning & Planning Committee (ZAP)

P&D and ZAP received the first presentation regarding the Open Space and Recreation Plan on May 7th, 2020 at a joint public hearing (public hearing was held remotely due to the COVID-19 pandemic). The meeting started as a joint public hearing opened by the Chair of the Zoning and Planning Committee. After hearing from the public and the members of both P&D and ZAP, P&D moved into a breakout room. P&D voted to close their public hearing and hold continued discussions until May 19th, 2020.

In consideration of comments from the public and City Councilors, ZAP came to consensus to extend the public comment period through Monday May 18, one day ahead of the next meeting at which the OSRP would be discussed. Many Councilors lauded the quality of effort and resulting OSRP, noting the Comprehensive approach and dramatic improvement over previous Open Space Plans. At this meeting ZAP voted to close their public hearing and hold continued discussions until May 19th, 2020, when the public comment period had closed.

At the May 19th, 2020 meeting, which began as a joint meeting between P&D and ZAP, the public comment received was reviewed and further comments from the bodies were received. P&D voted 6-0 in favor of signing a letter of review and support for the OSRP for the state submission, the letter was drafted by the Chair after the meeting was closed. ZAP voted 8-0 in favor of drafting a letter of review and support for the OSRP for the state submission. ZAP will review the drafted letter at the June 8th, 2020 City Council meeting.

Newton's City Council

Is reviewing the draft that is submitted to the state in order to discuss and vote on adopting the OSRP as an amendment to the City's Comprehensive Plan. They may provide a letter of review and support for the state submission, but their review will mainly be centered on the adoption of the plan as an amendment to the City's Comprehensive Plan and the process of implementation of recommended actions.

More details of the public participation process are found in **Section 10: Public Comment**.

D. ENHANCED OUTREACH and PUBLIC PARTICIPATION

Along with the extensive general outreach and public participation efforts and avenues of outreach and communication described in section C. Planning Process and Public Participation, above, several efforts were made as part of Newton's enhanced outreach effort to engage residents of Newton's environmental justice (EJ) communities.

- Members of the OSRP Advisory Committee reached out directly to their constituents broadly and in EJ communities,
- City staff reached out directly to several of Newton's Area Councils in areas under-represented in the community survey responses, especially those in the City's EJ communities, to encourage involvement in the on-line survey, public working sessions, and direct input to City staff, and
- The second public working session was held in Newton Upper Falls, an EJ community, to encourage participation by local residents.

By engaging directly with underserved communities, the City was able to focus discussion and ultimately recommended actions on the equitable distribution of open space resources and services.

E. SUMMARY OF ACCOMPLISHMENTS SINCE THE PREVIOUS PLAN

Since the publication of its 2014-2020 OSRP, Newton has accomplished many things, including the following highlights. See Appendix A for a complete listing of accomplishments over the past 7 years.

Acquisitions

- Webster Woods from Boston College
- Waban Hill Reservoir from MWRA
- Upper Falls Greenway Rail Trail 99-year leasehold interest from MBTA

New Conservation Restrictions

- 30 Wabasso Street, a parcel adjacent to Flowed Meadow Conservation Area
- 20 Rogers Street, a parcel adjacent to Crystal Lake
- Waban Hill Reservoir, Chestnut Hill

Conservation Area Improvements

- Installation of accessible boardwalk ramp at Dolan Pond
- Installation of signs and maps at all trailheads
- Flowed Meadow Eagle Scout trail enhancement
- Helen Heyn Eagle Scout bridge construction over Country Club Brook
- Invasive species management at Norumbega Park Conservation Area
- Slope restoration and trail creation at Norumbega Park Conservation Area

Parks, Recreation & Culture Property Improvements

- Installation of playground and tot lot, accessible fitness station area and benches, repair of tennis and basketball courts and addition of pickleball to tennis court at Auburndale Park/Playground
- Final design and construction of accessible pedestrian bridge over refurbished historic pond basin at Farlow Park
- Final design and construction of Phase I of Newton Highlands Playground
- Final design of Newton Corner traffic islands, construction underway
- Master Plan and Phase I final design for Waban Hill Reservoir, construction underway
- Rehabilitation of tennis courts at McGrath Park including an accessible route from accessible parking, and a new off-leash area
- Design and construction of Waban Common, a new pocket park, in Waban village
- Grass mats added to Lower Falls Playground, Hyde Playground, and Underwood School Playground for accessibility
- Rehabilitation of Emerson Playground play equipment and tot lot
- Repairs to tennis and basketball court at Waban Playground
- Renovation of 12 tennis courts at NSHS
- Completion of athletic field drainage feasibility study and drainage improvements (underway) at Lyons Park
- Invasive species management at Cold Spring Park and Kennard Park

Newton intends to build on this record of success and achieve new goals and objectives over the next seven years.

Section 3: Community Setting

A. REGIONAL CONTEXT

The City of Newton is located seven miles west of downtown Boston in eastern Massachusetts, lies within the Route 128/I-95 beltway, and is considered an inner suburb of the capital City. Newton was one of the country's first railroad suburbs, and its proximity to Boston and well-developed transportation networks of highways, roadways, commuter rail, and light rail have helped make Newton the densely developed and primarily residential City it is today. Newton's land area, 18.15 square miles, is all but fully built out. Newton has well-established village centers, surrounded by a mix of single- and multi-family dwellings with a generous interweaving of open spaces, contributing to the "Garden City" character of the community. The area's strong economy over the past half century has fueled development pressures and increased land values in Newton. The increasing residential, commercial, and institutional development over the past century has had a range of effects on the City including greater demands on the City's limited open space resources, the continuing loss of canopy trees, and increased traffic. In the face of development pressure, there is continued strong public commitment to preserve, care for, add to, and enhance Newton's open space resources.

Newton is bordered by Waltham and Watertown on the north, Boston and Brookline on the east, Boston and Needham on the South, and Wellesley and Weston on the west. Newton is bordered for 12 miles by Charles River, an important regional ecological resource shared with not only the communities listed above, but also twenty-three total communities both up and downriver. Newton works with its neighboring cities and towns, and communities throughout the Charles River Watershed, in efforts to improve water quality, improve transportation, and develop and maintain recreational facilities that benefit the entire region **(Figure 1)**.

Newton is home to Boston College, Lasell University, and UMass Amherst at Mount Ida; the large and thriving Wells Avenue Office Park; many large and small businesses; and regional natural resources including parts of the DCR Charles River Reservation and the greater Hammond Pond/Webster Conservation Area.

Regional Planning

Newton is a part of the 101 cities and towns in the Boston metropolitan area that are represented by the Metropolitan Area Planning Council (MAPC). MAPC works with communities through eight sub-regional organizations whose members are appointed by chief elected officials and planning boards. Newton is a member of the Inner Core Committee (ICC), which also includes 21 other communities in the Metro Boston region.

MetroFuture is MAPC's long-term regional plan for the Boston metropolitan area. The plan includes goals and objectives as well as strategies for accomplishing these goals. Some of the goals particularly relevant to Newton's Open Space and Recreation Plan include:

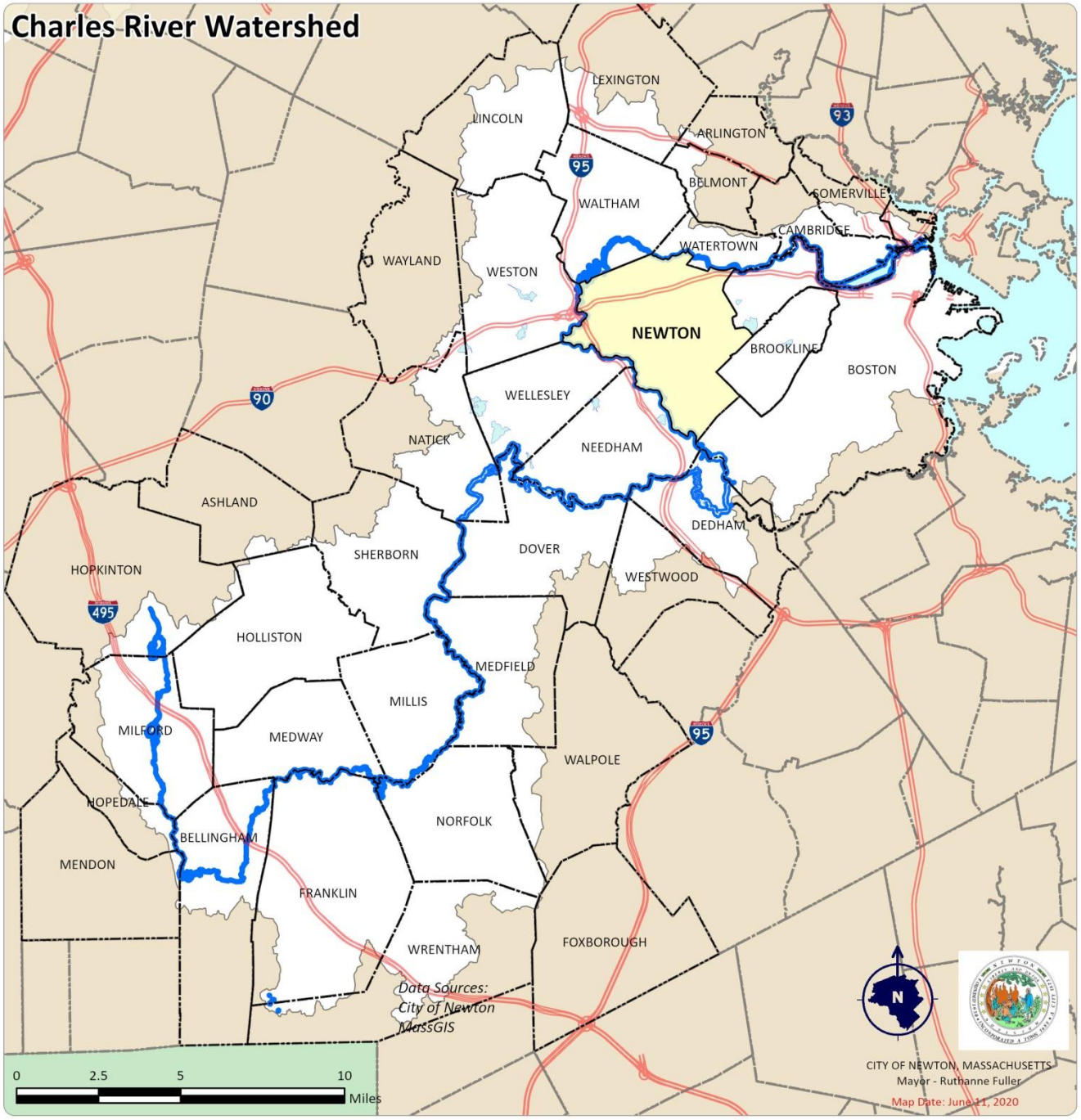
- #10 Growth in the region will be guided by informed, inclusive, and proactive planning.
- #11 The region will be prepared for and resilient to natural disasters and climate change.
- #23 All neighborhoods will have access to safe and well-maintained parks, community gardens, and appropriate play spaces for children and youth.
- #25 More residents will build regular physical activity into their daily lives.

- #31 The region's residents—including youth, seniors, and immigrants—will be well informed and engaged in civic life and community planning.
- #47 Most people will choose to walk or bike for short trips.
- #63 The ecological condition of wetlands will improve, and fewer wetlands will be lost to development.
- #64 The region will retain its biodiversity and will have healthy populations of native plants and animals, and fewer invasive species.
- #65 A robust network of protected open spaces, farms, parks, and greenways will provide wildlife habitat, ecological benefits, recreational opportunities, and scenic beauty.

B. HISTORY OF THE COMMUNITY

The area around the Charles River has been home to people for an estimated 13,000 years. At that time, the end of the ice age, winters were extreme, and the area was mostly forested with spruce, jack pine and poplar. Small family groups moved through, traveling every few weeks, hunting, fishing and gathering, tracking mostly caribou; but also giant beaver, stag moose, snub-nosed bear, and even the mastodon. As the ice age ended, and the climate changed dramatically, some Native groups shifted north to continue hunting caribou, some stayed in the area; and others, from farther south, increased their range into the north. It is assumed that many settlements were established along the falls of the Charles River for fishing, but these sites have been lost to industrial mill development or are covered by river silt and marshlands. Burnt kernels and pottery shards indicate that by about 1,000 years ago some groups turned to limited maize farming. There is evidence that by 1300 AD of two villages in river bottom regions. By the time of European contact, around 1600 AD, the Massachusett people were living in the land that is now Newton. Though there is little known of the number of Native people living in the area at that time, there is record of an epidemic from 1616 – 1618 that took the lives of many. This epidemic dramatically changed the lives of many Native people as cultural traditions were lost, tribal groups relocated, and new alliances were formed. (*City of Newton City-Wide Archaeological Reconnaissance Survey: Public Education Report*, 5-10).

Figure 1. Regional Context: The Charles River Watershed



It was settled by Europeans in 1630 as a district of Watertown and was subsequently annexed by Cambridge in 1636. Newton was incorporated as a separate municipality, to become the City of Newton, in 1688. In the early days of European settlement, the area was primarily agricultural.

In 1688, Newton established its first river mill along the Charles River at Upper Falls, and shortly became home to several other mills along its riverbanks. Early mills included a sawmill, a gristmill, and a fulling mill (a process used to clean and thicken wool cloth). The mills provided the backdrop for industry in Newton that slowly evolved towards the manufacturing of products such as plastics, paints, and confections. The manufacturing industry encouraged a growing community of workers to settle in nearby neighborhoods. This can still be seen in the pockets of worker and two-family homes surrounding the old mill areas in Newton Upper Falls.

The completion of the Erie Canal in 1821 connected mid-western farmers and manufacturers to New York City. In 1834, Boston merchants, not wanting to be passed over, chartered the Boston-Worcester Railroad into West Newton, which eventually become the Boston-Albany Railroad, stretching into the Midwest. Villages along the railroad experienced a population and housing boom, became the wealthy villages of Newton, and were the first in the City to receive water and sewer hookups (*Landscaping the Garden City*, Spiers, 258). The railroad expanded Newton's accessibility both as a residential community and as a summer haven for affluent Bostonians.

For the next 60 years, frequent commuter rail service to Boston was instrumental in establishing Newton as a desirable residential suburb, and many new houses were constructed in neighborhoods within easy reach of railroad depots on land that had been subdivided into building lots (**Figure 2**). Like patterns in development, patterns in open space protection can be traced back to the railroad housing boom: the northern part of the City, which experienced the development boom earlier, has smaller housing lots and smaller parks and playgrounds. The central and southern portions of Newton, which were developed later, have slightly larger housing lots and tracts of open space. This is especially true in the southern parts of Newton, which remained largely agricultural and did not experience its own suburban housing development boom until after WWII. When the Massachusetts Turnpike opened through Newton in 1964, it created a physical division in the City, while also making some portions of Newton more accessible by automobile.

Today, Newton is a fully developed city composed of multiple villages, each with distinct characteristics yet without formally defined boundaries. While over time the location, names, and number of villages has varied, it is generally acknowledged that Newton has 13 village centers. Along with the 13 village centers, Newton has four historic districts and is noted for its retention of some of the finest and most comprehensive collection of late 19th and early 20th century suburban residential architecture, with a wide range of building types, materials, and styles.

The Jackson Homestead, a Federal-style farmhouse and now nationally accredited museum and center for Newton History, was a station on the Underground Railroad, and is a component of the Underground RR Network of Freedom recognized by the National Park Service.

Newton is also known as "The Garden City," as portions of the Newton landscape were designed and laid out by such notable landscape architects as Frederick Law Olmsted and Alexander Wadsworth. See **Figure 3** for a map of villages and historic districts.

Figure 2. Railroads and Development (base map is from 1917)

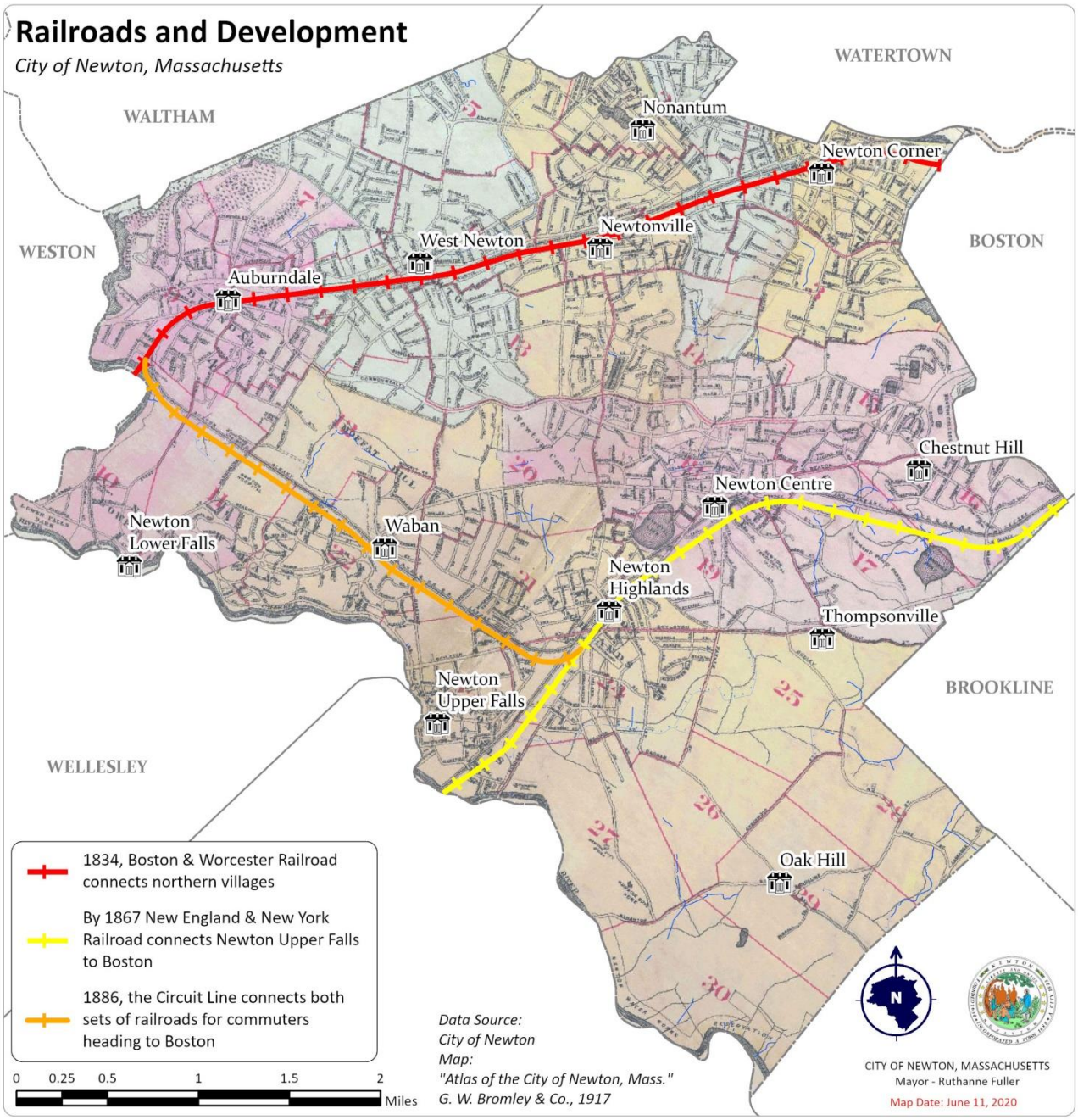
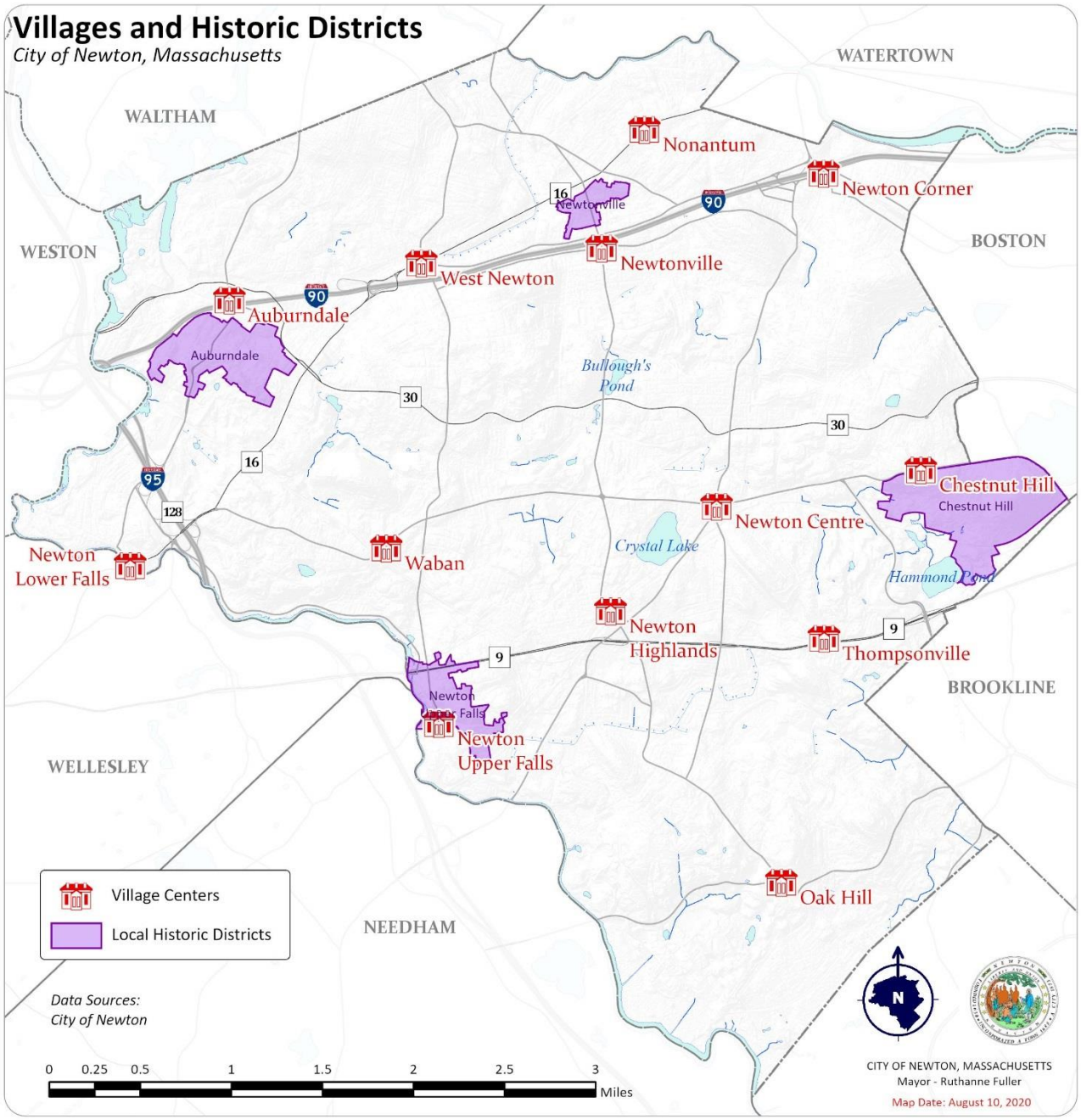


Figure 3. Villages and Historic Districts



C. POPULATION CHARACTERISTICS

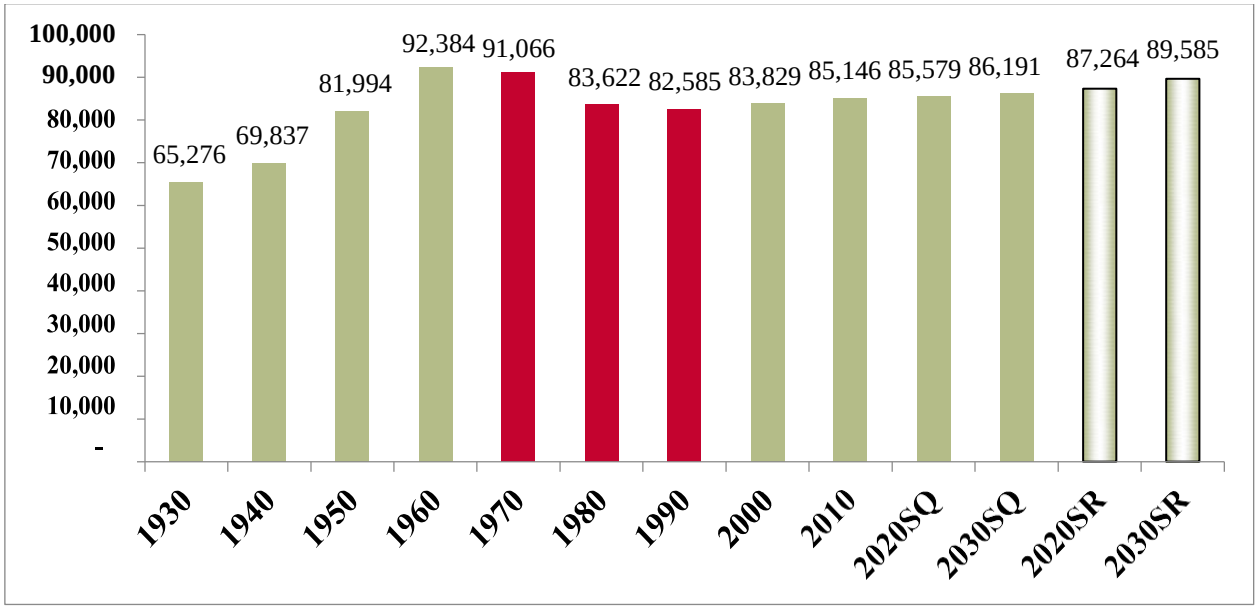
Newton's population has been characterized by slow growth, a relatively high median age, and a gradually aging population. Its median income is significantly higher than that of the State, as are its home prices.

Population

Newton's population, which peaked at 92,384 in 1960, and then fell until 1990 to 82,585, has increased slightly over the last two decades, rising to 84,688 in 2000, to 85,146 in 2010, and to 88,904 in 2018 (U.S. Census Bureau, Annual Estimates of the Resident Population, 2018). From 2000 to 2010, Newton's population grew by 1.6%, a slightly slower rate than the 2.6% growth rate of Middlesex County.

Newton's population will continue to grow over the coming decades. According to the Metropolitan Area Planning Council (MAPC) "Stronger Region" scenario, in which Metro Boston will retain a vibrant economy even as baby boomers retire, MAPC projects that by 2030, Newton's total population will grow modestly by 5% to over 89,000 people (**Figure 4**).

Figure 4. Newton's Projected Population 1930 to 2030



SQ = Status Quo, a slower growth prediction
SR = Stronger Region, a faster growth prediction

Source: MAPC Projection

In 2018, there were 30,952 households and 22,317 families residing in the City (U.S. Census Bureau, American Community Survey).

As of the 2010 U.S. Census, the population density was 4,643.6 people per square mile, and there were 32,112 housing units at an average density of 1,778.8 units per square mile.

Age

In 2010, when Newton's total population was just over 85,000, approximately 5% of the population was children below the age of five, and 15% were over 65 years of age (U.S. Census, 2010). The median age in Newton in 2017 was 40.5, slightly higher than the State median age of 39.4 (American Community Survey, 5-Year Estimates, 2013-2017).

According to the 2010 US Census, two age groups have increased significantly in Newton since 2000: the 55-74 age group increased by 32% and the 0-24 age group increased 8%. Over the next ten-years, as the Baby Boomers age, Newton's population of seniors will continue to rise. MAPC projects that by 2030, the senior population will increase by 63% and that 1 out of every 3 Newtonites will be age 60 or older.In many of the census block groups in the central portion of Newton, 45-60% of households have someone over 65 years old. In the area around Thompsonville, 60-75% of households have someone over 65 years old (ACS, 5-year study, 2017) (**Figure 5**).

In 2018, 36% of households included individuals under the age of 18 and 42.9% included individuals aged 60 and over.

As of 2017, 22.6% of Newton's households consisted of people living alone (ACS, 5-Year Survey, 2017). People 65 years of age and older were disproportionately represented in this population, accounting for more than 51% (± 3%) of residents living alone (ACS 2011-2015). Like much of the country, Newton's baby boomer population is aging in place, and those who stay in Newton may want to downsize their housing. Given that a large percentage of persons living alone are seniors, there may be a greater demand for one- or two-bedroom apartments. In 2016, Newton was designated to be part of the World Health Organization and AARP Livable Communities Age-Friendly network. This designation means that Newton is committed to making demonstrable changes to ensure that it is a city that is welcoming to people of all ages. "Outdoor Spaces and Buildings" is one of the 8 domains of Age Friendliness, and includes making sure that Newton's open spaces are increasingly open and accessible to people of all ages, including older adults.

Income

The 2017 median household income in Newton was $139,696 as compared with $79,835 for Massachusetts (US Census, ACS, 2017). While Newton is, on average, wealthier than Massachusetts, segments of the population still struggle to meet their basic needs. The 2014 report *Demographic Trends and Housing in the City of Newton, Massachusetts* (12), notes that while, "nearly 27% of resident households have incomes exceeding $200,000 a year, nearly one out of eight Newton households (12.2%) are surviving on less than $25,000 a year. While 40% of married couple households have incomes in excess of $200,000, more than one out of six (17%) non-family households share incomes of no more than $25,000."

In Newton, Black residents are more likely to live in poverty than White residents (23% ±14%, and 4% ±1%, respectively, ACS 2011-2015). Differences in poverty rates between residents of other races are not statistically significant. A household income for a family of $78,150 is considered low-income. According to ACS, 25% (±1.7%) of households in Newton are low-income.

It can be misleading to map poverty at the census tract or block group level due to high margins of error, but it is possible to identify areas where income is lower than the City average. As shown below, relatively lower income areas of the City include Nonantum, Newton Corner, West Newton, and areas around Boston College (just north of Chestnut Hill) (**Figure 6**). Low-income communities and the distribution and access to open space is discussed in further detail in the Environmental Justice (EJ) section, below.

Figure 5. Households with Residents Over 65 Years of Age

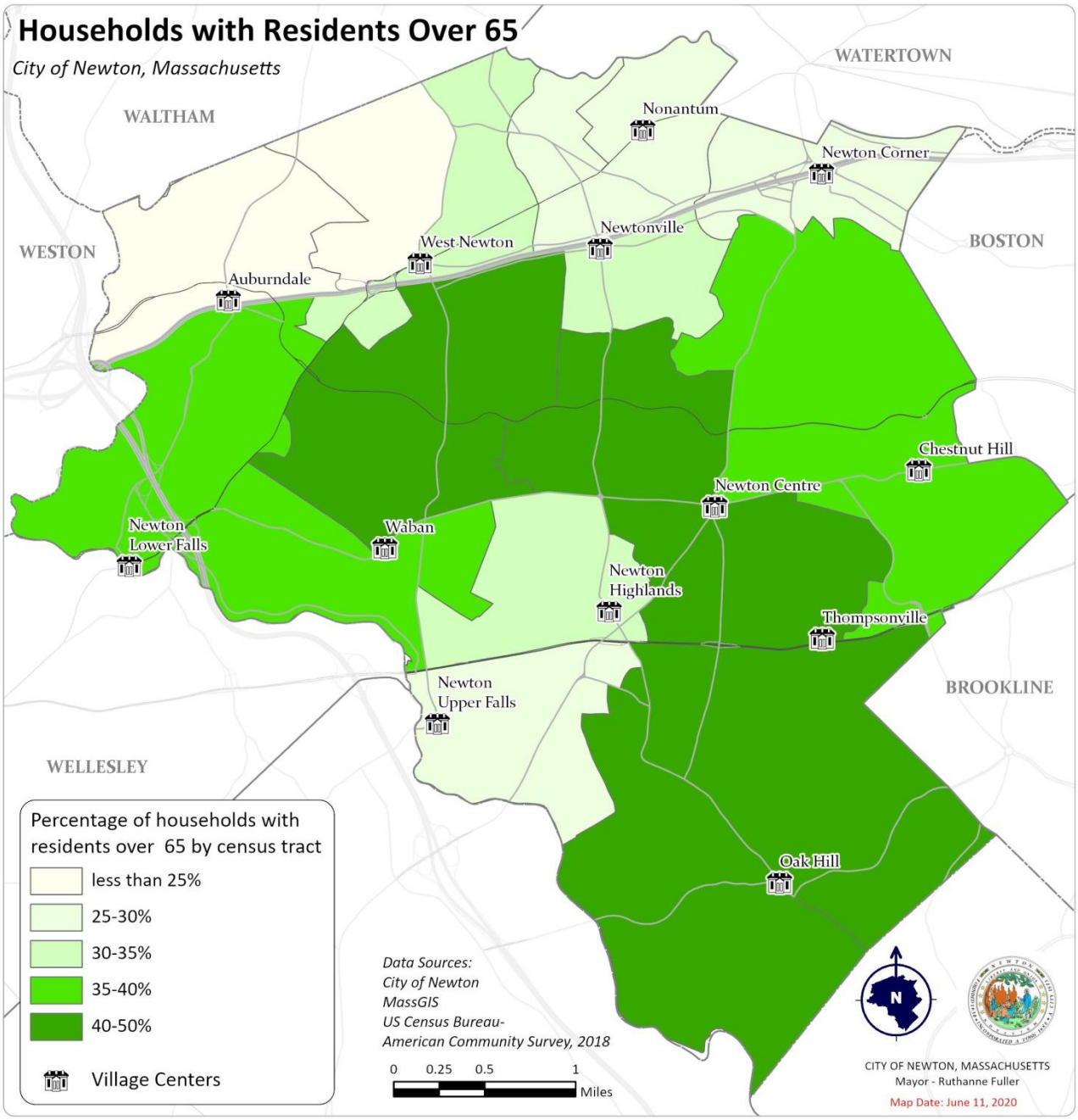
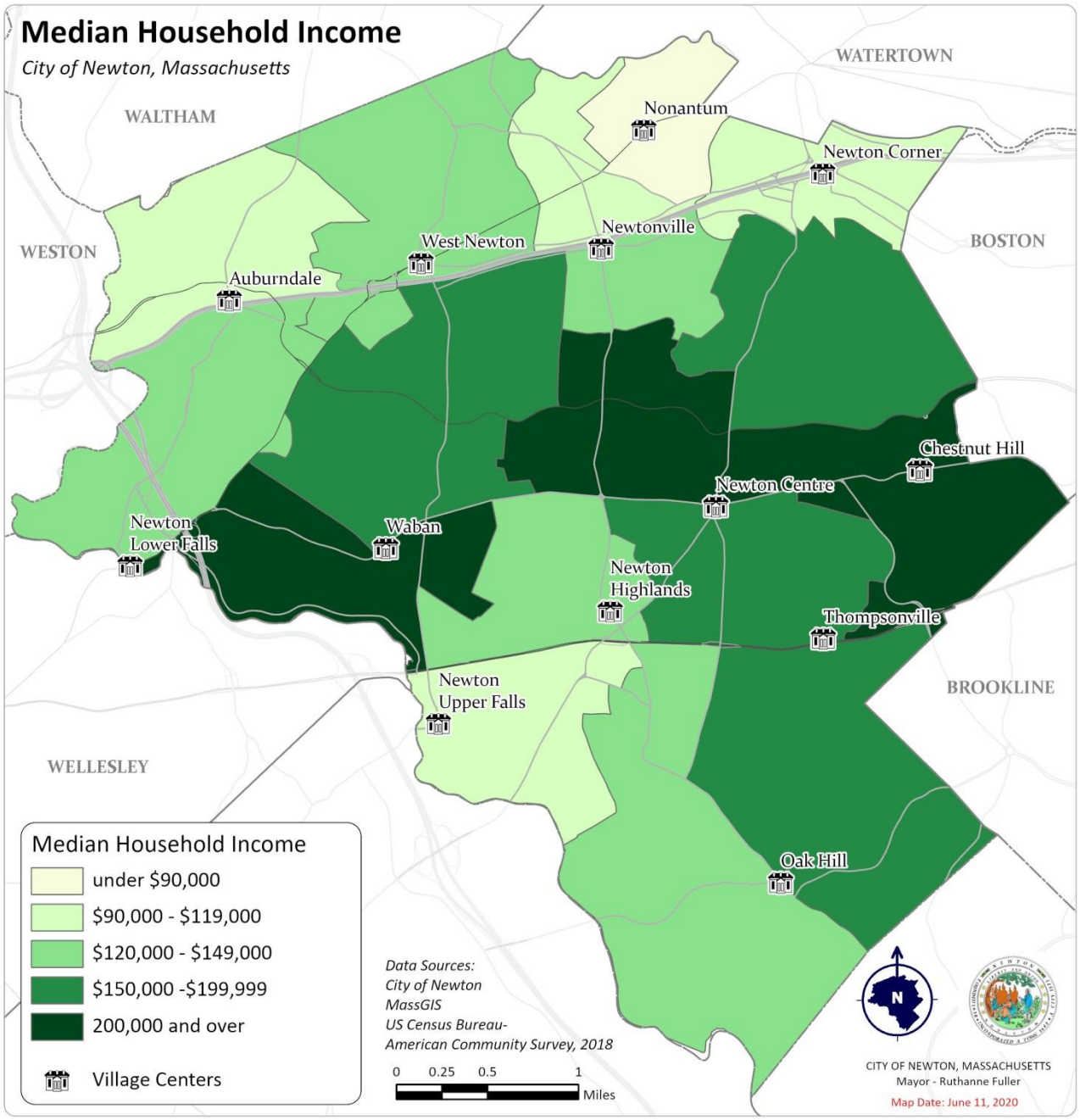


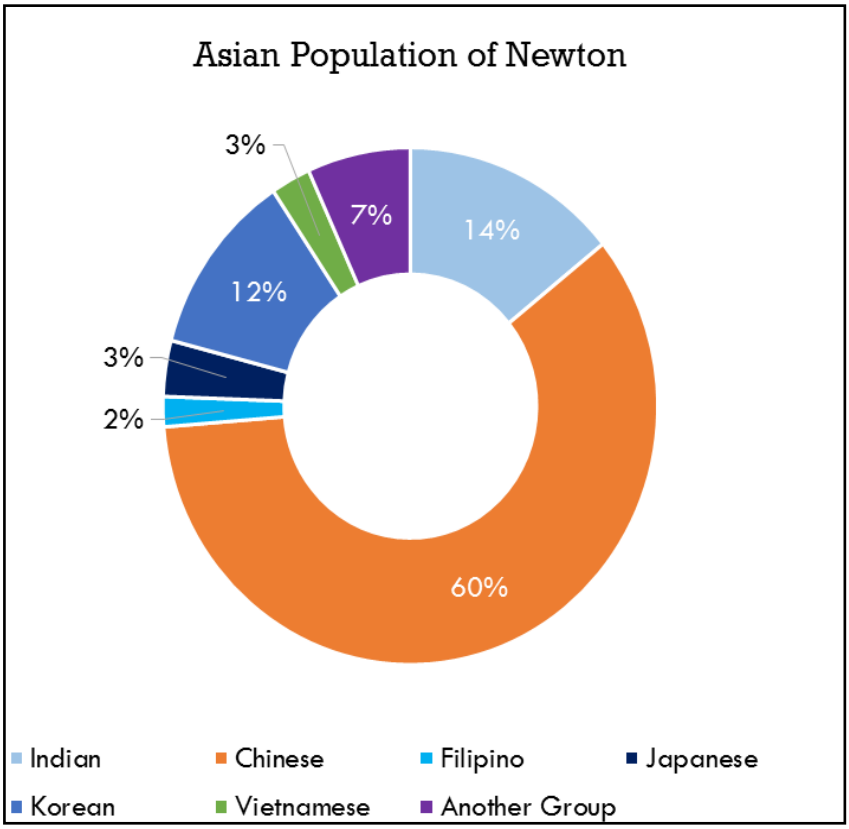
Figure 6. Median Household Income



Race and Ethnicity

Newton is becoming more racially and ethnically diverse. In 2000, people of color comprised 14% of the total population. The 2017 ACS 5-Year Survey revealed that number had grown to 22%. The percentage of Asian residents increased the most, from 8% to 14%. An examination of the country of origin of Asian residents shows there is cultural diversity throughout the population. Over half of those who identify as Asian in Newton have Chinese heritage, and there are significant communities from India and Korea, as well. In 2017, 5% of the population was Latino, 3% was Black, and the remaining 1% was Native American, multi-racial, or other races. (**Figure 7**).

Figure 7. Country of Origin for Asian Residents in 2017

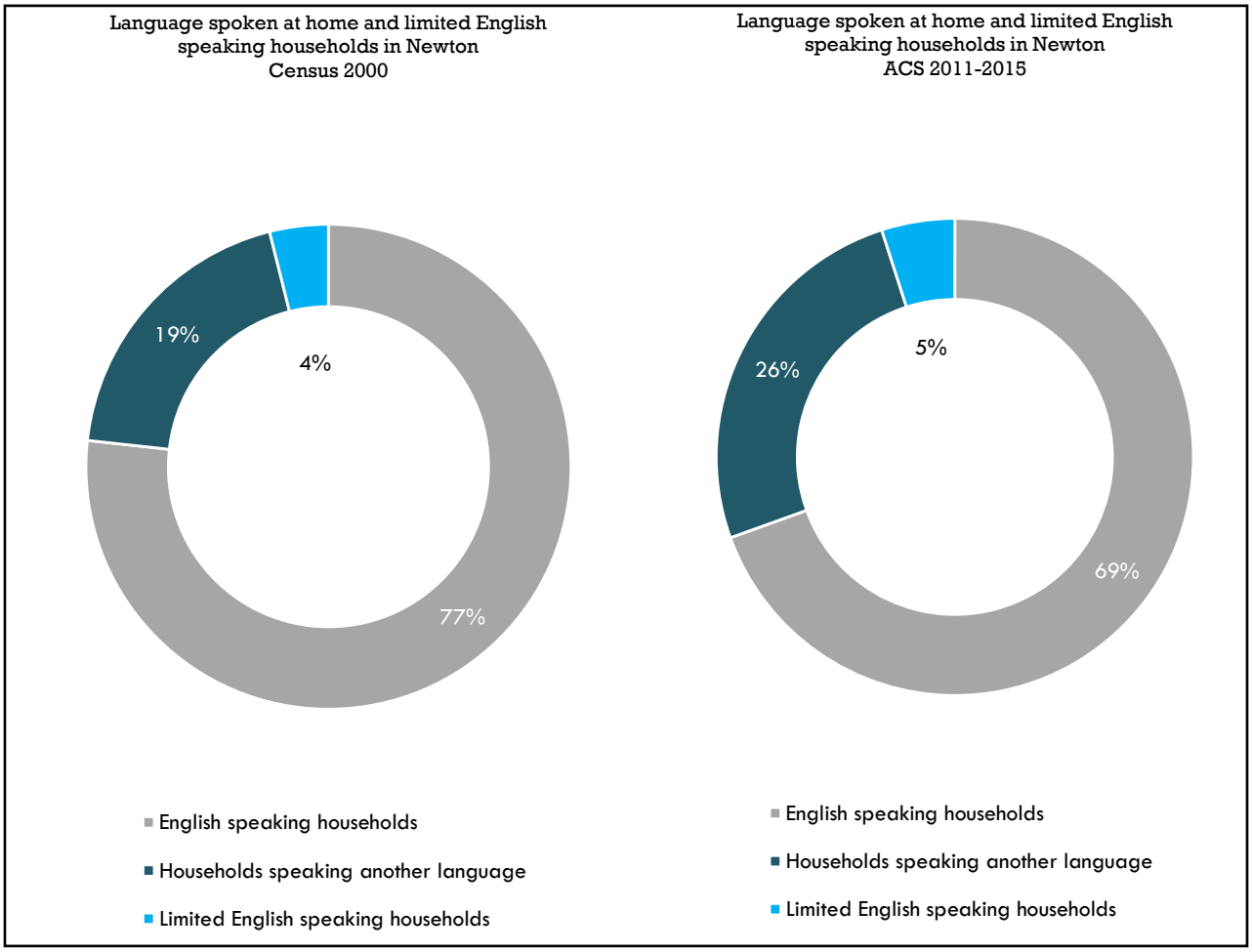


Language and Linguistic Isolation

The percentage of Newton households that speak a language other than English in the home has increased over time. According to the 2000 Census, 23% of households spoke a language other than English; by 2017 (ACS, 5 year survey) that proportion increased to 26.2% (± 1.5%). As the percentage of households speaking another language at home has increased, the proportion of limited English-speaking households has also increased to 5% of the population (in 2010). "Limited English-speaking households," formerly known as "Linguistically Isolated households", have no household members age 14 or older who speak English well (**Figure 8**). Other languages spoken at homes in Newton include Chinese languages (5,470 ±660), Spanish or Spanish Creole (3,153 ±245), Russian (2,963 ±493), and Korean (1,193 ±219). In Newton, Asian and Latino residents are much less likely to speak English very well than residents of any other race (29% ± 3% and 14% ± 4% respectively, ACS 2011-2015). City records of households with flood damage in 2010 indicated that 2.5% of respondents of Asian background and 2.5% of respondents of Russian background had difficulty communicating in English. Reliable data regarding geographic distribution of residents' language and

linguistic isolation are not available, but as the City diversifies, it will be ever more important to continue to assess communication; this may be facilitated by the recent incorporation of the Department of Culture into the new Department of Parks, Recreation & Culture (PRC).

Figure 8. Languages Spoken at Home and Limited English-Speaking Households in Newton



Environmental Justice (EJ)

"Studies conducted throughout the U.S. have documented patterns of environmental injustice. These studies have determined that lower-income and minority communities suffer from a disproportionately high share of environmental burdens and at the same time lack environmental assets in their neighborhoods" (EOEEA website Mass.gov). The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) defines EJ populations as neighborhoods (U.S. Census Bureau census block groups) that meet one or more of the following criteria:

- Median annual household income is at or below 65% of the statewide median income; approximately $50,300 for 2017 (ACS, 1-year Survey, 2017)
- 25% or more of the residents are a racial minority
- 25% or more of the residents are foreign born; or
- 25% or more of the residents are lacking "English language proficiency."

While certain areas in Newton may be, on average more challenged in these ways (**Figure 9**), it is important to recognize that residents with heightened vulnerability reside throughout the City. EJ demographic

analyses provide indications of where higher concentrations of vulnerable residents may be located. EJ populations, writ broad, may suffer inadequate access to healthy food, inadequate transportation, higher than average environmental pollution, higher vulnerability to climate impacts, unsafe homes, and/or less access to open space resources.

The EOEEA Environmental Justice Populations map from MassGIS (**Figure 9**) identifies "Environmental Justice" populations in the northern and southwestern parts of Newton. Some of the identified neighborhoods have fewer or limited open space and/or recreational and environmental resources; and residents there may be challenged by language or economic barriers to participate in planning and development decisions in their communities. In these more densely populated areas, where income status qualifies a community as Environmental Justice, the Community Housing Department and Parks, Recreation & Culture proactively seek ways to increase open space and recreation resources to the extent possible, but face challenges in doing so due to the limited availability of land. In and around these neighborhoods, the quality of existing resources and safe pedestrian-friendly access becomes vitally important. As new and low-income-inclusive housing developments are considered in these areas, there may be opportunities to create new open space resources (discussed in further detail in the "Housing" section, below).

In Newton, there are nine areas that are identified as Environmental Justice areas due to their significant (over 25%) minority and foreign-born populations, though they may be affluent, prosperous, and well-endowed with open space and recreational resources and tree-lined suburban streets. Some minority EJ block groups in the Nonantum and Upper Falls communities qualify as low-income, but most are financially well-endowed. There is one EJ census block group, in Newton Corner, identified as below 65% of the statewide median household income (approximately $50,300).

Other minority-based EJ communities are within heat islands (**Figure 10**). Heat islands result where dark-colored impervious surfaces such as black roofs and asphalt streets and parking lots, absorb and re-radiate heat, leading to increased surface and air temperatures. Areas with more trees and less dark-colored impervious surface experience lower surface level temperatures. Heat islands will be exacerbated by climate change, and, though everyone will feel rising temperatures, those living in heat islands will feel the greatest impact.

Newton's *Climate Change Vulnerability Assessment and Action Plan* (22) states that "extreme heat can contribute to greater levels of ground level air pollution and allergens. The poor air quality and high humidity that often accompany heat waves can aggravate asthma and other pre-existing cardiovascular conditions. Anyone who does outdoor physical activity during hot days with poor air quality is at increased risk for respiratory illness. Low-income people and people of color may also be at increased risk because these populations have a higher prevalence of chronic disease."

In planning for Newton's open space resource development, acquisition, and renovation, it is important to consider the equitable distribution of open space resources. Because of early development trends in the City, Newton has greater housing density around the Mass. Pike/I-90 corridor. Residents living there contend with more impervious surfaces, more heat island effect, and less access to natural areas and outdoor recreational facilities than the rest of the City. The local Community Development and Housing Office and Department of Parks, Recreation and Culture, aims to increase open space and recreation resources to the extent possible, subject to existing conditions and limited availability of land. To ensure the public health benefits of open space for all residents, an emphasis on planting shade trees and developing green spaces and areas for outdoor recreation is needed in the northern part of the City and the other heat island areas in the City. These improvements will not only benefit EJ communities but also native wildlife and local air and water quality.

Figure 9. Environmental Justice Communities and Open Space

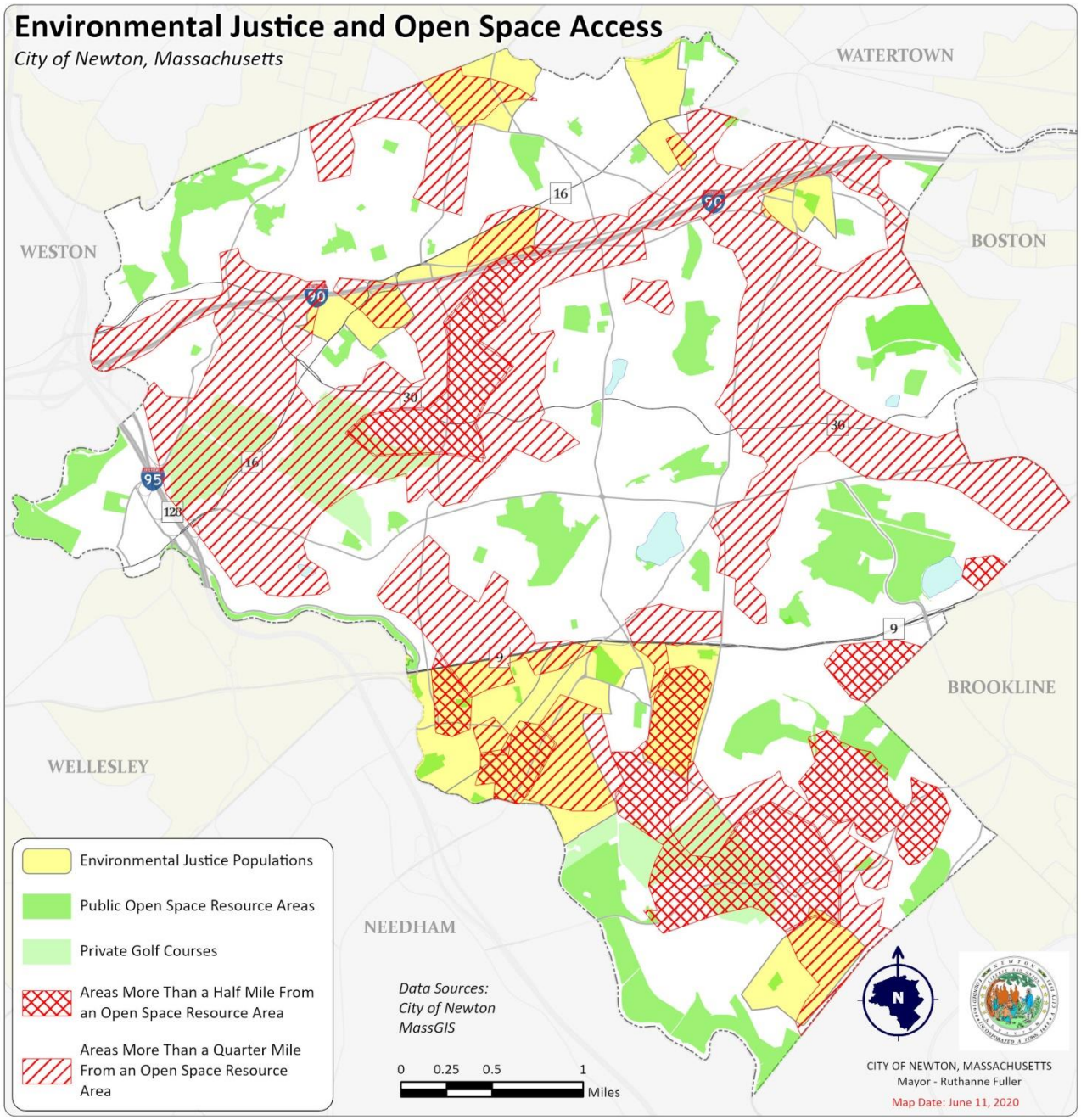
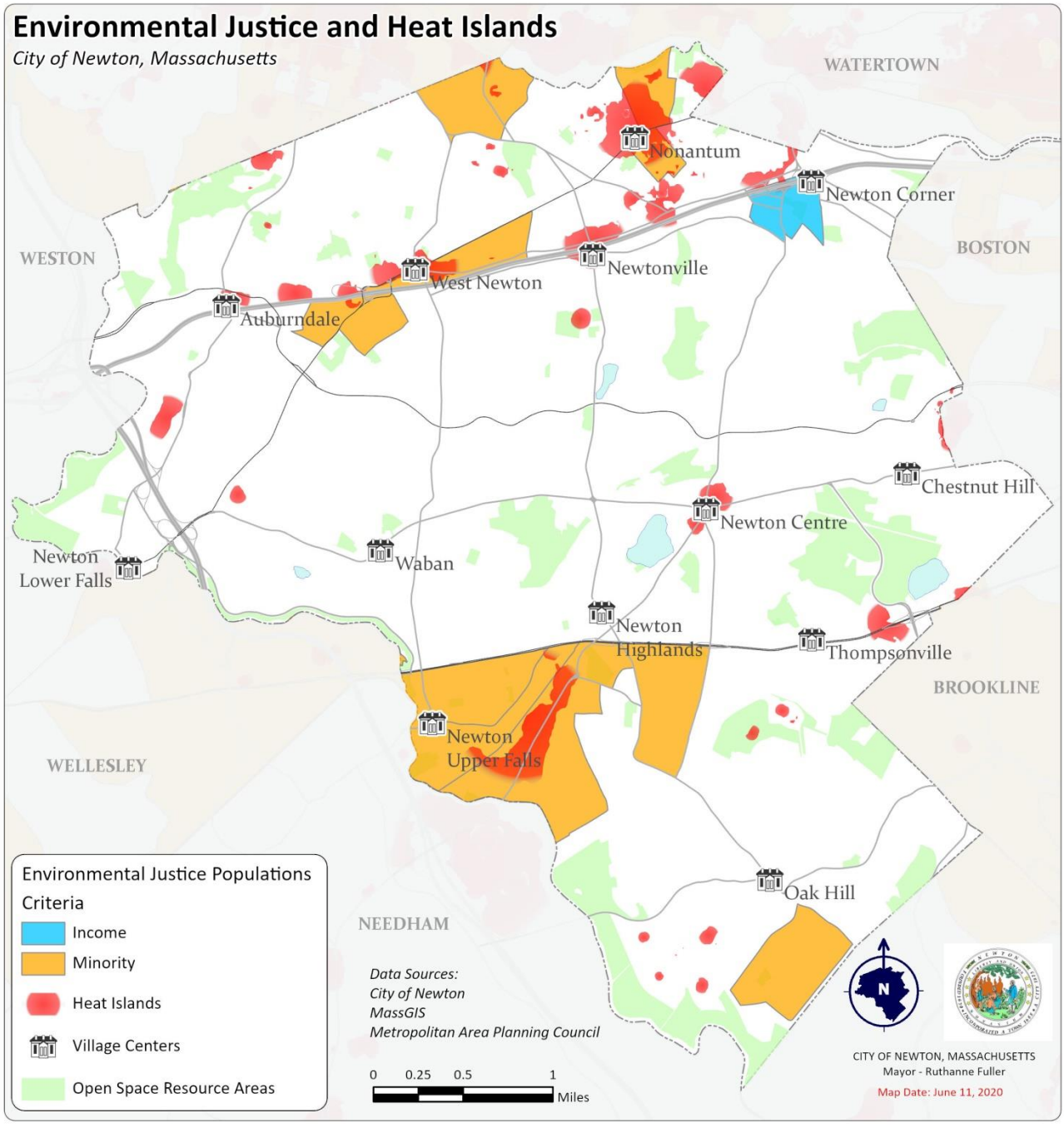


Figure 10. Environmental Justice Communities and Heat Islands



Education

Public Schools

The City of Newton prides itself on the quality of its public schools. Newton's school system comprises 15 elementary schools, four middle schools, two senior high schools, and two alternative high school programs located at the Education Center. The enrollment in October 2019 was 12,611 students. Enrollment is projected to decline by 1,482 over the next 5 years. Over 70 different languages are spoken within the student/parent population, and 6% of the students are English Language Learners. 424 Boston METCO students are enrolled in the schools; METCO is a voluntary program intended to expand educational opportunities, increase diversity, and reduce racial isolation by permitting students in certain cities to attend public schools in other communities. The Newton School Department's 2019-2020 operating budget is $236,297,312. The approximate per pupil expenditure in 2018 was $19,395.94 (MA Department of Elementary and Secondary Education) and ranks among the highest per pupil expenditure in the state. The average class size in elementary classrooms is 20.8 students; middle school is 21.7; and high school is 22.2 (Newton Public Schools). All playgrounds, playing fields, and athletic fields affiliated with the public schools are maintained by the Parks, Recreation & Culture Department.

Private Schools

Newton is home to many private schools, including Newton Country Day School, Brimmer and May School, Mount Alvernia High School, Wellan Montessori School, The Chestnut Hill School, The Fessenden School, Solomon Schechter Day School of Greater Boston, Mount Alvernia Academy, Jackson Walnut Park School, Learning Prep, and Dearborn Academy.

Colleges

As in many communities across the country, Newton has experienced institutional changes as some smaller colleges, struggling with lower enrollment and rising costs, have closed. It is difficult to predict future changes, due to the recent transitions, and their related impacts on open space. As campuses are in flux and schools change hands, zoning regulations that limit impervious surfaces and require stormwater management could help to limit detrimental environmental impacts, should these campuses be developed differently.

- **Boston College.** Offers on-campus studies and on-line programs in the Jesuit tradition.
- **Lasell University.** Offers on-campus and on-line graduate and undergraduate programs. (Lasell University).
- **Mount Ida Campus of U. Mass Amherst**. The 72-acre campus was recently acquired by U Mass, and planning for its future use is underway.
- **Andover Newton Theological School.** The oldest graduate school in the nation. Formally joined with Yale Divinity School in 2017. The campus was sold to Winthrop Park School, Inc. an educational entity affiliated with billionaire investor and developer Gerald Chan ("Foundation tied to billionaire Gerald Chan," *John Hilliard, Boston Globe, June 30, 2017*). Newton has proposed that its zoning be changed to Campus zoning as part of the City's zoning redesign process.
- **Hebrew College.** Sold its Newton Centre campus to Winthrop Park School, Inc. in 2018. A graduate school dedicated to Jewish learning. Newton has proposed that its zoning be changed to Campus zoning as part of the City's zoning redesign process.

Housing

Newton has a high rate of owner-occupied housing. Of the 30,952 occupied housing units identified in 2018, 71.5% were owner-occupied, and 28.5% were renter-occupied (US Census 2018 ACS 1-Year Survey). The number of renter-occupied units has decreased by 3.1% from 2010.

The median sales price for a residential unit continues to increase; they rose from $730,885 in 2010 to $1,003,800 in 2020 (Zillow). The value of Newton's housing market has increased steadily over the past few decades; Newton was one of the few communities in the country that did not experience a housing downturn during the 2008 recession.

According to the Newton FY 2016-2020 *Consolidated Plan for Housing and Community Development* (73), approximately 97% of Newton's affordable units are rentals. Most of these units are for seniors and residents with disabilities.

Recent Housing Development

Until recently, development in Newton has been the subdivision of larger lots, accommodating accessory apartments, undertaking in-fill development, and undertaking demolition and redevelopment of single-family houses.

Current development projects tend to be focused on the principles of smart growth and transit-oriented development (TOD) to densify housing, increase pedestrian connections, and increase downtown networks.

Newton's 2011 *Comprehensive Plan* includes the goal to "balance conservation and development needs through procedures linking development with open space considerations as part of the permitting process. Consider allowing, for example, increased density (whether dwelling units per acre or commercial floor area ratio) in exchange for open space provided in excess of required minimums" (7-6).

Given the average high cost of living in Newton and the relative dearth of affordable housing, the City qualifies for 40B housing development projects. 40B housing developments are given greater flexibility regarding local ordinances (such as those that affect density), in exchange for ensuring that 20-25% of the new housing units will be affordable. Though no current 40B projects result in open space losses, the City should continue to work to ensure that future developments retain and even expand existing green spaces that mitigate heat islands, clean the air, filter stormwater, and provide access to open space resources wherever possible.

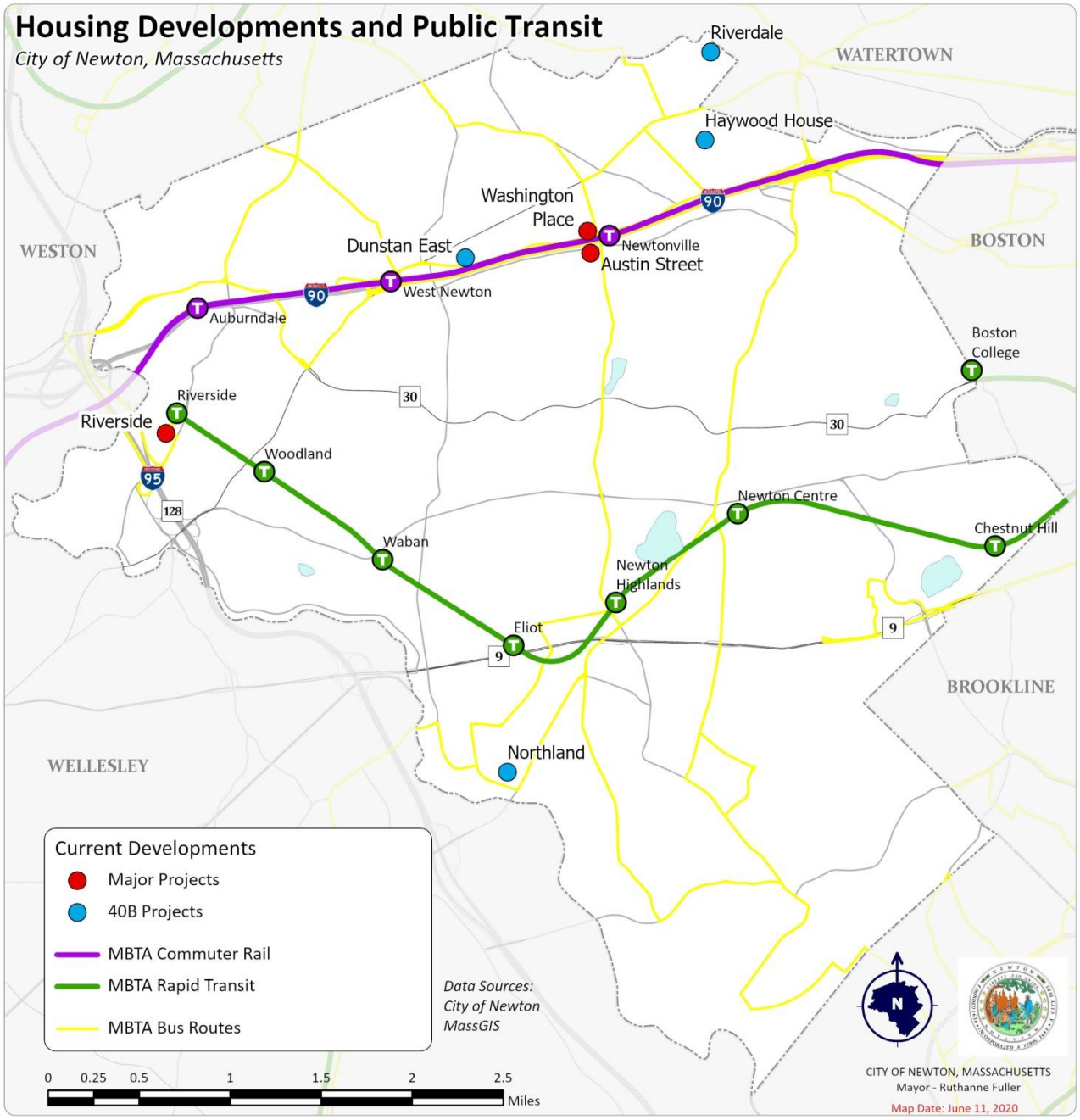
Current 40B development projects (by right and by Comprehensive Permit in accordance with Chapter 774 of the Acts of 1969, M.G.L., Chapter 40B, Sections 20-23) (see **Figure 11**) include:

- **Dunstan East**: 243 rental housing units with 61 affordable; near Washington Street
- **Riverdale:** 204 rental housing units with 51 affordable at 15 Riverdale Avenue
- **Haywood House:** 55 rental housing units with 32 affordable at 83-127 JFK Circle

Other high-profile current or proposed developments in Newton at the time of writing this Plan include:

- **Washington Place:** 140 housing units with 21 affordable units in "the Orr Block" at Washington Street and Walnut Street.
- **Riverside:** large mixed-use development project on a portion of the Riverside MBTA parcel with easy access to the green line subway. The project will include approximately 524 housing units, 547,000 square feet of office space, 65,000 square feet of shops and retail, a new 200 room hotel (replacing Hotel Indigo), an outdoor amphitheater/public park, and a new garage with roughly 3,000 spaces.
- **Northland:** 800 housing units, with 180 affordable units, street-level retail, central parking, and public open spaces, on Needham and Oak Streets.

Figure 11. Housing Developments and Public Transit



Business and Employment

There are 3,742 business establishments in Newton employing over 40,000 people. From 2016-2017, employment in Newton increased by 1.24% from 44,7000 employees to 45,300 employees (U.S. Census Bureau, ACS 5-Year Estimate.) In 2017, Newton's unemployment rate was 3.7%, slightly below the 3.8% state average and 4.7% for the U.S. average (U.S. Census Bureau, ACS 5-Year Estimate.)

According to 2017 data available from the Massachusetts Department of Employment and Training, the major employment fields in Newton included: management (7,126 people); education instruction and

library occupations (5,006 people); and health occupations (4,131 people). The 2007 *Comprehensive Plan*, using US Census data from 2000, reports that 29.5% of workers living in Newton commute to Boston, 27.4% work in Newton, 6.9% commute to Cambridge and the remaining commute to surrounding towns. The *Comprehensive Plan* does not predict major job growth in the City, instead, it focuses on promoting a, "Flexible Moderate Growth economic development program for Newton which involves preservation of Newton's residential amenities, strengthening of business in Newton's village centers, and promotion of commercial development along Newton's commercial corridors. (p. 6-7)"

D. GROWTH AND DEVELOPMENT PATTERNS

Development Patters and Trends

Newton's total area is 18.15 square miles, or 11,733 acres. This includes 11,457 acres of land and 276 acres of surface water. Currently about 80% of Newton's total land area is considered developed and roughly 20% is open space; 60% of Newton's open space is in public ownership.

Current land use in Newton, sourced from the National Land Cover Database and MassGIS (2016) (**Figure 12**), illustrates that Newton's land is primarily dedicated to residential housing (mostly single and multi-family residential housing) (**Figure 13**). Historical transportation advancements contributed to Newton's growth into the fully developed residential City and created the patterns of development we see today. Housing and commercial development densities, and their accompanying impervious surfaces, are greatest around the Mass. Pike/I-90 corridor in the northern part of the City and around the former mill and industrial areas of Newton Upper Falls and Newton Lower Falls; housing and commercial development is less dense in the central and southern parts of the City, where development happened later. Areas with the heaviest industrial and commercial uses are coincident with Newton's Environmental Justice minority populations.

Newton's protected open space resources are widely distributed but tend to be sited in areas less ideal for development, such as poorly drained lowlands, steep slopes, and wetlands and are more heavily represented in the central and southern part of the City.

The largest blocks of unprotected open land lie on the western and southern edges of the City.

Almost 20% of the City's land area is owned by educational, religious, non-profit, and governmental institutions that are campus-based. While there is little opportunity for existing institutions to acquire new land in Newton, current parcels are experiencing heavier use and undergoing building and infrastructure expansions. In the past decade Newton-Wellesley Hospital has renovated and expanded some of its facilities, including the construction of a new Emergency Department, Surgical Center, and parking garage. Boston College has constructed a 183,000 square foot academic building for humanities studies, which opened in January of 2013. Lasell University has constructed multiple dormitories to house over 340 students, while renovating and expanding administrative offices and classroom space. Religious institutions that have expanded or built new places of worship include Congregation Shaarei Tefillah, which constructed an 8,000 square foot addition onto an existing ranch house, and Beth Menachem Chabad, which constructed a new 12,214 square foot facility.

Figure 12. Land Cover

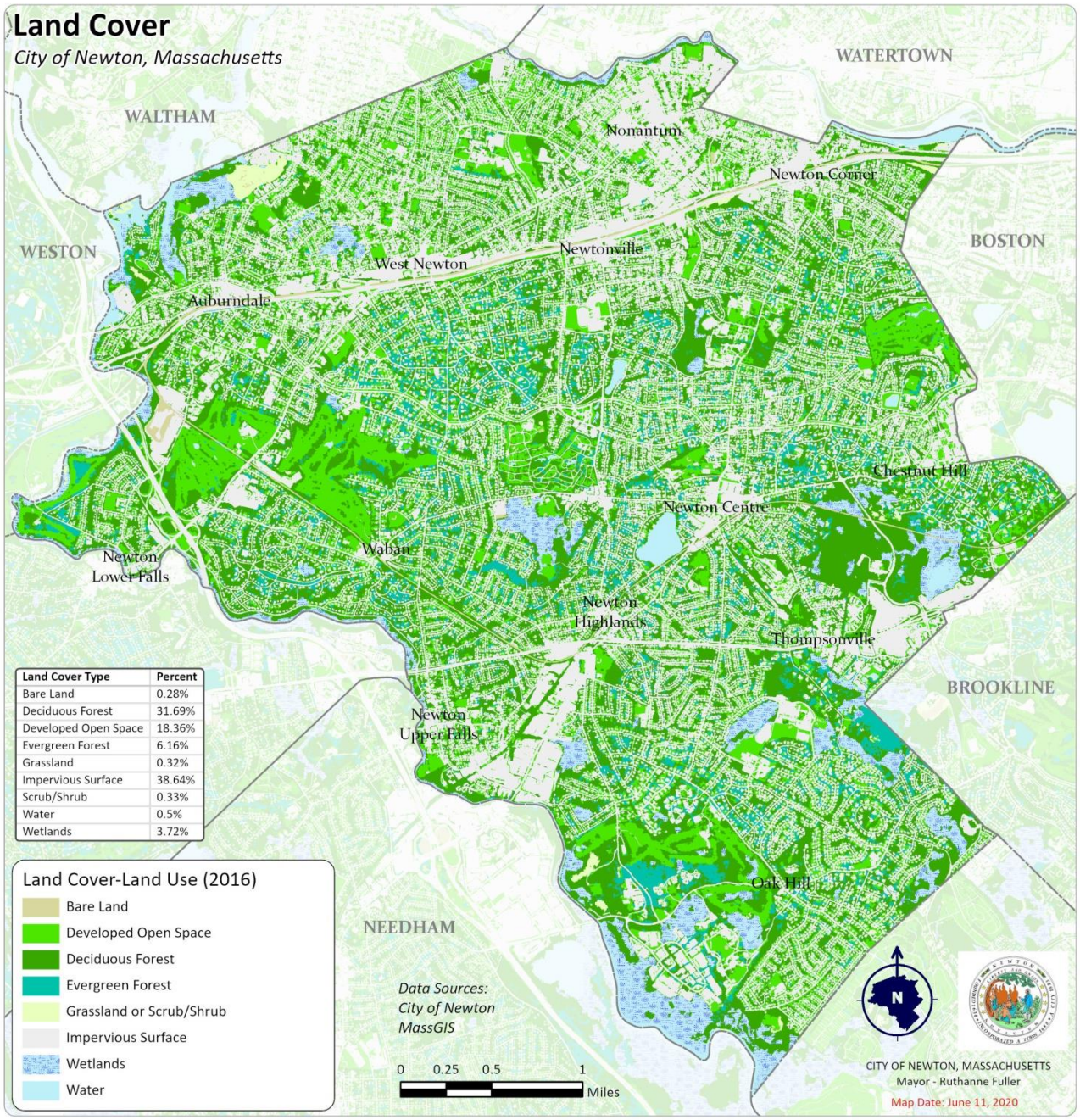
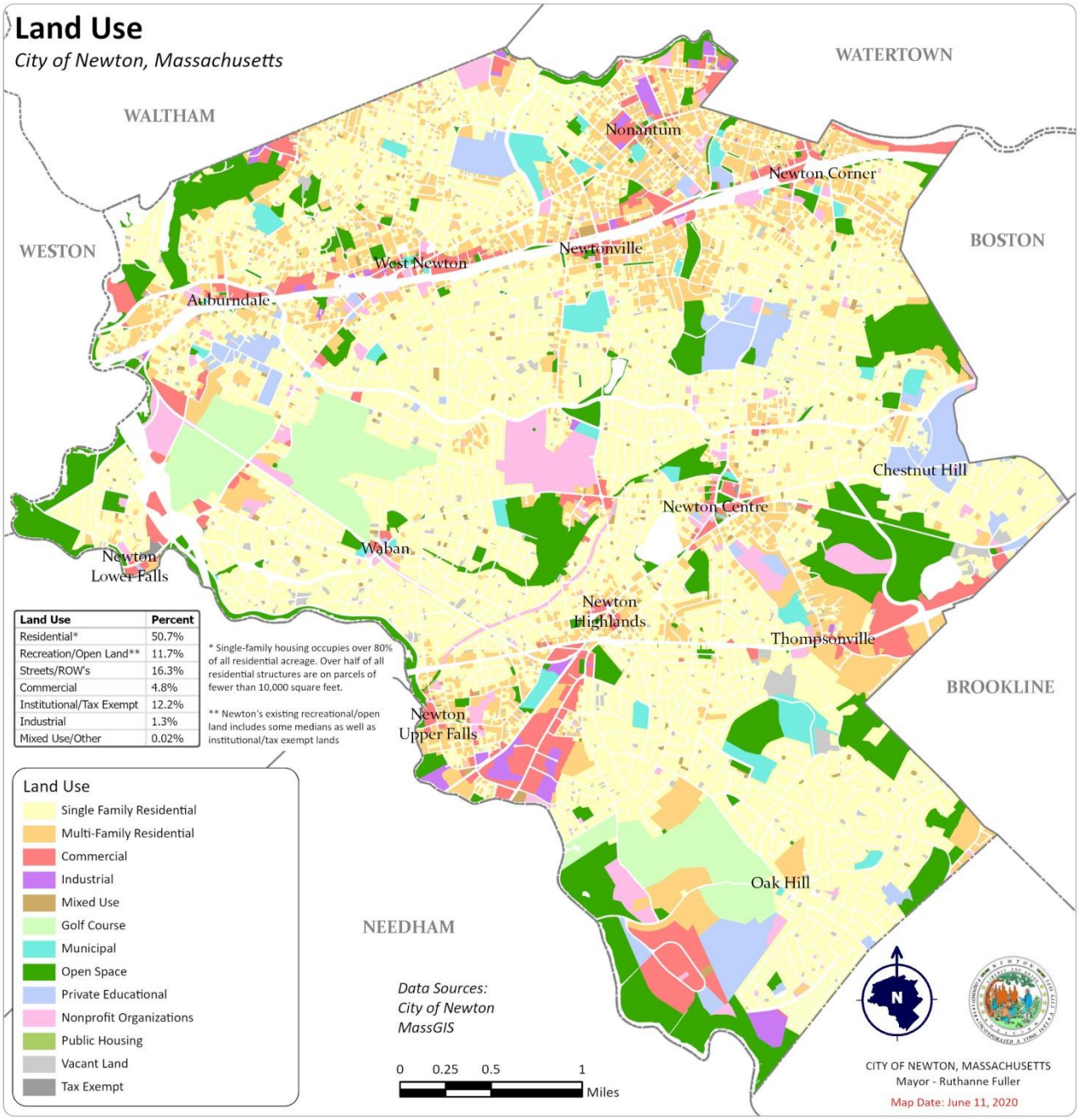


Figure 13. Land Use



Newton lacks a distinct downtown and instead contains the 13 villages of Auburndale, Chestnut Hill, Newton Centre, Newton Corner, Newton Highlands, Newton Lower Falls, Newton Upper Falls, Newtonville, Nonantum, Oak Hill, Thompsonville, Waban, and West Newton, all of which have their own unique and distinct character. While the villages in the southern and central part of the City have relatively more large natural open space parcels than villages in the northern part of the City, they do not necessarily have relatively more recreational park facilities: Oak Hill, Thompsonville, and Chestnut Hill, which are all located in the southern part of the City, are relatively lacking in park facilities. Maintaining Newton as a community of villages and providing a "small-town feel" in an otherwise well-developed environment is essential to preserving the special character and sense of community that are chief among the City's planning values.

Newton's *Comprehensive Plan* was adopted by the Board of Aldermean in 2007, with amendments for mixed-use centers added in 2011, and amendments to the Washington Street Vision Plan added in 2019. Newton's *Comprehensive Plan* sets forth a clear intention for "smart growth" principles, including support for transit-oriented development, development-oriented transit, and smart growth zoning that reflects infrastructure and walkability, land conservation, and applying strategic planning to nodes and corridors, such as Route 9/Boylston Street, Needham Street, and the Riverside MBTA site. Smart growth is about "growing where it makes sense: in and around central business districts or traditional city or town centers, and near transit areas. It is about growing where there is existing infrastructure and utilities, with increased pedestrian access to schools, civic facilities, retail and employment centers, and other destinations" (*Newton Comprehensive Plan,* 15).

Infrastructure

Roadways

The City contains approximately 300 miles of City streets. Most of the streets are owned and operated by the City's Department of Public Works.

The Mass. Department of Conservation and Recreation owns Nonantum Road, Quinobequin Road, and Hammond Pond Parkway. Both Nonantum Road and Quinobequin Road run near the Charles River, and Hammond Pond Parkway runs through Hammond Pond Reservation and Webster Conservation Area.

MassDOT owns and operates Needham Street, Boylston Street (Route 9), Route 128 (I-95), and the Massachusetts Turnpike (I-90). (**Table 2**).

Most of the primary roadways in Newton traverse the City from east to west and carry large volumes of traffic going to and from Boston and outlying suburbs. Newton contains three major north-south routes: Centre, Walnut, and Chestnut Streets, which primarily carry intra-city traffic.

Table 2. Estimated Daily Traffic on Newton's Freeways

Freeway	Avg. Daily Traffic Count
Interstate 95 (Route 128)	150,000
Interstate 90 (Mass Pike)	120,000
Route 9	49,350

Public Transportation and Ride Share

Newton has been a well-connected community since its early days and continues to be so today. The advent of rail service to Boston in the mid-1800s contributed to the growth of Newton's villages, and the subsequent rise of the automobile made the rest of the City accessible.

MBTA: The MBTA provides public transportation service in Newton, including stops on the Green Line (light rail), stops on the Worcester Line of the Commuter Rail system, as well as local and express bus routes. The D Branch of the Green Line connects stations at Riverside, Woodland, Waban, Eliot, Newton Highlands,

Newton Centre and Chestnut Hill, with Brookline and Boston. The MBTA Commuter Rail connects Auburndale, West Newton, and Newtonville with Back Bay and South Station, as well as points west. MBTA bus service covers many of the primary roadways of the City, while express buses provide service to and from Boston. Several areas of Newton have few or inadequate public transportation options due to limited bus routes and a lack of safe connections to train stations.

The MetroWest Regional Transit Authority operates a public shuttle service between Framingham and Woodland MBTA Station.

Wells Avenue Shuttle: Newton recently received a $250,000 grant from MassDOT to start a shuttle service between the three mass transit lines of Newtonville, Needham Heights, and Newton Highlands as well as the Wells Avenue business district area, which includes the Mount Ida Campus of UMass Amherst. This new Wells Avenue shuttle service is set to begin by Fall of 2020. The shuttle will allow many employees who live close to MBTA lines and students who attend Mount Ida to increase their use of public transportation ("New Shuttle Bus System Will Serve Wells Ave, Mount Ida Campus", 2020).

Newton-in-Motion: One of Newton's newest transportation systems is Newton-in-Motion (NewMo) initiated in 2019 for residents age 60 and over. Subsidized by the City, NewMo is a low-cost, on-demand ride-share system like Uber and Lyft, primarily for medical appointments or trips to the Senior Center.

Bike Share: The LimeBike bike share program gained prominence recently in Newton. Lime Bike is a transportation company that runs electric scooters, electric bikes, pedal bikes, and car sharing systems. Lime Bike allows riders to pick up and drop off vehicles and bicycles using a smartphone app and is ideal for out of town visitors and for residents who do not own bikes. However, with Lime Bikes transitioning away from bikes to their more popular scooter offering (which is not permitted in Newton), the City has received grant funding to transition to the Blue Bike system, operated by Lyft.

Newton Leads 2040

In 2017, the City commissioned *Newton Leads 2040: A Transportation Strategy Plan* which drafted a bicycle network plan, implementation of which is still being undertaken. The effort began in Fall 2015 to identify needs and gaps in Newton's transportation system. The top priorities of this plan are to improve road quality; improve driver experience and safety; enhance safety and visitor experience in business areas and village centers; increase bicycle use and safety; offer shuttle service to Newton residents and businesses; and provide convenient parking. Summarized into main themes, the plan describes the need for transportation to be safe, smart (using technology and data-driven solutions to adapt to current transportation needs), accessible, livable, and sustainable. Each section of the plan contains a list of existing transportation conditions and strategies or proposals which are mapped. The plan includes explanations of how the strategies will be implemented, financial implications, and a rough timeline.

Connectivity to Open Space

Connectivity to and between open space resources via safe and connected bike and pedestrian trails, sidewalks and multi-use paths was raised as an interest during the two community meetings and in responses to the online Open Space and Recreation Survey (outlined in further detail in Section 6: Community Vision). People's interest in connectivity is related to growing concerns about climate change, increasing knowledge about required improvements for accessibility, and their concern about increasing congestion on City streets. Newton maintains 125 paved paths, roughly 5,000 sidewalks, and 19 protected bike lanes. Newton currently has 12 boardwalks and 41 miles of nature trails and open space pathways, predominantly in large open space parcels. Most of these are short and are often disconnected from each other. Improving bike and accessible pedestrian connections to natural areas, schools, and parks is a priority for residents and would allow for greater access to Newton's wide array of open space resources.

Bike/Pedestrian Links

Newton Leads 2040 proposals aim to both connect underserved parts of the City to large natural areas and to connect villages to each other. Village centers are a unique aspect of Newton and appreciated by community members, but they can also feel like separate and isolated entities, especially to residents without a car. Creating a multi-modal transportation network would allow residents easier, low-carbon access to all of Newton's resources (**Figure 14**). Identifying conflict locations (shown in purple squares) between pedestrians, cyclists, and vehicles to increase safety, along with increasing bike (shown in dark and light blue) infrastructure and accessible pedestrian access, supports the transition to a low-carbon transportation system and improves the health of residents.

Road Infrastructure and Safety

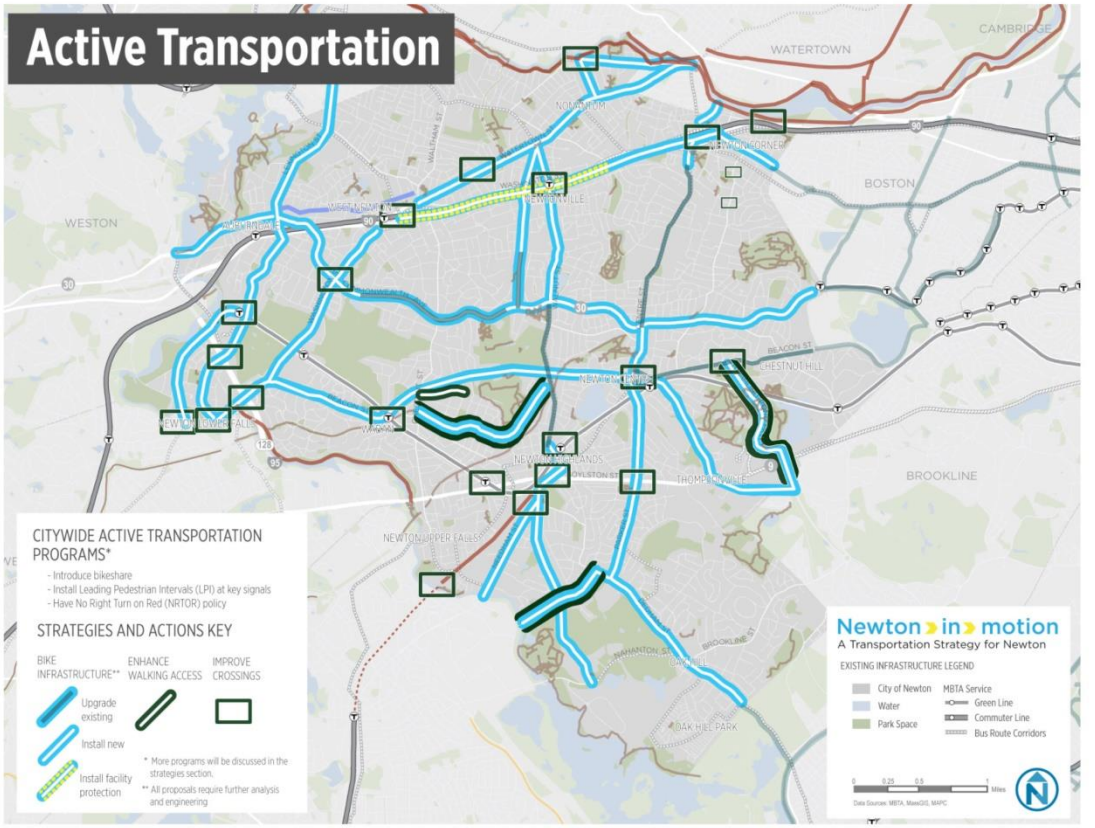
To enhance linkages and connectivity, road designs need to accommodate accessible pedestrian usage. The City has outlined safety and road design improvement concepts in Newton Leads 2040 (**Figure 14**), the Newton Street Design Guide (2018), and Newton's Complete Streets Policy (2016). "Complete Streets" is a transportation policy that requires all streets to be safe, accessible, and convenient for all modes of travel. Residents are more likely to walk to places where they feel safe; even if walking might be convenient because of short trip distances, dangerous walking conditions keep people from walking. Safety improvements include adding (and repairing) sidewalks or dedicated bike lanes, incorporating accessibility improvements, incorporating traffic calming components such as curb bump-outs, adding crosswalks and crosswalk signals, reducing vehicular speed limits, and installing signs. The Newton Street Design Guide also includes efforts to decrease erosion along roads, curb stormwater runoff, and increase tree plantings along roads, which not only makes walking more pleasant for residents, as they are shaded and more isolated from oncoming traffic, but also narrows streets to allow for safer vehicle speeds while accommodating the same traffic loads.

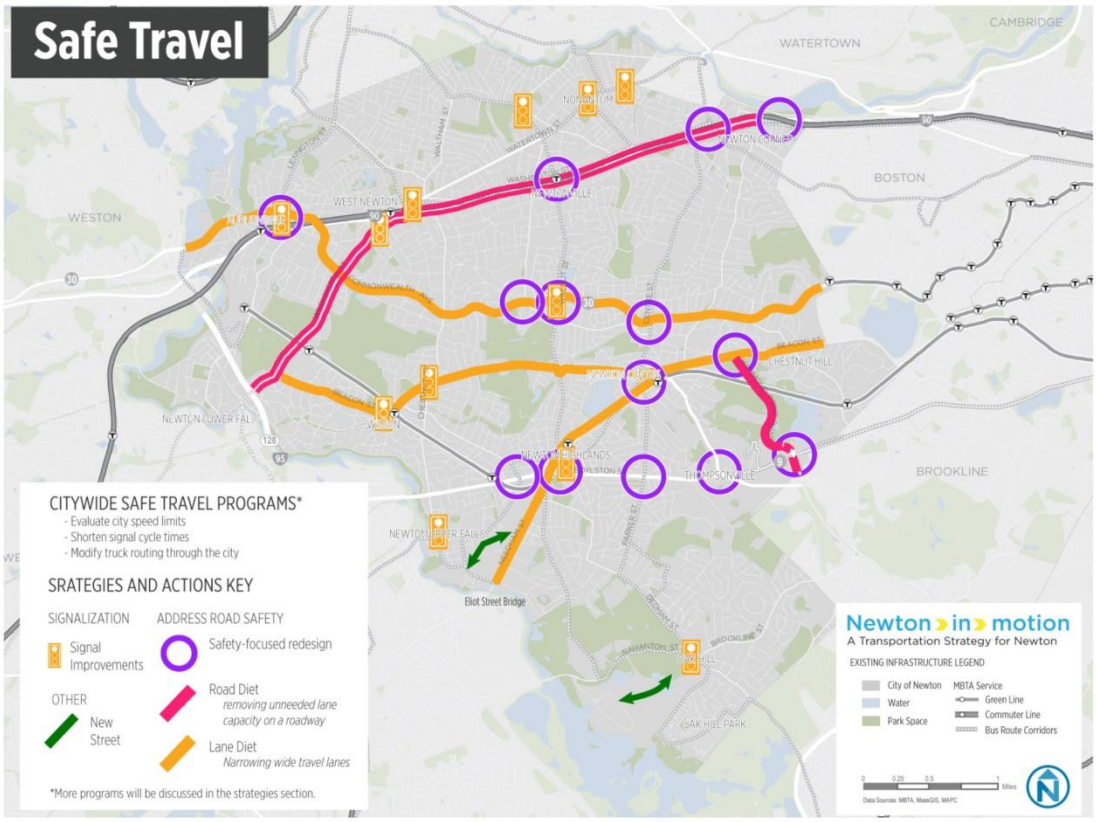
According to *Newton Leads 2040*, most pedestrian and vehicle accidents in Newton occur near the Mass. Pike/I-90, Washington St., Route 9, and along Commonwealth Avenue. **Figure 14** shows locations identified for safety improvements. One strategy for decreasing accidents is reduced lane width, which lowers vehicle speeds and allows for easier pedestrian crossing (*Newton Leads 2040*, 34).

Newton's Water System

Although for many years the wells in what is now Cutler Park in Needham and the adjacent floodplain in Newton supplied part of the City's drinking water, now almost 100% of the City's water supply and wastewater removal needs are accommodated by the Massachusetts Water Resources Authority (MWRA). In 2013 the City began a capital improvement planning effort to help ensure the integrity of the water distribution system to enhance safety for all City residents. The City developed the "City of Newton Underground Infrastructure Strategic Improvement Plan (UISIP)" to address: infiltration and inflow (i/i); sewer back-ups and overflows; steadily increasing MWRA sewer assessments; approximately 165 miles of unlined corroded cast iron water pipe; fire flow deficiencies; and increasing federal requirements for stormwater management. The UISIP created: an 11 -year plan to investigate repair seal, re-line the City's sewer system ($49m); a 10-year plan to investigate, replace, clean and line the City's water system ($40M); a re-structuring of the City's stormwater fee; and development of a Master Plan for Capital Projects.

Figure 14. Active Transportation and Safety Improvement Recommendations (from *Newton in Motion*)





Newton's Sewer System

The City is working in cooperation with the MWRA to make significant investments in upgrading and maintaining its aging sewer and stormwater systems. Sanitary and storm sewer lines in the City allow infiltration of ground water to seep into the lines. In 2011 the City's Utilities Division removed 12 sewer-under-drain connections along Commonwealth Avenue and repaired/replaced 15 sewer service connections throughout the City. In addition, the City cleaned and televised over 18 miles of sewer main and 72 service connections, completed 27 repairs of storm drains, repaired and cleaned over 6,000 catch basins. Finally, the City cleaned approximately 15 miles of storm drains, inspected 112 storm water outfalls, and collected outfall samples at 75 locations to test for the presence of contamination. The City continues with the water quality sampling and investigation program for 143 storm water outfalls to help target illegal connections to the stormwater system while enhancing water quality in the Charles River.

Newton's Stormwater System

Newton's drainage system consists of 320 miles of pipe, 12,750 storm drains (also known as catch basins), 384 outfalls, 14 miles of stream, 2 pump stations, 14 ponds and one lake, Crystal Lake. The Department of Public Works manages our drainage system, also known as a Municipal Separate Storm Sewer System (MS4) because we have separate systems to handle the City's wastewater and stormwater collection. See **Figure 15.**

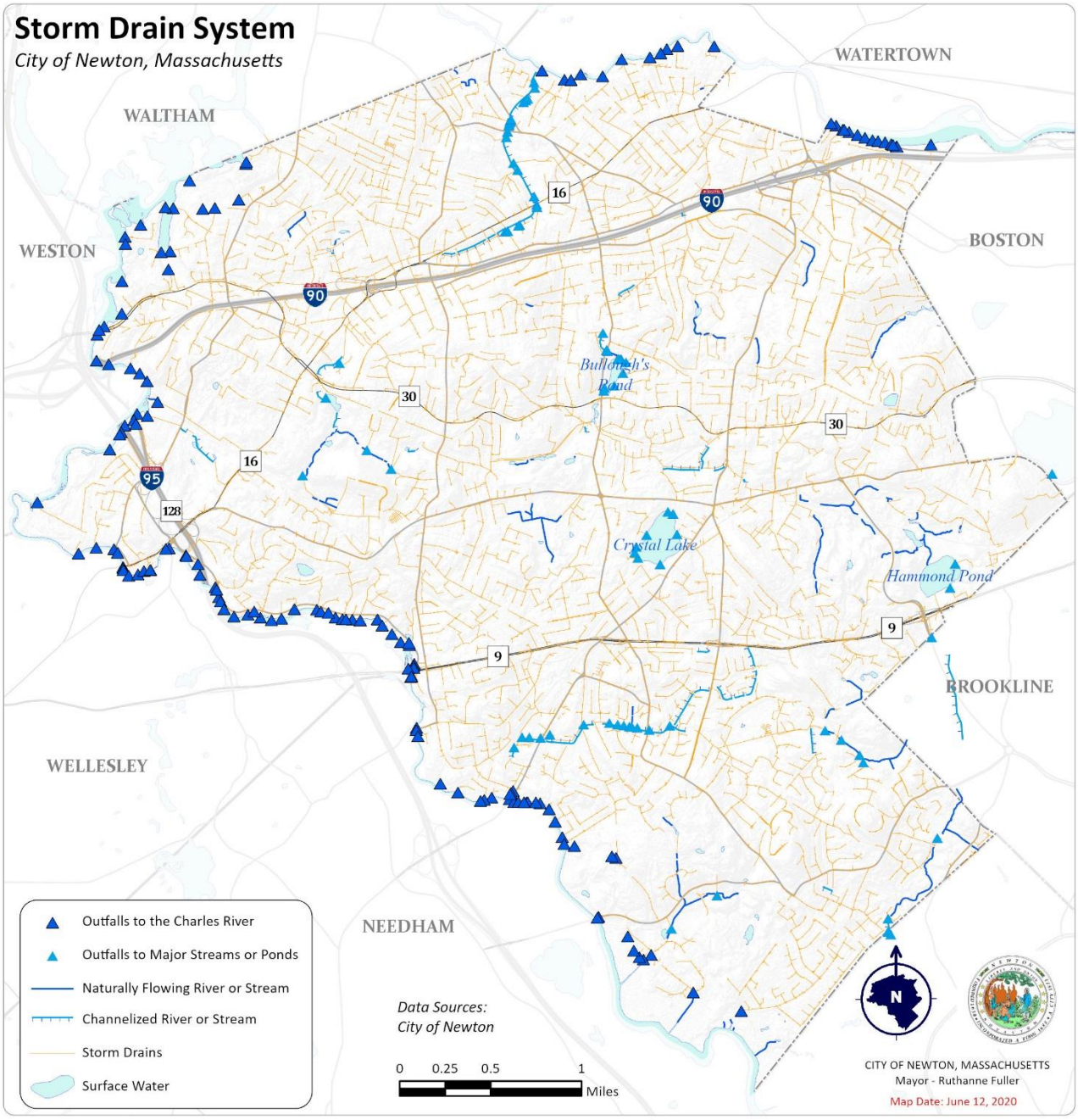
It is a big job to maintain all this infrastructure and comply with the MS4 Federal permit requirements. Newton accomplishes this through its stormwater fee program where property owners pay a fee commensurate to their impact on our system. For simplicity, all residential homeowners pay a flat fee of $75 per year; all other property owners pay based on the amount of impervious area on their property.

The City is authorized to discharge stormwater through the National Pollutant Discharge Elimination System (NPDES) General Permit for Small MS4's in Massachusetts. The US Environmental Protection Agency (EPA) oversees the NPDES program with support from the Massachusetts Department of Environmental (MaDEP). To comply with the permit, the City must follow six Minimum Control Measures (MCM).

- MCM 1. Public Education & Outreach: Provide educational material about stormwater to four audiences (residents, industry, commercial, and construction). The purpose of the educational material is to provide each audience with information about stormwater and how their actions may impact it.
- MCM 2. Public Participation: Provide an opportunity for the public to participate in the City's Stormwater Management Program (SWMP). Contact mrose@newtonma.gov if you would like to be notified when this will be available for review.
- MCM 3. Illicit Discharge Detection and Elimination: Find and eliminate sources of non-stormwater discharges (e.g. sewage) from the stormwater collection system. Part of this requirement includes development of a system wide stormwater drainage map.
- MCM 4. Management of Construction Site Runoff: Adopt an ordinance and procedures for site plan review as well as erosion and sediment control on construction sites that disturb one or more acres of land.
- MCM 5. Management of Post-Construction Site Runoff: Address stormwater runoff from new development and redevelopment projects that disturb one or more acres of land. The goal of this measure is to try to management stormwater where it falls and retain it on site. This control measure encourages the use of low impact design techniques and requires the retention or treatment of runoff on site using green infrastructure practices.
- MCM 6. Good Housekeeping in Municipal Operations: Implement good housekeeping practices in municipal operations such as vehicle maintenance, open space, buildings and infrastructure. The

permit requires street sweeping twice per year, optimization of catch basin cleaning, and pollution prevention at the DPW garages.

Figure 15. Storm Drain System



Newton, MA Like many communities, the City of Newton's stormwater system is old and faces challenges related to stormwater quality and quantity; system maintenance and capital upgrades; localized flooding; and NPDES Phase 2 MS4 General Permit (Federal Stormwater Permit) compliance. Even though the City completes regular maintenance tasks such as grate clearing and catch basin cleaning, as well as a variety of stormwater projects, including water quality sampling, relatively little is known about the condition of the City's 320 miles of drainage infrastructure. A comprehensive plan was required to understand the full range of current and future stormwater needs. The development of Newton's Stormwater Infrastructure Improvement Plan in 2015 will allow the City to efficiently invest in infrastructure improvements to meet the City's stormwater goals for 20 years. These include federal permit compliance; protection and improvement of local water quality; and investing in infrastructure improvements to reduce flooding and ensure an adequate level of service. Given these goals, the Stormwater Infrastructure Improvement Plan focuses on four types of projects: federal permit compliance, localized flooding, stream improvements and culverts.

Prioritization and Stormwater Infrastructure Improvement Plan Development Rating criteria and project grouping alternatives were developed for each Stormwater Infrastructure Improvement Plan project. The rating system was used as a basis to prioritize projects and develop the 22-year Stormwater Infrastructure Improvement Plan. Project prioritization is not always consistent with the rating system. For example, if a stream maintenance project was not highly rated individually but was critical to the success of a highly rated flooding project, the two (2) projects were grouped and will be completed together. Other adjustments were made to decrease total project cost through economy of scale. The requirements of the pending Federal Stormwater Permit play a significant role in the scope and prioritization of Projects. Permit work is prescriptive and must be completed in certain years. As such, the Stormwater Infrastructure Improvement Plan was built by scheduling the Federal Permit work first and adding other projects as the budget allowed. Funding has been set at $1 million for the first five (5) years, $1.5 million for the second five (5) years, $2 million for the third five (5) years, $2.5 million for the fourth five (5) years, and $3 million for the last two (2) years. The entire cost of the 22-year Program is estimated at $41 million (in 2015 dollars). Project prioritization will be re-evaluated in Year #6 of the Plan following collection of the additional condition assessment data.

Influences on Development and Long-term Development Patterns

Zoning

Newton's land use patterns are closely related to the City's *Zoning Ordinance*, last updated in 1987. By regulating permitted use, location, height, shape, density, and lot coverage of structures, the *Zoning Ordinance* influences the development and the character of the City. Written, "for the purpose of protecting the health, safety, convenience, morals, and welfare of the City," Newton's *Zoning Ordinance* regulates land uses through eighteen zoning districts across the City. Procedures for review and evaluation of proposed developments pursuant to the *Zoning Ordinance* establish Special Permit and Administrative Site Plan Review requirements.

Certain areas of the City are covered by the City's Flood Plain/Watershed Protection Ordinance.

Single family residential development dominates the landscape, and multi-family residential and commercial development characterize the village centers, which developed in the dry, flat areas along the historic railroad corridors. Newton is currently revising its zoning ordinance, which was last updated in 1987. Since 2011 Newton's Zoning & Planning Committee has been working to bring Newton's Zoning Ordinance into compliance with the *Comprehensive Plan.* See **Figures 16, 17 and 18.** Phase 1 of the project, primarily a reformatting and reorganization effort, was completed in 2015.

The Newton Pattern Book 2018 shows land use and development patterns at a parcel-by-parcel level and outlines the major zoning changes that have occurred in Newton and how these changes will influence future trends in the City (*Newton Pattern Book 2018*, 2). New contextual zoning districts could support

"smart growth" principles that allow for variations in permitting that encourage denser development, wider sidewalks and greenways, and greater flexibility in protecting key open spaces, regardless of lot size.

On-going phase 2 zoning re-write efforts include:

- inclusionary zoning which is intended to increase the affordable housing stock in the City
- multimodal transportation initiatives, which is intended to increase bike and pedestrian activity.
- rezoning of the private country clubs from Single Family Residential to Recreation to reflect current use and restrict other uses.

Figure 16. Current Zoning (2020)

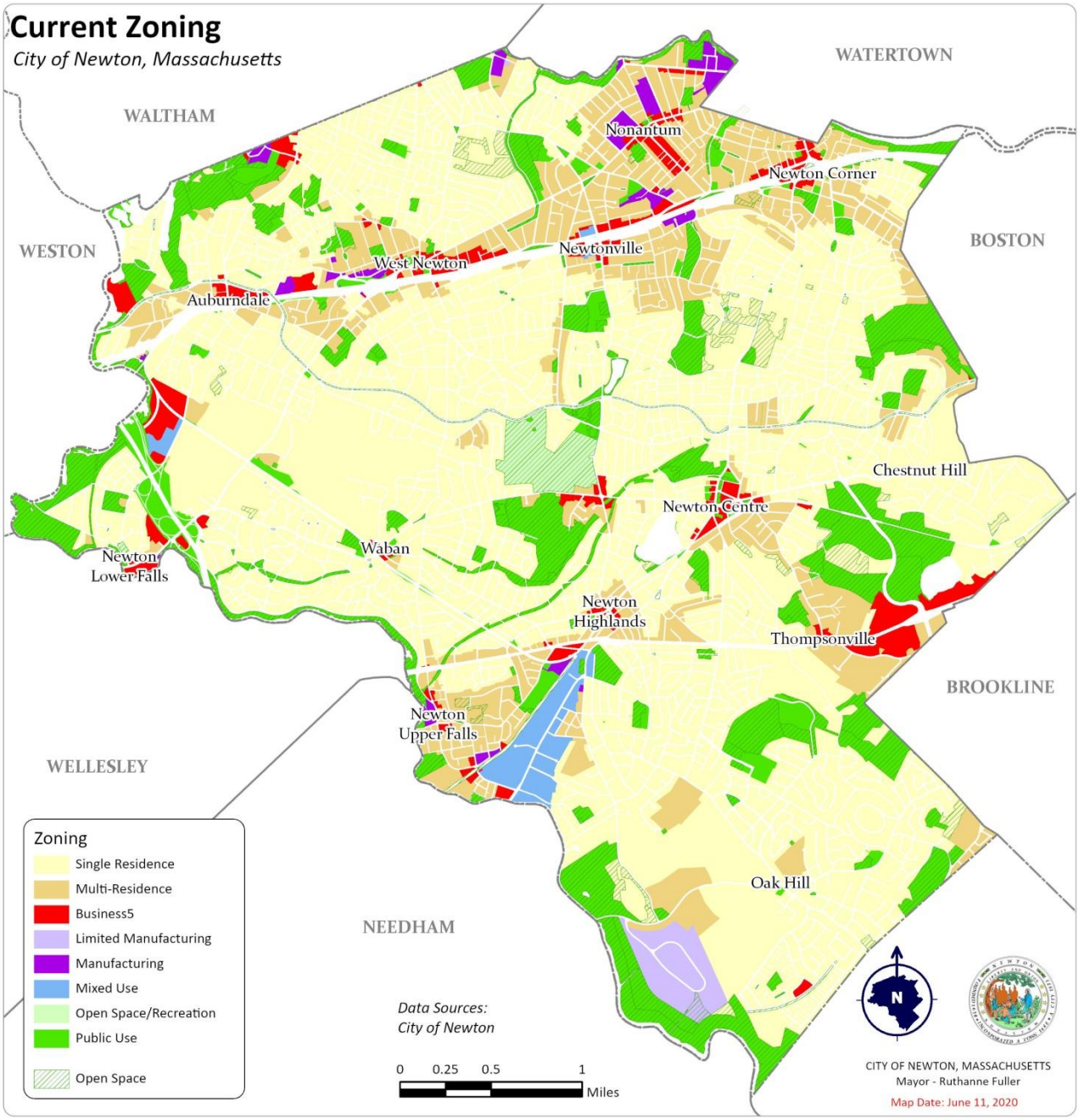


Figure 17. Proposed Zoning

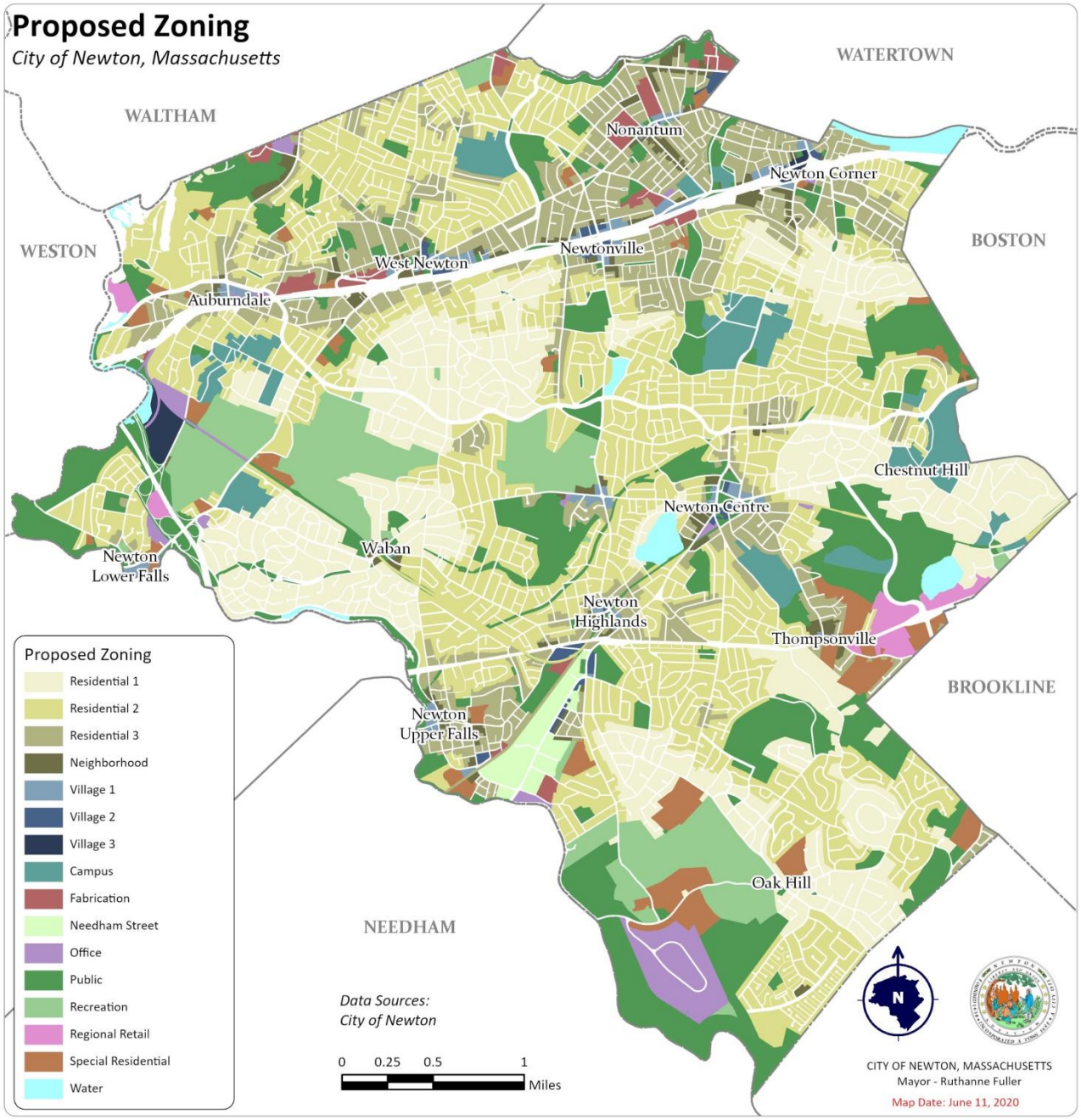
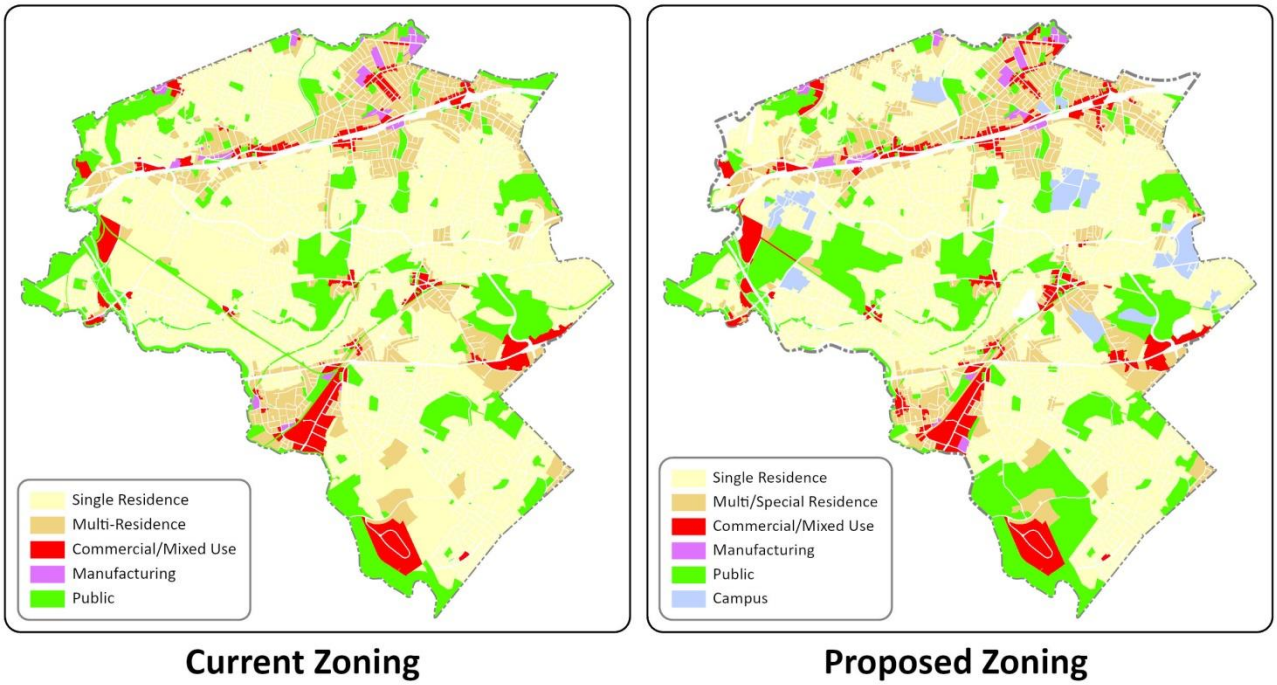


Figure 18. Comparison of Existing and Proposed Zoning



Current Zoning **Proposed Zoning**

Demolition Review Ordinance

Another tool for regulating development in Newton is the *Demolition Review Ordinance*, adopted in 1985 to provide the opportunity to preserve historic structures. Demolition of any building that is 50 or more years old requires the approval of the City's Historical Commission. If a structure is determined to be historically significant and preferably preserved, a one-year delay of demolition can be imposed to provide time to seek alternative preservation solutions such as altering and reusing the historic structure, or moving it to another location. The conversion of large older single family homes to a multi-family residences is allowed provided that there are no exterior alterations to the structure other than those necessary to comply with applicable health, building, and fire codes (*Pioneer Institute for Public Policy Research, 48).*

Sustainable Development Trends

As climate change escalates, the City is working to promote more sustainable development. Sustainable design certifications, such as LEED and Passive House (PHIUS), are being incorporated in all the pending development projects. LEED stands for Leadership in Energy and Environmental Design and is the most widely used green building rating system. Passive House is a voluntary standard for energy efficiency in a building, which reduces the building's ecological footprint, verified through the Passive House Institute of the US (PHIUS). Passive House buildings require little energy for space heating or cooling.

Projects pursuing LEED certification earn points for various green building strategies and, based on the number of points achieved, a project earns one of four LEED rating levels: certified (40-49 points), silver (50-59 points), gold (60-79 points), and platinum (80+ points). LEED points are awarded within the categories of Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, and Indoor Environmental Quality.

Other sustainable development strategies which Newton could implement on City-owned properties, and seek to promote through changes to zoning and financial incentives include, but are not limited to:

- Increasing development density in order to limit the total impervious footprint
- Constructing buildings that limit undesirable air and moisture exchange

- Transitioning to electrical utilities, which can be sourced from renewable generators (like hydro, wind, and photovoltaic/solar)
- Installing energy efficient appliances
- Providing public transportation options
- Providing on site services and amenities
- Increasing tree canopy and building lighter-colored roofs to reduce the heat island effect and lowering cooling costs
- Slowing and infiltrating surface water using green infrastructure, to reduce the volume of polluted runoff flowing directly into surface waters.
- Providing designated electric vehicle (EV) parking stalls and EV charging stations
- Supporting bicycle and pedestrian transit
- Reducing impervious surfaces
- Restoring native plant communities
- Using low-carbon and locally sourced materials.

Summary

Development in Newton is limited primarily by zoning regulations and land availability. In Newton's 2007 *Comprehensive Plan* (3-5), an analysis of maximum build-out capacity was conducted for housing and commercial growth. The *Comprehensive Plan* predicted that for housing growth, "Whereas in 2002 about 31,700 housing units existed in the City, under current zoning rules and expectations of special permit approvals, no more than 35,200 housing units could reasonably be expected at "build-out," an 11% increase. Variances, zoning changes, open space acquisition, and development exempt from zoning such as "Chapter 40B" development, might be expected to increase that somewhat over time, but probably not resulting in any increase above about a 15% growth above the 2002 figure (3-5)". The *Comprehensive Plan* also showed, given current zoning, that increases in housing stock would most likely occur around and along major transportation corridors and in village centers. The biggest exception to this growth pattern is the potential development of the land owned by the private golf courses, which is currently zoned for Residential use. The *Comprehensive Plan* predicted that commercial growth has a capacity to grow from 10.8 million square feet of commercial and industrial floor area to 18.6 million square-feet, but that this level of growth was far more than was reasonably expected given an understanding of regional economic development.

Demographic factors limiting development in Newton are slow population growth, a declining household size, and an aging population.

Section 4: Environmental Inventory and Analysis

This inventory of Newton's environmental and cultural resources will inform the goals and objectives that will help to protect the biodiversity, ecosystems, and ecological integrity of Newton.

A. Geology, Soils, and Topography

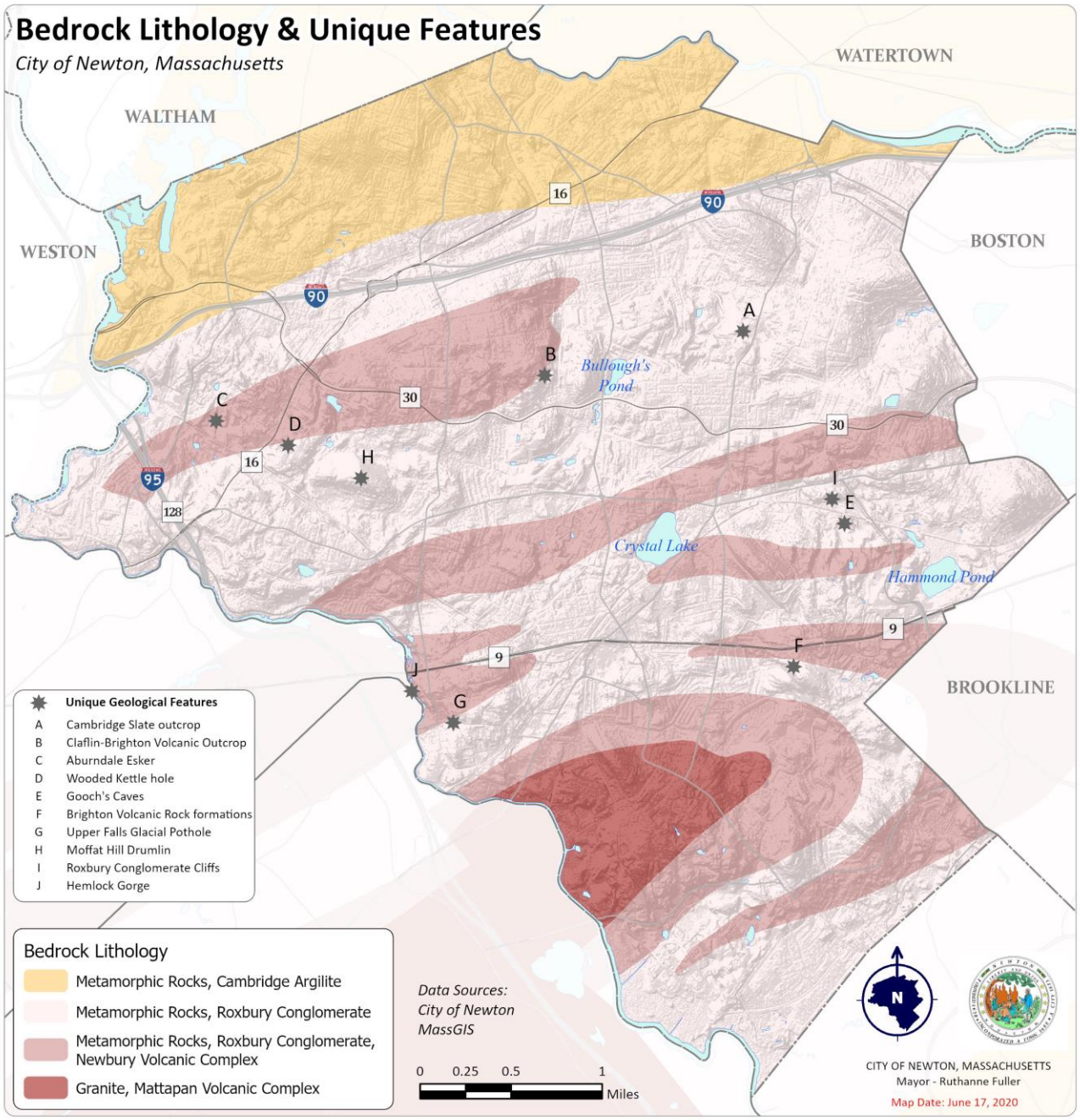
Geology

Newton lies within the Boston Basin, a topographic lowland surrounded by a ring of hard rock hills, from the Middlesex Fells to the north, inland to the Belmont Hills and Newton Highlands to west, and around to the Blue Hills to the south. Bedrock deposits that underlie the Boston Basin include the Roxbury Conglomerate (the famous "puddingstone"), sandstone, the Cambridge Argillite or slate, and the Brighton and Mattapan Volcanics. These formed about 585-550 million years ago along the northern margin of the large southern continent of Gondwana, at about 60º south latitude in an intravolcanic basin. The source of these sediments was largely erosion of the volcanic and granitic highlands surrounding the basin at this time producing both marine and non-marine deposits. The courser pebbles and cobbles formed the Roxbury Conglomerate and the finer-grained sand and clay fragments washed offshore forming the Cambridge Argillite. Volcanic rocks are present in Newton as lava flows, pyroclastic deposits and sub-volcanic shallow intrusions that make up the Brighton and Mattapan Volcanics. Via plate tectonics, the area that included the Boston Basin gradually moved across the ancient Iapetus Ocean and collided with the edge of North America, then called Laurentia, about 425 million years ago forming the northern Appalachian Mountains. Magma welled up in cracks some 250-150 million years ago, during the opening of the modern Atlantic Ocean to form intrusive basaltic (dark colored) dikes seen in Newton that cut through the earlier sedimentary rocks. All these rocks were deeply buried and hardened. Throughout most of Newton these either form bedrock outcrops or are found close to the land surface. Where bedrock is exposed at the surface, the term "outcrop" is used. Outcrops are valuable educational and aesthetic resources. See **Figure 19.**

The surficial deposits in Newton are made of sand, gravelly till and alluvial soils largely resulting from the extensive Laurentide glacial ice sheet that periodically covered the area by over 1/2 mile of ice during the Pleistocene epoch, starting about 2 million years ago until the last ice retreated about 14, 000 years ago. This ice retreat left many types of glacial deposits seen in Newton such as glacial hills, eskers and drumlins and glacial outwash stream deposits in the valleys. The glaciers more easily eroded the softer sedimentary deposits while the harder igneous rocks tend to make up the hills, particularly to the south and west.

The eastern quarter of the City's landscape is undulating, with multiple glacial drumlin deposits. The western hills are more isolated, in a north-south pattern, broken by lower flatlands that include Newton's limited prime farm soils.

Figure 19. Geologic Features: Bedrock Lithology and Unique Features



Varying topography and glaciation caused multiple environments to form, from outwash plains and alluvial deposits, to well-drained productive soils, to bony and rocky drumlins and outcrops. Each has its own unique ecology, and each helped shape development of the City of Newton. The flat, well-draining sand and gravel deposits offered ideal conditions for building railroad and automobile transit corridors between hills and paved the way for the sprawling residential land use that Newton exhibits today. The wetter lowlands, where glacial meltwater formed perennial streams and kettle ponds, were less ideal for building or farming, and so became the first parks and open spaces.

There are several scenic and unique geologic features that offer Newton's residents recreational and educational value, including:

- A small but rare Cambridge Slate outcrop south of Colby Street
- A Brighton Volcanics outcrop with glacial scratches at the former Claflin School*
- The Auburndale Esker at the Woodland Golf Course
- A wooded kettle hole at 93 Stanton Ave.
- Gooch's Caves in the Webster Conservation Area*
- Brighton Volcanic Rock formations at 85 Dudley Road
- Roxbury Conglomerate and a Brighton Volcanic lava flow at the Webster Conservation area (the so called "ledges" near the intersection of Hammond Pond Parkway and Beacon St.)
- Mattapan Volcanics along Winchester and Nahanton Streets near Nahanton Park, as well as within Nahanton Park
- The Upper Falls Glacial Pothole on Sullivan Avenue at Elliot Street
- The Moffat Hill Drumlin in the Brae Burn Golf Course
- Roxbury-Conglomerate cliffs at 600 Beacon Street (Webster Conservation Area)*
- Hemlock Gorge*

** bedrock formations in public ownership*

Soils

Newton's land surface has been heavily influenced by glacial action. The last glacier receded from this area about 14,000 years ago leaving many different forms of surface deposits. The higher hills (up to 300 ft.) are drumlins: deposits that were formed under glacial ice, the long axis of which indicated the general direction of glacial movement (Oak Hill and Baldpate Hill). Another surface form is the esker: snake-like layered outwash deposits formed in crevasses or in streams under the glacier (Edmands Park, Woodland Golf Course). The two formations which cover the greatest surface area are outwash plains, formed in front of the glacier by the meandering melt water streams and hardpan, formed of the till (material carried in the ice) which was deposited by the glacier as it melted and receded. The youngest deposits have been formed since the last glacier. These alluvial deposits include peat and stream deposits.

The surface deposits of Newton comprise three types of soils: 1) stratified soils, formed by melt water in front of ice flows (or Kame deposits formed by melt water from super glacial streams or from streams within the glacier); 2) unstratified soils, formed by glacial erosion of bedrock, and 3) alluvial soils, formed by post-glacial stream deposits.

Stratified soil types most prevalent in Newton are Hinckley and Merrimac Gravelly Sandy Loam, Merrimac Sandy Loam, and Merrimac Fine Sandy Loam. These soil types are composed of granite, gneiss, quartz, and slate, are of moderate to high permeability, and become droughty during prolonged periods of dryness.

The most common unstratified soil types in Newton are Coloma Loam and Rough Stony Loam. These soils are composed of glacially eroded sandstone, slate, or conglomerate, and are of high to moderate permeability. Alluvial soil types most common in Newton are Muck and Peat. Muck is comprised primarily of decomposed organic matter, while Peat is characterized by partially decomposed organic matter. Alluvial soils are identified by their spongy, unstable quality and the presence of standing surface water during most of the year.

Newton, like many urban and suburban environments, is dominated by "urban" soils resulting from dredging, filling, leveling, compaction, and removal. However, undeveloped areas still contain a variety of other soil types, including prime farmland soils. The conversion of agricultural land to residential development is a nationwide trend, and Newton is no exception. Just 2.6 acres of agricultural land remain in Newton, and support a popular vegetable Community Supported Agriculture (CSA) farm and two community gardens, both with long waiting lists. Community gardens and small community farms offer a host of unique

benefits to urbanized environments, including improving the health and wellbeing of people, building community connections, strengthening food security, and increasing pollinator habitat and stormwater infiltration. Many of Newton's remaining farmland soils are found within existing open spaces. In particular, Woodland Golf Club and the Brae Burn Country Club are both primarily composed of prime or important farmland soils, and include soils considered less ideal for development due to steep slopes and poor drainage. See **Figure 20**.

Well-drained soils on low-to-moderate slopes are ideal for development and most such areas have already been built upon. Therefore, many, but not all, of Newton's open spaces are in areas that are not ideal for development, such as poorly drained areas. Athletic fields and trails in these areas are often challenged by flooding and may need improvements to address poor drainage (**Figure 21**). Many of Newton's open spaces also contain soils designated as prime or important farmland. While there is not much farming in the area, it may be worth considering conserving some of these lands for conversion to community farms, gardens, or forests.

Topography

The eastern and central parts of Newton are punctuated by a scattering of large hills. Taking advantage of topography, the east-west-oriented Boston-Worcester Railroad (now the MBTA line and Mass Pike corridor) was laid along the flat land just north of the hills. Likewise, Route 9, also running east-west, skirts the hills around Newton Upper Falls, Newtonville and Thompsonville. In this way topography influenced the major transportation corridors and worked to shape the development of Newton. See **Figure 22.**

Though the distinct hills that are scattered across the eastern and central parts of the City have remained unchanged, the topography of Newton has undergone substantial remodeling over the past 130 years. In the 1890s, extensive draining and filling of wetlands occurred to accommodate housing development and mitigate the risks of mosquito-borne illnesses. At the time, most homes had their own septic systems and leaching fields, but as more homes were built, the capacity for the soil to manage the waste was strained. "In 1889, the Health Department reported that much of Newton's soil was of no use in purifying sewage, although it recognized the need of continuing to rely on cesspools until financing allowed for extending the sewage system. By the early 1890s, the sewage issue had become serious enough that the mayor recommended the City devote all its extra expenditures to sewage and drainage" (*Landscaping the Garden City,* Spires, 259). By 1892 the City had permission to connect to Boston's sewage line, and by 1900 the City required all houses on a sewer line to connect to it (Spires, 260). Despite the filling and draining of wetlands, flooding continues today in historic wetland locations. Many historic wet areas unsuitable for building are where Newton's open space resources exist today. The few remaining wetlands in Newton are preserved in state and municipal conservation areas. Many of the City's athletic fields are where wetlands used to be, and so suffer flooding, especially during spring rains (**Figure 21**).

B. Landscape Character

From a forested wetland serving as a home to Native American fishing villages, to agricultural clearing in the 1700s by European settlers, to suburban village development beginning in the 1830s, Newton's landscape has experienced considerable change in the past 400 years. (For more detail on the history of Newton, see Section 3, Part B "History of the Community.") Newton is now a City of primarily single-family homes, with street trees, mowed lawns, and pruned hedges, around 13 village centers and several mixed-use zones.

The Charles River wraps around the City for 12 miles and is able to be accessed by trails, bike paths, bridges, and boat launch sites. The large highways of Interstate 90 and state Route 9 transect the City on their way to Boston; Interstate 95 cuts through the western corner of Newton Lower Falls. The highest density of development is around the northern villages in the I-90 corridor (Auburndale, West Newton, Newtonville, Newton Corner, and Nonantum), and in the south-west corner of the City (Newton Upper Falls), where Newton experienced industrial mill growth near the natural falls of the Charles River.

Figure 20. Slope and Soils (by quality of drainage)

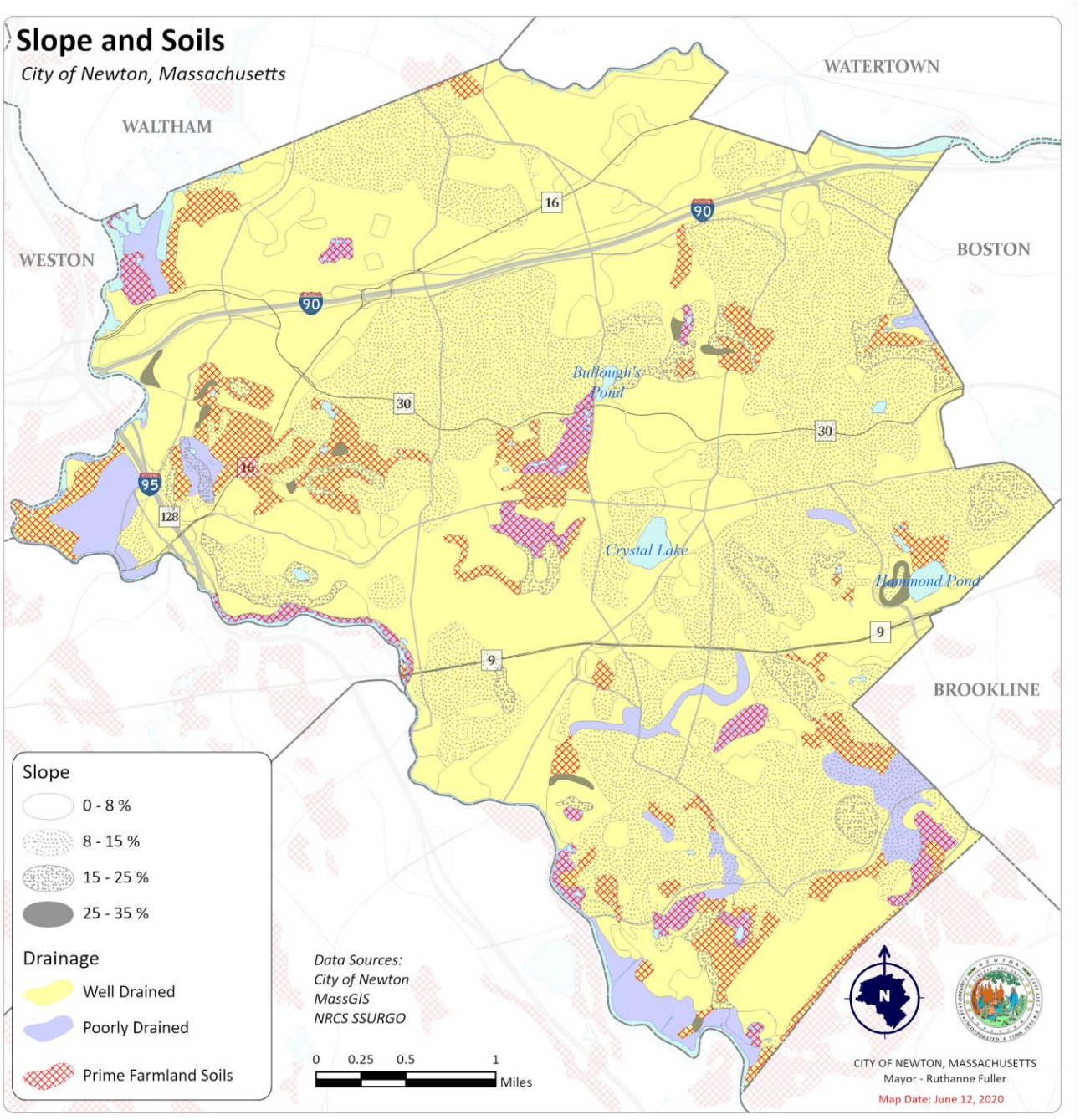


Figure 21. Athletic Fields and Historic Wetlands

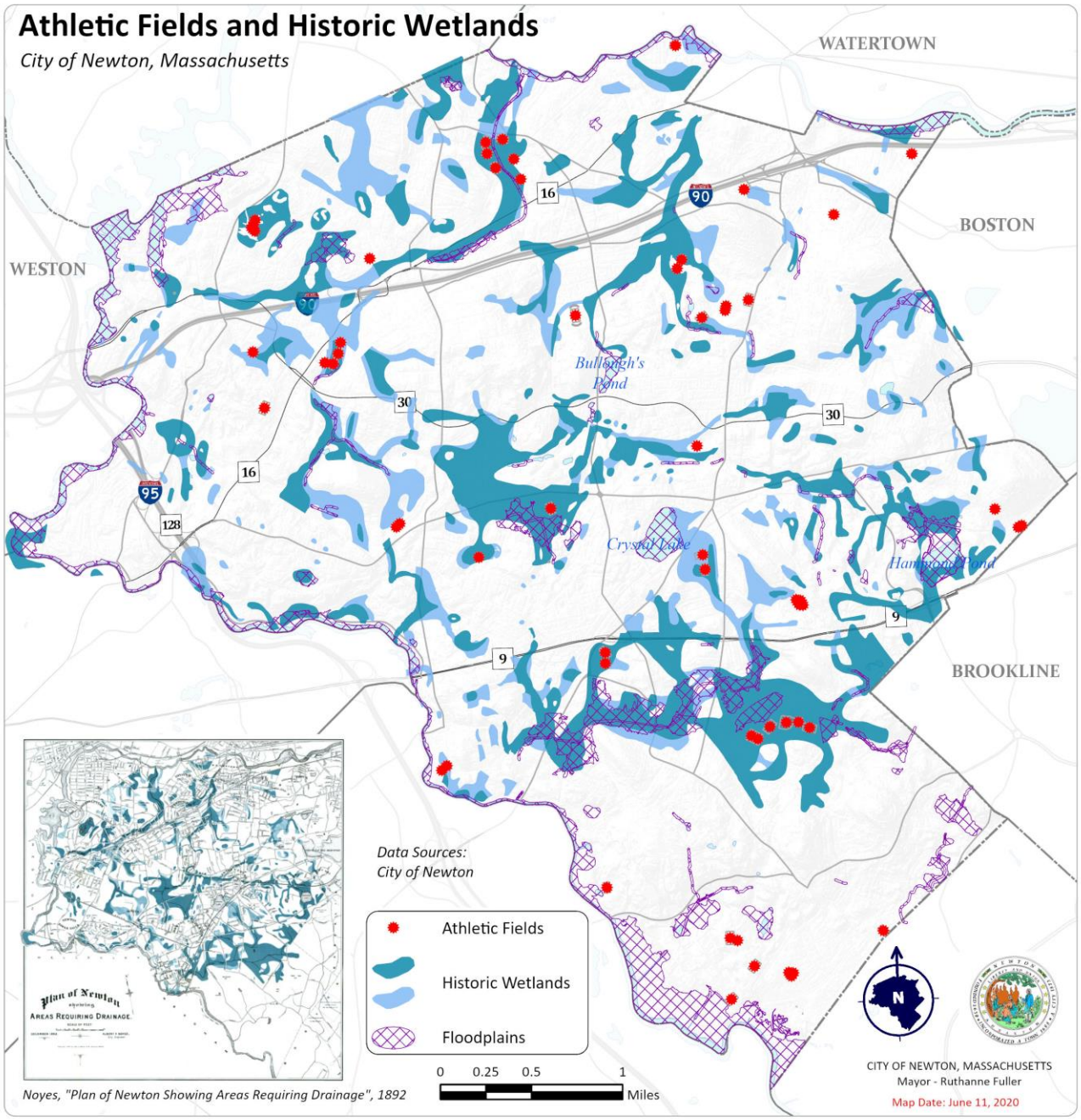
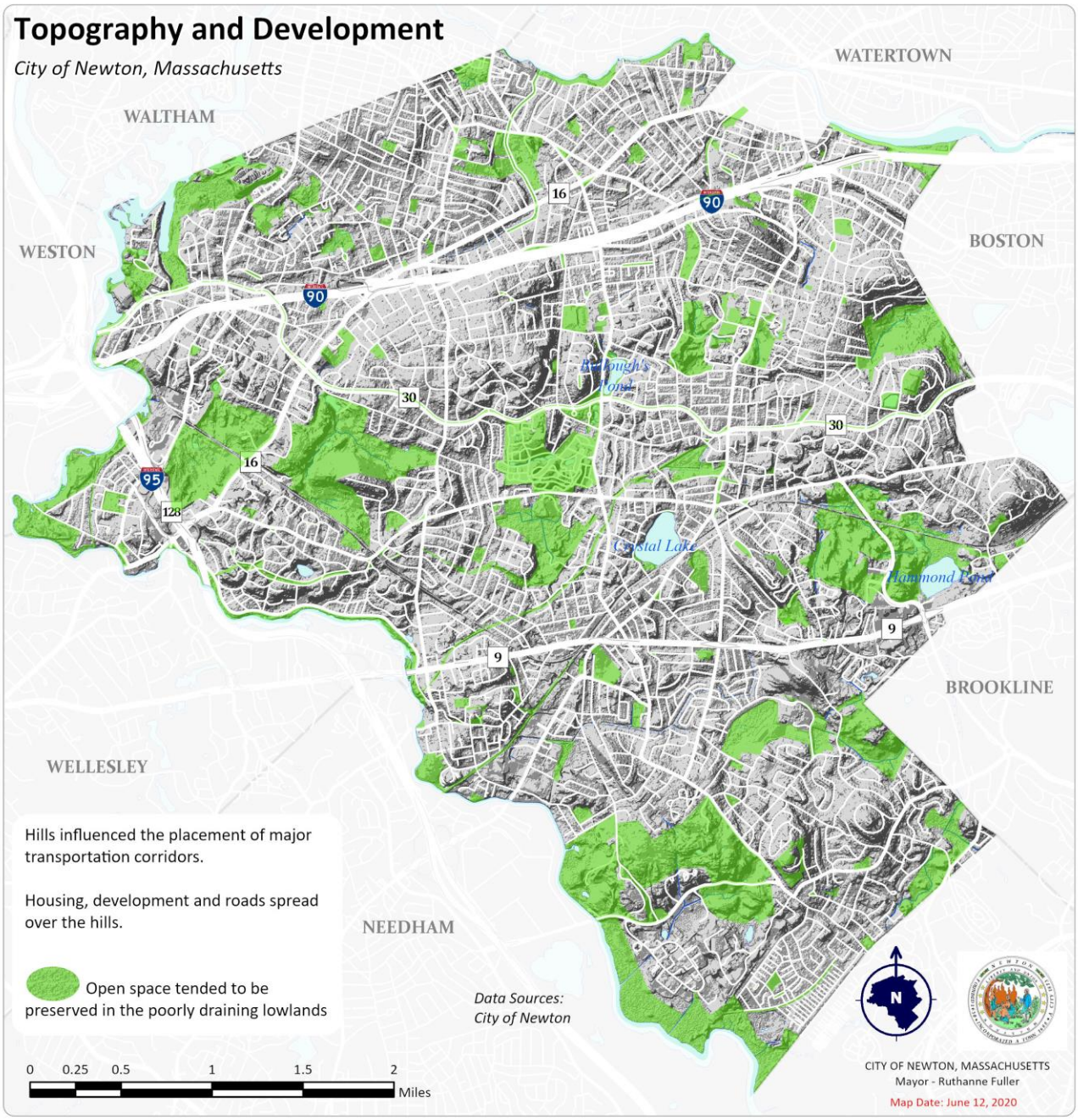


Figure 22. Topography and Development



Open space resources are scattered throughout the City, with the largest parcels located in the central and southern parts of the City, where the last expansion of housing development occurred. The only remaining farm in Newton is the 2.6-acre Newton Community Farm (once the Angino Farm), which is now protected in perpetuity.

Given its developed state, Newton is fortunate to have a range of natural resources. All told, roughly 20% of the City is open space, that is, not buildings, streets, parking lots, etc. That open space includes natural areas (woods, wetlands, lakes, ponds, and streams) as well as golf courses, cemeteries, athletic fields, parks and large lawn areas.

In 2010, Newton's Planning and Development Department, in conjunction with the Newton Community Preservation Committee, created a report titled, *"Newton's Heritage Landscapes: A community heritage report"*. Heritage landscapes are places and spaces identified by residents as having value to the community. The report explains that the "goals of the program are to identify a wide range of landscape resources and to provide strategies for preserving these landscapes, especially those that are most valued by the community" (1.) Many of the open space heritage resources are large, unfragmented parcels in the central and southern parts of Newton. Water resources were recognized as having special importance to residents. Scenic roads run primarily in north-south branches off the arterial east-west corridors, and skirt around hills and scenic Heritage Landscapes. The scenic road designation provides limitations for development along roadsides, to preserve desirable aesthetic and historic character.

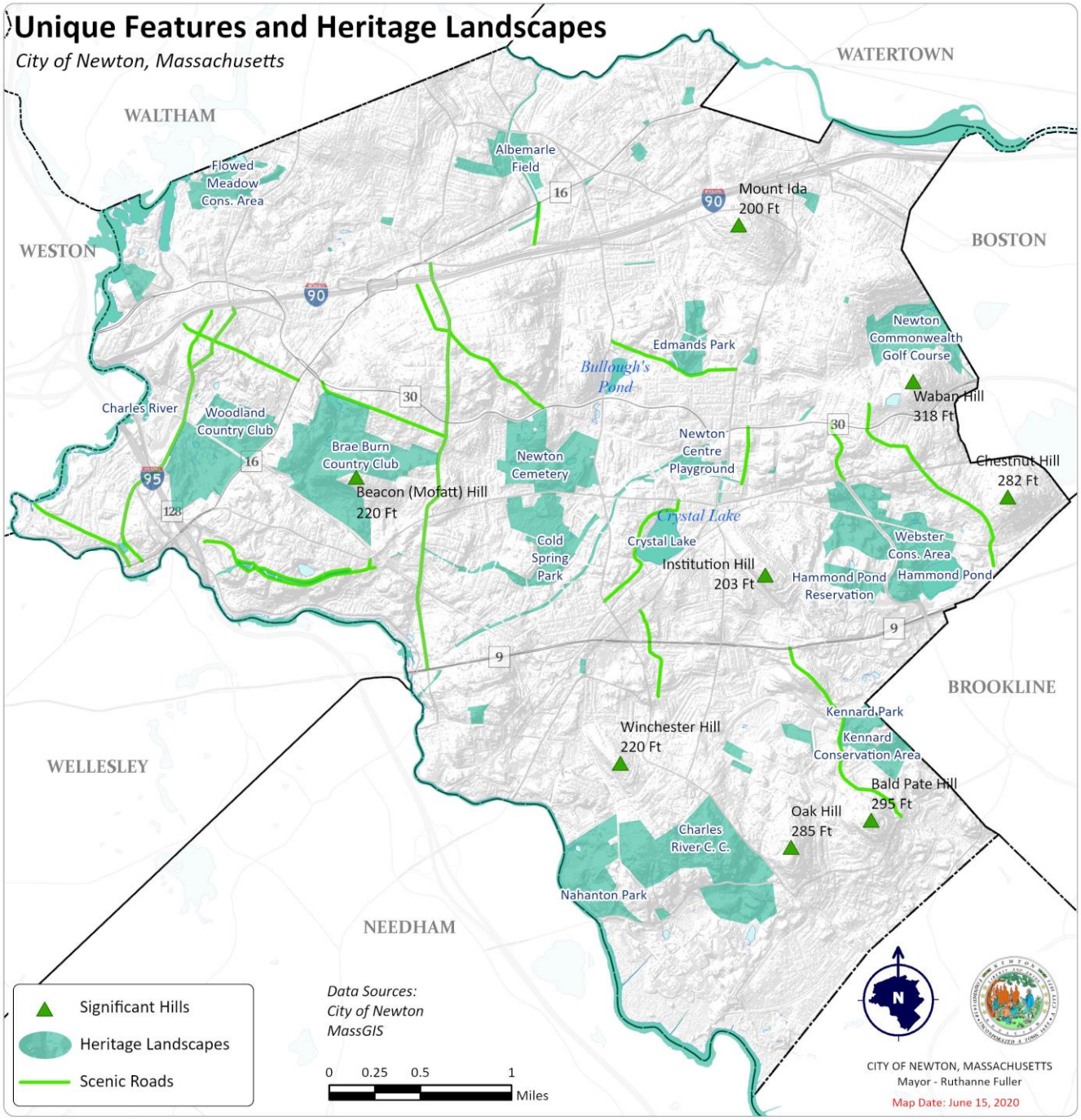
Waterways and waterbodies and their associated landscapes that received significant attention in the report (pages 8-11, 47-51) were the following.

- Charles River Corridor
- Cheesecake Brook
- Crystal Lake

Other natural areas, parks, and recreation areas described in the report as having significant meaning for the community are listed below. See **Figure 23.** **Note that private golf courses are neither publicly owned nor protected from development.*

- Northern Newton open spaces (north of I-90) (approximately 205 acres)
    - Albemarle Park
    - Auburndale Playground
    - Coletti-Magni Park
    - Flowed Meadow Cons. Area
    - Forte Park
    - Lowell Park
    - Norumbega Conservation Area
    - Pellegrini Park
    - Stearns Park
- Central Newton open spaces (between I-90 and Rt 9) (approximately 787 acres)
    - Brae Burn Country Club*
    - Chaffin Park
    - Claflin Playground and School
    - Cochituate & Sudbury Aqueducts
    - Cold Spring Park
    - Commonwealth Golf Course
    - Crystal Lake
    - Edmands Park
    - Farlow Park
    - Hammond Pond Reservation
    - Houghton Garden
    - Kendrick Park
    - Newton Centre Common
    - Newton Centre Playground
    - Ordway Park
    - Washington Park
    - Webster Conservation Area
    - Woodland Golf Club*
- Southern Newton open spaces (south of Rt 9) (approximately 344 acres)
    - Charles River Country Club*
    - Hemlock Gorge Reservation
    - Kennard Park & Conservation Area
    - Nahanton Park
    - Newton Highlands Playground
    - South Meadow Brook Wetlands
    - Upper Falls Greenway
    - Upper Falls Playground

Figure 23. Unique Features, Scenic Roads, and Heritage Landscapes



C. Water Resources

Overview

Open water in Newton totals 276 acres and amounts to 2.4% of the total City area.

Newton's water resources include the Charles River, which borders Newton for 12.3 miles; 22 streams and brooks; 14 lakes and ponds totaling 167 acres (the largest being Crystal Lake, Hammond Pond, and Bullough's Pond) and 268 acres of wetlands that account for 2.3% of the City's area.

Newton's primary aquifers underlie the Charles River corridor along the western boundary of the City. These aquifers are the Charles River's primary water source during the summer low-flow period, when the river receives its heaviest recreational use. While some of Newton's aquifers are overlain by publicly owned open space, other portions are overlain by commercial and industrial uses with attendant large impervious areas, and still other portions are affected by stormwater from impervious areas outside of the aquifers' boundary.

Most wetlands in Newton were drained and filled in the late 1800s, and many of those that were not drained of filled were incorporated into public open spaces. Wetlands provide flood attenuation, water quality filtration and enhancement, and wildlife habitat.

FEMA-designated 100-year and 500-year floodplains border the Charles River, the South Meadow Brook and Saw Mill Brook. These areas have a 1-percent-annual-chance (once in 100 years) and 0.2-percent-annual-chance (once in 500 years) of experiencing flood events. In the 100-year floodplain, development is regulated and flood insurance may be required by mortgage lenders. Flooding affects more than just these federally designated floodplains; Newton routinely experiences flooding in areas outside designated flood zones. During heavy rain events, roadways can flood; playing fields can become unusable; basements can flood; and stormwater can carry pollutants into Newton's waterways. See **Figures 24** and **25.**

The Charles River

The Charles River runs for 12 miles along Newton's western and northern borders. It passes through 4 counties and 23 towns (**Figure 1**) and is a key ecological corridor. Although Newton does not rely on the Charles River for its own water supply, both upstream and in adjacent towns, the Charles River and its associated groundwater system are primary sources of drinking water for several communities. Water quality impairments are discussed below in Subsection I: Environmental Challenges.

The City of Newton is entirely in the Charles River Watershed, which is 308 square miles. Newton has five major drainage sub-basins, including South Meadow Brook, Country Club Brook, Cheesecake Brook, Laundry Brook, and Hyde Brook, all of which drain into the Charles River. However, being an urbanized community with well-developed stormwater infrastructure, topographic drainage basins can be misleading. **Figure 15** depicts the City's stormwater drainage system.

Along the Charles River in Newton is a significant amount of publicly owned and accessible open space. Wildlife habitat is abundant. Trails along the river are well used by people on bike and foot; scenic vistas and passive recreation opportunities are numerous.

Figure 24. Floodplains and Wetlands

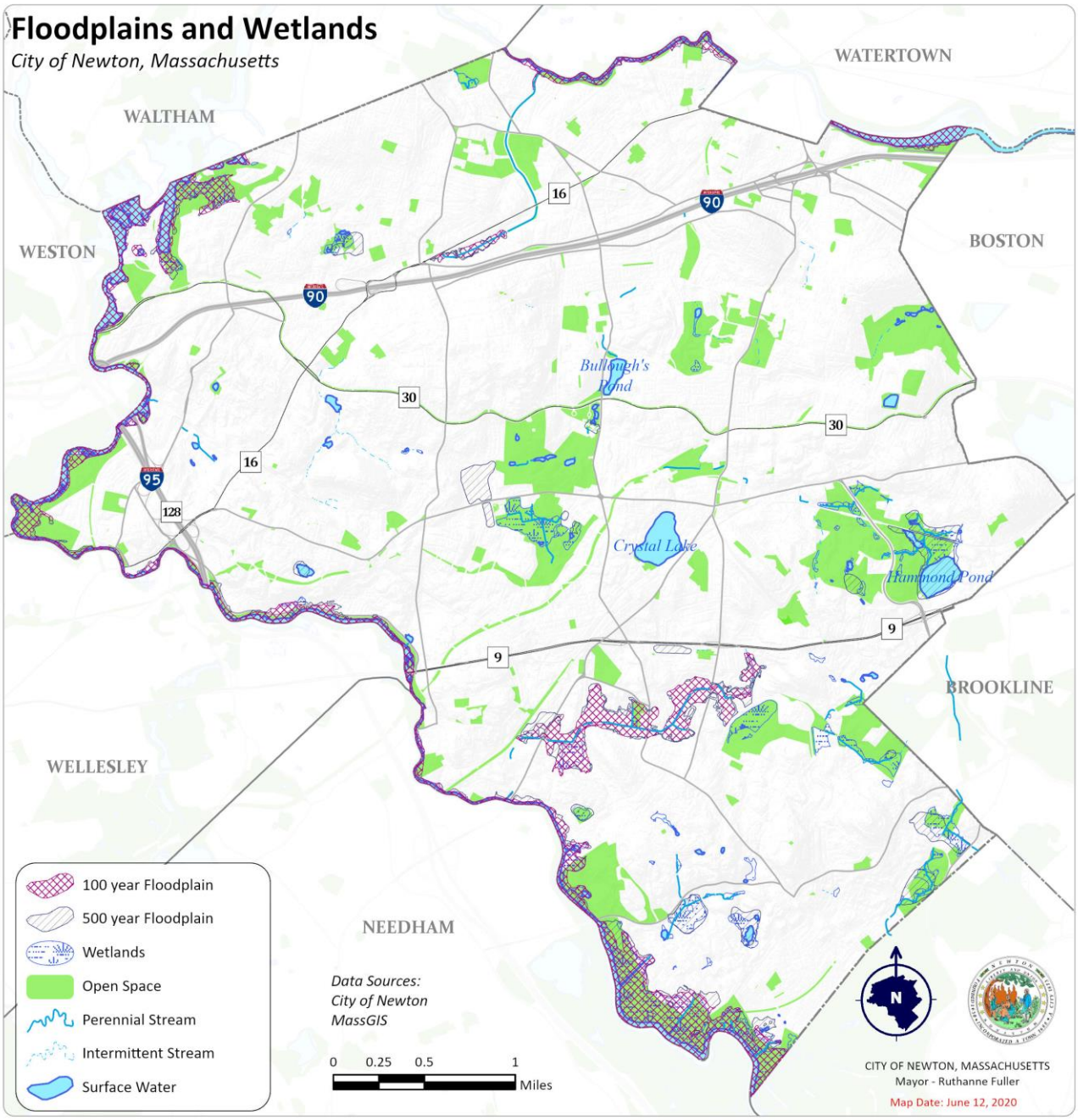
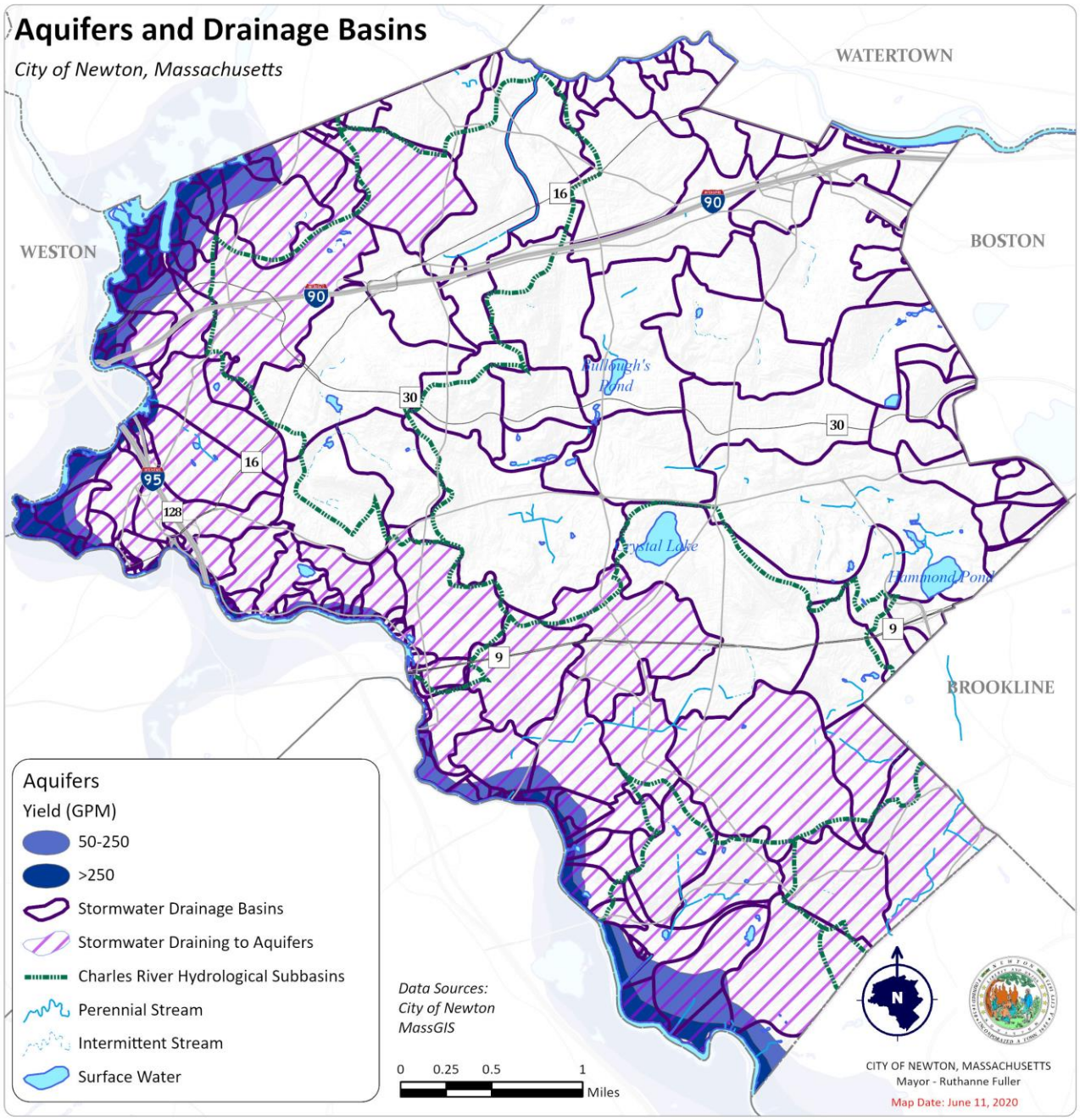


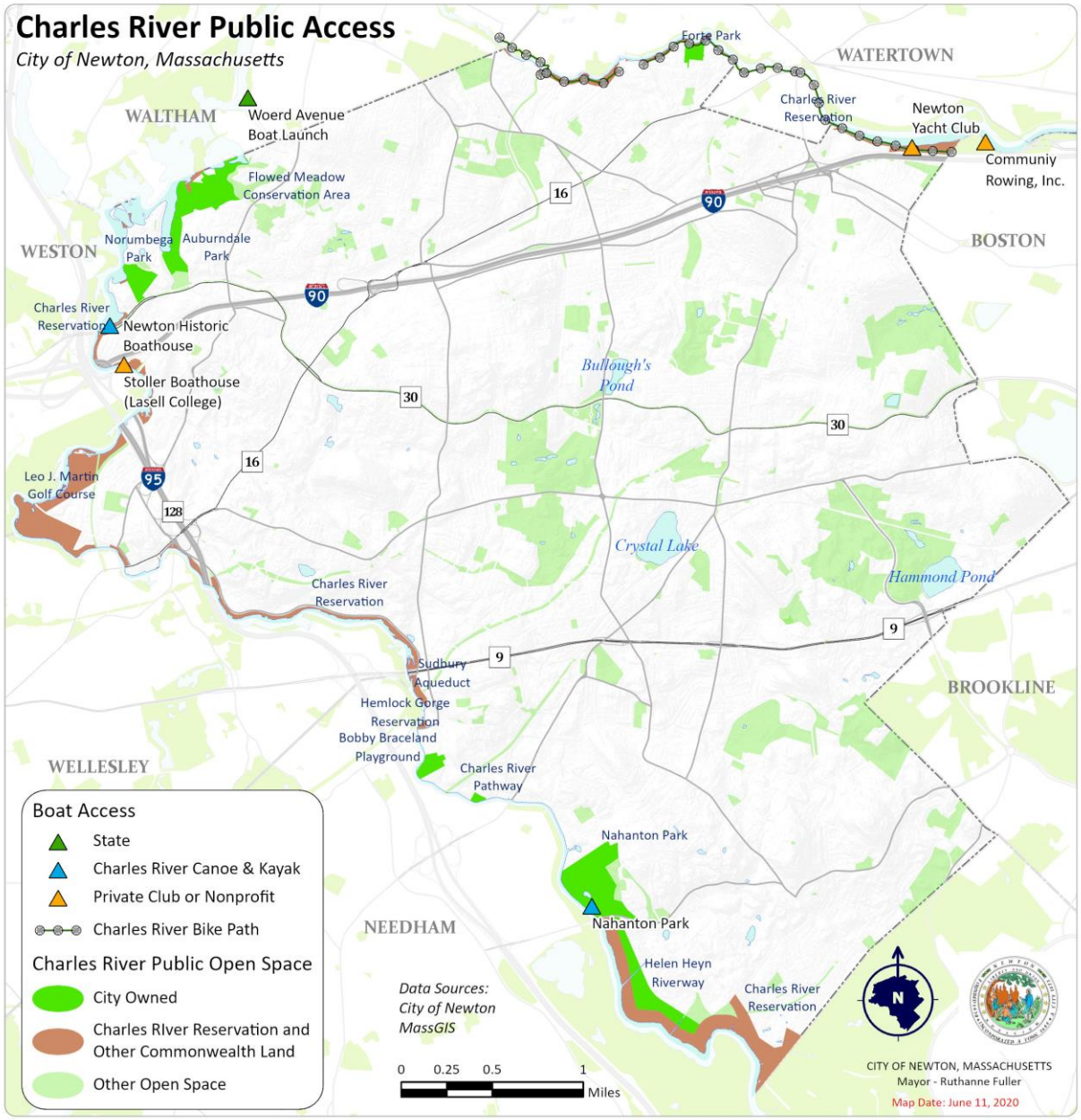
Figure 25. Aquifers and Drainage Basins



Public Access along the Charles River

Land along the river is owned and managed by state, municipal, and private entities. As stated in *Newton's Heritage Landscapes (11),* many significant open spaces border the river, and are cared for by a multitude of groups. These spaces provide views, walking trails, canoe and kayak access to the river, as well as important ecological habitat **(Figure 26)**. Traveling "downstream" the open spaces within Newton are listed below.

Figure 26. Charles River Public Access



The Charles River Reservation: The Massachusetts Department of Conservation & Recreation (DCR) owns a 20-mile expanse of parks along both sides of the Charles River, from the 600-acre Cutler Reservation in Needham and protected lands in the southern tip of Newton to the Boston Museum of Science. These DCR-owned lands bordering the river alternate with City and privately owned land. In some places the DCR-owned corridor is barely 25-feet wide; in others it is up to 300-feet wide. It includes a range of trails, bike paths, athletic fields, pedestrian bridges, and boat launches.

- **Helen Heyn Conservation Area:** Acquired in 1997 by the Newton Conservation Commission and sandwiched between a DCR parcel bordering the Charles River and the commercial lots along Wells Avenue, this 30.5-acre area is part of the Great Plain Marsh, a forested floodplain associated with the Charles River. The parcel is crossed by two streams, the larger of which is Country Club Brook originating on the Charles River Country Club. A pathway meanders through the Helen Heyn Conservation Area and continues through DCR land to Millennium Park in Boston.
- **Nahanton Park:** This 57-acre City-owned parcel that borders the Charles River is managed by Parks, Recreation & Culture (PRC) and is accessed from Nahanton Street or Winchester Street. The area includes a short section of an accessible trail known as Florrie's Path. A canoe and kayak rental is managed by Charles River Canoe & Kayak.
- **Newton Conservation Commission's Charles River Pathway Conservation Area:** This 1.5-acre wooded parcel is managed by the Newton Conservation Commission. lt has a trail along the river that leaves the Conservation Commission area, continues along a conservation easement and ends at the southern terminus of the Upper Falls Greenway.
- **Upper Falls Playground (Officer Bobby Braceland Playground)**: Located on Chestnut Street, sloping down to the river, this park includes an off-leash dog park, a fenced-in playground, athletic fields, and tennis courts. It is managed by PRC.
- **The Falls, Echo Bridge and Hemlock Gorge**: This area is part of the Charles River Reservation, including Hemlock Gorge, which was set aside in 1895 by the Metropolitan Park Commission (predecessor to MDC, now the Department of Conservation and Recreation). The Falls, which is above Echo Bridge, provided power for industrial mills; Echo Bridge was built in 1876 to carry the Sudbury Aqueduct over the river. Today the bridge features a pedestrian pathway linking Newton and Needham. Two canoe/kayak launches are located on the western bank of the Charles (not shown on map).
- **Quinobequin Road**: After passing under Route 9, the river flows the length of this DCR-owned parkway. Quinobequin Road and the wooded land between the road and the river is owned and managed by the DCR.
- **Leo J. Martin Golf Course**: After flowing under I-95, the Charles River winds around the village of Newton Lower Falls, passing through Lower Falls Reservation and the DCR-owned Leo J. Martin Golf Course, which sits astride the river in Newton and Weston.
- **Riverside Reservation:** This DCR park is in Weston and Newton. The Pony Truss Bridge, rehabilitated in 2014 as a pedestrian bridge, and the Lasell Boathouse Bridge, soon to be rehabilitated, connect the two municipalities. The reservation features a canoe launch at its northern end.
- **Newton's Historic Norumbega Boathouse**: Located on the north side of Commonwealth Avenue, owned by DCR and managed by Charles River Canoe & Kayak (Paddle Boston), this boathouse and associated features remain from the days when Norumbega Park was a hugely popular destination travel location for the greater Boston community.
- **Norumbega Park Conservation Area**: A 13-acre remnant of the old Norumbega Park with pleasant river views and trails is managed by the Conservation Commission.
- **Auburndale Park, Lyons Park (accessed from Commonwealth Avenue), and Forest Grove Path at Ware's Cove**: The 37-acre Auburndale Park was acquired by the City in 1893 and developed in the 1930s

into a multi-use park. It is accessed from West Pine Street. A small portion of river frontage within the larger Auburndale Park area is owned and managed by DCR and includes the Forest Grove Path, part of the Charles River Blue Heron Pathway.

- **Flowed Meadow Conservation Area**: This 28-acre parcel of woods, wetlands, and a kettle hole adjacent to the river and connecting to Auburndale Park is a haven for wildlife. It is managed by the Conservation Commission.
- **Cheesecake Brook Greenway**: This is an important tributary and associated green corridor that enters the Charles River near the DCR pedestrian bridge.
- **Bemis Dam Site**: These are remnants of the dam at the site of the 18th-century Bemis Mills and include traces of the 1778 raceways (not shown on map).
- **DCR's Charles River Pathway, Daly Rink, and Daly Field**: DCR maintains a bicycle and pedestrian trail along the the Charles River in Nonantum, parallel to Nonantum Road, but winding along the river's edge. This trail passes through the Daly Rink and Daly Field sites, DCR-owned recreational facilities (not shown on map).

Given the mix of local, municipal, and state organizations caring for the lands along the river, coordination and communication efforts are important. Pollution, stormwater runoff, and public access for canoeing and kayaking are all issues that need management and planned improvement. In addition to the owners and custodians of these parcels and amenities, additional watershed partners include the Charles River Watershed Association, New England Water Environment Association, and The Boston Harbor Association, who are all working for improved water quality.

In 1996, the Massachusetts enacted the Rivers Protection Act, acknowledging the unique role rivers play in wetland ecosystems. The act regulates development within 200 feet of all perennial streams in most communities, to ensure that a proposed project will have no significant adverse impact on the stream. Given the disparate levels of legal protection afforded different parcels along the river, the Rivers Protection Act has provided needed regulatory protection for the 12.3 miles of riverfront in Newton.

Streams

Newton's river and streams all once flowed freely. Today, all of Newton's river or streams are at least partially restrained by dams or culverted. To make way for development, most of Newton's streams have been culverted and filled over for the majority of their length, severely limiting their value as wildlife habitat, recreation areas, or aesthetic contributors.

- Brunnen Brook
- Cheesecake Brook
- Cold Spring Brook
- College Brook
- Country Club Brook
- Cranberry Brook
- Dolan Brook
- Edmands Brook
- Hahn Brook
- Hammond Brook
- Hyde Brook
- King Brook
- Lacey Brook
- Laundry Brook
- Paul's Brook
- Runaway Brook
- Saw Mill Brook
- Saw Mill Brook, south branch
- South Meadow Brook
- Stearns Brook
- Strong's Brook
- Thompsonville Brook

Floodplains

FEMA's mapped 100-year floodplains are found primarily on the edges of the Charles River corridor, along the southern end of Cheesecake Brook, and along the South Meadow Brook corridor. Flood-prone areas, however, are more broadly dispersed. Regulated floodplains are located along the Charles River and several of its major tributary streams are under Newton's Floodplain/Watershed Protection Ordinance Section 22−22. Areas defined as floodplains under the state Wetlands Protection Act are also defined as floodplains under Newton's Ordinance. Newton's Ordinance protects additional flood-prone areas surrounding smaller

streams and wetland resources from alteration by filling, dredging, building, or dumping. FEMA maps were developed in June 2010 for a 100- and 500-year flood and regulate construction within those zones. City floodplain maps (2010), developed by City engineers, are more accurate than the FEMA maps in terms of where flooding is likely to occur. A map showing City mapped floodplains can be seen in **Figure 24**.

Newton's 2017 *Climate Change Vulnerability and Assessment Action Plan* also identifies areas of potential flooding due to future sea level rise. According to the plan, Newton will not see affects from sea level rise through 2030, but by 2070 would experience flooding along the Charles River due to overtopping of the Charles River and Amelia Earhart dams during extreme storms. For more details on specific areas vulnerable to flooding and sea level rise, please see the *Action Plan, pages 35-50*

Lakes, Ponds, and Other Waterbodies

Newton contains several prominent lakes/ponds, of which Crystal Lake and Hammond Pond are the largest. Crystal Lake and Hammond Pond are defined as "Great Ponds" under state law since they are greater than 10 acres and so have a guarantee of public access. It should be noted that the Commonwealth of Massachusetts, through an act of the state legislature (Chapter 243 of the Acts of 1924), gave extensive responsibility over Crystal Lake to the City of Newton.

Newton's other significant lakes and ponds include:

- Bullough's Pond (an impoundment of Laundry Brook)
- The City Hall Ponds (impoundments of Laundry Brook)
- The Waban Kettle (a kettle hole pond)
- Longfellow Pond
- Waban Hill Reservoir (a man-made now-decommissioned drinking water reservoir)
- Houghton Pond (an impoundment of Hammond Brook)
- Bare Pond (a vernal pool)

The City also has numerous small ponds in its golf courses, school campuses, and cemeteries.

Crystal Lake, with 29-acres of rain fed surface water, is a much-loved community resource where generations of children have learned to swim, and countless visitors have found relief from summer heat. According to the Dept. of Parks, Recreation & Culture (PRC), Crystal Lake receives 35,000-40,000 check-ins over the seven-week summer swimming period and is used by eight summer camps. In addition to swimming, there is also a walking trail, fishing, and a seasonal dock with boat launch at Crystal Lake. Crystal Lake receives seven outfalls from Newton's stormwater system. Impaired water quality from stormwater runoff is an ongoing concern monitored by DPW, PRC, the Crystal Lake Conservancy, Friends of Crystal Lake, and the Crystal Lake Working Group. Excess nutrients lead to toxic algal blooms and overabundant vegetation growth and declines in dissolved oxygen. Paul's Brook is Crystal Lake's only outlet.

The 22-acre Hammond Pond is owned by the DCR. It is bounded to the south by commercial development on Route 9, to the west by a parking lot, to the north by protected conservation land, and to the east by private residential development. Hammond Pond is a favorite spot for fishing. It has two outlets: Hammond Brook and Saw Mill Brook. Water quality impairments are further discussed below in Subsection I: Environmental Challenges.

Vegetated Wetlands

Wetlands provide water storage capacity; acting like a sponge, they hold water during and after rain events and slowly release it during drier periods, thereby reducing flooding and erosion. Wetlands supply water to streams during periods of low flow and help control sedimentation and pollution by trapping organic and inorganic sediments from street runoff. In addition to improving water quality and reducing flood hazards, wetlands provide excellent wildlife habitat, a resource interest which was included in the State's Wetlands Protection Act, G. L. Ch. 131.

Newton has several wetland types, including Wooded Swamp, Shrub Swamp, Shallow Marsh, Seasonal Flood Basin, and Deep Marsh, but Newton's wetlands have been dramatically reduced in extent from about 1,470 acres in 1897 to 268 acres today. Large expanses of wetlands are found in Cold Spring Park, Webster Conservation Area/Woods, Helen Heyn Conservation Area, and Flowed Meadow. The only remaining wetland of significant size that is not part of public open space or covered by a private conservation restriction is the Longfellow Pond wetland area on the campus of the University of Massachusetts-Amherst/Mt. Ida Campus.

Newton's water and wetland resources are all within the jurisdiction of the Conservation Commission, which reviews project proposals under the Massachusetts Wetlands Protection Act (MGL Ch. 131, s. 40) and the Wetlands Regulations (310 CMR 10.00). In addition, the Commission administers the City's Floodplain/Watershed Protection Ordinance #22-22, which regulates development or activities which may interfere with these resources.

Water Supply

Newton receives its drinking water from the Massachusetts Water Resources Authority's Quabbin Reservoir, which was built between 1930-1939. The MWRA "City Tunnel" comes from the west, around the intersection of I-90 and I-95, and heads straight east to Brookline, where it splits at the Chestnut Hill Reservoir (MWRA, Integrated Water Supply Improvement Program, 2018). From there, the Dorchester Tunnel heads south-east, and the City Tunnel Extension heads north-east. See **Figure 27**.

Figure 27. MWRA Water Supply System

Aqueducts

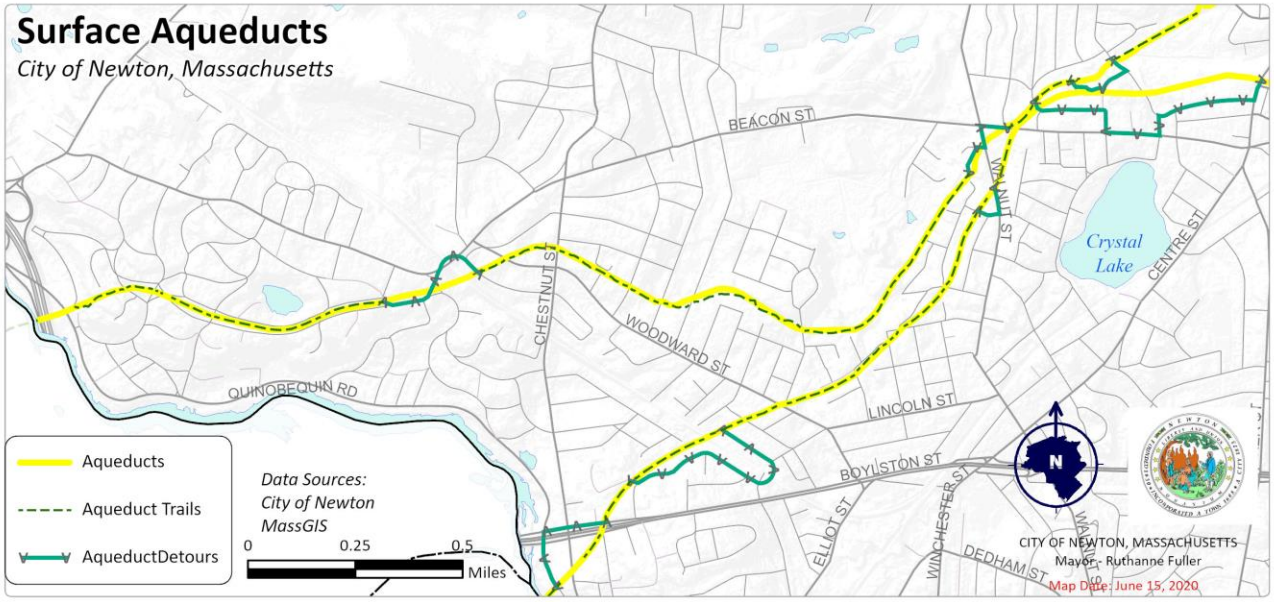
There are two historical aqueducts that run close to the surface of the land in Newton, the Cochituate Aqueduct and the Sudbury Aqueduct. These aqueducts run through much of the southwestern and central parts of the City and run south-west to north-east (**Figure 28**).

From 1848-1951 the Cochituate Aqueduct was part of Boston's water supply, carrying water from Lake Cochituate, an impoundment of a tributary to the Sudbury River, to the Brookline Reservoir (MWRA, "Metropolitan Boston's Water System History", 2015). In 1951 the use of the Cochituate Aqueduct was discontinued, and parts of it were sold by the MWRA to Newton and are now considered a part of Newton's publicly owned open space. However, sections of the Cochituate Aqueduct remain on private property (see the inventory in Section 5 for a list of aqueduct properties).

The Sudbury Aqueduct began carrying water from the Sudbury River to the Chestnut Hill Reservoir in Brookline in 1878. The Sudbury Aqueduct and Chestnut Hill Reservoir system are still used as a back-up source of water for Boston. The MWRA recently allowed for the creation of public trails on the surface of its decommissioned and back-up aqueducts (*Cochituate and Sudbury Aqueducts*, The Newton Conservators).

Both aqueducts currently act as trail systems that pass between public and private properties, and though they are interrupted by road and rail crossings, they offer a wonderful cross-City trail resource. More mapping, signs and private easements are required to make this trail system more user-friendly.

Figure 28. Surface Aqueducts



Aquifers

Newton's aquifers are a potential supplemental water supply and are a primary source of water for the Charles River and other wetland systems during low flow periods. If groundwater is not available during dry periods, the Charles River, streams, and wetlands become stagnant and/or desiccated. Newton's aquifers also feed the man irrigation wells used throughout the City for irrigation of athletic fields, golf courses, and private gardens. Installation of irrigation wells is regulated by the Health and Human Services Department. Further study would be needed to locate the wells and monitor their effects on the aquifers.

Newton's primary aquifers are located along the Charles River, on the western boundary of the City at Auburndale, Leo J. Martin Memorial Golf Course, Quinobequin Road, Newton Upper Falls, and Wells Avenue (**Figure 25**). Weston has Interim Wellhead Protection Areas that lap into the northwest corner of Newton, in the vicinity of the Route 30/Mass Pike corridor. The major aquifers in Newton are areas with induced infiltration flow of greater than 50 gallons per minute. The Leo J. Martin Memorial Golf Course, Quinobequin Road, and Wells Avenue aquifers are adequately protected from development by public ownership and floodplain and wetlands ordinances. The Auburndale aquifer is partially protected by public ownership and floodplain and wetlands ordinances, while the remainder of the aquifer is overlaid by single- and two-family dwellings and the Marriott Hotel. Between Newton Upper Falls and Oak Hill, the Charles River Country Club Golf Course and portions of Nahanton Park function to protect the aquifer bordering this reach of the Charles River.

Although the MWRA drinking water system is reliable, care should be taken to protect Newton's aquifers, because they are potential supplemental water supply sources and because they protect the quality and flow of the Charles River and its tributary streams and wetlands. Protection of certain parcels may be

warranted to increase protection of aquifers, such as the northern peninsula of the Marriott Hotel land, the estate at 122 Islington Road, and portions of the Charles River Country Club. MassDEP's snow disposal guidelines discourage dumping of snow in Wellhead Protection Areas and high and medium-yield aquifers where it may contaminate groundwater.

D. Native Vegetation and the Urban Forest

Natural Wooded Areas

Approximately 38% of Newton is covered by tree canopy.

Newton is in the southern edge of the transition zone between the northern hardwood association and the Oak-Hickory association, with oaks being the dominant species. The dominant oak woods are characterized by a forest floor with shrubs such as low bush blueberry, sheep laurel, viburnum, witch hazel and herbaceous plants such as Canada mayflower, Solomon's seal, bracken fern, whorled loosestrife and pink lady's slipper orchids. Other trees found in the upland woods are maple, hickory and beech. Occasionally, stands dominated by a species other than oak are found, as in the beech groves in the Webster Conservation Area, the hemlock groves in Hemlock Gorge and Norumbega Conservation Area, and the white pine remnants in Norumbega Conservation Area. Wetter areas are characterized by trees such as red maple, willow, black tupelo, and swamp white oak; shrubs such as alder, high bush blueberry and sweet pepperbush; and ground flora such as skunk cabbage, cinnamon fern, sensitive fern, cattails and reeds.

These trees, shrubs, and herbaceous ground covers provide several 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, and contributing to landscape character.

The Chestnut Hill area of Newton has a significant amount of wooded land (over 100 acres) in the Webster Conservation Area, Hammond Pond Reservation, and the recently preserved Webster Woods land. In the south of the City, over 50 acres of public wooded is made up of Kesseler Woods (land protected through the City's joint purchase of East and West Kesseler Woods together with Cornerstone Realty in 2004) and the adjacent Saw Mill Brook and Bald Pate Meadow Conservation Areas. Auburndale Park and Flowed Meadow in Auburndale also offer significant amounts of wooded public open space, as does the Dolan Pond Conservation Area, in West Newton.

Unfortunately, many of the wooded portions of Newton suffer from significant densities of non-native, invasive plants, trees, shrubs, and groundcovers.

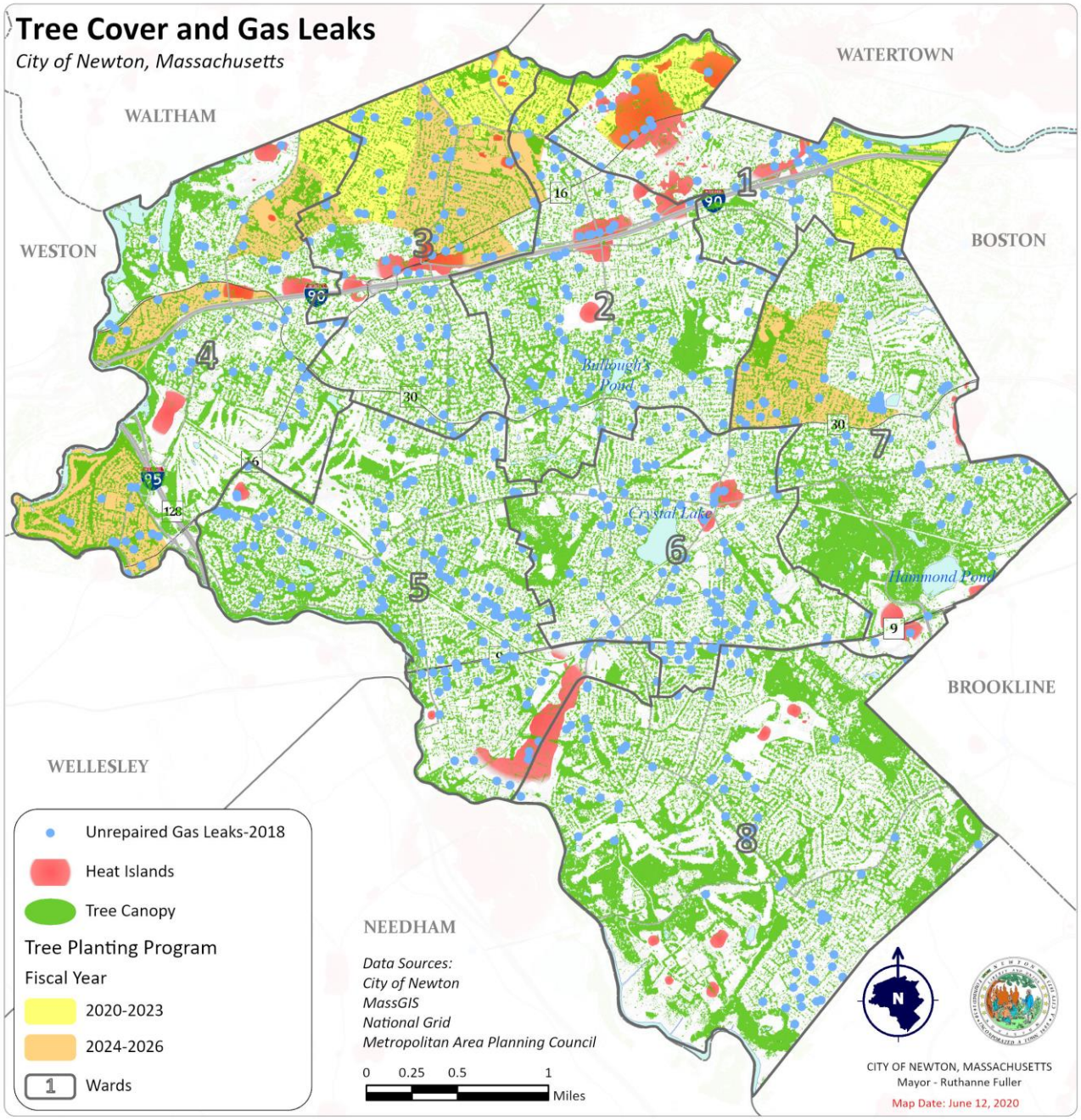
Street Trees

A portion of Newton's overall canopy coverage is provided by the roughly 20,000 street trees and hundreds of trees in the City's parks. The street trees in Newton are considered Public Shade Trees and are protected under Massachusetts General Law Chapter 87.

Street trees provide the same economic, environmental, and aesthetic benefits as natural woodland trees and can contribute to the value of adjacent properties.

Street trees grow along the public rights-of-way in Newton. The groundcover under street trees is usually mowed lawn, or even metal grating, and though street trees do not provide the same habitat resources as forests, they offer major ecological and public health benefits to the City. The Division of Urban Forestry has created a Five-Year Planting Plan that, using tree canopy coverage data, specifically focuses on increasing canopy coverage in those parts of the City with heat islands and low canopy coverage (**Figure 29**).

Figure 29. Tree Cover and Gas Leaks (and Potential Street Tree Planting Plan)



Newton's public street trees are predominantly Norway Maple (an aggressive, exotic species), followed by Sugar Maples, Red Maples, and White Oak. Over sixty other species are also represented, including Linden, Honey Locust, Pear, Ash, Lilac, Plane tree, and Crab Apple. Selections for new tree plantings should consider native species where possible, and species that are well-adapted to a climate shifting toward hotter summers, increasing droughts, and more severe storm events.

The City's street trees are managed to increase longevity and to decrease possible hazards. The trees are managed through an array of practices including watering, mulching, pruning and removal when necessary. Over 70% of the City's street trees are rated as being in "fair" or "poor" condition and require work to maintain shaded, "green," and safe streets. The work is overseen by the Division of Urban Forestry

under the direction of the City's Tree Warden. The Division of Urban Forestry is part of the Department of Parks, Recreation & Culture, and was established in 2013 to bring tree care back into City oversight, after many decades of outsourcing the work.

The current 20,000 trees bordering Newton's streets represent a significant decline from a prior population of 40,000 trees in the early 1970s, an overall loss of 50 percent. According to the Division of Urban Forestry, the current rate of tree loss is 800 to 1,000 trees per year, meaning an additional 10,000 trees could be lost to the next generation of Newton residents. Due to limited staffing,

The Division of Urban Forestry can plant approximately 650 trees a year; an additional 100-200 are planted in coordination with the Newton Tree Conservancy. The Newton Tree Conservancy is a non-profit organization established in 2008 that assists with the restoration and protection of City trees through fundraising, volunteer planting opportunities, and educating the public on the value of trees. Working in conjunction with the Division of Urban Forestry, they plant and nurture street and park trees for the benefit of future generations and raise funding for their work. In 2017 they began a tree nursery for the benefit of the City at the Community Gardens in Nahanton Park. See **Figure 29** for the anticipated areas of concentrated planting.

Tree Protection

Trees in Newton are covered by a Tree Preservation Ordinance, which promotes a diverse, healthy and sustainable urban forest. The ordinance sets out measures to protect trees located on City property and on public rights-of-way from construction and other preventable damage; to establish conditions for long-term preservation and expansion of the urban forest; to extend protections afforded by the Tree Preservation Ordinance to privately-owned trees and supplement Chapter 87 of the Massachusetts General Laws. Trees on private properties can be removed by landowners, but Newton's Tree Preservation Ordinance places requirements for the protection and replacement of trees in certain circumstances, such as construction (Newton City Tree Regulations).

Endangered Vegetation

Historically in Newton there were threatened, endangered, and species of special concern, including adder's-tongue fern, pale green orchid, Britton's violet, linear-leaved milkweed, Long's bitter-cress, Andrews' bottle gentian, long-leaved bluet, toothcup, the wild senna, and the New England blazing star, but there have been no documented findings since 1936.

E. Fish and Wildlife Habitat

Wildlife

Newton contains a limited number but varied range of wildlife habitats which include forest, field, wetland, and open water habitats. Large wooded parcels such as Webster Conservation Area and Cold Spring Park provide oak‑hickory, beech, coniferous and swamp red maple forest habitats; the Newton Community Farm, the golf courses, and Kennard Park, Nahanton Park, and Norumbega Park provide field habitats; Flowed Meadow, Hammond and Winchester swamps and the Sawmill Brook wetlands provide wetland habitats; and Hammond Pond, Crystal Lake, the Charles River and associated tributaries provide open water habitats. These habitats support a variety of native and introduced species of birds, mammals, amphibians, reptiles and fish. Newton's mammal population comprises indigenous species of squirrels, rabbit, raccoon, skunk, woodchuck, beaver, muskrat, fox, white tail deer, and coyote. Newton's wetlands support indigenous species of frogs (e.g., green, bull, and peeper), fish (e.g., pan fish, carp, catfish, and bass), turtles (e.g., painted), salamanders (e.g. redbacked and spotted) and non-venomous snakes (e.g., garter).

Historically, there were threatened, endangered, and species of special concern in Newton. These included the Barrens dagger moth, Henslow's sparrow, and golden-winged warbler. The most recently observed

species that is of special concern is the blue-spotted salamander, which has not been observed in the City since 2009.

Massachusetts, through the Natural Heritage and Endangered Species Program (NHESP) has mapped core habitats throughout the Commonwealth that are significant for conserving biological diversity. This project, called BioMap2, identifies core habitat as areas necessary to ensure the long-term persistence of species of conservation concern across the Commonwealth. These core habitats have intact ecosystems and contain exemplary natural communities. (**Figure 30**). The most significant wildlife habitat in Newton lies along the Charles River. Considered Core Aquatic Habitat, it is identified by the Massachusetts state Natural Heritage and Endangered Species Program as important for conservation.

Wildlife Corridors

A wildlife corridor can be defined as vegetated open spaces that connect habitats to one another and provide passage of wildlife populations. Newton's wildlife habitats are significantly fragmented and poorly connected, challenging existing wildlife populations and populations that may need to migrate in response to climate change or development. Newton has areas of open space that can be utilized by wildlife as corridors. The largest of these areas are the wildlands along and around the Charles River and the Sudbury and Cochituate Aqueducts. Smaller corridors pass through the Charles River Country Club and Nahanton Park to the Charles River; and through Lyons Field, Auburndale Park, and Flowed Meadow to the Charles River. Still smaller corridors exist within individual large parcels of open space.

Vernal pools

Newton has thirteen certified vernal pools, with most located in Cold Spring Park, near DCR's Charles River Reservation, and in Webster Woods (**Figure 31**). Vernal pools are also known as ephemeral pools, autumnal pools, and temporary woodland ponds. They typically fill with water in the fall or winter due to rainfall and rising groundwater and remain ponded through the winter, spring and early summer. The unique ephemeral environment of vernal pools provides habitat for numerous rare plants and animals that survive and thrive in harsh conditions. Common vernal pool species include yellow and blue spotted salamanders and fairy shrimp (Vernal Pools, EPA, 2018). Blue spotted salamanders are currently endangered and have not been observed in the City since 2009. While the needs of individual vernal pool species vary, many vernal pool species require upland habitat for large portions of their life cycles and require anywhere from 200-1000 feet of abutting forested upland habitat with minimal human disturbances (Pennsylvania Natural Heritage Program).

The City's acquisition of 17 acres of Webster Woods in 2019 through an eminent domain taking from Boston College, resulted in the protection of the City's largest vernal pool, Bare Pond and will help protect its many amphibians and other wildlife.

Certified vernal pools are afforded some protection under the Massachusetts Water Quality Certification regulations (401 Program), the state Title 5 regulations, and the Forest Cutting Practices Act regulations. Because vernal pools are highly ecologically valuable, and because they are threatened by development of associated upland areas, the City should locate and certify, then seek to protect upland areas around its vernal pools.

Figure 30. BioMap 2: Core Habitat

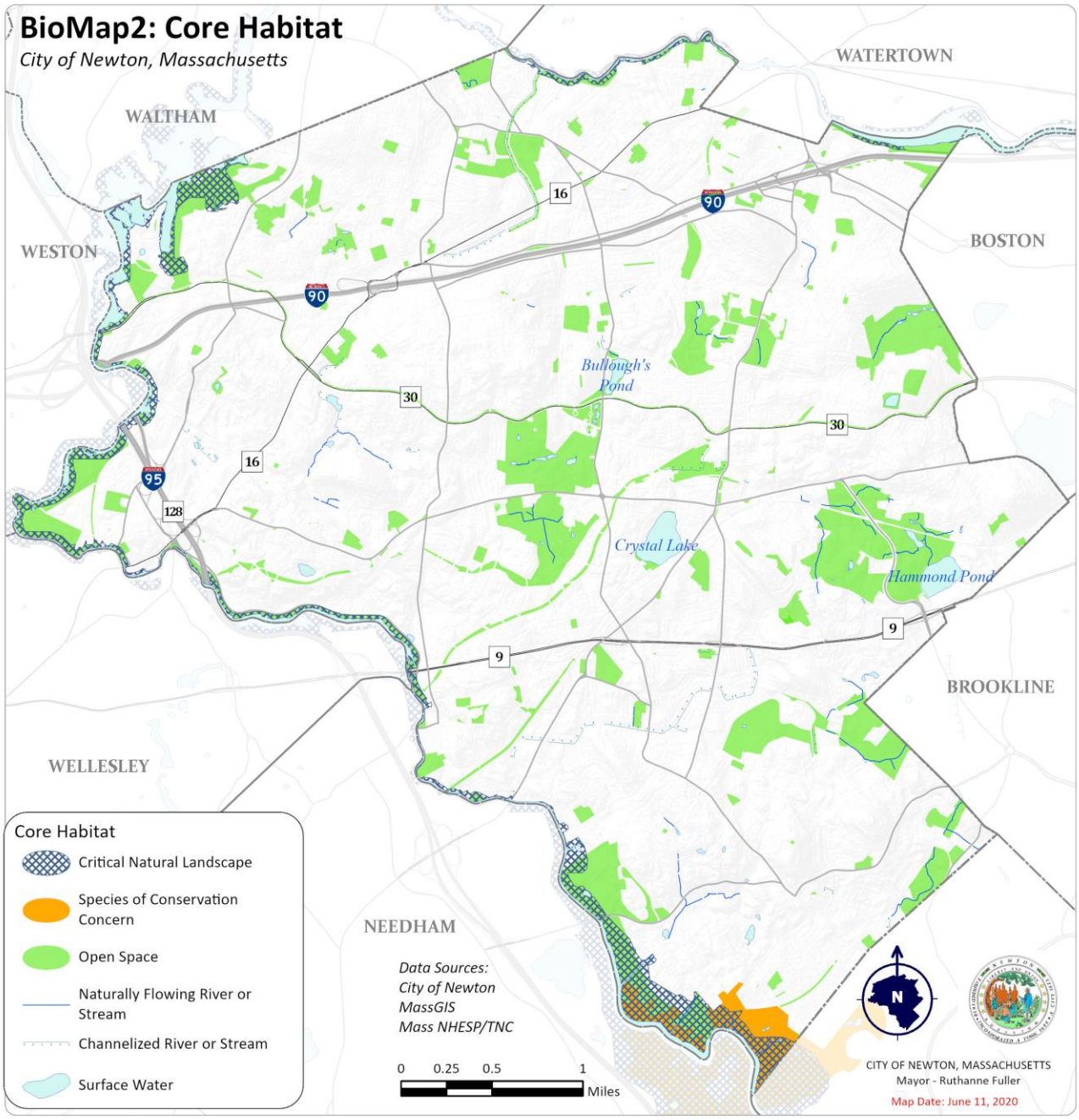
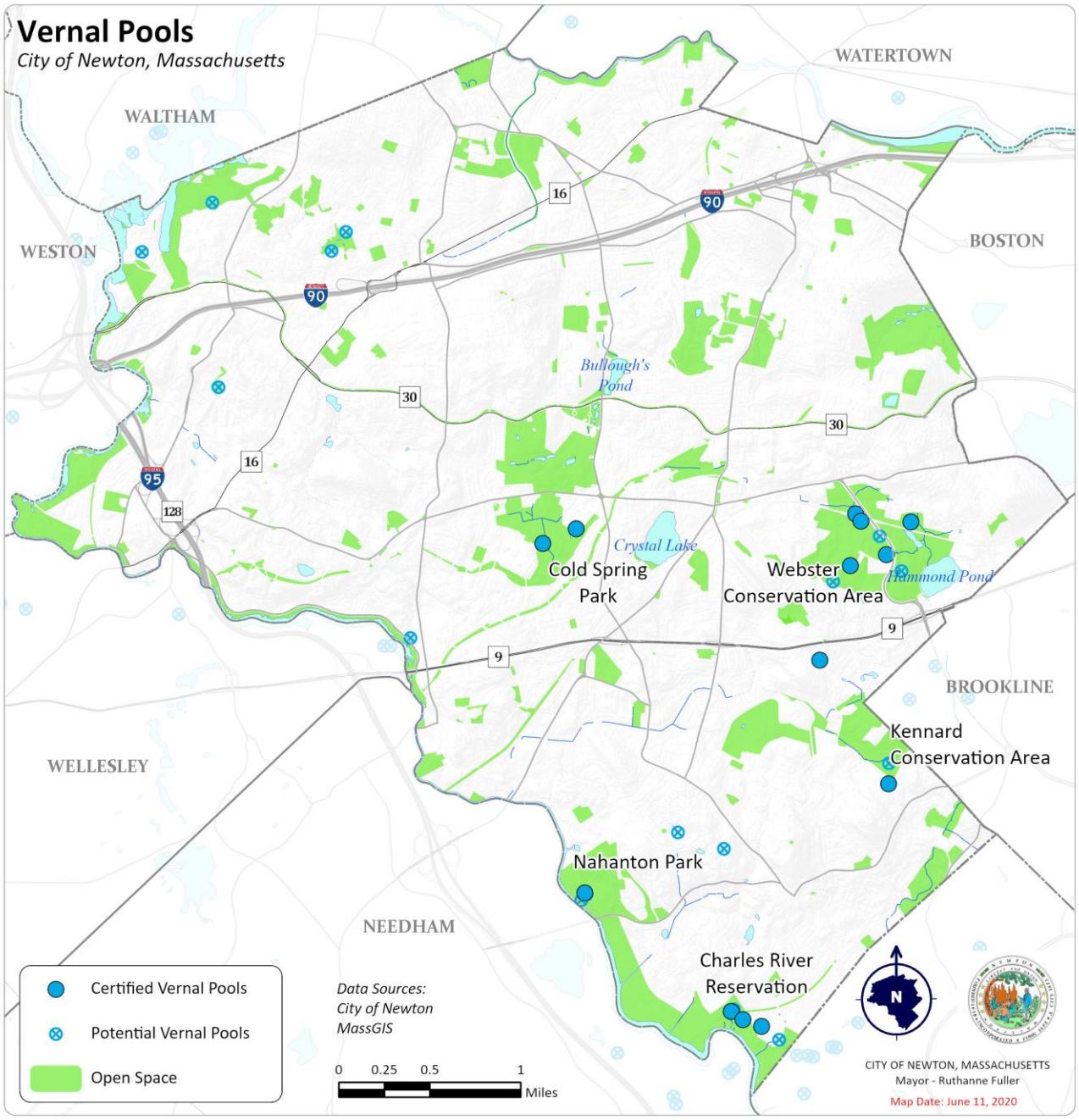


Figure 31. Vernal Pools in Newton



F. Scenic Resources and Unique Environments

Overview

Newton's varied topography, vegetation, and settlement patterns have resulted in many unique aesthetic elements such as hilltop vistas, scenic roads, scenic lakesides, water views, and tree-lined streets. These features are aesthetic resources integral to the City's character. To maintain such scenic vistas, it will be important to identify and map their locations, maintain present rights of access, and implement, development controls to protect them.

Visual corridors

Newton's 2011 *Comprehensive Plan* (7–6) identifies the major visual corridors as:

- Commonwealth Avenue
- Watertown Street
- The Washington Street Railroad/Massachusetts Turnpike Corridor
- Beacon Street
- Boylston Street
- Needham Street

In the face of development, these important visual corridors need thoughtful plans, such as Newton's 2018 *Needham Street Vision Plan*, to ensure that site-planning standards and reviews will result in appropriate incorporation of street trees, green infrastructure, and open space. Short-term actions described in the *Needham Street Vision Plan* (13) to promote low-impact design to protect wetlands and waterways (South Meadow Brook passes under Needham Street) include:

- Updating requirements in the zoning ordinance with respect to pervious/impervious coverage, landscaping, low-impact stormwater management, and erosion/sedimentation controls
- Increasing native plantings to address heat island effects, provide stormwater management, add shade where needed, create habitat, and increase aesthetic appeal
- Setting standards for stormwater management in any new public streets/public spaces

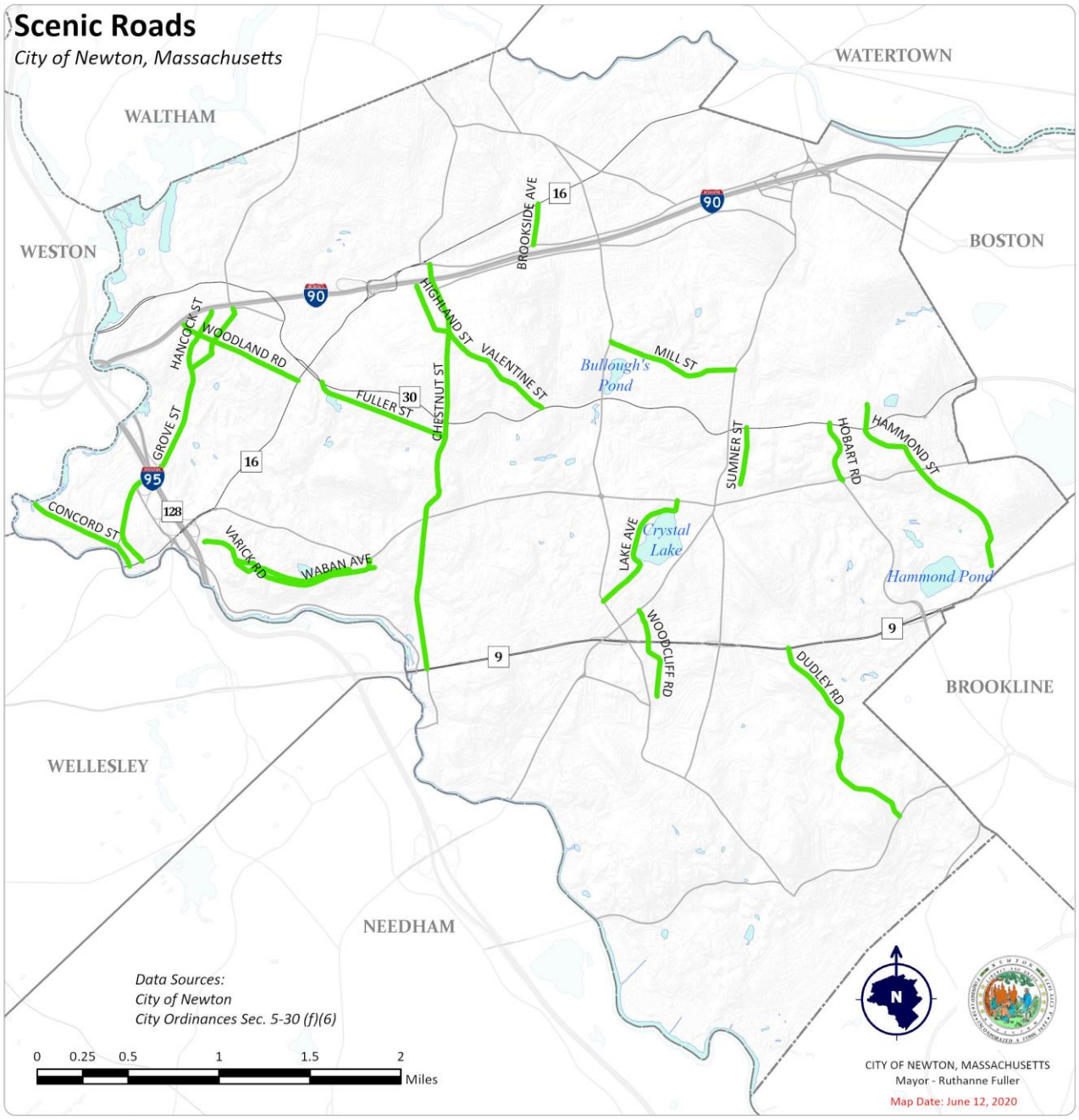
Scenic Roads

The 1973 Scenic Road Act, Mass. General Laws, Chapter 40, Section 15C, provided the City with a mechanism to designate scenic roads. Currently, there are 17 designated Scenic Roads in Newton. They are clustered in the central part of Newton, where many of the wealthy neighborhoods and community heritage landscapes are located. (**Figure 32**).

- Brookside Avenue
- Chestnut Street
- Concord Street
- Dudley Road
- Fuller Street
- Grove Street
- Hammond Street
- Hancock Street
- Highland Street
- Hobart Road
- Lake Avenue
- Mill Street
- Sumner Street
- Valentine Street
- Waban Avenue
- Woodcliff Road
- Woodland Road

On June 21, 2010 the Board of Aldermen (now the City Council) approved an amendment to the City of Newton Ordinances relative to regulation of scenic roads. For all designated scenic roads, road work which involves removal of trees and stone walls in the rights-of-way requires Planning Board review and approval following a public hearing. Further amendments could identify additional scenic roads for protection.

Figure 32. Scenic Roads



Farms

Although at one time Newton's primary land use was agricultural, today the only remaining farm in the City is the Newton Community Farm. In 1995 and 2003, the Open Space Plan identified the Angino Farm as an important community resource. In 2005, the City purchased the land. The Farm is now managed by a City-contracted nonprofit organization under the oversight of the Newton Farm Commission. Although the Farm is not certified organic, it adheres to sustainable agricultural methods and the produce from the farm is distributed through Community Supported Agriculture (CSA), an on-site farm stand, and at farmer's markets. Due to this acquisition, the last 2.26 acres of agricultural land in Newton have been preserved.

Cemeteries

Interest in historic burying grounds and memorials continues to develop. Completing the restoration, interpretation of, and public access to Newton's three historic burying grounds (East Parish, West Parish and South Parish), would add to the diversity of passive recreational amenities in Newton Corner, Newton Highlands, and West Newton.

Community Preservation Act funds were secured in 2018 to restore and replace the historic wrought iron fencing of the Newton Cemetery and Arboretum. The Newton Cemetery and Arboretum, which is across Beacon Street from Cold Spring Park, is an accredited Arboretum with the Morton Register of Arboreta and is a valuable wildlife habitat and resource for walkers and bird watchers. Education and outreach about this resource is conducted by the Newton Cemetery and Arboretum, a private, non-profit that manages the cemetery, Historic Newton, and the Newton Conservators.

Calvary Cemetery in the northern part of Newton is large and a significant contributor to Newton's open space inventory. There are several other cemeteries in the City including: Common Street, Saint Mary's, and Holyhood.

Golf courses

There are five golf courses in the City, which provide recreational opportunities and ecological benefits such as improving air quality, filtering stormwater runoff, and lowering surface air temperatures. The 5 golf courses in the City are:

- **Newton Commonwealth Golf Course** (Newton Corner): owned by Newton and leased to a private company to run. This course is protected in perpetuity by a Conservation Restriction.
- **Leo J. Martin Memorial Golf Course** (Newton Lower Falls/Weston): owned and managed by DCR, also used for cross-country skiing in the winter.
- **Brae Burn Country Club** (West Newton): Private.
- **Woodland Golf Club** (Auburndale): Private.
- **Charles River Country Club** (Oak Hill): Private.

Golf is declining in popularity throughout the country, but there is no indication that any of the public or private golf courses are suffering declining use or are considering transitioning or developing. Should this change, it is a high priority for the City to work to ensure that any disposition or development includes an appropriate component of open space preservation (see also Chapter 7).

G. Open Space Resources of Regional Significance

The Commonwealth Avenue Carriageway

The Carriageway is a wide boulevard that parallels Commonwealth Avenue with a wide grassed and treed swath that separates the two roads. The Carriageway runs for approximately 6 miles from near the western border of the City east to Brookline. The central green space is routinely used by joggers and walkers. The Carriageway permits only slow, one-way car travel and so serves as a popular bicycle and pedestrian way. Bike Newton, a bike advocacy group in Newton, writes, "A number of tragic accidents in recent years, though, has made it clear that the carriageway is not perfect. Though walking, jogging, and biking in both directions has become a tradition, the street is marked as one-way, and there are no signs or markings to indicate this common practice. Many streets crossing the carriageway have no stop signs or signals. The carriageway stops abruptly at some street crossings, and linking paths often force bicyclists to enter traffic." Improvements to the Carriageway would enhance valuable east-west bike and pedestrian connectivity.

The Charles River Trail System

A long-range goal for several planning agencies including DCR, the Metropolitan Area Planning Council (MAPC), Newton's Conservation Commission, the Conservation Commissions of Boston and Brookline, is to build an uninterrupted bike and pedestrian path along the Charles River. Much progress was made in years past and momentum is building to complete connectivity through state and local efforts.

The volunteer Riverside Greenway Working Group has been securing state grants to improve existing trails and create new connections and an expanded trail network along the Charles River. Gaps remain, but the goal of a complete trail and appropriate connections is getter to closer to fruition.

Significant features that are or will soon be connected by pedestrian and/or bicycle trails include:

- Leo J Martin Golf Course, which functions as a Nordic ski center in the winter. The unused rail bed running between the recently State-renovated Concord St. bridge over the Charles River Route 95/128 near the Riverside MBTA station has the potential to become a recreational and commuter corridor with a multi-use path. Further work is needed to better understand the opportunities and challenges involved.
- The Newton Lower Falls and Wellesley Lower Falls river paths, scenic areas, and commercial areas.
- Norumbega Conservation Area, Lyons Field, Auburndale Park, Wares' Cove, Flowed Meadow Conservation Area.
- Quinobequin Road trails
- Echo Bridge and Hemlock Gorge Reservations.

The East Coast Greenway

The East Coast Greenway is an in-progress walking and bicycle route that will stretch 3,000 miles from Florida to Maine. It is roughly one-third complete. Portions of the trail pass through the northern portion of Newton on the DCR Blue Heron pathway that runs parallel the Charles River on its way to Boston. The project is sponsored by the East Coast Greenway Alliance, in coordination with the Heritage Conservation and Recreation Service/Department of the Interior.

Inter-City Connections

There are trail connections between Newton's Kennard Conservation Area/Kennard Park, the DCR Lost Pond Reservation, and the Conservation Commission land in Brookline. There are also trail connections between Newton's Auburndale Park and the DCR Forest Grove area in Waltham.

H. Historic Resources

Archeological Resources

There are 21 pre-contact Native American archaeological sites and another 71 historic archaeological sites recorded within Newton. These sites contain artifacts from the Middle Archaic Period (6,000 to 8,000 years ago) to 19th and early 20th century historic industrial sites. These sites indicate the availability of resources such as water (and later waterpower), game, and arable soils to past communities. These sites are precious and delicate links to our past. A recent excavation of the Durant-Kenrick Homestead uncovered remains of the City's agricultural past including remains of a barn and a previously unknown structure believed to have been a 19th century dairy. Should our open spaces be modified or altered, the City needs to exercise care to leave these ancient sites intact for future archaeologists or, if necessary, ensure careful excavation so that the valuable information they contain is not lost forever. To protect sensitive sites, information on the exact location of pre-contact Native American sites is kept confidential by the Newton Department of Planning and Development and the Newton Historical Commission. The City of Newton City-Wide Archaeological

Reconnaissance Survey: Public Education Report was conducted in 2011 and can be found on the City website.

Historic Landscapes

Newton has a variety of historic landscape forms from colonial era burial grounds to historic gardens and community spaces. In general, these places can be divided into two categories: those which are important due to their significance as a designed landscape and those which are significant due to the activities which took place there. Two examples are Crystal Lake and Houghton Garden. These properties are all listed on the National Register of Historic Places, but for different reasons. Houghton Garden, created by Martha and Clement Houghton as part of their early 20th century estate, is an example of a designed landscape, with noted landscape architects Warren Manning and Wayne Stiles contributing to its creation, which means it provides historic significance to the Chestnut Hill historic district. The area around the Crystal Lake Bath House and the lake itself has significance for its place in community history as the site of recreational activity for over 100 years. Newton's first park, Farlow Park, is also included on the National Historic Register as part of the Farlow and Kendrick Parks Historic District. Designed by George Meacham, designer of the Boston Public Gardens, its pond and pedestrian bridge were recently restored using Community Preservation Act and Community Development Block Grant funds.

Some properties combine aspects of community space and historic design such as the City's historic burying grounds and City Hall. The historic burying grounds are the final resting places for many of Newton's early settlers and prominent citizens and provide both historic architecture with the tombs and headstones as well as community history, and historical information through inscriptions. An important site is that of the First Meeting House in Newton at the corner of Centre Street and Cotton Street, built in 1660. The landscape around the current City Hall (the Georgian-style building built in 1932), the seat of Newton City government for more than 85 years, was designed by Fredrick Law Olmsted's landscape architecture firm, the country's preeminent landscape architecture firm at the time of construction. Newton Centre Playground was the City's first playground; it, too, was originally designed by Olmsted Brothers firm in 1890.

Preservation of these and other historic landscapes adds to community character by providing beauty, educating the public about the community's history, presenting historic design, and continuing past traditions. Presently, certain historic open spaces are protected, such as Houghton Garden with its preservation restriction maintained by the Massachusetts Historical Commission, but most have little if any historic preservation protection. While there are certain requirements through the Community Preservation Act and Massachusetts Historical Commission that require preservation as part of the appropriation of funds, in general it is the stewardship of these spaces by the City that will ensure their preservation.

The 2008, *Newton's Heritage Landscapes: A Community-Based Reconnaissance Report* introduces those places deemed, by public input, important to the community. The report also provides preservation planning recommendations for historic landscapes including documentation of properties to determine historic significance, cooperative stewardship of landscapes among multiple stakeholders, preservation of these spaces through appropriate maintenance or restoration, education through historic walking tours, and applying preservation regulations. The *Heritage Landscapes* report and other reports such as the preservation plan for the City Hall landscape are important tools available to guide and inform the planning, care of, or alteration of the City's open spaces having historic or cultural significance.

I. Environmental Challenges

Climate Change Challenges

Overview
Climate change is happening now, and its impact will continue to intensify over the next century and beyond. Predictions vary over the exact nature and amount of change that the warming of the planet will bring to Newton, but there is no doubt that change will come. Newton's 2018 *Climate Change Vulnerability Assessment and Action Plan* enumerates two major risks that Newton, like much of New England, is facing: rising temperatures and increased frequency and severity of storm events. Newton's 2019 *Hazard Mitigation Plan* assesses the potential impacts to the City from flooding, high winds, winter storms, brush fire, geologic hazards, extreme temperatures, and drought and identifies a number of mitigation measures that would serve to reduce the City's vulnerability to natural hazard events. Newton must strive to maximize the City's ability to cope with climate change, in part by designing and maintaining open space facilities with changing temperature regimes and changing precipitation and flooding patterns in mind.

Heat
According to the *Climate Change Vulnerability Assessment and Action Plan*, rising temperatures will lead to higher incidents of ground-level air pollution and allergens, increased rates of heat stroke, asthma and hypertension, and higher surface ground temperatures, especially for those in areas already mapped as "urban heat islands". Vegetation, particularly shade trees, has a cooling effect on ground-level temperatures. "According to the EPA, suburban areas with mature trees are 4-6 degrees cooler than new suburbs without trees. Shaded surfaces can be 25-40 degrees cooler than the peak temperatures of unshaded surfaces (*Climate Change Vulnerability Assessment and Action Plan*, 30)."

Flooding
Flooding of streets, basements, first floors, and landscaped areas will continue to worsen as climate change brings more severe storm events. Many citizens at one time or another have already experienced the effects of flooding; many more will in the future. The Charles River is dam-controlled so direct flooding from it is has been limited; however, over-taxed stormwater systems, channelized streams, and expanses of impervious areas have caused increasing inland flooding. Areas subject to recurrent flooding are mostly located along the Charles River, South Meadow Brook, and Cheesecake Brook and in areas where historic wetlands have been drained or filled. There are several specific locations within Newton that are designated as flood hazards in the City's *Hazard Mitigation Plan*. To address these issues, Newton developed and adopted a *Stormwater Infrastructure Improvement Plan* (2015) for capital improvement efforts that focus on repairing and enhancing the City's stormwater infrastructure; regularly inspecting and cleaning catch basins; dredging streams and removing debris; and repairing or replacing culverts.

Newton's brooks and streams have been substantially altered from a natural state by culverting, channelizing, filling, and impoundment. These alterations have resulted in a lower water table, increased rate of runoff, and a reduction of the capacity of brooks and streams to store floodwaters and filter pollutants. Although the period in Newton's history of large-scale alteration of water courses has passed, there remains a need to prevent further degradation and to renaturalize, as possible, the City's remaining open brooks and streams.

Water Resource Challenges

Water Pollution
Within Newton the major source of water pollution is from non‐point source stormwater runoff. Stormwater runoff is precipitation (rain or snowmelt) that flows across the land. Stormwater may infiltrate

into soil, discharge directly into streams, water bodies, or drain inlets, or evaporate back into the atmosphere. Stormwater that runs across paved streets, parking lots, and rooftops picks up pollutants such as trash, chemicals, oils, and dirt/sediment that can harm our rivers, streams, lakes, and wetlands. All the streams and ponds in Newton have their sub-basins in Newton; so, all pollution is local pollution. Only the Charles River has sources outside of Newton.

The Massachusetts Department of Environmental Protection classifies the Charles River as Class B waters, suitable for fishing and swimming. The quality of the Charles River often meets these goals during dry weather, but often exceeds pollutant limits for Class B waters during wet weather events.

There are 132 outfalls from Newton's stormwater system that flow untreated into the Charles River, 7 outfalls that drain into Crystal Lake, and 23 that drain into Cheesecake Brook. (*Newton's Stormwater Management Program, 2019*, 8) (**Table 3**).

Newton's 2018 *Climate Change Vulnerability Assessment and Action Plan* (33) explains,

> "As part of compliance with the federal Clean Water Act, Massachusetts must evaluate whether water bodies meet water quality standards. As shown in Figure 15, in the 2014 *Final Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act*, most of the assessed water bodies in Newton do not meet water quality standards for E. coli, phosphorous, and other impairments. Hammond Pond has not been assessed for all uses, but was identified as attaining uses including: Aesthetic, Fish Aquatic and Wildlife, and Secondary Contact Recreation. Crystal Lake was not assessed. Newton's other streams and ponds are not included in the assessment."

Table 3. Water Quality Impairments of Assessed Waterbodies

Water body	Impairment
Cheesecake Brook	dissolved oxygen saturation, E. coli, phosphorous, excess algal growth
South Meadow Brook	dissolved oxygen, E. coli, phosphorous, turbidity
Bullough's Pond	excess algal growth, nutrient/eutrophication
Sawmill Brook	dissolved oxygen, E. coli, organic enrichment (sewage), phosphorous, chloride, turbidity
Charles River	E. coli, nutrient/eutrophication, phosphorous, DDT, PCB in fish tissue, pathogens

To attain the goal of a fishable and swimmable Charles River and comply with the Clean Water Act, Newton's Department of Public Works (DPW) participates in the EPA's NPDES (National Pollutant Discharge Elimination System) Program. Since 2003, the DPW has complied with requirements of the NPDES Small MS4 (Municipal Separate Storm Sewer Systems) permit and administered a wide range of water pollution monitoring, as well as preventive, engineering and educational measures. In addition, the DPW has made significant progress in the detection and elimination of illicit discharges contaminating Newton's bodies of water. In 2015, Newton developed a *Stormwater Infrastructure Improvement Plan* that outlines a storm water pollution prevention strategy. These efforts have led to some improvement in the condition of Newton's waters. Newton has separate sanitary sewers and drainage pipes. The removal of direct and indirect illicit connections has resulted in an estimated 4,500 gallons per day of sewage removed from the City's drains.

Non-point source pollution continues to present a significant challenge for many of Newton's wetlands and waterways. Specific pollution problems which require continual attention are:

- Improper use or overuse of road salt
- Oil spills
- Sedimentation caused by poor land management (and construction site) practices

- Insufficient catch basin maintenance
- Over-fertilization from lawns and golf courses
- Naturally occurring organic matter (especially accumulated leaves in the autumn)
- Improper disposal of dog waste

Management of nutrients and toxicants at the watershed level is critical to addressing water quality problems; "end-of-pipe" strategies alone will not solve the problem.

While collaborative initiatives between the Crystal Lake Conservancy and the Department of Public Works (DPW), including measuring and remediating run-off pollution, have resulted in progress, water quality concerns and summertime beach closures due to blue-green algal blooms persist, indicating the need for further anti-pollution measures. Newton should continue to monitor the water quality of Crystal Lake, work to reduce phosphorous nutrient load, and ensure safe swimming and fishing.

Hammond Pond has been slowly accumulating sediment and vegetation and now has an average depth of four feet (Newton Conservators). Hammond Pond receives stormwater runoff from Route 9 and from the Shops at Chestnut Hill. During the 1970s, the Conservation Commission, with the cooperation of the Metropolitan District Commission, the State Department of Environmental Quality Engineering, the City Department of Public Works, and the owners of the Shops at Chestnut Hill oversaw vegetation harvesting (1973, 1974, 1975, and 1979) in Hammond Pond. More recent improvements have included a stormwater detention facility for the Route 9 stormwater, a sand filter for the Shops at Chestnut Hill stormwater, and a vegetated swale to filter water coming off the parking lot behind The Street-Chestnut Hill.

Bullough's Pond, an impoundment of Laundry Brook, was suffering from siltation, but corrective work was completed in 1993 with financial assistance from the Section 314 Clean Lakes Program. It is a valued visual extension of the Olmsted Ponds on the City Hall site, which were also improved, and plays an important role in flood control on Laundry Brook.

The remainder of Newton's water bodies, although small, contribute to wildlife habitat, to open space, and to Newton's visual quality. Most of these ponds receive sporadic pollution from street drainage, lawns, golf courses, and/or naturally occurring organic matter. The City must remain vigilant and ensure the water quality of these ponds to maintain the quality of wildlife habitat, prevent over-vegetation, and the maintain visual appeal and recreational values of these natural resources.

Climate change will only exacerbate pollution and its effects in Newton's water bodies. The 2018 *Climate Change Vulnerability Assessment and Action Plan* says,

> "The combined effects of washing nutrients into lakes and ponds and warmer summer temperatures may lead to an increase in the growth of aquatic vegetation. Such growth can deplete dissolved oxygen and lead to die-offs of aquatic animals. Additionally, excessive aquatic vegetation can make water bodies unpleasant for recreational use. Algae blooms can also lead to growth in toxic bacteria that makes water bodies unsafe for use by humans and pets.
>
> An increase in summer heat and drought, combined with earlier spring run-off due to warmer temperatures and a shift from snow to rain, can lead to warmer waters and seasonal low-flow or no-flow events in rivers and streams. Shallower waters and warmer temperatures also lead to low levels of dissolved oxygen, with negative effects on fish species. If dry conditions persist, wetlands could shrink in area or lose some of their absorptive capacity and be more prone to runoff and erosion (31)."

It is important to note that trees play a valuable role in mitigating stormwater runoff and water pollution. The Center for Urban Forest Research says, "Recent research has shown that urban trees can retain a sizable volume of annual rainfall in their crowns, delay the flow of stormwater runoff, substantially increase the infiltration capacity of urban soils, and provide transpiration of sequestered runoff for additional stormwater storage. Tree canopy effectiveness is highest during short, low-intensity storms and lower as rainfall volume and intensity increases. While soils are the best medium to store and filter

stormwater, trees may be integrated with other runoff reduction strategies to bring more natural hydrologic processes to urban watersheds by taking advantage of multiple points of retention." (*Quantifying the benefits of urban forest systems as a component of the green infrastructure stormwater treatment network*).

Sedimentation
Wetlands, ponds, and streams are filling in with organic material and mineral sand and sediment running into street drains and into waterways. Street sweeping is conducted by DPW to limit leaves and dirt from entering the City's storm drains. The 2015 *Stormwater Infrastructure Improvement Plan* calls for extensive catch basin cleaning. Removal of sediment from brooks, sometimes called "stream cleaning," is an ongoing effort of the Newton DPW to control flooding. The state is the entity that would undertake maintenance of and near stormwater outfalls along the Charles River. Nature-based solutions to trap organic matter and sediment before it reaches outfalls, wetlands and streams should continue to be executed.

Land Resource Challenges

Street Trees
Newton's street trees have declined 50% in the past 50 years. Urban trees face many challenges, including development activities, overhead wires, road salt, pests and diseases, ice storms, and gas leaks (discussed more below). Climate change will bring even more stressors through increased temperatures, droughts, bigger storms, and pests and pathogens once kept at bay by colder winter temperatures. Retrofitted tree-friendly streetscapes with high-quality (perhaps engineered) soil, appropriately sized beds, and zones free of growth obstructions are needed.

Privately Owned Trees
Newton's canopy is made up, in large part, by trees on private property. As development and redevelopment continue, many mature trees are being lost. The City's Tree Ordinance regulates land developers and requires inch-for-caliper-inch replacement or contribution into the City's tree fund and the state Wetlands Protection Act requires preservation of wetland values and so provides some protection to trees within the jurisdiction of the Conservation Commission, but many private homeowners are not subject to any tree cutting or replacement regulations.

Natural Gas Leaks
Newton suffers and is at risk for increased natural gas leaks from its system of gas pipes. Over 80% of gas lines in Newton are leak prone **(Figure 30)**.Leaks from broken or corroded pipes contribute to climate change (methane is very powerful greenhouse gas), kill nearby trees, and pose a risk to human health and safety. In 2018, Newton had the third largest number of gas leaks of any Massachusetts city, behind only Boston and Worcester. According to HEET (Home Energy Efficiency Team), by the end of 2018 Newton had 201 leaks repaired and 689 leaks that remained unrepaired (Heetma.org). Eversource, the local gas utility, works with the Newton Department of Public Works to coordinate repairs.

Meadows, Fields, and Road Edges
Nationally, there is growing interest in growing plant native plants to provide pollinator habitat. Abandoned fields, open areas along roadways, and residential areas have all captured the attention of proponents. Successful native plant restoration requires reduced mowing and fall to early-winter seeding. Once established, these plantings can be resilient, can help control erosion, and can support pollinators and birds.

Open land in Newton, including tilled and tillable land, meadows and fields, has decreased by over 80% in the last 30 years, so protecting such land, which can provide wildlife habitats and passive recreational opportunities, is very important. To maintain meadows, management plans prescribing selective mowing will be needed (such as the one developed for Woodcock Meadow at Nahanton Park by Mass Audubon and the Newton Conservators). Encouraging residents to convert portions of their lawns to meadows or gardens

would provide habitat, reduce gas-mower emissions, and reduce stormwater runoff. Highly visible landscape restoration projects, such as Levingston Cove at Crystal Lake (which is proposed to include several vegetated bioswales) and restoration of the historic landscape at City Hall, could demonstrate innovative green infrastructure design. Many sites which have traditionally been dominated by large expanses of mowed lawn could be recreated with beautiful vegetated areas that help filter stormwater and provide habitat for native pollinators.

Erosion and Impacts of Development

Erosion is not a significant problem in Newton. Construction sites, one of the largest categories of contributors to erosion and sedimentation in developed environments, are well regulated by the Inspectional Services Department and the Conservation Commission. Site erosion controls are required, catch basin protection is required, and routine City street sweeping is often required to be augmented by the contractor when construction is underway. Other situations where erosion might be a problem in some communities, such as streams subject to flashy flood conditions, are mostly absent in Newton thanks to lined streams, and on-going efforts to increase on-site infiltration.

Because the majority of development in Newton is re-development, not greenfield development, we focus our discussion about the impact of development and the associated community-based challenges in Section 3's Growth and Development Patterns, Figure 11, and Section 7's Summary of Community's Needs.

Environmental Equity and Environmental Justice

Environmental equity refers to the distribution of open space and recreation resources in the City: identifying any areas that are lacking open space and recreation resources and then addressing that need. We focus extensively on the issue of the equitable provision of open space and recreation resources in Sections 5, 6, 7, 8, and 9, the analysis sections and the action plan.

Environmental Justice refers to the quality of the environment in relation to different populations. There are often patterns of poor environmental quality (e.g., land fills, factories, heat islands, etc.) in areas that are populated predominantly by poor people and/or people of color. Newton is fortunate in that it does not have areas or populations that are subject to poor environmental or public health.

Wildlife Habitat Challenges

Overview

Newton's open space is home to a large variety of wildlife including mammals, birds, amphibians, bats, and insects. To best protect native wildlife, habitats must be of suitable size, location, quality, and connectivity. Following regional trends, over the past several years, Newton has seen an increase in certain opportunistic "edge" species, such as coyotes, turkeys, and white-tailed deer. In managing open space for wildlife, the City needs to also plan for increased human-wildlife interactions. Wildlife inventory and monitoring should continue at locations where monitoring has been done in the past, and at new locations for baseline data to understand wildlife populations in the City.

Invasive and Exotic Species

Invasive insects, invasive plants, and new pathogens pose ever-growing threats to Newton's natural habitat.

The Emerald Ash Borer, which kills ash trees, has been identified in Newton as of 2016. The Asian Long-Horned Beetle, which affects numerous species of hardwood trees, has not been observed in Newton but infestations exist elsewhere in Massachusetts, so Newton should monitor for its arrival.

Invasive non-native plants represent a major threat to the ecological value of Newton's open spaces. Such invasions crowd out native species by outcompeting them. Invasive species tend to be prolific seeders with longer growing seasons, are often shade tolerant, and rapidly expand their populations. Native plant species, to which native insects and birds are adapted, are outcompeted and diminished.

Many of Newton's parks and open spaces, which are highly fragmented and so have highly susceptible edges, have significant populations of invasive nonnative plants. Local horticulturist Bruce Wenning estimates that the understory of Cold Spring park is 90% invasive non-native species. Major invasive species in Newton's parks include Japanese knotweed, glossy buckthorn, common buckthorn, burning bush, Japanese barberry, garlic mustard, multiflora rose and bush honeysuckle, but there are many others. The more recent invader in Newton is black swallowwort. Monarch butterflies lay their eggs on its leaves, but the Monarch larvae cannot eat the leaves and so starve to death.

Control and management of invasive plant populations is to be done by City workers, volunteer groups such as Newton Conservators, Friends' groups, scout troops, PTOs, and individual homeowners. Efforts include manual removal (pulling, cutting, digging), chemical treatment, or (when/where available) biological controls. But the efforts are not sufficient to keep up with the spread of invasive plants. The Conservation Commission's published chart of recommended removal methods for the most common invasive species is a good reference guide for removal and disposal techniques. Combining invasive plant pulls with planting of native plants would help slow the spread of invasive species by covering the disturbed soils, thereby leaving the ground less vulnerable to immediate recolonization by invasive species. Please note that invasive plant control work in wetlands jurisdiction requires Conservation Commission approval.

Native Insect Decline

Many insects and pollinators are in decline throughout North America, including many species of bee, butterfly, bat, and bird. These pollinators are important to the health of Newton's natural ecosystems, but are threatened by habitat loss, climate change, and pesticide use. The City has worked to reduce the use of pesticides on municipal properties through its Integrated Pest Management Policy. It has also worked to protect open space and to increase pollinator habitat. The City supports several privately operated apiaries on public open space parcels.

Hazardous Waste Sites

Sites where spills of hazardous materials have contaminated the soil and/or groundwater can be found throughout the City. Such sites are cataloged and tracked by DEP. There are 563 Newton entries in Mass DEP's "Waste Site & Reportable Releases Results" list reflecting several hundred different locations. Most of these entries result from underground fuel tanks, historic dumping, or accidental spills.

Solid Waste Management

Waste management is an ongoing challenge that the City is working to address in several ways. Through its recycling and solid waste management program, the City has reduced waste by educating residents, reducing recycling contamination from non-recyclable materials, and making recycling more efficient by switching from dual stream to single stream recycling. Newton's trash is brought to Wheelabrator-Millbury, a waste-to-energy facility, in Millbury, MA; Newton's recyclables are brought to Waste Management's facility in Avon, MA. Residents are also able to drop off recyclable materials at the City's Resource Recovery Center on Rumford Avenue. In 2019, the City partnered with Black Earth Compost, which collects organic wastes and so will further reduce Newton's solid waste.

J. Summary of Environmental Analysis

Although Newton's landscape is highly altered from its original natural state, there is a great community desire to care for the remaining open space parcels to provide recreation and respite for people and to provide habitat for native plants and animals. Natural areas are threatened by climate change pollution, the pressure of a growing population on limited open spaces, invasive species, ongoing development, and pollution. Preserving the open spaces Newton has, working to reduce the insults to those open spaces and street trees, and increasing the number of native trees, shrubs, and plants should be the primary goals of the City.

Section 5: Inventory of Lands of Conservation and Recreation Interest

In this chapter are maps, tables, and descriptions of Newton's open space resources.

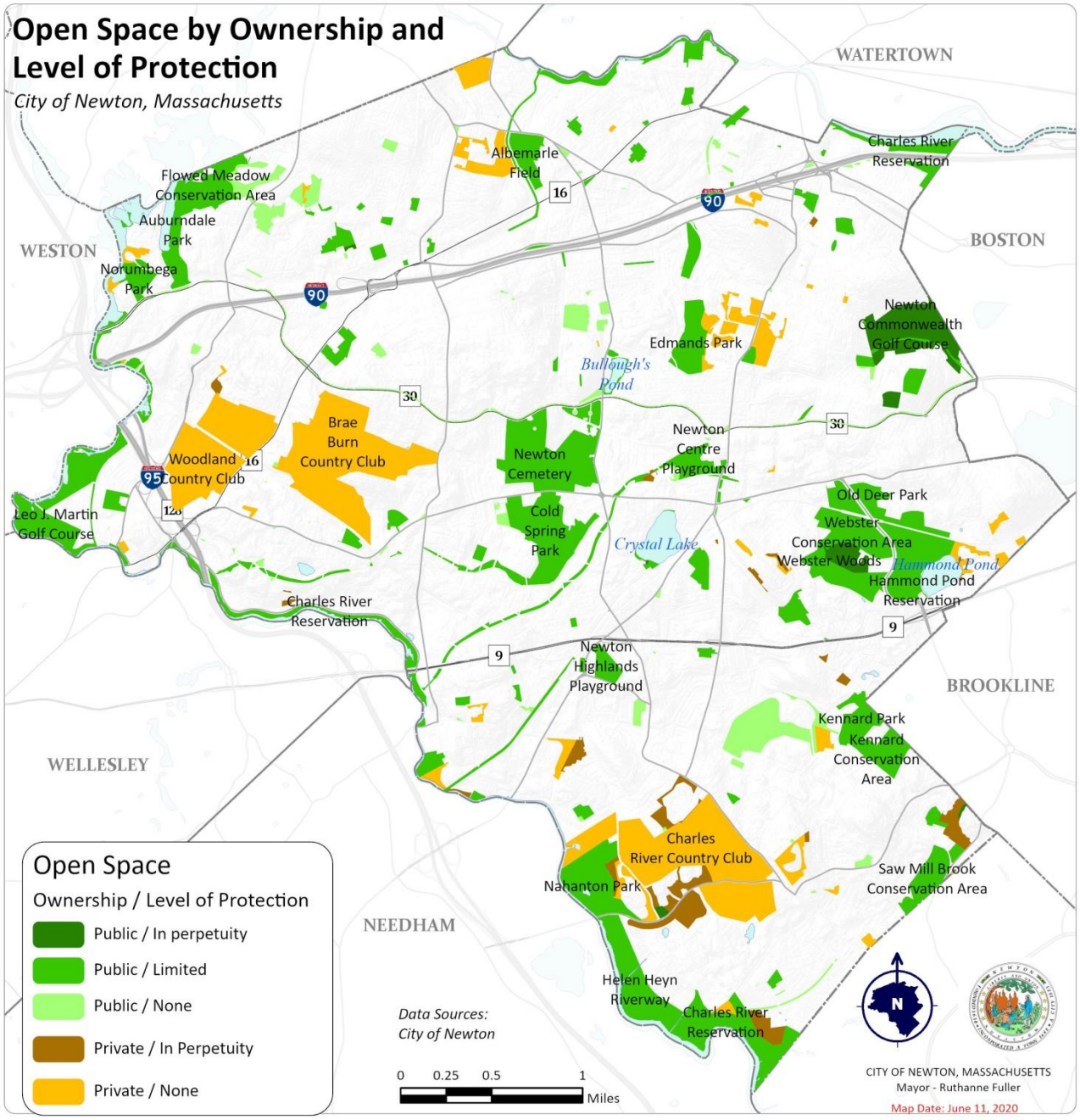
A. Introduction to the Categories of Open Space

These tables have been designed to meet state requirements by providing all required information about specific parcels. Much of this information was all encompassing for all parcels identified in a specific table and so was provided in the narrative text rather than as a separate column of tabular data.

Public and Private, Protected and Unprotected

Newton's open space resources are a combination of publicly and privately owned land, ranging from intensely managed recreational landscapes to minimally managed woodlands and wetlands. This inventory of open space resources includes lands legally protected for open space or recreation use, lands lacking legal protection, and lands temporarily incentivized for open space use under MGL Chapter 61. Privately owned lands which have open space value include recreational land, institutional property, and private estates of significant size. While the open space values of some of these private properties are protected by Conservation Restrictions, most are unprotected or only temporarily protected. See **Figure 33.**

Figure 33. Newton's Open Space (by Ownership and Level of Protection)



Values of Open Space

All open space parcels, whether private or public, protected, unprotected, or under limited protection, have substantial value and benefit Newton's residents and visitors. These open space resources provide many valuable services for Newton residents and visitors such as recreational and educational opportunities; mental, physical, emotional, and spiritual health; increased property values; support of the suburban character of the community; flood control; temperature modulation; clean water and clean air; and healthy ecological systems that support native plants and animals. In a densely populated urban setting, small

unbuilt parcels, green frontage and streetscapes can have special significance to individual neighborhoods and Newton as a whole, particularly when they are connected to other areas with open space value.

Including all categories inventoried in this chapter, Newton has approximately 2,500 acres of open space. This represents approximately 21% of the City's land base. Approximately 1,335 acres, about 11.5% of the City's land base, has some legal protection as open space, leaving 945 acres of significant privately held open space as potentially subject to development or conversion. Three private golf clubs comprise about 539 acres of significant privately owned open space, all of which fall under Chapter 61B.

Levels and Forms of Open Space Protection

This inventory of open space parcels includes lands legally protected for open space use, lands lacking such legal protection, and lands that are temporarily incentivized for open space use under MGL Chapter 61.

In Perpetuity

Lands are considered protected in perpetuity when legally and permanently protected as recorded in a deed or other official document. Private land is considered protected in perpetuity if it has a deed restriction in the form of a Conservation Restriction, an Agricultural Preservation Restriction, Historical Preservation Restriction, or Watershed Preservation Restriction. Public lands used for conservation or recreation purposes may be protected under the MA Constitutional Article 97, outlined below.

Deed restrictions provide legally binding language that prohibits development of lands in perpetuity and carries over through the land deed even if the land is sold to another owner. Newton and/or the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) have protected multiple public and private properties with Conservation Restrictions (CRs) to date. These CRs serve to protect many acres of open space. There are currently 47 parcels in Newton protected with CRs. An Agricultural Preservation Restriction (APR) is a deed restriction that protects private land used for agriculture from development in perpetuity. Newton has one parcel, Angino Farm, protected through a CR. In total, there are nearly 176 acres of deed restricted lands in Newton, permanently protected from development.

Article 97

Article 97 of the state constitution protects certain park and open space parcels. Article 97 states:

> "The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose. … Lands and easements taken or acquired for such purposes shall not be used for other purposes or otherwise disposed of except by laws enacted by a two-thirds vote, taken by yeas and nays, of each branch of the general court."

Such lands cannot be converted or developed for other uses, *except by*: 1.) a unanimous vote of the local Conservation Commission; 2.) a vote from the Parks Commission if it is parkland in question; 3.) voted on at a town meeting and passed by a two-thirds majority; 4.) an Environmental Notification Form with EOEEA's MEPA Unit; and 5.) voted by both branches under the Massachusetts Legislature and passed by a two-thirds majority. Lands protected under Article 97 are typically owned by municipal Conservation Commissions, Parks and Recreation Departments, Water Departments, or State Conservation agencies (OSRP Workbook, 2008 pg. 34). Newton has about 1,300 acres of open space that is protected under Article 97, which is over 50% of total open space.

Limited / Temporary
This category includes land that is legally protected for a defined period of time (e.g. a thirty-year Conservation Restriction), or protected through strong but limited open space designations, but could be developed for other uses at the end of their temporary protection or when they no longer serve a conservation or recreation function. Limited protection is protection by legal mechanisms other than those stated above. These lands might be protected by a majority municipal vote or are lands likely to remain open space for other reasons (e.g. cemeteries). Oftentimes, publicly owned land designated for public use purposes, such as parks and conservation areas, are protected under Article 97 of the MA Constitution.

MGL Chapter 61
The Chapter 61 tax programs provide a financial incentive for private landowners to manage their properties for forestry, agricultural, and recreational purposes under reduced property taxes under three distinct special taxation programs: Chapter 61 covers forested lands, Chapter 61A covers agricultural lands, and Chapter 61B covers open space and recreation lands (DCR Chapter 61 Programs). Not all Chapter 61 lands are required to be open to the public. Chapter 61 properties must be managed for forestry, agriculture, or open space and recreation purposes. If these properties are sold, converted to non-Chapter uses, or otherwise removed from Chapter 61 before the time limit expires, the community is afforded the Right of First Refusal to purchase the land — or the ability to assign its right to a nonprofit — and the landowner must pay accumulated back taxes (OSRP Workbook, 2008 pg. 36). The three privately owned golf courses are taxed under Chapter 61B, as recreational land. While tax abatement programs such as MA Chapter 61 provide strong financial incentives for conservation or recreational uses, and hold consequences for converting to non-chapter uses, these programs are *not considered* a form of legal open space protection, but rather a *temporary incentive against development*.

None/Not Protected
Lands that are unprotected, which are usually privately owned, could be sold for non-conservation or recreation uses at any time. Some publicly owned properties may be considered unprotected if they are not explicitly and clearly dedicated to public use purposes, such as conservation and recreation.

B. Introduction to Newton's Open Space Inventory

There are roughly 2500 acres of diverse open space resources in the City of Newton which is managed by a variety of parties including City Departments, state agencies, non-profit organizations, and private landowners. **See Table 4.**

Additions to the inventory of conservation areas, since the 2013-2020 OSRP, include several parcels known as Kesseler Woods, and Webster Woods; additions to Parks and Recreation include Waban Hill Reservoir and the 99-year lease secured from the MBTA for the Upper Falls Greenway.

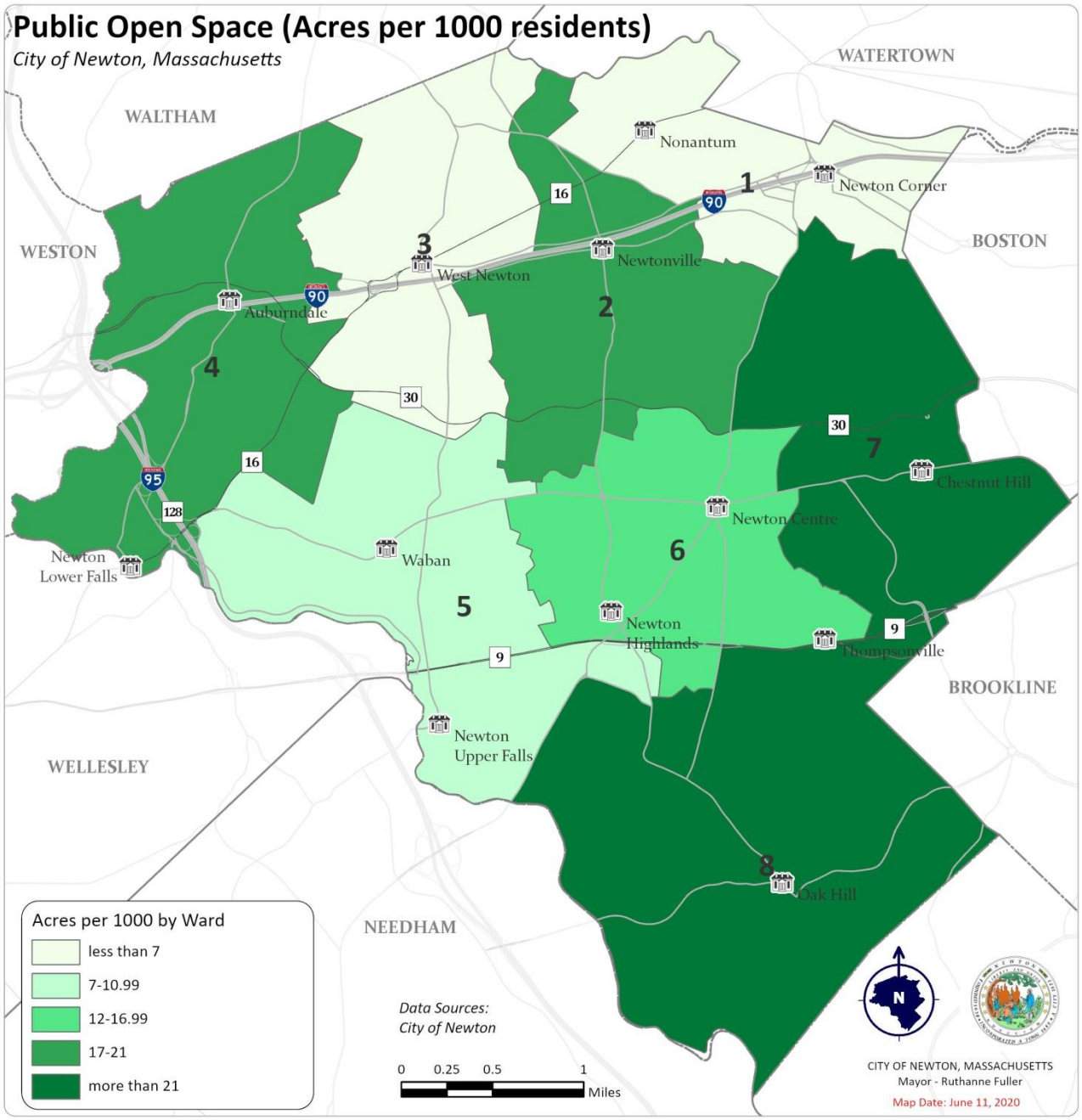
Newton is almost entirely developed, and there are few opportunities for additional park development. The City can still look to incorporate and improve bike lanes and walking trails for passive recreation and for ecological gains that would contribute to open space quality. Areas of City-owned land can also be converted into smaller pocket parks.

Table 4. Natural and Recreational Open Space in Newton: A Summary		
Category	**Area in Acres**	**% of Total Open Space**
Publicly Owned Open Space - Subtotal	**1,556.96**	**62.2 %**
Newton Parks, Recreation & Culture (Table 3)	558.6	22.4 %
Newton Parks, Recreation & Culture – Medians (Table 3)	7.34	0.03 %
Newton Conservation Commission (Table 4)	310.79	12.4 %
Newton School Department (Table 5)	200.33	8.0 %
General Municipal Control (Table 6)	71.63	2.9 %
Cochituate Aqueduct (Table 7)	41.21	1.6 %
Sudbury Aqueduct (Table 8)	20.65	0.9 %
Massachusetts Department of Conservation and Recreation (Table 9)	338.76	13.5 %
Other Municipal, State, and Federal Land (Table 10)	7.80	0.4 %
Privately Owned Open Space - Subtotal	**944.86**	**37.8%**
Golf Courses (Table 11)	542.69	21.8 %
Cemeteries (Table 12)	118.62	4.7 %
Tax Exempt Land w/ Significant Open Space (Table 13)	205.12	8.2 %
Private Land w/ Significant Open Space (Table 14)	78.43	3.2 %
TOTAL	**2501.82**	**100 %**

Open spaces and the services and amenities they provide are not evenly distributed throughout the City. **Figure 34** shows that Newton, taken as a whole, is close to the national recommended standard of 15 acres of public open space per 1,000 residents, but that some wards fall below that ratio. (City of Newton, 2014).

Map codes (e.g. P33) are provided for each parcel, or grouping of parcels, inventoried in this Section. Letters refer to ownership of the parcel, e.g., with parcels owned by Parks, Recreation and Culture being labelled with P. Numbers serve to distinguish individual parcels. Map codes for publicly owned open space are shown in **Figure 36** and map codes for privately owned open space are shown in **Figure 41**.

Figure 34: Public Open Space (acres/1000 residents)



C. Inventory of Open Space and Recreation Lands

CRs, APRs, and Conservation Easements (Table 5)

This category of open space includes all lands in Newton with a deed restriction or easement. Lands are considered protected in perpetuity when legally and permanently protected as recorded in a deed or other official document, such as a Conservation Restriction (CR), an Agricultural Preservation Restriction (APR), Historical Preservation Restrictions (HPR), or a Watershed Preservation Restriction (WPR). Deed restrictions provide legally binding language that prohibits development of lands in perpetuity and carries over through the land deed even if the land is sold to another owner. An APR is a deed restriction that protects private land used for agriculture from development, in perpetuity. A landowner may elect to place a Conservation Restriction on all or part of his property, deriving tax benefits by removing the possibility of future development, effectively devaluing the property.

In Newton, these lands include conservation areas, wooded parcels, a farm, and portions of privately owned properties. In total, there are nearly 176 acres of deed restricted lands in Newton, permanently protected from development. There are currently 47 parcels in Newton protected with CRs. Newton has one parcel, Angino Farm, protected through an APR. See **Figure 35 and Table 5.**

Publicly Owned Land

Publicly owned open space includes municipal land managed by Parks, Recreation & Culture (PRC), the Conservation Commission, and School Departments, state-owned land managed by the Massachusetts Department of Conservation and Recreation (DCR) and Massachusetts Water Resources Authority (MWRA).

The City of Newton owns about 77% of Newton's public open space, with most of that land under the jurisdiction of PRC and the Conservation Commission.

The Massachusetts Department of Conservation and Recreation (DCR) and Massachusetts Water Resource Authority (MWRA) have jurisdiction over significant open space parcels including Hammond Pond Reservation, riparian areas along the Charles River, and the Sudbury Aqueduct.

Many of these publicly owned open spaces are protected under Article 97 of the MA Constitution, but it is unknown which parcels are explicitly and legally deeded as Article 97 lands. In order to ensure the ongoing protection of these parcels as open space, an assessment of deeds is necessary. In these tables, it is assumed that, due to public ownership status *and* current use as open space, recreational, or natural resource conservation lands, these parcels are protected under Article 97. However, further protection through Conservation Restrictions, may be appropriate in some cases. See **Figure 36.**

Figure 35. Lands Protected by Deed Restrictions

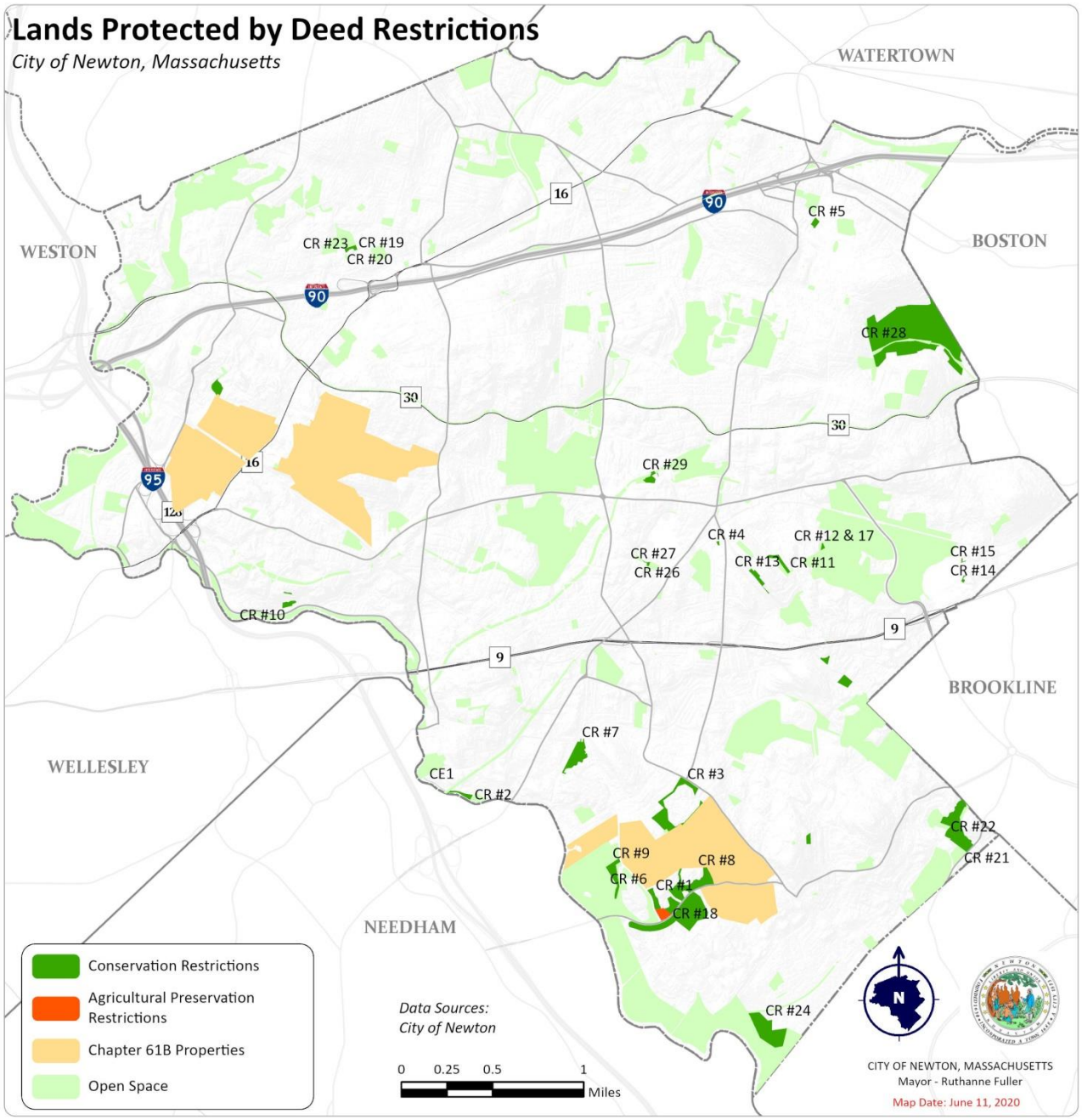
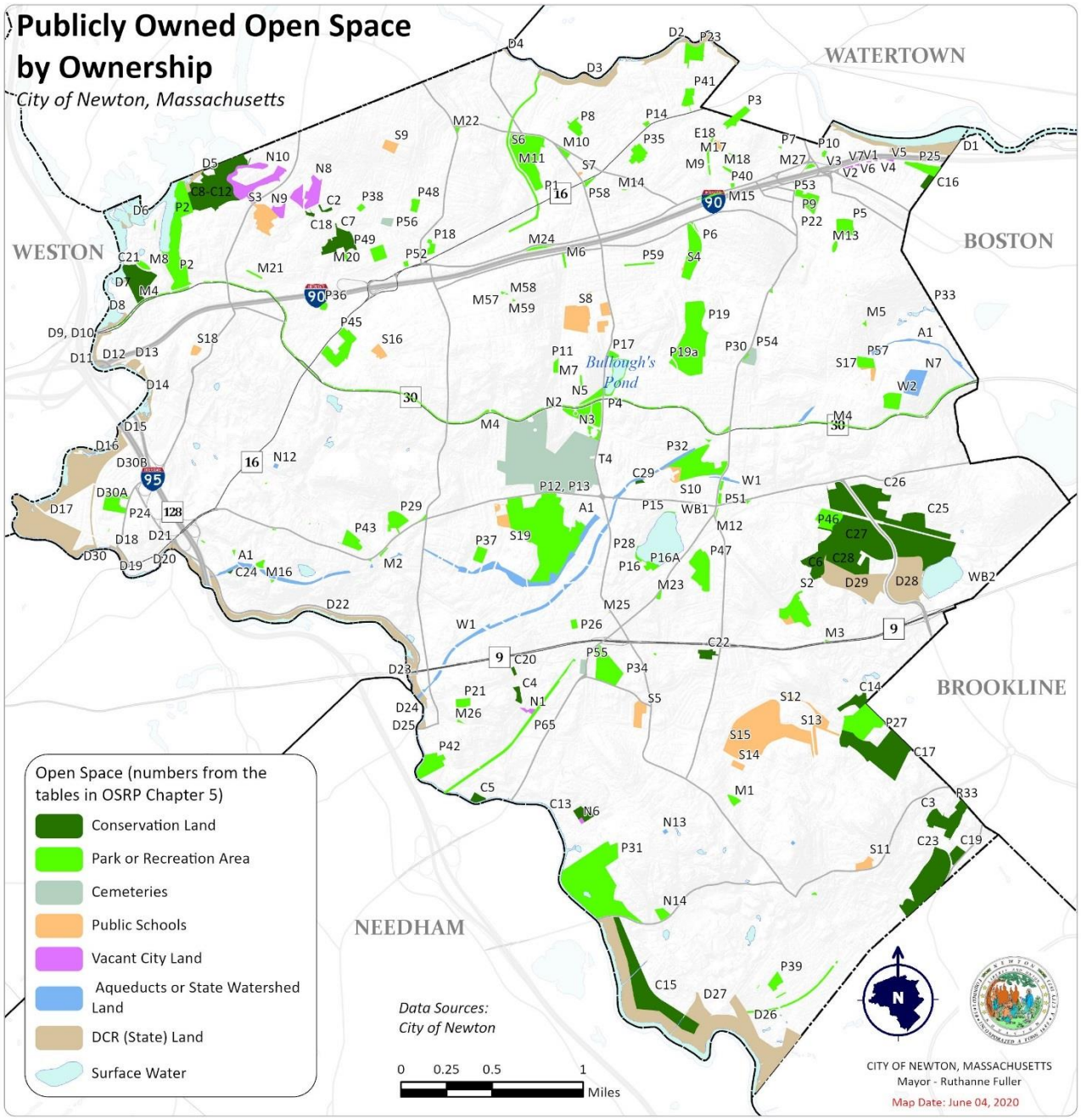


Table 5. Conservation Restrictions, Agricultural Preservation Restrictions, and Conservation Easements					
Map Code	**CR Number**	**Name (Location)**	**Owner**	**SBL ID**	**Size (Acres)**
CR1	1	Nahanton Woods Condos (210 Nahanton St)	Condominium	84034 0005	20.55
CR2	2	Oak Park Condos (27-101 Saco St)	Condominium	51046 0005	1.28
CR3	3	The Gables Condos (401-439 Dedham St)	Condominium	83036 0003BA	9.40
CR4	4	18 Paul St	Elaine Woo	62014 0004	0.19
CR5	5	Pomeroy House (84 Eldredge St)	Condominium	72008 0013	0.92
CR6/E9	6	The Kettle (JCC) (333 Nahanton St)	Combined Jewish Philanthropists	83035 0004	0.67
CR7	7	Winchester Park Condos (303-309 Winchester St)	Condominium	83028 0030	6.55
CR8	8	Ledgebrook Condos (207-297 Nahanton St)	Condominium	83036 0008B	14.11
CR9/E9	9	The Oak Grove (JCC) (333 Nahanton St)	Combined Jewish Philanthropists	83035 0004	3.27
CR10	10	Laura Estates (15 Laura Rd)	Omid Farokhzad	55038 0016	0.09
		Laura Estates (19 Laura Rd)	Sarinna & James Chiang	55038 0009	0.12
		Laura Estates (0 Laura Rd)	386 Quinobequin, LLC.	55038 0018	0.44
		Laura Estates (20 Laura Rd)	Laura P. Heras	55038 0021	0.77
CR11/E7	11	Hebrew College (160 Herrick Rd)	Hebrew College	65019 0045A	1.71
CR12	12	190 Elgin St	City of Newton	65004 0042	0.07
CR13	13	The Terraces (287 Langley Road)	Condominium	65019 0045B	1.72
CR14	14	25 Moorfield Rd	Todd Jick	63037 0018B	0.26
CR15	15	74 Longwood Rd	Michael S. Field Trustee	63037 0011	0.15
CR16	16	350 Boylston St	Condominium	82004 0043	0.78
CR17	17	190 Elgin St	City of Newton	65004 0041	0.33
CR18/N14	18	Angino Farm (303 Nahanton St)	City of Newton	83036 0009	2.17
CR19/C7	19	Dolan Pond Cons. Area (76 Webster Park)	City of Newton	33022 0036B	0.74
CR20	20	Conservation Easement (76 Webster Park)	Newton Housing Authority	33022 0036	0.02
CR21/R33	21	Hancock Estates (200 Estate Drive)	C S Kesseler LLC	82037 0095	11.84
		Hancock Estates (31 & 36 Kesseler Way)	Lauren Zuker Siff	82037 0082	0.03
		Hancock Estates (156 Harwich Rd)	Vladimir Zarkhin	82037 0080	0.61
		Hancock Estates	C S Kesseler LLC	82037 0093	0.10

Table 5. Conservation Restrictions, Agricultural Preservation Restrictions, and Conservation Easements					
Map Code	**CR Number**	**Name (Location)**	**Owner**	**SBL ID**	**Size (Acres)**
CR22/R33	22	Kesseler Woods Cons Area (Harwich Rd)	City of Newton	82037 0080A	0.92
CR23	23	Conservation Easement (74 Webster Park)	Habitat for Humanity (Kendra Jackson, Scott & Jessica Larosee)	33022 0036A	0.05
CR24	24	Champion Broadcasting (750 Saw Mill Brook Pkwy)	Champion Broadcasting System, Inc.	84010 0057	12.70
CR26/P16	26	Crystal Lake Park (0 Lake Ave)	City of Newton	62001 0003A	0.19
CR27/P16	27	Crystal Lake Park (230 Lake Ave)	Atilla Habip	62001 0003	0.05
CR28/P33	28	Newton Commonwealth Golf Course (212 Kenrick St)	City of Newton	72039 0016	7.87
		Newton Comm. Golf Course (212 Kenrick St)	City of Newton	72039 0020	4.48
		Newton Comm. Golf Course (212 Kenrick St)	City of Newton	72039 0021	19.76
		Newton Comm. Golf Course (212 Kenrick St)	City of Newton	72039 0018	1.41
		Newton Comm. Golf Course (212 Kenrick St)	City of Newton	72039 0017	21.56
		Newton Comm. Golf Course (212 Kenrick St)	City of Newton	63001 0039	12.39
		Newton Comm. Golf Course (212 Kenrick St)	City of Newton	63001 0024A1	2.73
CR29	29	15 Bracebridge Rd	Gregory & Ila Fiete	64016 0015	1.54
CR30	30	Waban Hill Reservoir (Ward St)	City of Newton	63007 0001	5.08
CR31	31	Flowed Meadow Cons Area (30 Wabasso St)	City of Newton	41031 0053	0.02
CR32	32	Crystal Lake Park (20 Rogers St)	City of Newton	62001 0002	0.09
CR33	33	Saw Mill Brook Cons Area (0 Vine St)	City of Newton	82041 0022	0.85
		Kesseler Woods Cons Area (200 Vine St)	City of Newton	82037 0003	0.29
239-88	239-88	77 Florence St	Condominium	82004 0074	1.99
261-00	261-00	Lasell Pond (0 Seminary Ave)	Lasell College	43046 0004	2.26
346-80	346-80	Hampton Place Condos (77 Ober Rd)	Luis Pedraza	82015 0109	0.84
CE1	--	Conservation Easement (1165 Chestnut St)	Sconnix Realty Trust	51045 0005	0.14
				Total	**176.10**

Figure 36: Publicly Owned Open Space by Ownership (Codes from Section 5 tables)



Newton Parks, Recreation & Culture Controlled Land (Table 6)

PRC oversees a majority (over 20%) of public open space parcels in Newton. Land under PRC jurisdiction includes parks, playgrounds, tot lots, traffic circles, medians, and recreation facilities.

Managing Agency: All PRC owned lands are managed by PRC maintenance crews, with some assistance for median maintenance being provided by the City's Department of Public Works.

Public Access: PRC land is predominantly used for recreation and all its lands are open to the public.

Figures 37-40 illustrate the locations of some of the most popular PRC sites in Newton.

Key to Abbreviations: Table 6	
Abbreviation	**Meaning**
Art 97	Protected under Article 97
BBC	Basketball Court
CR	Conservation Restriction (M.G.L. Ch. 184, Sec. 31-33)
CRF	Charles River Frontage
CVP	Certified Vernal Pool
N	Not Protected
NHR	National Historic Register
OLA	Off-Leash Area
P	Protected in Perpetuity
PF	Playing Field
PG	Playground
SBL ID	Assessor's Database ID
TC	Tennis Court
UNKN	Unknown
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction (G.L. Ch. 131, Sec. 40A)

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
P1	Albemarle Field	Newtonville & West Newton	PUB	25.46	21022 0001	Active; Russell J. Halloran Sports & Recreation Complex, open green space, lit PFs, PG, tot lot, Gath Pool and Bathhouse, TC, BBC, fieldhouse, gazebo	Good/Fair	Athletic fields turf and lights; Gath Pool upgrade	Art 97	N/A
M1	Hartmann Park	Newton Centre		1.99	81009 0001	Passive; Neighborhood wooded traffic island	Excellent	Low potential		
P2	Auburndale Park/Lyons Park	Auburndale		28.83	41022 0001 (part); 41031 0036A; 41031 0037	Active; Portion of lot is Flowed Meadow Conservation area; PG, PF, BBC, TC, tot lot, fitness station area, grill and picnic area, fieldhouse, river skating, lit field w/concession and restrooms, parking area, undeveloped wooded area with trail; CRF, WJ	Good	Trail improvements		
P60	Beacon-Union-Langley Pocket Park	Newton Centre		0.26	61038 0001	Passive; Open green space; adopted parcel known as “Piccadilly Square”	Very Good	N/A		
M2	Beacon-Wyman Median	Waban	BU-1	0.18	53027 0001A	Passive; Sloped median between Beacon St and Wyman St	Good	N/A	N	
P3	Boyd Park	Nonantum	PUB	2.74	11020 0002	Active; Portion of lot is Lincoln Eliot School; PG, lit PF, BBC, continues into Watertown but fully maintained by Newton	Good	Athletic fields and access improvements	Art 97	
P4	Bullough’s Pond Park & Pond	Newtonville		1.41	24037 0010; 99099 0068	Passive; Pondside seating area; WJ	Good	Low potential		LWCF Redevelop-ment
P5	Burr Park	Newton Corner		5.12	72009 0003	Active; PF, PG, TC, BBC, spray pad, recreation building, challenge course, parking	Good	TC and BBC renovation		N/A
P6	Cabot Park	Newtonville		11.58	13001 0001	Active; PG, PF, lit BBC, TC, tot lot, fieldhouse, bocce, fenced OLA	Fair	Accessible pathway network		
P61	Cabot Park (Pocket Park)	Newtonville		0.15	13002 0001	Passive; Pocket park, adj. to Cabot Park	Good	N/A		

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
P52	Capt. Ryan Park (Police Park)	West Newton	PUB	1.83	33011 0001	Passive; Memorial pocket park	Good	N/A	Art 97	N/A
P7	Carleton Park	Newton Corner		0.11	71001 0011	Passive; Neighborhood pocket park	Excellent	N/A		
P9	Chaffin Park	Newton Corner		0.83	72004 0003	Passive; Lit walkway; National Historic Register	Good	Low potential		
P10	Charlesbank Park	Nonantum		0.46	71007 0041 -0043	Active; PG, small PF	Excellent	Low potential		
M11	Cheesecake Brook Greenway	West Newton		7.63	99099 0108 – 0110; 99099 0121	Passive; Linear park along Cheesecake Brook w/ seating area at Eddy St; WJ	Fair	Pathway/bike connections to Charles River		
P11	Claflin Playground	Newtonville		1.17	24025 0009A	Neighborhood park, sledding, OLA	Good	Low potential		
P12/ P13	Cold Spring Park	Newton Centre and Newton Highlands		69.46	54021 0002; 54021 0025 - 0026; 54022 0024; 54022 0032 - 0035; 54022 0049B, 0050A, 0051A, 0052A; 54022 0057 - 0059; 54022 0064 - 0066;	Active; PF, OLA, fitness stations along trail, TC, BBC, Farmers Market (June-Oct), parking; wooded, wet, Cold Spring Brook; WJ; WR#20, WR#21	Fair	Trail improvements		LWCF acquisition
P14	Colletti-Magni Park	Nonantum		0.47	14011 0010	Passive; Memorial pocket park w/seating	Excellent	N/A		N/A
M4	Comm. Ave Median	Various		20.65	N/A	Passive; Linear green space ~ 6 miles	Excellent	Access improvements, grant funding for greenway conversion		MassDOT Grant
P15	Cronin's Cove	Newton Centre		0.18	62001 0016	Passive; Lakeside pocket park, boat dock; WJ	Fair	Low potential		N/A
WB1	Crystal Lake	Newton Highlands		28.75	99099 9202	Active/Passive; Great Pond	Good	Low potential	P	
P16	Crystal Lake Park	Newton Highlands	PUB/SR2	1.99	62001 0001, 0002, 0003A	Passive; Bathhouse, dock, seasonal public swim area, seasonal fence, beach, lakeside pathway, parking; WJ; CR#26, CR#27, CR#32	Fair	Bathhouse/beach and access improvements		Community Preservation Act (partial)

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
M12	Centre St Linear Park	Newton Centre	PUB	0.21	61035 0004	Passive; Village green space near MBTA	Excellent	N/A	Art 97	N/A
P18	Davis Playground (Tom Torchia Playground)	West Newton		1.95	31016 0017	Active; PG, PF, BBC, spray pad, tot lot		Low potential		
P17	Dexter Rd Parcel	Newtonville	PUB	1.1	24038 0001	Passive; Wooded, Laundry Brook; WJ	Good	Low potential		
P6	Edmands Park (Cabot Woods)	Newtonville		33.17	13020 0001; 13021 0004; 22031 0001	Passive; Wooded, trails, esker, wet, Edmands Brook; WJ	Good	Trail improvements		
M5	Eliot Memorial Park	Newton Centre		0.06	73009 0019	Passive; Memorial park	Good	N/A		
M26	Elliot St./High St. Parcel	Upper Falls	MR2 PUB	0.24	51006 0001, 0002	Passive; Wooded slope, linear buffer	Good	N/A		
M6	Elmwood Park	Newtonville	PUB	0.64	24008 0001	Passive; Neighborhood traffic island	Good	Low potential		
P21	Emerson Playground	Upper Falls	MR1	2.6	51008 0001A1	Active; PG, PF, BBC, tot lot, open green space, gazebo, parking, adj. to community ctr.	Fair	Athletic field improvement		"Our Common Backyards"
P22	Farlow Park	Newton Corner	PUB	3.76	72004 0001	Active/Passive; PG, BBC, lit walkway, seasonal pond with footbridge; NHR	Good	Low potential		N/A
P53	Farlow Tot Lot	Newton Corner		0.91	72004 0004	Active; Tot lot	Excellent	N/A		
M27	Firefighters' Memorial	Newton Center		0.58	N/A	Passive; Bell tower structure	Good	N/A		
M57/ M58/ M59	Forest Ave/ Otis St Medians	Newtonville		0.35	24006 0016, 0017; 99099 0027	Passive; Planted traffic islands	Good	N/A		
P23	Forte Memorial Park	Nonantum		6.02	11004 0013	Active; PG, tot lot, lit PF, lit BBC, life course trail, bocce; WJ	Excellent	Athletic field improvements—turf and lights		Urban Self Help #4 and #5 (formerly Allison Park)
M3	Gasparri Park	Thompson-ville		0.11	65010 0025	Passive; Veterans Memorial park/traffic island @ Rt. 9	Good	N/A		N/A
M7	Grove Hill Park	Newtonville		0.41	24034 0001	Passive; Traffic island, wooded	Good	N/A		

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
P24	Hamilton Playground (Lower Falls Playground)	Lower Falls	PUB	8.53	42021 0001	Active; Community Center, PG, PF, BBC, TC, open green space, parking	Very Good	Low potential	Art 97	N/A
W2	Heartbreak Hill Park at Waban Hill Reservoir	Chestnut Hill		5.06	63007 0001	Passive; Open reservoir, open green space, accessible pathways	Very Good	Phase I improvements underway		CPA purchase
P8	Horace Mann Playground	Newtonville		2.97	23001 0020A	Active; PG, PF, BBC, parking (formerly Carr Playground)	Good	Play equipment upgrade		N/A
P25	Hunnewell Playground	Newton Corner		4.57	71026 0024	Active; Neighborhood park, PG, PF, fenced OLA	Fair/Good	Access and off-leash area improvements		
P26	Hyde Playground	Newton Highlands		1.04	52041 0001	Active; Neighborhood park, PG, PF, garden/seating area	Good	Low potential		
M8	Islington Oval	Auburndale		1.47	41024 0001	Passive; Traffic island/neighborhood park	Excellent	Low potential		
P27	Kennard Park	Newton Centre		15.79	82004 0023	Passive; P&R HQ, wooded, orchard, historic perennial garden	Good	Low potential		
M9	Laundry Brook Reservation	Newton Corner		1.41	12001 0049	Passive; Linear open green space	Good	Low potential		
P28	Levingston Cove	Newton Highlands		0.5	62001 0004	Passive; Lakeside pocket park; WJ	Fair	Renovation design in place		
P62	Lewis - Washington Median	Nonantum		0.11	13002 0001	Passive; Lewis - Washington Pocket Park; Bus Stop	Good	N/A		
P34	Newton Highlands Playground (Joseph Lee Playground)	Newton Highlands		12.56	83003 0025	Active; Open green space, lit PFs, TC, BBC, PG, wooded, rocky outcrops, universally accessible path system, parking	Excellent	Low potential		
P29	Warren Lincoln Playground	Waban		5.42	53032 0013	Active; Open green space, PG, tot lot, PF	Excellent	Pedestrian access		
M10	Linwood Park	Newtonville		0.99	23003 0001	Passive; Traffic island w/ pathway	Good	N/A		
P30	Loring Park	Newton Centre		0.3	73001 0019	Passive; Linear open green space	Excellent	N/A		

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
P58	Lowell Park	Newtonville	PUB	0.58	23013 0001	Passive; Neighborhood historic park	Excellent	Low potential	Art 97	N/A
P45	McGrath Playground (Warren Playground)	West Newton		10.55	32024 0006A	Active; Open green space, PFs, TC, fenced OLA, Cheesecake Brook; WJ	Good	Pedestrian pathway/access		
P31	Nahanton Park	Newton Centre		56.72	83035 0003, 0004A	Active; Nature Center, parking, fishing dock, canoe rental, PF, community gardens; open rec areas, wooded; CRF, CVP WJ; WR #10	Good	Nature Center renovations, access and trail improvements		Urban Self Help (2) #3 (formerly Novitiate)
P51	Newton Centre Green	Newton Centre		1.19	61033 0001; 61034 0002	Passive; Historic PK, City-sponsored seasonal event site	Good	N/A		N/A
P63A/ P63B	Newton Centre Library	Newton Centre		0.91	72004 0004	Passive; Public building, children's reading area, parking; channelized brook	Excellent	N/A		
P32	Newton Centre Playground	Newton Centre		17.9	64032 0001; 64032 0003	Active; Open green space, "The Hut", universally accessible PG and tot lot, PFs, LGTD BBC, clay TC, sledding, unfenced OLA, Hammond Brook; WJ	Excellent	Construct final segment of pathway network		
P33	Newton Common-wealth Golf Course	Newton Centre		76.5	63001 0024A1 63001 0039; 72039 0016 - 0018 72039 0020 - 0021	Active; Public golf course, CGC Skiing, wooded, Strong's Brook and Pond; WJ,	Good	Maintenance building renovation design in the works		Urban Self Help (formerly Chestnut Hill Golf Course)
M15	Veterans Memorial Park	Newton Corner		0.56	12015 0014	Passive; Memorial park	Good	N/A		N/A
P42	Officer Bobby Braceland Playground (Upper Falls Playground)	Upper Falls		8.77	51045 0003	Active; Open green space, tot lot, PFs, TC, BBC, unfenced OLA, parking; CRF, WJ	Fair	Access improvements		
M25	Officer English Park	Newton Highlands		0.02	99099 9821	Passive; Raised brick planted seating area	Good	N/A		
M60	Overlook Park Oval	Chestnut Hill		0.04		Passive; Traffic island/cul de sac	Good	N/A		

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
M13	Kendrick Park	Newton Corner	PUB	0.72	72008 0001	Passive; Traffic island w/ pathway	Good	N/A	Art 97	N/A
P35	Pellegrini Park	Nonantum		4.21	14016 0033	Active; Memorial park, PG, lit PFs, TC, half BBC, tot lot, shade shelter, bocce, Community Centre, parking	Fair	Athletic field and lights improvement		
M14	Prescott St Oval	Newtonville		0.08	23015 0018A	Passive; Traffic island	Good	N/A		
P36	Rev. Ford Playground	Auburndale		0.81	33006 0061 part	Active; PG, remaining portion of lot is PRC lot	Fair	Complete renovation and expansion		
P37	Richardson Playground	Waban		2.98	53016 0007	Active; Open green space, PG, lit PF, tot lot	Good	Low potential		
P38	River Street Playground	West Newton		0.75	33034 0049	Active; Open green space, PG, tot lot	Fair	Upgrade play equipment		
M60	Saw Mill Brook Parkway	Oak Hill Park		3.98	N/A	Passive; Open median/greenbelt	Good	N/A		
P39	Solomon Schechter Playground	Oak Hill		2.93	84019 0001	Active; PG, PF, TC, tot lot (formerly Memorial Playground)	Good	Low		
P40	Spears Park	Newton Corner	MR1	0.32	12003 0001	Passive; Pocket park	Excellent	Improve access and amenities	UNKN	
P41	Stearns Park	Nonantum	PUB	3.44	11010 0002A, 0007	Active; PG, tot lot, TC, BBC, PF	Excellent	Pathway improvements	Art 97	
see S2	Thompsonville Playground	Thompson-ville		0	65014 0046	Active; Half BBC, upper PFs (Note: Due to lot being shared with Bowen School, acreage not counted)	Very Good	Access improvements		
P65	Upper Falls Greenway	Upper Falls		8.86	99099 9820	Passive; Mile-long rail trail; CRF, WJ	Excellent	Construct extension using MassWorks grant funding		MassWorks Grant (partial)
UNKN	Waban Common	Waban		0.08	N/A	Passive; Village green space/traffic island	Excellent	N/A		N/A
M17	Waban Park Oval	Newton Corner		0.32	12004 0033	Passive; Neighborhood traffic island	Good	N/A		

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
P43	Waban Playground (Angier School)	Waban	PUB	4.72	55010 0049	Active; PG, PF, TC, BBC	Fair	Athletic field renovation	Art 97	N/A
M16	Waban/Alban Island	Waban		0.86	55023 0001	Passive; Traffic island	Good	Low potential		
M24	Walker Park	Newtonville		0.39	21031 0001	Passive; Linear open green space	Fair	Low potential		
M18	Walnut Park	Newton Corner		0.54	12005 0028	Passive; Neighborhood traffic island	Good	N/A		
P57	Ward Park	Newton Centre		3.45	73016 0022	Active; PFs	Good	Athletic field and access improvements		
P59	Washington Park	Newtonville		1.06	22012 0001	Passive; Historic park, lit	Excellent	Low potential		
P46	Webster Park (Warren St Playground)	Newton Centre		7.2	65002 0013	Passive; Open green space, wooded, Thompsonville Brook; WJ	Excellent	Access improvements		
M20	Webster Park	West Newton		0.35	33021 0001	Passive; Traffic island	Good	N/A		
P47	Weeks Park	Newton Centre		11.13	62016 0013	Active/Passive; Tot lot, PFs, TC, raised planted seating area, parking	Excellent	Athletic fields and access improvements		
P48	Wellington Playground	West Newton		1.93	33030 0020	Active; Neighborhood green space, tot lot, PF, BBC, TC, garden	Good	Access improvements		
P49	West Newton Common	West Newton		3.63	33023 0001	Active; Park, tot lot, swings, PFs	Excellent	Play equipment and access improvements		
M21	Wolcott Park	Auburndale		0.55	44027 0001	Passive; Traffic island with gardens	Excellent	N/A		
M28	Unnamed Medians	Various		0.04	99099 0079	Traffic island/Median	N/A		N	
M29				0.22	99099 0077					
M30				0.11	99099 0076					
M31				0.27	N/A					
M32				0.09	N/A					
M33				0.15	99099 0083					
M34				0.29	53034 0019					
M35				0.20	64039 0008					

Table 6. Newton Parks, Recreation & Culture Controlled Land										
Map Code	**Parcel Name**	**Village**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
M36	Unnamed Medians	Various	PUB	0.23	99099 0097	Traffic island/Median	N/A	N/A	N	N/A
M37				0.06	99099 0098					
M38				0.29	99099 0099					
M39				0.05	N/A					
M40				0.01	N/A					
M41				0.04	N/A					
M42				0.06	72023 0001					
M43				0.16	72026 0016					
M44				0.02	N/A					
M45				0.02	N/A					
M46				0.02	N/A					
M47				0.04	N/A					
M48				0.05	N/A					
M49				0.02	N/A					
M50				0.08	N/A					
M51				0.09	N/A					
M52				0.02	N/A					
M53				0.04	N/A					
M54				0.00	N/A					
M55				0.08	13001 0002					
M56				0.03	N/A					
M57				0.07	24006 0017					
M58				0.17	24006 0016					
M59				0.10	99099 0027					
M62				0.03	N/A					
			Total	**565.94**						

Figure 37: Playing Fields and Courts

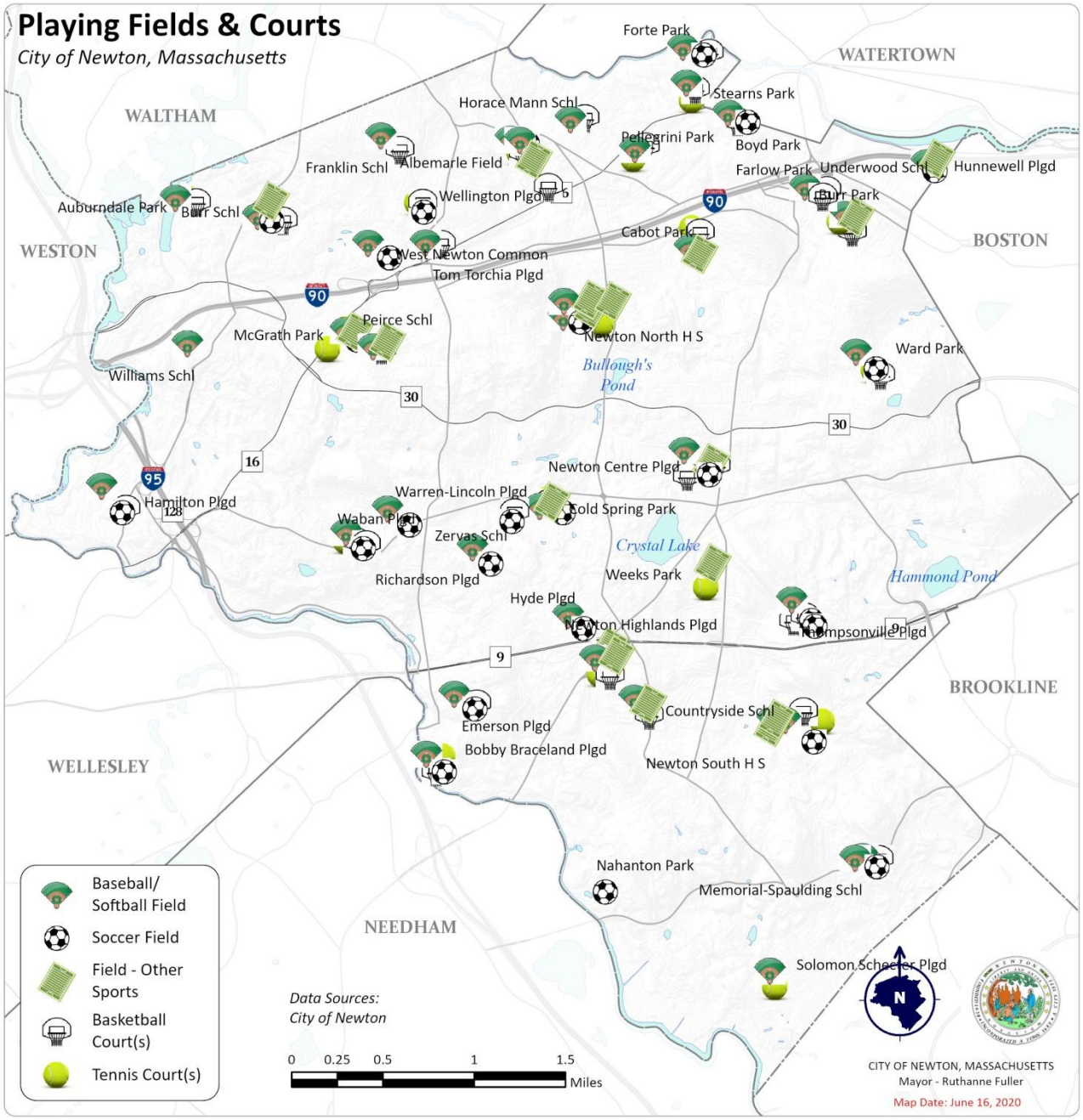


Figure 38: Playgrounds, Tot Lots, and Dog Parks

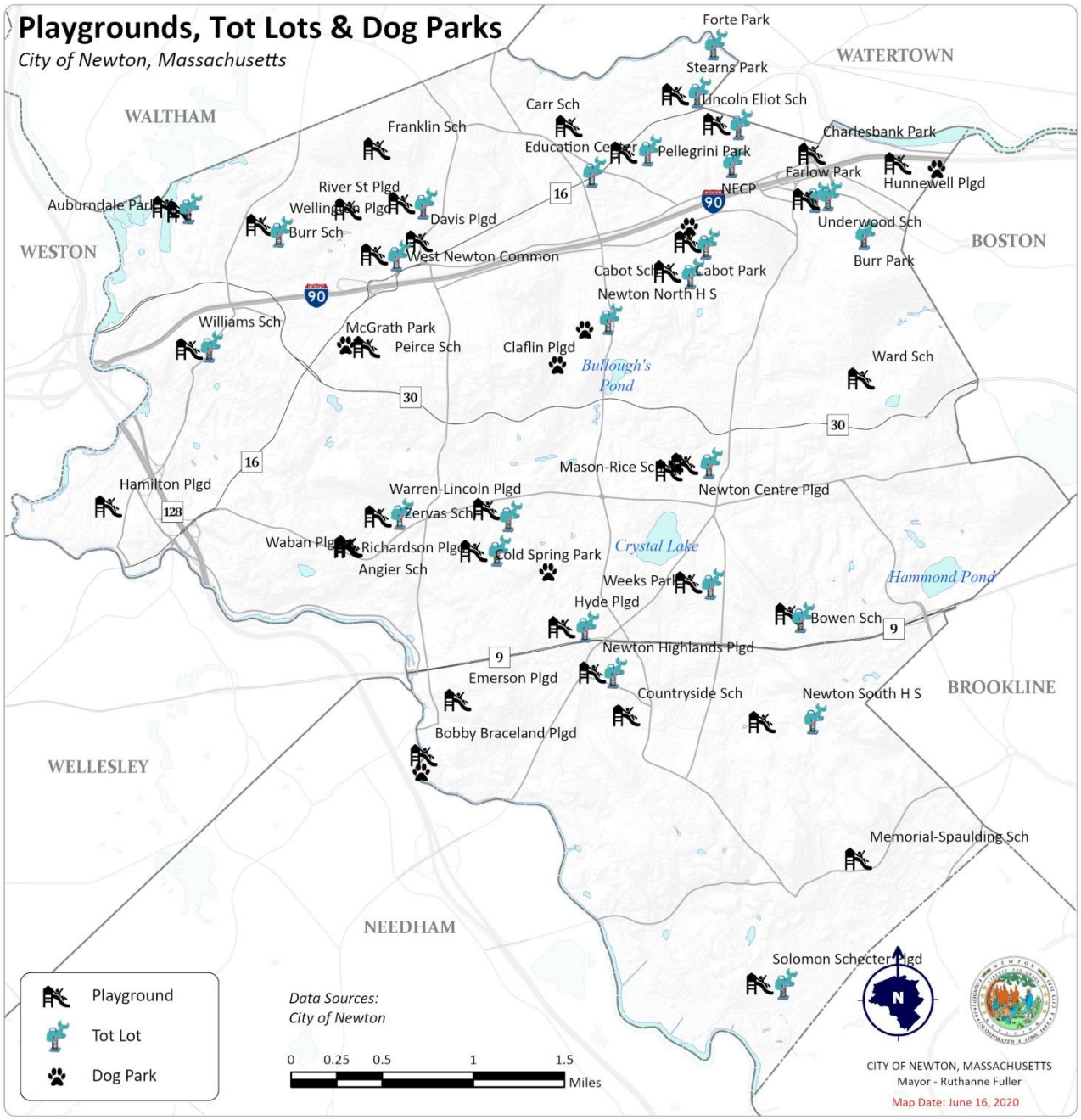


Figure 39: Aquatic Recreation Facilities

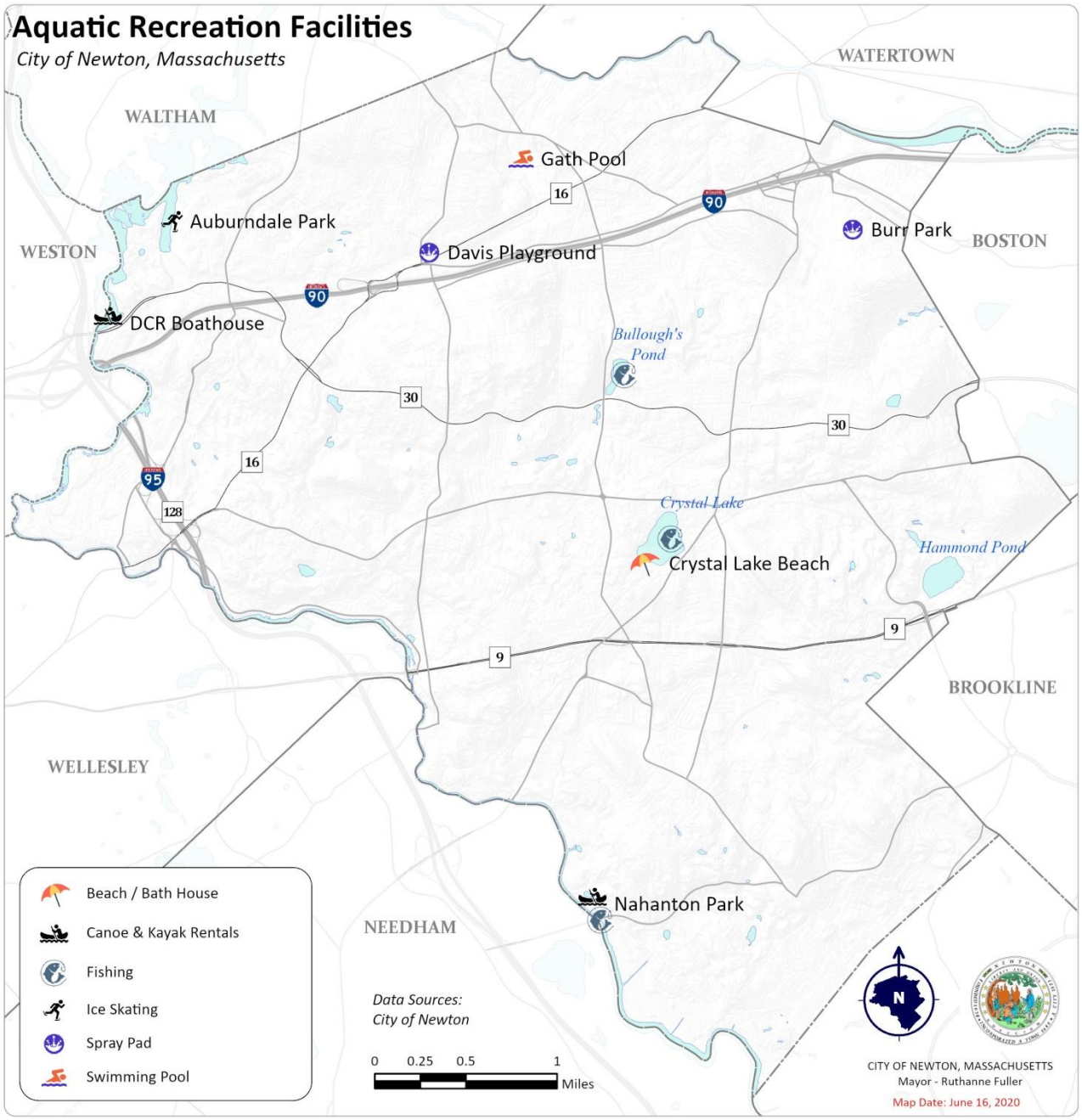
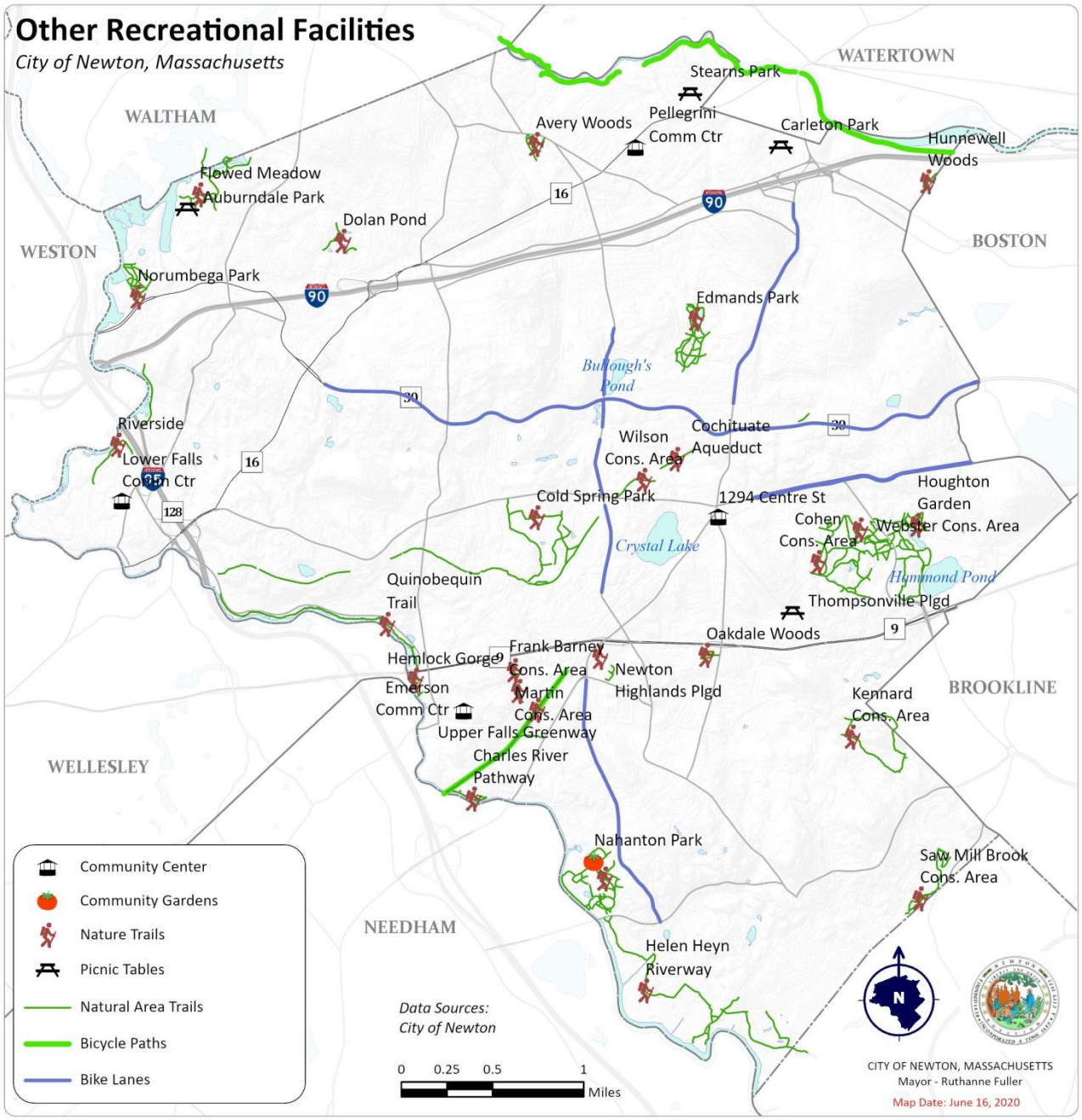


Figure 40: Other Recreation Facilities



Newton Conservation Commission Controlled Land (Table 7)

Newton's Conservation Commission owns 22 parcels of woods, ponds, and marshes, totaling over 300 acres. Of those parcels, 14 contain trails used for walking and passive recreation. These conservation lands provide many values including water resources (natural areas filter stormwater and recharge wetlands, streams, and rivers), wildlife habitat (native animals rely on healthy ecosystems for breeding, nesting, food, shelter, and hibernation), passive recreation, and overall health and well-being.

Managing Agency: Several partners and organizations, including the City's annual maintenance contractor, volunteer stewards, Eagle Scouts, and Newton Conservators work with the Conservation Commission to ensure that these cherished lands are being maintained.

Public Access: All Conservation Commission controlled parcels are open to the public, but several parcels are not trailed and maintained in a natural state which can make navigating the parcel difficult.

Key to Abbreviations: Table 7	
Abbreviation	**Meaning**
Art 97	Protected under Article 97
CR	Conservation Restriction (M.G.L. Ch. 184, Sec. 31-33)
CRF	Charles River Frontage
CVP	Certified Vernal Pool
NHR	National Historic Registry
NVS	Natural Valley Storage Area "B"
P	Protected in Perpetuity
SBL ID	Assessor's Database ID
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction (G.L. Ch. 131, Sec. 40A)

Table 7. Newton Conservation Commission Controlled Land									
Map code	**Conservation Area Name**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
C2	Auburndale Yard Conservation Area	PUB	0.78	44017 0109	Development buffer; wooded	Good	Potential new trail to serve as cut-through	Art 97	N/A
C3	Baldpate Meadow Conservation Area		4.86	82037 0079	Wooded, wet; WJ, WR#7	Good	None	Art 97	
C4	Frank Barney Conservation Area		1.67	51019 0002 - 0005	Wooded slope	Fair	Trail improvements	Art 97	
C5	Charles River Pathway Conservation Area		1.57	51046 0013 - 0016	Wooded; CRF, WJ; CR#2	Good	Trail improvements and stair connection to P65	Art 97/P	Urban Self-Help
C6	Cohen Conservation Area	PUB	8.28	65004 0001, 0001G; 65004 0042	Wooded, rocky outcrops; wet; Thompsonville Brook; WJ; CR#12 & CR#17	Excellent	Refresh trail blazing and signage	Art 97/P	Urban Self-Help (partial)
		SR2		65007 0001					
C7	Dolan Pond Conservation Area	PUB MR1	8.41	33017 0005 - 0011	Wooded, wet, Banana Pond, Quinn Pond, Dolan Pond; WJ; CR#19, WR#2	Good	Trail improvements to extend accessible trail sections	Art 97/P	Urban Self-Help
				33017 0015					
				33019 0008 - 0012; 33022 0035, 0036B					
C8	Flowed Meadow Conservation Area and Access Road	PUB	3.5	41031 0044, 0047	Wooded, wet, Purgatory Cove; WJ	Excellent	Refresh trail blazing and signage	Art 97/P	Urban Self-Help (partial)
				41031 0051 - 0053					
C10		PUB	21.95	41031 0043 part	68, 71, 30 Wabasso St; wooded, wet; WJ; CR#31; WR#1; see N10				
C11		PUB	7.89	41022 0001 part	Wooded, wet, PF, TC, PG; CRF, WJ; WR#1; see P3				
C12		MAN	0.11	41032 007	Access road to Flowed Meadow from Riverview Ave				

Table 7. Newton Conservation Commission Controlled Land									
Map code	**Conservation Area Name**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
C13	Goddard-Christina Conservation Area	PUB	4.35	83033 0032 - 0035	Wooded, wet; WJ; WR#9	Fair	None	Art 97	Urban Self Help
C14	Hahn Brook Conservation Area	PUB	4.36	82004 0024A	Wooded, wet Hahn Brook; WJ	Poor	None	Art 97	N/A
C15	Helen Heyn Riverway Conservation Area	PUB	30.5	84034 0002	Wooded, wet, Country Club Brook, College Brook; WJ, WR#11	Good	Trail improvements (bridge over College Brook)	Art 97	
C16	Hunnewell Woods Conservation Area	PUB	1.62	71026 0014 - 0017	Wooded slope	Fair	None	Art 97	Urban Self Help
C17	Kennard Conservation Area	PUB	32.28	82004 0001, 0002; 82004 0020, 0021	Wooded, wet, restoration meadow, South Meadow Brook; WJ; WR#22	Good	Improve boardwalks and add water bars near restoration area	Art 97	N/A
C18	Kerry Court Conservation Area	PUB	0.66	44017 0114	Wooded, Brunnen Brook; WJ	Good	None	Art 97	
C19	Kesseler Woods Conservation Area	PUB	11.01	82037 0003	Wooded, wet, unnamed stream, Saw Mill Brook; WJ; CR#33; WR#7	Fair	Trail system development underway	P	Community Preservation Act
		SR3		82037 0094, 0080A	Wooded, wet, unnamed stream, Saw Mill Brook; WJ; CR#21; WR#7				
C20	Martin Conservation Area	PUB	0.57	51015 0017 - 0020	Wooded slope, rock outcrops	Good	Trail improvements	Art 97	N/A
C21	Norumbega Park Conservation Area	PUB	13.42	41023 0002; 41023 0021 - 0027	Wooded, knolls, open field, slope restoration; CRF, WJ	Good	Transition loop trail from wood chips to stone dust for accessibility	Art 97	

Table 7. Newton Conservation Commission Controlled Land									
Map code	**Conservation Area Name**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Condition**	**Expanded Rec. Potential**	**Level of Protect.**	**Type of Grant**
C22	Oakdale Woods Conservation Area	PUB	2.47	81036 0012 - 0015; 81037 0013 - 0021	Wooded, rock outcrops, Stearns Brook; WJ	Good	Trail improvements	Art 97	Urban Self Help
C23	Saw Mill Brook Conservation Area	PUB	28.71	82041 0007B; 82041 0021, 0021A; 82041 0022, 0023	Wooded, wet, rocky outcrops, Sawmill Brook; WJ; CR#33; WR#8	Good	Refresh trail blazing and signage. New boardwalks.	Art 97/P	Urban Self Help/ Community Preservation Act
C24	Varick Hill Conservation Area	SR2	0.19	55027 0017	Wooded	Fair	None	Art 97	N/A
C25	Webster Conservation Area - Houghton Garden	PUB	9.8	63016 0008A, 0008B	Historic natural & rock garden; wooded, wet, Hammond Brook, CVP; WJ, WR#4, NHR	Excellent	Pond hydro-raking and trail restoration project underway	Art 97	Urban Self Help (partial)
C26	Webster Conservation Area - Old Deer Park	PUB	14.06	63016 0011, 0013, 0014A, 0015	Open field, some specimen trees, rocky outcroppings; partially wooded, wet, Hammond Brook; WJ	Fair	Trail development underway	Art 97	N/A
C27	Webster Conservation Area - East and West	PUB	79.98	63037 0030; 65001 0001 - 0005; 65008 0001 - 0002	Wooded, rocky outcrops, wet, Hammond Brook, Hammond Pond, 3 CVP; WJ, WR#5	Good	Refresh trail blazing and signage	Art 97	
C28	Webster Conservation Area – Webster Woods	PUB	17.7	65008 0003	Wooded, wet, rocky outcrops, CVP; WJ; acquired using CPA funds – CR in progress	Good	Refresh trail blazing and signage	P	
C29	Wilson Conservation Area	PUB	0.5	64016 0023	Wooded; CR#29	Fair	None	Art 97	
		Total	**310.79**						

Newton School Department Controlled Land (Table 8)

School Department controlled land consists primarily of school buildings and parking areas, but some also include open space resources such as playing fields, tennis and basketball courts, and playgrounds. Parcels in this Table noted with 2 map codes (e.g., S1/P43) are referenced on both this table and in Table 3 (Parks, Recreation & Culture) due to shared use.

Managing Agency: Open space resources on School Department controlled land is managed by the Parks, Recreation & Culture Department maintenance teams. The Public Buildings and School Department are responsible for managing the school structures.

Public Access: Open space resources on School Department controlled land are open to the public.

Expanded Recreational Potential: Most of these parcels are at the limit in terms of opportunities for expanded recreational opportunities, but ADA level access from school buildings to recreational facilities can be improved.

Protection Status: Parcels under School Department control do not qualify for protection under Article 97; therefore, have no formal protection.

Key to Abbreviations: Table 8	
Abbreviation	**Meaning**
BBC	Basketball Court
PF	Playing Field
PG	Playground
SBL ID	Assessor's Database ID
TC	Tennis Court
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction (G.L. Ch. 131, Sec. 40A)

Table 8. Newton School Department Controlled Land

Map Code	Name	Zone	Size (Acres)	SBL ID	Current Use
S1/P43	Angier Elementary School	PUB	1.98	55010 0056	Adjacent playground and tot lot
S20/P5	Bigelow Middle School	PUB	2.81	72010 0001	Adjacent to Burr Park & Playground
S2	Bowen Elementary School	PUB	11.54	65019 0046	BBC, PFs, PG
S3	Burr Elementary School	PUB	8.65	44035 0095	Basketball court, playing fields, playground; former landfill site
S4/P6	Cabot Elementary School	PUB	1.78	22008 0008	PG, adjacent to Cabot Park
S5	Countryside Elementary School	PUB	7.39	83006 0011	BBC, PFs, PG; South Meadow Brook; WJ
S6/P1	Day Middle School	PUB	8.57	21022 0002	Adjacent to Albemarle Field; wooded, Avery Woods
S7	Education Center	PUB	3.78	23004 0010	School Department offices

Table 8. Newton School Department Controlled Land					
Map Code	**Name**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**
S8	Newton North High School	PUB	26.93	24017 0007; 24018 0001	Stadium, track, PFs, TC, Dickinson Field, Walnut Street Field
S9	Franklin Elementary School	PUB	5.45	34037 0021	BBC, PFs, PG
S21/P8	Horace Mann Elementary School	PUB	1.59	21022 0001A	Adjacent to former Carr School Playground
S22/P3	Lincoln-Eliot Elementary School	PUB	1.68	11020 0001; 11020 0002 part	BBC, PFs, PG1, tot lot
S10/P32	Mason Rice Elementary School	PUB	3.99	64032 0005	Portion of tot lot, adjacent to Newton Centre Playground; Hammond Brook; WJ
S11	Memorial Spaulding Elementary School	PUB	5.59	82021 0001	BBC, PFs, PG, tot lot
S13	Newton South High School	PUB	71.17	81051 0051; 81051 0047	Track with risers, PFs, TC; wooded, wet; WJ; WR#16, WR#17
S14	Brown Middle School	PUB	8.27	81005 0011	Adjacent to NSHS and Oak Hill Middle
S15	Oak Hill Middle School	PUB	10.47	81051 0052; 81006 0001	PFs; WJ
S16	Peirce Elementary School	PUB	4.9	32021 0005; 32021 0006	BBC, PFs, PGs
S23/P22	Underwood Elementary School	PUB	1.01	72002 0003	Adjacent to Farlow Park
S17/P57	Ward Elementary School	PUB	3.16	73016 0021	PFs, PG, TC, adjacent to Ward Park
S18	Williams Elementary School	PUB	3.1	43031 0002, 0003	PFs, PG
S19/P12	Zervas Elementary School	PUB	6.52	54013 0003	BBC, PFs, PG, adjacent to Cold Spring Park
		Total	**200.33**		

Newton General Municipal Controlled Land (Table 9)

Newton owns a number of open space parcels that are not under the jurisdiction of the Conservation Commission, PRC, or School Department.

Managing Agency: The majority of these parcels are managed by the City's Department of Public Works, though the City Hall grounds (N2) are maintained by PRC maintenance crews. Angino Farm is managed by a non-profit organization licensed by the City. The three historic cemeteries are not managed by the City and are left undisturbed except for sidewalk mowing.

Expanded Recreational Potential: Some of these parcels are currently vacant land and so present an opportunity for conversion into open space resources for expanded recreational opportunities or pocket parks.

Key to Abbreviations: Table 9	
Abbreviation	**Meaning**
APR	Agricultural Preservation Restriction
CR	Conservation Restriction (M.G.L. Ch. 184, Sec. 31-33)
L	Limited, or Temporary Protection
N	Not Protected
NHR	National Historic Register
P	Protected in Perpetuity
SBL ID	Assessor's Database ID
UNKN	Unknown
V	Vacant (primarily vacant)
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)

Table 9. Newton General Municipal Controlled Land

Map Code	Name	Address	Zone	Size (Acres)	SBL	Current Use	Level of Protect.	Open to Public
N1	Elliot Street DPW Yard	0 Chandler Pl	PUB	1.05	51029 0034 - 0036	V, Wooded; Adj. to UF Fire Sta. & DPW yard	N	No
N2	City Hall - Grounds & War Memorial Circle	1000 Comm. Ave		9.92	64001 0001	City Hall; lawn, Salvatore Balsamo Millennium Park, ponds, Cold Spring Brook; WJ; NHR	L	Yes
N5	Lakeview Ave parcel	0 Comm. Ave		2.03	24036 0001	V; wooded slope facing City Hall grounds	N	Yes
N7	Waban Hill Reservoir	166 Waban Hill Rd		8.55	63008 0013	Covered reservoir	L	No
N8	Pine St Landfill	0 Pine St		10.18	44035 0086; 44035 0119	V; wooded, filled wetland	N	No
N9	Pine St Rear	0 Pine St		2.97	44035 0097	V; wooded, filled wetland; several encroachments	N	No

Table 9. Newton General Municipal Controlled Land								
Map Code	**Name**	**Address**	**Zone**	**Size (Acres)**	**SBL**	**Current Use**	**Level of Protect.**	**Open to Public**
N10	Rumford Ave DPW Yard/Landfill	211 Lexington St		26.89	41031 0043 part	Solar Farm, waste drop-off facility; WJ; see C10	N	No
N11	Cheesecake Brook Reservation	Albemarle Road		7.77	99099 0006 --0009	V; grass with some trees and shrubs; WJ	L	Yes
N12	Stanton Water Tower	160 Stanton Ave		0.39	43045 0033	Water tower; open hillside, some trees	N	No
N13	Countryside Water Tower	0 Dedham St	PUB	0.39	83036 0003A	Water tower; wooded area	N	No
N14	Angino Farm	303 Nahanton St		2.26	83036 0009	Community farm; overseen by Farm Commission; APR; CR#18	P	Partial
V1	City-owned vacant parcel	Braemore Road	SR3	0.01	71019 0006	V	N	No
V2	City-owned vacant parcel	Hunnewell Ave	PUB	0.24	71019 0005	V		
V3	City-owned vacant parcel	Hunnewell Ave		0.39	71032 0005	V		
V4	City-owned vacant parcel	Fairview Street		0.02	71021 0011	V		
V5	City-owned vacant parcel	Fairview Street		0.23	71024 0015	V		
V6	City-owned vacant parcel	Oakleigh Road	SR3	0.11	71021 0001	V		
V7	City-owned vacant parcel	Oakleigh Road	SR3	0.11	71020 0003	V		
P54	East Parish Burying Ground	Centre Street	PUB	2.88	73001 0018	Historic cemetery	UNKN	
P55	South Parish Burying Ground	Winchester Street		1.38	51028 0029	Historic cemetery	UNKN	
P56	West Parish Burying Ground (River St Cemetery)	River Street		1.62	33034 0009	Historic cemetery	UNKN	
			Total	**71.63**				

Cochituate Aqueduct – Newton Parks, Recreation & Culture, and Private Lands (Table 10)

Managing Agency: Most of the Cochituate Aqueduct is owned and managed by the City of Newton through the PRC, but a few parcels are in private ownership.

Public Access: All City-owned parcels are open to the public for passive recreation and a number of the private parcels within the alignment have easements that allow public use.

Expanded Recreational Potential: The City-owned portions of the Cochituate Aqueduct (along with much of the state-owned Sudbury Aqueduct) are important passive recreation resources for Newton and could potentially be expanded to improve connectivity to other trails.

Key to Abbreviations: Table 10	
Abbreviation	**Meaning**
Art 97	Protected under Article 97
N	Not Protected
SBL ID	Assessor's Database ID
UNKN	Unknown
V	Vacant (primarily vacant)

Table 10. Cochituate Aqueduct (Newton PRC and Privately Owned Lands)

Map Code	Parcel Name/Location	Ownership	Zone	Size (Acres)	SBL ID	Current Use	Level of Protect.
A1	Beethoven Ave	City of Newton	PUB	0.72	53016 0002	V, wooded	Art 97
	Allen Ave			1.03	53022 0009	V, wooded	
	Upland Rd			0.44	53023 0004	V, wooded	
	Chestnut St			0.55	53024 0007	V, wooded	
	Homestead St			0.10	53024 0008	V, wooded, lawn	
	Woodward St-Wyman St			0.35	53026 0021	V, wooded	
	Beethoven Ave			1.63	54012 0010	V, wooded	
	Winslow Rd			4.53	54017 0013	V, wooded	
	Wenham Rd			8.39	54021 0001	V, wooded; S perimeter of P12/P13	
	Adj. 136 Quinobequin Rd			1.29	55027 0016	V, wooded	
	136 Quinobequin Rd			0.19	55028 0001	Pumping Station	
	Mossfield Rd-Waban Ave		SR2	0.006	55037 0006	Median, trees, path	
	Quinobequin Rd		PUB	0.11	55043 0007	V, wooded, lawn	
	Walnut St			0.53	62004 0015	Whole Foods pkg lot	
	Beacon St			0.02	62004 0015A	Whole Foods pkg lot	
	Cochituate Aqueduct			4.31	63001 0002	Wooded	
	Beacon St			0.59	64014 0012	V, wooded, grass	
	Cochituate Aqueduct			0.02	64014 0012	Wooded	
	Pleasant St			0.20	64016 0013	V, wooded, grass	

Table 10. Cochituate Aqueduct (Newton PRC and Privately Owned Lands)							
Map Code	**Parcel Name/Location**	**Ownership**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Level of Protect.**
	Hancock Ave	City of Newton	PUB	1.34	64016 0024	V, wooded	Art 97
	Pleasant St			2.28	64032 0006	V, wooded; N perimeter of P32	
	Homer St/Grafton St			0.17	64039 0008	Island, trees, lawn	
	Montrose St			0.29	73016 0022	Crosses Ward Park	
	Commonwealth Ave			1.13	73042 0019	V, trees, lawn	
	Waban Ave: Neshobe Rd-Varick Rd			1.31	99099 0078	Median, trees	
	Waban Ave-Neshobe Rd			0.19	99099 0080	Median, trees	
	Mossfield Rd-Waban Ave			0.43	99099 0081	Median, trees	
	Waban Ave: Carlton Rd-Mossfield Rd			0.85	99099 0082	Median, trees	
	Waban Ave: Crofton Rd-Carlton Rd			0.05	99099 0084	Median, trees	
	Waban Ave: Crofton Rd-Carlton Rd			2.68	99099 0085	Median, trees	
	Waban Ave: Crofton Rd-Carlton Rd			0.38	99099 0086	Median, trees	
	Waban Ave: Nehoiden Rd-Crofton Rd			1.42	99099 0087	Median, trees	
	Collins Rd-Waban Ave			0.16	99099 0088	Island, shrubs, trees	
A1	50 Grafton St	Alkis Malkrides	SR2	0.08	64040 0008	Residential lot	N
	76 Homer St	Avraham & Judith Arazi Tr.		0.11	64032 0041A	Res. lot, wooded, shed	
	615 Comm. Ave	Carolyn D. Allen		0.003	73050 0008	Residential lot	
	629 Comm. Ave	Condominium		0.06	73050 0009	Condos	
	34 Collins Rd	Connie French		0.005	55048 0034	Residential lot	
	64 Homer St	David & Ruth Housman		0.15	64032 0043	V, wooded	
	53 Waban Ave	Deborah & Gerald Simches		0.11	55011 0013	Residential lot	
	39 Waban Ave	Dinah & Alexander Bodkin		0.1	55011 0011	Residential lot	
	6 Prentice Rd	G & L Karthis		UNKN	73040 0011	Residential lot	
	17 Prentice Rd	James Schaeffer		0.06	73041 0014	Residential lot	
	899-901 Walnut St	Jerome Furman	BU2	0.03	54022 0008	Apartment lot	
	Woodward St	Judith & John Willett	SR2	0.09	53025 0016	Res. lot, garage	
	58 Grafton St	Kuen Shii Tsay		0.05	64040 0007	Residential lot	
	397 Woodward St	Lawrence & Elizabeth Epstein		0.03	53025 0015A	Residential lot	
	1672 Beacon St	Lisa K. Desai	SR2	0.002	55011 0009	Residential lot	
	4 Carthay Circle	Lisa M. Calderone	MR1	0.1	54023 0007	Residential lot	

Table 10. Cochituate Aqueduct (Newton PRC and Privately Owned Lands)							
Map Code	**Parcel Name/Location**	**Ownership**	**Zone**	**Size (Acres)**	**SBL ID**	**Current Use**	**Level of Protect.**
A1	24 Grant Ave	Lorna Lamont Trust	SR2	0.1	73041 0006	Residential lot	N
	44 Grafton St	M. Huberman & S. Fidel		0.09	64040 0001	Residential lot	
	Woodward St	M. N. DiBona Tr.		0.36	53025 0015C	V, wooded, lawn	
	29 Prentice Rd	Marc & Karen Kramer		0.06	73041 0016	Residential lot	
	63 Lorna Rd	Marjorie R. Gladstone Trust		0.02	73018 0001	Residential lot	
	6 Carthay Circle	Martin Chippa	PUB	0.27	54023 007A	Residential lot	
	100 Wyman St	MBTA	BU1	0.1	53027 0001	Waban T Station	
	23 Prentice Rd	Michael & Helen Varsamis	SR2	0.06	73041 0015	Residential lot	
	100 Homer St	Nicholas Haining		0.03	64032 0039	V, wooded	
	29 Waban Ave	Patricia F. Malkazian		0.12	55011 0010	Residential lot	
	36 Grant Ave	Paul & Melissa Lerou		0.04	73041 0005	Residential lot	
	15 Bracebridge Rd	Richard & Andree Wilson		0.45	64016 0014A	Res. lot, wooded, garden	
	170 Pine Ridge Rd	Robert & Simone Spain		0.09	53025 0004	Residential lot	
	35 Prentice Rd	Roberta & Ronald Loberfeld		0.02	73041 0017	Residential lot	
	28 Manitoba Rd	Samuel M. Moskowitz		0.12	55011 0001	Residential lot	
	244 Ward St	Sean F. Rynne		0.01	73041 0013	Residential lot	
	658 Comm. Ave	Sharon B. Milinsky		0.01	64041 0001	Residential lot	
	45 Waban Ave	Sidney & Rita Governar		0.11	55011 0012	Residential lot	
	20 Grant Ave	Stanley & Marilyn Salter Trust		0.02	73041 0007	Residential lot	
	28 Collins Rd	Thomas Sabin		0.11	55048 0035	Residential lot	
	14 Collins Rd	Union Church Society		0.11	55048 0036	Church	
	37 Grant Ave	William Beizer		0.05	73042 0017	Residential lot	
	677 Chestnut St	Wm. and Karen Ruth		0.18	53025 0013	Residential lot	
			Public	**37.70**			
			Private	**3.51**			

Sudbury Aqueduct – MWRA and Private Lands (Table 11)

The Sudbury Aqueduct is mainly owned by the MWRA (Massachusetts Water Resources Authority) but, like the Cochituate Aqueduct, has some privately-owned parcels.

Managing Agency: Currently the MWRA owned lands are managed by MWRA and privately-owned parcels are maintained by landowners.

Public Access: None of the Sudbury Aqueduct is legally open for public use, though many use the MWRA owned sections for passive recreation.

Expanded Recreational Potential: The MWRA has a relatively recent policy encouraging municipalities to apply for licenses on MWRA aqueduct lands for compatible passive public uses such as walking, biking, and cross-country skiing, as a way to reduce MWRA's maintenance obligations. Most eligible communities have embraced that opportunity. Securing such a license for the Sudbury Aqueduct would bring expanded recreational benefits to Newton as a link with other open spaces and trails.

Key to Abbreviations: Table 11	
Abbreviation	**Meaning**
L	Limited, or Temporary Protection
N	Not Protected
SBL ID	Assessor's Database ID

Table 11. Sudbury Aqueduct (MWRA and Privately Owned Lands)

Map Code	Parcel Name/Location	Ownership	Zone	Size (Acres)	SBL_ID	Current Use	Level of Protect.
W1	Echo Bridge (4 Ellis St)	MWRA	PUB	0.39	51001 0002	Historic bridge	L
	41 Ellis St			0.39	51001 0002	Wooded slope to Charles River	
	971 Chestnut St			0.27	51002 0008	Lawn	
	1260 Boylston St			0.88	51003 0011	Wooded, embankment, path	
	252 Plymouth Rd			0.02	52001 0030	Trees, embankment, path	
	252 Plymouth Rd			1.86	52001 0030	Trees, embankment, path	
	11 Bowdoin St			1.00	52002 0007	Trees, lawn, path	
	2 Bowdoin St			0.49	52004 0005	Trees, path	
	40 Terrace Ave			1.35	52010 0001	Embankment, path	
	39 Duncklee Rd			2.01	52013 0001	Wooded, path	
	17 Kingman Rd			0.64	52014 0006	Trees, open area	
	259 Plymouth Rd			0.02	54034 0007	Lawn	
	154 Dickerman Rd			0.26	54038 0001	Trees, open area, adj. to MBTA tracks	
	154 Dickerman Rd			0.73	54038 0009	Grassy embankment, path	
	120 Woodward St			0.77	54039 0008	Grassy embankment, path	
	1241 Boylston St			2.05	54049 0001	Trees, embankment, path	
	1241 Boylston St			1.07	54049 0001	Trees, embankment, path	

Table 11. Sudbury Aqueduct (MWRA and Privately Owned Lands)							
Map Code	**Parcel Name/Location**	**Ownership**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
	0 Centre St	MWRA	PUB	0.84	61032 0001	Grassy slope	L
	Walnut St - Beacon St			1.01	62004 0007	Grassy embankment, path	
	Beacon St - Greenlawn Ave			0.26	64014 0013	Wooded, path	
	0 Bracebridge Rd	Gregory & Ila Fiete		0.73	64016 0015	Wooded, CR#29	P
	0 Hancock Ave	City of Newton		0.5	64016 0024	Wooded, northern perimeter of Wilson Conservation Area	L
	0 Tyler Terr. (south)	MWRA		0.25	64030 0028	Wooded	L
	0 Tyler Terr. (north)	MWRA		0.15	64032 0002	Wooded	L
	149 Pleasant St	City of Newton		0.26	64032 0005	School; wooded slope	L
	639 Beacon St	Wilson Lim	SR1	0.27	61023 0005	Residential lots	N
	655 Beacon St	Susan Davidson		0.13	61024 0001		
	659 Beacon St	Shahin Naghi		0.1	61024 0002		
	665 Beacon St	Mary Kearns		0.11	61024 0003		
	671 Beacon St	William Yee		0.12	61024 0004		
	238 Grant Ave	Jerry Samet		0.04	61024 0005		
W1	10 Graycliff Rd	Lillia Gordon		0.04	61024 0012		
	251 Grant Ave	Jonathan Lieff	SR2	0.11	61025 0001		
	693 Beacon St	David & Jennifer Mack		0.06	61025 0002		
	241 Grant Ave	Martin Flusberg		0.15	610250005A		
	35 Bracebridge Rd	Andrea Roman		0.05	64016 0016		
	33 Hancock Ave	John & Kim Foehl		0.1	64016 0018		
	47 Hancock Ave	John Mason/Barbara Boeger		0.16	64016 0019		
	59 Hancock Ave	Isadore & Sheila Singer		0.09	64016 0020		
	65 Hancock Ave	Gregor Rhoda		0.09	64016 0021		
	71 Hancock Ave	Peter F. Demuth		0.59	64016 0022		
	38 Bracebridge Rd	Andrei Shleifer		0.03	64026 0004		
	22 Bracebridge Rd	Randolph & Jing Watnick		0.04	64026 0005		
	140 Pleasant St	Juliet Godson		0.14	64026 0008		
	132 Pleasant St	Michael & Barbara Jellinek		0.02	64026 0009		
			Public	**18.21**			
			Private	**2.44**			

Massachusetts Department of Conservation and Recreation Controlled Land (Table 12)

Massachusetts Department of Conservation and Recreation (DCR) land, including Hammond Pond Reservation and significant riparian segments along the Charles River, comprises roughly 338 acres or 13.5% of public open space in Newton. DCR land is a combination of parks, parkways, open water, and golf courses maintained by DCR, and is predominantly used for recreation activities. Some land presented on this table is assumed to be owned by DCR but ownership information is currently not available.

Managing Agency: All DCR controlled lands are managed by DCR.

Public Access: All DCR controlled lands in Newton are open to the public for passive and active recreation.

Expanded Recreational Potential: The City does not presume to propose enhancement projects for property it does not own or manage.

Key to Abbreviations: Table 12	
Abbreviation	**Meaning**
Art 97	Protected under Article 97
CRF	Charles River Frontage
N	Not Protected
PF	Playing Field
SBL ID	Assessor's Database ID
UNKN	Unknown
V	Vacant (primarily vacant)
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction (G.L. Ch. 131, Sec. 40A)

Table 12. Massachusetts Department of Conservation and Recreation Controlled Land

Map code	Name/Location	Owner Notes	Zone	Size (Acres)	SBL_ID	Current Use	Level of Protect.
D1	Charles River Res. – 1 Nonantum Rd	DCR	PUB	1.35	71013 0001	Skating rink, yacht club, PF, DCR path; CRF, WJ	Art 97
D2	Charles River Res. – Watertown - Riverdale Ave			0.64	11001 0005	DCR path; wooded; CRF, WJ	
	Charles River Res. – Riverdale Ave - Rustic St			1.98	11004 0029	DCR path; wooded; CRF, WJ	
	Charles River Res. – Rustic St - 367 California St			2.73	11005 0015	DCR path; wooded; CRF, WJ	
D3	Charles River Res. – 439 California St - Cheesecake Brook			5.4	21002 0003	DCR path; wooded; CRF, WJ	
	Charles River frontage – Albemarle Rd	UNKN	UNKN	0.3	99099 0005	V; wooded; CRF, WJ	UNKN
D4	Charles River Res. – 56 Farwell St – Waltham	DCR	PUB	0.42	21001 0019	V; scrub; CRF, WJ	Art 97
D5	Charles River Res. – Forest Grove Rd			2.61	41031 0039	V; wooded, CRF, WJ, WR#1; adj. to City open space	
D6	Charles River Res. Peninsula (280R Islington Rd)			2	41027 0048	V; wooded, 2 peninsulas, CRF, WJ	

Table 12. Massachusetts Department of Conservation and Recreation Controlled Land							
Map code	**Name/Location**	**Owner Notes**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
D7	Charles River Res. – 2345R Commonwealth Av	DCR	PUB	0.25	41023 0018A	V; some trees; CRF, WJ; adj. to City open space	Art 97
D8	Charles River Res. – 2401 Commonwealth Ave			1.05	41023 0020	Canoe rental facility; partially wooded; CRF, WJ	
D9	Charles River Res. – 2500 Commonwealth Ave			2.29	41001 0003	V; steep, wooded; CRF, WJ	
D9/ D10	Charles River Res. – 2450 Commonwealth Ave			0.36	41001 0004	V; steep, wooded	
D10	Charles River Res. – Commonwealth Ave			0.46	41001 0005	V; steep, wooded	
D11	Charles River Res. – adj. to I-90 and ramp			0.33	41001 0002B	V; wooded; CRF, WJ	
	Charles River frontage – adj. to I-90 and ramp	UNKN	UNKN	0.11	99099 0075	V; wooded; CRF, WJ	UNKN
	Charles River frontage – adj. to I-90 and ramp	UNKN	UNKN	0.01	99099 0045	V; wooded; CRF, WJ	UNKN
D12	Charles River Res. – 0 Evergreen Ave	DCR	PUB	0.15	41001 0002A	V; wooded slope; CRF, WJ	Art 97
D12	Charles River Res. – 21 Riverside Rd			0.28	41001 0002	V; wooded slope; CRF, WJ	
D13	Charles River Res. – 1 Riverside Rd			0.19	41005 0001	V; wooded, lawn, walk; CRF, WJ	
	Charles River Res. – 107 Charles St			1.07	41005 0002	Charles River Res. HQ; lawn, trees; CRF, WJ	
	Charles River Res. – 139 Charles St			0.8	41005 0003	V; lawn, partially wooded; CRF, WJ	
D14	Charles River Res. – 355 Grove St			1.17	42011 0001A	V; wooded slope (RR embankment); CRF, WJ	
	Charles River Res. – 355 Grove St			2.65	42011 0001	V; wooded slope, Pony Truss Bridge; CRF, WJ	
	Charles River Res. – 359 Grove St			4.19	42011 0002	V; wooded slope, Pony Truss Trail; CRF, WJ	
--	Charles River frontage – adj. to ramp	UNKN	UNKN	1.78	99099 0046	V; wooded, old RR bridge; CRF, WJ	UNKN
--	Charles River frontage – between I-95 and ramp	UNKN	UNKN	6.37	99099 0049	V; wooded, rocky outcroppings; CRF, WJ	UNKN
--	Charles River frontage – adj. to I-95	UNKN	UNKN	3.05	99099 0050	V; wooded, gas main alignment; CRF, WJ	UNKN
D15	Charles River Res. – 81 Pine Grove Ave	DCR	PUB	4.38	42026 0004	Leo J Martin golf course; turf, partially wooded; CRF, WJ	Art 97
D16	Charles River Res. – 199 Pine Grove Ave			18.08	42026 0003	Leo J Martin golf course; turf, partially wooded; CRF, WJ	

Table 12. Massachusetts Department of Conservation and Recreation Controlled Land							
Map code	**Name/Location**	**Owner Notes**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
D17	Charles River Res. – 41 Concord St	DCR	PUB	31	42027 0001	Leo J Martin golf course; turf, wooded; CRF, WJ	Art 97
	Charles River Res. – 51 Concord St			2.33	42027 0008	V; wooded; CRF, WJ	
D18	Charles River Res. – 2357 Washington St			1.35	42028 0008	V; wooded slope; CRF, WJ	
	Charles River Res. – 2359 Washington St			0.15	42028 0009	V; wooded slope; CRF, WJ	
D19	Charles River frontage	UNKN	UNKN	0.13	99099 0064	V; wooded; CRF, WJ	UNKN
	Charles River frontage	UNKN	UNKN	0.08	99099 0049	V, wooded slope; adj. to wine store & parking	UNKN
	Charles River Res. – 2362R Washington St	DCR	BU1	0.06	42031 0024	V; wooded slope; CRF, WJ	Art 97
D20	Charles River frontage	UNKN	UNKN	0.06	99099 0063	V; wooded; CRF, WJ	UNK
	Washington St - Charles River edge	UNKN	UNKN	0.02	99099 0039	Access strip to river edge; partly paved; CRF, WJ	UNK
	Charles River Res. – 2260 Washington St	DCR	PUB	0.02	42031 0005	Paved walkway to bridge; some trees; CRF, WJ	Art 97
D21	Charles River Res. – 2242 Washington St	DCR	MAN	0.07	42031 0003	V; wooded; CRF, WJ	
	Charles River Res. – 2232 Washington St		MAN	0.03	42031 0002	V; wooded; CRF, WJ	
	Charles River Res. – 2222 Washington St		PUB	0.31	42031 0001	V; wooded; CRF, WJ	
D22	I-95 ramp median – 2-26 Quinobequin Rd	DCR	BU1	1.88	42001 0002; 0003	V; grass, some trees	
	Between I-95 and Quinobequin Rd		PUB	0.38	42001 0005 -- 0008	V; grass, partially wooded	
	Charles River Res. – 1 Quinobequin Rd			2.61	42001 0001	V; wooded, foot bridge to Wellesley; CRF, WJ	
	Charles River Res. – 119 Quinobequin Rd			0.36	42002 0017	V; grass	
	Charles River Res. – 137 Quinobequin Rd			0.59	55043 0006	V; grass, partially wooded; CRF, WJ	
	Charles River Res. – 233 Quinobequin Rd			3.29	55043 0005	V; wooded; CRF, WJ	
	Charles River Res. – 321 Quinobequin Rd		SR2	1.65	55043 0004	V; wooded; CRF, WJ	
	Charles River Res. – 420 Quinobequin Rd			0.03	55039 0018	V, wooded side lot	

Table 12. Massachusetts Department of Conservation and Recreation Controlled Land							
Map code	**Name/Location**	**Owner Notes**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
D22	Charles River Res. – 441 Quinobequin Rd	DCR	PUB	4.32	55043 0003	V; wooded; CRF, WJ	Art 97
	Charles River Res. – 555 Quinobequin Rd			1.52	55043 0002	V; wooded; CRF, WJ	
	Charles River Res. – 611 Quinobequin Rd			0.82	55043 0001	V; wooded; CRF, WJ	
	Charles River Res. – Quinobequin Rd			4.18	55055 0001	V; wooded, Dresser Brook; CRF, WJ	
	Charles River Res. – Boylston St			0.64	55055 0002	V; wooded, inaccessible; CRF, WJ	
	Charles River Res. – Boylston St			0.3	55055 0003	V; wooded, inaccessible; CRF, WJ	
D23	Charles River Res. – 1 Ellis St			2.37	51001 0001	CRF, V, wooded, adj. to Echo Bridge, WJ	
D24	Charles River Res. – 51 Ellis St			1	51001 0003	V; wooded, adj. to Echo Bridge and Hemlock Gorge; CRF, WJ	
D25	Charles River Res. – 391 Elliot St			0.6	51001 0012	Sewer Pump Station; some trees, lawn; CRF, WJ	
D26	Charles River Res. – Nahanton St - 125R Wells Ave			59.94	84034 0001	V; wooded, wet, NVS, knolls, Country Club Brook, College Brook; CRF, WJ	
	Charles River Res. – 125R Wells Ave - Boston			35.07	84034 0040	V; wooded, wet, NVS, knolls; CRF, WJ	
D28	Hammond Pond Res. East			22.42	99099 0098	Hammond Pd, a Great Pond per MGL	
	Hammond Pond Res. East			26.43	63037 0028; 0029	V; wooded, wet, ledges, boat access ramp area, adj. to Hammond Pond; WJ, WR#5	
D29	Hammond Pond Res. West			38.43	65008 0004	V; wooded, wet, Cat Pond, drive and parking for Chestnut Hill Mall; WJ, WR#6	
WB2	Hammond Pond			22.42	99099 9021	Great Pond	P
D30	Charles River frontage	UNKN	UNKN	0.4	99099 0041	V; wooded, old railroad bridgehead and rail bed; CRF, WJ	UNKN
D30A	Concord St – Pine Grove Ave	UNKN	UNKN	1.54	99099 0042	V; wooded, old rail bed segment	

Table 12. Massachusetts Department of Conservation and Recreation Controlled Land							
Map code	**Name/Location**	**Owner Notes**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
D30B	Rear – Clearwater Rd	UNKN	UNKN	2.51	99099 0044	V; wooded, path, old rail bed, adj. to golf course	UNKN
	Charles River frontage	UNKN	UNKN	1.0	99099 0014	Leo J Martin golf course; turf, old rail bed; CRF, WJ	
			Total	338.76			

Other Municipal, State, and Federal Lands with Mixed Levels of Protection (Table 13)

This section includes land under ownership of the following agencies: Massachusetts Turnpike Authority (MTA), Massachusetts Bay Transit Authority (MBTA), and United States Army Corps of Engineers (USACE).

Managing Agency: All parcels in this table are managed by their owners, but the Newton Conservation Commission does maintain the trails on USACE land where they connect to the Helen Heyn Conservation Area from Nahanton Street.

Public Access: Open space resources on School Department controlled land are open to the public.

Expanded Recreational Potential: Most of these parcels are at the limit in terms of opportunities for expanded recreational opportunities, but ADA level access from school buildings to recreational facilities can be improved.

Key to Abbreviations: Table 13	
Abbreviation	**Meaning**
Art 97	Protected under Article 97
CR	Conservation Restriction (M.G.L. Ch. 184, Sec. 31-33)
CRF	Charles River Frontage
N	Not Protected
NVS	Natural Valley Storage Area "B"
P	Protected in Perpetuity
SBL ID	Assessor's Database ID
UNKN	Unknown
V	Vacant (primarily vacant)
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)

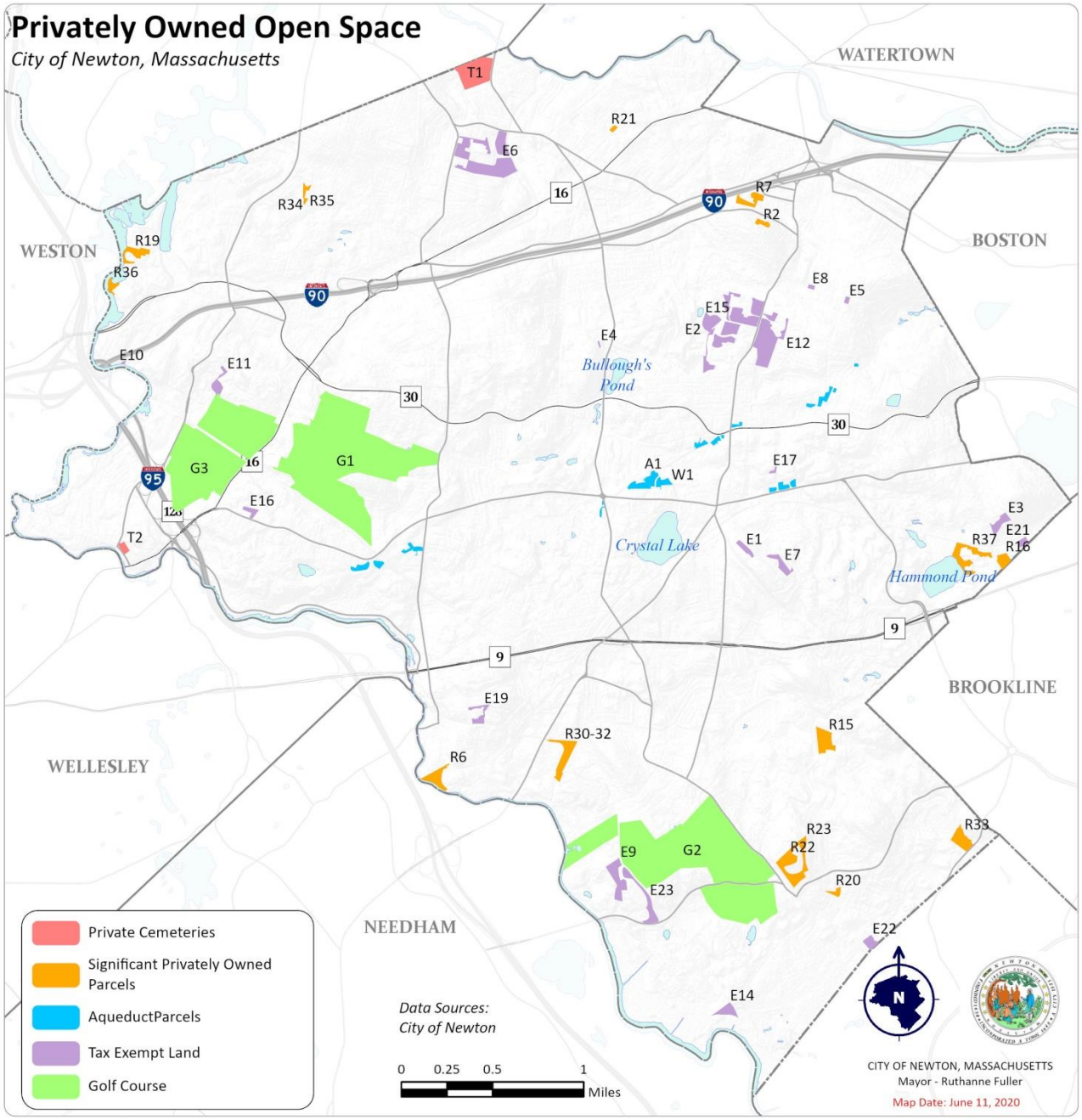
Table 13. Other Municipal, State, and Federal Land

Map Code	Name	Owner	Zone	Size (Acres)	SBL	Current Use	Level of Protect.	Open to Public
D13	Charles River frontage – 149 Charles St	MTA	PUB	0.38	41005 0004	V; wooded, railroad embankment; CRF, WJ	N	No
D27	Charles River Reservation – 117 Wells Ave	USACE	LMD	7.42	84034 0002P	V; wooded, wet, NVS, College Brook; WJ	Art 97	Yes
N/A	Christina St Rail Bridge	MBTA	UNKN	UNKN	UNKN	Old rail bridge over Charles River connecting Christina St in Newton to the Blue Heron trails in Needham	N	No
N/A	Upper Falls Greenway Rail Bridge	MBTA	UNKN	UNKN	UNKN	Old rail bridge over Charles River connecting the Upper Falls Greenway Rail Trail to the cont'd rail ROW in Needham	N	No
			Total	**7.80**				

Privately Owned Land

Private open space in Newton comprises roughly 38%or 903 acres of all open space in the City. Private open space parcels in the City include three large golf courses, cemeteries, tax-exempt institutional holdings, and many individual parcels with significant areas of open space. Open space that is controlled by private owners and is not protected or has limited protection could be sold or developed into non-open space use. See **Figure 41.**

Figure 41: Privately Owned Open Space (Lands of Conservation or Recreation Interest)
(Codes refer to codes in Section 5 tables)



Private Golf Courses (Table 14)

Private open space makes up 38% of Newton's open space and of that, three golf courses comprise roughly 56% (542.69 acres) and represent the largest single use category of all open space in the City (golf courses account for 23% of Newton's total open space.

Managing Agency: The courses are currently maintained by the private management companies running the country clubs associated with them.

Public Access: All three private golf clubs are open only to club members.

Expanded Recreational Potential: These resources have limited opportunities for increased recreational potential, but improved connectivity through and around the golf courses for the public can be explored.

Key to Abbreviations: Table 14	
Abbreviation	**Meaning**
Ch 61	Registered under MGL Chapter 61
CRF	Charles River Frontage
GC	Golf Course
L	Limited, or Temporary Protection
SBL ID	Assessor's Database ID
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction (G.L. Ch. 131, Sec. 40A)

Table 14. Privately Owned Golf Courses

Map Code	Name	Zone	Size (Acres)	SBL	Current Use	Level of Protect.
G1	Brae Burn Country Club, 326 Fuller St	SR1	190.3	43045 0027; 53029 0001; 53040 0012, 0013	GC, rolling, Moffat Hill, drumlin, Cheesecake Brook, pond, WJ	Ch 61B
G2	Charles River Country Club, 483 Dedham St	SR1, SR3	219.3	84034 0004; 83035 0001; 83036 0004	GC, rolling, Winchester Hill, ponds, part wooded, Lacy Brook & Country Club Brook, rock outcrops, WJ, CRF; WR#10, WR#15	Ch 61B
G3	Woodland Golf Club, 1897 Washington St	SR1, SR2	133.1	42009 0001, 0002; 42009 0004; 42009 0007, 0008; 43046 0011, 0012; 43046 0039	GC, Rolling, esker, Runaway Brook, WJ	Ch 61B
		Total	**542.69**			

* Note: Information on Newton Commonwealth Golf Course is in Table 3, Parks, Recreation, & Culture. Information on Leo J. Martin Golf Course is in Table 9, Department of Conservation and Recreation.

Private Cemeteries (Table 15)

Cemeteries in Newton comprise roughly 118 acres of private open space and include the Newton Cemetery and Arboretum, Calvary Cemetery, and St. Mary's Cemetery. Though private cemeteries only make up about 5% of Newton's open space, they are frequented for passive recreational activities such as walking, bird watching, and visiting historically significant monuments.

Managing Agency: All of these cemeteries are managed by private corporations.

Public Access: All three private are open to the public for passive recreation.

Expanded Recreational Potential: There is no expanded recreational potential for these parcels under their current use.

Key to Abbreviations: Table 15	
Abbreviation	**Meaning**
Ch 61	Registered under MGL Chapter 61
CRF	Charles River Frontage
GC	Golf Course
L	Limited, or Temporary Protection
SBL ID	Assessor's Database ID
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction (G.L. Ch. 131, Sec. 40A)

Table 15. Private Cemeteries

Map Code	Name	Zone	Size (Acres)	SBL	Current Use	Level of Protection
T1	Calvary Cemetery (North St)	PUB	15.73	34002 0014	Cranberry Brook; WJ; WR#13	L
T2	St Mary's Cemetery (Concord St)	ORD	1.43	42030 0010	--	L
T4	Newton Cemetery and Arboretum (Walnut St)	PUB	101.46	64003 0006, 0007; 64003 0009	Arboretum, Civil War Memorial, ponds, Cold Spring brook; WJ	L
		Total	**118.62**			

* Note: Information on Newton's historic burial grounds are in Table 3, Parks, Recreation, & Culture.

Tax-Exempt Land with Significant Open Space (Table 16)

Tax-exempt land comprises roughly 205 acres of private open space and includes places that are typically owned by religious organizations, schools, non-profits, and other institutions. These lands may be used intensively or may contain significant natural areas. Most of the privately owned tax-exempt land is not protected, but a few parcels, such as Lasell Pond and the Hebrew School, are protected with Conservation Restrictions. Parcels with "significant open space" are defined here as parcels of over ½ acre with some open space of potential ecological or recreational value, except two cases of smaller parcels. Parcels are listed in order of total acreage.

Public Access: The majority parcels listed in Table 16 are not open to the public, except the parcels owned by the Newton Conservators (E4, E8, E17) which are open to the public. General public are not allowed to use the facilities on these parcels, but some parcel owners lease field and court space to local sports leagues. .

Expanded Recreational Potential: There is little to no expanded recreational potential for these parcels.

Key to Abbreviations: Table 16	
Abbreviation	**Meaning**
CR	Conservation Restriction (M.G.L. Ch. 184, Sec. 31-33)
CRF	Charles River Frontage
HPR	Historic Preservation Restriction
L	Limited, or Temporary Protection
N	Not Protected
P	Protected in Perpetuity
PF	Playing Field
SBL ID	Assessor's Database ID
TC	Tennis Court
V	Vacant (primarily vacant)
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)

Table 16. Tax-Exempt Land with Significant Open Space								
Map Code	**Name**	**Main Address**	**Owner/Managed By**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
E6	Fessenden School	250 Waltham St	Fessenden School	SR3	38.32	31028 0010 -- 0013; 31028 0077, 0079, 0079A, 0079B	School; playing fields, tennis courts	N
E1	Andover-Newton Theological	210 Herrick Rd	Winthrop Park School, Inc.	SR3	18.94	65019 0045	School; wooded slope, lawn; scenic easement to Blue Hills; HPR	N
E9	Jewish Community Center	333 Nahanton St	JCC of Greater Boston, Inc.	SR1	28.13	83035 0004	Community Center; wooded slopes; CR#6 & CR#9	L/P
E16	Newton-Wellesley Hospital	1973 Beacon St	Newton-Wellesley Hospital	SR2	26.57	55001 0015, 0015A, 0015B; 55001 0028; 55001 0032 - 0034	Hospital; wooded	N
E12	Mt. Alvernia High School	790 Centre St	Miss Franciscan Sisters of the Immaculate Conception	SR2	22.81	73001 0016, 0016A; 0016D, 0016E, 0017	School; PFs, lawn, wooded, Edmands Brook; WJ	N
E15	Newton Country Day School	785 Centre St	Boston Academy of Sacred Heart, Inc.	SR2 PUB	18.57	13018 0001 - 0005	School; PFs, wooded; WJ	N
E13	UMass Amherst at Mt. Ida	777 Dedham St	University of MA Building Authority	SR1	14.71	84034 0006	College entry parcel; wooded, pond; WJ	N
E7	Hebrew College	0 Langley Rd	Winthrop Park School, Inc.	SR3	6.73	65019 0045A	College; wooded slope; CR#11, B.O. 67-98(3)	P
E18	Jackson Walnut Park School	55 Walnut Park	Congregation Sisters of St Joseph	MR1	6.41	12003 0004	School; lawn	N
E19	Stone Rehabilitation and Senior Living	277 Elliot St	Stone Institute & Newton Home for the Aged People	MR1	5.1	51016 0010	Rehab/senior living facility; wooded, front lawn; HPR	N
E2	Boston College Law School	0 Colby St	Trustees of Boston College	SR2	4.21	13020 0052	PF, stadium; woods, near Edmands Brook; WJ	N
E21/E22	Brimmer & May School	69 Middlesex Rd	Brimmer and May School	SR1	3.63	82039 0001; 63033 0021	School; PFs	N
E3	Chestnut Hill School	142 Essex Rd	Chestnut Hill School Inc.	SR1	3.33	63031 0010	School; open field, specimen trees	N

Table 16. Tax-Exempt Land with Significant Open Space								
Map Code	**Name**	**Main Address**	**Owner/Managed By**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Level of Protect.**
E14	Nahanton Street, Rear	1 Nahanton St	Oak Hill Park Association, Inc.	SR1	3.1	84034 0002F	V; wooded; WJ, rare species habitat	N
E11	Lasell Pond	0 Seminary Ave	Lasell College	SR1	1.72	43046 0038	College; pond, wooded; WJ	P
E23	Coleman House	677 Winchester St	JCHE Coleman LP	SR1	0.85	83035 0004B	Senior living facility; TC; wooded	N
E5	Durant Homestead	282 Waverly Ave	Durant Homestead Foundation	SR1	0.57	73009 0001	V; trees, lawn; HPR	P
E8	Hyde Brook - Awtrey Dell	289R Park St	Newton Conservators, Inc.	SR2	0.55	72023 0042A	V; wooded; deed restriction	P
E17	Ordway Park	0 Gibbs St	Newton Conservators, Inc.	SR2	0.52	61029 0016A	V; wooded, terraced garden with shrubs; deed restriction	P
E4	Dexter Woods	25 Dexter Rd	Newton Conservators, Inc.	SR2	0.23	24030 0014A	V; steep, wooded; deed restriction	P
E10	Lasell Boat House	11 Riverside Rd	Lasell College	SR3	0.14	41001 0001	Boathouse, docks; CRF, WJ	N
				Total	**205.12**			

Private Properties with Significant Open Space (Table 17)

While some of the City's private parcels with significant amounts of unprotected open space are protected in part by Conservation Restrictions, private unprotected properties are at risk of being developed into non-open space uses. Development potential is dependent on location and existing site conditions (e.g., the presence of wetlands, bedrock and ledge, steep slopes, etc.). "Parcels with significant open space" are defined here as parcels of over ½ acre with some open space of potential ecological or recreational value, except one case where a smaller parcel is contiguous with a large vacant City parcel. Parcels are listed in order of total acreage.

Public Access: The majority parcels listed in Table 17 are not open to the public, except the Boston Marriott Newton (R36) which is open to the public and connects to DCR and Newton Conservation Commission controlled lands.

Key to Abbreviations: Table 17	
Abbreviation	**Meaning**
CR	Conservation Restriction (M.G.L. Ch. 184, Sec. 31-33)
CRF	Charles River Frontage
HPR	Historic Preservation Restriction
L	Limited, or Temporary Protection or Public Use
N	Not Protected or No Public Use
P	Protected in Perpetuity
SBL ID	Assessor's Database ID
V	Vacant (primarily vacant)
UD	Under Development
WJ	Wetlands Jurisdiction (MA Wetlands Protection Act 310 CMR 10.00 or Newton Floodplain/Watershed Protection Ordinance Sec. 22-22)
WR	Wetlands Restriction

Table 17. Private, Unprotected Land with Significant Open Space									
Map Code	**Parcel Name/Location**	**Ownership**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Public Use**	**Level of Protect.**	**Potential Public Value**
R33	Hancock Estates	Kesseler Woods LLC	MR3	21.98	82037 0094; 95	Multi-family housing, parking; wet, wooded, Saw Mill Br.; WJ; WR#7, CR #33; Public Access Easement to Kesseler Woods Conservation Area	L	L	Continuous with other protected lands; passive recreation potential; moderate ecological value
R36	Boston Marriott Newton	CHSP Newton LLC	BU5	11.55	42023 0018	Hotel, parking; open lawn, part wooded; CRF; WJ	N	N	Continuous with other protected lands; limited recreation potential; moderate ecological value (CRF)
R22	Peabody School Condominium	Condominium	SR1	7.93	82015B 0001	Multi-family housing, parking, TC; part wooded	N	N	Moderate recreation potential (TC); low ecological value
R31	Winchester Swamp	Northland 149 Charlemont LLC	SR3	5.15	83028 0086	South Meadow Br.; wooded, wet; WJ	N	N	Continuous with other protected land; moderate recreation potential (P65); moderate ecological value (SMB)
R32		54 Jaconnet Condominium	MU1	1.50	83028 0085	South Meadow Br.; wooded, wet; WJ	N	N	
R30		188 Needham St. Lim. Partn.	MU1	0.97	83028 0081	South Meadow Br.; part wooded, wet; WJ	N	N	
R6	1165 Chestnut St	Sconnix Realty Trust	MR1	6.52	51045 0005	Radio-TV transmission tower, & ground facility; open field, wooded; CRF; CE#1	L	N	Continuous with other protected land; high recreation potential (P65->P42); moderate ecological value (CRF)
R15	Greenwood Street Lots	Moskow Michael B Tr	SR1	6.49	81051 0017 -0019	UD; wooded, wet; WJ; WR#17	N	N	Moderate recreation potential (S13); high ecological value (WR#17)
R19	122 Islington Rd	Basil K Woods	SR3	5.62	41026 0001	Estate; wooded, wet, pond; WJ; CRF	N	N	Continuous with other protected land; low recreation potential; moderate ecological value (CRF)
R37	Hammond Pond Lots	Rosemary LLC Elderberry LLC	SR1	4.35	63037 0002; 63037 0012-0017	Residences; Hammond Pond, wooded, wet; WJ	N	N	Continuous with other protected land; low recreation potential; moderate ecological value (Hammond Pond)

Table 17. Private, Unprotected Land with Significant Open Space									
Map Code	**Parcel Name/Location**	**Ownership**	**Zone**	**Size (Acres)**	**SBL_ID**	**Current Use**	**Public Use**	**Level of Protect.**	**Potential Public Value**
R7	West Suburban YMCA	West Suburban Young Men's	MR1	3.85	12017 0001	YMCA, track, PF, parking; part wooded	L	N	High recreation potential (track/PF); low ecological value
R23	Bigelow House Condo	Condominium	MR3	3.76	82015B 0002	Multi-family housing, parking; wooded; HPR	N	N	Low recreation potential; low ecological value
A1	Cochituate Aqueduct land	Private Owners	--	3.51	**See Table 7**				High recreation potential; moderate ecological value
R16	Longwood Cricket Club	Longwood Cricket Club	SR1	2.76	63036 0001	Club building, parking, PF, TC	L	N	High recreation potential (PF/TC); low ecological value
W1	Sudbury Aqueduct land	Private Owners	--	2.44	**See Table 8**				High recreation potential; moderate ecological value
R2	Riley Estate	Condominium	SR1	1.34	12021 0038	Multi-family housing; wooded, grass	N	N	Low recreation potential; low ecological value
R20	Laurus Lane Reservation	Laurus Lane Reservation Area Trust	SR1	1.27	82020 0014E	Wooded, wet, King Brook; WJ	N	N	Low recreation potential; moderate ecological value (King Brook)
R21	Silver Lake	S & J Ventures, LLC.	MR1	1.15	14008 0011	Multi-family housing; wooded	N	N	Low recreation potential; low ecological value
R34	Old Pine St Landfill Rear	Apodemi Anita	SR3	1.06	44035 0070	V, parking; meadow in-holding to City land	N	N	High recreation potential; low ecological value
R35		Mayur Abhay & Roma	SR3	0.43	44035 0087	Residential; part meadow in-holding to City land	N	N	
			Total	**78.43**					

Trails Inventory (Table 18)

Below is an inventory of the City's natural trails or open space pathways that exist within open space parcels. Trails in Newton are being defined as, generally, naturally surfaced, moderately wide, walking/hiking paths in naturalized areas. These trails are generally not accessible. Pathways in Newton are being defined here as, generally, hard surfaced, wide, multi-use paths. Many pathways in Newton are accessible. See **Appendix B** for information on accessibility. All trails and pathways are under jurisdiction of Parks and Recreation, DCR, and the Conservation Commission. Please note that painted bike lanes along roads are not included in this inventory.

Key to Abbreviations: Table 18	
Abbreviation	**Meaning**
Con Comm	Newton Conservation Commission
DCR	Massachusetts Department of Conservation and Recreation
PRC	Newton Parks, Recreation & Culture

Table 18. Trails Inventory

Parcel Name	Village	Total Length (Miles)	Type	Managed By
Albemarle Playground (Russell J. Halloran Sports and Recreation Complex)	West Newton/ Newtonville	0.51	Pathway	PRC
Auburndale Park/Lyons Park	Auburndale	1.56	Trail	PRC
Thompsonville Playground/Bowen School	Thompsonville	0.15	Pathway	PRC
Boyd Park	Nonantum	0.15	Pathway	PRC
Bulloughs Pond Park	Newtonville	0.02	Pathway	PRC
Burr Park	Newton Corner	0.12	Pathway	PRC
Cabot Park	Newtonville	0.51	Pathway	PRC
Captain Ryan Park	West Newton	0.07	Pathway	PRC
Chaffin Park	Newton Corner	0.06	Pathway	PRC
Charlesbank Park	Nonantum	0.03	Pathway	PRC
Charles River Pathway Conservation Area	Upper Falls	0.34	Trail	Con Comm
Charles River Reservation	Nonantum/Auburndale	2.65	Trail	PRC/Con Comm/DCR
Cheesecake Brook Greenway	Auburndale	0.01	Footbridge	PRC/DPW
Claflin Playground	Newtonville	0.12	Pathway	PRC
Cochituate Aqueduct	Waban/Newton Highlands/Newton Centre	2.55	Trail	Con Comm/PRC
Cohen Conservation Area	Chestnut Hill	0.30	Trail	Con Comm
Cold Spring Park	Newton Centre/Newton Highlands	1.93	Trail/Pathway	PRC
Colletti-Magni Park	Nonantum	0.12	Pathway	PRC
Crystal Lake: Cronin's Cove	Newton Centre	0.07	Pathway	PRC
Crystal Lake: Levingston Cove	Newton Centre	0.18	Pathway	PRC
Davis Playground (Tom Torchia Playground)	West Newton	0.17	Pathway	PRC

Table 18. Trails Inventory				
Parcel Name	**Village**	**Total Length (Miles)**	**Type**	**Managed By**
Dexter Rd Parcel	Newtonville	0.07	Trail	PRC
Dolan Pond Conservation Area	West Newton	0.35	Trail	Con Comm
Edmands Park	Newtonville	2.22	Trail	PRC
Emerson Playground	Upper Falls	0.06	Pathway	PRC
Farlow Tot Lot	Newton Corner	0.09	Pathway	PRC
Farlow Park/Underwood School	Newton Corner	0.21	Pathway	PRC
Flowed Meadow Conservation Area	Auburndale	1.46	Trail	Con Comm
Forte Memorial Park	Nonantum	0.21	Trail	PRC
Frank Barney Conservation Area	Upper Falls	0.12	Trail	Con Comm
Hamilton Park (Lower Falls Playground)	Lower Falls	0.04	Pathway	PRC
Heartbreak Hill Park at Waban Hill Reservoir	Chestnut Hill	0.25	Trail	PRC
Helen Heyn Riverway	Oak Hill	2.67	Trail	Con Comm
Hemlock Gorge	Upper Falls	0.29	Trail	DCR
Houghton Garden Conservation Area	Chestnut Hill	0.85	Trail	Con Comm
Hunnewell Woods Conservation Area	Newton Corner	0.15	Trail	Con Comm
Hunnewell Playground	Newton Corner	0.16	Trail	PRC
Kendrick Park	Newton Corner	0.10	Pathway	PRC
Kennard Park and Conservation Area	Newton Centre	1.32	Trail	PRC/Con Comm
Linwood Park	Newtonville	0.04	Pathway	PRC
Lowell Park	Newtonville	0.09	Pathway	PRC
Martin Conservation Area	Upper Falls	0.10	Trail	Con Comm
McGrath Park	West Newton	0.04	Path	PRC
Nahanton Park	Oak Hill	2.59	Trail	PRC
Newton Centre Green	Newton Centre	0.05	Pathway	PRC
Newton Centre Playground	Newton Centre	1.08	Pathway	PRC
Newton Commonwealth Golf Course	Newton Centre	1.40	Pathway	PRC
Newton Highlands Playground	Newton Highlands	1.03	Pathway/Trail	PRC
Norumbega Conservation Area	Auburndale	1.14	Trail	Con Comm
Oakdale Woods Conservation Area	Newton Highlands	0.34	Trail	Con Comm
Officer Bobby Braceland Playground (Upper Falls Playground)	Upper Falls	0.04	Pathway	PRC
Pellegrini Park	Nonantum	0.20	Pathway	PRC
Quinobequin Rd	Waban	1.40	Trail	DCR
Richardson Playground	Waban	0.06	Pathway	PRC
River Street Playground	West Newton	0.02	Pathway	PRC

Table 18. Trails Inventory				
Parcel Name	**Village**	**Total Length (Miles)**	**Type**	**Managed By**
Riverside Area Trails	Lower Falls	1.00	Trail	Con Comm/PRC
Sawmill Brook Conservation Area	Oak Hill	0.90	Trail	Con Comm
Solomon Schecter Playground	Oak Hill	0.01	Pathway	PRC
Stearns Park	Nonantum	0.22	Pathway	PRC
Upper Falls Greenway	Upper Falls	1.08	Trail	PRC
Waban Playground/Angier School	Waban	0.05	Pathway	PRC
Ward Park	Newton Centre	0.07	Pathway	PRC
Webster Conservation Area and Park	Chestnut Hill	5.60	Trail	Con Comm
Wellington Playground	West Newton	0.16	Pathway	PRC
Wilson Conservation Area and Restriction	Newton Centre	0.08	Trail	Con Comm
	Total	**41.02 mi**		

Section 6: Community Vision

A. Summary Description of the Process

The process of updating the Plan has been guided by the Open Space and Recreation Advisory Committee (Committee) and approved by the Mayor's Office. The OSRP Advisory Committee (made up of City staff, Board and Commission members, and conservation, recreation, environmental, and neighborhood stakeholders with a community focus) has been instrumental in considering all input and comments received during public participation events and opportunities, and in reflecting them in the Plan Update as appropriate.

The City of Newton contracted a team of graduate students from the Conway School of Landscape Design (Conway team) to complete the draft OSRP update. The Conway team met twice with the Committee during their regular monthly sessions to work on the Plan Update and were guided by Planning Department staff.

The Conway team and members of the Committee received public input through a variety of public forums. Strategies for gathering public input included the following:

- A Public Outreach Online Survey launched January 30, 2020 and open through February 14, 2020, which received 1,360 responses.
- Youth Online Survey Regarding Open Space and Recreation, which received 27 responses.
- An initial Open Space and Recreation Plan Public Working Session, held at City Hall on Thursday, February 6, 2020.
- A follow-up Open Space and Recreation Plan Public Working Session, held at the Price Center on March 4, 2020.

All comments received were duly considered by the Conway team, the Zoning and Planning Committee (ZAP), the Committee, and City leadership in finalizing the Plan.

See Section 2: Introduction, for a list of committee members and a more detailed description of the public engagement process.

B. Results of Public Surveys

Publicity and Outreach

The public working sessions and the on-line community survey were publicized as broadly as possible through all available channels, including:

- Newton city website
- Postings at Newton City Hall
- Newton Conservators outreach
- Newton's sports leagues outreach
- Other community group outreach
- City and public school newsletters
- Village "Area Council" updates
- Standard notification of public board and committee meetings and associated agendas on the City website
- Notices in the local newspaper, the Newton Tab

Along with these outreach efforts, City staff reached directly out to several area councils in areas underrepresented in the community survey responses, especially the underrepresented EJ communities.

Compared to the community survey, participation in the youth survey was not as robust, but was completed by the Youth Commission, after their review and approval, and by students at Newton North and Newton South High Schools.

Community Survey

The online public survey included 20 questions regarding open space needs, perceived quality of open space resources, protection of open space, and the importance of open space resources. **Figures 42-44** show a few key findings from the online survey, which have been further assessed in **Section 7: Needs Analysis.** Additional results and graphs are displayed in **Section 10: Public Comment** of this Plan.

Youth Survey Summary

The youth survey was developed in order to evaluate a perspective on open space in Newton that has not been as represented in previous OSRP updates. With growing participation in climate activism by Newton's student population, youth interest in the value of open space resources has never been higher. When asked, and allowed to choose all options that applied, what they valued about Newton's open space resources, student's top responses were opportunities to socialize with peers and be active. The main issues with Newton's open space resources are a lack of amenities that promote socialization and being active (e.g., water fountains, benches, workout stations), lack of safe connections between open space resources and schools, and wayfinding in relation to trail navigation and open space resource locations.

The open space resources most important to Newton's residents include passive recreation areas, conservation areas, street trees, athletic fields, and parks. Generally, residents expressed little interest in golf, though residents who did mention the golf courses expressed that they wished to see them converted to other publicly available open space uses.

Responses regarding what would improve user experiences in Newton's open space resources centered around improved/expanded amenities and facilities, better wayfinding, and more diverse programming.

When asked to design their own open space resources, we saw students describing spaces that provided a diverse number of uses and allowed for programming side by side with connecting to nature.

Figure 42. Community Survey: Open Space Resources in Greatest Demand

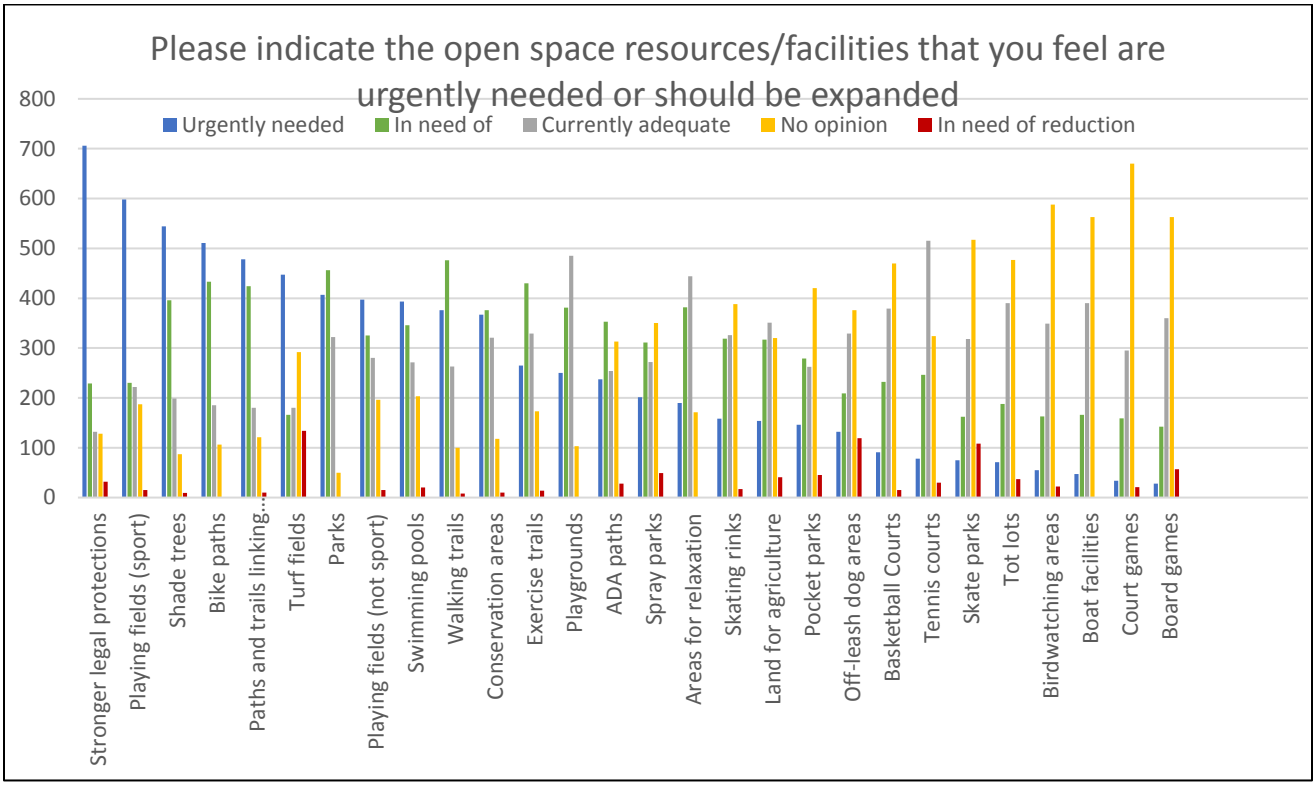


Figure 43. Community Survey: Open Space Resources in Greatest Demand

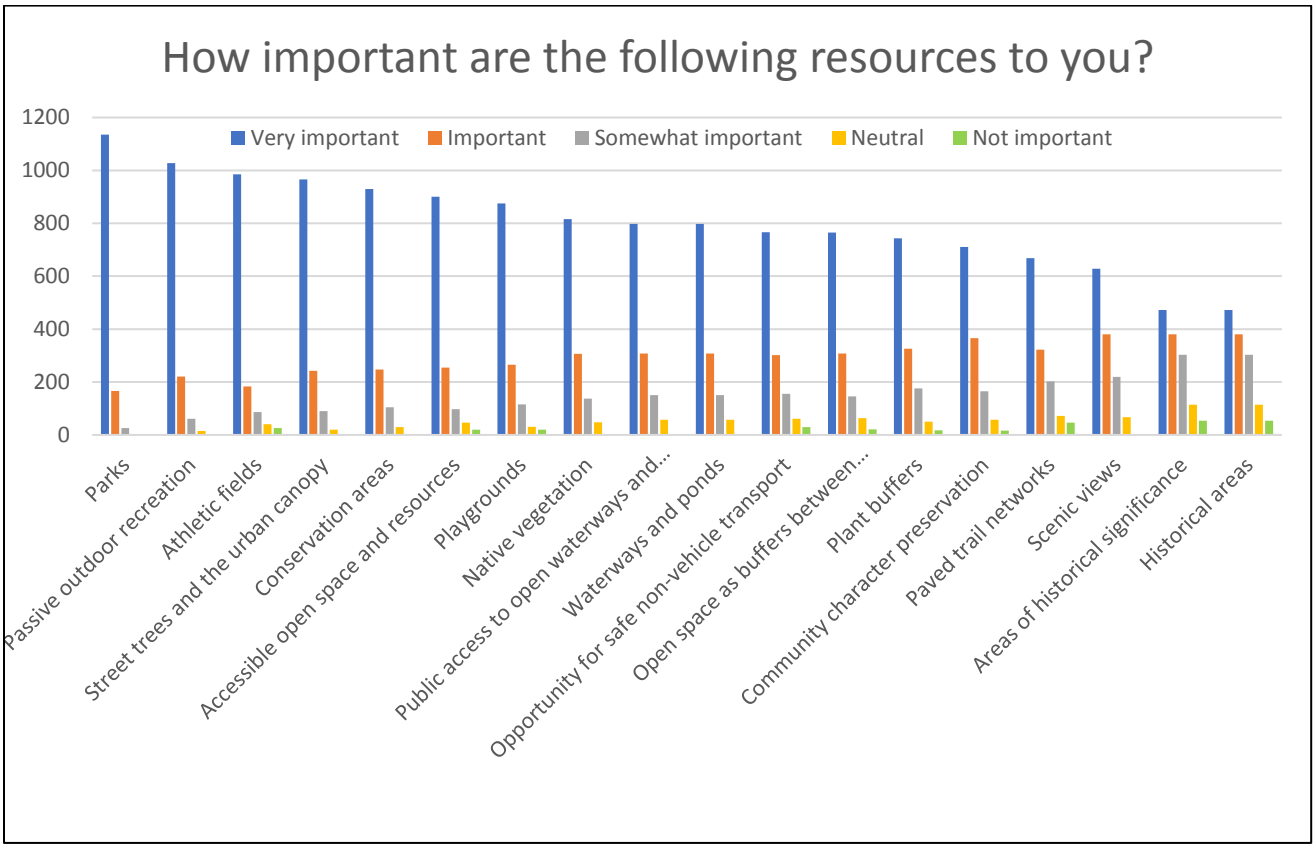
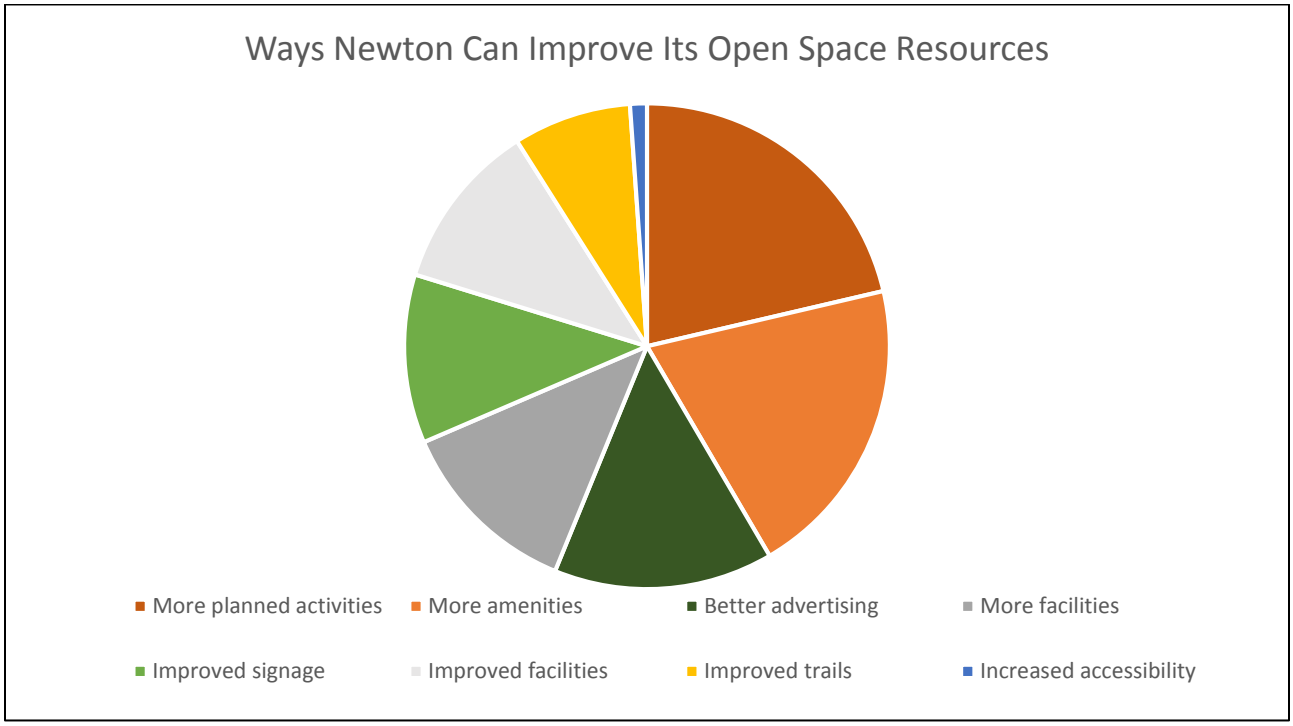


Figure 44. Youth Survey: Desired Open Space Improvements



C. Statement of Open Space and Recreation Goals Based on Community Input

Broadly categorized into six areas, the updated goals in this Plan reflect both ongoing trends carrying over from the previous OSRP and emergent community interests around open space needs. For more information about the origin and implications of these goals, see Section 7: Analysis of Needs and Section 8: Goals and Objectives.

Goals

1. Coordinated planning and adequate funding for the management of all open space resources.
2. Maintenance and Improvement of the City's open space resources.
3. Maximized universal accessibility of as many of Newton's Outdoor Recreation Facilities and Natural Open Spaces as feasible.
4. Minimized Gaps in the Availability of Newton's Open Space Resources
5. Connectivity to and between open space resources.
6. Protection and expansion of Newton's open space resource inventory.

The Community Vision statement was distilled by the Advisory Committee from public input and best professional understanding.

Vision: The City of Newton will steward, connect, protect, and expand its existing open space resources in a manner that ensures accessibility to all and equitably distributed spaces that support ecological diversity, climate change resilience, and a healthy, inclusive community.

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, Kesseler 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 s 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

Section 8: Goals and Objectives

A. INTRODUCTION

With this update of the Open Space and Recreation Plan, the City of Newton commits, through efficient management, to developing, enhancing, and maintaining its open space resources as publicly beneficial resources that will improve public health, improve quality of life, increase ecological health and biodiversity, enhance climate resiliency, and connect the community.

Newton is a built-out urban/suburban community with 13 village centers. The structure and pattern of land use is well-established, but the City's open space is being challenged by a growing population, high usage, and the effects of climate change. All City-owned open space resources require increased maintenance, appropriate funding, and partnerships to ensure their long-term health.

The goals and objectives outlined below were informed by an analysis of existing conditions conducted by the Conway School team; discussions at community meetings; comments and responses to the 2020 OSRP on-line survey; work done by the OSRP Advisory Committee; review of City planning documents; and staff examination of existing open space resources.

B. GOALS

Six goals for Newton's open space resources emerged through the process of developing this update of the Open Space and Recreation Plan.

Goal 1: IMPLEMENTATION: Coordinated planning and adequate funding for the management and maintenance of the City's open space resources.

Municipal resources have always been and will continue to be limited. Through the establishment of a team focused on strategic implementation of this plan, however, immediate and longer-term priorities can be established, interdepartmental planning and coordination ensured, and limited financial resources most efficiently employed. A diversity of funding sources, such as Community Preservation Act, Community Development Block Grants, various state grants, and public-private partnerships, can be pursued and utilized for coordinated project implementation.

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.

The predominant interest of residents, as reflected in the on-line survey and public meetings, was in improving the stewardship/maintenance of Newton's open space resources.

Growing and competing needs and limited funds have led to a backlog of maintenance and improvement projects for open space resources. Clear guidelines are needed for prioritizing projects, balancing maintenance and acquisition, and ensuring efficient management. Concerns regarding the quality of parks, playgrounds, athletic fields, hard courts, natural areas, and street trees ranked high in the survey. Active recreation interests focused on athletic fields, aquatic facilities, and parks that are used intensively and have deteriorated over the years. Passive recreation interests focused on improving trail conditions.

Concerns about the overall ecological health of the City's natural areas focused on the need to protect and connect intact habitats, limit invasive species, maximize native species, optimize tree and shrub cover, maintain or reestablish natural hydrology, and optimize water quality.

Increasing the number of street trees and maintaining the existing stock of street trees also ranked high in resident interest.

Goal 3: ACCESSIBILITY: Maximized accessibility of as many of Newton's Outdoor Recreation Facilities and Natural Open Spaces as feasible.

Increasing the accessibility of Newton's open space resources is a critical and required step to accommodate residents of all abilities and to remove or modify barriers to existing recreational facilities. Newton will strive to incorporate universal design to maximize accessibility to and within as many outdoor recreation facilities and natural open spaces as feasible to provide equal access for residents of all ages and abilities.

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.

Improving the distribution of Newton's open space resources was recognized as a priority for the City. The City is committed to providing for all residents of all ages and abilities, a diversity of quality outdoor recreation facilities and natural open spaces within a 10-minute walk, by providing municipal open space resources and connections and encouraging the provision of other public and private open space resources and connections.

Goal 5: CONNECTIVITY: Linked open space resources with accessible paths, bike lanes, and trails.

Connectivity was a theme that emerged as residents noted their desires for better bike and pedestrian access to Newton's open space resources. It was oft noted that better bicycle and pedestrian access would serve all of Newton: underserved areas, disabled residents, older residents, families, able-bodied residents, school age children, and local businesses. Many of Newton's open spaces are primarily accessed by cars. Improved, safe, "quiet" sidewalks, trails and paths that connect these resources and promote passive recreation would be a boon for Newton. Implementing wayfinding and navigation measures within these improved/expanded connections will be highly beneficial to the City. Newton will strive to continue to improve bike and pedestrian safety, bike and pedestrian linkages between open spaces and schools, and connectivity for populations with limited access to open space. Improved bicycle infrastructure and safe pedestrian routes will also promote fossil-fuel-free transit, thereby helping to reduce greenhouse gas emissions.

Connected natural areas also contribute to the area's overall ecological health by providing corridors for safe wildlife passage. Wildlife corridors ensure greater biodiversity, enabling the survival of species that are threatened by human development.

Goal 6: PROTECTION: Protected and expanded open space resources.

Better protection of Newton's open space resources was identified as a priority. This theme reflects four clear interests: (1) putting stronger legal protections on portions of existing park and conservation lands, (2) planning for the protection of portions of large, privately owned open space parcels, such golf courses and schools, (3) ensuring that sound land use planning and design practices are implemented, and (4) ensuring that the myriad benefits of open space are provided to all of Newton's residents.

Natural areas improve air quality, help capture and manage stormwater, absorb carbon and mitigate the effects of climate change, and enhance ecological biodiversity and so should be protected from possible development. Recreational resources are critical for supporting physical and emotional health and so should be protected from development. Open spaces contribute to public health, community livability, property values, and a sense of community.

Large privately owned open spaces, such as golf courses and schools, are not currently protected from sale or development, so the City should develop response strategies for the possible disposition of one or more of these prime open space resources to protect its interests and ensure an appropriate balance of development and protection.

The recognition that climate change will both adversely impact the City's open space resources and be mitigated by those same resources caused there to be a clear desire to ensure that all design and management efforts take into account increased precipitation and heat, and more severe storm events. Newton will strive to maximize the City's ability to cope with climate change by designing and siting facilities with changing temperature regimes and changing precipitation and flooding patterns in mind.

C. OBJECTIVES

To accomplish the goals listed above within the lifespan of this Plan, the following objectives (concrete ideas for accomplishing the goals) were developed through discussions at public meetings, by the OSRP Committee, and by City staff.

Specific actions that will help the City achieve these objectives, are listed in Section 9.

Goal 1: IMPLEMENTATION

Objective 1A: An OSRP Strategic Implementation Team to promote implementation of this plan through coordination, prioritization, and fiscal planning.

Goal 2: MAINTENANCE and IMPROVEMENT

Objective 2A: A comprehensive City-wide plan to develop an assessment for existing and future active recreational facilities (i.e. sports fields, hard courts, aquatics and other athletic facilities) to optimize playability, expand utility, and ensure public safety to meet the changing needs of Newton residents and the year-round character of athletics in Newton.

Objective 2B: Improved City parks, playgrounds, and other recreational facilities.

Objective 2C: Improved trails, paths, and infrastructure (e.g., bridges and boardwalks).

Objective 2D: Natural areas with optimized overall ecological health, native species habitat, stormwater management capacity, and passive recreational potential.

Objective 2E: Increased street and park tree canopy coverage throughout the City, especially in Environmental Justice communities, to increase native habitat and compensate for impending hotter temperatures, increased precipitation, and urban heat islands.

Goal 3: ACCESSIBILITY

Objective 3A: Increased accessibility in the City's Park land.

Objective 3B: Increased accessibility in the City's Conservation land.

Objective 3C: Improved accessibility to the City's open space resources, including accessible parking.

Goal 4: MINIMIZED GAPS IN THE AVAILABILITY OF OPEN SPACE RESOURCES

Objective 4A: Improved existing open space resources where need is greatest.

Objective 4B: Expanded and diversified park and playground assets where need is greatest.

Goal 5: CONNECTIVITY

Objective 5A: Enhanced bike network that includes not only higher traffic "spines", but also low-stress components and connections to local open space resources, especially in under-served areas, and is consistent with regional plans, e.g., the Landline (MAPC) and East Coast Greenway.

Objective 5B: Safe walking routes to the City's schools.

Objective 5C: New and/or enhanced trail/path connections to less-served parts of the City.

Objective 5D: Expanded trail/path connections throughout the City that are consistent with regional plans, e.g., the Landline (MAPC) and East Coast Greenway.

Objective 5E: Improved publicly available bike/pedestrian wayfinding and navigation measures.

Goal 6: PROTECTION

Objective 6A: A strategy/plan for addressing the potential of one or more of the City's golf courses to be offered for sale/development with the goal of protecting appropriate portions of the golf courses as open space.

Objective 6B: Communication between the City and private owners of key parcels with high ecological or recreational value to consider protection/stewardship of portions of these parcels through CRs, easements, purchase, or lease. See Chapter 5, Table 13 and 14 for full listing of parcels with significant open space.

Objective 6C: Legal restrictions on priority/high-value Conservation and Parks parcels, where appropriate.

Objective 6D: Policies that ensure that new multi-family residential, commercial, and industrial developments create an appropriate scale and nature of public open space.

Section 9: Seven Year Action Plan

A. INTRODUCTION

Implementation of an Open Space and Recreation Plan is, by nature, dynamic; needs change, priorities, change, and opportunities come and go. This plan establishes the foundation for what will be an evolving process of implementation. In that light, it should be noted that the COVID-19 pandemic began to unfold during the drafting of this OSRP update. The City's projected revenues and expenses changed dramatically: many new obligations have developed; new constraints exist; and a great deal more uncertainty clouds the City's near-term future. Despite this and other challenges, the City remains committed to its open space goals, but acknowledges that new logistical and fiscal realities and shifting priorities may lengthen timelines for certain action steps and delay the implementation of others.

Priority Goals, Objectives, Actions

The 6 goals are numbered, but the numbers are not intended to imply a hierarchy of importance. Together they describe the overall vision for Newton. The 20 objectives are listed underneath each associated goal but, again, the numbers used to identify each objective are not intended to imply a hierarchy of importance; rather they simply reflect the organization of the Plan. Objectives have been assigned priorities in the table at the end of this section, along with lead parties, budgets, or timelines. Since this plan represents a distillation of myriad open space and recreational interests, the objectives listed here are all, by implication, very important; any "low priority" objectives have been omitted from the plan altogether. In the table at the end of this section, we have identified some objectives as "high priority" and others as "medium priority". The actions necessary to achieve the objectives are listed under each relevant objective. They are too numerous, too detailed, and too interconnected to be assigned individual priorities, lead parties, budgets, or timelines.

- Goal: An aim or desired result. (listed below with numbers 1-6)
- Objective: A sub-goal that is defined and measurable, with a lead responsible party, a rough timeline, and budget sources identified. (listed below alpha-numerically 1A-6D)
- Action: A specific undertaking, task, or project designed to contribute to the objective. (listed below with numbers 1-120) See **Figures 45-49** for locations of actions.
- Priority: Only high and medium priorities are noted, since the low priority objectives were not included in this Plan

Timeframes

Timeframes are listed as "windows", reflecting the uncertainty of funding and opportunity. More detailed timelines are developed in departmental plans, annual budgets, project proposals, grant applications, and the like.

- Near–term: Undertaken in the first year or two of this Plan's lifespan, if funding allows
- Medium-term: Undertaken in the 3rd, 4th or 5th year of this Plan's lifespan, if funding allows
- Long-term: Undertaken in the 6th or 7th year of this Plan's lifespan, if funding allows
- Throughout: Undertaken consistently every year, as funding allows

Funding

Funding, it is well known, is challenging, competitive, and unpredictable, and costs of actions are rarely known in advance of detailed planning; therefore, for the purposes of this plan, Newton decided that it would be most helpful to identify the most likely primary sources of funding for each objective.

Lead Responsible Party

The Lead Responsible Party is the City department or body most immediately responsible for implementation of a given objective and its associated actions. Essentially every objective and action will require partnerships and coordination, but the most important player to identify is that which is responsible for moving a process forward.

Goals (summary)

The goals, summarized, are:

1. Implementation
2. Maintenance and Improvement
3. Accessibility
4. Minimized Gaps in the Availability of Open Space Resources
5. Connectivity
6. Protection

B. GOALS, OBJECTIVES, AND ACTIONS

GOAL 1: IMPLEMENTATION

Coordinated planning and adequate funding for the management and maintenance of the City's open space resources.

Objective 1A: An OSRP Strategic Implementation Team to promote implementation of this plan through coordination, prioritization, and fiscal planning.

1. Create a team of City staff with broad departmental representation and a mandate to address and balance the complex and often competing interests identified in this Plan.
2. Determine appropriate metrics for prioritization and success of all proposed actions; develop a process for setting priorities for projects and actions (recognizing the limits of City funds); develop a three-year road map for projects.
3. Continue coordination between Parks, Recreation & Culture and the Conservation Commission for the maintenance of the City's natural open space resources and trails.
4. Staff create ad hoc working groups with appropriate public representation, to address active and passive recreation and open space needs, project prioritization, open space resource protection, and identification of funding sources.
5. Work to expand and streamline opportunities for institutions and individuals to help care for open spaces through, for example, the City's Adopt-A-Space, Volunteer Steward, and Friends groups programs to enhance public involvement in stewardship, fund raising, maintenance, and advocacy.
6. Report on a regular basis to the COO, CFO, commissions, and City Council, as appropriate.
7. Rigorously pursue funding opportunities to increase available funding for open space resource projects.
    - Community Preservation Act (CPA) funding
    - Community Development Block Grants (CDBG), Parkland Acquisition and Renovations for Communities (PARC) grants, Local Acquisitions for Natural Diversity (LAND) grants, and any other grant and funding opportunities
    - Local community organizations, businesses, conservancies, and friends groups
    - Facility usage and permit fees
    - Private funding sources, such as individual gifts and foundation grants

- Capital Improvement Plan

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.

Objective 2A: A comprehensive City-wide plan to develop an assessment for existing and future active recreational facilities (i.e. sports fields, hard courts, aquatics and other athletic facilities) to optimize playability, expand utility, and ensure public safety to meet the changing needs of Newton residents and the year-round character of athletics in Newton.

8. Undertake a comprehensive planning process to develop and implement a course of action.
9. Develop specific criteria to track key performance indicators on athletic field and hard court facilities for quality and usage.
10. Develop a robust plan for maintaining existing (and future) athletic fields and hard courts to optimize playability and public safety and to expand utility.
11. Develop a public engagement campaign in densely developed areas and environmental justice communities.
12. Reinforce and broaden public-private partnerships related to field and court management, including usage.
13. Advocate for and/or pursue all available funding opportunities for implementing the plan.

Objective 2B: Improved City parks, playgrounds, and other recreational facilities.

Possible Synthetic Turf Projects

14. Forte Park: Upgrade existing natural turf fields to synthetic.
15. Brown/Oak Hill Middle Schools: Upgrade existing natural turf fields to synthetic and improve accessibility throughout.
16. Albemarle Field/ Russell J. Halloran Athletic Complex: Upgrade existing natural turf to synthetic at football, soccer and baseball fields.

Possible Sports Lighting Projects

17. Albemarle Field/ Russell J. Halloran Athletic Complex: Modernize, expand sports lighting at Cole and Murphy Fields; repair poles based on public safety assessment and structural assessment of existing lighting equipment.
18. Forte Park: Modernize and expand the existing sports lighting.
19. Newton South High School: Add sports lighting to synthetic track and field at Winkler Stadium. Expand lighting to Brandeis Rd synthetic turf Soccer Field.
20. Newton North High School: Consider adding sports lighting to existing synthetic turf fields.

Possible Natural Turf Field Projects

21. Lyons Field: Complete renovation of the natural turf areas, including significant drainage improvements and sodding.
22. Old Cold Spring Park field: Assess usage needs and possible renovations.
23. Ward Park: Consider expansion and renovation of existing fields for multiuse.
24. Burr School Fields: Consider renovation of existing fields.

Possible Aquatic Recreation Projects

25. Gath Pool: Develop feasibility study and implement an improvement plan that addresses:
    - Replacing the pool, kiddie pool, and bath house

- Replacing the fieldhouse complex.

26. Crystal Lake: Implement recommendations from the *Crystal Lake Management Plan* by Woodard & Currant (2020), *Crystal Lake Task Force Bath House Study* (2010), and *Restoration of Levingston Cove, Crystal Lake, Weston & Sampson* (2019). Consider an overall Crystal Lake Master Plan for improvements on all the publicly owned parcels:
    - Water quality improvement efforts in the lake and watershed (underway).
    - Crystal Lake Bath House, Beach and Park: Upgrade/replace the existing bath house building, curtail erosion, increase accessibility, expand utility of existing amenities and parking improvements.
    - Levingston Cove: Implement site improvements to improve erosion, increase accessibility, and utility.
    - Cronin's Cove: Consider implementing an improvement and restoration plan to curtail erosion, increase accessibility and utility of existing amenities while preserving some of the site's historic character.

Possible Hard Court Projects

27. Burr Park: Assess structural integrity of existing tennis court retaining wall and renovate court area.
28. Improvements to various hard courts: Develop an improvements plan for the city's hard courts in alignment with Objective 2A. Such courts include tennis, basketball, pickle ball and bocce.

Possible Park Renovation and other Improvement Projects

29. Reverend Ford Playground/ 70 Crescent Street: Renovate and expand Reverend Ford Playground. Create park space where pavement currently exists.
30. Newton Highlands Playground: Implement Weston & Sampson's Phase II of *Newton Highlands Playground Rehabilitation, Conformed Set, 10.31.16* for construction of restroom and support building.
31. Upper Falls Playground (Officer Bobby Braceland): Revisit *Weston & Sampson's Master Plan* (2008) and develop construction plans for improving access, athletic fields and play structures.
32. River Street Playground: Develop an improvement plan to renovate the neighborhood park.

Play Structures and Tot Lots

33. Install accessible surfacing at one to two play structures or tot lots and install one new play structure every year. Install two new play structures a year once safety surfacing has been made accessible at all play areas.

Off Leash Dog Areas

34. Continue to improve the Off-Leash Area program as appropriate.

Objective 2C: Improved trails, paths, and infrastructure (e.g., bridges and boardwalks).

35. Develop and implement specific guidelines and criteria for assessing and rating existing trails.
36. Develop and implement specific guidelines, standard practices and specifications for construction and reconstruction of new and existing trails. Develop and implement specific guidelines, standard practices and specifications for appropriate wayfinding signs, directional markers, blazes, on-site maps with "you are here" icons, educational signage, etc.
37. Reinforce and broaden public-private partnerships related to trail management.

Possible Trail Improvement Projects

38. Marty Sender Path: Plan and implement a multi-phased accessible trail project at Auburndale Park. Phase I is underway.
39. Richard McGrath Park: Plan an accessible pathway project for the fields.
40. Cold Spring Park Life Course Trail: Phase 1 trail renovation: ¾ mile section to address unsafe and muddy conditions. Additional improvements to include remainder of trail loop and aqueduct.

41. Edmands Park: Stone dust trail renovation.
42. Cabot Park: Develop a path network improvement plan.
43. Forte Park Perimeter Trail: Stone dust path surface renovation.
44. City Hall Pond Pathways: Stone dust pathway surface renovation.
45. Improve the surface of the Cochituate Aqueduct trail, where needed, and implement mowing regimes that allow native plants to provide habitat (e.g., for pollinators and birds).
46. Wellington Park: Expand path to create a perimeter loop.

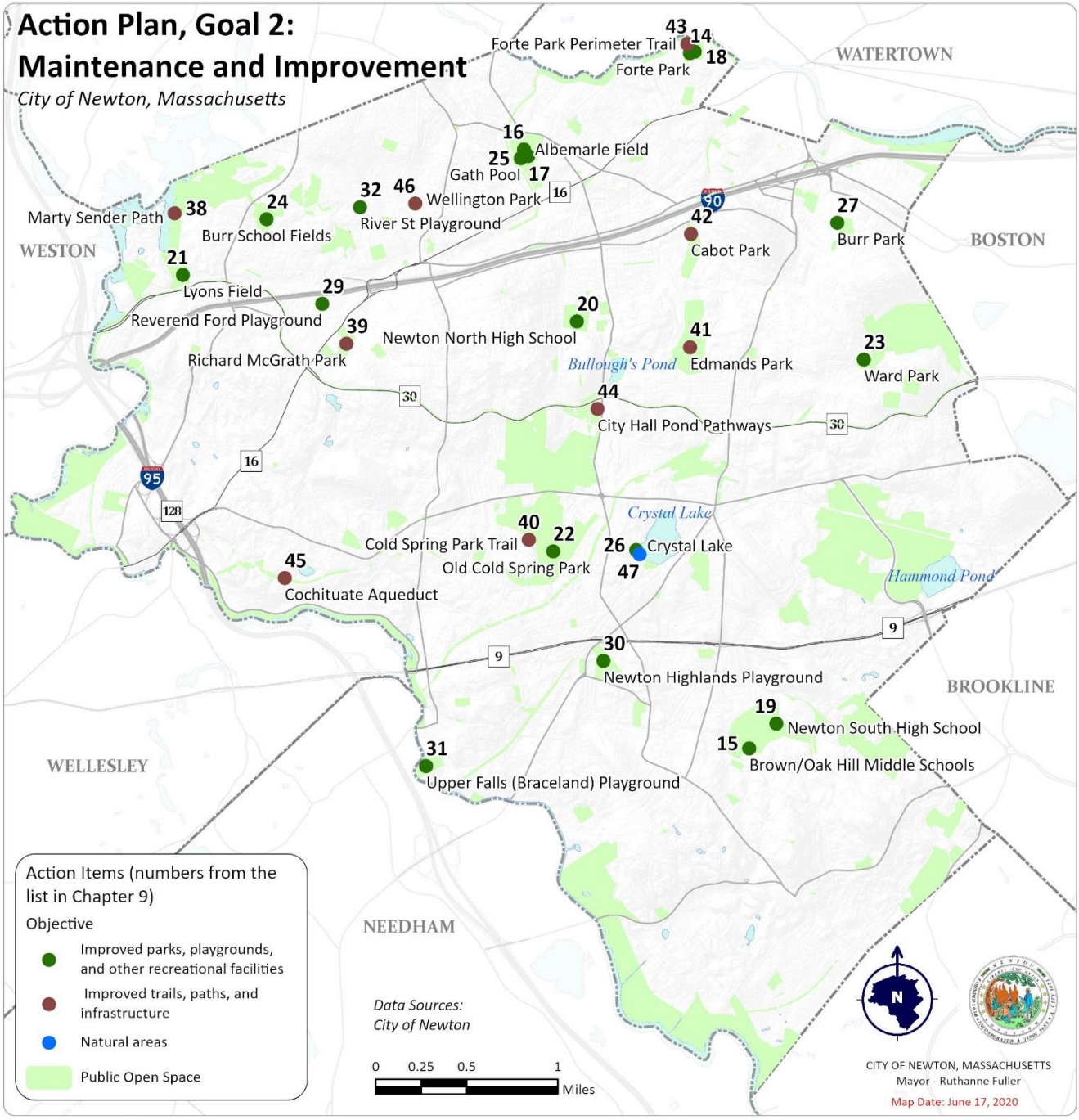
Objective 2D: Natural areas with optimized overall ecological health, native species habitat, stormwater management capacity, and passive recreational potential.

47. Implement the *Crystal Lake Management Plan* by Woodard & Currant (2020) to treat cyanobacteria algae blooms (underway). Implement the Levingston Cove improvements to reduce shoreline erosion.
48. Through collaboration of local conservation groups and City staff, develop and implement invasive species management priority plans for the removal of aggressive, invasive species and reestablishment of native habitats in natural areas.
49. Develop an outreach and educational campaign promoting native gardens that encourage native pollinator plant corridors to support native wildlife.
50. Monitor health of trees in parks and conservation areas.

Objective 2E: Increased street and park tree canopy coverage throughout the City, especially in Environmental Justice communities, to increase native habitat and compensate for impending hotter temperatures, increased precipitation, and urban heat islands.

51. Using existing survey data and management documents, implement strategic plan to care for young trees to ensure long term survivability. Work will help insure there is a future tree canopy.
52. Implement a strategic tree care program that maintains the safety and viability of existing mature trees, guaranteeing the maximum environmental benefits only mature trees provide.
53. Revise and/or follow the FY21-25 proposed planting plan to mitigate Newton-area heat islands.
54. Using GIS software, inventory street trees for location, health, species, and risk rank.
55. Develop a realistic canopy coverage goal (numbers, species, and location) and develop a means of assessment towards this goal.
56. Use the inventory to develop priorities for replacement and pruning, to track spread of disease, and to identify areas at risk of greatest impact from climate change.
57. Evaluate and strengthen, if needed, the Newton Tree Ordinance to ensure it is giving appropriate protection to trees on private property.
58. Enhance existing Citizen Pruner and Planting program by adding a community forestry person to build advocacy, community involvement programs, and work closely with citizen activist groups. Sponsor trainings and certifications.
59. Use the Newton Street Design Guide (2018) and the Complete Streets Policy (2016) to ensure street redesign projects incorporate street trees and green infrastructure.
60. Continue to promote and coordinate gas leak repairs by National Grid with road maintenance by DPW.

Figure 45. Action Plan: Goal 2: Maintenance and Improvement



GOAL 3: ACCESSIBILITY

Maximized accessibility of as many of Newton's Outdoor Recreation Facilities and Natural Open Spaces as feasible.

Objective 3A: Increased accessibility in the City's Park land.

61. Continue detailed accessibility assessment of all City Park facilities.
62. Implement priority accessibility improvements throughout the City's park system, including: accessible paths at Cold Spring Park, Plan for paths at Auburndale Playground/Lyons Field (Marty Sender Path) and Richard McGrath Park.
63. Increase and maintain accessible paths to amenities.

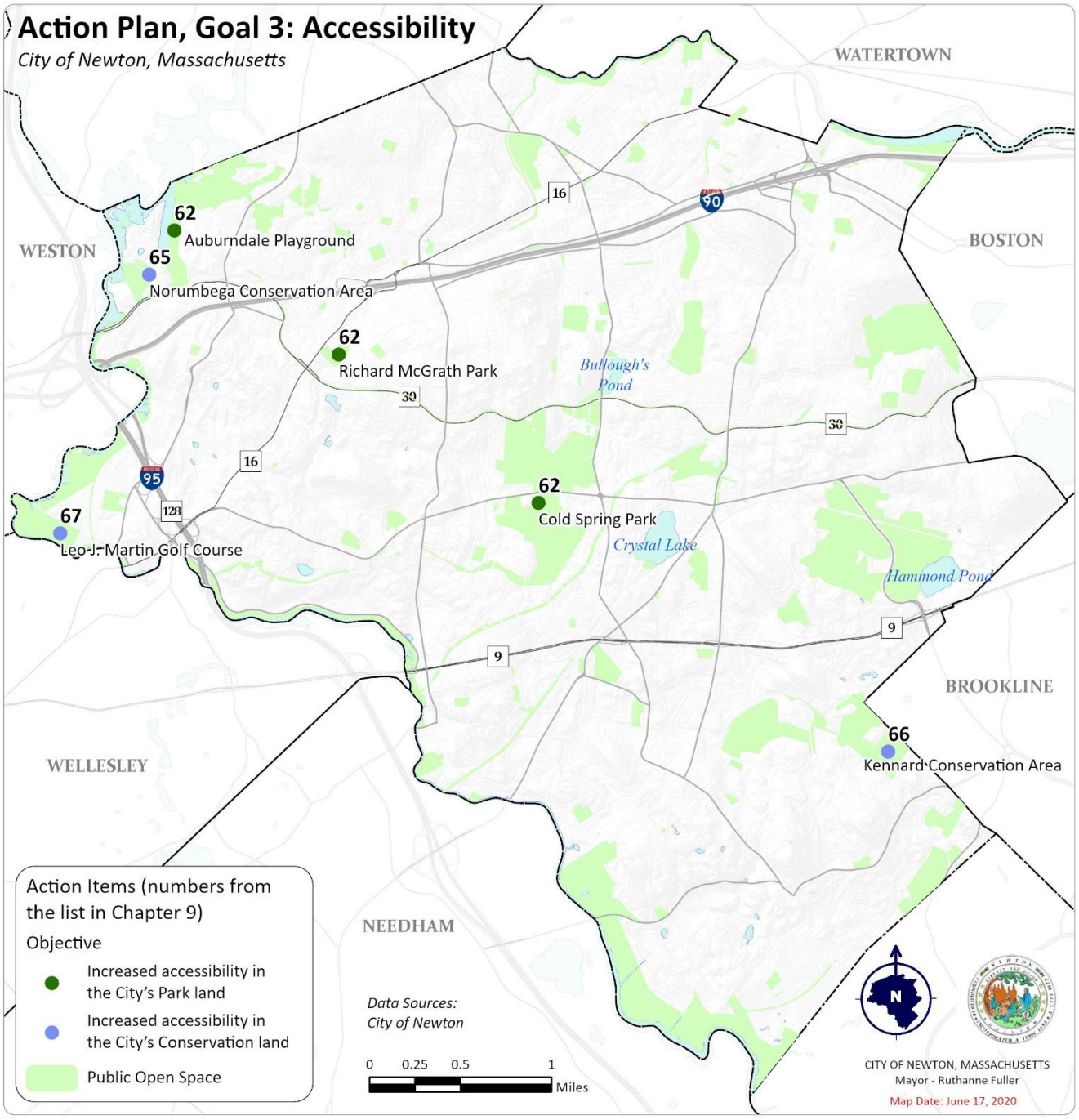
Objective 3B: Increased accessibility in the City's Conservation land.

64. Where feasible, transition from naturally surfaced paths to firm and stable surface to improve accessibility.
65. Incorporate accessible paths where feasible at Norumbega Conservation Area.
66. Incorporate accessible paths where feasible at Kennard Conservation Area.
67. Incorporate accessible paths where feasible at Leo J. Martin golf course.

Objective 3C: Improved accessibility to the City's open space resources, including accessible parking.

68. Ensure accessible parking is available where feasible for currently accessible natural areas and recreational facilities.
69. Improve accessible sidewalk connections between public transit stations and open space resources.
70. Expand public transportation to and from open space resources.

Figure 46. Action Plan: Goal 3 Accessibility



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.

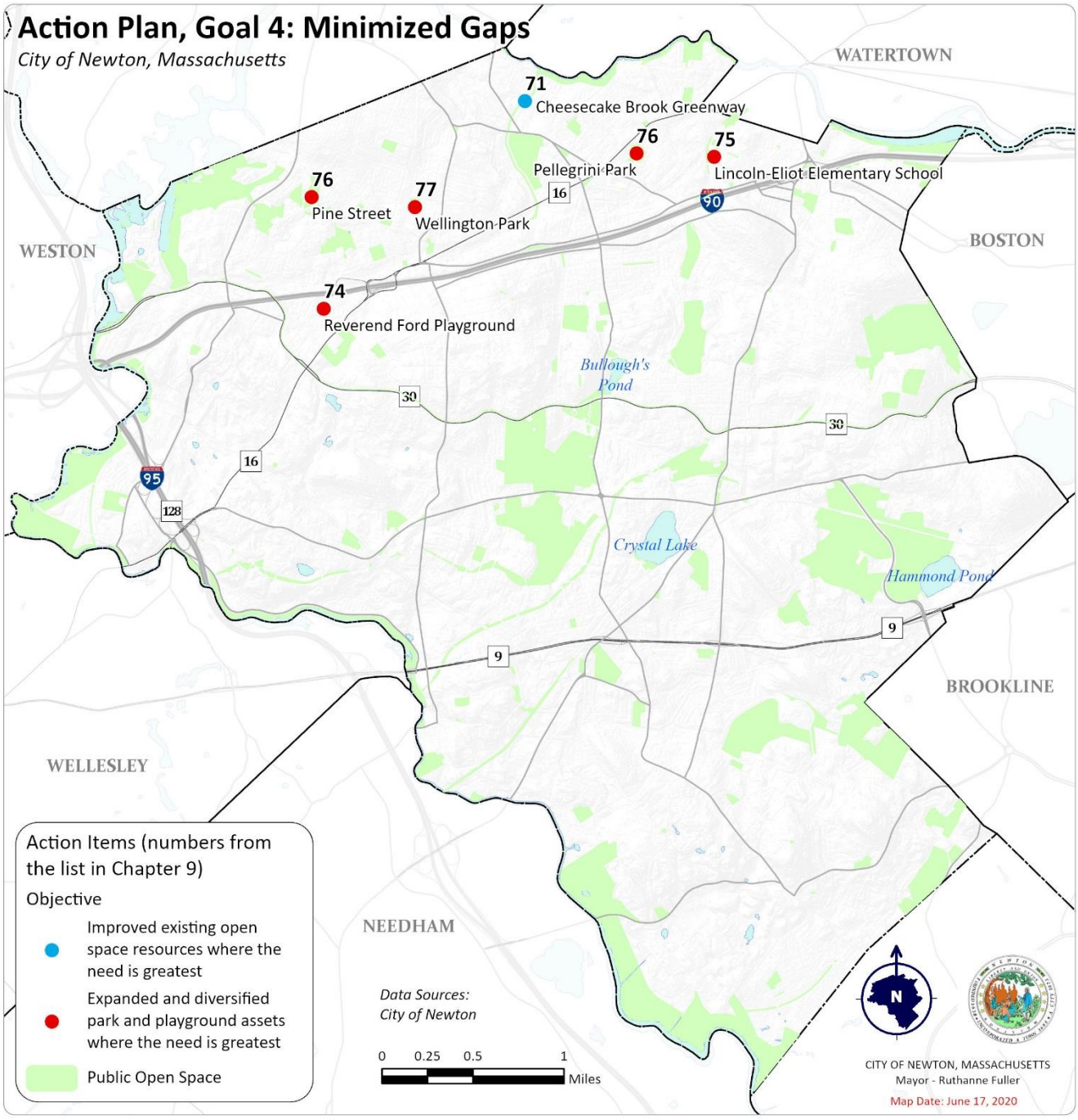
Objective 4A: Improved existing open space resources where need is greatest.

71. Follow up on 2009 *Cheesecake Brook Greenway Master Plan* to incorporate paths and nature-based stormwater management practices.
72. Develop a public engagement campaign in densely developed areas and environmental justice communities to determine priority open space and recreational needs and wants within these communities and to identify optimal locations for new open space resources (e.g., community gardens, aquatic facilities, splash pads, skate parks, pocket parks, and improvements in access to such resources). Determine which priorities and components could be incorporated into existing recreation facilities and which would require new construction.
73. Strengthen public-private partnerships to facilitate implementation of priority projects.

Objective 4B: Expanded and diversified park and playground assets where need is greatest.

74. Complete design and construction plan for expansion of the Rev. Ford Playground to include the 70 Crescent Street parcel, significantly reducing existing pavement.
75. Develop a plan for a new playground at the future Lincoln-Eliot Elementary School, significantly reducing existing pavement.
76. Assess and pursue opportunities to create new or expanded open space amenities on publicly owned parcels, such on Pine Street and at Pellegrini Park.
77. Install a 5-12 year-old play structure at Wellington Park.
78. Ensure inclusion of privately-owned publicly accessible open spaces in future development projects.
79. Ensure equitable access and distribution of any new aquatic facilities such as splash pads, pools and natural swimming areas.

Figure 46. Action Plan: Goal 4 Minimized Gaps



GOAL 5: CONNECTIVITY

Linked open space resources with accessible paths, bike lanes, and trails.

Objective 5A: Enhanced bike network that includes not only higher traffic "spines", but also low-stress components and connections to local open space resources, especially in under-served areas, and is consistent with regional plans, e.g., the Landline (MAPC) and East Coast Greenway.

80. Create a bike network master plan for the City that promotes safe car-alternative transit across the City while protecting Newton's natural open spaces. Ensure safe passage along both north-south and east-west corridors. Clarify and consider expanding appropriate off-road bike routes. Incorporate appropriate placement of bike racks.
81. Create a safe, low-stress bike lane on Commonwealth Avenue Carriage Lane.
82. Improve bike facilities along Cheesecake Brook.

Objective 5B: Safe walking routes to the City's schools.

83. Replace and relocate pedestrian bridge across Cheesecake Brook to connect the area west of Albemarle Road to F.A. Day Middle School, Gath Pool, and Albemarle Playground. Note: This bridge serves as an evacuation route.
84. Connect Nahanton Park and Oak Hill Middle School.
85. Connect the Horace Mann School Playground to Pellegrini Park with multi-use paths that run through Linwood Ave and Nevada St.
86. Consider connecting Oak Middle, Brown Middle, Memorial Spaulding Elementary, and Newton South High Schools to Kennard Park via a multi-use shared path adjacent to Dudley St. if safety can be assured.

Objective 5C: New and/or enhanced trail/path connections to less-served parts of the City.

87. Replace pedestrian bridges across Cheesecake Brook at Albemarle Rd. and Nevada St. Investigate options for safety improvements at Albemarle Road and Crafts Street.
88. Create welcoming pedestrian crossings over I-90 and Washington Street, e.g., at the Exit 17 rotary.
89. Create a safe pedestrian crossing over Charles River (at the Christina Street Bridge) to the DCR trails and Cutler Park in Needham.
90. Connect Leo J. Martin golf course to DCR's Charles River Blue Heron Pathway.
91. Develop a "Newton Lower Falls Greenway bike trail" to link the pedestrian bridge (crossing from Wellesley over the Charles River) at Concord St to Riverside Station.
92. Improve bicycle/pedestrian connections from Newton Lower Falls to Leo J. Martin golf course and Riverside Station/the Pony Truss Trail.
93. Explore the possibility of connecting Upper Falls Greenway, across the Charles River, to Needham.
94. Advocate for the safe pedestrian access to the southern trail head of the Quinobequin Trail on Quinobequin Road.
95. Create a safe pedestrian crossing over I-95 on Washington St. to connect to Lower Falls to Auburndale.
96. Create safe pedestrian access to Nahanton Park and Helen Heyn Conservation Area along Nahanton Street.
97. Create safe pedestrian access on Vine Street to Saw Mill Brook and Kesseler Woods Conservation Areas.

Objective 5D: Expanded trail/path connections throughout the City that are consistent with regional plans, e.g., the Landline (MAPC) and East Coast Greenway.

98. Complete the Charles River Greenway network of trails.
    - Pony Truss Trail

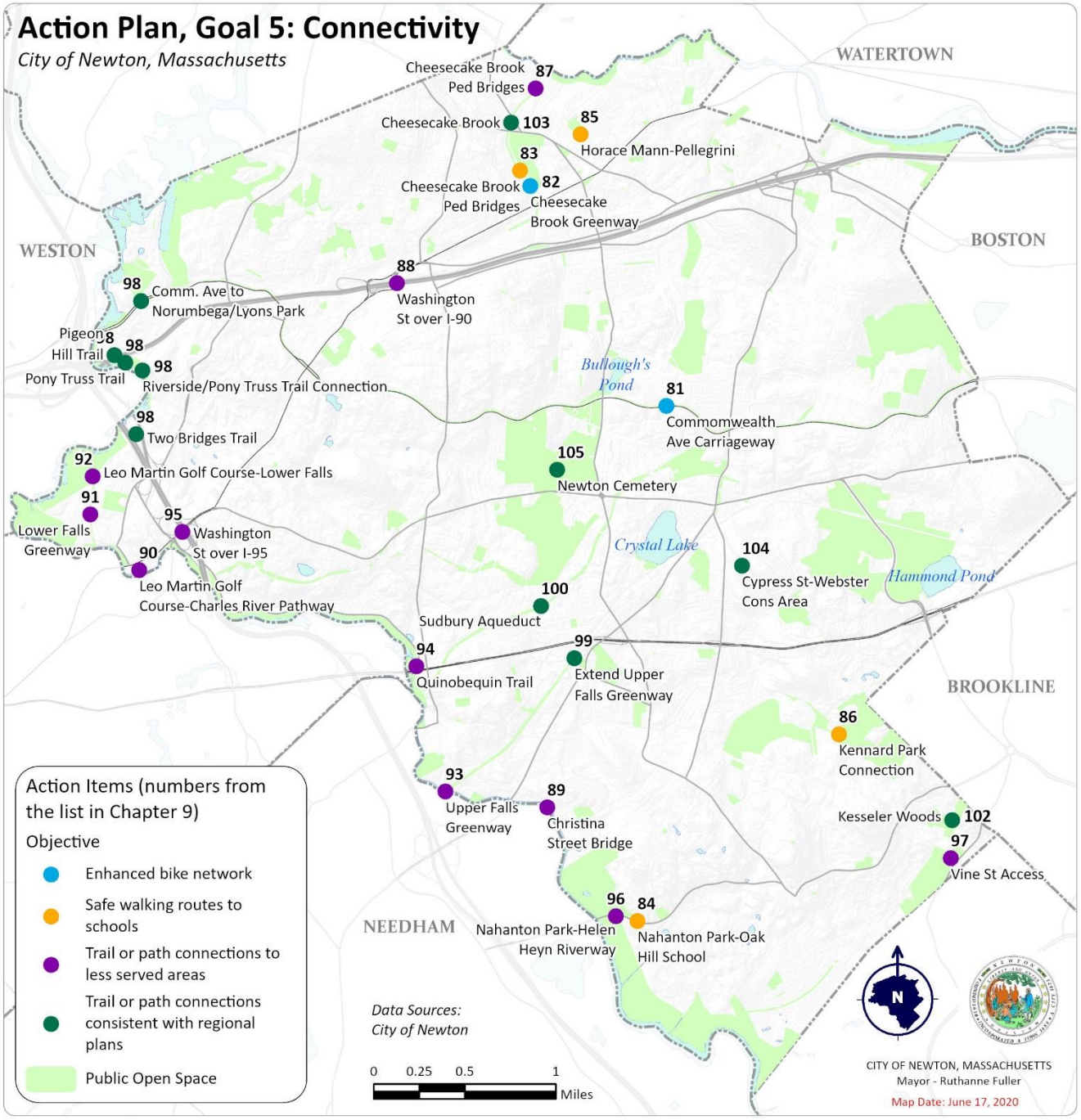
- Pigeon Hill Trail
- A safe crossing of Comm. Ave to Norumbega Cons. Area and Lyons Park
- Connection between Riverside and the Pony Truss Trail
- Two Bridges Trail

99. Extend the Upper Falls Greenway northerly to Curtis Street, Newton Highlands.
100. Secure license agreements with MWRA to officially open portions of the Sudbury Aqueduct to pedestrian traffic.
101. Implement the proposed ACROSS (Access to Conservation, Recreation, Open Space, and Schools) trail loops by installing wayfinding markers in the field and publishing maps on the City website.
102. Create a trail system through the Kesseler Woods parcel and adjacent Conservation Restriction area from Harwich Road to Lagrange Street and Vine Street.
103. Improve bike and pedestrian facilities along Cheesecake Brook.
104. Create pedestrian connection between Cypress Street and Webster. Conservation Area.
105. Explore the possibility of creating a public walking path through the Newton Cemetery to allow connections to Cold Spring Park, the Newton Library, and City Hall.
106. Explore the possibility of establishing public walking paths on easements through private properties to complete high-demand trail connections.

Objective 5E: Improved publicly available bike/pedestrian wayfinding and navigation measures.

107. Develop and install clear and consistent wayfinding for sidewalks, bike ways, paths, and trails.
108. Develop maps that show MBTA stops, trail heads, bike lanes, trails, paths and path characteristics (accessibility, surface material, access points and trail heads etc.), level of recreational difficulty, and amenities. Publicize and make maps available on the City website; consider installing maps on kiosks in village centers.

Figure 48. Action Plan: Goal 5: Connectivity



GOAL 6: PROTECTION

Protected and expanded open space resource resources.

Objective 6A: A strategy/plan for addressing the potential of one or more of the City's golf courses to be offered for sale/development with the goal of protecting appropriate portions of the golf courses as open space.

109. Develop a document that: (1) identifies the portions of the private country clubs with priority conservation value and prime recreation value, (2) clarifies the process of the City's response, and (3) articulates a range of strategies and appropriate parties, actions, timelines for achieving the City's goals of protection.

Objective 6B: Communication between the City and private owners of key parcels with high ecological or recreational value to consider protection/stewardship of portions of these parcels through CRs, easements, purchase, or lease. See Chapter 5, Table 11-14 for full listing of parcels with significant open space.

110. Consider purchase of or seeking a conservation restriction on portions of parcels with high ecological value that abut other City-owned and/or protected open space areas such as:
    - Null Colby Street (Boston College)
    - 122 Islington
    - 2345 Commonwealth Avenue (Marriott Hotel)
    - 1165 Chestnut Street
    - 33 Greenwood Street
    - Hammond St. and Longwood Rd. lots
    - 1 Nahanton Street (rear)
    - 200 Estate Drive (Hancock Estates)
111. Consider purchase of or seeking a public access easement on portions of parcels with high recreational value that abut other City-owned and/or protected open space areas such as:
    - 11 Riverdale (Lasell boathouse)
    - Old Pine Street Landfill parcels
    - Cochituate Aqueduct parcels
112. Consider purchase of, seeking a conservation restriction on, or public access easement on portions of parcels with high ecological value and/or recreational value such as:
    - 777 Dedham Street (UMass at Mt. Ida)
    - 790 Centre Street (Mount Alvernia)
113. Continue to watch for other significant private parcels that may become available for purchase or protection, in whole or in part.

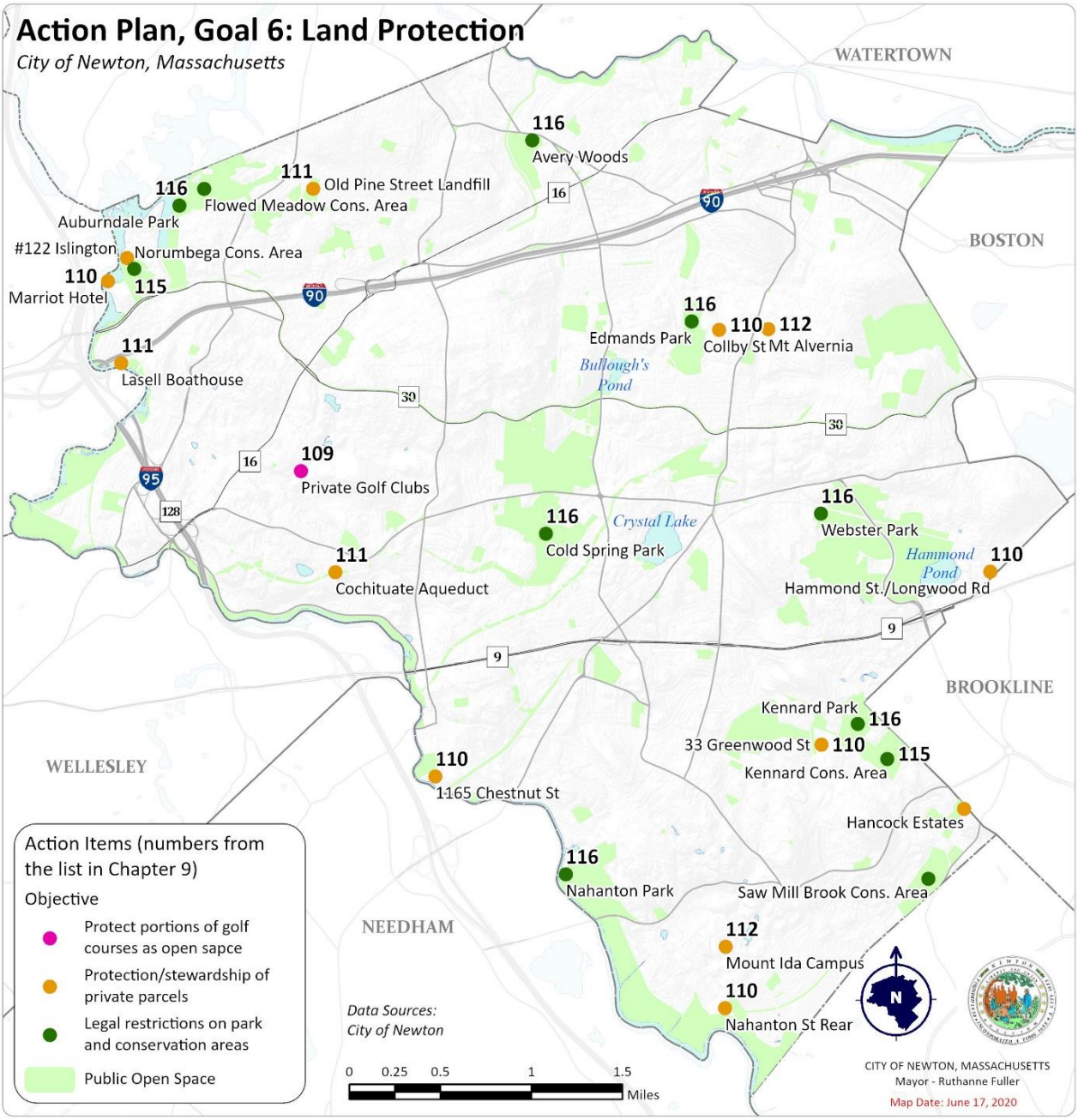
Objective 6C: Legal restrictions on priority/high-value Conservation and Parks parcels, where appropriate.

114. Ensure all of the City's open space parcels are, at a minimum, protected through Article 97 deed language, with a confirmatory deed, if/as appropriate.
115. Add conservation restrictions, with conditions for passive recreational improvements only, to high-priority Conservation parcels (e.g., Norumbega, Saw Mill Brook, Kennard, and Flowed Meadow Conservation Areas).
116. Add conservation restrictions or other legal restrictions, with conditions for passive recreational improvements, to high-priority parcels held by Parks, Recreation & Culture, as appropriate. Consider portions of: Avery Woods, Nahanton Park, Cold Spring Park, Auburndale Park, Edmands Park, Webster Park, and Kennard Park.

Objective 6D: Policies that ensure that new multi-family residential, commercial, and industrial developments create an appropriate scale and nature of public open space.

117. Support ongoing re-zoning efforts to zone portions of private golf clubs as "Recreation" (instead of "Residential") and/or cluster development or Smart Growth overlay districts, including requirements for open space preservation.
118. Ensure that the new zoning code encourages clustered, Smart Growth development patterns.
119. Ensure that the new zoning code requires green infrastructure, shade trees and diverse open spaces in all new developments.
120. Consider adding to the zoning code a requirement for developers of new residential developments to contribute to the maintenance and improvement of Newton's open space resources in keeping with their contribution to the growing population of Newton.

Figure 49. Action Plan: Goal 6: Protection



C. OBJECTIVES WITH LEAD PARTY, TIMEFRAME, FUNDING SOURCE, AND PRIORTY

Objectives	Lead Responsible Party	Timeframe	Funding Source	Priority
1A: An OSRP Strategic Implementation Team to promote implementation of this plan through coordination, prioritization, and fiscal planning.	Mayor's Office	Near-Term	n.a.	H
2A: A comprehensive City-wide plan to develop an assessment for existing and future active recreational facilities (i.e. sports fields, hard courts, aquatics and other athletic facilities) to optimize playability, expand utility, and ensure public safety to meet the changing needs of Newton residents and the year-round character of athletics in Newton.	OSRP Implem team	Near-term	n.a.	H
2B: Improved City parks, playgrounds, and other recreational facilities.	PRC	Throughout	CPA, grants	H
2C: Improved trails, paths, and infrastructure (e.g., bridges and boardwalks).	PRC and ConCom	Throughout	CPA, grants	H
2D: Natural areas with optimized overall ecological health, native species habitat, stormwater management capacity, and passive recreational potential.	ConCom	Throughout	Annual budget	H
2E: Increased street and park tree canopy coverage throughout the City, especially in Environmental Justice communities, to increase native habitat and compensate for impending hotter temperatures, increased precipitation, and urban heat islands.	PRC Urban Forestry Division	Throughout	Annual budget	H
3A: Increased accessibility in the City's Park land.	PRC	Throughout	CDBG, annual budget, CPA, grants	H
3B: Increased accessibility in the City's Conservation land.	ConCom	Throughout	CDBG, annual budget, CPA, grants	H
3C: Improved accessibility to the City's open space resources, including accessible parking.	Planning Dept.	Throughout	CDBG, annual budget, CPA, grants	H
4A: Improved existing open space resources where need is greatest.	PRC	Throughout	CPA, grants	H

Objectives	Lead Responsible Party	Timeframe	Funding Source	Priority
4B: Expanded and diversified park and playground assets where need is greatest.	PRC	Throughout	CPA, grants	H
5A: Enhanced bike network that includes not only higher traffic "spines", but also low-stress components and connections to local open space resources, especially in under-served areas, and is consistent with regional plans, e.g., the Landline (MAPC) and East Coast Greenway.	Planning Dept.	Throughout	??	M
5B: Safe walking routes to the City's schools.	Planning Dept	Throughout	???	H
5C: New and/or enhanced trail/path connections to less-served parts of the City.	Planning Dept.	Throughout	CPA, grants	H
5D: Expanded trail/path connections throughout the City that are consistent with regional plans, e.g., the Landline (MAPC) and East Coast Greenway.	PRC and ConCom	Throughout	CPA, grants	M
5E: Improved publicly available bike/pedestrian wayfinding and navigation measures.	Planning	Throughout	???	H
6A: A strategy/plan for addressing the potential of one or more of the City's golf courses to be offered for sale/development with the goal of protecting appropriate portions of the golf courses as open space.	Planning Dept.	Near-term	n.a.	H
6B: Communication between the City and private owners of key parcels with high ecological or recreational value to consider protection/stewardship of portions of these parcels through CRs, easements, purchase, or lease. See Chapter 5, Table 11-14 for full listing of parcels with significant open space.	ConCom	Near-term	n.a.	M
6C: Legal restrictions on priority/high-value Conservation and Parks parcels, where appropriate.	PRC and ConCom	Near-term	n.a.	H
6D: Policies that ensure that new multi-family residential, commercial, and industrial developments create an appropriate scale and nature of public open space.	Planning Dept.	Med-Term	n.a.	H

Section 10: Public Comment

A. GOALS, OBJECTIVES, AND ACTIONS

This section includes a list of charts and graphs from the two surveys and first public working session that were used to analyze open space needs and improvements. Included also is a short summary of the responses received at the second public working session and a summary of comments received during the public comment period from residents of Newton, City Councilors, and the Planning and Development Board.

The community survey was open from early February to late March of 2020 and received 1,360 responses. The youth survey was open for two weeks in March and received 27 responses. The first public working session meeting was held on February 6, 2020 with 50 participants. The second public working session meeting was held on March 4, 2020 with 25 participants. More information regarding the community outreach and vision process can be found in Section 6: Community Vision.

A full draft of the OSRP was released for public comment on April 30, 2020. The plan was presented to Newton's Planning and Development Board (P&D) and Zoning and Planning Committee (ZAP) on May 7th, 2020 at a joint public hearing (public hearing was held remotely due to the COVID-19 pandemic). The meeting started as a joint public hearing opened by the Chair of the Zoning and Planning Committee. After hearing from the public and the members of both P&D and ZAP, P&D moved into a breakout room. P&D voted to close their public hearing and hold continued discussions until May 19th, 2020.

In consideration of comments from the public and City Councilors, ZAP came to consensus to extend the public comment period through Monday May 18, one day ahead of the next meeting at which the OSRP would be discussed. Many Councilors lauded the quality of effort and resulting OSRP, noting the Comprehensive approach and dramatic improvement over previous Open Space Plans. At this meeting ZAP voted to close their public hearing and hold continued discussions until May 19th, 2020, when the public comment period had closed.

B. ONLINE SURVEYS

Community Survey

While the community survey was heavily advertised, there were some villages that had a higher percentage of respondents than others. These villages included West Newton (21.4%), Newton Centre (15.7%), Newtonville (15.8%), Newton Highlands (11.5%), and Waban (10.3%). Not all residents responded to the questions that were followed by "other." All the question responses are displayed in bar graphs with short explanations below. Overall, the survey has been instrumental in guiding and determining Newton's needs for future open space planning, discussed in **Section 7: Needs Analysis**.

Most used areas include city parks, playing fields, residential yards, and school open spaces. The least used areas include golf courses, community gardens, and cemeteries (**Figure 50**). One method of increasing use of cemeteries that was proposed in the public forum was increasing access points into the Newton Cemetery and Arboretum to allow connections to be made from City Hall and Cold Spring Park.

As Newton's parks, playgrounds, and playing fields are all popular and highly used resources, it is fitting that many residents expressed that the quality of these three resources needs the most improvement (**Figure 51**). Though residents were somewhat neutral regarding the quality of signage and parking at predominantly parks and conservation areas, there were more residents who expressed that these should be improved in the open-ended questions at the end of the survey. Bike paths were also acknowledged as places that needed quality improvement for the "other" category.

Figure 50. Open Space Resource Use in Newton

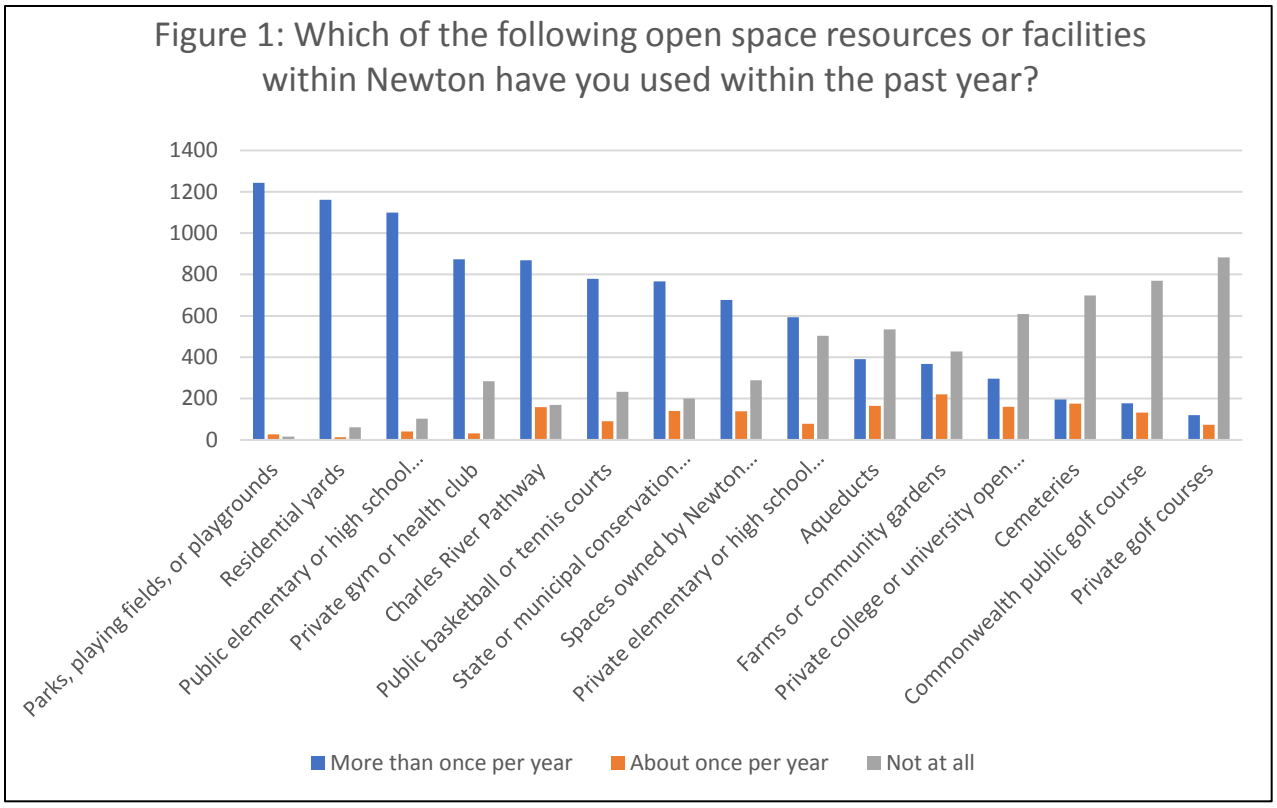
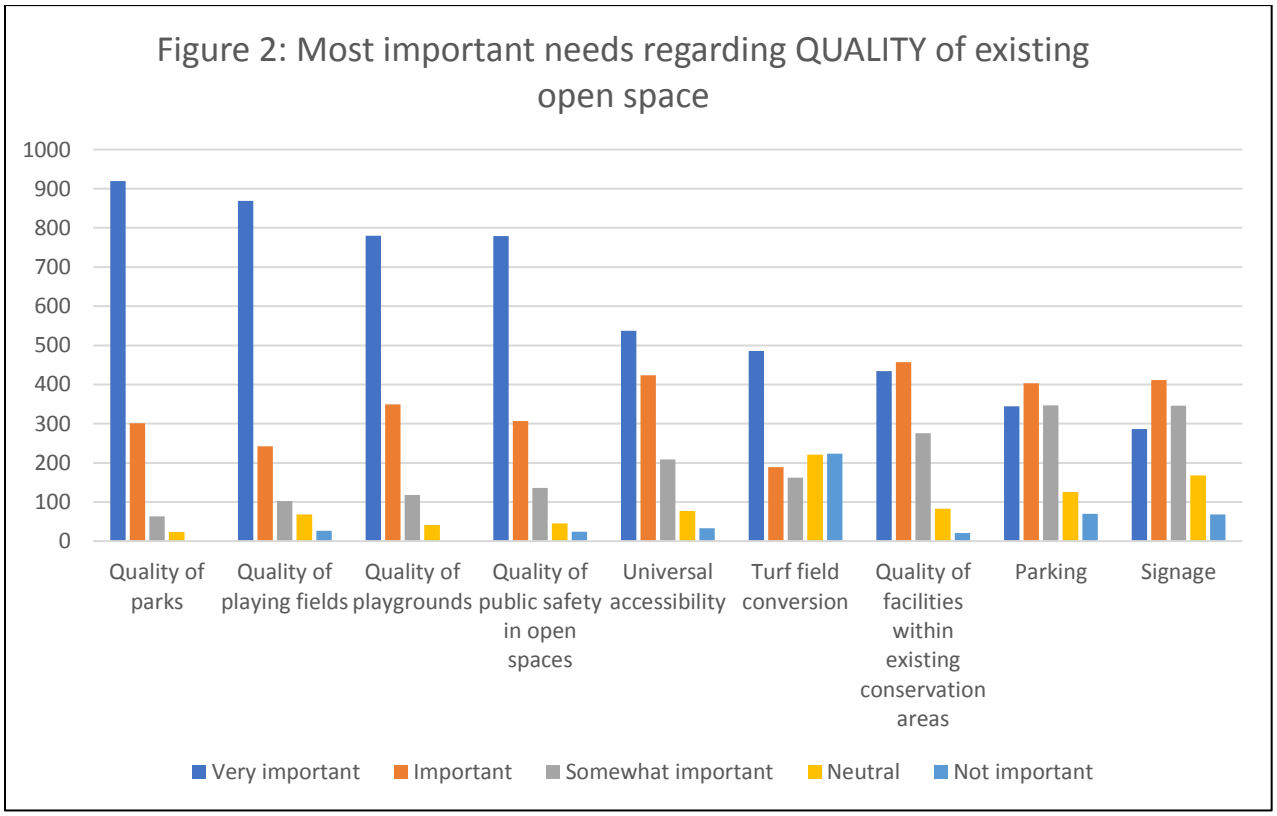
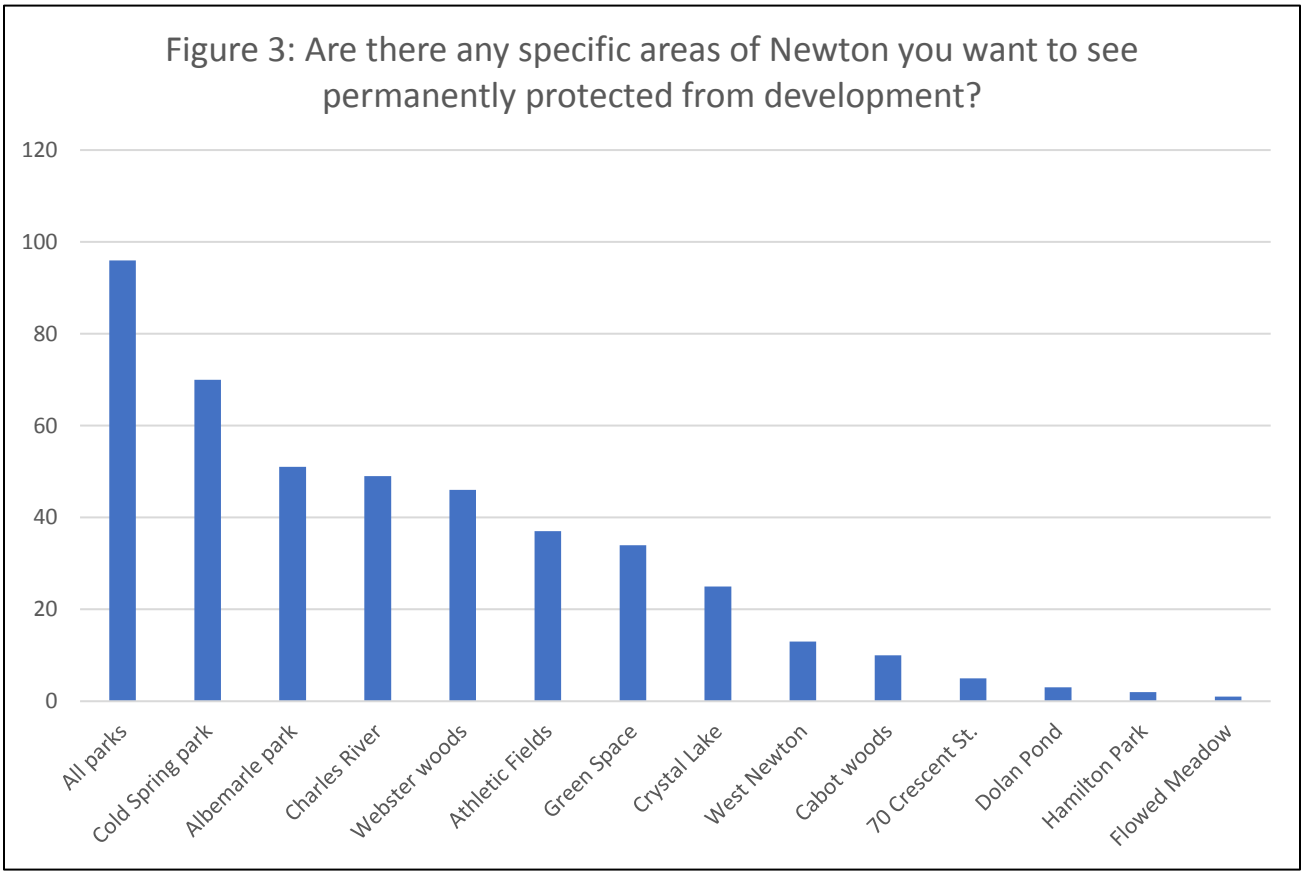


Figure 51. Open Space Resource Quality Needs in Newton



"Are there any specific areas of Newton you want to see permanently protected from development?" This was one of the open-ended survey questions. Not all residents who took this survey responded to this question. Most of the people who did respond said that all parks should be protected from development. Within that category, specific parks stood out, such as Cold Spring Park, Albemarle Park, and Webster Woods (**Figure 52**). As Webster Woods was recently acquired using Community Preservation Act funds, a Conservation Restriction will be required on the property to restrict all future development.

Figure 52. Priorities for Open Space Protection in Newton



"Are there any specific impediments or inconveniences you have encountered with access to open space?" This was another open-ended survey question that not all residents who took the survey responded to. Those who did respond to this question said that the greatest impediments or inconveniences with access to open space include bike paths, transportation and parking, and conditions of athletic fields. Residents expressed that bike paths were disconnected and unsafe (reiterated in **Section 3: Community Setting** and again in **Section 7: Needs Analysis**) (**Figure 53**). Also, difficulties traveling to open space and finding where to park posed another challenge.

Most residents said they would be in favor of the city purchasing land for open space as well as land conservation by both state agencies and non-profit groups, and many would support an easement on a part of their property to add open space (**Figure 54**).

Figure 53. Impediments and Inconveniences Accessing Open Space

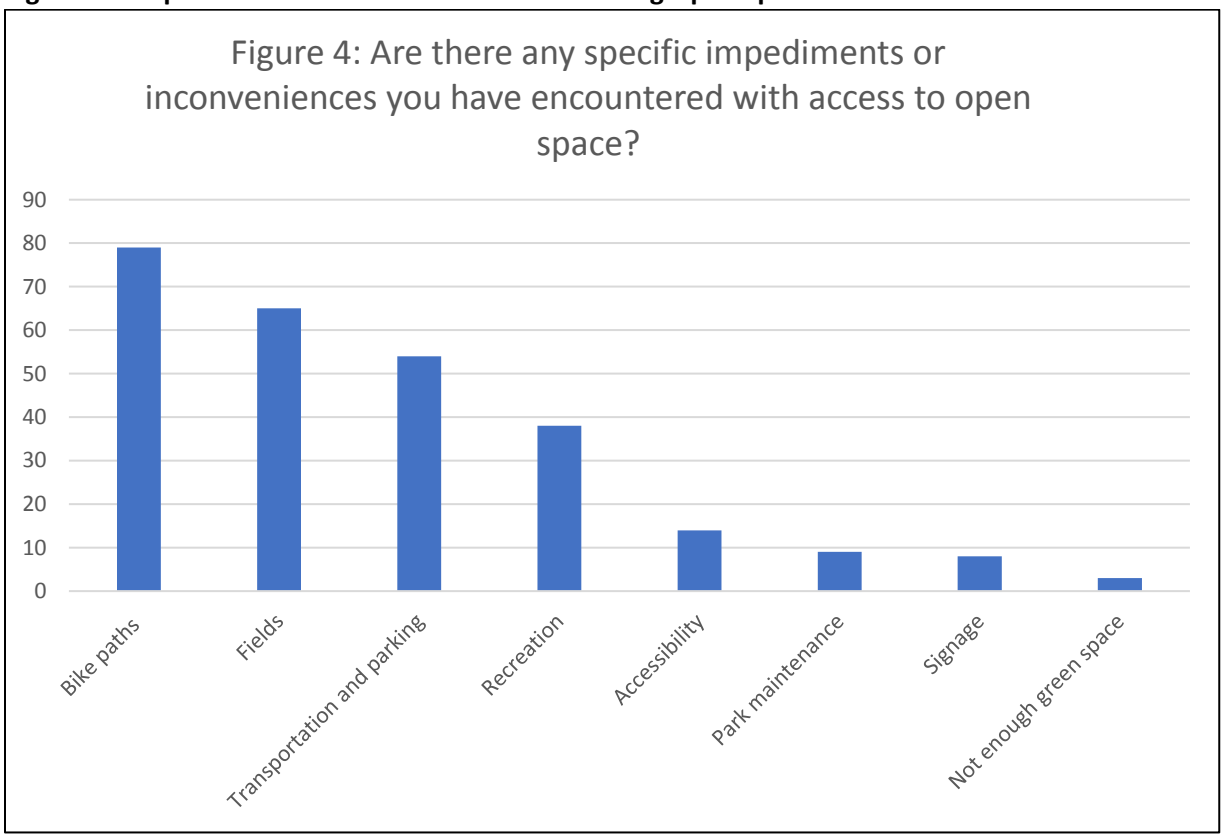
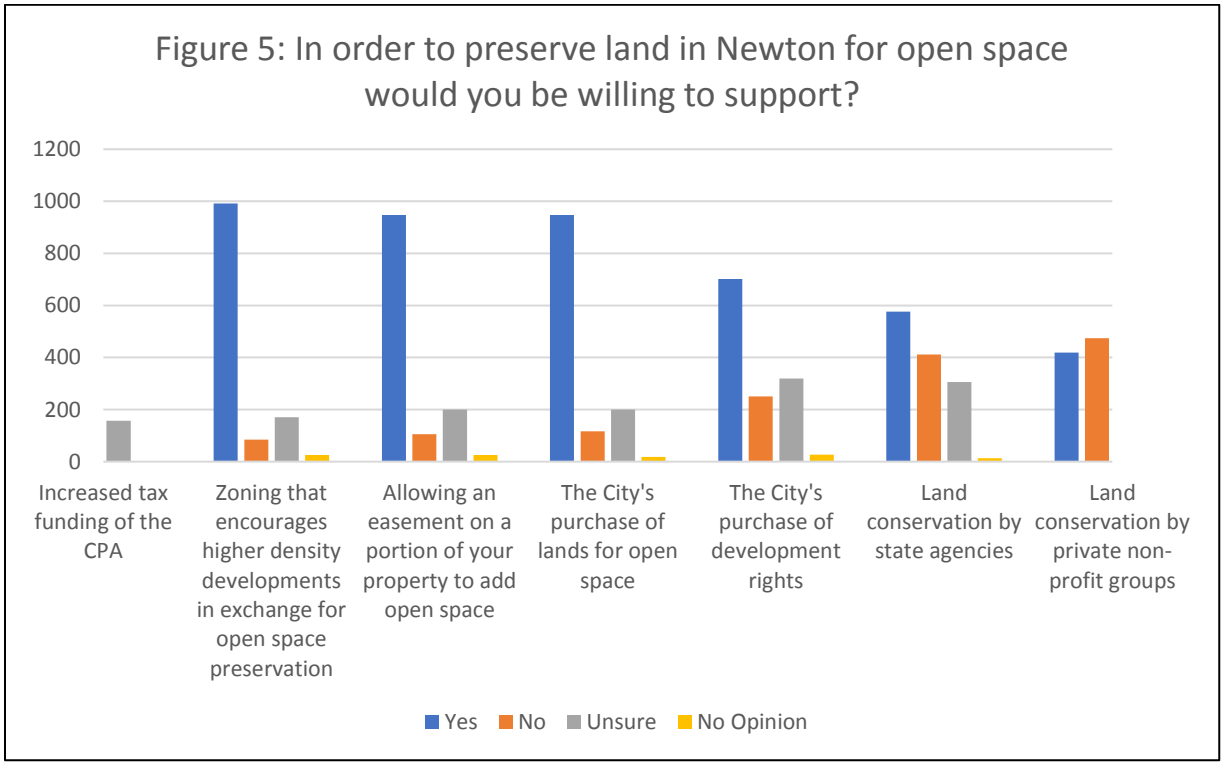


Figure 54. Policies to Support Open Space Acquisition



Youth Survey

While the youth survey was not as heavily advertised, thanks to the responses of the Youth Commission, we received responses from youth residents from all areas of the City. Along with the responses from Newton North and Newton South High School students, a number of similar themes are seen in youth responses to the overall community responses in regard to wayfinding, improved facilities through maintenance, and connectivity. Below are responses to some of the questions asked in the youth survey. (**Figure 55-59**) Please note that the students could select multiple options if they applied, hence why the total answers appear to be more than 27.

Figure 55. In what ways do you use Newton's open space resources?

ANSWER CHOICES	RESPONSES	
Organized sports (soccer, baseball, track, etc.)	44.44%	12
Personal exercise (running, hiking, etc.)	81.48%	22
Dog - walking	33.33%	9
Relaxation or spending time with friends/family	77.78%	21
Hobbies (bird watching, yoga, etc.)	22.22%	6
I don't use open space	0.00%	0
Other (please specify)	3.70%	1
Total Respondents: 27		

Figure 56. What do you value about Newton's open space resources?

ANSWER CHOICES	RESPONSES	
Socializing with friends and others	88.89%	24
Relaxing and being tranquil	77.78%	21
Connecting with nature	66.67%	18
Being active	88.89%	24
Accesibility	66.67%	18
Other (please specify)	0.00%	0
Total Respondents: 27		

Figure 57. What don't you like about Newton's open space resources?

ANSWER CHOICES	RESPONSES	
There aren't enough amenities (benches, tables, workout stations, water fountains, etc.)	52.00%	13
Athletic facilities are too crowded	8.00%	2
Not enough organized activites	24.00%	6
Open spaces are poorly advertised/marked	40.00%	10
Open spaces are poorly maintained	40.00%	10
Trails are too confusing to navigate	8.00%	2
Other (please specify)	12.00%	3
Total Respondents: 25		

Figure 58. How could Newton improve its open spaces?

ANSWER CHOICES	RESPONSES	
Better signage	37.04%	10
Improved trails	25.93%	7
More amenities (benches, tables, etc.)	66.67%	18
More planned activities (performances, yoga, art shows, etc.)	40.74%	11
More facilities (courts, etc.)	37.04%	10
Improved facilities (bathrooms, fields, etc.)	70.37%	19
Better advertising	48.15%	13
Other (please specify)	3.70%	1
Total Respondents: 27		

Figure 59. What can Newton do to make Newton more accessible for students who walk/bike?

ANSWER CHOICES	RESPONSES	
Better signage showing nearby natural recreational and natural areas	26.92%	7
Safer bike/pedestrian crossings, sidewalks, lanes, and trails	100.00%	26
Guides for open space in Newton with maps and nearby areas of interest	46.15%	12
Improved trails	34.62%	9
Other (please specify)	7.69%	2
Total Respondents: 26		

C. FIRST COMMUNITY WORKING SESSION

The first community meeting held on February 6, 2020, was conducted for the purpose of understanding the open space lands and resources that residents most value and those resources that should be improved. **Figure 60** shows the percentage of participants noting which type of open space resources/uses they value the most. These resources were grouped into general categories. Nearly 50% of participants said that passive recreation, which includes hiking, bird watching, fishing, nature walking, and swimming, was highly important to them. Open space resources with adequate passive recreation opportunities for all ages and abilities were most highly valued.

Participants were grouped into tables and were tasked first with writing down and marking places on a map that work well and places that do not work well. One person from each group presented to the larger audience what everyone had written down, and the Conway School students condensed this list into categories for improvement. At the end of the meeting, groups were tasked with coming up with general recommendations to improve open space resources.

Figure 60. Individual Attendee Values (% of attendees)

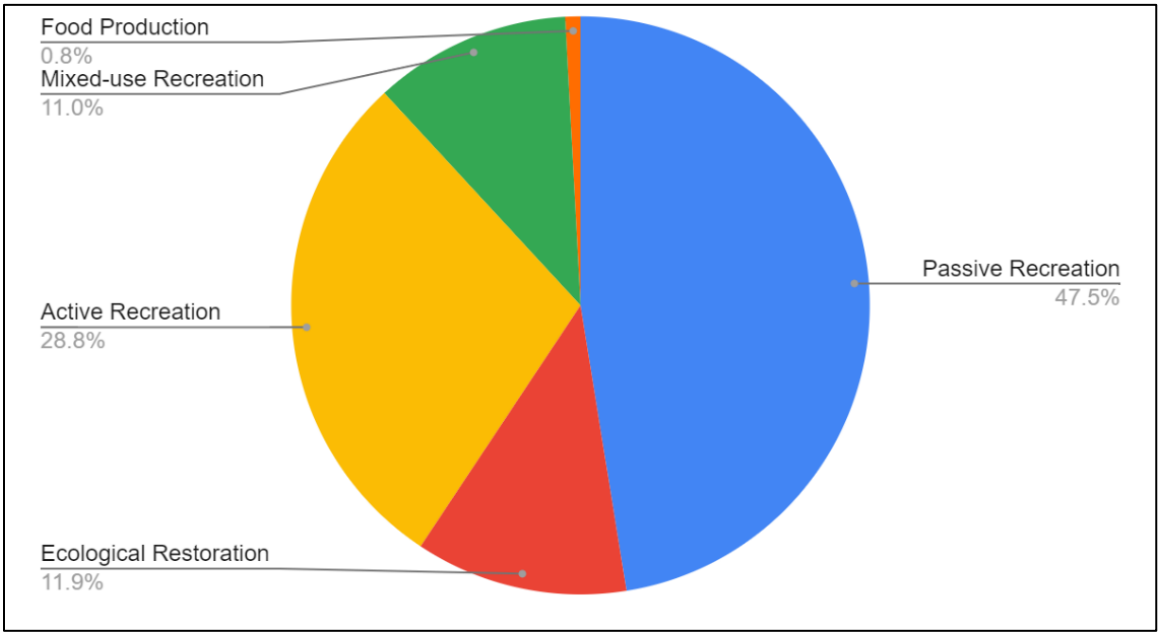


Figure 61 shows percentage of participants and their priority selection of open space resources that are working well in Newton and which resources should continue to be prioritized in the city. The top three priorities include public/private partnerships (which are further discussed in **Section 7: Needs Analysis**), mixed-use open space, and open water recreational opportunities. As discussed in **Section 3: Community Setting** and in **Section 7: Needs Analysis**, Newton's population is growing and diversifying, which means that having mixed use open space resources that suit the needs of multiple age groups and abilities is imperative. Residents have expressed strong interest in water resource areas, such as the Charles River, both the reservation and pathway, Hammond Pond, and Crystal Lake for the passive recreation opportunities and the presence of ecological communities.

Figure 61. Areas of Success for Newton's Open Space Resources

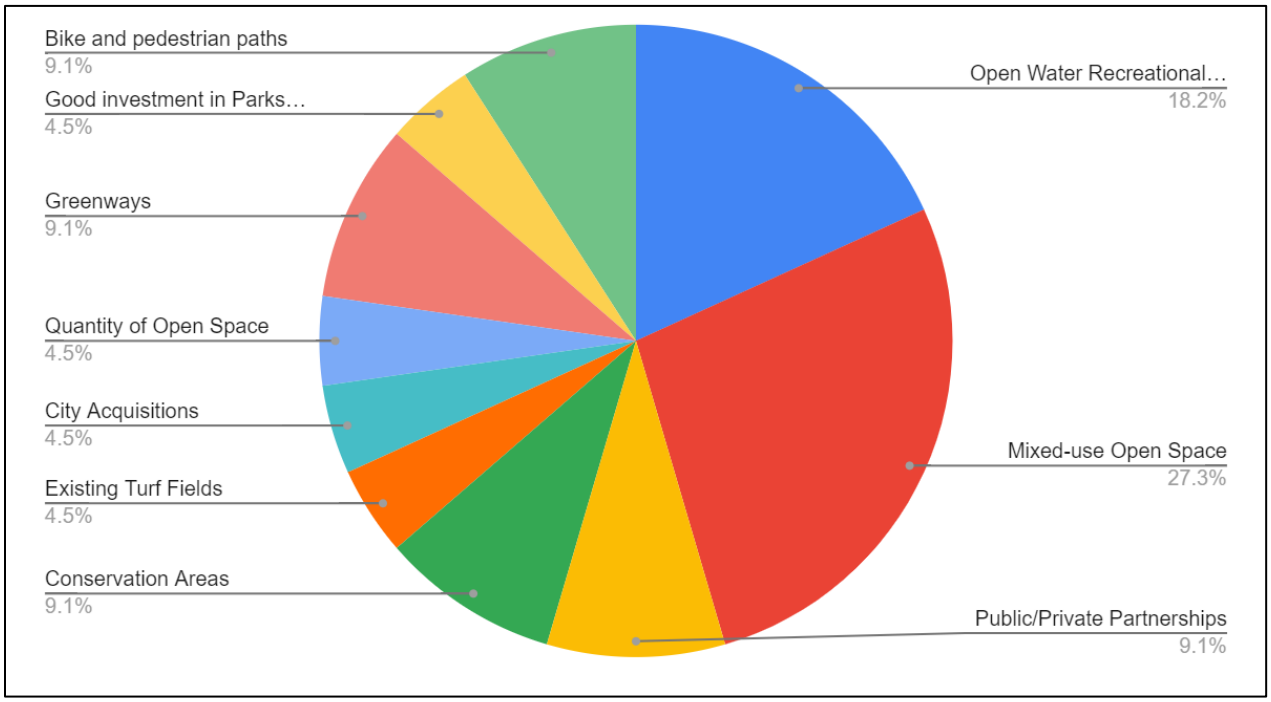
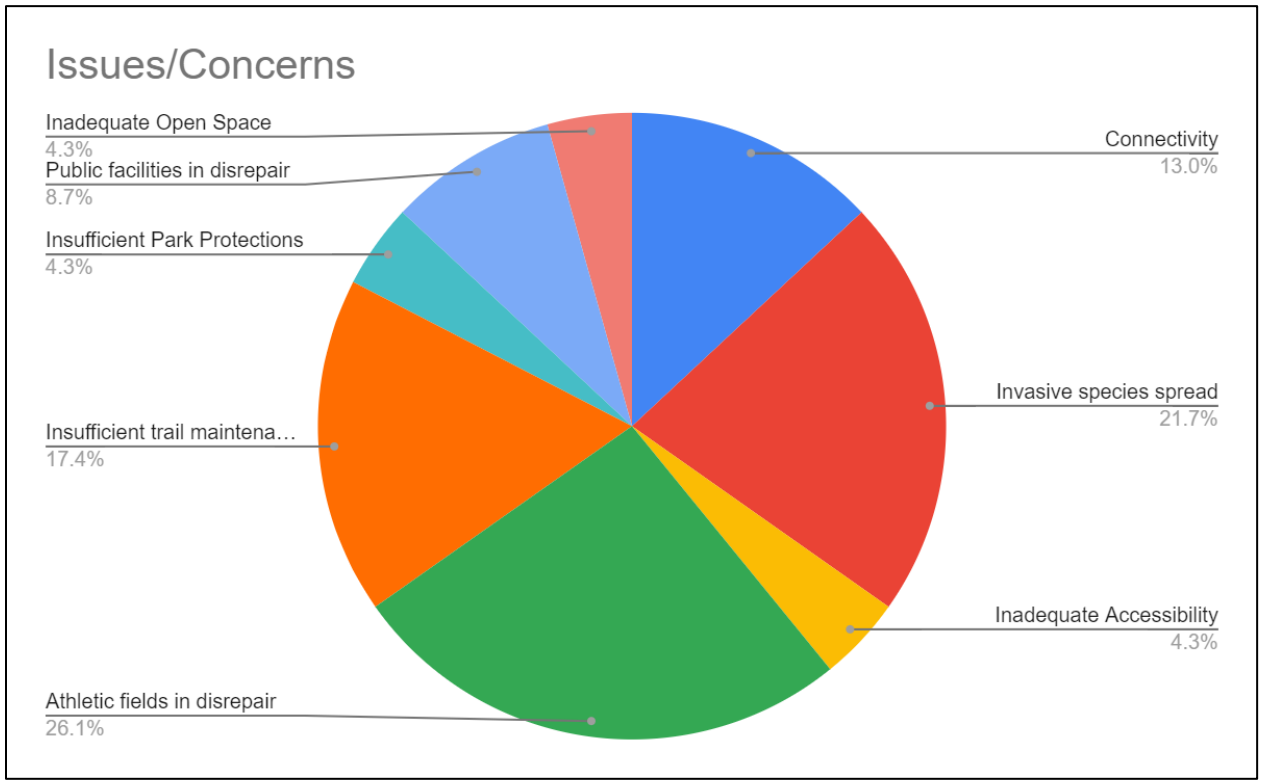


Figure 62 shows the top issues or concerns regarding open space resources from participants in the first public forum. The top issues include athletic fields in disrepair, insufficient trail maintenance, and invasive species spread. Further discussions about athletic fields can be found in **Section 4: Environmental Inventory**, **Section 7: Needs Analysis**, and **Section 9: Action Plan**. Many athletic fields were constructed on former wetlands and near floodplains, so they can become quite wet and unplayable during certain conditions. Residents expressed that trails appear to be poorly maintained and are poorly connected, which limits their usage. Cold Spring Park was discussed as one of the main open space resources in need of trail improvements due to drainage conditions and the growing presence of invasive species.

Figure 62. Top Public Concerns Regarding Open Space Resources in Newton



D. SECOND COMMUNITY WORKING SESSION

The second community working session held on March 4, 2020 was conducted for the purpose of generating recommendation and action plan items. Students from the Conway School began the meeting by sharing the formal presentation that they had put together, which included a summary of the open space resources Newton values, what Newton needs in regard to open space, how to preserve open space for the future in the face of climate change, and broad recommendation themes. Each of these recommendation themes (connectivity, urban tree canopy, trail maintenance, funding, protection, athletic fields, etc.) were placed on large maps for the residents to draw and write action steps. All the information gathered was duly considered and informed the actions in **Section 9: Action Plan**, which was then edited further after the public comment period.

E. PUBLIC COMMENT PERIOD

Comments were solicited through a number of forums including e-newsletters to those who attended the working sessions, notes in the Mayor's newsletters, notes in the Newton Conservators (non-profit) newsletter, the Planning Department's Friday Report, and on our website. The Advisory Committee also informed the groups that they represented during the update development.

Below is a summary of all content comments received during the public comment period, which ran from April 30, 2020 until end of day on May 18, 2020 and includes the public hearings held by both the Zoning and Planning Committee and the Planning and Development Board. Comments regarding grammar or spelling have not been included in this list, though were addressed. Comments are organized by the goal or objective they relate to, but some comments are overall plan comments or comments on introductory sections (i.e., Sections 1 – 5). City staff reviewed, responded to, and incorporated as appropriate each public comment submitted. Guidance was received from City leadership on some of the comments received.

Please find the complete reports/minutes for the Zoning and Planning Committee and Planning and Development Board of their discussions regarding Newton's 2020-2027 Open Space and Recreation Plan on their respective webpages shown here.
Zoning & Planning Committee: http://www.newtonma.gov/gov/aldermen/committees/zoning/2020.asp
Planning & Development Board: http://www.newtonma.gov/gov/planning/bc/board/2020_agenda_n_minutes.asp

Overall/Introductory Chapters

- Connectivity may not be feasible
- Geology corrections
- Note OS's contribution to public health
- CLC wished to have been part of the Advisory Committee
- Emphasize accessibility more
- Address the need for watershed management as it pertains to water quality
- Don't mention the COVID-19 situation in a 7-year plan.
- Connect this plan with the City's climate minded plans (e.g., CCVA, HMP, CAP)
- Acknowledge the silt build up in the Charles River specifically between Rte9 and Washington Street
- Keep this as a living document
- Acknowledge Newton's Age Friendly designation

Goal 1: Implementation
Implementation/Management

- Eliminate the idea of transferring management of Bullough's Pond away from the PRC.
- Establish a coalition of "Friends" groups to work together and seek multiple sources of funding.

GOAL 2: MAINTENANCE AND IMPROVEMENT
Improvement of Open Space Resources

- Complete the stone dust renovation of the Cold Spring Park Life Course trail (this same comment was received from a number of residents)
- Elevate the importance of investment in the improvement, maintenance and protection of recreation, green and open spaces, including but not limited to] natural areas, athletic fields, parks, [the city's outdoor pool,] water resources, and the urban tree canopy. Athletic fields were top-ranked as a concern and yet aren't discussed in detail.
- Elevate the fact that nearly 70% of respondents said that the quality of parks were poor
- Ensure that all laws and plans address the need for trees, habitats and an end to fossil fuel consumption
- Develop and implement priority plans to greatly reduce invasive species
- The dire needs for Gath pool must be noted
- Ensure expansion of tennis courts is noted as potential opportunities to provide more diverse recreational resources
- Athletic fields concerns were watered down from where they were in the survey and public meetings
- Details of further improvements to Wellington Park and request to add Wellington Park to the list of improved accessible paths
- Add "consideration of conversion of CSP softball field to other uses."

GOAL 3: ACCESSIBILITY

- Emphasize accessibility more.

GOAL 4: MINIMIZE GAPS

- No comments were received that only related to Goal 4.

GOAL 5: CONNECTIVITY

Connectivity and Safe Transit

- Complete the stone dust renovation of the Cold Spring Park Life Course trail (this same comment was received from a number of residents)
- Provide protected bike lanes on south-to-north routes in the city
- Connect Memorial Spaulding Sch. to Kennard Park via a multi-use shared path along to Dudley Rd (concerns were raised by others that Dudley Rd is too narrow for this endeavor and any path would be unsafe with current traffic)
- Provide a sidewalk on Nahanton Street (with Nahanton Park and Heyn Conservation area and Cutler Park on the other)
- Quinnobequin Road needs safer access
- Provide a sidewalk along Vine Street for safe access to Kesseler Woods from Oak Hill neighborhood
- Provide a pedestrian crossing on the Sudbury Aqueduct over the T tracks next to the Eliot T station
- Acknowledge Newton's Age Friendly designation
- Mark trails, add directional signs, add "you are here" stickers to the maps at the trailheads
- Address connectivity problems at Exit 17 Rotary
- Do a better job of describing the "significant capital improvement needs" of the Crystal Lake Bath House.
- Add language that better reflects Crystal Lake, including "Conservancies" when discussing friends groups, "bath houses" when discussing assets, and "lakes" in the purpose section.
- Incorporate stronger language referencing safe and protected bike routes along main corridors.
- Explore opportunities to create off-road bike trails in existing parks and conservation land.
- Add the need for bike racks.

GOAL 6: PROTECTION

Protection of Existing Parks and Conservation Areas

- Elevate the desire for legal protections for parks
- Provide permanent protection for Cold Spring Park and other city parks (this same comment was received from a number of residents)

New Open Space Resources

- Consider the possibility of converting old landfill area on Pine Street to a recreational area
- Consider Pine St lot, next to the Burr School, for cleanup and conversion to park, playing field, etc.
- Lobby the golf courses for PILOT payments and suggest voluntary donation of CRs on portions of the golf courses
- Expand public open spaces (don't just preserve and protect) – convert parking lots to green space
- Ensure that Newton's golf courses and open space on college and other institutional campuses remain open space permanently. (two respondents)

Section 11: References

Planning Documents

Building a Resilient Future: An Open Space Plan 2020. City of Portsmouth, NH.

Building Blue: Framework for a healthy Charles, Charles River Watershed Association, Weston, MA. www.charlesriver.org https://drive.google.com/file/d/1Qkr5UbGzlo4bLHZ4hf9DNOnSSwE08otn/view

Brookline Comprehensive Plan 2005-2010. Dept of Planning and Community Development, Brookline MA.

Capital Improvement Plan Update, FY2013-2017. City of Newton. April 13, 2012.

City of Newton Climate Vulnerability Assessment and Adaptation and Resiliency Action Plan. Metropolitan Area Planning Council. First Edition, April 2018.

City of Newton City-Wide Archaeological Reconnaissance Survey: Public Education Report. Newton Department of Planning and Development. August 2011.

City of Newton. *Stormwater Infrastructure Improvement Plan.*

Cleveland County, North Carolina Rail Trail Master Plan. Cleveland County Government. February 2018. p. 52.

Consolidated Plan FY 2015-2020, for the City of Newton Housing and Community Development Program and the MetroWesto Home Consortium. May 2015

Bluestone, Barry, and Tracey Corley. *Demographic Trends and Housing in the City of Newton, Massachusetts*. Dukakis Center Report #1, Kitty and Michael Dukakis Center for Urban and Regional Policy, Northeastern University, May 2014

Bluestone, Barry, and Tracey Corley. *Demographic Projections for the City of Newton, MA*. Dukakis Center Report #2, Kitty and Michael Dukakis Center for Urban and Regional Policy, Northeastern University, May 2014

Farlow Park Bridge and Pond – Final Report, *Newton Parks & Recreation Department and Friends of Farlow Park*, Community Preservation and Community Development Block Grant Project, April 23, 2019

Land Use Committee Report. City of Newton City Council Land Use Committee. March 5, 2020.

Massachusetts Statewide Comprehensive Outdoor Recreation Plan. 2017. Executive Office of Energy and Environmental Affairs. pp. 1-6.

Newton Comprehensive Plan. Mayor's Comprehensive Plan Advisory Committee. November 19, 2007.

Newton Leads 2040: A Transportation Strategy for Newton. Newton-in-Motion. February 2017.

Newton Pattern Book. City of Newton. 2017.

Newton's Heritage Landscapes: A Community-Based Reconnaissance Report. Newton Planning & Development Department. March 2010.

Newton Street Design Guide: A Living Document. City of Newton. June 2018.

Open Space and Recreation Plan for the Town of Brookline, "Open Space 2018". Conservation Commission, Brookline, MA, June 2019.

Open Space and Recreation Plan 2017-2023. City of Weston, Massachusetts. 2017. p. 118.

Open Space and Recreation Plan 2014-2020. City of Newton, Massachusetts. 2013.

Open Space and Recreation Planners' Workbook. Massachusetts Executive Office of Energy and Environmental Affairs. Revised 2008.

Preservation Master Plan for Newton City Hall and War Memorial Building Grounds. Pressley Associates, Inc., 2006 www.newtonma.gov/civicax/filebank/documents/39917

Articles, Data Sources, Books

Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology and Security Services. 2020.

Cederberg, Kelley. "Taking Golf out of Golf Course: Trajectories to Convert Facilities to Parks and Open Space". Landscape Research Record No 7, Blacksburg, Virginia: CELA. P. 158-171

Center for Urban Forest Research, *Fact Sheet #4: Control Stormwater Runoff with Street Trees*, Center for Urban Forest Research, Pacific Southwest Research Station, USDA Forest Service, Davis, California. July 2002.

Cohen, Julie M. "Complaints Filed against mayor, RightSize Newton regarding Northland", *Wicked Local,* Jan 6, 2020. www.newton.wickedlocal.com/news/20200106/complaints-filed-aginst-mayor-rightsize-newton-regarding-northland

Erickson, Donna. *MetroGreen: Connecting Open Space in North American Cities.* Island Press, 2012.

"Cochituate and Sudbury Aqueducts". *Newton Conservators.* 2019. www.newtonconservators.org/property/aqueducts/

Esbah, H., Deniz, B., & Cook, E.A. "Isolation Trends of Urban Open Spaces". May 2012. p. 2.

Harper, Richard W., and Emily S. Huff, David V. Bloniarz, Stephen DeStefano, Craig R. Nicolson. "Exploring the characteristics of successful volunteer-led urban forest tree committees in Massachusetts". *Urban Forestry & Urban Greening,* Vol 34 (2018) pp. 311-317

Maguire, Kathleen. "Cheesecake Brook: A hidden treasure" *Village 14,* Aug 28, 2015 www.village14.com/2015/08/28/cheesecake-brook-a-hidden-treasure/#axzz6ITmlVn2v

Primack, Richard. "Newton's Lost Wetlands and Buried Brooks", *Climate Change Research in Partnership with Thoreau*, Blogger, Aug 8, 2017. www.primacklab.blogspot.com/2017/08/newtons-lost-wetlands-and-buried-brooks.html

Environmental Protection Agency. "Vernal Pools". *Wetlands*, July 6, 2018. www.epa.gov/wetlands/vernal-pools

Lasell University. "Lasell College Moves to University Status"., August 15, 2019. www.lasell.edu/discover-lasell/news/lasell-university-launch.html

Massachusetts Water Resources Authority,"Metropolitan Boston's Water System History". *MWRAonline,* September 2, 2015. www.mwra.com/04water/html/hist1.htm

Massachusetts Water Resources Authority, "Integrted Water Supply Improvement Program", MWRAonline, June 26, 2016. www.mwra.com/04water/html/iwsip.htm

US Census, American Community Survey, 5-Year Estimate, 2017, Accessed on *Datausa.io*, 13 March 2020.Newton, Massachusetts The Official City Website. "Bike Share". Planning, www.newtonma.gov/gov/planning/bike_share.asp

Newton Needham Regional Chamber. "Newton Shuttle Bus System Will Serve Wells Ave, Mount Ida Campus". February 7, 2020. www.nnchamber.com/news/new-shuttle-bus-system-will-serve-wells-ave-mt-ida-campus

Pioneer Institute for Public Policy Research. "Is multi-family housing listed as allowed through conversion of either single family houses or non-residential buildings?" 2004. p. 48. www.masshousingregulations.com/pdf/Conversion.pdf

"Safe Healthy Playing Fields Coalition". 2012. www.safehealthyplayingfields.org/

Speirs, John H. "Landscaping the Garden City: Transportation, Utilities, and Parks

in Newton, Massachusetts, 1874-1915". *Historical Geography*, Vol 39, 2011, p. 248-274

Stendahl, M. "Lasell College, Mount Ida call off merger talks". *Boston Business Journal*, March 23, 2018. www.bizjournals.com/boston/news/2018/03/23/lasell-college-mount-ida-call-off-merger-talks.html

Tallamy, Douglas. W. *Bringing Nature Home: How You Can Sustain Wildlife with Native Plants.* Timber Press. 2016.

U.S. Census Bureau (2018). *American Community Survey 1-year estimates.* Retrieved from *Census Reporter Profile page for Newton, MA* www.censusreporter.org/profiles/16000US2545560-newton-ma/

Van Fleet, T., Catanzaro, P., & Kittredge, D. *Chapter 61 Programs: Understanding the Massachusetts Ch. 61 Current Use Tax Programs.* UMass Extension DCR Massachusetts.

Websites

Crystal Lake Conservancy, Crystal Lake Conservancy www.crystallakeconservancy.org/, Accessed 3 March, 2020

Newton Conservators, Newton Conservators www.newtonconservators.org/, Accessed 10 Jan, 2020

Safe Healthy Playing Fields, "Costs: Grass vs. Synthetic Turf". 2012. www.safehealthyplayingfields.org/cost-grass-vs-synthetic-turf

"What is the Upper Falls Greenway?". *Upper Falls Greenway*. www.upperfallsgreenway.org/home

Regulations

Newton Tree Preservation Ordinance, Chapter 21 Parks, Recreation & Culture, Public Grounds and Trees, Article 3: Trees, Sec 21-60—21-89, March 26, 2020. www.newtonma.gov/civicax/filebank/documents/45830

Massachusetts Department of Environmental Protection. *Wetlands Protection Act.* 310 CMR.

Newton Floodplain Ordinance. *Floodplain/Watershed Protection Provisions.* 2013. Sec. 22-22.

Appendix A: OSRP Accomplishments Since 2014

Newton's *2014-2020 Open Space and Recreation Plan* identified several open space needs and recommended a variety of methods to meet those needs. Many of these recommendations were included in the City's Capital Improvement Program (CIP) and have been achieved through utilization of City funds. Using City funds, Newton acquired recreation and conservation land, acquired easements, and developed and improved facilities. The City also used its funding to leverage additional monies (including Community Development Block Grant funding; state grants including Urban Self-Help, Historic Preservation Grants, Community Preservation Act funds, and the Massachusetts RELEAF Program; and private donations) for open space opportunities. In addition, certain land use controls such as cluster zoning, which densifies development therefore allowing for more green space, have been used successfully in maintaining private open space. Following is a list of open space accomplishments since 2014.

A. LAND ACQUISITIONS AND PROTECTION SINCE 2014

Acquisitions/Long-Term Leases Completed

- Rear of 300 Hammond Pond Parkway "**Webster Woods**" (taken by eminent domain from Boston College) - expanding the Webster and Cohen Conservation Areas
- **Waban Hill Reservoir** (purchased from the Massachusetts Water Resource Authority) – new park
- 99-year lease on the **Upper Falls Greenway Rail Trail** from MBTA

Conservation Restrictions Completed

- Conservation Restriction on **30 Wabasso St**, a parcel adjacent to the Flowed Meadow Conservation Area
- Conservation Restriction on **20 Rogers St**, a parcel adjacent to Crystal Lake and the Crystal Lake Bathhouse

B. CONSERVATION AREA IMPROVEMENTS, BY CONSERVATION AREA

- **All:** Trailhead signs; QR code wayfinding stickers.
- **Charles River Pathway:** 2 new benches installed
- **Dolan Pond Conservation Area:** New accessible boardwalk section constructed – Eagle Scout project; dog waste barrel and signs installed.
- **Flowed Meadow Conservation Area:** Dog waste barrel and signs installed; Eagle Scout project to repair/replace signs, install trail blaze, install boardwalks, widen and chip trails, update trail maps for the site.
- **Helen Heyn Conservation Area:** New bridge over Country Club Brook constructed – Eagle Scout project.
- **Houghton Garden Conservation Area:** Extensive phragmites treatment program completed; large-scale eastern hemlock removal because of wooly adelgid completed; new black locust boardwalks installed – donated by Conservation Area Steward; dog waste barrel and signs installed.
- **Kennard Conservation Area:** Swing arm gate to prevent vehicle access replaced; dog waste barrel and signs installed; extensive invasive species removal program completed – thanks to Friends of Kennard Park; meadow restoration project in progress – thanks to Friends of Kennard Park.
- **Kesseler Woods Conservation Area:** New trail construction – in design/development.
  Norumbega Conservation Area: Invasive species mowing regime – on-going, New chain gate and bollard to prevent vehicle access installed, Bee-keeping – on-going, New water bars installed on the

trail leading to the Charles River installed – Eagle scout project, Large slope restoration project – in progress, Construction of a new off-leash dog park- in design/development.

- **Sawmill Brook Conservation Area:** Eagle scout projects including new trail creation, boardwalk installation, gravel parking area restoration.
- **Webster/Cohen/Old Deer Park Conservation Area:** Asbestos barn demolished; beekeeping – ongoing; invasive species removal regime – ongoing; new trail to open parcel to public access – in design/development.

C. PARKS, RECREATION & CULTURE ACCOMPLISHMENTS, BY VILLAGE

Over the past five years, the Parks & Recreation Department has completed improvements on many parks, playgrounds, playfields and schoolyards. These improvements include accessibility for citizens including those with disabilities, landscaping, play equipment, lighting, barriers, and benches. Work was performed on properties throughout the City, and in eligible areas was done in cooperation with the Community Development Program.

Auburndale

- **Auburndale Playground ("The Cove"):** Tot lot and 5-12 year-old play structures installed; donated accessible fitness station area designed for those over 55, including memorial bench, on accessible route; two tennis courts and one basketball court repaired/repainted, and pickleball court added to tennis courts; memorial bench donated to swing area; Eagle Scouts project: new ga-ga pit.
- **Burr Elementary School:** Play equipment on accessible route.
- **McGrath Playground (west):** Completed renovation of three tennis courts with fencing and fenced off-leash dog area, all on accessible route; (east): Pickleball court added to existing tennis court area.
- **Lyons Park:** Athletic field drainage feasibility study completed, drainage improvements in progress; state funding obtained for design and construction of an accessible route.

Lower Falls

- **Lower Falls Playground (Hamilton):** Grass mats added to play area for accessibility; memorial bench donated; memorial tree planted and small community garden installed.

Newton Centre

- **Nahanton Park:** Existing community garden area expanded to 100 plots, including one for Newton Tree Conservancy; memorial bench donated; Florrie's Path extended along the Charles River; Eagle Scout projects: butterfly garden, bird houses and signs; new lawn area created at Winchester Street entrance with wood guardrail, donated tree and interpretive sign.
- **Newton Centre Playground:** Most of the accessible pathway network completed; bench donated to the universal play area; historic park sign installed at Homer Street; new I.D. sign installed for The Hut.
- **1294 Centre Street**, with I.D. sign, opened as new Parks, Recreation & Culture facility offering passive recreation programming for all ages.
- **Mason-Rice Elementary School:** Junior-sized basketball court with four standards including two accessible standards.
- **Newton Centre Green:** Seven benches donated and installed, and seven existing benches re-finished, all accessible, some with companion pads; memorial tree planted.
- **Bowen Elementary School:** Play equipment addition on accessible route.

- **Memorial Spaulding Elementary School:** New play equipment for grades K-2 and 3-5.**Ward Elementary School:** Donated playground bench; repaired/painted tennis court and two half-court basketball areas created; all new court fencing.
- **Weeks Park:** Three tennis courts repaired/repainted.
- **Newton South High School:** New accessible restroom/concession building constructed.
- **Kennard Park:** New accessible ramp added to main entrance to Parks, Recreation & Culture Department headquarters; granite bench donated; invasive species removed from southern border with conservation area, improving connectivity.

Newton Corner

- **Newton Early Childhood Program (NECP)** opened at former Aquinas College site with the installation of new tot lot play equipment.
- **Farlow Park:** New accessible stone-faced pedestrian bridge designed and constructed; historic pond basin uncovered and refurbished; donated bench with companion pad and accessible pathways.
- **Farlow Park and abutting Chaffin Park:** All fifteen historic benches refurbished.
- **Underwood Elementary School:** New 5-12-year-old play equipment with grass mats on accessible route; playfield area irrigated.
- **Burr Park:** New spray park with benches.
- **Newton Corner traffic islands ("Circle of Death"):** Invasive shrub species removed from four islands, and new planting plan approved for 2020 construction.

Newton Highlands

- **Newton Highlands Playground:** Completely rehabilitated with two lighted, irrigated, natural turf athletic fields; play equipment areas for 2-5-year-olds and 5-12-year-olds; two tennis courts; one basketball court; one dozen benches; 75 trees; one parking lot; and a fully accessible pathway system.
- **Hyde Playground:** Tot lot and 5-12-year-old play structures with grass mats on accessible route; five donated benches and improvements made to the border garden seating area.
- **Levingston Cove at Crystal Lake:** Master plan completed; one memorial bench donated.
- **Cold Spring Park:** Three tennis courts repaired/repainted; fitness station areas installed along the park trail, including an accessible one; extensive trail rehabilitation.
- **Zervas Elementary School:** New grades K-1, 2-3 and 4-5 play equipment areas, all on accessible routes.
- **Richardson Playground:** Irrigation extended to the outfield.

Newtonville

- **Bulloughs Pond Park:** Installation of pondside seating area with two benches and plantings.
- **Cabot Elementary School and Cabot Park:** New play structures constructed for grades K-2 and 3-5; two permeable-paved walkways installed from Eastside Parkway to Cabot School; refurbished fencing along Eastside Parkway; and new shade trees.
- **Cabot Off-Leash Dog Area:** New shade structure and moveable chairs added.
- **Carr Elementary School:** New ga-ga pit constructed.

Nonantum

- **Joanne C. Pellegrini Playground:** CDBG-funded Phase III design and construction completed: rear property line surveyed and low concrete block retaining wall with fence set on top; three shade trees and one dozen shrubs planted.

Upper Falls

- **Emerson Playground:** Restored, with state grant funds, with tot lot and 5-12-year-old play structures; poured-rubber surfacing; planted shade trees; installed benches; renovated basketball court, all on accessible route.
- **Upper Falls Greenway:** Former rail bed converted into one-mile-long accessible stone dust pathway between Newton Highlands and the Charles River border with Needham; new signs added; bocce courts constructed adjacent.

Waban

- **Waban Playground:** Three tennis courts and one basketball court repaired/repainted.
- **Angier Elementary School:** New play structures for grades K-2 and 3-5, on accessible route.
- **Waban Common:** Two traffic islands merged into one to improve vehicular traffic and create an accessible pocket park with all new plantings, sod, irrigation and eight benches.

West Newton

- **Gath Pool:** Rubber surfacing added to the pool decking; spray elements added to kiddie pool.
- **Davis (Family Access):** New tot lot and 5-12-year-old play equipment installed.
- **Peirce Elementary School:** New 5-12-year-old play equipment on accessible route.
- **Russell J. Halloran Sports and Recreation Complex (Albemarle Playground):** New play equipment installed for Horace Mann Elementary School.
- **Wellington Park:** New bench swing; expanded garden areas; water bottle filler bubbler.

Appendix B: Equal Access in the City of Newton

A. COMMITMENT TO EQUAL ACCESS

Title II of the Americans with Disabilities Act (Public Law 101-336, 1990) requires state and local governments to address the issue of accessibility for people with disabilities. It states that "…no individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity."

The City of Newton is committed to adhering to the rules and regulations of the Americans with Disabilities Act (ADA) and ensuring that public facilities, programs, services, and activities are accessible to all citizens. The City will make a concerted effort to provide equal access to its facilities to all citizens and not, through neglect or failure to act, deny its facilities to anyone.

The City of Newton seeks to provide open space that is accessible to all residents of the City. Open space within the City will include public recreation areas, public parks, and public conservation lands. Thus, the City will attempt to create accessibility to all its open space areas that are available to the public in as many of these park, recreation, and conservation areas as feasible, terrain permitting within geographic constraints, and within reasonable financial constraints.

The City will continually assess its open space areas and make on-going efforts to provide accessibility for people with disabilities in public lands that have public uses and that are not now accessible. The needs of each publicly supervised and maintained park, recreation area, and conservation area will be addressed with a goal of providing access to as many of these areas as possible. Access planning shall include accessible parking facilities, pathways, trails, play areas, signage, equipment, and toilet facilities so that, wherever possible, they will be readily available to, and usable by, individuals with disabilities.

B. REQUIRED ELEMENTS OF AN ADA SELF-EVALUATION REPORT

Part I: Administrative Requirements

Designation of an ADA/Section 504 Coordinator

The City of Newton hired its first part-time ADA/Section 504 Coordinator in 2013, based upon the findings of the Ramping Up Report and the recommendation of the Newton Commission on Disability. About a year later, recognizing that more hours are needed to devote to the updating of the Self-Evaluation and ADA/504 Transition Plan, in May of 2015, the city hired its first full-time ADA/504 Coordinator, Jini Fairley, who is currently in this position. A self-evaluation of the city's parks, recreation areas, and conservation lands was undertaken and presented to the public in 2017. This Self-Evaluation is constantly updated as accessibility improvements continue and informs the updated ADA/Transition Plan, currently in draft. The 2011 Ramping Up Report: Planning for a More Accessible Newton remains a valuable resource. This report covers the accessibility framework and evaluates Newton's implementing organizations. The City of Newton recognizes that in order to grow as a community, it needs the full participation of persons with disabilities. In order for this to happen, ongoing and improved accessibility must be provided.

Grievance Procedure

The Newton Disability Discrimination Grievance Procedure

This Grievance Procedure is established to meet the requirements of the Americans with Disabilities Act and Section 504 of the Federal Rehabilitation Act and the Massachusetts Architectural Access Board 521 CMR. It may be used by anyone who wishes to file a complaint alleging discrimination on the basis of disability in

employment practices and policies or the provision of services, activities, programs, or benefits by the City of Newton.

The complaint should be in writing (preferably email) and contain information about the alleged discrimination such as name, address, phone number of complainant and location, date, and description of the problem. Alternative means of filing complaints, such as personal interviews or a tape recording of the complaint, will be made available for persons with disabilities upon request. The complaint should be submitted by the grievant and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to:

Jini Fairley
ADA/Section 504 Coordinator
jfairley@newtonma.gov
1000 Commonwealth Avenue
Newton, MA 02459

Within 15 calendar days after receipt of the complaint, the ADA coordinator will meet or speak with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after the meeting, the ADA coordinator will respond in writing, and, where appropriate, in a format accessible to the complainant, such as large print, Braille, or audio tape. The response will explain the position of the City of Newton and offer options for substantive resolution of the complaint.

If the response by the ADA coordinator does not satisfactorily resolve the issue, the complainant and/or his /her designee may appeal the decision of the ADA coordinator, within 15 calendar days after receipt of the response, to the Mayor or his or her designee. Within 15 calendar days after receipt of the appeal, the Mayor or his or her designee will meet or speak with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after the meeting with the Mayor or his or her designee, the Mayor will respond in writing, and, where appropriate, in a format accessible to the complainant, with a final resolution of the complaint.

All written complaints received by the ADA/Section 504 coordinator, appeals to the Mayor or his or her designee, and responses from the ADA/Section 504 coordinator and Mayor or his or her designee will be kept by the City of Newton for at least three years.

Public Notification Requirements

PUBLIC NOTIFICATION POLICIES

Public Notice 2020

This notice is provided as required by the Title II of the Americans with Disabilities Act of 1990.

In accordance with the ADA: The City of Newton does not discriminate on the basis of disability in admission to, access to, or operation of its programs, services, or activities.

The City of Newton does not discriminate on the basis of disability in its hiring or employment practices.

Individuals who need auxiliary aids for effective communication in programs and services of the City of Newton are invited to make their needs and preferences known to the ADA Coordinator.

Questions, concerns, complaints, or requests for additional information regarding the ADA may be forwarded to the City of Newton's ADA Coordinator:

Jini Fairley
1000 Commonwealth Avenue
Newton, MA 02459
Phone: 617-796-1253
TDD: 617-796-1089
Email address: jfairley@newtonma.gov
Days/Hours Available:
8:30 am-5 pm Monday-Friday

This notice is available in large print, on audio tape, and in Braille, from the ADA Coordinator.

In addition, for all city-sponsored events, programs, meetings, and activities, the following Reasonable Accommodation statement is required to be included on all agendas, announcements, flyers, brochures, etc.

> "The location of this meeting is wheelchair accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA/Sec. 504 Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711."

Participation of Individuals with Disabilities

The Newton Commission on Disability (formerly the Mayor's Committee for Persons with Disabilities) has continuously and actively been addressing accessibility issues City-wide since its formation as a special mayoral committee in 1975. Many accessibility improvements have been implemented in public as well as in private facilities and buildings as a result. This Mayoral Committee became the Commission on Disability when the city adopted Ordinance Z-74, on January 18, 2011, and this Commission is organized under Chapter 40, 8J of the Massachusetts General Laws.

Part II: Program Accessibility – See C. and D. below.

Part III: Employment Practices

Any person having inquiries concerning the City of Newton's adherence to the Americans With Disabilities Act of 1990, or other civil rights laws should contact the Director of Human Resources at Newton City Hall, 1000 Commonwealth Ave, Newton, MA 02459, (617) 796-1260, or the ADA Coordinator, Jini Fairley, at Newton City Hall, 1000 Commonwealth Ave, Newton, MA 02459,(617) 796-1253.

ADA Statement - City of Newton

The City of Newton is committed to the fair and equal employment of all people. The City of Newton does not discriminate on the basis of race, color, religion, national origin, ancestry, sex, age, disability, genetic information or status as a disabled veteran or veteran of the Vietnam era, Iraq War or Afghanistan War.

The City will follow applicable Federal and State guidelines and statutes as they relate to reasonable accommodation of individuals with disabilities and their capabilities to perform essential job duties. It is the policy of the City of Newton to reasonably accommodate qualified individuals with disabilities unless the accommodation would impose an undue hardship. In accordance with the Americans with Disabilities Act, accommodations will be provided to qualified individuals with disabilities when such accommodations are directly related to performing the essential functions of a job, competing for a job, or to enjoy equal benefits and privileges of employment. This applies to all applicants, employees, and employees seeking promotional opportunities.

The City's Employee Orientation Handbook

Americans with Disabilities Act

The City of Newton is committed to providing equal access to employment and educational/training opportunities for persons with disabilities. The City recognizes that individuals with disabilities may need reasonable accommodations to have equally effective opportunities to participate in or benefit from training/educational programs, services and activities, and to have equal employment opportunities.

The City of Newton adheres to all applicable federal and state laws, regulations and guidelines with respect to providing reasonable accommodations as necessary to afford equal employment opportunity and equal

access to programs for qualified persons with disabilities. Questions regarding reasonable accommodations and/or discrimination on the basis of disability regarding employment should be directed to the Human Resources Department at 617-796-1260 or the City's ADA/504 Coordinator, Jini Fairley, at 617-796-1253.

The City's Collective Bargaining Agreement

4.01 As sole collective bargaining agent, the UNION will continue its policy of accepting into voluntary membership all eligible persons in the unit without regard to race, color, creed, national origin, sex, marital status, or disability as defined in the Family Medical Leave Act (FMLA). The UNION will represent equally all persons without regard to membership, participation in or activities in the UNION.

4.02 The CITY agrees to continue its policy of not discriminating against any person on the basis of race, creed, color, national origin, sex, disability, marital status or participation in or association with the activities of the UNION.

C. PARKS, RECREATION AND CULTURE DEPARTMENT ACCESSIBILITY ASSESSMENT

Facility Inventory

For all Parks, Recreation, and Culture Department parcels, a facility inventory is provided in **Section E.**

Priority Parcels

Parcels listed below are considered a priority for accessibility improvements by the PRC Department. More detail on each priority parcel can be seen in the ward breakdown below.

- Levingston Cove
- Officer Bobby Braceland/Newton Upper Falls Playground, Phase II
- McGrath Playground
- Rev. Ford Playground/ 70 Crescent Street
- Lyons Park
- River Street Playground

Parcels by Ward

Ward 1

1. **Stearns Playground**, Jasset Street (Nonantum): Using CDBG funds, the tennis court area was completely renovated along with an adjacent accessible route (dedicated "Alice Webber Walkway") from the neighboring low-income housing. In 2005 a master plan was prepared for this park that details a park-wide accessible pathway network and accessible amenities. Funded by ARRA, Phase A-2, the entire multi-age play area was renovated and made accessible in the Fall of 2010. Some cracked pathway segments remain to be repaved.
2. **Joanne C. Pellegrini Playground**, Hawthorn St. (Nonantum): In 2005 a master plan was prepared by a landscape architecture firm that outlined all proposed accessible pathways and amenities throughout the park. In 2008 a City-modified version of Phase I, the parking lot/seating area/pedestrian entrance, was funded by ARRA. Construction began Fall 2010 and was completed in Spring 2011. The existing field house building is accessible via a ramped entrance and the bathrooms (CDBG-funded) are also accessible. Phase II Improvements of the master plan included new play equipment with rubber surfacing, basketball half court, accessible water bubbler and lawn area, along with accessible route to each. A large shade shelter with picnic tables was also added onto an extension of the accessible route.
3. **Charlesbank Playground**, Nonantum Place (Newton Corner): While this park had an accessible entrance, all other elements within this small run-down, sloped pocket park, north of the Mass Pike, were

inaccessible. In 2008 a master plan was completed for this park, and the Commission on Disability committed $30,000 toward a new ramped and railed entrance. A landscape architect developed construction documents for the rehabilitation of the entire park. Funded by CDBG, construction of Phase I improvements was completed in the Fall of 2010. Phase II Improvements, a priority of the Newton Corner Advisory Board, consisting of a retaining wall with fencing and accessible sidewalk, was completed in 2012.

4. **Boyd Park Playground**, Jackson Road (adjacent to Lincoln Eliot School, N. Corner): A CDBG funded project provided for an accessible path to the basketball court, play structure area, and water bubbler. There is one accessible parking space in the school lot with curb cut that leads to a path into this portion of the park. A path extending from the playground to the ball fields has been paved. Boyd Park has no field pathways.
5. **Hunnewell Playground**, Grasmere Rd. (Newton Corner): Hunnewell Playground is not accessible; there are no paths, and it would be difficult to make it accessible as the Grasmere entry is steeply sloped with steps. It ranks low on the list due to the low usage of the park, although a fenced off-leash dog area has been added here with access from Brighton.
6. **Carleton Park** Carleton Street (Newton Corner): This is a small, .1-acre level pocket park with low usage. The Newton Corner Advisory Group hired a landscape design and construction firm to design a master plan for the park. The group then voted to spend $5000 for Phase I and another $8000 for Phase II construction. The rehabilitation of this small neighborhood pocket park is complete.
7. **Coletti-Magni Park**, Watertown Street, (Nonantum): Using CDBG funds, this entire park and adjacent sidewalk has been renovated, making it fully accessible with paths throughout the park, an accessible water bubbler, a curb cut and crosswalk at the corner of Watertown Street and Bridge Street.
8. **Richard J. Forte Park**, California Street (Nonantum): Forte Park is accessible with perimeter stone dust pathway/life course, accessible parking spaces with corresponding curb cuts and accessible water bubbler. The stone dust perimeter pathway has worn down over time. There are plans to restore the stone dust path in the near future. The park abuts DCR's Charles River Pathway.
9. **Farlow and Chaffin Parks**, Eldredge Street, (Newton Corner): There is a new play structure near Underwood School that is on an accessible route. The play structure is also accessible. There are accessible pathways throughout both these parks. Farlow Tot Lot was constructed by the community, and it, too, is accessible. Recently, a new accessible pedestrian bridge was constructed over the restored historic pond basin area using a combination of CPA and CDBG funds and an accessible route with bench and companion pad were added at the path from Eldredge Street.
10. **Burr Park**, 142 Park Street, (Newton Corner): Burr Park in Newton Corner has citywide usage, with Bigelow Middle School, a preschool, and summer camps all frequent users. Accessibility has been improved from the Park Street side and the driveway, turnaround, and parking area on Waverley Ave. recently completed by the City. Still needed is an accessible parking space on Park Street and an accessible route from the Waverley Ave. sidewalk into the park. An accessible spray pad has been added to this park behind the building.

Ward 2

1. **Cabot Park**, Eastside Parkway (Newtonville): This heavily used 11.6-acre park is largely inaccessible and would benefit from an accessibility plan to provide accessible routes to the other amenities in the park. In 2019, two new accessible pathways were added to run east-west from Eastside Parkway to the recently rebuilt Cabot School and its new play structures. Any existing paths are in poor condition and do not connect to the other park facilities. A segment of sidewalk was added by the off-leash dog area at the northern end of the park.

2. **Horace Mann School** (formerly Carr School), Nevada Street (Newtonville): While this building has been used as a swing space, permanent residence has now been given to the Horace Mann School. The front and rear entries and play structures are accessible but the park that abuts the school has limited paths. Plans are in the works for new play structures.
3. **Russell J. Halloran Sports Complex**, Albermarle Road (Newtonville): The play area, community classroom (and its gazebo) and Gath pool are all accessible along Albemarle Road. The pool has a lift for people with physical disabilities. Rubber surfacing has been added to the pool decking. The sidewalk running the length of the park helps make this park, which is heavily used, accessible for people with disabilities. The facility also has accessible parking spaces near the pool, near the play area and community classroom.
4. **Bullough's Pond Park** (Newtonville): The stone dust pathway halfway around the pond park perimeter is accessible, as well as the new pondside seating area, formerly the foundation of the skate house that was once present.
5. **Newton North High School**, Walnut Street, (Newtonville): The school and its grounds have all been designed and constructed to meet current accessibility standards.
6. **Edmands Park,** Blake Street, (Newtonville): This is a large natural wooded open space used for passive recreation; also heavily used by dog owners. Dramatic grade changes and the naturalization of the area over time have rendered the open space inaccessible. Such constraints make it impossible to retrofit the area to meet current accessibility standards.

Ward 3

1. **Richard J. McGrath Playground,** aka Warren Playfields, 1600 Washington Street (West Newton): This park is mostly inaccessible, except for the newly restored southeast corner that consists of an accessible route that runs from accessible parking spaces to three new tennis courts and a fenced off-leash dog area with stone dust surfacing, adjacent to Washington Street. It is a large 10-acre park, primarily used for active recreation, with an adjacent parking area that would benefit from a perimeter access route. The park ranks high in accessibility needs due to the adjacent housing facility, which includes housing for the elderly and people with disabilities.
2. **Tom Torchia Playground** (aka Davis Playground), Eden Street, (West Newton): The playfield is not accessible as there are no paths, but opportunities exist to create accessible routes.
3. **Franklin School Playground**, Derby Street (West Newton): Play apparatus at the school is not accessible and the limited paths to the playfields make for difficult access. Both playgrounds adjacent to the school are not accessible.
4. **River Street Playground**, River Street, (West Newton): In 2004, CDBG funds went toward improvements at this small .5-acre playground that included an accessible entrance, bench and pathway. The play structure is not accessible. The swings are accessible.
5. **Wellington Playground**, Kilburn Road, (West Newton): Accessible tennis and basketball courts, benches, drinking fountain and pathways have been completed using Community Preservation Act funds. An additional pathway along the border garden was added using CDBG funds. One of the park's 3 entrances is not accessible.
6. **West Newton Common**, Elm Street, (West Newton): Accessible path to the play structure planned and to be completed in 2020.

Ward 4

1. **Auburndale Park** (aka The Cove), West Pine Street (Auburndale): Auburndale Park, "The Cove," on the banks of the Charles River, is heavily used for picnics, summer concerts, ice-skating in the wintertime

and many other passive and active recreational activities. New play structures have been added on an accessible route, and a new fully accessible area with fitness stations has been added alongside the parking lot. A design to rehabilitate DCR's Marty Sender Path starting at Lyons Park and leading through the wooded area of The Cove is currently underway and is to be constructed using CDBG funds during the Fall of 2020.

2. **Lyons Park**, Commonwealth Ave (Auburndale): DCR's Marty Sender Path extends from Islington Rd. to the Cove and then to the City of Waltham line. Access to the Little League field from Comm. Ave. is steep, and while there are stairs and a vehicular ramp, no accessible route for pedestrians exists. Recently, state funds have been granted for the design and construction of an accessible route. The area is currently undergoing a field survey. An accessible entrance and path connecting parcel trails and parking areas to the concession and restrooms are planned.
3. **Lower Falls/Hamilton**, 545 Grove Street (Lower Falls): While there is an accessible route to the building, front and back, the fields and tennis courts lack an accessible route. Recently, the play structure has been made accessible.
4. **Peirce School Playground**, 170 Temple Street (West Newton): There are limited paths to the playfields. Behind the school, in the courtyard, there is play equipment that needs an accessible route from the school building's parking lot. The new play structures are fully accessible with rubber surfacing and an accessible route.
5. **Burr School Playground**, 171 Pine Street, (Auburndale): The school has accessible parking spaces and paths. The play equipment is also accessible.
6. **Williams School**, 141 Grove Street, (Auburndale): There's an accessible pathway around the playfield. The play structure is accessible.
7. **Reverend Louis E. Ford Playground/70 Crescent St**, Curve Street (West Newton): Difficult to find, this underutilized playground is not accessible and serves mostly as a tucked away neighborhood playground with no paths. A route through the abutting Eversource electric substation is in the design phase.

Ward 5

1. **Cold Spring Park** (New Cold Spring & Old Cold Spring), Beacon Street (Ward 5): New Cold Spring Park has citywide usage for tennis, basketball, soccer, softball and lacrosse and is extremely popular. Also 17 days a year the Farmers Market sited there can draw hundreds of people over the course of a day. An accessible route around the tennis courts, connects the far side parking to the Farmers Market area. Currently there are no paths through or around the fields and basketball court making those facilities inaccessible. In 2008 the City paved a short accessible route into the park from the Beacon St. sidewalk to improve access to the Farmers Market. Reconstruction of portions of the Life Course trail at Old Cold Spring is set for Spring and Summer of 2020. The trail system is not accessible due to topography and natural obstacles. One field area is currently the City's largest off-leash dog area and one area is a ballfield. There are no accessible pathways to these amenities.
2. **Emerson Playground**, 45 Pettee Street (Upper Falls): The playfields are not accessible and need to be done. Funded by a state grant, the play structure area was fully renovated with and made accessible with an accessible route, new equipment, benches and rubber surfacing. The basketball court, too, was made accessible. The adjacent housing facility and the number of senior programs run by the recreation department at this site make it a high priority.
3. **Hyde Park Playground**, Lincoln Street, (Newton Highlands): Playfield and new play structures, renovated in 2019, have accessible routes and an accessible picnic table. There is one accessible checkerboard table. The Hyde Playground/Taiwan Garden area on Lincoln Street, constructed fall 2010, has an accessible route and benches.

4. **Newton Upper Falls Playground** (aka Officer Robert Braceland Playground) Chestnut Street (Upper Falls): This is a largely inaccessible park. A master plan for this park was completed in 2008 that addressed the need to make the entire park accessible. Phase 1A of the master plan included the reconstruction of the two (2) tennis courts, and addition of an accessible pedestrian entry with benches and a re-lined parking lot with two (2) van accessible spaces was completed spring 2012, and a crosswalk at Chestnut Street was also added. The park has an unfenced off-leash dog area at the lower tier of this park. A short, paved accessible route is planned for access to the play equipment from Pennsylvania Street.
5. **Warren Lincoln Playground**, Montclair Street (Waban): There are no paths in this park. The community built a play area alongside the ballfield. An accessible route was explored; however, topography deemed this intervention unfeasible.
6. **Angier School**, 1697 Beacon Street, (Waban): The school was recently replaced with an all new building and accessible play areas.
7. **Zervas School**, 30 Beethoven Street, (Waban): The school was recently replaced with an all new building and three different accessible play areas.
8. **Richardson Playground**, Allen Ave (Waban): The play area is scheduled to be rebuilt. The playground and fields are not accessible.

Ward 6

1. **Newton Centre Playground**, Tyler Terrace (Newton Centre): Newton Centre Playground is a 17-acre heavily used historic, designed park with difficult access issues related to its topographic limitations. The park is used for city-wide events, summer camps, nearby preschools and the Mason-Rice elementary school and its aftercare program. One segment remains to be completed for accessibility improvements at this park from the Little League ballfield to the senior league ballfield and the universal play area. The Hut Recreation Facility on Tyler Terrace is inaccessible from all directions; there is no accessible parking related to the building.
2. **Newton Highlands Playground** (AKA Joseph Lee Playground**)**, Dedham Street (Newton Highlands): This formerly largely inaccessible park with no paved pathways was completely rehabilitated 2014-2016, based on a 2008 master plan. The project, including an accessible pathway system throughout, was both CPA and CDBG-funded. The parking lot has accessible spaces including one for a van. One last piece of the remains undone, a pre-fab support building designed to house accessible restrooms and storage.
3. **Thompsonville Playground**, Langley Path (Thompsonville): The park, adjacent to Bowen School, is set lower than the street, lacks accessible pathways, though the play structure at Bowen School is accessible. .
4. **John W. Weeks Playground**, Locksley Road (Newton Centre): This heavily used park would benefit from an access study and plan; there are no pathways. A short, accessible path to the tot lot has been planned and due for installation in the Spring/Summer 2020.
5. **Crystal Lake**, Rogers Street, (Newton Highlands): A Master Plan titled *Crystal Lake Bathhouse Public Park Task Force Master Plan* was completed for the bathhouse, its site, the adjacent park, the newly acquired shoreline easement of 230 Lake Avenue is intended to connect the bath house to Levingston Cove. The *Plan* contemplates a range of accessibility upgrades commensurate with the high intensity use of the site. Refer to Levingston Cove, below.
6. **Mason-Rice Playground**, 149 Pleasant Street (Newton Centre): There is an accessible play area alongside the new school-age playground that is accessible. The accessible pathway has been completed per the Newton Centre Playground master plan. The existing basketball court has been renovated and includes

two adjustable hoops that provide varying heights for multiple abilities and small path to access the court surface.

7. **Louise Levingston Cove**, Rogers Street, (Newton Highlands): This lakeside park has a stabilized stone dust path with benches that has eroded over time. This lakeside park is currently in design development and will be renovated so that amenities are made accessible.
8. **Cronin's Cove,** Lake Ave. (Newton Centre). : This lakeside park on the north side of Crystal Lake is to be revisited for accessibility assessment.

Ward 7

1. **Ward School Playground**, 10 Dolphin Road, (Newton Centre): No pathways connect the playfields in the adjacent park and the school. Accessible water bubbler area was designed and donated by the Parent Teacher Organization. Other amenities are not accessible.
2. **Webster Field**, Warren Street, (Newton Centre): This is a natural open space lawn area with wooded perimeter, adjacent to Webster Conservation Area. There are no pathways and minimal parking.
3. **Heartbreak Hill Park @ Waban Hill Reservoir**, Ward Street, (Chestnut Hill): This is a 5-acre park that formerly served as an MWRA reservoir that fed the Boston water system. The site is currently under construction and set for completion in Spring of 2020. The new park provides ¼ mile, accessible loop path around the top of the reservoir dam, code compliant stairs, one accessible parking space, concrete plaza with reclaimed granite from existing stairs, and limited site seating with companion pads.

Ward 8

1. **Newton South High School**, 140 Brandeis Road, (Newton Centre): The soccer field, artificial turf football field, track, and stadium seating are all accessible. A restrooms/concession building has been built to current accessibility standards.
2. **Charles E. Brown & Oak Hill Middle School**, Wheeler Road (Newton Center): The School site needs accessible pathways connecting to its playfields and subsequently to Newton South High School fields.
3. **Countryside School**, 191 Dedham Street, (Newton Highlands): Play area is not accessible. An accessible route to the ball field would be beneficial.
4. **Memorial Spaulding Playground**, 250 Brookline Street (Newton Centre): New play structure is accessible, but an accessible route is needed. Fields need accessible routes, too.
5. **Solomon Schecter Memorial Playground**, Stein Circle (Newton Centre): The playground has accessible perimeter pathways. Accessibility within the play structures is forthcoming.
6. **Nahanton Park**, Nahanton Street (Newton Highlands): Florrie's Pathway is an accessible riverside pathway. There is an accessible route through the woods connecting both halves of the park; a new accessible parking space and pathway segment was constructed fall 2010.
7. **Kennard Park**, Dudley Road, (Newton Centre): Natural open space with accessible Parks, Recreation and Culture headquarters. Passive recreation area with low usage; all inaccessible.

D. CONSERVATION COMMISSION ACCESSIBILITY PROGRESS REPORT

Facility Inventory

For all Parks, Recreation, and Culture Department parcels, a facility inventory is provided in **Section E.**

Improvement Goals

The Newton Conservation Commission Management Plan states the following:

- Management Goals: Provide universal accessibility to a variety of habitats in selected areas where feasible. (para 2.b.)
- Maintenance Goals and Policies: For accessibility, maintain compliance with ADA requirements – keeping to ADA minimums where it benefits environment/natural conditions. (para 1.f.)

Despite many challenges to overcome in providing accessibility in natural areas, improvements have been made since the 2013-2020 OSRP at the Dolan Pond Conservation Area, and upkeep to maintain accessibility has continued at Houghton Garden.

- **Dolan Pond Conservation Area:** The boardwalks were improved with an accessible ramp, allowing access to the natural trail that runs alongside Dolan Pond.

A review of all Conservation Areas in 2019 found that terrain limits the ability to create accessible trails and parking at most sites. Where general public use could be improved, there are often constraints associated with topography, construction costs, and the need to minimize disruption of sensitive natural areas. As a result of this review, it was determined that further improvements can still be made to allow access from the new ramp to the accessible ramp providing access to the Dolan Pond overlook. This will involve moderate grading changes and new surfacing materials for the section of existing trail between the boardwalk ramp and the overlook ramp and continuing on to the Auburndale Ave trailhead.

In 2020, two additional areas have been designated for accessibility improvements and will be further reviewed to identify, design, and implement specific accessibility measures suitable to these locations:

- **Charles River Pathway at Williams St.**
  The Charles River Pathway Conservation Area and Restriction currently provides a short, level, wood-chipped trail, adjacent to the Charles River. Separated from the densely developed area, and heat island, of Needham Street, this parcel provides a great opportunity to provide additional accessible open space resources to an EJ community. Improvements needed at this parcel include root removal, resurfacing with stone dust/dense grade, and increasing trail width in select locations where turnarounds and passing areas are needed. Trail head improvements should include resurfacing and curb removal to allow for level access from the street.

- **Norumbega Conservation Area**
  Norumbega Conservation Area currently provides a large, level loop trail around a now shrub-filled old field, spotted with specimen trees. The trail is currently wood-chipped. As one of the few level trails in Newton's Conservation Areas, this parcel provides a uniquely easy opportunity to provide an accessible trail as the only improvement needed is conversion of the trail surface to stone dust/dense grade. Parking improvements could be made to the Woodbine Rd. trailhead, but the majority of the parcel's use comes from the surrounding neighborhood residents.

Many of the Conservation areas are unsuitable for access because they are hilly, rocky, rooted, and/or wet, or they serve as sanctuaries for the benefit of wildlife, and access by the general public is not appropriate. However, the Conservation Commission will continue to assess the areas under its jurisdiction and develop access improvements where feasible and subject to availability of financial resources.

E. FACILITY INVENTORIES

Facility Inventory: Parks, Recreation and Culture Department Managed Parcels

Below (**Table 19**) is a summary of the accessibility features of every parcel of land under the care and custody of the Parks, Recreation and Culture Department. The complete facility inventory, as of 2020, can be found online at http://www.newtonma.gov/gov/planning/lrplan/os/default.asp. As part of Action 61 (**Section 9: Seven Year Action Plan**), the staff of the Parks, Recreation and Culture Department will be working throughout the first 2-3 years of this Plan's duration to update and expand on the facility inventory. Throughout the duration of this Plan, City staff will also be working on a more robust facility accessibility inventory in the state's suggested format; the draft of that document can be found online at http://www.newtonma.gov/gov/planning/lrplan/os/default.asp.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory

Facility Name	Ward	Location	Facility Size (acres)	Current Accessibility Notes
Albemarle Field 'Russell J. Halloran Sports and Recreation Complex'	2	250 Albemarle Road, Newtonville (Adjacent to Day Middle School and Horace Mann Elementary School)	24.9	Accessible playground area (3-5-yr & 5-12-yr), raised planters & gazebo near Horace-Mann (future Newton Early Childhood); ballfield bleachers, tennis courts, basketball courts, field house on accessible route; Albemarle Rd. sidewalk runs the length of the park; accessible on-street parking near playground and pool; includes the wooded Avery Estate (not accessible).
Angier School Playground	5	1697 Beacon Street, Waban	4.7	Recent school rebuilt and accessible play equipment areas in 2016; no accessible pathways in the field area.
Auburndale Park "The Cove"	4	West Pine Street, Auburndale	29.9	Accessible asphalt pathway to picnic area, and fieldhouse. Portions of stone dust path through undeveloped wooded area to Waltham and Flowed Meadow are accessible; tot lot is accessible; 5-12 play apparatus required accessible path; fitness equipment stations on accessible route; accessible parking lot; acreage includes contiguous Lyons Park.
Bobby Braceland Playground	5	Chestnut Street, Newton Upper Falls	8.8	Van accessible parking spaces, accessible park entry and route to tennis courts and benches constructed in 2012; no accessible pathways at ballfields, off-leash dog area, tot lot and basketball court.
Boyd Park	1	Jackson Road, Nonantum	4.8	Accessible parking at the Lincoln-Elliot School; accessible pathway to courts; steep stairs down from Pearl St; playfield and softball field have no accessible pathways (including the portion in Watertown). Park bisected by Watertown and Newton city line.
Bullough's Pond Park	2	Bullough Park	1.4	On-street parking; sloped, perimeter park along pond shore; stone dust sidewalk running the length of the park on Bulloughs Park Rd. is not accessible; skating hut demolished in 2017. Sitting area accessible from on-street parking with two benches and companion space on a concrete outlook constructed from the existing skating hut foundation in 2018.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory				
Facility Name	**Ward**	**Location**	**Facility Size (acres)**	**Current Accessibility Notes**
Burr Playground	1	Waverly Ave. or Park Street, Newton Corner (across from Bigelow Middle School)	5.1	Accessible pathways to the building and splash pad from both Park St. and Waverly Ave.; accessible splash pad constructed in 2017; Play structures are not accessible; Burr Playground serves Bigelow Middle School.
Burr School Playground	4	171 Pine Street, Auburndale	10.0	Accessible outdoor classroom; accessible route to playground area.
Cabot Park	2	101 Eastside Parkway, Newtonville	11.6	Sidewalk along Eastside Pkwy provides accessibility to tennis courts and off-leash dog area.; no accessible pathways in the park; no accessible route connecting amenities; 2019 Cabot School Construction added two accessible pathways to the park, connecting the school playground to Eastside Pkwy.
Cabot School Playground	2	101 Eastside Parkway, Newtonville	11.6	2019 school construction included accessible play structures, basketball court, and other schoolyard pavement games; new path connections to new sidewalk and curb ramps at Eastside Pkwy.
Captain Ryan Park	3	Washington Street and Cherry Street, West Newton	0.4	Small passive pocket park; accessible pathways with benches.
Carleton Park	1	Carleton Street, Newton Corner	0.1	The city's smallest park; level lawn area; no on-street parking; accessible stone dust seating area with benches and picnic table; amenities are accessible from sidewalk.
Chaffin Park	1	Corner of Vernon Street and Centre Street, Newton Corner	0.75	Paved accessible asphalt path from Centre St. and Vernon St. corner through park to Farlow Park tot lot and its pathways; contiguous to Farlow Park.
Charles Brown and Oak Hill Middle Schools Playfields	8	Wheeler Road, Newton Centre	11.3	Ballfields and soccer fields; no accessible pathways to or within field areas.
Charlesbank Park	1	Nonantum Place, Newton Corner	0.5	Small pocket park; accessible route with ramp to benches and picnic table and new accessible play equipment area.
City Hall & War Memorial Grounds	6	1000 Commonwealth Avenue	10.0	Stone dust pathways loop around the ponds and lead to parking; stone dust path and historic pond bridges in need of accessibility improvements including curb cuts; City Hall grounds include Millennium Park on Homer St. which is accessible and leads to the building's accessible entrance; accessible concrete sidewalk around the building and grounds.
Claflin Playground	2	Lowell Avenue, Newtonville	1.2	Small level grassy area with wooded slope and stairs to Oak Cliff Rd.; sidewalk and entrance at Lowell Ave.; no accessible pathways within the park; current off-leash area; used for sledding; formerly Claflin School.
Cold Spring Park	6	Beacon Street, Newton Highlands (main entrance)	65.0	Accessible parking and path around tennis courts and to seasonal Farmers Market from Beacon St.; portions of the trail through the woods are accessible; outdoor exercise equipment is not accessible; steep paved maintenance road with pedestrian access into the park from Duncklee street not accessible; off-leash area and ballfield not accessible; Acreage includes Old Cold Spring Park and New Cold Spring Park; adjacent to Zervas Elementary School; includes portions of the Cochituate aqueduct.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory				
Facility Name	**Ward**	**Location**	**Facility Size (acres)**	**Current Accessibility Notes**
Coletti-Magni Park	1	Corner of Watertown Street and Bridge Street., Nonantum	4.6	Accessible pathways w/benches and bus stop; new Watertown St. crosswalk at Bridge St. corner.
Countryside School Playground	8	191 Dedham Street, Newton Highlands	2.0	No accessible pathways in the playfield and play structure area.
Cronin's Cove	6	Lake Avenue, Newton Highlands	0.5	Steps down from street to a sloped, inaccessible path w/benches; no accessible entrance; access to Crystal Lake shoreline and canoe launch.
Crystal Lake Park	6	30 Rogers Street, Newton Highlands	Park area: 2.0 Crystal Lake: 24.0	Parking lot currently not accessible; portions of the bathhouse are accessible; steep slope down to the lake beach area; a ramp from the bathhouse to beach area is not accessible; accessible dead-end stone dust pathway runs behind 230 Lake Ave. to Levingston Cove; asphalt sidewalk along Rogers St. constructed in 2016; acreage breakdown: bathhouse and parking lot: .7 acres; newly acquired 20 Rogers: 1.0 acre; portion of 230 Lake Avenue plus easement behind house: .2 acres.
Davis 'Tom Torchia' Playground	3	Eden Street, West Newton	2.0	Softball field with no accessible route, basketball court and playground with accessible route from the 'Family access parking lot; accessible pathway from Eden Ave. sidewalk; no curb ramp at entrance; accessible playground area with splash pad; formerly the Davis School.
Edmands Park	2	Blake Street, Newtonville	32.6	Large, natural, wooded area with meadow and uneven dirt trail throughout; unofficial off-leash dog area; park is inaccessible.
Education Center Playground	2	Walnut St., Newtonville	1.5	Small raised playground area still exists but most play equipment has been moved; playground is inaccessible.
Eliot Memorial Park	7	Eliot Memorial Road, Newton Centre	0.2	historic memorial overlook area; not accessible.
Elmwood Park	2	LowellAvenue and Elmwood Avenue, Newtonville	1.5	large, rectangular-shaped traffic island; trees, shrubs and lawn only; no pathways; two new benches in lawn area; not accessible.
Emerson Playground	5	Pettee Street, Newton Upper Falls (adjacent to Emerson Community Center)	1.0	no internal pathways on the playfield; accessible playground area with poured in place safety surfacing; accessible pathways and benches; accessible picnic table; accessible basketball court; accessible parking in adjacent building lot; adjacent to Emerson Community Center.
Farlow Park	1	Corner of Eldredge Street and Church Street, Newton Corner	5.0	accessible parking space in adjacent pkg lot on Vernon St.; renovation of the pond, accessible pathway and pedestrian bridge constructed in 2018. Accessible play area constructed in 2017; bench with companion pad along accessible route.
Franklin School Playground	3	125 Derby Street, West Newton	2.7	Accessible path to playground area and basketball court; tot lot is not accessible; playfield has no accessible pathways.
Hamilton Playground (aka Lower Falls)	4	545 Grove St. (Lower Falls Community Center)	4.3	Accessible play apparatus area constructed in 2013; level sidewalk circumvents playfield; no internal pathways; Lower Falls Community Center building accessible with lift and accessible parking; formerly Hamilton School.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory				
Facility Name	**Ward**	**Location**	**Facility Size (acres)**	**Current Accessibility Notes**
Harry Gath Memorial Pool and Bathhouse	2	250 Albemarle Road, Newtonville	building	Interior renovation in 2013 included: updated accessible bathrooms, accessible pool deck, and pool accessible with lift access; accessible bubbler; kiddie pool not accessible; adjacent fieldhouse is accessible; on-street parking on Albemarle Rd.
Heartbreak Hill Park @ Waban Hill Reservoir	7	Manet Road, Chestnut Hill	5.1	Full renovation of the park constructed in 2019 to 2020; 1/4 mile perimeter stabilized stone dust path is accessible; new stair and handrail meet MAAB requirements; accessible parking space at entrance of park; two benches with accessible companion pad; timber curbing around outside perimeter of path installed as guide to the visually impaired; new plaza surface is accessible; path to plaza lacks a curb cut from Ward street.
Horace Mann School Playground	1	Nevada Street, Newtonville	7.8	building made fully accessible in 2012; there are no internal pathways to ball fields; play area accessible through parking lot; play area not accessible.
Hunnewell Playground	1	Grasmere Street, off Hunnewell Avenue, Newton Corner	4.6	Park is inaccessible; no accessible route to tot lot; no accessible route to ballfield or fenced off-leash area; no accessible parking; stairs at the end of Grassmere St. do not meet MAAB requirements.
Hyde Playground	6	Lincoln Street, Newton Highlands (adjacent to Hyde Community Center)	1.0	Accessible garden area w/benches on Lincoln St.; accessible pathway from Lincoln to Erie; accessible concrete walkway to play structure and accessible playground area constructed in 2019.
Islington Oval	4	Islington Road, Auburndale	1.5	Inaccessible oval island; no pathways; site furniture not accessible.
Joanne C. Pellegrini Memorial Playground	1	Hawthorn Street, Nonantum	4.2	Community center with accessible parking lot; park entry from street and ramp to building entrance; accessible playground and basketball half-court , shade structure with picnic tables constructed in 2013.
Kennard Park	8	Dudley Road, Newton Centre	14.0	Lawn and natural wooded area; inaccessible dirt footpaths throughout the wooded areas; accessible parking; building is Parks, Recreation & Culture HQ and has accessible ramped entrance; contiguous to Kennard Conservation Area and the Town of Brookline.
Lincoln-Eliot School Playground	1	Jackson Road, Nonantum	0.97	Set behind the school building; accessible path connects basketball court, playground equipment and pkg lot contiguous to Boyd Park.
Louise Levingston Cove	6	Lake Avenue, Newton Highlands	0.5	Accessible stone dust portion of pathway eroded and inaccessible; wheelchair ramp with non-continuous handrail at the Berwick Rd. and Lakewood Rd. entrances; renovation of the park set to begin in the Summer/Fall 2021; Park Renovation will provide accessibility throughout.
Lowell Park	2	Watertown Street and Walnut Street and Lowell Avenue, Newtonville	0.6	Large, triangular traffic island; accessible pathways with benches from sidewalk constructed in 2012.
Lyons Park	4	Commonwealth Ave., at Islington Road, Auburndale	29.9	Little League field/bleachers not accessible; Marty Sender Pathway (DCR) leads to park down from Islington Rd.; conditions of the trail render it inaccessible; Bathrooms/concession are accessible but no accessible path to the building. Accessible path to concession stand from Commonwealth Ave. planned for 2020-2021 construction; contiguous to Auburndale Park; accessible stone dust trail from Lyons to Auburndale Park to be constructed in 2020-2021.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory				
Facility Name	**Ward**	**Location**	**Facility Size (acres)**	**Current Accessibility Notes**
Linwood Park	2	Linwood Ave. and Walnut St., Newtonville	1.25	Large traffic island with perimeter sidewalks; accessible route through the park; site furniture accessible.
Mason-Rice School Playground	6	149 Pleasant Street, Newton Centre (contiguous to Newton Centre Playground)	4.0	Accessible rout from parking lot to two accessible play structure areas; four accessible parking spaces in school's parking lot; two adjustable basketball hoops installed in 2019; contiguous to Newton Centre Playground.
Memorial Spaulding School Playground	8	250 Brookline Street, Newton Centre	2.0	No accessible route from parking or school to ballfields and play structure; accessible pathway in Kayla's Garden in need of repairs; accessible entrance to front of school.
Nahanton Park	8	Nahanton Street and Winchester Street entrances, Newton Highlands	57.0	Accessible parking in lot; no accessible route to Nature Center building; accessible stone dust river path (Florries Path); bridge at Florrie's path not accessible; accessible stone dust path from lower Winchester St. parking lot to Nahanton St. side; community gardens not accessible; formerly Infirmary Land/Alms House Park.
Newton Centre Common/Green	6	Centre Street, Newton Centre, (divided by Langley Road)	2.0	Accessible pathways and sidewalk; new benches (Total of 7) with companion pads (Total of 3) added along pathways in 2019.
Newton Centre Playground	6	81 Tyler Terrace, Newton Centre (contiguous to Mason Rice School)	17.9	Master plan for accessibility in 2006; Olmsted-designed historic park; steeply sloped bowl-shaped park; accessible pathway network; large, universal play equipment area in center of park with accessible route; accessible parking on Bowen St. and in Mason-Rice parking lot; formerly Brewer Playground.
Newton Highlands Playground	5	Winchester St., Newton Highlands	12.6	Large park renovated in 2018/2019; fully accessible; includes accessible trail and path network throughout and into the wooded section of the park; accessible parking lot.
Newton North High School	2	Walnut Street, Newtonville	18.4	School grounds with accessible route network; new facility opened fall 2010.
Newton South High School	8	140 Brandeis Road, Newton Centre (contiguous to Oak Hill Middle School playfields)	7.0	Accessible pathways to ballfields, football field, fieldhouse and track; Lift to bleachers; new facility opened fall 2009.
Newton Veterans Memorial Park	1	Washington Street, opposite Newton History Museum, Newton Corner	0.1	Small memorial park area alongside Washington St.; sidewalk; benches and one short pathway to memorial markers.
Pierce School Playground	3	170 Temple Street, West Newton	2.0	Accessible route to playground and court areas; accessible play equipment area constructed in 2014; inner courtyard play area not accessible.
Richard J. Forte Memorial Park	1	235 rear California Street	6.0	Accessible route connecting exercise equipment stations, bocce courts, basketball court, & tot lot; accessible parking; accessible route abuts but does not connect to adjacent DCR Charles River Reservation multiuse path.
Richard J. McGrath Park	3	Washington Street, West Newton (behind Warren Apartments)	10.1	No accessible route from parking lot to soccer fields, ballfields and one set of tennis courts (east side); tennis court and off-leash dog area (west side of the park) renovation completed in 2018 with accessible route from Washington St. and the parking lot; formerly Warren Jr. High Playground.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory				
Facility Name	**Ward**	**Location**	**Facility Size (acres)**	**Current Accessibility Notes**
Richardson Playground	5	Allen Avenue, Waban	5.4	Inaccessible little league field; no accessible paths; inaccessible tot lot near Beethoven.
River Street Playground	3	River St., West Newton	0.5	Inaccessible play equipment area with sand safety surface; accessible pathway with bench and companion pad from entrance.
Solomon Schechter Playground	8	Stein Circle, Oak Hill	3.0	No pathways to play equipment; formerly Memorial/Solomon Schechter School.
Spears Park	1	Corner of Washington Street and Walnut Park, Nonantum	0.25	pen lawn on corner lot with no pathways; no amenities.
Stearns Park	1	Jassett Street, Nonantum	3.4	2006 master plan; phase 1: accessible tennis courts with ramp to adjacent housing project; accessible playground and half-court area on Jasset St constructed in 2012; accessible route from the street to play structure and courts; park is sloped and not all pathways are accessible.
The Reverend Louis E. Ford Playground	4	Behind Baptist Church on Curve Street, West Newton	2.0	inaccessible playground area; park expansion and renovation with all accessible amenities planned for 2022-2023.
Thompsonville-Bowen Playground	6	Langley Path and Cypress Street, Thompsonville (adjacent to Bowen School)	8.8	No accessible route to ballfields; steep pathway from Langley Path down to adjoining Bowen School; no designated accessible parking on Langley Path; accessible playground in Bowen schoolyard.
Upper Falls Greenway	5	Easy St. to Oak St.	**1 mi.**	1 Miles accessible stone dust rail trail with accessible parking on-street on Oak Street; accessible entrance from Oak Street.
Ward Park	7	Montrose Street, Newton Centre (contiguous to Ward School Playground)	3.5	ballfield and soccer field not accessible; contiguous to Ward School Playground.
Ward School Playground	7	Dolphin Road, Newton Centre	3.1	Large playground area behind school not accessible; tennis and basketball court area not accessible; no accessible route from school or parking lot to play structure.
Warren Lincoln Playground	5	Montclair Street, Waban	5.4	Playground area, ballfield and soccer field not accessible from street; park slopes down from Montclair Rd.
Washington Park	2	Washington Park, Newtonville	1.0	Historic park; large, rectangular traffic island; trees and lawn only; no pathways; benches are not accessible.
Webster Park	7	End of Warren Street, Newton Centre (adjoins Webster Conservation Area)	1.0	Oval level lawn area surrounded by woods; no pathways; little parking with no accessible parking space; adjoins Webster Conservation Area.
Weeks Park	6	Hereward Rd. or Paul St. or Cedric St., Newton Centre (adjacent to Weeks Housing),	11.1	Soccer fields, ballfields, and bermed passive area in the middle not accessible; accessible route from parking lot to tot lot constructed in 2020.

Table 19. Parks, Recreation and Culture Department Managed ADA Facility Inventory				
Facility Name	**Ward**	**Location**	**Facility Size (acres)**	**Current Accessibility Notes**
Wellington Playground	3	Kilburn Road, West Newton	1.9	Accessible pathways connecting two of the three entrances to the tot lot; one entrance on Kilburn St. not accessible; play equipment area accessible.
West Newton Commons Playground	3	Elm Road and Webster Street	3.7	Circumvented by sidewalks on 3 sides; no internal pathways; no accessible parking; accessible route from sidewalk to tot lot constructed in 2020.
Williams School Playground	4	141 Grove Street, Auburndale	1.1	Accessible route to the playground area; no accessible routes to ballfield.
Zervas School Playground	5	30 Beethoven Street, Waban	1.0	Accessible parking at school Beacon street lot; new school and three accessible playground areas constructed in 2017; all amenities are accessible; accessible route from parking lot to play structures.

Facility Inventory: Conservation Commission

Below (**Table 20**) is a summary of the accessibility features of the infrastructure of every parcel of land under the care and custody of the Conservation Commission. There are a number of facility types listed on the state's template that are not applicable to Newton Conservation Area parcels; these include picnic facilities, swimming facilities, play areas, game areas, boat docks, fishing facilities, programming, services and technical assistance, ramps, entrances, door, restrooms, floors, drinking fountains, telephones, signs, signals, and switches, swimming pools, shower rooms, and picnicking.

Table 20. Conservation Commission ADA Facility Inventory

	Auburndale Yard	Baldpate Meadow	Ch River Pathway	Dolan Pond	Flowed Meadow	Frank Barney	Goddard-Christ.	Hahn Brook	Helen Heyn	Houghton	Hunnewell	Kennard	Kerry Court	Kesseler	Martin	Norumbega	Oakdale	Saw Mill Brook	Varick Hill	Webster	Wilson
Trails	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Surface B = boardwalk NS = natural surface SD = stone dust			NS	SD/NS/B	NS	NS			NS	SD/NS	NS	NS/B			NS	NS	NS	NS/B		NS	NS
Dimensions (width)			3-4'	3-4'	3-4'	3-4'			3-4'	3-4'	3-4'	3-4'			3-4'	3-4'	3-4'	3-4'		3-4'	3-4'
Rails			No	No	No	No			No	No	No	No			No	No	No	No		No	No
Signage for visually impaired	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Benches	No	No	Yes	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No	No	No	No	No
Parking (L=lot, ST=street)	N/A	N/A	ST	L	L	ST	N/A	N/A	*	ST	ST	ST	N/A	N/A	N/A	ST	L	L	N/A	ST	ST
Accessible space located closest to accessible entrance			No	Yes	No	No			No	Yes	No	No			No	No	No		No	No	No
Minimum width of 13 ft includes 8 ft space plus 5 ft access aisle			No	Yes	No	No			No	Yes	No	No			No	No	No		No	No	No
Minimum of 1 van space for every accessible space, 8' wide + 8' aisle.			No	No	No	No			No	No	No	No			No	No	No		No	No	No
Sign with international symbol of accessibility at each space			No	Yes	No	No			No	Yes	No	No			No	No	No		No	No	No
Sign 5'-8' to top of sign			No	Yes	No	No			No	Yes	No	No			No	No	No		No	No	No
Surface evenly paved or hard-packed (no cracks) Surface slope less than 1:20, 5%			No	No (cracks)	No	No			No	Yes	No	No			No	No	No		No	No	No

Table 20. Conservation Commission ADA Facility Inventory																				
	Auburndale Yard	Baldpate Meadow	Ch River Pathway	Dolan Pond	Flowed Meadow	Frank Barney	Goddard-Christ.	Hahn Brook	Helen Heyn	Houghton	Hunnewell	Kennard	Kerry Court	Kesseler	Martin	Norumbega	Oakdale	Saw Mill Brook	Varick Hill	Webster	Wilson
Curbcut to pathway from parking lot at each space if sidewalk (curb) is present .			N/A	N/A	N/A	No			No	N/A	No	No			No	N/A	N/A		N/A	No	No
Curbcut is a minimum width of 3 ft, excluding sloped sides, has sloped sides, all slopes not to exceed 1:12, and textured or painted yellow						No			No		No	No			No					No	No
Site Access	N/A	N/A					N/A	N/A					N/A	N/A	N/A				N/A		
Accessible path of travel from passenger disembarking area and parking area to accessible entrance			No	Yes	Yes	No			No	Yes	No	No				No	No	No		No	No
Surface evenly paved or hard-packed			No	Yes	No	No			No	Yes	No	No			No	Yes	No	No		No	No
Ponding of water?			Yes	Occasional	No	No			No	No	No	Yes			No	No	No	No		No	No
Disembarking area at accessible entrance			No	Yes	No	No			No	Near	No	No			No	No	No	No		No	No
Path of Travel	N/A	N/A					N/A	N/A					N/A	N/A	N/A				N/A		
Path does not require the use of stairs			No	No	No	No			No	Yes (for accessible section)	No	No			Yes	Yes	No	No		No	No
Path is stable, firm and slip resistant			Yes	Yes	No	No			No	Yes	No	No			No	No	No	No		No	No
3 ft wide minimum Slope maximum 1:20 (5%) and maximum cross pitch is 2% (1:50).			Yes	No	No	No			No	Yes (for accessible section)	No	No			No	Yes (for Loop Trail)	No	No		No	No
Continuous common surface, no changes in level greater than ½ inch			Yes	No	No	No			No	Yes (for accessible section)	No	No			No	Yes (for Loop Trail)	No	No		No	No

Table 20. Conservation Commission ADA Facility Inventory																				
	Auburndale Yard	Baldpate Meadow	Ch River Pathway	Dolan Pond	Flowed Meadow	Frank Barney	Goddard-Christ.	Hahn Brook	Helen Heyn	Houghton	Hunnewell	Kennard	Kerry Court	Kesseler	Martin	Norumbega	Oakdale	Saw Mill Brook	Varick Hill	Webster	Wilson
Any objects protruding onto the pathway must be detected by a person with a visual disability using a cane			No	No	No	No			No	No	No	No			No	No	No	No		No	No
Objects protruding more than 4" from the wall must be within 27" of the ground, or higher than 80"			N/A	N/A	N/A	N/A			N/A	N/A	N/A	N/A			N/A	N/A	N/A	N/A		N/A	N/A
Curb on the pathway must have curb cuts at drives, parking and drop-offs			N/A	N/A	N/A	N/A			N/A	N/A	N/A	N/A			N/A	N/A	N/A	N/A		N/A	N/A
Stairs	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A	N/A	1	N/A	2	N/A	N/A	1	1	N/A	1	N/A	N/A	N/A
No open risers				Y						Y		Y			Y	Y		Y			
Nosings not projecting				Y						Y		Y			Y	Y		Y			
Treads no less than 11" wide				Y						N		Y			Y	Y		Y			
Handrails on both sides				N						N		N			N	N		N			
Handrails 34"-38" above tread				N						N		N			N	N		N			
Handrail extends a minimum of 1' beyond top and bottom riser				N						N		N			N	N		N			
Handgrip oval or round				N						N		N			N	N		N			
Handgrip has a smooth surface				N						N		N			N	N		N			
Handgrip diam. 1¼" - 1½"				N						N		N			N	N		N			
1½" clearance between wall and handrail				N						N		N			N	N		N			

*All parking for this site is lot parking maintained by businesses on Wells Avenue and not managed or maintained by the City.