

# Town of Groton 2019-2026 Open Space and Recreation Plan

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### Acknowledgements

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# Section 1. PLAN SUMMARY

Groton has a rich history of open space and recreation planning and preserving and protecting open space. Maintaining the rural character of the community, its agricultural heritage, and valuable natural resources has been a constant theme across planning efforts in Groton from the Town's first Comprehensive Master Plan prepared by Charles Eliot in 1963 to the current update of the *Open Space and Recreation Plan*. The Town's commitment to preservation of important historical, agricultural, and natural resources has been supported by the collaborative efforts of countless community partners, volunteers, and advocates who have helped to protect farmland, historic areas, greenway corridors, water resources, and critical habitat areas, and to facilitate diverse recreational opportunities. Because of its legacy of careful planning, Groton continues to be an attractive place to live, work, and play, providing a high quality of life for residents, but also resulting in growth pressures, as well as the prospect of increasing tourism.

Major issues highlighted in the planning process for this update of the Open Space and Recreation Plan focused on the anticipated impacts of climate change that enhance the urgency of protecting greenway corridors and resource areas, as well as the need to provide for improvement, restoration, and ongoing stewardship of existing open space and recreation areas.

The Open Space and Recreation Plan articulates Groton's overall vision for its open space and recreation system, reflecting what is most important to residents:

- Preserve Groton's rural, small town character by identifying, protecting, and responsibly managing important historic, cultural, natural, and agricultural resources.
- Protect and enhance the quality of Groton's surface and groundwater as a source of drinking water and for wildlife and recreational use.
- Provide healthy recreational opportunities for all residents of Groton.
- Enhance the resiliency of Groton's natural environment by promoting sound stewardship and the creation of greenways linking local and regional protected open space.
- Support fiscal sustainability through prioritization of resources and strengthening partnerships among public and private institutions and volunteer organizations.
- Encourage active engagement and environmental awareness among Groton's entire community.

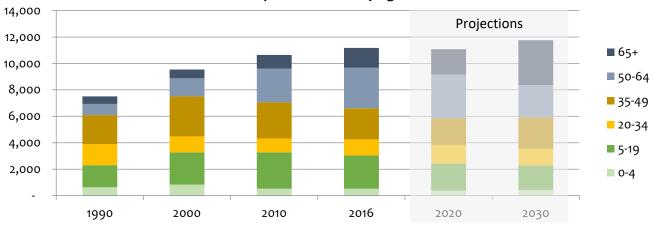
The following pages provide a concise summary of the community profile and the inventory of environmental and open space resources that are described in detail in Sections 3-5 of the plan.

## A. Demographics and Land Use

•

# Population Characteristics

- Groton has just over 4,000 households and a population of about 11,200.
- Population continues to grow; more families with children than projected.
- Fastest growing segment of the population is people over age 50.
  - Median household income is \$117,500. For seniors the median is \$62,200, while the median for family households is \$133,200.



#### Groton Population Trends by Age Cohort

Source: US Census, ACS 2012-2016, MAPC "Strong Region" Scenario

Households	Average Household Size	Families	Nonfamily Households	Individuals Living Alone	With Children under 18	With Seniors over 60
4,042	2.73	81%	19%	14%	40%	36%

	<ul> <li>Development is concentrated in:</li> <li>West Groton (around the historic industrial village)</li> <li>Groton Center (around the historic municipal/institutional center)</li> <li>Lost Lake (built as summer residences, many of which were converted to yearround residences)</li> <li>Four Corners (with new sewer district, can accommodate further mixed use development)</li> </ul>
Land Use Patterns	<ul> <li>New development is limited:</li> <li>Residential: average 30 homes constructed per year since 2010.</li> <li>Non-residential: Current projects include Indian Hill Music Center, Shirdi Sai Temple, Groton Inn, and Four Corners.</li> </ul>
	<ul> <li>Groton employers provide 3,600 jobs, primarily in education, healthcare, manufacturing, and construction.</li> <li>A cluster of large employers are in agriculture or other open space/recreation-related businesses, as well as numerous small businesses and organizations.</li> </ul>

## **B.** Environmental Resources

D. EII	vironmental Resources	Landforms and Soils of Groton
Geology	Unique pattern of landforms and soil types formed by glaciers: Eskers, drumlins, kames, moraines, and range of hills rising through center of town	
Watersheds	<ul> <li>Boundary bisects the town:</li> <li>Eastern one-third in Merrimac River Watershed</li> <li>Western two-thirds in Nashua River Watershed</li> </ul>	Outwash
Surface Waters	<ul> <li>Nashua and Squannacook Rivers converge in West Groton.</li> <li>On the eastern side, eight great ponds entirely of which is Lost Lake/Knops Pond.</li> <li>Many smaller ponds, streams, and wetlands, pa side of the town.</li> <li>Town water supply wells are located along the and Baddacook Pond.</li> </ul>	or partially lie in Groton, the largest articularly throughout the eastern
Wildlife	<ul> <li>Located in a transitional area between two major f biodiversity corresponding to its topography, whice</li> <li>Numerous species of rare and endangered wild and invertebrate animals. As of 2018 there are get The state's Natural Heritage and Endangered S identified 67 percent of Groton to be Core Hab Natural Landscape. Much of this area is include Critical Environmental Concern (ACECs), the Pee</li> <li>Large contiguous areas of protected open space preserve habitats that support diverse wildlife, Squannacook Rivers, the Throne, and the Reed the central/eastern part of town (although sign corridors.)</li> </ul>	th creates diverse types of habitat. dlife, including plants and vertebrate 99 certified vernal pools. pecies Program (NHESP) has itat, including 5,686 acres of Critical ed within two regional Areas of tapawag and the Squannassit. ce comprise corridors that help to in particular along the Nashua and by Meadow/Unkety Brook Valley in
Agriculture	<ul> <li>Groton retains a strong agricultural heritage, w produce, livestock, hay, and equestrian activitie</li> <li>Supported by Agricultural Commission, Groton</li> </ul>	es.
History	<ul> <li>Buildings, archeological sites, and other resources</li> <li>European settlement, as well as prehistoric Native</li> <li>Local historic districts on Main Street and Farm National Register of Historic Places</li> <li>Several entities document, preserve, and share resources, including the Historical Commission, Historical Society</li> <li>Cultural resources include Groton Library, Frien Barn, GDRSD Community Education Program, C and regional Freedom's Way National Heritage</li> </ul>	American activity. Hers Row; six properties listed on the information about historic , Historic District Commission, ads of Prescott School, Williams Groton Grange, Indian Hill Music,
СРА	Community Preservation Act generates over \$800, recreation, historic preservation, and affordable ho	

# C. Open Space and Recreation Resources

	open space (	and Necleation Nesources			
	Town of Groton 3,218 acres State (DCR, DFW)	Town Forest, Surrenden Farm, Sabine Woods, Williams Barn, Sargisson Beach, numerous conservation parcels, Water Department parcels, cemeteries, parks J. Harry Rich State Forest, Bertozzi Wildlife Management Area, Nashua River Rail Trail			
Protected Open Space	1,044 acres Private, Nonprofit 2,681 acres	Groton Conservation Trust, New England Forestry Foundation, Massachusetts Audubon Society			
	Private 1,150 acres	Agricultural Preservation Restrictions, Conservation Restrictions			
	Total Protected: 8,093 acres	Approximately 38% of the town's total area			
	Public Land	Groton Dunstable Regional School District, Groton Country Club			
	Institutions	Groton School, Lawrence Academy, MIT, Indian Hill Music, Groton Cemetery Association			
Open Space with Limited Protection	Privately-owned Land	<ul> <li>Properties enrolled in Chapter 61, which reduces property taxes for working land.</li> <li>913 acres of agricultural land under Chapter 61A</li> <li>627 acres of forest land under Chapter 61</li> <li>134 acres of recreation land under Chapter 61B</li> <li>Other privately-owned land in sensitive natural resource areas</li> </ul>			
Active         Active         Recreation					
Facilities	Groton Country Club	tazel Grove			
	<ul> <li>Equestrian facilities at Hazel Grove</li> <li>Water-based recreation <ul> <li>Fishing in rivers and ponds townwide</li> <li>Boating via public and private launches on Nashua &amp; Squannacook Rivers and Lost Lake/Knops Pond and Baddacook Pond</li> <li>Swimming at Sargisson Beach, Groton Country Club, Groton School</li> </ul> </li> </ul>				
Stewardship	<ul> <li>Swimming at Sargisson Beach, Groton Country Club, Groton School</li> <li>Town staff (especially Conservation Administrator, DPW)</li> <li>Volunteer boards and committees</li> <li>Nonprofit associations and "Friends" groups</li> <li>Longstanding regional leadership</li> <li>Nashua River Watershed Association</li> <li>Land conservation organizations</li> </ul>				

• Partnerships to designate ACEC, Wild and Scenic Rivers, National Heritage Corridor

# E. Goals/Objectives

The following goals and objectives were developed through an iterative planning process that engaged members of numerous Town committees, staff, stakeholder organizations, volunteer groups, and members of the public. These form the framework for the Seven-Year Action Plan provided in Section 9.

Goals	Objectives
1. Promote the preservation of important land resources.	<ul> <li>Prioritize open space protection.</li> <li>Strengthen partnerships between Groton Town Committees, organizations, institutions, neighboring communities, and state agencies.</li> <li>Engage the public to support natural resource protection.</li> </ul>
2. Protect water resources.	<ul> <li>Prevent disturbance of riparian areas and wetlands and encourage infiltration, water flow.</li> <li>Prevent or reduce the impact of water pollution from local and regional sources.</li> <li>Evaluate and implement strategies for surface water quality and invasive plant control.</li> </ul>
3. Promote resiliency to climate change and sustain biological diversity.	<ul> <li>Protect wildlife habitat and contiguous greenway corridors.</li> <li>Ensure that activities and amenities on conservation and recreation lands are compatible with the protection of their resources.</li> <li>Provide resources for effective open space stewardship.</li> <li>Promote public awareness of natural resources and ecological issues.</li> <li>Plan and implement strategies for hazard mitigation.</li> </ul>
4. Support local agriculture.	<ul> <li>Secure preservation of priority farmlands.</li> <li>Facilitate agricultural use of prime farmland.</li> <li>Promote policies, programs, and economic development tools to support local farms.</li> </ul>
5. Provide recreational opportunities to meet Groton's needs.	<ul> <li>Expand trail linkages to connect recreational areas.</li> <li>Acquire or reserve additional land for recreational activities.</li> <li>Develop/improve facilities to support programming and serve future growth areas of town.</li> <li>Update facilities to improve accessibility for people with disabilities.</li> </ul>
6. Facilitate the shared use of recreation facilities by residents of all ages and interests.	<ul> <li>Expand recreation programming to provide more variety.</li> <li>Effectively coordinate and manage recreation areas.</li> <li>Provide information to the public about passive and active recreation offerings.</li> </ul>
7. Enhance Groton's community identity through landscape and cultural awareness.	<ul> <li>Identify, preserve, commemorate, and promote historic landscapes, sites, and structures.</li> <li>Increase awareness of Groton's historic, natural, and community assets.</li> </ul>

# Section 2. INTRODUCTION

### A. Statement of Purpose

The 2019 *Open Space and Recreation Plan* is the fourth update to the Town's *Open Space and Recreation Plan*, which was first completed in 1985 and updated in 1998, 2005, and 2012. Groton's legacy of open space planning is indicative of the Town's ongoing commitment to open space preservation, which is continually evolving and has resulted in a substantial inventory of conservation and recreation lands. Since 2012, Groton has accomplished many items included in the 2012 Action Plan. Some notable accomplishments include the donation or acquisition of nearly 150 acres of conservation land, the implementation of sustainable forestry management practices on conservation land, invasive species removal projects in ponds and rivers and on conservation properties, reconstruction of Fitch's Bridge, and improvement of several recreation facilities using CPA funds.

This updated plan includes current information on Groton's natural resources, as well as its most recent conservation and recreation inventory. Based on this information, the 2019 plan modifies Groton's open space goals, objectives, and action plan to reflect the community's evolving needs, while recognizing Groton's ongoing challenge to balance growth and development with resource protection. This plan provides a framework for open space and recreation planning for the next five years, offering a guiding vision, as well as specific action items.

## **B.** Planning Process and Public Participation

This update of the *Open Space and Recreation Plan* was spearheaded by the Groton Conservation Commission. The consulting firm Community Opportunities Group, Inc., was hired to develop the plan in collaboration with a volunteer advisory group. The Open Space and Recreation Plan process included participation by three topic-specific working groups, as well as interviews with Town staff, board and committee members, and representatives from conservation-related organizations. The consultants also worked directly with the Groton Conservation Commission, representatives from the Groton Park Commission, and Town staff to gather the required information for this update. Groton's Conservation Administrator was instrumental in compiling material that informed this plan.

To gather public input, a survey was conducted in September and October, both on-line and on paper, which was advertised to Town residents via a flier included in electric bills, and posted on the Town website, in the newspaper, and through the GDRSD schools. Paper copies of the survey were available at the Council on Aging and Library. Input for the plan was also solicited through outreach tables at local events, including the Farmer's Market and Grotonfest, an annual fair held in the center of town.

A public forum took place on January 31 that solicited feedback on needs, goals and objectives, and action items. To advertise the forum, an announcement was posted on the Town website and distributed (via email) to members of various boards and committees.

As required, a draft of this plan was reviewed by the Groton Select Board, the Groton Planning Board, and the Montachusett Regional Planning Commission (see Section 10). Comments from these entities have been addressed and incorporated into this plan.

## C. Enhanced Outreach and Public Participation

Environmental Justice, as used in this document, refers to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.<sup>1</sup>

The Massachusetts Executive Office of Environmental Affairs defines Environmental Justice (EJ) populations as those segments of the population that are most at risk of being unaware of or unable to participate in environmental decision-making or to gain access to state environmental resources, or are especially vulnerable. They are identified as neighborhoods that meet one or more of the following criteria:

- 25 percent of households within the census block group have a median annual household income at or below 65 percent of the statewide median income for Massachusetts; or
- 25 percent or more of the residents are minority; or
- 25 percent of the residents have English isolation.

Where these conditions occur, communities are required to undertake enhanced public participation efforts to ensure that these populations have the opportunity to participate in the decision-making process. No neighborhoods in Groton met the criteria of demonstrating concentrated EJ populations according to the most current MassGIS data. Thus, there were no public outreach activities specifically targeted toward these groups.

Groton is a relatively affluent town. Most residents are well-educated and hold high-paying professional, managerial, or other office jobs and the median household income is very high (\$117,500 according to 2012-2016 US Census American Community Survey 5year estimates). The unemployment rate in Groton typically falls below the average for the state as a whole and all of the surrounding communities. Despite Groton residents' relative financial well-being, there are, as in all communities, areas of need. In particular, the growing senior population in Groton has lower incomes and a higher rate of disabilities than the younger



Basketball Court at Lost Lake Fire Station, converted to Pickle Ball court to serve demand for senior recreation.

<sup>&</sup>lt;sup>1</sup> United States Environmental Protection Agency (EPA)

population. Groton's open space and recreation planning needs to consider this socio-economic diversity and its attendant needs.

At the same time, it is important to recognize that there are many individuals living in Groton and the surrounding region who are low income, minority, and/or non-English speaking. The nearest environmental justice populations are located in Ayer, a town south of Groton which has areas with concentrations of minority residents and low income residents, and Westford, a town east of Groton which has an area with a concentration of minority residents to the east of Groton. While not identified as an EJ classification, there are also Groton residents who have special vulnerability due to their age or presence of disability. Map 2 in Appendix A illustrates the communities with special needs that were identified within and around Groton.

The public outreach activities, including information/conversation tables at the Farmer's Market and Grotonfest, provided an opportunity to solicit input from a diverse range of residents of Groton and surrounding communities. Moreover, staff of the Council on Aging were asked to provide input on the recreation needs of the senior population.

# Section 3. COMMUNITY SETTING

# A. Regional Context

#### 1) Physical Location and Major Watershed Address

Groton is a rural-residential town in northwestern Middlesex County. Bordered by Pepperell and Dunstable to the north, Tyngsborough and Westford to the east, Littleton and Ayer to the south, and Shirley and Townsend to the west, Groton provides convenient access to the region's business, cultural, and recreational opportunities. It also provides convenient access to regional employment centers; Groton lies thirteen miles east of Fitchburg, fifteen miles west of Lowell, and thirty-one miles northwest of Boston. Growth pressure in the Boston region and along Route 495 have placed residential development pressures on Groton, although the pace has slowed in recent decades.

Groton covers 33.7 square miles of land and water in the northeast quadrant of the Central Uplands of Massachusetts, which extend from Chelmsford and Milford in the east to Northfield and Hampden in the west. The Central Uplands are characterized by drumlin hills and outwash plains. Extensive post-agricultural forests interspersed with wetlands typify the region and can be seen in the eastern portion of Groton.

The Town of Groton lies within the Merrimack River Watershed. The Nashua River Subwatershed, located within the Merrimack River watershed, encompasses the western half of the town, which is nearly bisected by the subwatershed boundary. The drumlin hills that run north-south through town serve as the watershed divide. These watersheds contain the town's two major rivers, the Squannacook and Nashua, and various smaller water bodies.

### 2) Resources of Regional Significance

Nashua and Squannacook Rivers One of Groton's best-known shared resources is the Nashua River. This scenic and recreational resource spans thirty-six linear miles from the Wachusett Reservoir to its confluence with the Merrimack River. The Town has worked with the Nashua River Watershed Association and other conservation groups, including the Groton Greenway Committee, to protect over 2,000 acres of land along the river corridor. From the Town Forest in the south to the State Forest in the north, public access is provided along most of the waterway's course throughout Groton.



Nashua River near boat launch

The 16 mile long Squannacook River meanders from its headwaters in the Town of Ashby to its confluence with the Nashua River in Groton. Under the Squannacook and Nissitissit Rivers Sanctuary Act (MGL c. 132A, § 17), the Squannacook River and associated named tributaries are recognized as Outstanding

Resource Waters of the Commonwealth. The Act limits new point-source discharges. The Massachusetts Division of Fish and Wildlife, Town of Groton, and local conservation groups have protected almost 300 acres adjacent to the Squannacook, providing access to more than half the shoreline in Groton.

Combined, the rivers serve as ecological and biological corridors and natural south-north migration routes. The rivers and surrounding green space also provide opportunities for boating, fishing, hiking, and education. A study was completed in 2018 under the direction of a regional partnership to propose Wild and Scenic River designation for the Nashua, Squannacook, and Nissitissit Rivers. A Wild and Scenic River designation would result in the implementation of a locally-guided stewardship plan, as well as federal funding and protections.

**Lost Lake/Knops Pond** This area is one of the most popular regional recreational resources in Groton, at the center of one of the town's most densely developed residential areas. Over 200 acres of water supports a number of aquatic activities, including swimming, fishing, and boating. The state owns a public boat

launch off Pine Trail. On the southern shore Groton's Town Beach, Sargisson Beach, provides public access to beach and picnic facilities, as well as opportunities for fishing. A private camp and conference center, Grotonwood (owned and operated by The American Baptist Church of Massachusetts), dominates the western shore of the lake and offers its visitors many of the same recreational opportunities.

**Other Ponds** The eastern side of Groton is spotted with numerous ponds, several of which are classified as "Great Ponds"<sup>2</sup>, namely Baddacook Pond, Cow Pond (Whitney Pond), Martins Pond, Duck Pond, and



Massapoag Pond (which is shared with Dunstable and Tyngsborough). Most of these ponds have public access via abutting land owned by the Conservation Commission or nonprofit organizations. Extensive conservation land surrounding Baddacook Pond also serves to protect drinking water wells located adjacent to the pond. On the western side of town, Flat Pond has public access and is popular for fishing and boating.

**Public Water Supply** The shallow depth and fine silts and sands of Groton's aquifers are not ideal for the development of wells for public water supplies. Landfills, potential pollution from industrial uses, and development in nearby towns could have a negative effect on regional water supply and quality, which makes it important for neighboring communities to coordinate their land use policies. For example, the West Groton Water Supply District operates wells on the bank of the Squannacook River just north of West Groton Center and within the Groton Town Forest. Upstream pollution due to stormwater runoff, combined sewer overflows, and industrial discharge, or hazardous waste sites could affect the quality of West Groton's Nashua Road area. The Town of Pepperell's water supply wells within approximately 2,000 feet from the Groton town line, which draw from an aquifer that largely extends into Groton. Although the land in Groton is residentially developed and seems to pose minimal risk, excessive use of

<sup>&</sup>lt;sup>2</sup> Defined as standing bodies of water having a size of at least ten (10) acres in their natural state.

pesticides, fertilizers, and other lawn chemicals and nitrate loading from septic systems could migrate to Pepperell's public water supply wells via groundwater. For this reason, residents should be made aware of their role in groundwater protection.

**Regional Rail Trails** A 5.6–mile portion of the Nashua River Rail Trail runs through Groton, linking for the City of Nashua, New Hampshire and the Towns of Dunstable, Pepperell, Groton, and Ayer. Completed in 2002, the 11 mile rail trail is a very popular destination both for residents and nonresidents. The Department of Conservation and Recreation and Friends of the Nashua River Rail Trail manage the trail, which additionally serves as a nonmotorized transportation linkage to the MBTA Commuter Rail Station in downtown Ayer. A second regional trail, the Squannacook River Rail Trail, is in



the planning stage of development. The first phase will travel approximately 4 miles from Groton to Townsend Center in close proximity to the Squannacook River.

**Conservation Land and Recreation Resources in Groton** Groton has an inventory of over 8,000 acres of open space (about 38 percent of the town) that have been protected through the efforts of numerous non-profit land conservation organizations, the Commonwealth of Massachusetts, and the Town of Groton. Much of this open space contributes to regional connected corridors that help to preserve sensitive natural resource areas. Groton's open space areas also support a system of about 130 miles of trails, and a variety of active and passive recreational uses such as hiking, bicycling, bird-watching, hunting, and water-based recreation.

- <u>Nashua/Squannacook Rivers Corridor</u>: Within Groton alone, approximately 1,800 contiguous acres have been protected along the Nashua River corridor, with credit to Marion Stoddart, who initiated efforts to clean up the polluted Nashua River. Many of these conservation land-holdings extend across neighboring Townsend, Shirley, Pepperell, and Ayer. Groton segments include the Groton Town Forest (~513 acres), Surrenden Farm (~300 acres, including Surrenden Farm and General Field), Taisey property (~100 acres), and Sabine Woods/Groton Place (~200 acres). The J. Harry Rich State Forest (~530 acres), the Squannacook River Wildlife Management Area (~200 acres in Groton), and the Bertozzi Wildlife Management Area (~55 acres) are regional conservation areas with major landholdings within Groton. These lands include significant areas of wildlife habitat, supporting rare and endangered species, Native American and historic archeological sites, land in active agricultural use, as well as providing recreation uses such as boating, fishing, and hiking.
- <u>Cow Pond Brook Corridor</u> There is a similar strip of largely connected open space on the eastern side of Groton, extending along Cow Pond Brook northward from the Duck Pond and Lost Lake/Knops Pond area, through to Lake Massapoag. Major preservation areas within this system include Sargisson Beach, Lost Lake and Duck Pond Conservation Areas, Skinner Forest, Whitney Pond Well Site, Cow Pond Brook, portions of the Wharton Plantation, Gamlin Springs, as well as the Cronin-Massapoag and Woodland Park Conservation Areas. Together with portions of the Nashua River corridor, these properties contribute to the protection of significant natural resources within the Petapawag ACEC.

While there is substantial connectivity within the corridor, there are also critical gaps where intermittent open space is either vulnerable to development or is partially protected but lacks a deed restriction that ensures its preservation in perpetuity.

- <u>Reedy Meadow Brook/Unkety Brook Areas</u> There is a large contiguous block of protected open space in northeastern Groton, which spans north from Route 40 through the New England Forestry Foundation's "Wharton Plantation" (~500+ acres) and west through the Harrison Forest and Floyd Conservation Area to the APR-protected "Brooks Orchard." William's Barn/Sorhaug Woods borders the orchard and connects to the Fritz and Helen Walker-Mclain's Woods-Fitch Woods conservation lands north of Chicopee Row. In total, this area accounts for over 1,000 acres of conserved lands in Groton and provides a variety of habitat types ranging from upland forest to wetland marsh to open field. As is the case with the previous conservation areas, these properties contribute to the protection of significant natural resources within the Petapawag ACEC, with similar concerns about gaps in protection.
- <u>Groton Country Club:</u> The Groton Country Club is one of the Town's best-known recreational resources and provides a scenic, open landscape. Located near the Town Center, this 113-acre site includes a nine-hole golf course, swimming pool, outdoor pavilion, and function hall. It serves as a site for various school and town programs and attracts golfers from the general area. The function hall is available for rent and serves a wider audience. This publicly-owned facility is open to the general public, with golf and swim fees slightly higher for non-residents than for residents.
- <u>Hazel Grove Park:</u> Formerly the fairgrounds of the Groton Farmer's & Mechanics Club, the Groton Fairgrounds has historically been used for equestrian activities by clubs, as well as the general public. Owned by the Town under jurisdiction of the Park Commission, the park and its equestrian facilities have been maintained and improved by volunteer organizations that use it, and it is currently managed by the Hazel Grove Association.



• <u>Water-based Recreation</u>: Groton is a destination for paddle sports. There are several public and private boat launches on the major rivers and at Lost Lake/Knops Pond and Baddacook Pond, which provide access for boating, kayaking, and canoeing. Swimming is available at the Town-owned Sargisson Beach and at the Groton Country Club swimming pool. The Groton Council on Aging has an arrangement for swimming time at the Groton School during the school year. The Groton School also has a rowing program with a boathouse on the Nashua River. The Groton Greenway Committee puts on an annual spring Greenway Festival, which includes free boat rentals and a cardboard boat race. Boat rentals and classes are offered by Nashoba Paddler. There are also boating clubs and meet-ups that use the Nashua River. Fishing is very popular on the Nashua and Squannacook Rivers; the Nashua River is the location of numerous bass fishing tournaments, while the Squannacook River is among the best fly-fishing sites in Eastern MA.

**Conservation and Recreation Resources in Neighboring Communities** Surrounding towns have a significant inventory of land preserved for conservation purposes and/or for public recreational use.

These are important for Groton's open space and recreation planning because they contribute to contiguous natural resource corridors, water resource protection, and opportunities for recreation. In particular, Harvard, Pepperell, Townsend, Ayer, Shirley, and Westford have sizable land holdings for passive or active recreation by residents of nearby communities. Largely contiguous conservation areas along the length of the Nashua and Squannacook Rivers and other river corridors connect with Groton's conservation land, including the Oxbow National Wildlife Refuge, which consists of approximately 1,700 acres along the Nashua River through the towns of Ayer, Shirley, Harvard, and Lancaster, forming the largest segment of an extensive regional wildlife corridor. Another unique recreational resource in the region is Devens, located in Ayer, Shirley, Harvard, and Lancaster. With 1,400 acres of open space and recreation land for public use, amenities include hiking, swimming, fishing, athletic fields and facilities, golf, and a fitness center.

#### 3) Regional Relationships

Development in the towns around Groton will affect shared resources, such as water, open space, recreation, and scenic areas. Groton has done and continues to do an excellent job of protecting and linking natural resources, involving a number of public and private groups in acquiring important land for conservation purposes. Coordinating these efforts with neighboring towns could help to support a multi-town open space network. Protected areas should be linked, where feasible, across town boundaries to form a regional greenway system that provides recreational access, as well as preserving wildlife habitats and essential corridors.

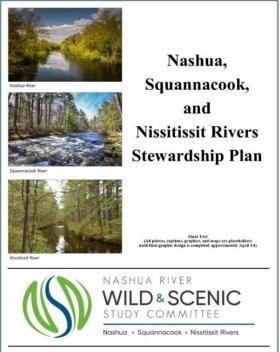
The planning and development of the Nashua River Rail Trail and ongoing planning of the Squannacook River Rail Trail have brought Groton together with neighboring Ayer, Dunstable, Pepperell, and Townsend. These projects required public input and permitting from all abutting towns. The Nashua River Rail Trail links open space in all of the communities to the spine of a regional greenway system, demonstrating that inter-local cooperation can benefit everyone.

Beyond open space, Groton has historically cooperated with neighboring towns on water supply and sewage treatment. Groton has an arrangement with Westford in case of an emergency need for water. The Town has kept an open line of communication with Pepperell regarding plans for infrastructure improvements. Where two of Pepperell's main public water wells are very close to the Groton border, with the main portion of the aquifer or Zone II in Groton, discussing future improvements that could affect one another has been important for both towns in mitigating impacts. Groton has also benefited from a municipal agreement with the Town of Pepperell Department of Public Works for the use of the Wastewater Treatment Plant in Pepperell on the east side of Nashua Road. Groton has more recently entered into an agreement with Ayer for wastewater treatment serving the Four Corners Sewer District.

In a more structured way, Groton and other area municipalities share information through regionally provided services. The Town belongs to the Nashoba Associated Boards of Health (NABH), which provides shared public health services to fifteen area communities. Groton, Ayer, and Dunstable share a health agent who conducts inspections and investigations and makes recommendations to local Boards of Health. In this way, towns may be alerted and act on health issues in neighboring towns that could affect them. The Town belongs to MassToss, also known as the North Central Regional Solid Waste Cooperative, which provides technical assistance to its 12 member communities on recycling and solid waste handling. Additionally, the Town belongs to the Devens Regional Household Hazardous Products Collection Center.

Groton's involvement with other regional boards and committees is important for protecting open space and natural resources within and beyond its own boundaries. The Montachusett Regional Planning Commission (MRPC) and the Nashua River Watershed Association (NRWA) are both involved in planning and open space issues in the region. Groton works closely with the latter organization and its locally appointed Greenway Committee in acquiring and protecting land along the Nashua and Squannacook Rivers.

Wild and Scenic Rivers Study Committee A threeyear study was undertaken by a Congressionallyauthorized regional committee led by the Nashua River Watershed Association, the National Parks Service, and representatives from 11 communities, including Groton. The resulting Nashua, Squannacook, and Nissitissit Rivers Stewardship Plan, completed in 2018, is intended as a guide for local communities to work in partnership to protect and enhance the outstandingly remarkable resource values of these rivers. The plan provides stewardship recommendations to be carried out voluntarily by all of the participating towns and community partners for biological preserving diversity, supporting recreational and scenic values, and engaging with historic and cultural features to encourage continued protection of the river corridors.



Established by the US Congress in 1968, the Wild and Scenic Rivers Act protects free-flowing outstanding rivers from the harmful effects of new federally assisted projects such as dams and hydroelectric facilities. To be eligible for Wild and Scenic designation, a river must be free flowing (without dams) and possess at least one "outstandingly remarkable resource value" (ORRV). The study committee determined that the three rivers possess numerous ORRVs in the categories of biological diversity, recreational and scenic, and historical and cultural categories. Successful designation as Partnership Wild and Scenic Rivers will enable eligibility for some federal funding and technical assistance, and it will offer protection from harmful effects of federally funded or permitted construction of projects affecting the designated water resources.<sup>3</sup> After completion and adoption of the Stewardship Plan by the 11 participating communities, Congressional approval is required for final designation. After designation, a locally-appointed Stewardship Council will work with communities and partnerships to support voluntary implementation.

**Areas of Critical Environmental Concern (ACEC)** One of Groton's most significant regional relationships is its membership in two ACECs. The Petapawag ACEC includes 25,680 acres in Ayer, Dunstable, Groton, Pepperell, and Tyngsborough. The Squannassit ACEC consists of 37,420 acres in Ashby,

<sup>&</sup>lt;sup>3</sup> "Partnership" Wild and Scenic River designation applies to rivers that flow through land predominantly in private or state and local government ownership, rather than federal lands and must rely on strong voluntary partnerships among adjacent communities to develop and implement stewardship plans.

Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend.<sup>4</sup> These areas were officially designated on December 11, 2002. The process that led to ACEC nominations began in 1997 with cooperative efforts among local land trusts and the Nashua River Watershed Association. They recognized the existence of major protected open spaces connected by the Squannacook River, e.g., Pearl Hill State Park, Willard Brook State Forest, Townsend State Forest, the Squannacook WMA, the Hunting Hill area of Shirley and Lunenburg, the Throne Hill areas of Groton and Pepperell, and Groton Town Forest. This pattern of large, protected open spaces connected by river corridors continues up the Nashua River, with Sabine Woods and the J. Harry Rich State Forest, and along the Nissitissit River into New Hampshire, where it connects with the Beaver Brook area and loops back to the Squannacook headwaters.

Awareness of these intact natural areas grew into the Squannassit and Petapawag ACEC nominations. The fundamental reason for the nominations was highlighting the need to protect both open spaces *and* the interconnections that are essential to maintaining the biological diversity of the entire region. While not ensuring permanent protection, ACEC designation enhances environmental oversight by increasing state permitting standards and lowering thresholds for review.

## **B. History of the Community**

The area that is now Groton was "Petapawag" to original native inhabitants, which means "swampy place" or "swamps on a hill". Groton was part of a plantation established in 1655 by Dean Winthrop (son of Governor Winthrop), who named the town after Groton Manor, the Winthrop Estate in England where he was born. As first laid out, the land grant was 80 square miles and included the present Towns of Groton, Ayer, nearly all of Pepperell and Shirley, large parts of Littleton and Dunstable, and small portions of Harvard, Westford and Nashua, New Hampshire. Groton Plantation covered over twice its present 33 square miles before portions were annexed to establish the Towns of Dunstable in 1673, Pepperell in 1742, Shirley in 1753, and Ayer in 1871.

At the time of English migration, the Nashaway (Nashua) people populated the area. They were aligned geographically with the Nipmuc tribes of Central Massachusetts and linguistically and culturally with the Algonquian. The main tribal seat of the Nashaway, Washacum, was located in the Town of Sterling, and their territory included the area around Wachusett Mountain and along the Nashua River. Native tribes suffered tremendous population losses to continuous epidemics between 1614 and 1675, most likely due to the lack of immunity to diseases brought by the colonists. A few archeological sites have been identified that provide evidence of Native American activities within Groton.

An initial trading post set up by John Tinker grew into a settlement of European colonists who farmed the glacial silted area between the rivers, known as "The Intervale", and who harvested hay from natural meadows along Broadmeadow Road. The farming and settlement patterns of the colonists destroyed the resources the Native Americans depended upon to preserve their autonomy and way of life.

Cultural conflict contributed to a series of wars in the late 1600's and early 1700's, during which Groton was repeatedly attacked. Mostly burned to the ground, the settlement was rebuilt after the Native American leader King Philip (Metacom) was defeated in 1678. Native Americans surrendered or were captured; women and children were parceled out to colonial families as servants, and men were sold into

<sup>&</sup>lt;sup>4</sup> Massachusetts Department of Conservation and Recreation, ACEC Program,

https://www.mass.gov/service-details/acec-program-overview.

the foreign slavery market. Some persisted as small minorities dwelling within the region, while others escaped to take refuge among the Abenaki people in Maine and French Canada.

After the French and Indian wars, 18th century colonial houses replaced the long huts and garrison houses of the early period, as Groton developed as a hub of transportation and diverse commercial and industrial activities, with a regional seat of government situated along a principal thoroughfare between Eastern Massachusetts and Vermont and New Hampshire.



<sup>1</sup> 1831 Map of Groton, from Norman B. Levanthal Map Center, Boston Public Library when the First Parish Church became Unitarian and the cornerstone was laid for the Union Meeting House (Congregational). The First Baptist Church was built in 1842, and in 1905 the original Groton School Chapel

was given to the Roman Catholics to use as their house of worship (Sacred Heart), and moved from Farmers Row to Main Street. In West Groton, the Christian Union Church (Congregational) was erected in 1885, and the St. James Church (Roman Catholic) was constructed in 1929. In addition, Groton Academy was incorporated in 1793 and renamed Lawrence Academy in 1845. It served as the local high school until 1871, when Butler High School was built. In 1884, the Reverend Endicott Peabody founded Groton School for Boys (Episcopal).

Groton grew slowly throughout the 19th century. Its chief economic activity, agriculture, was supplemented by a handful of mills and other supporting industries. Several apple orchards, which remain today, are evidence of this farming activity that also enhanced roadside views. Groton became a market center, supplying agricultural products to Lowell and Boston. A mill village developed in West Groton, which lies within a "V" formed by the Nashua and Squannacook Rivers. To the southwest, the junction of two railroads stimulated commercial and industrial growth and activity. This border area broke away to become the Town of Ayer in 1870. Almost half the population of Groton was lost when Ayer incorporated. Lost Lake was created during the mid 1800's by a succession of dams. A residential subdivision was developed around the lake in the 1920's and early 1930's; initially sold cheaply as summer campsites, many of the homes later became permanent residences.

The twentieth century has been marked by changes that have shaped Groton into the town it is today. Electricity and natural gas were introduced in 1909 and 1931, respectively. The arrival of the automobile and later, its choice as the preferred mode of transportation, triggered roadway improvements that helped to disperse businesses and residences. Growth and development increased dramatically toward the end of the twentieth century, largely because of employment growth and housing demand on the Route 495 corridor. A number of large farms were divided and other open areas were converted to residential developments.

At the same time, Groton has benefitted from strong leadership in the conservation of its land and natural resources. The period between 1880 and the 1920's saw the establishment of gentleman-farmers' estates along what would become Farmers Row. Groton Town Forest was dedicated in 1922, occupying what was formerly the Town Farm, which had previously been established to provide a place where the poor could work and live. Private conservation and land management efforts were undertaken by Groton residents, such as the Danielsen family who founded the Groton Hunt Club and accumulated substantial agricultural landholdings, including Surrenden Farm and Gibbet Hill; Betty Wiggins, who established the Groton Garden Club in 1923; and William (Billy) Wharton, who conserved large tracts of forest and helped found the New England Forestry Foundation in 1944. Conservation efforts continued in the 1960's with the establishment of the Groton Conservation Commission in 1963, and the Groton Conservation Trust in 1964. Groton resident Marion Stoddart championed the clean-up of the



Hugh and Tom Stoddart, 1964.

Nashua River, leading to the establishment of the Nashua River Watershed Association in 1969. As a result

of these groundbreaking conservation efforts, Groton's Conservancy District in the Zoning by-law, and Groton's local Wetlands By-law both predate the Wetlands Protection Act.

Today Groton is growing into a community of homes around a historic village core that still maintains its charm and beauty. There are a number of industries in Groton, including the Hollingsworth & Vose Paper Company, the Carver's Guild, INSCO, and the main office of Deluxe Corporation. Timely steps have been taken by public bodies and private organizations to meet the challenges of growth, but the pace of change requires continued attention and action in order to preserve Groton's character and quality of life.

# **C.Population Characteristics**

### 1) Population and Demographics

Groton remains one of the more sparsely populated communities in the area. It has a lower population density per square mile than most of its neighbors, many of which are also lightly populated suburbs. Groton's housing density is also low, an average of 0.2 units per acre, the third lowest in the region behind Dunstable and Townsend.

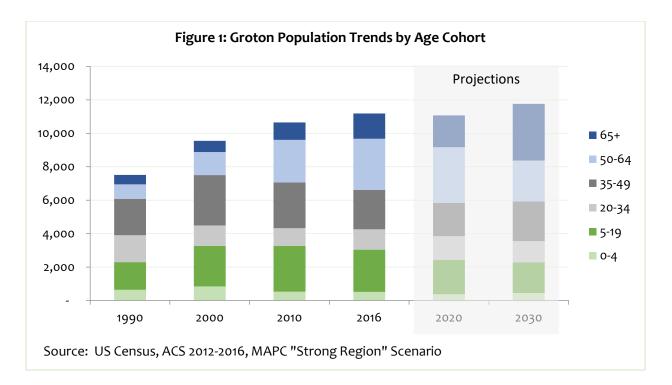
Area Name	2016 Population	2016 Density (Persons per sq. mi.)	Acres	Housing Units	Units/Acre		
Ayer	7,929	879	5,771	3,547	0.61		
Dunstable	3,310	200	10,590	1,199	0.11		
Groton	11,182	341	20,973	4,277	0.20		
Littleton	9,538	574	10,636	3,696	0.35		
Pepperell	12,031	533	14,440	4,554	0.32		
Shirley	7,433	470	10,128	2,532	0.25		
Townsend	9,369	285	21,038	3,576	0.17		
Tyngsborough	12,133	720	10,788	4,446	0.41		
Westford	23,850	779	19,590	8,467	0.43		

#### Table 1: Population and Housing Density: Groton and Region

Source: ACS, US Census

Groton experienced rapid population growth in the 1990's, which markedly slowed after 2000. Since 2010 Groton's population has grown by approximately 5 percent, slightly faster than the rate of growth that the Metropolitan Area Planning Council (MAPC) projected that the town would see by 2020. The greatest increases have been among older adults and seniors, while the number of families with children has been declining. The median age in Groton is 45.1 years, compared with 39.4 years in the state overall.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> ACS 2012-2016



Despite the shifting age profile, Groton continues to have a higher proportion of families and households with children than average for Middlesex County or the state overall, with a correspondingly larger average household size. (See Table 2.) Non-family households, including people who live alone and unrelated people who live together, comprise less than 20 percent of households in the community. The proportion of households with seniors, at 36 percent, is consistent with Middlesex County.

Table 2: Household Composition								
Household Non-family Living Children Seni						With Seniors over 60		
Groton	4,042	2.73	81%	19%	14%	40%	36%	
Middlesex County	587,735	2.57	65%	35%	27%	31%	36%	
Massachusetts	2,558,889	2.54	64%	36%	29%	30%	38%	

Source: ACS 2012-2016

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#### 2) Socio-Economic Characteristics

Groton is home to a predominantly white, well-educated, and generally affluent population who tend to hold professional, white-collar jobs. Close to 9 percent of Groton residents have a disability, while those over the age of 65 are more likely to have a disability than younger residents. The proportion of Groton residents with disabilities can be expected to increase as the senior population grows.

	Groton	MA		Groton	МА	
Race/Ethnicity		Language				
White, not Hispanic	92%	74%	Speak English Only, or speak English "very well"	98%	91%	
Asian	4.7%	6.1%	Disability			
Black	0.4%	6.6%	Have Disability	8.6%	11.6%	
Other	1.5%	2.7%	Under age 65	0.5%	7•9%	
Hispanic (any race)	1.5%	10.9%	Over age 65	14.6%	14.2%	
Source: ACS 2012-2016						

Table 3:	Social	<b>Characteristics</b>	of Groton	Residents
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Median household income is relatively high in Groton, although there is considerable disparity between the median income for different types of households and for different ages of householders. The median for family households is more than double the median income of non-family households. Householders aged 45 to 64 years have the highest incomes, while seniors have a median income of \$62,228. Groton has very few young adult households (under age 24), who tend to have the lowest household incomes compared to other age cohorts. The increasing share of senior households may account for the decline in median household income for all households since 2010.

	Groton Median Income		Middlesex County Median Income		Massachusetts Median Income	
All Households	\$117,500		\$89,019		\$70,954	
Change in since 2010	-5%		15%		10%	
	Households	Median Income	Households	Median Income	Households	Median Income
Families	81%	\$133,194	65%	\$111,926	64%	\$90,180
Nonfamilies	19%	\$48,199	35%	\$51,504	36%	\$40,726
15 to 24 years	0.5%	-	2.4%	\$44,467	2.7%	\$32,321
25 to 44 years	25%	\$106,764	34%	\$100,074	32%	\$80,263
45 to 64 years	52%	\$143,472	41%	\$107,508	41%	\$87,533
65 years & over	22%	\$62,228	23%	\$50,973	24%	\$42,707

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Despite these relatively high incomes, Groton does have pockets of need. Nearly one-fifth of the town's households have incomes below \$50,000. Four percent of the population are under Federal poverty level, including 1.6 percent of children under the age of 18, and 5 percent of people over the age of 65. The town needs to be careful not to overlook the needs of its less-affluent members when designating open space and recreation priorities.

Nearly 65 percent of Groton's population holds advanced degrees, a proportion substantially higher than the region or state, which contributes to a relatively large segment of the population working in high-paying jobs.

Table 5: Level of Education (population age 25 and over)					
	Less than high school completion	Completed High School	Some college or Associates Degree	Bachelor's Degree	Post- graduate education
Groton	1.3	14.9	19.8	37.9	26.1
Middlesex County	7.4	20.6	19	26.6	26.4
Massachusetts	10	25.1	23.7	23.1	18.2

Source: ACS 2010-2014

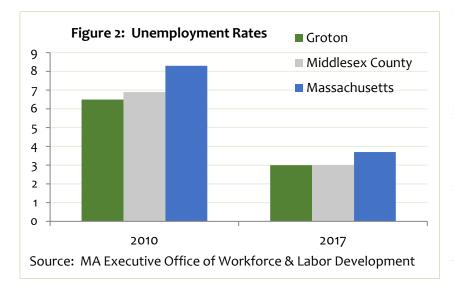


Table C. Oas

The town has a high labor force participation rate; about 68 percent of its over-16 civilian population works or is looking for work. The majority of Groton households with school-aged children have all adults participating in the workforce (74 percent). Groton's unemployment rate was at 3.0 percent in 2017, down from 6.5 percent in 2010. This is on par with Middlesex County, and below the state's unemployment rate overall.

The majority of Groton residents are employed in management, business, and professional occupations, which tend to be higher paying than other occupations. The majority of Groton residents drive alone to work (82 percent), with a mean travel time of 35 minutes. Approximately 8 percent work from home.

Table 6: Occupations of Groton Residents	
Management, business, science, and arts occupations	63.4%
Service occupations	10.2%
Sales and office occupations	17.2%
Natural resources, construction, and maintenance occupations	4.4%
Production, transportation, and material moving occupations	4.6%
Source: ACS 2012-2016	

· ( Currier Desidents

#### 3) Employment

Groton is primarily a residential community, and there are only small of commercial pockets and industrial development. However, the town does support a modest employment base. According to the Executive Office of Labor and Workforce Development (EOLWD), Groton had 277 employer establishments and about 3,569 jobs in 2016, or 0.6 jobs per member of the town's workforce, paying an average wage of about \$50,000 per year. The number of jobs reported by EOLWD grew by 9 percent between 2009 and 2016. These jobs are concentrated in educational services,

#### Table 7: 2016 Employment and Wages in Groton

Major Industries	Employers	Jobs	% of Jobs	Average Wages	
Private Sector	261	3,040	85%	\$49,712	
Construction & manufacturing	50	756	21%	\$70,564	
Retail, restaurants, & hospitality	40	647	18%	\$21,996	
Professional, Administrative & waste services	62	173	8%	\$91,832	
Education & health care	51	1,574	44%	\$48,672	
Public Administration	16	529	15%	\$56 <b>,</b> 732	
Total All Sectors	277	3,569		\$50 <b>,</b> 752	
Source: MA EOLWD, ES-202, 2016					

health care and social assistance, and manufacturing. Public sector jobs such as Town and public school employees comprise 15 percent of jobs in Groton. Most of the largest employers in Groton are in manufacturing, education, and health care services. Hospitality related businesses that are directly connected with open space and agricultural resources comprise another significant cluster.<sup>6</sup>

Company	Description	Employees
Deluxe Corp	Corporate Headquarters	500-999*
Hollingsworth & Vose Co	Manufacturing	250-499*
Groton Dunstable Regional School District	Public school	250-499
Barn at Gibbet Hill	Hospitality – Events venue	100-249
Groton School	Private school	100-249
Lawrence Academy	Private school	100-249
Seven Hills Pediatric Center	Skilled nursing facility	100-249
Shaw's Supermarket	Retail store	100-249
Grotonwood Baptist Camp & Conference Center	Hospitality - camp	50-99
Gibbet Hill Grill	Hospitality – restaurant	50-99
River Court Residences	Assisted living	50-99

#### **Table 8: Largest Employers**

\* Not all employees based in Groton

Blue highlight denotes agriculture and open space-based businesses

<sup>&</sup>lt;sup>6</sup> Since the EOLWD figures only reflect certain types of businesses and jobs, these figures underestimate the total number of total Groton businesses and jobs. ACS (2016) estimates that approximately 8 percent of Groton's workforce is self-employed, primarily in service and transportation industries.

Source: Executive Office of Labor and Workforce Development (EOLWD)

Employment statistics do not capture many of the town's small businesses, such as **agriculture** and other home occupations. The US Department of Agriculture (USDA) defines farming as "Any operation selling at least \$1,000 of agricultural commodities." USDA conducts a Census of Agriculture every five years, which provides data on farming activity at the state and county levels. (Town level data on agriculture is not available.) Between 2007 and 2012 (the latest year for which data is available), the number of farms increased by about 6 percent in Middlesex County, while the acreage dedicated to agriculture decreased by 17 percent.

Agricultural Census data may not represent all commercial agricultural activities that occur in Groton, particularly where public, private, or institutional property owners contract out or lease land for haying or forestry management. A survey of agricultural activity in Groton completed in 2012 found that about 25 percent of Groton's land area is actively farmed or managed. Despite the amount of land dedicated to agriculture, many of Groton's farm enterprises are very small scale and/or marginally profitable niche operations. The line between hobby farming and commercial farming is not always distinguishable, but in the aggregate, farms of varying scale comprise Groton's substantial agricultural sector.

The inventory identifies 71 separate owners of land used for traditional agricultural operations, such as raising livestock, field crops, equestrian businesses, hay fields, and managed forests. There are also businesses and organizations involved in processing and marketing farm products, including the Blood Farm slaughterhouse, and Groton Farmer's Market. As of 2011, there were five farms that used Community Supported Agriculture (CSA) programs enabling consumers to purchase shares in a farm's crops or products, as well as a farm-to-school program that encourages educational institutions to preferentially purchase food from local farm providers.<sup>7</sup>

Groton has an Agricultural Commission that serves to develop the agricultural resources of the town, to promote agricultural-based economic opportunities, and to represent the Groton farming community. In

<sup>7 2012</sup> Agricultural Survey

2018 Town Meeting expanded the powers of the Agricultural Commission to allow the Commission to buy and hold property for agricultural purposes.

There are also nonprofit entities in the region that support commercial agriculture. The New Entry Sustainable Farming Project of Tufts University offers a training program to support people establishing new agricultural enterprises. Groton is one of the pilot communities in which they have developed a map of existing and potential farmlands and work with the agricultural commission to connect property owners with prospective farmers. **Friends and Partners** 

**Agricultural Enterprise Supporters** 



**Economic Development Committee** 

Agricultural Commission

Sustainability Commission

Williams Barn Committee/Groton Farmer's Market

The Grange

Groton Business Association

Table 9: Examples of Agricultural Businesses, 2018			
Farm Products and Processing	Equestrian Businesses		
Autumn Hills Orchard (fruit) Blood Farm (slaughter and processing facility) Common View Farm Excalibur Farm (200 acres, hay) Fairview Orchard Gentle Zephyr Farm (7 acres) Gibbet Hill Farm (80 acres, cattle, produce,	Five Oaks Farm Helene's Stables (6 acre field) Scarlet Hill Farm (134 acres) Shepley Hill Farm Inc.		
restaurant) Groton Center Farm (80 acres, livestock, produce) Kirk Farm (produce) The Herb Lyceum (produce and restaurant) Luina Greine Farm (19 acres, alpaca) Maple Shade Farm (livestock) Seven Pines Farm (produce) Shattuck Farm (produce, firewood, eggs, hay) Skinner Ranch (produce, meat, eggs) Spiczka Farm (produce, meat, eggs) Twomey Farm Woolworks Farm (15.5 acres, sheep)	Agricultural Support Capacity Agricultural Commission Williams Barn (summer farmer's market, and other agriculture-related events) Hazel Grove Association (Equestrian Center) The Grange (Educational/cultural organization) Groton Business Association		

Source: Community Opportunities Group, Inc.

**Eco-tourism** is another important contributor to Groton's economy. Trip Advisor lists numerous attractions in Groton, including Nashua River Rail Trail, Gibbet Hill Barn and hiking trails, Luina Greine Farm, Nashoba Paddler, Autumn Hills Orchard, Groton Country Club, and Rocky Hill Wildlife Sanctuary. Groton's ample public and non-profit open space and recreational assets draw people regionally for a variety of recreational activities.

Several businesses and organizations, including some of the town's largest employers, are connected with natural, agricultural, and open space resources. Gibbet Hill includes a farm, restaurant, and events venue, incorporating over 90 acres of open space permanently protected through a Conservation Restriction (CR). Other farm-to-table restaurants and hospitality establishments include the Herb Lyceum and Sunset Farm set on historic farms offering scenic landscapes. The newly reconstructed Groton Inn appeals to Groton's historic rural character. The Grotonwood Baptist Camp occupies 276 acres on Lost Lake, providing a summer camp for children, as well as year-round hospitality facilities that are utilized by other organizations and educational programs, such as Nature's Classroom, a residential environmental education program. The Nashua River Watershed Association (NRWA) headquarters are located in Groton, where they provide educational and recreational programs for all ages. Also, on the Nashua River, Nashoba Paddler offers kayak, canoe, and stand-up paddleboard rentals, tours, instruction, and a recreational summer camp for children. They rent to more than 8,000 visitors each year.<sup>8</sup> In collaboration with Nashoba Paddler, NRWA created Outdoor Classroom, a program that brings approximately 3,000 students to explore the Nashua and Squannacook Rivers

### D. Growth and Development Patterns

### 1) Patterns and Trends

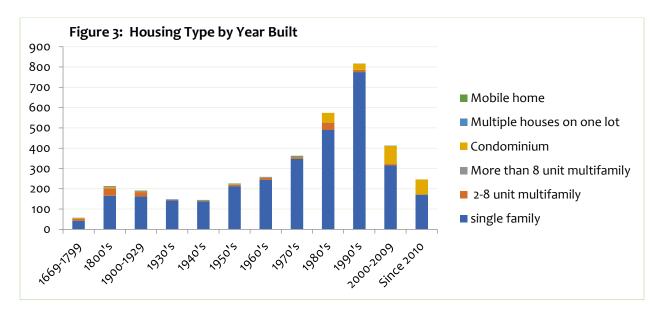
Groton began as an agricultural community with three distinct villages—Groton Center, West Groton, and Lost Lake. Each village grew from a different set of forces. Groton Center grew up around the churches and schools located near the center of town, West Groton developed out of industry that sprang up along the Squannacook River, and Lost Lake evolved as an enclave of summer cottages on the shores of some of the town's most beautiful water bodies. Today what were previously farms and orchards have been increasingly developed into low-density residential areas. Though the villages remain intact and have strong identities, much/most of the residential life in Groton takes place outside these historic areas in newer subdivision or house lots on established roadways.

#### **Residential Growth Trends**

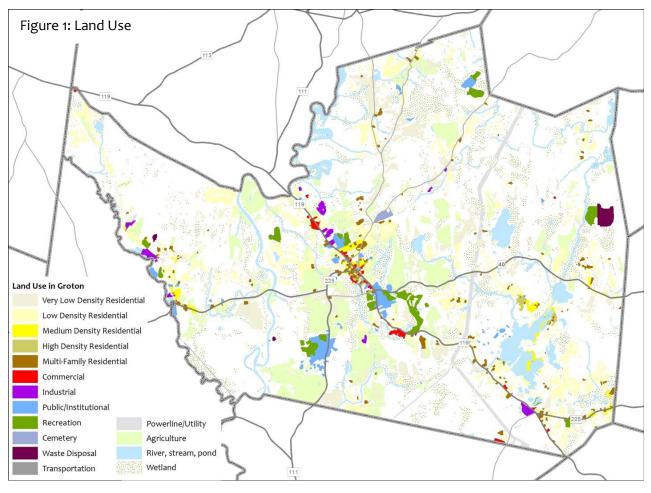
Groton grew rapidly in the last decades of the 20<sup>th</sup> century, transitioning from its rural, agricultural roots to an emerging suburb. Boston-area housing costs and the movement of employment centers to the outer suburbs have made Groton and its neighboring communities extremely attractive places to live. The Town adopted Flexible Development zoning in 1981, resulting in smaller residential lot sizes and more land set aside as open space. Though the westward migration of housing growth continues, pace has declined since 2000, as zoning and environmental regulations have become more restrictive and the supply of easily developed land has diminished. Between 2000 and 2010 new housing development slowed to almost half of what it was in the 1990's. During the peak decades of construction from 1980-1999, 1,265 homes were built over 2,891 acres, averaging 2.08 acres per residential unit. Since 2000 there has been a shift toward more condominium and cluster development, so that the median land area per unit is closer to 0.9 acres per unit for the 255 housing units built since 2010.<sup>9</sup> Most of the new development that has occurred in Groton within the last five years has been redevelopment of under-utilized parcels or the build-out of existing approved subdivisions.

<sup>8</sup> Nashua, Squannacook, and Nissitissit Rivers Stewardship Plan, 2018

<sup>9</sup> Town of Groton, Assessor's Database, 2018



Residential development continues to be slow. Two previously approved developments are currently under construction –Reedy Meadow Estates, of 10 single-family ownership units of which 2 units are age-restricted, and Academy Hill, which will have 57 units. Through inclusionary zoning provisions, 12 of the units from these two developments will be affordable. In addition, the adaptive reuse of former municipal buildings, will create a total of three condominium units at the Tarbell School, and four units at Squannacook Hall. A handful of additional small-scale subdivisions have recently been discussed.



#### **Commercial and Nonresidential Growth**

Groton's commercial and industrial presence has always been small, and this remains true today. Historically the town's economy was primarily agricultural, with trade and accommodations emerging along the town's principal thoroughfares, and small-scale hydropowered industry that took advantage of the town's water resources. West Groton developed as an industrial village, anchored by a high-tech fiber manufacturer, Hollingsworth & Vose, which has remained under continuous ownership almost since it was built originally as a paper mill in 1843. Additional mills included the Thompson mill, which manufactured wooden reels, and the Groton Leatherboard Company located on the Squannacook River, and a paper mill which was located on the Nashua river at the site of the Petapawag Canoe Launch.

In recent years, most new commercial and industrial development occurred along the Route 119 corridor. There are also some older manufacturing/industrial uses at the edges of town. Since 1999, there have been eight new commercial properties developed in town, including 100 Boston Road (Medical Offices and a CVS), Haffners convenience store and gas station on Main Street (redevelopment of a former gas station), Mill Run Plaza, Gibbet Hill Grill, the Boston Road Marketplace development, Anytime Fitness, Station House restaurant, and the Groton Inn, which was reconstructed after the historic inn building burned down

in 2011.<sup>10</sup> A 16,000 square foot Steward Medical Office and Physical Therapy opened in 2018 at the Four Corners, while Dunkin and a bank are opening in 2019.

With the development of sewer infrastructure, the Four Corners area is anticipated to undergo significant transformation in the next several years, allowing for potential expansion around Shaws Plaza, and other commercial and residential development. As that area of Groton has not been identified as an area with critical natural and ecological resources, it appears to be an area appropriate for a minor influx of commercial development.

Two major institutional developments currently under construction in Groton will impact economic development and tourism. Indian Hill Music is constructing The Music Center at Indian Hill, a 120,000 square foot music school and performance facility on a site that had previously been eyed for relocation of Thomas More College. Also nearing completion is a 40,000 square foot Hindu temple, Shirdi Sai, which is now the largest Hindu temple in Massachusetts.

### 2. Infrastructure

Infrastructure has a universal and tremendous influence on growth and development patterns and potential. Roadways, water service and private wells, and public sewerage and private septic systems (sometimes referred to as "grey infrastructure"), are key factors in determining the location and intensity of development. It is important to understand the development impact that current infrastructure patterns and future plans and decisions may have on Groton's "green infrastructure" or open space system.

### **Transportation**

As in many communities, transportation infrastructure has been a key predictor of Groton's development pattern. Initially, development followed the courses of the Squannacook and Nashua Rivers, which functioned as the town's first transportation routes. Later, the arrival of rail lines that ran to Fitchburg, Worcester, and Nashua, New Hampshire, spurred additional business activity and development in Groton. One of the most prominent development areas was Groton Junction which eventually broke off from Groton and incorporated as the Town of Ayer in 1871. The Peterborough and Shirley branch of the Fitchburg line, located along the Squannacook River in West Groton, encouraged industrial development in that part of town.

Groton has strong connections to the regional transportation system. Several state highways converge near Groton Center, including Routes 111, 119, 40, and 225. Route 119 provides direct access to Interstate 495 via an interchange located just to the southeast of Groton in Littleton, and Route 40 provides direct access to Route 3 in Westford.

<sup>&</sup>lt;sup>10</sup> Town of Groton, Assessor's Database, 2018; and Groton Planning Department.

Most development is located along these and other major roads that transect the town, such as Chicopee Row, Old Dunstable Road, Martins Pond Road, Mill Street, Pepperell Road, and Townsend Road. As many of these roads carry heavy auto traffic, pedestrian circulation can be challenging, particularly in the Town Center. Also, though most of Groton's transportation infrastructure is autooriented, bicycling is a popular form of transportation for Groton residents, as well as recreation for residents of the town and surrounding region. Impacts to recreation and open space resources should be considered when planning for transportation improvements.

Groton's transportation infrastructure also includes offroad bicycle and trail routes that are used both for recreation and transportation:



- The Nashua River Rail Trail is an 11-mile bicycle, walking, and equestrian path between Ayer and Nashua, New Hampshire, passing through Groton, Pepperell, and Dunstable. Opened in 2002, the Trail is managed by the Massachusetts Department of Conservation and Recreation (DCR) with support of the Friends of the Nashua River Rail Trail. It has a 10-foot wide paved surface for its entire length and a 5-foot wide gravel equestrian path for seven miles of the trail, from Groton Center to the New Hampshire border in Dunstable. The universally accessible trail also connects to Ayer's MBTA Commuter Rail Station, approximately 3.5 mile (or 15- to 20-minute) bike ride from the center of Groton. Opened in 2002, user counts taken in 2008 indicate that more than 1,000 people take advantage of the NRRT on a typical summer weekend and nearly 400,000 over the course of a year. The number of users is estimated to have grown substantially over the decade.<sup>11</sup>
- The Squannacook River Rail Trail (SRRT) is currently used as an informal path, while a developed trail is in the planning phase. The trail will connect the northwest corner of Groton to Townsend, serving a combination of recreational and transportation needs. Phase 1 will travel approximately four miles along the Squannacook River from West Groton to Townsend Center on the abandoned Greenville branch of the Boston & Maine railroad. The MBTA owns the land on which the rail trail is planned, and has agreed to a 100-year lease for use of the land. Approximately 0.9 miles of the SRRT is located in Groton and 2.8 miles is located in Townsend to the northwest of Groton. The proposed multi-use path parallels Route 119 from Elm Street eastward from Townsend, connecting to Groton along the Squannacook River and Bertozzi and Squannacook River Wildlife Management Areas. A future phase would extend the trail to connect with Nashua.

**Other trails** in Groton's extensive trails network are primarily for recreation uses but could become a viable transportation mode if more connections were established with destinations throughout town. The volunteer Groton Trails Committee actively maintains (clearing, trail markers, and layout) approximately 130 miles of trails for public use, the second largest community trail system statewide. <sup>12</sup> Most of the

<sup>&</sup>lt;sup>11</sup> Nashua, Squannacook, and Nissitissit Rivers Stewardship Plan, 2018

<sup>&</sup>lt;sup>12</sup> Groton Trails Committee



network extends through public and nonprofit conservation lands. Some additional trails on private land are protected through easements.

#### Public or Private Water Supply Systems

The provision of public water has been a moderating influence on growth and development in Groton. The town has two water supply entities: the Groton Water Department and the West Groton Water Supply District. The Groton Water Department (GWD) is a Town department that is overseen by the Groton Water Commission, a three-member elected board. As of 2018, the GWD serviced about 2,200 water connections—about 55 percent of all Groton housing units—through a

total of 52 miles of water distribution mains located primarily in the eastern and central parts of town, including Lost Lake and Groton Center.<sup>13</sup> There are three wells, including Baddacook Well and Whitney Pond Wells 1 and 2. The Whitney Pond Well #2 is considered a redundant back-up well for the main Whitney Pond Well #1. Water is pumped to the 1 million gallon Chestnut Hill Water Storage tank, which was constructed in 2005. In 2017, these wells supplied just over 161 million gallons of water, which is below the GWD's permitted withdrawal amount of 199 million gallons per year.<sup>14</sup>

The Town anticipates the construction of new wells by the Groton Water Department, including a replacement of the inactive Shattuck Well off Martins Pond Road and one new well at Unkety Brook off Chicopee Row, which have already been permitted and approved by the Massachusetts Department of Environmental Management. The additional wells will help to ensure high water quality, without increasing the town's overall permitted withdrawal volume. It is not certain at this time whether the town will need to seek to increase its Water Withdrawal Permit.

The West Groton Water Supply District serves the area along Townsend Road, West Main Street, Kemp Street, Hill Road, and other smaller streets in that vicinity. It provides water to 619 service connections — about 15 percent of the town's housing units — through approximately 19 miles of water distribution mains. Two storage tanks have combined capacity of 1.4 million gallons. One of the storage tanks, Kemp Street (211,000 gallons), is nearing the end of its usable life and will need to be replaced. The system has two water supply sources: the Townsend Road Wellfield and the Town Forest Well. The WGWSD's pumping rate in 2017 was just over 69 million gallons of water, which was also below the permitted withdrawal amount of 98.55 million gallons of water per year.<sup>15</sup>

<sup>&</sup>lt;sup>13</sup> Groton Water Department Annual Water Quality Report, May, 2018.

<sup>&</sup>lt;sup>14</sup> Sources: Groton Town Report, 2017, Massachusetts Department of Environmental Protection, "WMA Permit #9P-2-13-115.01 – Groton Water Department," July 19, 2009

<sup>&</sup>lt;sup>15</sup> Groton Water Supply District 2017 Pump Statistics, Massachusetts Department of Environmental Protection; "Water Withdrawal Permit No. 9P2-2-11-115.01 - West Groton Water Supply District," May 16, 2009.

Both water supply systems have instituted effective water conservation measures. These include an increasing block rate structure, mandatory water restrictions, and public education.

It should be noted that pollution from two local businesses necessitated the Town to supply water to the affected areas. Tetrachloroethylene (TCE) contamination from Groton Machine and Screw Co. was a major factor in the decision to run water lines to the Gilson Road area. More serious chemical releases from Conductorlab were the main reason that water service was extended to the Mill Street and Gratuity Road area. The site has been under remediation since contamination was discovered in 1985 through coordination between the Massachusetts Department of Environmental Protection (MassDEP), Honeywell International, the current owner of the facility, and the town-



appointed Conductorlab Oversight Committee. As of 2017, the cleanup has been effectively achieved; however, sporadic findings of contamination exceeding federal standards necessitate ongoing testing and focused treatment. There are also two former town dump sites, including one off of Nod Road, which predated requirement to be lined, and thus could leach contaminants. A lack of baseline info compounds the difficulty of addressing these dump sites.

#### Sewerage and Private Septic Systems

Under a 1987 agreement, Groton purchases capacity at the Pepperell Wastewater Treatment Plant for disposal of sewage produced in the Groton Sewer District, which encompasses the Town Center. The original district was expanded a few times, but it will only be considered for further expansion where there is an emergency need, as the district is close to its permitted capacity, serving 715 active sewer accounts as of August 1, 2018. In 2017 Groton treated 46 million gallons at Pepperell's Wastewater Treatment Plant. In addition, Groton contracts with Pepperell and contributes funding for the operation, maintenance, and upgrades for the system's two pump stations, force main, manholes, laterals, and interceptors.<sup>16</sup>

Construction has just been completed establishing a new sewer district at the Four Corners Village, which will facilitate new commercial, industrial, and residential development in the area. Supported by a MassWorks grant, the sewer district, which sends its wastewater for treatment to Ayer, may be expanded to accommodate up to 100 million gallons per day, but is limited by a strict interbasin transfer permit through Mass DEP that is intended to enable sewer service to the Lost Lake area as well. The maximum approved ITB flows to Ayer for the Lost Lake and Four Corners combined sewers is 363,000 gallons per day.

Over recent decades the Lost Lake/Knops Pond area has been analyzed for the potential to install sewer to protect water quality. The Lost Lake/Knops Pond watershed was identified a priority for intervention due to the prevalence of small lots with individual septic systems surrounding the ponds. Although MassDEP approval was obtained, as well as grant funding from USDA, the project did not go forward because it was determined by the Lost Lake Sewer Committee that the septic systems were not the primary contributor of

<sup>&</sup>lt;sup>16</sup> Town of Groton, Annual Town Report 2009, 33, communication via email with Thomas Orcutt, August 1, 2018.

nutrient and contamination, and there was a lack of voter support for incurring large capital expenditures for this purpose.

In the past, the feasibility of creating a sewer district in West Groton has also been a subject of analysis. While the area's septic systems do not pose the same critical environmental concern as those located in Lost Lake, lack of public sewer greatly reduces West Groton's economic potential. The West Groton Sewer Committee was disbanded in June 2011 due to lack of political support.

Wastewater treatment decisions play a significant role in determining development potential. As Groton introduces municipal sewer service into new areas of town, it must ensure that appropriate regulations are in place to guide development so future land use does not conflict with open space and recreation goals.

# 3. Local Land Use Controls



The rate at which the conversion of natural lands into alternative uses, such as housing, agriculture, retail, office, or other uses occurs, depends highly upon the regulatory environment within a given community. Local regulations such as the Zoning Bylaw, Wetlands Protection Regulations, and the Stormwater Management – Low Impact Development Bylaw help the Town manage and mitigate the impacts of new development or redevelopment. These regulations control the amount of development, the kind of development, where the development is located, and what is required to offset the environmental impacts. The regulations work in concert with state level regulations: Wetlands Protection Act, Clean Air Act, Clean Water Act, Endangered Species Act, and Hazardous Waste Management Act, as well as federal regulations: Clean Water Act, Clean Air Act, Rivers and Harbors Act, and the National Flood Insurance Act and Flood Disaster Protection Act.

As development continues, it will profoundly impact the availability of open space and the condition of the environment. This will be very noticeable in a place that still has many of the characteristics of an agrarian rural community. There are sensitive zoning controls in place to help maintain Groton's natural environment by carefully guiding development.

### **Groton Zoning Bylaw**

Groton's Zoning Bylaw divides the town into the following base zoning districts: R-A Residential-Agricultural District, R-B Residential-Business District, VCB Village Center Business, NB Neighborhood Business, GB General Business, I Industrial District, O Official Open-Space District, P Public Use District; and the following overlay zoning districts: Floodplain, Water Resource District, Recreation, and the Town Center Overlay District. (See Appendix A, Map 3: Zoning)

### **Residential Districts**

The **Residential-Agricultural (R-A)** district is a very-low-density residential use district for single-family and two-family homes, both allowed by right, together with agricultural and forestry uses, which are permitted throughout the town. This is by far the largest district in Groton, accounting for over 85 percent of all zoned land.

Under conventional dimensional requirements, the R-A district is destructive to open space because it creates very large lots. The minimum lot size is 80,000 square feet (two-acre zoning, in builder's acres), and the minimum frontage is 225 feet. These provide for extremely low-density development. When applied over much of the town (as the current zoning map requires), this type of development pattern carves up open space and interferes with ecological functions, such as riparian and wildlife corridors.

In Groton, however, there is a special development option to use R-A land more efficiently and preserve more open space. **Flexible Development** applies to parcels or contiguous parcels in the R-A district—there is no minimum land area requirement to qualify for approval. The bylaw provides for divergence from R-A dimensional rules and standard subdivision requirements in the following two ways:

- Allowing alternative site planning and design through a five-step variation on the four-step process typically found in Open Space-Residential Development (OSRD) bylaws. Groton's process requires an inventory of existing site features; consideration of larger site context; designation of contiguous open space for preservation; designation of development areas; and delineation of lot lines. At least 35 percent of the site must be set aside for open space (not including wetlands) that serves conservation, historic preservation, outdoor education, recreation, and similarly beneficial and low-impact public purposes.
- Encouraging applicants to modify the lot size and shape and other dimensional requirements to attain the objectives of the bylaw.

A Flexible Development may include single-family, two-family, and multi-family dwellings with up to five units, but it does not allow an increase in the number of units that could have been built under conventional zoning. Applicants must submit a yield plan to prove what a conventional plan could support.

The **Residence Business (R-B)** district is a very small, low-density residential district that contains fewer than 20 properties that are largely clustered in three small areas in town. The R-B district has very similar use regulations to the R-A district, but provides for additional business uses. The district's minimum lot area (40,000 square feet) and frontage regulations (175 feet) apply to residential uses but not business uses. The nonresidential properties do not meet current requirements.

### **Business Districts**

The **Village Center (VC)** district is "intended to provide areas within Village Centers of Groton that allow for a mix of uses including retail, commercial, office, services, and residential, of appropriate and walkable scale that contribute to the village's sense of place."<sup>17</sup> However, although single- and two-family residential buildings are allowed by right, as are single units above shops, multifamily buildings with three units in converted buildings require a special permit, and any larger project would require a 2/3 supermajority vote to approve the concept plan. In so far as commercial uses are concerned, there is a preference for general business uses and retail smaller than 2,500 square feet (with an absolute limit of 10,000 square feet of gross

<sup>&</sup>lt;sup>17</sup> Groton Zoning Bylaw, accessed via Municode306, September 26, 2018.

### Recent Regulatory Changes

#### 2018

Marijuana Moratorium Extension

Four Corners Sewer District Extension Sacred Heart Church

Rezoning/Concept Plan 2017

Adoption of Marijuana Establishment Regulations & Moratorium

Adoption of Complete Streets

Update of Site Plan Standards

Major Project Regulation Update

### 2016

Indian Hill Sewer Extension

Revision of Non-Conformities Definition

#### 2015

Four Corners Sewer District/IMA with Ayer

Downtown Parking Revisions

Tarbell School Rezoning

Special Permit/Definitive Site Plan Review updated for Concurrency

#### 2014

Update of Definitions, Classification of Districts, Map References, Intention of Districts, Use Regulations, and Intensity Regulations

Neighborhood Business and Village Center Business Adoption

Wetlands Bylaw

### 2013

Update to Water Resource Protection District Farmers Row Rezoning 120 Boston Road Concept Plan Groton Inn Concept Plan floor area). The VC district carries a small minimum lot size of 10,000 square feet, but requires a rather large amount of frontage at 150', which is not necessarily proportionate to a 10,000 square foot lot. The frontage requirement likely encourages the creation of larger than necessary lots, which leads to fragmentation and less land available for conservation purposes.

The **Neighborhood Business (NB)** district is intended to allow for small-scale commercial uses providing goods and services that are convenient to have located alongside residential neighborhoods. Such uses might include a corner store, post office, hair salon, take-out restaurant, bank, or some other similar combination of uses. The NB district also allows for residential uses, including units above stores, single family homes, and multi-family (which require Planning Board review). Minimum lot sizes in the NB district are measured just under ½ acre at 20,000 square feet, but require 150' of frontage. Like the VC district, this amount of frontage is not necessarily customary to 20,000 square foot lots.

The **General Business (GB)** district provides for a range of business uses. It is located in pockets mainly along Routes 111, 119, and 225 including Groton Center and Four Corners. The GB district has the same dimensional requirements as the R-B and I districts (aside from lot coverage regulations), but neither the lot area nor frontage requirement applies to business uses.

#### Industrial Districts

The **Industrial (I)** district provides for industrial manufacturing uses. Formerly known as the Manufacturing (M-1) district, the I district was approved at Fall Town Meeting in 2014. Like the R-B and GB districts, the I district is small and utilizes the same dimensional requirements (with exception of lot coverage). Much of the I district land is located in West Groton along the Squannacook River near the Shirley border.

### **Special Districts**

The official **Open Space (O)** district applies to open space dedicated or used for public or semipublic purposes. Some of the land in this district is also protected by deed or conservation restrictions. Previously the O district included both open space and municipal facilities, but in 2001, Town Meeting created the Public Use (P) district and rezoned all of the municipal facilities, thus making activity in the O district more consistent with its stated purposes.

The **Public Use (P)** district provides for a variety of public facilities. As noted above, this district includes land formerly located in the O district. Municipal buildings and facilities, public utilities, cemeteries, and outdoor storage of fuel products are allowed by right, while community clubs, hospitals, subsidized elderly housing, windmills, meteorological towers, large-scale wind energy conversion devices, and parking facilities may be allowed by special permit.

### **Overlay Districts**

**Floodplain Overlay District (FOD)** The boundaries of the Floodplain Overlay District are based on Groton's Flood Insurance Rate Maps (FIRM) and the Flood Boundary and Floodway Maps (2010), which the federal government is in the process of updating. The district prohibits new construction within the one hundred-year floodplain.

**Water Resource Protection Overlay District (WRPOD)** Groton's Water Resource Protection Overlay District consists of three sub-districts (WPD I, WPD II, and WPD III). WPD I applies to land surrounding a well or wellfield, defined as the protective radius ("Zone I") required by the Massachusetts Department of Environmental Protection (DEP) as a condition of permitting a public drinking water supply. The boundaries of WPD II correspond to two areas regulated by DEP: A well or wellfield's "Zone II," or the areas from which an operating well draws water under stress pumping conditions, and the Interim Wellhead Protection Area for wells that do not have a designated Zone II. The third sub-district, WPD III, includes the watershed of each DEP Zone II. Each of these districts has special regulations designed to protect public water supplies.

**Recreational Overlay District (ROD)** This small overlay district applies only to the Town-owned Groton Country Club on Lovers Lane. Town Meeting established the district in order to create regulations that would allow the land to be used as a multi-purpose recreation area with related facilities, such as a restaurant or store.

**Town Center Overlay District (TCOD)** This district began as the Station Avenue Overlay District in 2007 and was based on planning for the reuse of the Station Avenue area in Groton Center. It became the Town Center Overlay District in 2011. The district provides for civic, residential, and commercial uses (or a mix thereof) by special permit, in addition to uses permitted in the underlying R-A, R-B, B-1, and P districts. Uses specific to the TCOD include:

- Small-scale retail store or service establishments.
- Business or professional offices.
- Restaurant or other place for serving food, but not including drive-through service windows.
- Mixed-use development consisting of two or more of the above-listed uses.
- Mixed-use/residential development consisting of one or more of the above-listed uses, together with duplex dwellings and/or multifamily dwellings.

### **Wetlands Protection Regulations**

Wetlands in Massachusetts are governed by the Wetlands Protection Act (M.G.L. Chapter 131, Section 40). However, in Massachusetts, cities and towns retain the right to adopt regulations that are more (but not less) restrictive than the State's regulations. Groton's Wetlands Bylaw (Chapter 215 of Groton's General Bylaws) was initially adopted in 2001, amended in 2005 (Chapter 344), repealed and replaced in 2014 (Chapter 215), and amended in its entirety in 2015 (Chapter 344). The purpose of Chapter 344 of the General

Bylaws is to aid in the consistent and effective implementation of Chapter 215 by providing further definition, explanation, and specification, plus illustrations and examples of the bylaw's provisions.

The purpose of the Wetlands Bylaw is to "protect the wetlands, related water resources, and adjoining land areas in the Town of Groton by controlling activities determined by the Conservation Commission to be likely to have a significant or cumulatively detrimental effect upon any wetland resource area or value protected by this chapter, including, but not limited to, the following interests and values: Protection of public or private water supply, groundwater, flood control, erosion and sedimentation control, storm damage prevention, water quality, water pollution control, fisheries, wildlife and wildlife habitat, rare plant or animal species and habitat, agriculture and aquaculture, recreation and aesthetic values."<sup>18</sup>

The bylaw applies to **wetland resource areas**<sup>19</sup> and prohibits alteration and disturbance of these areas. Alterations and disturbances include the disturbance of vegetation beyond the removal of invasive species, the erection of permanent structures or parking facilities, the removal or filling of earth, the construction of driveways or roadways, and/or the storage or placement of refuse containers such as dumpsters. Further, the bylaw provides a framework of regulations by which the Conservation Commission can operate. The regulations establish application procedures and submittal requirements and provisions for securities and enforcement.

#### Stormwater Management - Low Impact Development Bylaw

The purpose of the Stormwater Management Bylaw is to "establish requirements and procedures to control the adverse effects of increased post-development stormwater runoff and non-pointsource pollution associated with new development and redevelopment."<sup>20</sup> By mitigating these impacts associated with new development, such as increased impervious surfaces, alterations to natural grade and soil conditions, intensified use and the introduction of chemical byproducts (e.g., lawn fertilizer, motor oil, road salt) that threaten and impair Groton's surface and groundwater supplies, the bylaw seeks to reduce flooding, stream bank erosion, siltation, non-pointsource pollution, property damage, and to maintain the integrity of stream channels and aquatic habitats.

The bylaw outlines standards for new and redeveloped areas that are in accordance with best practices for the Low Impact Development standards. The bylaw requires the submission of an Operation and Maintenance Plan (O&M Plan) for all projects that are subject to a full stormwater permit. These include projects that involve excavating, grading, or other activity disturbing an area of 40,000 or more square feet or a volume of earth resulting in a total quantity equal to or greater than 1,000 cubic yards. Limited stormwater permits are required for smaller projects that involve excavating, grading, or other activity disturbing an area greater than 20,000 square feet but less than 40,000 square feet or a volume of earth greater than 500 cubic yards but less than 1,000 cubic yards, or activity disturbing an area of land greater than 5,000 square feet if the slope is 10% or greater, or if the soil cut or filled exceeds four feet in vertical depth at its deepest point as measured from the natural ground level.

<sup>&</sup>lt;sup>18</sup> Groton Wetlands Bylaw

<sup>&</sup>lt;sup>19</sup> Any wetland, including, but not limited to, any freshwater wetland, marsh, wet meadow, bog, swamp, vernal pool, creek, beach or bank, reservoir, lake, pond of any size, land under any water body or within 100 feet of any of the aforesaid resource areas; any river or stream, including land within 200 feet of same; or any land subject to flooding or inundation by stormwater, groundwater, or surface water.

<sup>&</sup>lt;sup>20</sup> Groton Stormwater-Low Impact Development Bylaw

### **Build Out**

Groton has a large amount of protected open space, but the town also has a large amount of undeveloped, unprotected land—particularly undeveloped residential land—that falls under R-A zoning. Given market trends and current zoning, without some type of protection, this land will most likely be developed in accordance with the zoning for low-density residential use.

The 2011 Master Plan estimated the potential for development of 1,956 homes and 125,688 square feet of commercial space. Some residential land could be developed as more compact Flexible Development projects, both of which require open space set-asides. Still, even this type of development would likely fragment existing open space and prevent the realization of an open space system that supports ecological process and enhances recreational opportunities.

Local regulations are a reflection of the values of the community they serve. Groton has reinforced its commitment to land conservancy and ecological stewardship through continuous legislative action at Town Meeting. These actions will have long lasting impacts on the landscape, as the Town has taken an active role to acquire and protect critical and environmentally sensitive lands from development, either directly or by partnering with local, regional, or state-level entities. The 2006 purchase of Surrenden Farms is a notable example of this commitment. The Town has also worked actively to exercise its right of first refusal when lands enrolled in the Chapter 61 program have become available, to obtain Conservation

The commitment of private landowners, organizations, and volunteers has also been critical in securing the permanent protection of land from development through public/private partnerships. Significant recent examples include:

- Surrenden Farms with the Town, Groton School, the Trust For Public Lands, the Groton Conservation Trust (GCT), and the Commonwealth
- Gibbet Hill/Angus Hill/Brooks Orchard with the Town, the Webber family, GCT, and the Commonwealth
- Rocky Hill with the Town, Mass Audubon, and property owners Moulton and Lacombe

Restrictions on critical parcels not already protected, as well as Agricultural Preservation Restrictions to ensure working lands remain active. Beyond these commitments, the Town's values are also represented by the Town undertaking the process to update the Wetlands Protection Regulations in 2015 to ensure they are adequately stringent to protect irreplaceable and sensitive lands, explore the issue of sewerage in Lost Lake for water protection, study the Great Ponds and find appropriate methods to prevent aquatic invasive species from overtaking their waters, explore renewable energy opportunities with respect to wind turbines and solar orchards; all of which are actions that have occurred in the past five years alone.

As a result of these actions, much of Groton's lands have been protected and the rate of development has slowed considerably since the 1980s. However, new development will still profoundly impact the availability of open space and the condition of the environment. Fortunately, the Town has had considerable success in attracting new growth that is complementary to the Town's values.

Without intervention to protect key open space parcels and further develop the Town's open space system, development under the Town's current zoning would compromise ecologically significant open space parcels. Key unprotected open space areas include the following:

- The central reach of the Nashua River from the Town Forest north to the J. Harry Rich State Forest.
- Portions of the Squannacook River from the Town Forest north through West Groton.

- Most of James Brook, from the Ayer border north through Groton Center.
- Martin's Pond Brook from Martin's Pond to Lost Lake.
- Whitney Pond and Cow Pond Brook.
- Nod Brook and Unkety/Hawtree Brook.
- Reedy Meadow Brook.

# A. Geology, Soils, and Topography

Like most of New England, the Groton landscape was formed 12-20,000 years ago by the last receding glacier. But the diversity of glacial features found here is rare for one town. The swarm of unusual landforms, including drumlins, braided streams, glacial river deltas, and glacial Lake Nashua's bottom sediments provide a rich diversity of soils, topography, and wetlands that allows for an amazing biodiversity.

Groton's place on the globe also lends itself to increased biodiversity. The area lies where two major forest biomes overlap. The northern hardwood-hemlock pine forest extends from here to Canada and the central deciduous-oak-hickory forest extends from here to Georgia. Groton is home to plants and animals from both of these biomes.

In addition to the diversity of land forms and plants, the area has a system of ancient corridors, the Squannacook, Nissitissit, and Nashua Rivers, which allow species to interconnect. These river bottoms have centuries of glacial silts that allow for large fresh water reservoirs.<sup>21</sup>

# 1) Geology

The underlying structure of the earth's crust in Groton is the result of geologic events that can be traced back nearly 600 million years. During the Paleozoic Era (beginning 600 million years ago and ending 230 million years ago) igneous and metamorphic rocks intruded into the earth's crust from below its surface, forming the basic terrain. The landscape was further transformed by glacial erosion and deposition during the Pleistocene Ice Age (beginning 1.8 to 1.6 million years ago and lasting until approximately 10,000 to 12,000 years ago) with many periods of advance and retreat of continental ice sheets, which sometimes reached heights of a mile or more. As the earth periodically warmed, these ice sheets melted and retreated, but with cooling temperatures, the ice sheets advanced as far south as Long Island, New York. During this time, the pre-glacial landscape was modified by glacial abrasion and outwash deposits caused by the huge ice formations. These glaciers deposited alluvium and glacial till, leaving clays, sands, silts, and gravel over the bedrock as they receded northward. These processes determine the soil types found in Groton today.

Evidence of glacial activity still exists in Groton and is found in the major landforms that make up the local terrain.

**Drumlins:** Groton's most unique geologic landform is the rare occurrence of a large number, or swarm, of drumlins that run through the central portion of town, aligned with the direction of glacial movement from north-northwest to south-southeast. Groton's drumlins have oval shapes with low slopes to the north, formed as the glacier rode over the drumlin, and steep slopes to the south, where the glaciers dropped new soil and rock. Groton's drumlins are extremely unusual in that most have double or triple parallel ridges rather than single ridges like most of the world's drumlins.

<sup>&</sup>lt;sup>21</sup> Groton Conservation Commission Inventory of Properties, 2014, Mary Metzger

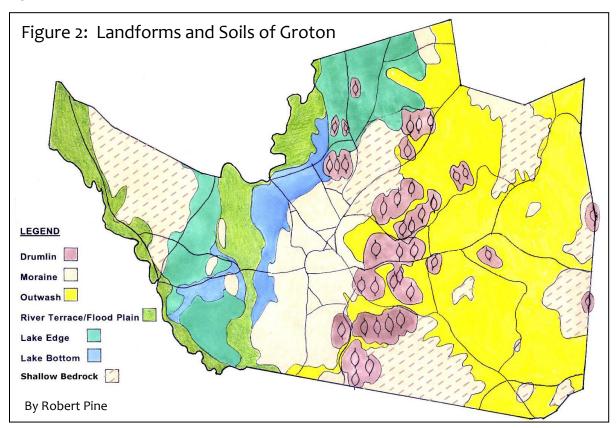
**Ground Moraines:** Groton has several types of ground moraines, all created beneath the advancing glacier. Moraines are blankets of till deposited by a glacier. Groton's moraines vary based largely on the underlying bedrock. The Throne Hill area has shallow bands of hard and soft bedrock, which resulted in the glacier sculpting complex topography that captures water in numerous vernal pools. Through the central region of Groton, from the Farmers Row area to north of the Town Center, the glacier deposited relatively thick glacial till. Farther north, in the vicinity of the Walker and Mayfield Farm properties, the glacier 'plucked' soft rock, leaving an undulating topography with numerous shallow holes that now serve as vernal pools. Other moraines in north and south Groton were formed over hard rock, largely scraped bare by the advancing glacier.

**Glacial Outwash:** Some of Groton's most remarkable glacial features are the kames, kettles, and eskers formed by rushing glacial meltwaters in fractures and openings in the stagnant disintegrating glacier. These are best found in the eastern portions of the town, such as the Lost Lake area.

**Glacial Lake Deposits:** The Nashua River valley is the site of Glacial Lake Nashua, bounded by walls of ice, into which glacial rivers ran. Glacial lake bottom fine-grained sediments can be found within the central part of the ancient lake, and edge deposits can be found around the edges. Some of the bottom deposits have been scoured by the river or buried under floodplain deposits.

**Wetland Soils:** Since many of Groton's landforms were dumped onto underlying areas by the glaciers, those landforms blocked natural drainage, resulting in numerous wetlands and small meandering streams. The numerous vernal pools sculpted by the glacier add to the complex pattern of wetlands.

A map showing, in a simplified manner, the distributions of these landforms across Groton is presented in Figure 2.



## 2) Soils

The pattern of soil types across Groton is consistent with the pattern of landforms. The soil classifications in the River Terrace/Floodplain areas close to the Squannacook and Nashua Rivers are typically Pootatuck fine sandy loam, Suncook sandy loam, or Winooski very fine sandy loam, all of which are deep, moderately to excessively drained soils that form in floodplains. These soils are suitable for agriculture or woodlands, but are subject to periodic flooding. The River Terrace soils, somewhat upgradient from the rivers, are typically Carver soils formed by glacial outwash along the river edges. These soils are excessively drained and less suitable for agriculture.

The moraine soils in the Throne Hill area of West Groton have shallow bedrock and typically have Charlton, Hollis Rock Outcrop complex soils that vary from impermeable rock to excessively drained soils in a variety of patterns. These soils have poor agricultural potential and variable productivity as woodlands.

**Lake Bottom Soils**, along the sides of the Nashua River floodplain, are typically Windsor or Deerfield loamy sands that developed in soils that settled on the bottom of Glacial Lake Nashua. These soils are typically moderately drained, but often have shallow ground water. They are fertile, flat, and well suited to agriculture, but often poorly suited for residential use.

**The Lake Edge Soils**, outside the Lake Bottom or Floodplain Soils of the Nashua River valley were deposited where glacial streams entered Glacial Lake Nashua. These soils typically are classified as Quonset, Carver, or Hinkley and are primarily outwash soils consisting of sands and gravels that are excessively drained.

The ground moraine that runs through Groton Center and along Farmers Row is glacial till, typically classified as Pittstown or Bernardston silt loam, or Montauk or Paxton fine sandy loam. These soils are moderately- to well-drained and vary from poorly suited to well suited for agriculture, depending on the quantity of stones in the soil.

The ground moraine further to the north, near the Walker and Mayfield Farm properties, has shallow bedrock with only the thin veneer of glacial till, and it is primarily classified as Charlton fine sandy loam or Charlton-Hollis-Rock complex. These soils are well-drained and, in flatter areas, well suited to agriculture.

The drumlin hills that run from north to south through the center of the town consist of deep glacial till classified mostly as Bernardston silt loam. These soils are well drained and excellent for agriculture, but have steep slopes so have been used mostly for fruit trees.

Much of the eastern part of Groton consists of glacial outwash soils such as Quonset, Carver, and Hinkley. These soils are excessively drained and poorly suited to agriculture.

The shallow bedrock areas near Rocky Hill in southeast Groton, Horse Hill in northern Groton, and an area south of Route 40 have thin layers of glacial till and are classified primarily as Charlton Hollis Rock complexes.

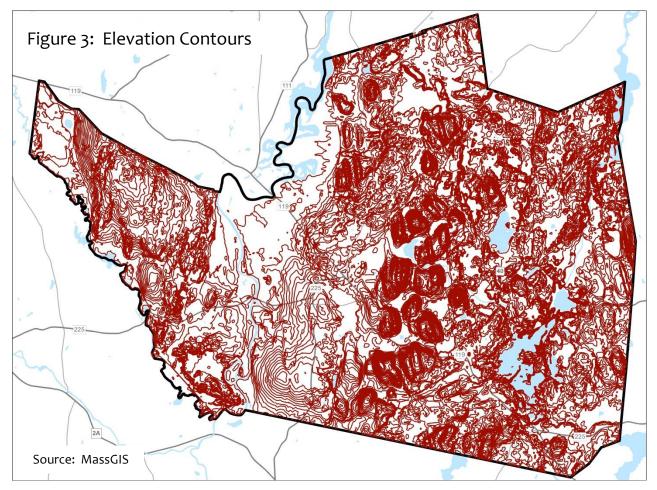
A map showing the soil groups in more detail is shown in Appendix A, Required Maps.

# 3) Topography

Groton has a varied terrain. The wet areas and outwash deposits in the east are separated from the flatter areas and floodplain deposits of the west by a distinct range of barrier hills rising through the center of town. This apparent "L-pattern" chain of hills cradles the forests, wetlands, and waters of the eastern region, and consists of Fletcher Hill (350 feet), Rocky Hill (422 feet), Snake Hill (452 feet), the Indian Hills (highest point, 492 feet), Prospect Hill (490 feet), Brown Loaf (463 feet), Gibbet Hill (510 feet), The Chestnut Hills (highest point, 516 feet), and Baralock Hill (434 feet). The only other prominent elevations in town are Shepley Hill (364 feet) and Clay Pit Hill (360 feet). Comparably, the general average elevation in the Town Center is 300 feet and the Town Common sits at 330 feet.

The areas that contain this hilly topography constitute a large portion of land that is considered to be unsuitable for development due to moderate (15-25 percent) and steep (>25 percent) slopes. There are numerous wetlands interspersed east of the drumlin hills that limit development. Reedy Meadow in north central Groton, parts of Groton Center, and areas along the Nashua and Squannacook Rivers make up most of the remaining undeveloped land that is too low and wet to be built upon.

The most level open land with development potential is located west of Route 111, although to date, the eastern region has seen most of the residential construction, due to its more favorable soil conditions. For the most part, this area's topography is moderate, except near the relatively flat Nashua River bed, where areas may be flood prone and wet, which may prohibit building.



# **B.Landscape Character**

The beauty of Groton can be succinctly captured in the views from some of its most prominent points, such as its historic downtown with winding roads radiating out to rural expanses of pastoral farmlands and lush forests. In this way, Groton has maintained the character and feel of the quintessential New England village. The fact that a great deal of the town remains in its natural state, undeveloped due to laudable local conservation efforts, natural constraints limiting land use, and landowners choosing to keep lands in agricultural uses contributes to the town's idyllic New England landscape.

Contributing to the community's character are the many large expanses of protected open space and woodlands owned by public and private entities, including the New England Forestry Foundation, the Groton Conservation Trust, the Massachusetts Audubon Society, the Commonwealth of Massachusetts (Department of Conservation and Recreation and Department of Fish and Game), and the Town of Groton, which oversees about 3,200 acres of land for the purposes of recreation, conservation, and protection of its public water supply.

Farmlands help to maintain the rural character in Groton, especially in the Farmers Row and Main Street Historic Districts. Farmers Row has many picturesque farm houses and barns, with scenic views to the west of the Wachusett Hills, along with rolling farmland and orchards. Picturesque views also serve as a backdrop to the majestic homes on Main Street. The Historic District Commission reviews new development and renovation proposals to preserve the area's historical integrity.

Groton's unique glacial landforms contribute to its landscape character. In particular, the swarm of drumlin hills that run through its central region and separate the town into two distinct topographical areas – a hilly eastern region and flatter western region. Elevations of these drumlins and hills allow many vantage points from which to view a mosaic of farm lands and woods. Also noteworthy are the waters that punctuate Groton's landscape, which have been shaped by natural forces and in some cases, human alteration and have influenced development patterns in sections of the town.



A map showing Unique Features is shown in Appendix A, Required Maps.

# **C.Water Resources**

### 1) Watersheds

Groton straddles two sub-watersheds within the Merrimack River watershed. The western side of the town is in the Nashua River Basin or Nashua River Watershed, while the eastern side of town is in the Merrimack River Basin. The boundary between the two bisects the town in a roughly north/south line that runs parallel to the east of Farmers' Row, Hollis Street, and Chicopee Row. The Merrimack sub-watershed includes Lost Lake/Knops Pond, Baddacook Pond, Whitney or Cow Pond, Martins Pond Brook, and Cow Pond Brook in eastern Groton. It is also home to the Groton Water Department's three public wells. The Nashua River Watershed encompasses both the Nashua and Squannacook Rivers, as well as the Reedy Meadow area and Unkety, Nod, and James Brooks.

One of the most successful and well-known watershed-based protection efforts is led by the Nashua River Watershed Association (NRWA), established in 1969 by long-time Groton resident Marion Stoddart. With a focus on curbing pollution and sustaining the natural resources of the watershed along the riverway, the NRWA has been instrumental in restoring the Nashua River, spearheading stewardship planning, and protecting land within the watershed and greenways along the river and tributaries. The NRWA also monitors water quality in the Nashua River at approximately 44 points, including two in Groton.

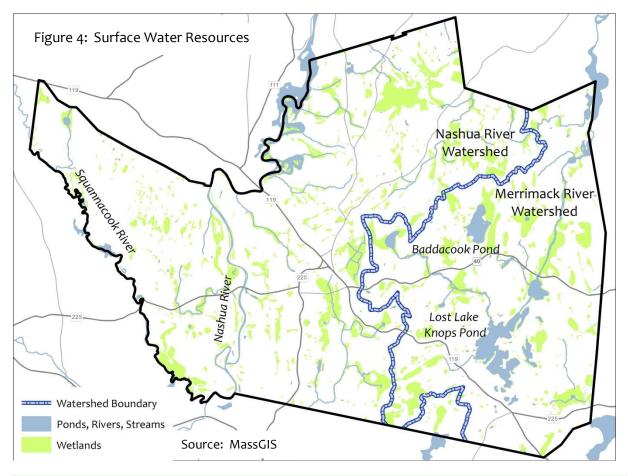


The entire area within the Nashua River Watershed is included in the Nashua River Forest Legacy Area under the US Forest Service. The US Forest Service administers the Forest Legacy program partnership with the State's DCR. The Forest Legacy program provides federal matching funds (up to 75%) to secure the permanent protection of open space.

The Merrimack River Watershed Council (MRWC) was established in 1978 to advocate for the restoration of the Merrimack River, which was among the most polluted waterways in the nation. The focus area for the MRWC encompasses the Nashua watershed. The Merrimack River Watershed Council recently partnered with the NRWA to undertake a riparian restoration project within the Bertozzi Wildlife Management Area along the Squannacook River.

### 2) Surface Water

Groton has 1,328 acres of open water, which include lakes and great ponds, two rivers, and a number of smaller ponds and brooks. Many of the more substantial water bodies and waterways are valued for their aesthetic and recreational value, and they support a number of activities, such as swimming, boating, and fishing. Some of Groton's ponds and rivers are annually stocked with trout. Groton's waters also are home to a variety of wildlife habitats, including fish, amphibian species, birds, and small mammals. The following map illustrates some of Groton's surface water resources. (A map combining all water resources is shown in Appendix A, Required Maps.)



### Lakes and Ponds

Groton has or shares several Great Ponds, totaling 417 acres of surface water.<sup>22</sup> The largest of these is Lost Lake (the town's only lake), whose 205 acres include adjoining Knops Pond. Two more of the Great Ponds are located near the Lake: Whitney or Cow Pond (37 acres) and Duck Pond (26 acres). The other Great Ponds located entirely within Groton, Baddacook Pond (80 acres) and Martins Pond (22 acres), are located east of Town Center. Groton shares 42 acres of pond area with neighboring communities, including Massapoag Pond (111 acres total shared with Dunstable and Tyngsborough) and Long Pond (46 acres total shared with Ayer). An additional 37 acres of smaller natural and artificial ponds located throughout town range in size from less than one acre to approximately 10 acres.

For recreational purposes, public access is provided via protected open space to all Great Ponds located entirely in Groton except Martins Pond. There is limited or no public access to Long and Massapoag Ponds, the water bodies that the town shares with other communities. Other smaller water bodies, such as Cady, Flat, and Wattles Ponds are accessible via protected public lands. MassWildlife stocks Baddacook Pond and Knops Pond for fishing.<sup>23</sup>

<sup>&</sup>lt;sup>22</sup> Great Ponds are defined as standing bodies of water having a size of at least ten (10) acres in their natural state.

<sup>&</sup>lt;sup>23</sup> <u>https://www.mass.gov/service-details/trout-stocking-report</u>, accessed October 3, 2018

The federal **Clean Water Act** (CWA) requires states to evaluate the quality of all surface water bodies for their ability to support a range of uses, including aquatic life support, fish and shellfish consumption, and drinking water supply. These are reported in an annual Integrated List of Waters. The state assigns a category to each water body according to its water quality. Category 5 water bodies are those that are "impaired or threatened for one or more uses" and are part of another CWArequired list known as the 303(d)list, which is reported to the federal government. These water bodies require a Total Maximum Daily Load (TMDL) be assigned to the offending pollutant, which functions as a "budget" for how much of that pollutant may be discharged into the water body. Category 5 waters are closely monitored to ensure TMDLs are not exceeded.

pollution in the river.<sup>24</sup>

According to the Commonwealth's 2016 Proposed Integrated List of Waters, Lost Lake/ Knops Pond is listed as a Category 4 water body due to impairment caused by metals and exotic species. Massapoag Pond, which is shared by Groton, Dunstable, and Tyngsborough, is listed as a Category 5 water body due to metals, noxious aquatic plants, and exotic species.

### **Rivers and Brooks**

The principal watercourse in Groton is the Nashua River, formed by two branches: the North Nashua River originating in West Fitchburg and a southern branch flowing out of the Wachusett Reservoir. The Nashua River flows 38 miles northward to the Merrimack River in Nashua, New Hampshire, and separates the town's central and western regions. During its winding course through Groton, the width of the Nashua varies greatly from 100 feet near the Ayer border to nearly 2,000 feet by Hickory Point, which is just upstream of a dam located over the town line in Pepperell town.

In the state's 2016 Proposed Integrated List of Waters, prepared by the Massachusetts Department of Environmental Protection (DEP), the segment of the Nashua River running through Groton has been designated a Category 5 or "impaired" waterway due to pollutants caused by stormwater runoff from roadways and development, lawns, and agricultural fields, as well as site-specific sources. The Nashua River Watershed Association maintains a water quality monitoring program to identify and address sources of

Another substantial waterway is the Squannacook River, which flows from its headwaters in Townsend southeast to the Groton Town Forest where it joins the Nashua River. During its 14-mile course, it forms the western border of Groton with Shirley and varies in width from only a few feet where it starts to nearly 200 feet adjacent to the West Groton Well Field. Like the Nashua River, the segment of the Squannacook that runs through Groton below the Hollingsworth & Vose dam is classified as a Category 5 waterway. The Squannacook's issues include a low pH (indicating acidic water) and E. coli, among other concerns.<sup>25</sup>

<sup>&</sup>lt;sup>24</sup> Massachusetts Executive Office of Energy and Environmental Affairs, Department of Environmental Protection, Division of Watershed Management – Watershed Planning Program, *Massachusetts Year 2016 Integrated List of Waters: Proposed Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act,* June, 2017. Nashua River Watershed Association website

<sup>&</sup>lt;sup>25</sup> Massachusetts Department of Environmental Protection, Massachusetts Year 2016 Integrated List of Waters, 2017.

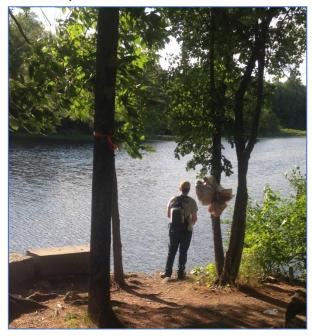
The upper part of the Squannacook River, from its source to Hollingsworth & Vose in Groton, is protected as part of the Squannacook and Nissitissit Rivers Sanctuary Act (MGL, Ch. 132A:17). This prohibits the discharge of any sewerage and limits the discharge of any storm water runoff into the rivers and their tributaries (including Flat Pond and Flat Pond Brook in Groton). The State Attorney General has authority to take necessary actions to enforce the provisions of this Act. The Squannacook River and Flat Pond have also been designated as Outstanding Resource Waters (ORW) by the Commonwealth of Massachusetts, requiring higher standards for stormwater runoff and water quality. The Squannacook River is also identified as a Coldwater Fisheries Resource (CFR), given more stringent temperature and dissolved oxygen criteria than other inland waters.

Beyond these two rivers, there are more than ten formally named brooks that wind their way through Groton and help feed other bodies of water. These smaller brooks include the Baddacook, Cow Pond, Flat Pond, Gay, James, Martins Pond, Nod, Reedy Meadow, Tuity, Unkety, and Wrangling Brooks. Only Flat Pond Brook feeds the Squannacook River, while the James, Wrangling, Tuity, Nod, and Reedy Meadow Brooks supply the Nashua River. Other brooks feed each other or water bodies located nearby. Of these, Unkety Brook, Reedy Meadow Brook, and Nutting Stream are designated as CFRs.

These water courses have been designated as low flow waters by the state Division of Water Pollution

Control, which means that they are unable to accept and process pollutant discharges. Most of these brooks are insubstantial resources for major recreational activities; however, they tend to be used for more passive recreation, such as fishing and nature or wildlife observation. More importantly, the town's small brooks and streams serve as plant, fish, and wildlife habitats. Among these smaller courses, James Brook is classified as a Category 5 waterway with impairment due to E. coli.

Most major waterways in Groton are accessible to the public for recreation purposes via protected open space, trails, and boat launches owned and/or managed by the State, Town, or private conservation groups, institutions, or businesses. MassWildlife stocks the Squannacook River with trout for fishing.<sup>26</sup>



A thee-year study was completed in 2018 to propose designation of the Nashua River, along with the Squannacook and Nissitissit Rivers as a Wild and Scenic Rivers Corridor under the 1968 Wild and Scenic Rivers Act.<sup>27</sup> Along with the implementation of a locally-driven stewardship plan outlined in the Study, designation will provide for federal funding and limited protections after receiving Congressional approval. The Study Committee included representatives from each of 11 towns participating in the Study,

<sup>&</sup>lt;sup>26</sup> https://www.mass.gov/service-details/trout-stocking-report, accessed October 3, 2018

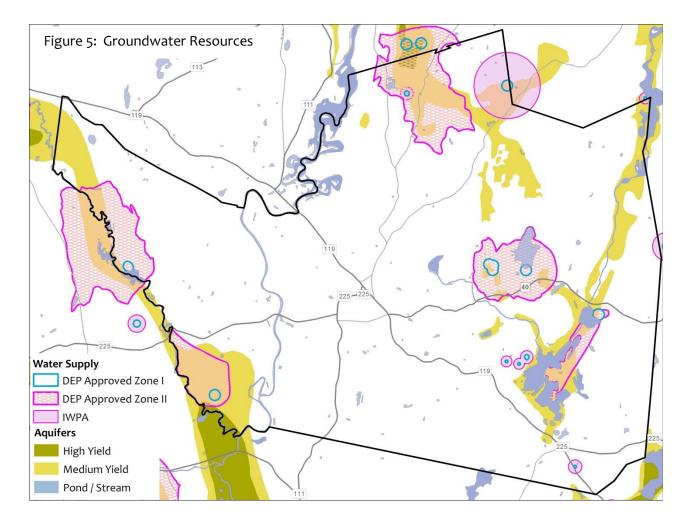
<sup>&</sup>lt;sup>27</sup> Nashua, Squannacook, and Nissitissit Rivers Stewardship Plan, Nashua River Wild & Scenic Study Committees, February 2018.

along with technical assistance from the National Park Service and participants from several state, federal, and regional agencies.

## 3) Aquifer Recharge Areas

Aquifers are primary sources for groundwater and are typically located near surface water bodies. In addition to providing a source of drinking water, aquifers are closely linked with recharge to streams and wetlands. In Groton there are three major aquifer systems: A glacial-lake aquifer along the Squannacook River; a glacial-lake aquifer from Reedy Meadow to the Nashua River in Pepperell; and a glacial-stream aquifer beginning at Springy and Knops Ponds and extending along Cow Pond Brook to Massapoag Pond in Dunstable.





A Zone I area surrounds each of Groton's five public wells.<sup>28</sup> The Groton Water Department's wells are situated in three Zone II areas surrounding portions of Lost Lake/Knops Pond and Baddacook Pond. This area is largely coterminous with the natural aquifers that supply the wells, and it is defined as the recharge area required to replenish the well on the most strenuous days of pumping. The West Groton Water Supply District wells are located in two Zone II areas on the bank of the Squannacook River in the western part of the town. There is also a large Zone II area in the northern section of Groton that contributes to the public drinking water supply for Pepperell.

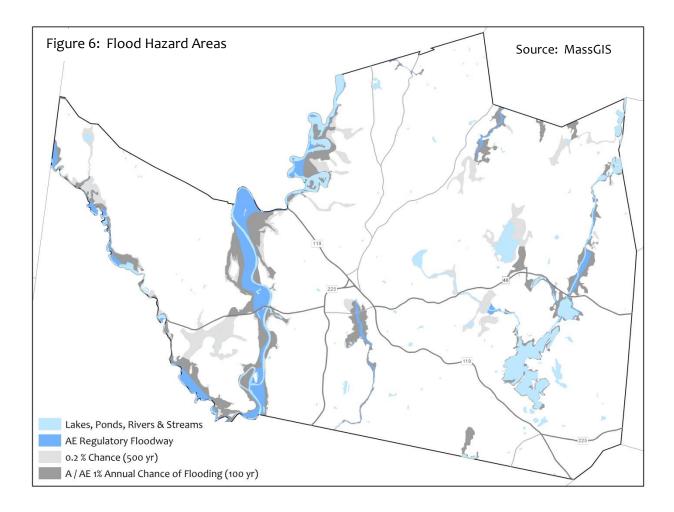
These wells and their supporting Zone II areas and aquifers constitute the only source for domestic water supply in Groton. Approximately 41 percent of the town's housing units have water service from the Groton Water Department and about 13 percent through the West Groton Water Supply District. The rest of Groton's households get water from on-site private wells.

### 4) Flood Hazard Areas

Most floodplains in Groton are related to local waterways, water bodies, and wetlands. In a 100-year flood hazard area, the likelihood of a flood occurring in any particular year is one percent. These areas are classified as "Zone A" on the Flood Insurance Rate Maps (FIRM), which were last updated in Groton on June 4, 2010. This version of the FIRM maps also shows the 500-year floodplain (indicated as "Zone B").

Low-lying areas of Groton are subject to periodic flooding caused by the overflow of the Nashua and Squannacook Rivers; Martins Pond, and Baddacook, and Whitney (Cow) Ponds, as well as Unkety, Reedy Meadow, Wrangling, and James Brooks, and Broadmeadow Road. These overflows have not caused Groton to erect any flood protection works on any of its rivers or brooks. However, the Town has sought to limit floodplain development by designating undeveloped parts of the floodplain as conservation land. Wetlands and sandy glacial soils throughout the Nashua River Valley are critical to maintaining flood storage capacity, limiting flooding.

<sup>&</sup>lt;sup>28</sup> A Zone I area is a protective radius of 400 feet around public water system wells with approved yields of 100,000 or more gallons per day.



On the whole, there is very little development in the 100-year floodplain, except for two general areas of concern: Townsend Road at Park Drive in West Groton, where a few homes are located in the Squannacook River's 100-year floodplain, and areas around Baddacook Pond, Whitney (Cow) Pond, and Lost Lake/Knops Pond in eastern Groton where homes and cottages are located along the shore in the 100-year floodplain. Although there is remaining developable land in these areas, it cannot be built upon as the Town's Zoning Bylaw's Floodplain District prohibits the erection of any building or structure.

### 5) Wetlands

Groton contains many wetland areas, so it is not surprising to find that its Native American name *Petapawaug* means "swamps on a hill." These areas, where the water table intersects the surface of the ground for most of the year, cover approximately 2,688 acres (all types in Table 10 except for open water). Wetlands are a critical part of the surface water system because they provide buffers that protect the water quality of rivers, streams, and ponds. They also help to ameliorate the effects of flooding while filtering nutrients and sediment from stormwater runoff before it reaches open waters.

Groton's mapped wetlands vary in size from 0.2 acres located near the Flat Pond Brook area to 145.5 acres of Reedy Meadow. The most substantial areas of wetland in Groton are Reedy Meadow, the "Halfmoon Swamp" in the Snake Hill Area at the Ayer town line, Burnt Meadow Swamp, and Carmichael Swamp.

Table 10: Groton's Wetlands			
Acres	Percent of Total		
50	1.2%		
256	6.4%		
1,328	33.1%		
314	7.8%		
493	12.3%		
19	0.5%		
1,269	31.6%		
289	7.2%		
4,017	100.0%		
	50 256 1,328 314 493 19 1,269 289		

There are other moderately sized wet areas that link some of the larger swamp areas together and lesser areas in West Groton associated with the Nashua and Squannacook Rivers. Since all of the major wetland areas are located in east Groton, development in that region of town has been greatly limited.

Similar to the floodplain areas, there is minimal development that encroaches upon wetland. Not only have many of these wetland areas been protected as

Source: MassGIS, "DEP Wetlands" 2018

conservation land, but the Wetlands Protection Act (MGL, Ch. 131:40) has further limited development. Furthermore, Groton's Wetlands Protection Bylaw significantly extends the protection of the Wetlands Protection Act. The old rail line that is now the Nashua River Rail Trail and a power transmission line do infringe on wetlands, but these were constructed before environmental regulations prohibited development in wetland areas.

#### Vegetation D.

### 1) General Inventory

Groton's vegetation reflects the town's topographical and geological land patterns. The largest naturally vegetated areas of town are found by the drumlins and swamps of the east, and beyond the Nashua River to the Squannacook River in the woodlands of the west. Wet area preserves with associated vegetation are

also located along the beds and shores of smaller waterways and water bodies in Groton.

Groton lies at the transition between two major forest biomes, the northern hardwood-hemlock-white pine forests that extend into Canada and the central hardwood-oak-hickory forests that extend to Georgia. The confluence of diversity of topography, soils, hydrology, and vegetation is unique and has, in turn, resulted in a corresponding diversity of habitat types and therefore of biodiversity. There are a number of habitat categories found in Groton:



- Upland Forest. Oak-hickory forest dominated by northern red oak (Quercus rubra) and shagbark hickory (Carya ovata) with small stands of hemlock and northern hardwoods in shady ravines and on moist north facing slopes.
- Forested Wetland. Forest dominated by red maple (Acer rubrum) with a dense understory of speckled alder (Alnus rugosa), highbush blueberry (Vaccinium corymbosum), sweet pepperbush

(*Clethra alnifolia*), and Viburnum species on river and stream beds with typically saturated soil conditions.

- Scrub-shrub Wetland. Woody growth up to seven feet tall, including willow (*Salix spp.*), buttonbush (*Cephalanthus occidentalis*), meadow sweet (*Spirea latifolia*), hardhack (*Spirea tomentosa*), and red-osier dogwood (*Cornus stolinifera*) growing in saturated soils or standing water.
- Emergent Wetland. Herbaceous and semi-woody plants, including cattail (*Typha spp.*), reed (*Phragmites communis* and *Phragmites australis*), blue-joint (*Calamagrostis canadensis*), and sedge (*Carex spp.*) growing in water up to 18 inches deep.<sup>29</sup>
- Aquatic. Plants, either bottom rooted or floating, including white water lily (*Nymphaea odorata*), bladderwort (*Utricularia vulgaris*) and duckweed (*Lemna spp.*).

Many of Groton's vegetated areas are very suitable for a variety of recreational pursuits. Areas such as the State and Town Forests and Wharton Plantation, with mature woodlands and high tree canopies, have mostly informal trails that are amenable to recreational activities such as hiking, fishing, nature observation, and sightseeing.

# 2) Forest Land

Groton's protected open space includes four significant forests: 1) the 505-acre Groton Town Forest in West Groton near the Shirley town line, 2) the 717-acre Wharton Plantation owned by the New England Forestry Foundation in the northeast corner of Groton, 3) the 506-acre J. Harry Rich State Forest in the northern part of Groton along the Nashua River and Pepperell Pond, and 4) the 441-acre Rocky Hill Wildlife Sanctuary along the southern border with Ayer, owned by MassAudubon. In West Groton, the Throne area is one of the largest, most important contiguous undeveloped tracts in town with hardwood and softwood forest, vernal pools, wild cranberry bogs, and wetlands. The Town, Commonwealth, Groton Conservation Trust, and New England Forestry Foundation protect much of the land in the Throne area.

The state's BioMap2 project (described below) also identifies several significant forest areas as part of the "Forest Core," a sub-component of the BioMap's Core Habitat. These areas provide critical habitat for numerous woodland species. Several of these areas coincide with the town's official forests, including an area near the Throne in northwest Groton, a forest surrounding the Massachusetts Audubon Parcel at the Ayer Town line, and the Wharton Plantation.

# 3) Public Shade Trees

Groton's Tree Warden manages the Town's public shade trees along its 125 miles of road. Under state law, public shade trees may not be removed by anyone other than the Tree Warden. Funds appropriated by Town Meeting are expended by the Tree Warden in planting shade trees for the purpose of improving, protecting, shading, or ornamenting the public ways, provided that written consent has been obtained from the owner of adjoining land. Its commitment to urban forestry management has qualified the town to be designated by the National Arbor Day Foundation as a Tree City USA for over 20 years.

<sup>&</sup>lt;sup>29</sup> Invasive purple loosestrife (*Lythrum salicaria*) is also commonly found in emergent wetland habitats.

Disease, accidents, weather events, animals, and people cause damage to trees, so that there is always a need for maintenance and replacement of trees. А volunteer organization, Friends of the Trees (founded in 1982) is a citizen's group that helps with the selection, site location, and funding of trees to be planted around Groton. In addition to fundraising, members help with the watering of newly planted trees. Friends of the Trees also provides expertise on tree selection and location in public spaces, and co-sponsors with the Groton Garden Club an annual Arbor Day event where public trees are planted and seedlings are given away to attendees.

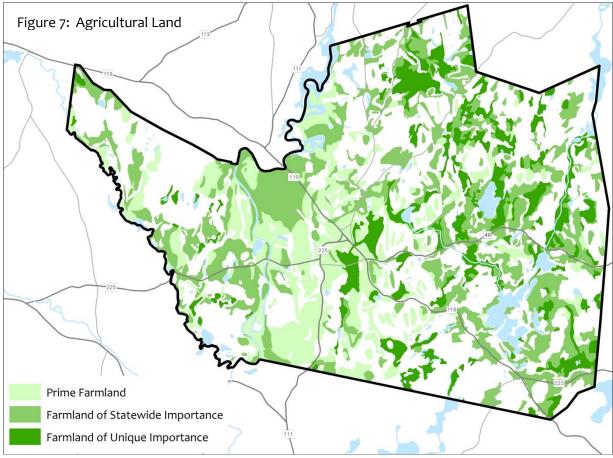
Groton adopted a Scenic Roads bylaw in 1974 to protect the Town's public shade trees. The bylaw requires a public hearing by the Planning Board and Tree Warden before any trees (or stone walls) are removed from scenic roads, except in emergencies. All local roads are subject to the bylaw (in accordance with Massachusetts law, a community cannot designate state highways as scenic roads, so Routes 119, 225, 40, and 111 are exempt from Groton's scenic roads review process). A volunteer organization of citizens, Friends of the Tree Warden, provides advocacy and support for public shade trees in Groton.

Friends and Partners Forests, Shade Trees, and Agriculture **Town Forest Committee Conservation Commission** Tree Warden Groton Greenway Committee New England Forestry Foundation Division of Fish and Wildlife Massachusetts Audubon Society Groton Conservation Trust Nashua River Watershed Association Friends of the Tree Warden Groton Garden Club Groton Grange Agricultural Commission Sustainability Commission Massachusetts Department of Agricultural Resources Natural Resources Conservation Service

# 4) Agricultural Land

An extensive Agricultural Survey was completed in 2012 that describes historical and current agricultural activities in Groton, as well as policies and structures in place that support the agricultural economy and preservation of farmland. The report identified an estimated 5,265 acres of "working land", including livestock raising, field crops, greenhouses, managed forest lands, and hay fields, owned by 71 private individuals, organizations, or public entities.<sup>30</sup>

<sup>&</sup>lt;sup>30</sup> Agricultural Survey, 2012



### 5) Wetland Vegetation

Wetland plant species and plant communities are discussed in "General Inventory," above.

# 6) Rare Species

The Massachusetts Natural Heritage and Endangered Species Program maintains a list of species that are protected under the Massachusetts Endangered Species Act (MESA). Criteria used to determine extinction risk are primarily rarity in the state, population trend, and overall threat. According to the NHESP database there are four species of vegetation that are considered endangered, threatened, or of special concern that are indigenous to Groton:

Table 11: Rare and Endangered Vegetation in Groton			
Common Name	Latin Name	Status	
Low Bindweed	Calystegia spithamaea	endangered species	
Climbing Fern	Lygodium palmatum	species of special concern	
Small Bur-reed	Sparganium natans	endangered species	
Name not released		endangered plant	

Source: MESA-listed species, provided by NHESP October, 2018

NHESP does not release the names of species deemed particularly susceptible to collection.

# 7) Unique Natural Resources

Unique natural Resources in Groton include vernal pools and grasslands. Groton has a number of certified and potential vernal pools (See Section E2: Information on Vernal Pools). While they exist in many parts of the town, they are especially clustered in the Throne area in the northwest corner of town. There are also many vernal pools in the northeast portion of town, coinciding with a concentration of wetlands in the same area. The state's BioMap2 program (described below) has also identified several Vernal Pool Core Habitats in Groton, the largest of which are located close to the Throne, as well as near the Wharton Plantation area in the northeast corner of town.

Groton has several areas that are deliberately maintained as grasslands to provide early successional habitats for preservation of wildlife diversity. Grassland habitat has occurred historically in New England as a result of fire, wind-throw, beaver activity, flooding, and Native American gardening and burning. Grassland habitats decreased throughout New England due to farm abandonment and suburban sprawl. They primarily occur within floodplains and open fields, particularly in areas actively used for agriculture. Beginning in the 1960's, as farms were abandoned to forests and development, grasslands habitat became rarer and has had to be actively maintained. Grasslands provide critical habitats. Migrating animals and woodland and wetland creatures use this habitat because it is a concentrated food source of invertebrates and small mammals. Herbaceous plants support large numbers of invertebrates, including pollinators. To prevent the return of trees, grasslands are periodically mowed. Some grasslands are cultivated for agricultural use. Groton's Conservation Commission monitors and manages an inventory of grasslands properties.<sup>31</sup>

### 8) Vegetation Mapping Projects

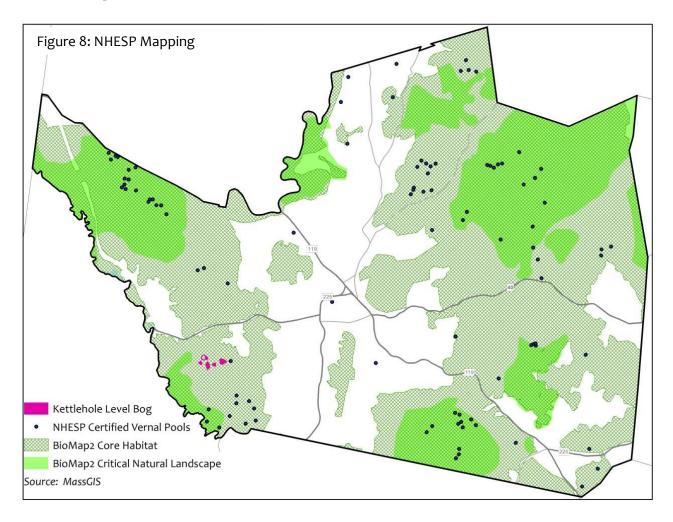
The Natural Heritage and Endangered Species Program (NHESP) BioMap2 project is a conservation plan prepared in 2010 by the Massachusetts Department of Fish & Game and the Nature Conservancy to guide biodiversity conservation in Massachusetts. It focuses on land protection and stewardship for areas that are most critical to ensure the survival of rare, endangered, and other native species and their supporting habitats. BioMap2 identifies Core Habitat, areas necessary to promote the long-term persistence of rare species, other species of concern, exemplary natural communities, and intact ecosystems. Overlapping the Core Habitat, Critical Natural Landscapes are large natural landscape blocks minimally impacted by development.

BioMap2 identifies 14,532 acres, or 67 percent of Groton as Core Habitat, which includes 5,686 acres of Critical Natural Landscape. As of March 2012, Groton has protected 45.9 percent of these acres.<sup>32</sup> Core Habitat areas within Groton include Aquatic Cores, Forest Cores, Vernal Pool Cores, Wetland Cores, and areas for 21 Species of Conservation Concern. Critical Natural Landscapes in Groton include Aquatic Buffers, Landscape Blocks, and Wetland Buffers. NHESP identifies one Priority Natural Community type located in Groton, Kettlehole Level Bog, which occurs on five sites.

<sup>&</sup>lt;sup>31</sup> Grassland management plan 2014-15

<sup>&</sup>lt;sup>32</sup> NHESP BioMap2: Groton Report, 2012

There have also been local or site-specific mapping projects to identify vegetation, in particular the Lost Lake and Knops Pond Baseline Assessment Survey Report (2011), and management plans for various conservation parcels.



# E. Fisheries and Wildlife

# 1) Inventory

Wildlife in Groton is typical of eastern and central Massachusetts, with different local natural areas supporting a diversity of wildlife and fish species. Virtually all of the common species living in this area of the State are permanent or occasional residents in local forests, marshes, and wetlands. The waters of Groton are home to many types of fish and aquatic life commonly found in area rivers, brooks, and ponds.

There are a number of species that make their homes in interior and riverside local forests and woodlands. These areas support mostly small rodents and mammals, such as mice, voles, chipmunks, squirrels, muskrats, minks, weasels, woodchucks, beavers, raccoons, otters, opossums, fishers, and porcupines. More secluded forests are home to larger wildlife, such as coyotes, foxes, and deer. Residents also report seeing moose and bear. In addition, many types of birds also inhabit these woodlands, including blue jays, robins, sparrows, orioles, owls, woodpeckers, hawks, cardinals, eagles, and turkeys.

Waterways, water bodies, and other wet areas in town provide suitable habitats for fish, amphibians, and birds that enjoy the water. The Nashua River and brooks support a fish population that includes bass, pike, perch, sunfish, and trout. The Squannacook River supports more of a cold water fish population, primarily through stocking with trout. Amphibious species such as frogs, snakes, and turtles tend to make their homes near local waters in wetlands, as do waterloving birds such as Great Blue Heron, geese, cormorants, and ducks.

Several areas of Groton have been designated as important regional or statewide wildlife habitat by the University of Massachusetts Amherst's Conservation Assessment and Prioritization System (CAPS) model. CAPS is a tool for



assessing and prioritizing land for habitat and biodiversity conservation. The relative biodiversity value of the land within each habitat area is ranked using an Index of Ecological Integrity. While many of identified habitats in Groton are preserved areas of open space, there are several areas with high levels of ecological integrity that are not currently protected.

## 2) Information on Vernal Pools

Vernal pools are temporary bodies of fresh water that provide critical habitat for a variety of wildlife species, but most particularly amphibians and reptiles. Many vernal pools are filled in the spring and dry up during the summer, while others may persist throughout the winter. Vernal pools are found across the landscape in meadows, river floodplains, swales, wetlands, and places where small woodland depressions or kettle holes collect seasonally high groundwater or spring runoff for at least two months of the year.

Vernal pools serve as an important link between the aquatic and terrestrial environments, and they are especially important because of the wide range of plant and animal species that depend on them for habitat (overwintering, shelter, and food), breeding, and reproduction. Some of these species are totally dependent on vernal pools for their survival. Groups of vernal pools may constitute a habitat corridor, like those discussed below, providing a stretch of habitat along which sensitive species may travel.<sup>33</sup> If these corridors do not exist, plants and animals are isolated and more vulnerable to changes in the environment.

As of 2018, there are 100 certified vernal pools in Groton included in the NHESP database, an increase of 32 certified vernal pools since 2011. NHESP approximated the location of potential vernal pools using aerial photography in 2000, identifying 354 potential vernal pools in Groton.

<sup>&</sup>lt;sup>33</sup> "Certified - A Citizen's Step-by-step Guide to Protecting Vernal Pools," seventh edition winter 1997, Massachusetts Audubon Society, Lincoln, MA.

## 3) Corridors for Wildlife Migration

Wildlife needs continuous, uninterrupted stretches of undeveloped land for travel, migration, and other life processes. Simply preserving individual parcels of open space is not enough; communities need to assemble open space parcels into undeveloped corridors to ensure the continued health of its wildlife. Groton has several key wildlife corridors:

- The **Nashua River** corridor, whose beds and adjoining shorelands allow animals to move up or downstream by water or land.
- The **Squannacook River** corridor, which, like the Nashua, allows movement north to New Hampshire or south and west to Central Massachusetts.



• **Reedy Meadow/Unkety Brook Valley**, whose undeveloped woodlands and swamps provide adequate vegetative cover for wildlife to move from neighboring towns of the east. In particular, the Unkety Brook corridor facilitates the movement of wildlife through Groton to New Hampshire.

While each of these corridors has stretches of protected open space, there are critical gaps that could potentially fragment valuable wildlife habitat.

### 4) Rare Species

According to the Massachusetts Natural Heritage and Endangered Species Program (NHESP), 16 species of fish and wildlife that are indigenous to Groton are considered endangered, threatened, or of special concern. Of these, ten are vertebrates and six are invertebrates.

The Nashua River watershed supports the largest contiguous and unfragmented population of Blanding's Turtles in Massachusetts, possibly the largest in New England.<sup>34</sup> Blanding's turtles require a large area as they move over varied types of landscapes throughout their lives, including vernal pools, swamps, and sunny, well-drained fields.

High water quality found in portions of the Nashua River and two of its tributaries in Groton, the Squannacook River and Unkety Brook, provide the framework for a complex landscape that supports a concentration of endangered dragonflies and freshwater mussels.

<sup>&</sup>lt;sup>34</sup> Nashua, Squannacook, and Nissitissit Rivers Stewardship Plan, 2018.

Table 12: Rare and Endangered Wildlife in Groton				
Common Name	Latin Name	Status		
Vertebrates				
Blue Spotted Salamander	Ambystoma laterale	species of special concern		
Marbled Salamander	Ambystoma opacum	threatened species		
Water Shrew	Sorex palustris	species of special concern		
Blandings Turtle	Emydoidea blandingii	threatened species		
Eastern Box Turtle	Terrapene carolina	species of special concern		
Wood Turtle	Glyptemys insculpta	species of special concern		
Bald Eagle	Haliaeetus leucocephalus	threatened species		
Vesper Sparrow	Pooecetes gramineus	threatened species		
American Bittern	Botaurus lentiginosus	endangered species		
Eastern Whip-poor-will	Caprimulgus vociferus	species of special concern		
Invertebrates				
Intricate Fairy Shrimp	Eubranchipus intricatus	species of special concern		
Creeper	Strophitus undulatus	species of special concern		
Umber Shadowdragon	Neurocordulia obsoleta	species of special concern		
Brook Snaketail	Ophiogomphus aspersus	species of special concern		
Forcipate Emerald	Somatochlora forcipata	endangered species		
Spine-crowned Clubtail	Gomphus abbreviatus	species of special concern		
Name not released		threatened invertebrate		

Source: MESA-listed species, provided by NHESP October, 2018

NHESP does not release the names of species deemed particularly susceptible to collection.

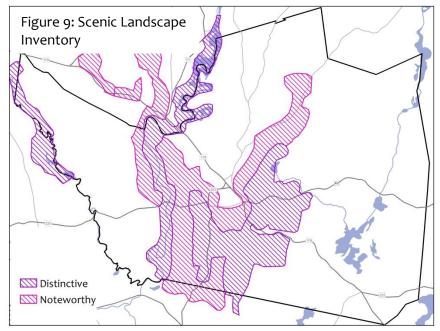
# F. Scenic Resources and Unique Environments

### 1) Scenic Landscapes

A scenic landscape is defined by the Commonwealth as a large contiguous area with significance on a statewide or regional basis. One criterion for this designation is the ability for the public to view and enjoy the area - therefore, public ways often form the boundaries of such a landscape. In the early 1980's, the Massachusetts Department of Environmental Management (DEM), now the Department of Conservation and Recreation, prepared a statewide scenic landscape inventory, noting that high scenic quality often coincides with, and depends on, the presence of a healthy natural environment, agriculture, historic features, and a lack of intensive, uncontrolled contemporary development.

Additional scenic properties, areas, and views have been identified through previous Town planning efforts, in particular the 2012 Master Plan. Scenic properties include the Lawrence Homestead and the Sawtell Schoolhouse. The scenic areas include Autumn Hills, Chicopee Row, Gibbet and Angus Hills, James Brook, the Squannacook River, the Nashua River, and the Soapstone Quarry. Scenic roads include Farmers Row and Old Ayer Road. Scenic views include those from the Bates Conservation Land, Farmers Row, Old Ayer Road, Town Forest Road, Broadmeadow Road, and Chicopee Row. The Town's official list of Scenic Roads includes all local (un-numbered) roads in Groton.

More recently, the Surrenden Farm Resource Management Plan (2017)developed documentation for the purpose of nominating Surrenden Farm to the National Register of Historic Places as a "rural historic landscape". The 2011 Archeological Inventory also recognized Surrenden Farm, as well as Fitch's Bridge, as scenic areas. The Massachusetts Cultural Resource Information System (MACRIS) has inventory forms for 18 areas and 3 historic districts that are listed on the State Register,



including agricultural and commercial landscapes, unique landforms, as well as clusters of historic residential and accessory buildings that comprise scenic landscapes.

Favorite scenic areas identified through public engagement events for the present Open Space and Recreation Plan included Gibbet Hill, Groton Place, Rocky Hill, J. Harry Rich State Forest, Groton Town Forest, and Sargisson Beach.

### 2) Major Characteristic or Unusual Geologic Features

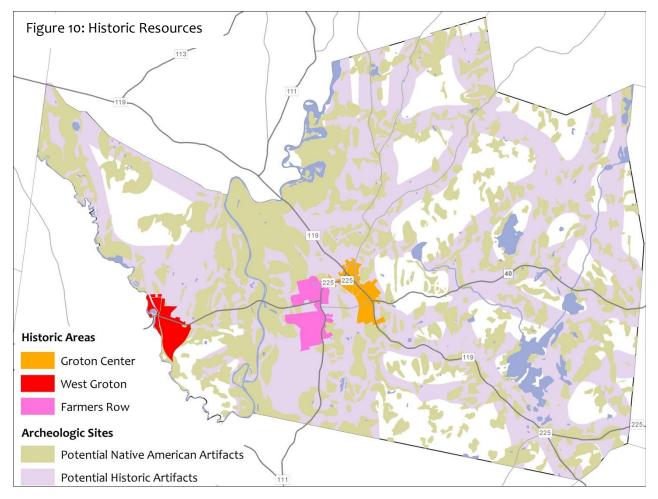
As described in previous sections of this report, Groton has some unique land features that add to its landscape character and enhance its scenic appeal. The most interesting geological features are glacial landforms, including a swarm of drumlin hills in the central portion of town, extending from the Indian Hills north to the Chestnut Hills. The top of Chestnut Hills is the highest point in Groton at an elevation of 516 feet. In Groton Center, Gibbet Hill offers expansive views of a rolling agricultural landscape to the east of Route 119/Main Street and north of Route 40/Lowell Road. Orchards are prominent on the western flank of the Indian Hills on the east side of Old Ayer Road. Other glacial landforms include kames, eskers and kettle hole ponds, and braided streams. Many of Groton's roads surrounding Lost Lake and Knops Pond are located on top of glacial ridges, while eskers may also be found in conservation lands, including the Gamlin Esker Trail. Kettle hole ponds are depressions formed by blocks of ice which broke off the melting ice sheet. These include Knops, Whitney, Baddacook, and Martins Ponds.

The Nashua River provides the distinguishing feature of an oxbow known as the Dead River in the Town Forest, as well as a series of islands and lagoons between Route 119 and the East Pepperell Dam. Beyond these unique features of the terrain, Groton has three large expanses of protected woodlands at the Wharton Plantation, the J. Harry Rich State Forest, and the Town Forest.

# 3) Cultural, Archaeological, and Historic Areas

### **Historic Resources**

Buildings, landscapes, archeological sites, and other historic resources can be found throughout the town, exemplifying architectural styles and development patterns spanning over 350 years since settlement took hold, as well as prehistoric Native American activity. The Massachusetts Cultural Resource Information System (MACRIS) online database lists approximately 642 resources in Groton, including objects, structures, buildings, burial grounds, and areas, that have been documented in individual or area inventory forms, and many of which have been nominated to the State Register of Historic Places. There are three local historic districts, six National Register of Historic Places properties, and four properties with Preservation Restrictions.



The local historic districts were established through adoption by Town Meeting in 1964. They include:

• The Main Street Historic District is located on Main Street between School Street and Old Ayer Road and on Hollis Street to School Street, and is composed of two separate districts that abut at Court Street. The area is distinguished by a number of colonial-style buildings with elements of Greek Revival and Gothic architecture. Town Hall and three churches dating from 1755, 1826, and 1842 with classic white clapboards, black shutters, and small window panes complement the district. It is overseen by the Historic Districts Commission, which enforces the Town's Historic District Bylaw by reviewing the appropriateness of alterations and new construction.

• The third district is the Farmers Row Historic District, located on Farmers Row between Pleasant Street and Joy Lane. Many old farms, colonial estates, and scenic areas with long views westward line this street in southern Groton. This district is also overseen by the Historic Districts Commission.

Properties currently listed on the National Register of Historic Places include:

- The District 7 Sawtell School at 366 Chicopee Row.
- The Governor George S. Boutwell House at 172 Main Street, home to Groton History Center, was awarded over \$250,000 in CPA and Massachusetts Cultural Facilities funds for renovations.
- The former Groton High School (also known as the Prescott or Butler School) at 145 Main Street. The building currently houses a community center and office space. Some improvements have been made with CPA funding to bring the building up to code; however, substantial further improvements are needed to enable all floors to become available for public use.
- The Groton Leatherboard Company building, now developed as Rivercourt Residences, at 6 and 8 W. Main Street.



- The Joseph Bennett-Arthur Shattuck House, at 653 Martins Pond Road, circa 1812.
- The Groton Inn at 130 Main Street was listed on the National Register of Historic Places, but the building has recently been reconstructed, after having burned down in 2011.

Properties protected with a Preservation Restriction include:

- The First Parish Church at 1 Powder House Road. Also known as the Old Groton Meeting House, built in 1755. Major CPA-funded renovation was completed in 2016.
- The Williams Barn located on Chicopee Row. Built in 1840, the barn was restored in the 1990's and houses the Groton Farmer's Market, and is also used for educational and cultural programming. An effort is in process to nominate the Williams Barn to the National Register.
- The Dr. Amos Bancroft House next to the Town House Lot on Main Street, dubbed the Goodwill House in 1940, as it was used to house and support German refugees.
- The Shattuck House at 653 Martins Pond Road, which was protected as part of an initiative by the Groton Land Foundation.

Groton has a Historical Commission, which is responsible for identifying and protecting historic properties throughout the town, and a Historic District Commission, which is charged with protecting historic character within the town's historic districts. Groton History Center is a private organization that maintains a collection of local historical artifacts and archives, offering exhibits at the Boutwell House, as well as historic walks, lectures, and other programs.

The Groton Historical Commission has undertaken several recent CPA-funded projects to document and preserve historic resources throughout the community.

- Historic Resources Survey project completed in 2007 identified resources eligible for nomination to the National Register and prepared inventory forms for historic resources to be added to the Massachusetts Historic Commission inventory of cultural resources.
- Archeological Inventory (2011) evaluated known and probable locations of historic and prehistoric archeological resources throughout the town. Conducted by the University of Massachusetts Amherst found that Groton contains many areas of high potential for additional Native American and historical archeological sites, most of which have been subject to minimal disturbance. A total of 12 Native American sites and 57 historic archeological sites have been recorded at the Massachusetts Historical Commission as of the completion of this analysis.
- Agricultural Inventory (2012) explored the history of farming in Groton from prehistoric times through the present, through documentation and oral histories, as well as an inventory of farms.
- Historic Monument Inventory and Restoration Project (2017). This ongoing project will document and refurbish a selection of memorial stones, markers, plaques, and signs throughout the town.

In addition to projects noted above, Community Preservation funds have also been used to restore granite milestone markers, reinstall footstones in the Old Burying Ground, and to make repairs to public

# Friends and Partners Historic and Cultural Resources



**Historical Commission** Historic Districts Commission Old Burying Ground Commission Williams Barn Committee Groton Public Library **Cultural** Council **Community Preservation Committee Groton History Center** Groton Cemetery Association Old Groton Meeting House Preservation Fund Groton Grange Friends of Prescott School **GDRSD** Community Education Groton Council on Aging Indian Hill Music Seven Hills Foundation Freedom's Way Heritage Association

and private buildings including the Groton Public Library, District School #7, the Grange, the Groton History Center's Boutwell House, and the Old Groton Meeting House (First Parish Church).

### **Cultural Resources**

Groton has numerous public and nonprofit entities that provide cultural and educational programming. In many cases these institutions also share connections with open space, recreation, and historic resources through their facilities and programming. Some of these assets include:

• The **Groton Public Library** maintains a collection of books and other media for public circulation and provides a range of enrichment classes, programming, and events for people of all ages. While the library building dates from 1893, the Groton Library was founded in 1854, making it one of the oldest

public libraries in the state. The Groton Library also houses an Historical Room with books, documents, and archival materials related to Groton history.

• The **Prescott School** is a Town-owned building that was originally built as Groton's high school in 1927. The building continued to serve as a school for varying grade levels until its closure in 2008, and then it housed

Coming soon (back) to Groton:

Indian Hill Music is a nonprofit arts organization founded in Groton in 1985. Currently based in Littleton, Indian Hill is constructing a 40,000 square foot music education and performance center in Groton, which is anticipated to be completed in 2022.

administrative offices for the school district until 2018. While the future use of the building remains under discussion, a non-profit organization was established in 2015, Friends of the Prescott School, which aims to preserve the Prescott School as a central gathering place for the community, providing space for a variety of activities. The Friends of Prescott School has operated a community center, offering classes and workshops for all ages, as well as space rental for parties and events.

- The **Groton Grange #7** is a non-profit organization founded in 1873 as a social institution with a focus on raising awareness of agricultural and farming issues and providing green programs to the community. The organization is also dedicated to ensuring the sustainability of historic Groton Grange Hall (circa 1890), which was acquired by the Grange in 1916 and updated in 2008 with CPA funds to improve meeting and function areas and handicapped accessibility. The Grange continues to provide programing for the interest of the community, including social dances, as well as a performance and event venue.
- The Groton Dunstable Regional School District provides a Community Education program at the **Twomey Center**. Classes for all ages include fitness, creative arts, skill-development, and other enrichment offerings.

Groton also has a local **Cultural Council** that supports arts programming in the community with grant funding from the Massachusetts Cultural Council. The Council has contributed to musical events, humanities programs, lectures, art shows, history exhibits, and environmental activities.

Regionally, Groton is part of the **Freedom's Way National Heritage Area**, which connects the legacy of historical political and cultural movements that have helped to shape American traditions, including concepts of freedom, democracy, conservation, and social justice. The nonprofit Freedom's Way Heritage Association (FWHA) aims to protect and promote the natural, historic, and cultural resources of the region in partnership with the National Park Service. A stewardship plan completed in 2015 establishes goals and strategies for FWHA to work with communities and partner organizations to foster awareness and support preservation of contributing resources.

## 4) Unique Environments

#### Areas of Critical Environmental Concern

Two Areas of Critical Environmental Concern (ACEC) were established in Groton in 2002. The Petapawag ACEC has 25,680 acres in Ayer, Dunstable, Groton, Pepperell, and Tyngsborough. The Squannassit ACEC has 37,420 acres in Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend.<sup>35</sup> The Petapawag ACEC covers the central portion of Groton from the Nashua River to Lost

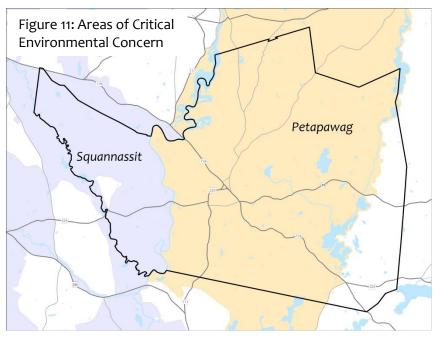
<sup>&</sup>lt;sup>35</sup> Massachusetts Department of Conservation and Recreation, ACEC Program,

http://www.mass.gov/dcr/stewardship/acec/index.htm.

Lake/Knops Pond and Massapoag Pond, while the Squannassit ACEC covers all of the town west of the Nashua River. Combined, these areas comprise 88 percent of the Town of Groton, including 3,900 acres in the Squannassit and 14,950 acres in the Petapawag ACEC. Major protected open spaces contributed to the recognition of these areas.

The Squannassit and Petapawag ACECs provide for diverse wildlife populations, not only because of the quality of the habitat, but also because of the interconnections among these open spaces. This pattern of extensive open spaces connected by riparian corridors creates a larger single entity from otherwise fragmented, isolated areas. These areas are recognized for supporting a remarkable richness of wildlife, including numerous state-listed rare species, Outstanding Resource Waters (ORW), vernal pools, "highly significant drinking water resources". Additionally they contain highly significant archeological and historical resources, as well as scenic landscapes of statewide significance. The ACECs protect the integrity of both open spaces and corridors, which are essential to maintaining the biological diversity of the entire region.

The east side of Groton (within Merrimack River the Watershed) and the Nashua Squannacook and River Corridors consist of significant portions of terrestrial habitat designated the bv Commonwealth's BioMap2 project as "core habitat", representing the highest priority for biodiversity conservation and protection. An area in West Groton is designated by NHESP as a Priority Natural Community, namely a kettlehole level bog imperiled which is in Massachusetts.<sup>36</sup> (See Figure 8 on Page 55.)



<sup>&</sup>lt;sup>36</sup> <u>https://www.mass.gov/files/documents/2016/08/sj/kettlehole-level-bog-fs.pdf</u>

# G. Environmental Challenges

# 1) Hazardous Waste Sites

According to data maintained by the Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup, there are a number of properties in Groton that are confirmed hazardous waste sites or have experienced reportable releases of chemicals in the past ten years. A comprehensive list of the location of chemical releases and spills, as well as their current remediation status, is included in Appendix C.



As noted in Section 3, there is ongoing remediation for the Conductorlab site, where circuit board manufacturing in the mid-1980s caused the release of a chlorinated volatile organic compound called Trichloroethylene (TCE) and hexavalent chrome. The property is now owned by Honeywell International, with whom the Conductorlab Oversight Committee (established in 1986 as part of the DEP's 21E Mass Contingency Plan process) still meets at least twice a year to discuss cleanup efforts. As of fall 2017, cleanup of the site had been effectively achieved, although sporadic findings of contamination necessitates ongoing monitoring and possibly further targeted remediation until the tests at the site show contaminants below dangerous levels for four consecutive quarters. Honeywell anticipates achieving closure after demonstrating a No Significant Risk condition, after which Honeywell will market the property with appropriate use limitations.

Residents and small businesses have the opportunity at 20 collection days per year to dispose properly of their toxic waste safely and easily through the **Devens HHW**. The household hazardous waste, such as unused cleaners, leftover paints, pool chemicals, and fluorescent bulbs are appropriately and securely collected. More information is available at <u>www.DevensHHW.com</u> or by calling 978-501-3943. In addition, the Collection Center is also available to businesses that do not exceed DEP's threshold for Very Small Quantity Generators (VSQGs) and generate less than 220 pounds (approximately 27 gallons) of ignitable, corrosive, reactive, toxic, or hazardous waste or waste oil per month and no acutely hazardous waste.

# 2) Landfills

A former landfill exists off of Cow Pond Brook Road with other Town waste, maintenance, and recreational facilities. This area was closed for refuse dumping in 1990. The Town completed the landfill closing process in August 2002, but the landfill remains unsealed. Another site of concern is the former Town Dump (closed in 1976), located off Nod Road, adjacent to the Nashua River. Remediation or reuse of these sites may be challenging, as they predated regulatory requirements for landfills to be lined.

Groton opened a transfer station in 1990 at the Cow Pond Brook facilities to alter the way in which the Town disposes of non-recyclables. Refuse is taken to the station to be shipped to and then burned at the Ogden-Martin Incinerator in Haverhill. Recyclables are also handled at the transfer station. Residents must purchase a Transfer Station Sticker annually, with a discounted price for seniors and for additional cars per household. Since 2003, the Town operates a "pay-as-you-throw" program for waste disposal at the landfill. Recyclable materials are accepted free of charge, while residents must purchase bags for the disposal of household trash. A fee schedule is applied for appliances, electronics, and bulky household items.

The Town belongs to MassToss, which is also known as the North Central Regional Solid Waste Cooperative, which provides technical assistance to its 12 member communities on recycling and solid waste handling. Additionally, the Town belongs to Devens HHW, which is the Devens Regional Household Hazardous Products Collection Center, providing environmental protection for water, land, and air, for 14 area communities. Groton also participates in a regional Recycle Your Reusables program that sponsors an annual collection event accepting a range of household items.

# 3) Erosion

There are no constant and significant problems with erosion in Groton, as most issues are short term and related to particular development projects. Specific areas at risk for erosion in town, if developed, are those areas with slopes from 8 to 15 percent and greater. Steep slope conditions usually do not prevent development, but they do increase costs. In particular, the eastern central area of Groton's swarm of drumlin hills could present erosion problems if built upon.

The Town of Groton adopted a comprehensive Earth Removal Bylaw and regulations as part of its general bylaws in 1963. The Select Board acts as the permit-granting authority, with the advice of the Earth Removal Stormwater Advisory Committee. The Committee was formed in 1968 and is responsible for reviewing applications, conducting site visits, and filing written recommendations to support the Select Board. In 1984 the bylaw was amended to limit commercial earth removal operations to the Business (B-1) and Manufacturing (M-1) zoning districts. The Town's Earth Removal Stormwater Inspector oversees earth removal operations and stormwater management projects. In 1998 Groton passed the Soil Erosion and Sediment Control Bylaw to minimize harmful effects from soil erosion and sedimentation. The Erosion Control bylaw was superseded by the Stormwater Management–Low Impact Development Bylaw (Chapter 198) in 2006. The U.S. Environmental Protection Agency, effective May 2003, requires permitting for projects on areas greater than one acre for stormwater management during construction activities. The Stormwater Bylaw requires a permit for projects that disturb 20,000 square feet or more. This additional layer of permitting will facilitate further review of projects and reduce erosion and sedimentation during construction and prevent future stormwater runoff impacts.

# 4) Chronic Flooding

Most areas in Groton that are at risk of flooding are those areas near water and wetlands. The land in Groton that is most susceptible to being submerged from a storm event are the Nashua and Squannacook River shore lands, which flood regularly and are mostly undeveloped. The meandering nature of these two rivers has created a substantially large floodplain, creating large buffers between the rivers' edges and buildable upland areas.

Other low-lying areas are also subject to periodic flooding, as discussed in the previous section on Flood Hazard Areas. Flooding of these areas can be exacerbated by runoff from snowmelt or long term rain

events. While development immediately adjacent to the two rivers is limited, low-lying areas near ponds and brooks tend to see the brunt of any flood damage that does occur.

The most severe flooding in the past century occurred in March 1936. The flood resulted from a combination of above-average snowfall, cold weather, and frozen ground followed by mild temperatures and repeated days of rain in the early spring. These conditions caused intensive runoff and massive flooding. Roads were washed out, bridges collapsed, and factories and homes were inundated. The peak flow during the March 1936 flood, as recorded by the USGS East Pepperell (GAGE) gauging station on the Nashua River, was 20,900 cubic feet per second. The Hurricane of 1938 also caused significant flooding.

More recently, the town experienced 25- to 50-year flood events in 1987, 2007 and 2010. In 2007, both the Nashua and Squannacook Rivers flooded, causing damage to Routes 119 and 225 and Broadmeadow Road. The March 2010 flood event closed bridges on Routes 119 and 225 and left several roadways in need of repair. However, the flood levels were not among the highest seen on the Groton segments of the Nashua and Squannacook Rivers.

Although Groton has not erected any flood protection works on any of its rivers or brooks, the Town has sought to prevent floodplain development with its zoning bylaw and by permanently protecting parts of the undeveloped floodplain as conservation land. To maintain this buffer along the rivers, ponds, and brooks susceptible to flooding, the Town should focus on these areas for land acquisition.

# 5) Sedimentation

Areas in Groton that are at risk from sedimentation are generally waters with substantial floodplains or with excessive slopes at their shore lands. The areas falling into the first category are the banks of the Nashua and Squannacook Rivers that tend to be eroded and wash downstream when waters rise during heavy rainfall. Martins Pond, surrounded by the Chestnut and Gibbet Hills, and Long Pond, with Snake and Rocky Hills at its shore, tend to be receptors of soil that heavy storm waters wash away from the hills. In all cases, the sedimentation that occurs contributes heavily to non-point source (NPS) pollution and causes water quality problems. To mitigate these conditions, the Town should carefully monitor erosion, adhere to the Best Management Practices (BMPs) outlined in the Department of Environmental Protection's Stormwater Management Policy Handbook, and continue to enforce the local Stormwater Management – Low Impact Development (LID) Bylaw.

Wave action due to wind and motor boats continues to cause shore line erosion along Lost Lake/Knops Pond. The combination of steep slopes, dense development, and the Quonset soils that proliferate in this

area has led to many sedimentation problems. This is exacerbated by the continued practice of building retaining walls that protect the immediate property, but tend to magnify wave action on adjacent shore lands.

# 6) New Development

As discussed in Section 3, Groton's current zoning provides the potential for a significant amount of new residential development and a smaller amount of new commercial



development. In the previous decades Groton's development growth rate had slowed; however, the town is currently experiencing a spurt of institutional and commercial development and will most likely continue to attract steady residential development. As the most easily developable land is consumed, attention will turn to sites with more environmental constraints, which may place more stress on natural features and processes. For example, excessive slopes and swamps in the eastern part of town have not deterred development. Recent intense development has interrupted large expanses of woodlands, which, in turn, threatens wildlife habitat and erodes wildlife migratory routes. Also, noticeable impacts have been seen with the change of farmland into housing on the Ayer/Groton border, with the loss of character at this Groton gateway to the Farmers Row Historic District. In addition, areas around water bodies continue to attract residential development. There is a particular concern in protecting the Town water supply well at Baddacook Pond and the areas along the Nashua and Squannacook Rivers. Slope conditions pose less of a constraint for development in the western region of the town. However, unique and significant wildlife habitat in this area provides an opportunity to focus land conservation efforts in the Throne area of West Groton.

The Town has several regulatory options for reducing the impacts of single-family and other residential development, including the Flexible Development and Major Residential Development bylaws. However, even with these provisions, Groton will need to proactively preserve parcels to ensure the development of an open space system that supports ecological processes, protects valuable habitat, and supports and enhances recreational opportunities for people of all ages.

# 7) Ground and Surface Water Pollution

Some of the larger water bodies in Groton have or have had water quality problems that decrease the aesthetic and recreational values of these resources. The Lost Lake Watershed Advisory Committee commissioned a study in 2016, which found that Lost Lake and Knops Pond show major signs of eutrophication, the process by which a body of water becomes enriched in dissolved nutrients that stimulate the growth of algae, weeds, and other organisms usually resulting in the depletion of dissolved oxygen.<sup>37</sup> The prime problem with nutrient loading appears to be coming from Martins Pond Brook, stormwater erosion entering the lakes, the continuing nutrient loading from septic systems, as well as poor land use practices and the lack of weed control at the public boat launch.

The water quality management program proposed for Lost Lake and Knops Pond consists of monitoring, resident education, development of new BMPs, such as localized rain gardens and other improvements to existing drainage and stormwater infrastructure. Aeration is being used to slow down eutrophication at Duck Pond.

# 8) Impaired Water Bodies

As noted previously in this section, the Federal Clean Water Act requires states to evaluate the quality of all surface water bodies and report these annually on an Integrated List of Waters. The most serious category on this list is Category 5, which is also reported on the 303(d) list and to the federal government. These water bodies are subject to Total Maximum Daily Load (TMDL) limits for their offending pollutant.

<sup>&</sup>lt;sup>37</sup> Lost Lake Watershed Management Report, 2017



In the state's 2016 Proposed Integrated List of Waters, prepared by the Massachusetts Department of Environmental Protection (DEP), the segment of the Nashua River running through Groton has been designated a Category 5 or "impaired" waterway, along with Massapoag Pond and James Brook.<sup>38</sup> According to the NRWA, stormwater is the main source of pollution; additional sources include combined sewer overflows in Fitchburg (though these are in the process of being remedied), leaking septic

systems, excessive fertilizer, agricultural runoff, and failing septic systems.

Table 13 summarizes the water bodies in Groton that appear on the proposed 2016 Integrated List of Waters.

<sup>&</sup>lt;sup>38</sup> Massachusetts Executive Office of Energy and Environmental Affairs, Department of Environmental Protection, Division of Watershed Management – Watershed Planning Program, Massachusetts Year 2016 Integrated List of Waters: Proposed Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act

Table 13: Groton In	npaired Surface Water Bodies
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Category 2 – Some u	ses attained	Uses Attained <sup>1</sup>
Martins Pond	Headwaters outlet at Martins Pond Brook to inlet Aquatic Life	
Brook	at Lost Lake, Groton	
Squannacook River	Hollingsworth & Vose in Groton/Shirley to	Aquatic Life
	confluence with the Nashua River in	Primary Contact
	Shirley/Groton/ Ayer	Secondary Contact
		Aesthetics
Unkety Brook	Headwaters, east of Chicopee Row, Groton to	Primary Contact
	mouth at confluence with Nashua River, Dunstable	Secondary Contact
		Aesthetics
Category 3 – No uses	assessed	
Long Pond	Ayer/Groton	
Reedy Meadow	Headwaters, Reedy Meadow, Groton to mouth at	
Brook	confluence with Nashua River, Pepperell	
Category 4a – TMDL	is completed	Pollutants Addressed by TMDL
Knops Pond/Lost	Groton	Non-native aquatic plants <sup>2</sup>
Lake		Metals
Category 5 – Waters		Impairment
James Brook	Headwaters in Groton to confluence with the	E. coli
	Nashua River in Ayer/Groton	
Massapoag Pond	Dunstable/Groton/Tyngsborough	Non-native aquatic plants <sup>2</sup>
		Metals
		Dissolved Oxygen
Nashua River	From confluence of North Nashua River, Lancaster	Aquatic Macroinvertebrates
	to confluence of Squannacook River,	E. coli
	Shirley/Groton/Ayer	Phosphorus
		Sediment
Nashua River	From confluence of Squannacook River,	Non-native aquatic plants <sup>2</sup>
	Shirley/Groton/Ayer to Pepperell Dam, Pepperell	Aquatic macroinvertebrates
		Metals
		Nutrient/Eutrophication
Squannacook River	Headwaters, confluence Mason and Willard brooks,	Lack of a coldwater assemblage
	Townsend to Hollingsworth & Vose Dam,	Low pH (acidity)
	Groton/Shirley	Water temperature

Source: Massachusetts Executive Office of Energy and Environmental Affairs, Department of Environmental Protection, Division of Watershed Management – Watershed Planning Program, *Massachusetts Year 2016 Integrated List of Waters:* Proposed Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act, April 2010.

<sup>1</sup>Category 2 waterways were found to support the uses for which they were assessed, as listed under "Uses Attained." Primary Contact uses include activities where there is prolonged contact with the water, such as swimming, and Secondary Contact uses are those activities where contact with the water is incidental, such as fishing or boating.

<sup>2</sup>TMDL not required (non-pollutant)

# 9) Invasive, Non-Native Plants

Invasive weeds have become commonplace along road edges, on conservation lands, and private properties throughout Groton. Former farm lands are particularly vulnerable to the establishment of nonnative species that tend to out-compete native species. Many of these invasives reproduce prolifically and tolerate a wide variety of habitats. Birds can facilitate the long-distance dispersal of seeds. In addition, humans can inadvertently spread invasive species, not only by planting them directly, but by moving materials, such as soil, compost, and wood that contain seeds or live fragments of invasive plants. Controlling or managing the spread of invasive plant species on conservation land is a major issue and expense for municipal and nonprofit land managers. Groton recently formed an Invasive Species Committee to take the lead in managing invasive species, particularly where they are causing disruption to Town-owned properties.

As noted above, non-native species plague area ponds and waterways. The Nashua River Watershed Association has been working to manage a heavy infestation of water chestnut (*Trapa natans*) that impacts recreational use of the Nashua River at Pepperell Pond through mechanical harvesting and hand pulling by volunteers. Boating, fishing, and swimming activities are also

threatened in Lost Lake/Knops Pond and Baddacook Pond by the rampant spread of non-native invasive aquatic weeds, including fanwort (*Cambomba caroliniana*), variable-leaf milfoil (*Myriophyllum heterophyllum*), Eurasian milfoil (*M. spicatum*), spiny naiad (*Najas minor*), and water chestnut. The Groton Lakes Association

#### **Common Invasive Plants**

- Autumn Olive (Elaeagnus umbellata)
- Black Swallow wort (Cynanchum louiseae)
- Buckthorn (<u>Rhamnus cathartica</u>)
- Fanwort (Cambomba caroliniana)
- Japanese Honeysuckle (Lonicera japonica)
- Japanese Knotweed (Fallopia japonica)
- Milfoil (Myriophyllum heterophyllum, or M. spicatum)
- Oriental Bittersweet (Celastrus orbiticulatus)
- Purple Loosestrife (Lythrum salicana)
- Spiny Naiad (Najas minor)
- Water Chestnut (Trapa natans)

and Great Ponds Advisory Committee see the potential for this problem to cause a drop in property values. Several methods have been employed for controlling the non-native aquatic growth, including herbicides, hydro-raking, benthic barriers, and mechanical harvesting. Herbicide treatment has been effective on Lost Lake and Knops Pond, while Baddacook Pond has been restricted to mechanical weed removal rather than chemical treatment because it contributes to a public water supply well. Duck Pond is currently trying increasing oxygen by aeration to decrease weed growth that impacts boating & fishing.

### 10) Forestry Issues

Environmental challenges with forestry include management, funding and public perception. Public perception of forestry management can be a challenge in Groton. As part of its overall forestry management program, the Town sometimes harvests lumber on conservation land, which can be controversial, as some community members feel this practice is antithetical to the conservation of natural resources. Damage from storms is also a concern. The Conservation Commission is working closely with volunteer stewards to develop forestry management plans with clear goals to improve wildlife habitat and the health of the forest, secure funds for control of invasives, and provide signage and trail improvements on conservation lands.



## 11) Environmental Equity Issues

While Groton's open space areas are distributed throughout all parts of town, the most crucial Environmental Equity issue is universal access. Many conservation areas have steep slopes and/or uneven surfaces that create difficulties for disabled individuals and senior citizens. To date the Town has completed the development of one trail with accessibility enhancements, the John Tinker Trail in the J. Harry Rich State Forest to address this need. Four season access can also be a challenge. With help from the Friends of the Nashua River Rail Trail, the Department of Public Works maintains the Rail Trail which was designed to



be accessible, but during winters with heavy snowfall the trail becomes unsafe for older users. In 2015, the Commission on Accessibility worked with the Northeast Independent Living Program to prepare an ADA Self Evaluation/Transition Plan for Parks, Playgrounds, and Open Space. The plan was funded by Community Preservation Funds.

# 12) Climate Change

The climate is changing rapidly in Massachusetts in ways that have already impacted fish, wildlife, and their habitats. Massachusetts Wildlife has created a Climate Action Tool that describes specific vulnerabilities and threats to plant and animal populations, due to the impacts of climate change.<sup>39</sup> Climate

#### **Stormwater Retention**

Absorbing stormwater into the ground as much as possible (through minimizing areas of impervious surface, optimizing stormwater management, and encouraging landscaping that captures rainwater) addresses many of the concerns of climate change:

- Climate change leads to heavier rainfall which can lead to downstream flooding. Retaining and infiltrating rainfall reduces runoff and flooding.
- Climate change leads to longer periods without precipitation. More water stored in the ground will help sustain wetlands and flow into small streams and therefore plants and wildlife in periods of drought.
- Increasing temperatures impacts wildlife habitats and coldwater fisheries. Stored groundwater helps to moderate temperatures in streams and rivers to maintain a healthy ecosystem.
- Water runoff carries contaminants and nutrients.
   Capturing water in the soil will filter contaminants before they get into Groton's rivers, lakes, and ponds.

changes over the past century can be explained through a combination of human and natural factors with the majority explained by human sources of emissions from burning fossil fuels.

Warming is occurring in all seasons, with the greatest changes in winter. Spring is coming earlier in Massachusetts and fall is shifting later, with longer summers and shorter winters as a result. Annual precipitation is increasing in Massachusetts and throughout New England, largely due to more intense precipitation events. However, less frequent precipitation events are also expected, meaning more extreme dry spells. Heavy rainfall events that occur less often increase the risk for both flooding and drought.

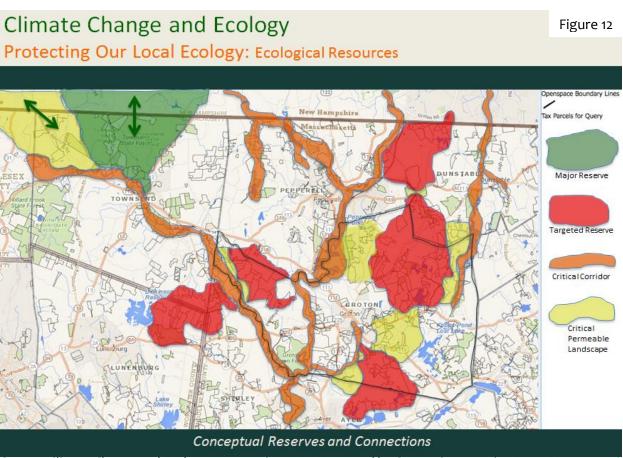
Predictions of temperature rise and changes in rainfall will impact natural

<sup>&</sup>lt;sup>39</sup> http://climateactiontool.org/

habitats. These changes in the timing of seasons affect fish and wildlife species that use particular environmental conditions, such as temperature, snowpack, and streamflow, as cues for recurring life events such as migration, hibernation, and reproduction. Animal movements are important for a variety of reasons and at a wide range of scales. Individuals move to seek food or shelter, escape predators or unfavorable environmental conditions, and to find mates or suitable breeding habitat. Where Groton lies in a transitional area between two forest biomes, species associated with more northern plant communities are at the southern edge of their range and are considered highly vulnerable to climate change, impacting species survival.

It is important to explore ways to adapt to these changes, in addition to reducing or mitigating the effects of future warming. Strategies for mitigation include protecting major reserves that allow for plant and animal communities to migrate or adapt, typically with north-south orientation or areas with significant elevation change. It is also critical to offer protected areas where threatened species with limited ability to migrate can survive, such as large integrated wetlands, vernal pools, and forested uplands, and critical connections. Ecological reserves may include permeable landscape connections where protected corridors are not feasible or inadequate.<sup>40</sup> Local decisions in how natural resources are managed and conserved can also make important differences in the ability of fish and wildlife species to cope with future climate changes. Coordination with neighboring communities can help to provide for greenways that extend beyond town boundaries.

<sup>&</sup>lt;sup>40</sup> Climate Change and Ecology presentation, Robert Pine



Source: Climate Change and Ecology presentation to NRWA Board by Groton Conservation Trust, May 23, 2016

# Section 5. INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

Protecting open space is important on many levels. First, open space provides essential environmental services, such as protecting the supply of clean drinking water, improving air quality, and providing flood protection. Undeveloped areas create habitat for wildlife and preserve ecological systems. Open space is also critical for maintaining a high quality of life, providing opportunities for passive and active recreation, learning, and connection to nature. Finally, working farms and forests provide essential products and help maintain the character of a community.

Saving open space has been a high priority in Groton for many years. Today, Groton has over 8,000 acres of protected land — approximately one-third of the town's total land area (see Table 14). ""Protected" refers to lands that are held for conservation purposes by the Town, nonprofit organization, or private institutions and individuals. Land is considered to be permanently protected if it is publicly-owned and has been designated for conservation or recreation purposes under Article 97, or if it is public or privately-owned and is subject to a Conservation Restriction or CR. Groton also has a significant amount of land that is owned by conservation organizations, some of which is protected with Conservation Restrictions, but all of which is unlikely to be developed due the intent of the organizations. Semi-protected open space refers to public or institutional land that has recreation facilities or is undeveloped, but is not protected under Article 97. This category also includes privately-owned land that has temporary protection, but with no assurance of long-term protection. Areas that contribute to the open space character of Groton or have recreation value but lack permanent or long-term protection are considered vulnerable properties, as there is potential for them to be developed in the future. This inventory catalogs all protected and semi-protected open space of interest for conservation or recreation use.

Table 14. Summary of Protected and Onprotected Open Space			
Category	Acreage	% of Town Area	
Protected	8,093	38%	
Municipal	3,219	15%	
State Owned	1,044	5%	
Private with CR	1,150	5%	
Nonprofit Conservation Organization	2,680	12%	
Semi-Protected	3,281	15%	
Town Owned	348	2%	
State Owned	33		
Institutional	905	4%	
Chapter 61, 61A, 61B	1,995	9%	
Surface Waters	576	2.5%	
Total	11,950 acres	55%	
Source: Town of Groton			

Table 14: Summary of Protected and Unprotected Open Space

Lands classified under G.L. Chapter 61, 61A, or 61B are taxed according to their forestry, agricultural, or recreational use value, rather than their market value. In exchange for a significant property tax reduction, the property owner grants a right of first refusal to the Town to acquire the land before it converts to another use. The Town may assign its right of first refusal to nonprofit conservation organizations. Groton has exercised its right of first refusal in several instances and purchased property before it could be sold for development.

Despite Groton's commitment to preserving open space, there are important open space and recreation parcels with limited or no protection that remain vulnerable to future development. Resource protection gaps occur primarily around water resources, greenway corridors, and areas identified as having prime agricultural and/or habitat value.

The following sections describe Groton's inventory by category of landholding. (See also Appendix A Map 7: Open Space Inventory, and Appendix D, Open Space Inventory.)

# A. Private Parcels

# 1) Agricultural Properties

Groton has a strong agricultural heritage, but it has gradually lost much of its agriculture to farm abandonment and residential development. However, the Town and its nonprofit partners have made concerted efforts to protect land for agricultural use, including vegetable and livestock operations, orchards, tree farms, equestrian facilities, and hayfields. Beyond the economic and cultural value of farming, working landscapes also contribute to Groton's scenic beauty. Private initiatives, Agricultural Preservation Restrictions (APRs), designation of lands under Chapter 61A, and conservation land licenses and leases to farmers have helped to preserve Groton's agricultural heritage. The Historical Commission, Agricultural Commission, and Williams Barn Committee, along with the Groton History Center and the Grange, commissioned a study completed in 2012 that documented the history of agriculture in the town, inventory of productive lands, and policy recommendations to support the economic sustainability of agriculture in Groton.

The survey identifies 5,255 acres of working land throughout the town, owned by 71 separate individuals or entities, representing 24 percent of the town's land mass. "Working land" is defined as traditional agricultural operations such as livestock raising and field crops, as well as greenhouses, managed forest lands, properties with substantial hay fields. Some agricultural land has temporary protection through the Chapter 61 program, which provides property tax relief for land that is currently in agricultural use or is permanently protected with Conservation Restrictions (CR) or Agricultural Preservation Restrictions (APR), but a large portion has no permanent protection.

To qualify for Chapter 61A, farmland must have a minimum of five contiguous acres "actively devoted" to agricultural or horticultural use. These classifications include animals, fruits, vegetables, and forest products. To qualify as "actively devoted" the land must have been farmed for the prior two years, generating a minimum of \$500 in gross sales during this period. The landowner must apply to the Town Board of Assessors for consideration, and the status must be renewed every year. If approved, the property is taxed according to its agricultural value rather than its market value. While landowners who opt to

participate in 61A provide good stewardship of lands kept in a working agricultural state, and the Town is allowed the right of first refusal to purchase the land should the owner decide to sell or take the land out of the restricted status, there is no permanent protection provided by the program. In Groton, 1,296 acres are classified as Chapter 61A Farm Lands.

Massachusetts' APR Program is a voluntary program that protects "prime" and "state important" agricultural land by offering to pay farmers and other land owners the difference between the "fair market value" and the "agricultural value" of their farmland in exchange for a permanent deed restriction that precludes any use of the property that will be detrimental to its agricultural viability. Four properties in Groton, with a combined total of about 382 acres of land, are protected through APRs:



- The Hillbrook Orchard. In 1983, the Town and the Commonwealth of Massachusetts purchased an APR on the Hillbrook Orchard, protecting 71 acres along both sides of Old Ayer Road. This property is now owned by Indian Hill Music.
- **The O'Neill Property.** The Town and state purchased APRs on this 124-acre property in three phases. Parcel I, with twenty-eight acres of orchard on Old Ayer Road, and Parcel II, with forty-two acres of orchard and woodland on Prospect Hill, were protected in 1998. The third parcel, a forty-five-acre orchard between Higley Street and the Rail Trail, was protected in 1999.
- **Brooks Orchard.** In 2004, the state purchased an APR on 114 acres of old orchards off Martins Pond Road from the Webber family in order to protect this scenic drumlin from development.
- Fairview APR. 32 acre apple orchard.

There are also several properties used for agriculture that have some other form of permanent protection, in particular Gibbet Hill (91 acres) has a Conservation Restriction (CR), while some lands owned by the Conservation Commission are licensed to farmers for having.

# 2) Forested Land

There are approximately 713 acres of private- and institutionally-owned forested land that have been protected with Conservation Restrictions. In some cases the CR's were donated or purchased for conservation purposes, while others resulted from cluster subdivisions. Many of these areas contribute to Groton's extensive trail system.

Approximately 608 acres in Groton are classified as Chapter 61 Forest Lands. These lands have a minimum of ten contiguous acres under a minimum ten-year management plan certified by the State Forester. Once the application has been received and approved, the classification statement functions as a lien upon the land for taxes levied under the provisions of M.G.L. Chapter 61. Participation requires a plan for long-term forest management, and allows the property to be taxed at a steeply discounted rate. The landowner must re-file every ten years or the land will be removed from classification by the Town Assessor.

# 3) Areas Significant for Water Resource Protection

Most of Groton's areas that are significant for the protection of water resources, such as aquifers, lakes, and river corridors, are owned by public entities and private nonprofits. These areas are discussed in subsection B beginning on page 79. However, there are significant gaps in resource protection, especially around Groton's riparian corridors. In particular, land within a 400 foot buffer along the Nashua and Squannacook Rivers and the Unkety Brook corridor should be prioritized for open space protection.

# 4) Priority Areas for Protection of Rare Species and Natural Communities

Similar to the areas significant for water resource protection, many priority areas for the protection of rare species and natural communities in Groton are owned by public entities or nonprofit conservation organizations, yet there remain significant gaps within the ACECs and areas designated in the NHESP BioMap 2 as core habitat where open space is either vulnerable to development or lacks permanent protection. No matter the level of protection, consideration should be taken to ensure that stewardship of open space and recreation parcels is compatible with the protection of rare species and natural communities where they are present.

# 5) Less-than-fee Interests

Less-than-fee interests in land, such as conservation restrictions (CRs), wetland restrictions, watershed protection restrictions, and historic preservation restrictions are valuable tools to preserve privately-owned open space and historic resources. The restrictions run with the land for a specified number of years (in the case of a deed restriction) or in perpetuity, restrict land uses and development, and must be granted or sold voluntarily by the property owner. Groton has a total of approximately 1,095 acres of privately-owned land that are protected by CRs or APRs. CRs are also established in order to ensure the permanent protection of land acquired by the Conservation Restriction or other public or nonprofit entities for conservation purposes. About 427 acres of public or nonprofit land have CRs.

Twenty-four private or institutionally-owned sites (comprising 39 individual parcels) are subject to restrictions to protect future conservation, agricultural, historical, or forestry values. CRs are the most common less-than-fee interest in Groton, protecting 681 acres of privately-owned land. As described above, APRs protect an additional 414 acres of privately-owned land. Allowed uses may include activities associated with agricultural or forestry practices and/or recreation. Most of Groton's CRs do not provide for public access, but some exceptions exist. For example, the restriction placed on the 250-acre Gibbet and Angus Hills



properties allows limited access to public trails, a hilltop park, and a structure known as the Castle. For most types of residential development, Groton requires applicants to set aside open space within a subdivision either by donating conservation land to the Groton Conservation Commission or conveying a CR to the Commission or a nonprofit conservation organization.

Groton has 13 easements for trails on private land:



- Eliot
- Fitch Estate
- Fitch Wood
- Gamlin

Hills

- Gibbet-Scarlet
  - Paquawket Path

Miner

Gratuity Rd

Northwoods

(Fulreader)

- Rollins
- Shattuck Trail
- Stoddart
- Whispering Brook

# 6) Private Recreation Lands

Several organizations and institutions have private recreation facilities in Groton. Some organization's facilities are for private use only, while others are open some or all of the time to the general public, either free of cost or on a fee basis. Most of these entities are tax-exempt. Except for a portion of the Grotonwood Camp, none of the open space contained in these properties is permanently protected.

- The **Groton School** is located on 492 acres stretching between Farmers Row and the Nashua River, sandwiched between Surrenden Farm and Sabine Woods. Outside the core campus of educational and residential buildings, there are several athletic fields and a boathouse on the Nashua River. About 224 acres owned by the Groton School is undeveloped open space.
- Lawrence Academy has approximately 120 acres located in Groton Center on both sides of Main Street. As with the Groton School, the core campus is surrounded by athletic fields. West of Main

Street, the Lawrence Academy property is mostly undeveloped (estimated 88 acres), bordering Town conservation land and the Nashua River Rail Trail.

- The **Grotonwood Camp** comprises approximately 275 acres that include a private beach and significant frontage on Lost Lake/Knops Pond. Owned by the American Baptist Churches of Massachusetts, the camp is used year-round as a conference center and hosts educational programs with partner organizations. Through an agreement with the Conservation Commission, a CR was placed on 27 acres of the Camp, the remainder of which remains unprotected.
- YMCA's **Camp Massapoag** is located on the border with Dunstable, on the shore of Massapoag Pond. The 38-acre camp is mostly situated in Dunstable, with 18 acres in Groton. The camp offers a wide range of outdoor activities for families and children of all ages.
- The **Mountain Lakes Club** is a nonprofit organization established in 1936 by summer residents in the Lost Lake area. The club owns 7 acres and maintains members-only facilities at Baby Beach and the Club Field and hosts a number of annual events.
- **Nashoba Paddler** is a business that provides canoe and kayak rentals, tours, and educational programs. Less than one acre in size, the commercial property offers a canoe launch that is open for public use.
- Additional lands are owned by private organizations that are managed for passive recreation. These include properties owned by the **Sargent Youth Foundation**, **Inc.** (25 acres) which supports Groton local Boy Scout Troop 3, and **Westford Sportsmen's Club** (19 acres).

There are also 81 acres in Groton that are classified as Chapter 61B Recreation Lands, typically providing trails for public use. This classification requires a minimum of five acres that is left wild and/or maintained

for wildlife habitat or used for recreational purposes by the public. One must apply to the Town Board of Assessors for consideration and the status must be renewed every year. A reduced property tax results if approved.

Some privately-owned properties with CRs allow for passive recreation uses, including Gibbet and Angus Hills, the Taisey parcel along the Nashua River behind Partridgeberry Woods, and the conservationrestricted land owned by the Deerhaven Homeowners Association off Allison Park.



# 7) Large Parcels

There are 18 privately held parcels that are over 50 acres in size. These parcels are owned by individuals, estates, trusts, and companies and total approximately 1,465 acres. Smaller contiguous parcels under the same ownership that combine to make large parcels comprise an additional 997 acres.

# 8) Major Institutional Holdings

Groton has some large properties that are owned by institutions and could be developed in the future, though the risk may be low. In addition to the schools and camps described above, two examples include MIT's 218 acres at the **Haystack Observatory** site on the Groton/Tyngsborough/Westford line, which has hiking and riding trails, and **Indian Hill Music**, which is constructing a music school and performance

center on the 110 acre site that was formerly owned by Thomas More College. A portion of the Indian Hill property, 73 acres, is under APR. **Groton School** and **Lawrence Academy** are also major landholders in Groton and both maintain their own playing fields, some of which are available for use by Groton residents.

The **Groton Cemetery Association** was formed by town residents to oversee the establishment in 1847 of Groton's second burial place, which is still in use today. The cemetery comprises 52 acres east of Chicopee Row. The garden-style cemetery is landscaped with paths and plantings, as well as structures and monuments dating from the time of its establishment.

# B.Public Parcels and Nonprofit Parcels

More than one third of Groton's land area is owned by state or municipal entities or nonprofit conservation organizations. These holdings provide open space and recreation opportunities, as well as protection of water and other natural resources. More than 80 percent of public and nonprofit parcels have some form of permanent protection.

# 1) Public Conservation and Recreation Resources

Publicly owned conservation lands in Groton include both municipal and state-owned land. Most of this land is permanently protected, for all intents and purposes. Although it is entirely possible for governmental agencies to remove land from public ownership, this scenario would require considerable public scrutiny if proposed. Conversions of public Friends and Partners

### Public Open Space & Recreation



Groton Conservation Commission Groton Water Department West Groton Water Supply District **Town Forest Committee** Groton Greenway Committee Sargisson Beach Committee Park Commission **Commemorations & Celebrations Committee Community Preservation Committee** Groton Country Club Groton Dunstable Regional School District Groton Council on Aging Hazel Grove Association Friends of Prescott School Groton Garden Club Friends of the Nashua River Rail Trail Squannacook Greenways **Division of Fisheries & Wildlife** Department of Conservation Resources MBTA

open space, both conservation lands and parks, fall under the Article 97 process of the Massachusetts Constitution. 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."

As part of the Article 97 review process, which also requires a unanimous vote of the Conservation Commission and a two-thirds vote of Town Meeting, a municipality must consider all feasible alternatives, as well as replacement of the converted land with new open space of equivalent value from both a financial and resource protection point of view. Replacement is necessary if the parcel was purchased using state funds. An act of the State Legislature is required for all Article 97 conversions.

#### **Municipal Conservation Resources**

Permanently protected open space owned by the Town is primarily managed by the Groton Conservation Commission (2,009 acres), the Town Forest Committee (516 acres), and the Groton Water Department (including the West Groton Water Supply District) (385 acres). With the exception of land held for the protection of water supplies, Groton allows public access to conservation parcels for passive recreation such as hiking and picnicking. In some cases, biking, boating, fishing, and swimming are also allowed.

According to records maintained by the Conservation Commission, there are 128 parcels, or 2,009 acres, of Town-owned land maintained by the Commission. These parcels vary in size from less than an acre to over 200 acres and are located throughout town. The largest recent addition to the Town's conservation landholding is the Cox-Walker property, 108 acres on Chicopee Row which includes two parcels purchased in 2012 with local funding and a \$400,000 Land Acquisitions for Natural Diversity (LAND) grant. Other large conservation properties overseen by the Conservation Commission include the **Academy Hill Conservation Area** (202 acres), the **Flavell Crossing Conservation Area** (107 acres), the **Groton Woods Conservation Area** (118 acres), and the **Williams Barn Sorhaug Woods Area** (93 acres). Sorhaug Woods was purchased at auction using funds from the Conservation Fund. Flavell Crossing, Groton Woods, and Academy Hill were acquired under Groton's Flexible Development special permit process. The area

preserved at Academy Hill was negotiated by the Natural Heritage and Endangered Species Program and the developer as part of the review under the Massachusetts Environmental Policy Act. These protected lands tend to support wildlife habitats and nature study, in addition to passive recreational activities and, for some parcels, more active pursuits. The Conservation Commission and the Trails Committee encourage public access to appropriate parcels through signage, parking, and mapping. The Commission also oversees conservation restrictions (CRs) and agricultural preservation restrictions (APRs) on privately held land.



The **Groton Memorial Town Forest** was formed in 1922 to honor the Groton veterans who gave their lives in World War I. Originally 180 acres, the Forest has expanded to 516 acres through purchases and donations of abutting properties. The Town Forest was the first conservation property established in Groton and the second Town Forest to be designated statewide. The Town Forest network of trails is suitable for walking, running, mountain biking, snowshoeing, cross-country skiing, and horseback riding. The all-volunteer Town Forest Committee manages the Town Forest, overseeing its use for forestry management and passive

#### **Recreation Activities and Events**

- Grotonfest
- Groton Greenway River Festival
- July 4 Fireworks
- Memorial Day Parade
- Firemen's Muster
- Town Forest Trail Race
- Farmers Markets
- Mountain bike rides (NEMBA)
- Field sports
- Guided hikes
- Equestrian events
- Cleanup events
- Nashoba Valley Hunt
- Pony Club
- Riders & Drivers Club
- Old North Bridge Hounds mock fox hunts
- Groton Garden Club spring plant sale

recreation. The Committee undertakes periodic selective harvesting of timber, the proceeds from which remain in a reserve fund for forest maintenance.

The Groton Water Department maintains lands to preserve the integrity of the Town's water supply, including properties with existing water storage tanks and wells and land for future storage and supply needs. The Groton Water Department draws water from groundwater wells near Whitney (Cow) Pond and Baddacook Pond. The West Groton Water Supply District draws water from wells along the Squannacook River at Townsend Road and in the Town Forest. Currently the Water Department manages over 362 acres in parcels ranging from an acre and a half to 100 acres, providing a buffer around each well to protect them from potentially harmful adjacent land uses or development. Public access can be limited on Water Department lands because of water supply regulations. Land in the watershed of a drinking water supply is protected from development while the associated water supply remains active. In the unlikely case that the Town decommissions any of its existing water supplies at some point in the future, the watershed protection parcels could be designated as "surplus" land and could be developed or sold without Article 97 protection.

# Municipal Recreation Resources

In addition to conservation lands that support passive recreation, Groton owns and manages a range of recreational resources. The Groton Park Commission has care and custody of most of the Town's recreation land, including Town commons, parks, and athletic fields. There are also Town-owned facilities that provide opportunities for equestrian activities, swimming, and golf.

Groton's trail system provides many passive recreation opportunities such as hiking, biking, running, cross-country skiing, and bird watching. In 2015, the Trails Committee constructed the universally accessible John Tinker Trail on the J. Harry Rich State Forest. The project was funded by the DCR and Community Preservation Funds. The Trails Committee is exploring the creation of a second accessible trail along the east side of the Nashua River from 225 north to Hazel Grove Park.

The Department of Public Works provides maintenance in terms of mowing the fields and parks, but capital improvements such as dugouts and field houses have typically been installed and maintained by user groups. All of the athletic fields have irrigation systems. In the past five years, Groton has utilized Community Preservation Funds for recreation projects including restoration of Sargisson Beach, replacement of poles and netting on the Groton Country Club golf range, repair of Town basketball courts, and resurfacing the running track at the Middle School. The Town also commissioned a study of accessibility needs at parks and recreation facilities and has implemented most of the improvements the report identified.

Table 15:	Public	Recreation	Facilities	Overview
	i ublic	neercation	racincics	Overview

Town of Groton		
Town Commons	Badger, Firemen's, Legion, Minuteman, New Town, Prescott, Orchard,	
	Sawyer	
Parks	Carole Wheeler Memorial Park, Cutler Memorial Park, the Smith Social	
	Pavilion, and Christine Hanson Memorial Playground, Tarbell School Playground (under private ownership)	
Athletic fields	Cow Pond Recreation Facility, Stonebridge Farm, Alvin Sawyer Baseball	
	Field, Woitowicz, Cow Pond, Cutler, and Legion fields	
Special facilities	Hazel Grove, Groton Country Club, Groton Council on Aging, Sargisson	
	Beach, West Groton Water Supply District Boat Launch on Squannacook River and Petapawag Boat Launch on Nashua River	
Other		
Commonwealth of	Nashua and Squannacook River Rail Trails; Lost Lake/Knops Pond and	
Massachusetts	Baddacook Pond boat launches; Squannacook Wildlife Management Area	
	(Bertozzi); Unkety Brook Wildlife Management Area, J. Harry Rich State	
	Forest	

**Hazel Grove** is a 14-acre former fairgrounds established by the Groton Farmers & Mechanics Club, donated to the Town in 1940 after popularity of the fair had declined and the 1938 hurricane damaged many of the facilities. The park is under jurisdiction of the Groton Park Commission, but since the 1950's has been improved and maintained at no cost to the Town by user groups, including the Groton Riding and Driving Club and the Groton Pony Club, which attract users from a wide region and host events that draw groups from across southern New England. Some facilities, including barns and a racing track, are exclusively used by the organizations, but riding areas and trails are open to the public.

In addition to equestrian use, current uses include hiking, mountain biking, cross-country skiing, and trailhead parking to access the Town's trail network. The park includes six acres of old-growth forested land that appears to have been continuously undisturbed, presenting an opportunity for education highlighting the native ecosystem. Since 2012, the fairgrounds have been managed by the Hazel Grove Association, which was established through the recommendation of a study prepared by the Hazel Grove Planning Committee in order to formalize the long term maintenance, improvement, and management needs of the park, which continues to be supported entirely by user groups. The committee found that the park is uniquely suited for agricultural, equestrian sports, and educational uses, and identified priorities to continue historic use (agricultural fairs, equestrian pursuits, racing), preserve natural resources, and increase community involvement and use of Hazel Grove Park. The report noted that the site is not ideal for athletic fields.<sup>41</sup>

<sup>&</sup>lt;sup>41</sup> Report of Hazel Grove Study Committee, June 2012

The **Groton Country Club** is open to the public on a feeper visit or membership basis, offering golf, swimming, and summer camp programs for children. Use of the premises is open to all, regardless of the Town of residence; however, the fee schedule is discounted for Groton residents. The 113-acre property includes a ninehole golf course, an outdoor pool, and a restaurant/pub and function hall. The Country Club aims to operate as a self-supporting enterprise, without support of taxpayer subsidies. The Groton Country Club is not protected under Article 97.

Appendix E provides a detailed description of major Town-owned recreation areas. Many of these properties qualify as protected land because the Town acquired



them for recreational purposes and the deeds for these parcels limit their use to park land. Still other large recreation parcels, such as school athletic fields and the Groton Country Club are not protected in perpetuity.

#### **State Conservation and Recreation Resources**

The Commonwealth of Massachusetts owns 12 sites and approximately 988 acres of conservation and recreation land in Groton. The most significant holding is the 532 acre J. Harry Rich State Forest, which is used for tree stock and contains many valuable natural habitats. Another state conservation property is the 188-acre Squannacook Wildlife Management Area. The 65 acres of the Nashua River Rail Trail owned by

DCR is also included in the total acreage of Stateowned land, along with MBTA properties totaling 32 acres that were part of the old Fitchburg railroad line, which is slated for construction of the Squannacook Rail Trail. Other properties include boat launches at Baddacook and Lost Lake/Knops Ponds, and a small parcel on Gibbet Hill with a decommissioned fire tower (for which the status of protection is unknown). Most of these State conservation and recreation lands are permanently protected from development, and all are open for public use. The state has also assisted with many conservation land acquisitions in Groton and holds Conservation Restrictions on

#### Water Based Recreation

The Town-owned **Sargisson Beach** is free and open to the public with rustic parking facilities and lifeguards provided by contract with the YMCA. Groton Country Club offers a swimming pool which requires a daily fee or membership. The Town also owns the **West Groton Water Supply District Launch** on the Squannacook River. Additional boat launches on the Nashua River, Lost Lake/Knops Pond, and Baddacook Pond are owned by the Commonwealth

properties owned by the Groton Conservation Trust and the Groton Conservation Commission.

## 2) Nonprofit Lands

Nonprofit organizations have played a key role in securing the protection of open space and natural resources in Groton through their leadership in acquiring, preserving, and managing properties for wildlife conservation. Local organizations have also participated in regional collaborations with state and local government and other nonprofit organizations to secure funding and advocacy. Several nonprofit



organizations own conservation land in Groton. These groups work together with the Town to protect lands with significant conservation interest. Table 16 summarizes these properties by ownership, acreage, and general location.

Table 16: Nonprofit Conservation Organizations with Landholdings in Groton			
Name	Acres	Location	
Groton Conservation Trust	1,343	Various locations	
New England Forestry Foundation	913	Various locations	
Massachusetts Audubon Society	436	Rocky Hill Conservation Area	
Dunstable Rural Land Trust	29	Dan Parker Road	
Source: Croton Conservation Commission Inventory 2010			

Source: Groton Conservation Commission Inventory, 2019.

The Groton Conservation Trust (GCT) is a private, nonprofit land trust founded in 1964 to acquire, preserve, and provide public access to lands with significant conservation value.<sup>42</sup> Today the GCT owns and manages about 40 sites totaling 1,302 acres. GCT also holds conservation restrictions on land owned by the Groton Conservation Commission and Indian Hill Music. The properties include agricultural fields, woodlands, meadows, river frontage, and wetlands, ranging in size from a 0.05-acre portion on Mohawk Trail to 150 acres of land at Gamlin Crystal Springs. The GCT's holdings also include over 150 acres around Lost Lake<sup>43</sup>, 159 acres of protected woodland on Throne Hill, a 146-acre portion of Surrenden Farm (dubbed the General Field), and the 67-acre Mason Back 100 parcel. One GCT property, Blackman Field and Woods (donated to GCT in 2000), has a unique art installation, Forest Bells, created by local artist and craftsman, Paul Matisse in 1995. Some, but not all, of the GCT's properties are protected with conservation restrictions. Most GCT land is publicly accessible for hiking, wildlife viewing, and passive recreation. The GCT allows hunting on some of its properties and currently leases two properties for agricultural use as hayfields.

A subsidiary of GCT, the Groton Land Foundation (GLF) was created in 1988 as a vehicle to carry out limited development projects wherein the cost to acquire and protect land was offset in part by the sale of a few house lots. Although no longer active, the GLF helped to protect a significant amount of land, including 55 acres in the West Throne Hill/Wheatley Development. GLF's efforts declined due to real estate market trends that made it difficult for limited development projects to compensate for conservation land costs.

<sup>&</sup>lt;sup>42</sup> Groton Conservation Trust, www.gctrust.org.

<sup>&</sup>lt;sup>43</sup> Landholdings at Lost Lake were gifted to the Groton Conservation Trust by John and Virginia Taplin, with support from Groton resident, Joe Skinner.

- The New England Forestry Foundation (NEFF) The New England Forestry Foundation (NEFF) is a regional non-profit land trust founded in 1944 that protects forest land and promotes responsible forest management. NEFF was started by William Billy Wharton, a Groton resident. NEFF owns and manages approximately 29,000 acres of land throughout New England to provide wood products, local jobs, wildlife habitat, clean air and water, and recreational opportunities. At the core of NEFF's work stands the belief that both conserving forestland and practicing sustainable forestry are essential to preserving the beauty, prosperity, wildlife habitats, and unique character of our region for future generations. NEFF's Groton properties include the 623-acre Wharton Plantation along Rocky Hill Road; the nearby 15-acre Baddacook Woods; the combined 191-acre Groton Place-Sabine Woods off Route 225 next to Groton School; and 56-acre Keyes Woods on Peabody Street. The Groton Conservation Commission holds a conservation restriction over the Baddacook Woods property, while NEFF also owns a Conservation Restriction over the West Throne Hill Conservation Area owned by the Groton Conservation Trust.<sup>44</sup>
- The Massachusetts Audubon Society, New England's largest conservation organization, protects more than 38,000 acres of land in Massachusetts.<sup>45</sup> In 2007, the Massachusetts Audubon Society acquired the 441-acre Rocky Hill Wildlife Sanctuary, a diverse landscape of rocky outcroppings, red maple swamps, vernal pools, and pond shores located within an Area of Critical Environmental Concern (ACEC) and BioMap2 Core Habitat designated by the Natural Heritage and Endangered Species Program (NHESP). The property (418 acres of which is located in Groton, straddling the border with Ayer) is protected with a conservation restriction held by the Groton Conservation Commission. The creation of the wildlife sanctuary the culmination of decades of volunteer effort by Groton residents; the land was gifted by Groton residents Bob and Debby Lacombe and Dave and Nancy Moulton.
- The **Dunstable Rural Land Trust** owns 28 acres on Dan Parker Road near the Wharton Plantation and the Unkety Brook Wildlife Management Area, which was donated to the Trust by George and June Tully in 2008. The parcel is surrounded by Chapter 61 and Chapter 61A land abutting the Groton-Dunstable town line, and a vacant parcel owned by the New England Power Company.

# 3) Other Public Unprotected Lands

Several public properties provide key recreation and open space resources, but are not protected under Article 97. Should the need arise, some of these properties could be more easily repurposed for non-recreation and open space uses.

- The **Groton-Dunstable Regional School District** provides many indoor and outdoor recreation facilities at the four schools located within Groton, including GDRHS, the Boutwell Early Childhood Center, Florence Roche Elementary School, and the Middle School and Twomey Youth Center. Recreation facilities include various athletic fields, tracks, playgrounds, and gymnasiums.
- The **Groton Council on Aging** offers both indoor and outdoor recreation for people aged 60 and older, and helps to facilitate volunteer-led clubs and recreation programs, such as gardening, kayaking, and bicycling. A new facility is under construction and will provide space for community gardens, as well as indoor walking and fitness programs. The new facility is expected to open in 2019. The Council on

<sup>&</sup>lt;sup>44</sup> New England Forestry Foundation, www.newenglandforestry.org.

<sup>&</sup>lt;sup>45</sup> Massachusetts Audubon Society, Inc., www.massaudubon.org.

Aging is temporarily occupying part of the Lost Lake Fire Station (where the existing basketball court was re-configured for pickle ball) and uses facilities scattered throughout the community for various programming needs. Offsite programs include swimming at the Groton School and the Groton Country Club (depending on season).

- Groton's **Old Burying Ground** sits on four acres in the Town Center, at the corner of Hollis and School Streets. On the State Register of Historic Places, the site was used for burials between 1678 and the early 20<sup>th</sup> century, although the earliest remaining stone dates to 1704.
- The town-owned **Prescott School** occupies a 3.62 acre parcel that includes the former school building, parking area, and schoolyard which contains abandoned playground equipment. An undeveloped portion of the site is wetland. The building has been partially upgraded. A variety of uses have been proposed for the surplus school building, including residential condominiums, commercial space, and a non-profit community center. The Town issued an RFP in 2018 for reuse of the Prescott School, which currently hosts community education programs sponsored by a private organization, the Friends of Prescott School.
- Although the **Squannacook Rail Trail** is slated to be developed as a multipurpose recreational trail, the MBTA has retained ownership of the land so that it will have the option of reclaiming the rail right of way, should there be a decision in the future to restore rail service to the area.

See Map 7: Open Space Inventory (located in Appendix A)

# Section 6: Community Vision

# A. Description of Process

The Town of Groton began the process of preparing its 2019 Open Space and Recreation Plan in spring 2018. The plan was developed under leadership of the Conservation Commission, guided by a core Advisory Group, which consisted of members of the Conservation Commission and other stakeholder entities. The Advisory Group evaluated the status of goals and action items from the previous OSRP (from 2012), helped to steer the public engagement process, and provided substantive input on all sections of the plan. The process was facilitated by a consultant, Community Opportunities Group, Inc., and supported by the Town's Conservation Administrator.

Through a broadly conducted outreach process residents and stakeholders were invited to provide input via several avenues of participation. Members of numerous boards and committees, organizations, and other stakeholder entities were enlisted to participate in three topical working groups, asked to respond to policy questions, provide feedback on working papers, and create goals for each element. The consultants conducted interviews with key stakeholders and met with Town staff to gather additional information to inform the recommendations. The process also included direct outreach to residents through a survey, booths at widely-attended public events, and a public forum that took place on January 31, 2019. Through these engagements, residents were asked to identify areas and activities in Groton that they value and improvements they would like to see, discuss priorities, and provide feedback on goals and recommendations. Results from the public engagement activities can be found in Appendix B.

# B. Statement of Open Space and Recreation Goals

Groton has a rich history of open space and recreation planning and preserving and protecting open space. Maintaining the rural character of the community, its agricultural heritage, and valuable natural resources has been a constant theme across planning efforts in Groton from the Town's first Comprehensive Master Plan prepared by Charles Eliot in 1963, to the most recent Master Plan, to the current update of the *Open Space and Recreation Plan*. The well-preserved Town Center, farmland/historic areas, greenway corridors along the Nashua and Squannacook Rivers, and more than 7,000 acres of protected lands are evidence of Groton's ongoing commitment to preservation of important historical, agricultural, and natural resources. Because of its legacy of careful planning and open space preservation and protection, Groton continues to be an attractive place to live, work, and play, providing a high quality of life for residents but also resulting in increased growth pressures.

There is a high level of consistency of the Town's open space and recreation goals between prior plans and this 2019 *Open Space and Recreation Plan Update*. Input from Town commissions and the public resulted in minor changes from the 2012 goals, most notably adding an increased focus on fiscal sustainability and resiliency, a response to growing pressure on Groton's residential tax base and the anticipated

consequences of climate change. Guiding principles express Groton's overall vision for its open space and recreation system that reflects what is most important to residents:

- Preserve Groton's rural, small town character by identifying, protecting, and responsibly managing important historic, cultural, natural, and agricultural resources.
- Protect and enhance the quality of Groton's surface and groundwater as a source of drinking water and for wildlife and recreational use.
- **Provide** healthy recreational opportunities for all residents of Groton.
- Enhance the resiliency of Groton's natural environment by promoting sound stewardship and the creation of greenways linking local and regional protected open space.
- Support fiscal sustainability through prioritization of resources and strengthening partnerships among public and private institutions and volunteer organizations.
- Encourage active engagement and environmental awareness among Groton's entire community.

These principles form the basis of the more specific goals and objectives to be presented in Section 8, but they do not prioritize specific actions. Those issues most important to the Town of Groton are identified in the Seven-Year Action Plan, to be presented in Section 9.

# Section 7: Analysis of Needs

Groton's open space and recreation needs are separated into three categories: natural resource protection, land usage and management, and community needs. These needs describe the shortfall between Groton's existing conditions and the community's vision and are informed by Groton's environmental resources, existing open space and recreation inventory, and input from the public and Town boards and staff.

# A. Summary of Resource Protection Needs

Almost the entirety of Groton falls into areas of critical environmental concern due to the proximity of water resources, wildlife habitats, unique geological features, and prime agricultural land.

A considerable amount of privately-owned open space remains unprotected. Maintaining connections among diverse habitats will be critical for plants and wildlife to withstand the impacts of climate change. Since Groton is located in a transitional zone between the ranges of different species, greenway connections may enable species to migrate to where they can continue to thrive.

According to MassWildlife's Natural Heritage & Endangered Species Program (NHESP), priority gaps include the following:

- The Throne: Unprotected parcels adjacent to protected land.
- Rocky Hill area: Undeveloped and unprotected parcels along the Groton/Ayer line, adjacent to land protected by the Town of Groton and Mass Audubon.
- BioMap2 Core Habitat extending northward from Lost Lake/Knops Pond toward Dunstable.

Protecting watershed areas and riparian corridors helps to prevent contamination of water resources and to mitigate the impacts of drought and flooding, which are anticipated to come with climate change. Agricultural lands are increasingly important for preserving the Town's heritage landscapes, as well as for economic sustainability. The Town also needs to consider open space areas with respect to protecting property from flooding and other hazards.

## **Protecting Water Resources**

Groton should continue to maintain and improve water resources so they support the needs of native wildlife, water supplies, and recreation. Areas contributing to water resource protection include recharge areas surrounding the ponds, streams, and wetlands. The protection of riparian zones will help to enhance water quality, provide a corridor for wildlife migration, and facilitate access for recreation. While water resources have some regulatory protection under the Wetlands Protection Act and Groton's wetlands bylaw, many riparian corridor functions, such as flood mitigation, water quality buffering, and wildlife connectivity, require a wider buffer and more control over land use changes that are not covered by state or local wetland regulations. As noted previously, there are gaps in protection around many of Groton's waterways, including the Squannacook and Nashua Rivers. In some cases restoration is needed where water resource areas have been impacted by human activity or invasive plants.

Groton faces several water quality challenges. Pollution from local and regional sources is compromising key water resources such as the Nashua River and Lost Lake/Knops Pond. High levels of phosphates – especially from fertilizer runoff and failed septic systems – contribute to overgrowth of aquatic weeds. Groton needs to work locally and with other communities and organizations such as the Nashua River Watershed Association (NRWA), to address interconnected water pollution issues.

Climate change will almost certainly bring a more volatile mix of droughts and floods that can contribute to contamination of water resources. Changing hydrologic patterns could impact regulatory protection for rivers and wetlands. Increasing recharge through infiltration would help to mitigate these impacts. Groton needs to develop a clear policy and regulatory controls for stormwater management to emphasize conservation, infiltration, and the use of natural features to protect water quality. Policies such as Low Impact Design (LID) need to be consistent across Town departments and regulatory controls and to apply to a wider range of land uses. Groton should also explore ways to promote best practices on private land. Activities on private land, such as clearing, farming, and logging, do not come before the Conservation Commission if outside the buffer zones.

## Water Supply

Providing an adequate supply of safe drinking water is an essential environmental and public health objective. The Groton Water Department and West Groton Water Supply District currently have a sufficient supply of water, with annual withdrawals below their Water Management Act permits. The 2011 Master Plan recommended that the Town assess the sustainability of the Town's water supply, and potential impacts of future growth and changes to groundwater protection zones. Although Groton's water supply needs are not pressing at this time, the Town should be proactive in identifying potential sources of water to meet future needs.

Water conservation strategies are another integral component of water supply planning. Conservation can help Groton continue to meet its withdrawal limits and preserve additional water supply sources. Both the Groton Water Department and the West Groton Water Supply District should continue to expand public education around water conservation, including rainwater retention and landscaping to reduce the need for irrigation. Although many water conservation activities are universally applicable, the Groton Water Department and West Groton Water Supply District may require different levels of conservation or conservation measures because they draw from separate watersheds. This could create confusion for users if, for example, one system issued mandatory water conservation measures during the summer and one did not. While a certain amount of inconsistency is unavoidable, both water supply entities should strive to have similar water conservation programs to ensure better compliance and participation from town users.

# Agricultural Lands

Groton's agricultural heritage is critical to the town's identity and character, while agriculture continues to be an important sector of the town's economic base and to the regional food system. Development and economic pressures have contributed to a decline in agricultural activity, and many of Groton's most valuable agricultural lands remain unprotected. Strengthening support for agriculture was a focus of the 2011 Master Plan and 2012 Open Space and Recreation Plan.

The Town should continue its efforts to analyze existing agricultural lands, soil classifications, and links to existing open space to determine a list of priority parcels for permanent protection. Such protection can be achieved through land acquisition, agricultural preservation restrictions (APRs), and conservation restrictions (CRs). Ideally, the highest priority parcels will address both natural and water protection needs, as well as farmland protection. Since most of the resource protection gap corridors contain soils classified as Prime Farmland and Farmland of Unique Importance, Groton should consider prioritizing the preservation of lands within the gap corridors that contain agricultural resources.

Without government subsidies that make farming economically viable, farmlands will eventually convert to new uses as a result of rising land prices and other farming challenges. Permanently protecting agricultural land in Groton will require support from all levels of government, as well as partnerships with private entities. A complementary goal to preserving agricultural lands is supporting agricultural businesses through economic development and other initiatives such as education, marketing and promotion, and facilitating access to agricultural land through leasing of privately-owned land or licensing of conservation properties.

# Prioritizing Natural Resource Protection

Filling gaps to protect its numerous irreplaceable resources is essential to protecting Groton's unique environment. Many of the priority open space parcels identified as part of the inventory of lands of conservation and recreation interest are located in the resource protection gap areas. Other parcels are considered high priority because of their size or connectivity with other open space lands. However, further acquisition of open space for conservation purposes must be balanced with the availability of funding and capacity for stewardship.

When opportunities for acquisition arise, the Town must prioritize its efforts to focus on areas of highest value with respect to ecological significance, agricultural use, and scenic character. Groton should focus its land acquisition and protection efforts on high priority parcels and must be willing to forgo attempts to acquire lower-ranking properties. The Town should also balance the resources committed to increasing protected open space with enhancing capacity for land management.

Moving forward, Groton may want to consider creating and adopting a criteria-based ranking system to evaluate potential land acquisitions. Ranking criteria and a transparent process for establishing open space priorities can help the Groton Conservation Commission compare similar open space parcels and determine which property should receive precedence when faced with multiple potential acquisitions and limited resources. The need for a ranking system is especially important for parcels under Chapter 61, 61A, and 61B agreements, where the Town must act within 120 days of receiving written notification from a landowner to exercise its right of first refusal to purchase these properties. Criteria for the ranking system should include:

- Whether the parcel is adjacent to or could be easily connected to other open space.
- Whether the parcel can contribute to the development of a town-wide recreational trails network.
- Whether the parcel is located in or near a natural resource "gap area" (see Map 8 in Appendix A).
- Agricultural value of the parcel.
- Whether the parcel contributes to or could provide unmet needs for recreation, wildlife habitat (especially for endangered species), and/or water resource protection.

## Funding for Acquisition

Leveraging funds, partnering with other organizations, and proactively soliciting land donations is especially critical given the competing demands for Town conservation funds. Groton should continue to seek low-cost means to protect land, such as donations, CRs and APRs, and to identify additional sources of funding and support from other government and nonprofit entities. At the same time, there are instances where Town acquisition is the only viable option for protecting a significant parcel. Toward these ends, the Conservation Commission must have funding available if the Town needs to respond quickly when a vulnerable landscape is threatened. Advocating for continued contributions of CPA revenue to the Conservation Fund can help to ensure that the Town can pursue priority land purchases.

# B. Summary of Community Needs

Groton is well endowed with diverse and high quality recreational opportunities, yet increasing demand for facilities such as athletic fields, courts for various types of sports, and boat launches strain the capacity of existing facilities. Respondents to the survey conducted as part of this plan update indicated an interest in a variety of neighborhood recreation facilities such as playgrounds and basketball or tennis courts. It was suggested that better parking, bike access, organized activities, more and more information, such as wayfinding signage or maps, would help residents to make increased use of Groton's parks and recreation areas.

Providing a range of facilities that meet resident needs, protecting fields from over-use, and limiting environmental impacts are important management concerns for Groton in order to

#### The Community Preservation Act

The Community Preservation Act, adopted by Groton in 2004, enables the Town to establish a fund specifically to be used for open space, recreation, historic preservation, and affordable housing. The funds come from a small surcharge on a portion of local property tax bills, and matching funds from the state's Community Preservation Trust Fund. As Groton has applied the maximum 3% surcharge, the town receives bonus matching funds from the state. While the state match has declined in recent years, the revenue that CPA generates locally remains critical for carrying out projects of local importance, often providing a local match that leverages funding from other sources.

Since 2005, Groton has raised \$7.3 million in local revenue, and \$3.4 million in matching funds. From this, the town has committed \$10.6 million of CPA revenue. The largest share, \$7.5 million has been used for open space preservation, including \$5.7 million that supported the purchase of Surrenden Farm, and \$1.8 million to the Conservation Fund and other open space projects. Over this time the Town has also committed nearly \$1 million for recreation projects and \$1.4 million to historic preservation.

In addition to Surrenden Farm, major highlights include:

- Prescott School \$300,000
- Other public and nonprofit historic buildings: \$619,000
- Preservation of historic records, monuments, and artifacts, as well as inventories and studies - \$474,000
- Conservation Fund \$1,053,000
- Pond weed management \$366,000
- Walker Cox acquisition \$348,000
- Unkety Brook Well Site \$81,000
- Athletic fields and courts \$501,000
- Fitch's Bridge \$285,000
- Sargisson Beach \$160,000

### **Meeting the Needs of Special Groups**

Through the Public and Stakeholder engagement Process, the needs of specific groups such as elderly, people with disabilities, families with children, teens, young adults, and visitors were identified. In addition, the process included people with interests in a broad range of specific types of recreation activities such as boating, biking, hiking, athletic sports, cultural programming, users of community gathering spaces, hunting, dog-walking, and equestrian sports. Observations from participants echoed the findings in the 2017 SCORP, which noted that increasing proximity of recreation opportunities, improving pedestrian and bicycle connections, multi-use trails, and water-based recreation facilities would increase the availability and usage of recreation facilities for multiple special needs groups.

Many of the groups that were represented in the planning process have overlapping needs. As suggested in the 2017 SCORP, these include more accessible recreation and trail facilities located in closer proximity to neighborhoods throughout the community, and increasing the range and public awareness of recreational and cultural programs to serve people of different ages, interests and needs. Finally, to ensure that the needs of special groups are being met, the Town's commissions and organizations should coordinate to incorporate input from neighborhood residents, organizations representing special needs, and user groups to ensure that new facilities are planned to meet the needs of all community members.

maintain safe, high quality playing surfaces. Limiting excessive water use and fertilizer applications, as well as identifying ways to reduce stormwater runoff, can mitigate the environmental impacts of recreation lands.

The Town should continue to evaluate the need for additional recreational facilities and look for opportunities to acquire land, seek land donations, or adapt existing Town-owned land for recreational purposes. Priority locations for new facilities are areas that are more highly populated, in close proximity to existing facilities, or where community space is lacking. The Town and School District may also consider opportunities for expansion and/or reconfiguration to enable more intensive use of existing facilities, possibly in partnership with private user groups.

# Neighborhood-based Recreation Facilities

Although we heard from participants at the public events that people throughout Groton enjoy hiking on trails near where they live, other types of recreation facilities and outdoor community spaces are not as widely distributed throughout the town. Examples of additional recreation facilities that might be needed include community gardens, playgrounds, and courts for social sports such as tennis, basketball, bocci, or pickle ball. A community process is needed for coordinating with specific neighborhoods to identify potential sites and the types of facilities that are preferred.

# **Destination Recreation**

Groton's legacy of planning, environmental advocacy, and public/private investment in open space, recreational, and cultural assets has been effective in preserving its resources and enhancing the quality of life for Groton residents. These assets

are not only enjoyed by Groton residents, but also bring visitors from across the region to attend events, enjoy amenities, such as hiking trails and water resources, or to participate in sports and fitness activities. Enhancing the Town's reputation as a destination for outdoor recreation, agricultural products, historic character, and cultural activities can help to support the Town's economic base. Physical improvements in

areas such as athletic fields, equestrian facilities, boat launches, and trails could improve the Town's capacity to accommodate visitors and residents alike. Marketing and cross-promotion of recreational, cultural, and commercial offerings can also increase the economic benefits. Promoting awareness of the Town's resources can further help to preserve these assets and to continue leadership in stewardship of its open space and natural resources. At the same time, growth in the use of Groton's open space and recreation facilities may bring additional challenges with respect to maintenance and stewardship.

### **Passive Recreation**

Groton has a large number of trails that allow for passive recreational activities such as hiking, biking, cross country Friends and Partners
Planning for Special Needs
Groton Commission on Accessibility
Complete Streets Committee
Groton Council on Aging
Seven Hills Foundation

skiing, and nature observation. By identifying and protecting some key parcels, Groton could develop a connected, town-wide trail system that supports both passive recreation and transportation alternatives within the town. Ideally the network of trails would link the town's residential areas, bike paths, regional trails, and the Nashua and Squannacook Rivers. Building on the many existing trails, the network would give hikers, bikers, and equestrians direct access to a continuous network of trails. Ultimately, the Town could develop additional trail segments as interpretive trails with signage and written guides describing the area's historical features and natural history. To begin connecting trail segments, Groton should focus on linking existing trails with paths and sidewalks along town roads. The Town should also continue to work with landowners and developers to obtain trail easements to make key connections.

Hunting is an important recreational activity in Groton, and it is part of the rural character. At the same time, hunting can be incompatible with other uses of passive recreational lands. Conflicts may be mitigated while still encouraging the practice of hunting through educating the public and publicizing all properties which are open to hunting and which are not, and that Massachusetts law forbids hunting on Sundays.

## Special Needs

The Town carried out an ADA Self Evaluation and Transition Plan for open space and recreation facilities in the summer of 2015. For most facilities the findings highlighted the need for designating handicapped parking spaces, installing signage, and improving path surfaces. The Town agreed to undertake the recommended actions over 2016-2017. (Some improvements were already programmed and under construction at the time of the self-evaluation.) Areas that were not included in the 2015 study may need to be evaluated for accessibility – most notably the Groton Country Club. Future installations of recreation equipment planned for some locations should continue to incorporate handicapped accessibility in their design.

As many of Groton's recreational and cultural offerings are provided through private organizations and user groups, further coordination and planning is needed to identify and expand the availability of recreational opportunities that serve the needs of people with disabilities.

The accessibility of trails requires additional consideration. Most trails in Groton are currently maintained in a natural wilderness state and lack parking. Improving the accessibility of trail resources would allow

more residents to use these resources, but improvements that would be required to be fully accessible may not be feasible in many areas, or would require significant resources to implement and maintain. One handicapped-accessible trail, the John Tinker Trail, has been completed in the J. Harry Rich State Forest, and another is being planned along the Nashua River. Identifying further conservation areas or trails for enhanced accessibility could help to expand access for people with different mobility needs.

## **Recreation and Cultural Programs**

Without a municipal recreation department, organized outdoor recreation activities in Groton are mainly generated through private user groups, with a predominant focus on competitive sports for children. There are also indoor and outdoor cultural and recreation activities facilitated through the schools, Peter Twomey Youth Center (GDRSD), Friends of Prescott School, Council on Aging, and numerous other groups. Establishing capacity to gather and promote information about cultural and recreational programming could help to increase residents' awareness of the range of community activities available to them, as well as to foster coordination among volunteer groups. There may also be demand for expanding recreational offerings to include more non-competitive sports, cultural and educational activities, athletic/fitness programs for underserved groups, such as adults or people with disabilities, and more affordable activities. Additional planning would help to identify the needs of all populations in Groton and assess the community's desires about expanded recreation programming, whether it be offered through the Town or other providers.

## Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Every five years the Commonwealth prepares a Statewide Comprehensive Outdoor Recreation Plan (SCORP) to remain eligible for grants from the federal Land and Water Conservation Fund. The SCORP divides Massachusetts into five regional planning areas, placing Groton within the Central Region. The most recent SCORP (2017) evaluates statewide and regional needs for outdoor recreation facilities and estimates near-term future demands. Goals in the SCORP that relate to Groton include accessibility for underserved populations, trail connectivity, availability of water-based recreation and water resource protection, and neighborhood park improvements. While the state's findings have to be considered in the context of the region as a whole, some findings may be useful to local planning in Groton.

In identifying these goals, the SCORP undertook a public participation process that included a series of meetings across the state and surveys to gather input from various constituent groups including residents, high school students, municipal recreation providers, and land trusts. The greatest obstacles to utilizing recreation facilities cited by both youth and adults was lack of time and transportation, and distance. Hence, increasing the availability of facilities close to home and improving pedestrian/bicycle connections can help residents to overcome these constraints. The most commonly desired improvements among various user groups are hiking/multiuse trails and water-based recreation facilities. Input gathered in meetings in the Central and Northern regions highlighted an opportunity for collaboration among historic/cultural and recreation commissions, a need for more connecting and handicapped accessible trails, and coordination of trail maintenance.

# C. Management Needs, Potential Change of Use

Managing Groton's wealth of open space and recreation resources requires substantial effort on behalf of the Town Conservation and Park Commissions. Effective resource management has become increasingly difficult given recent budgetary constraints, and Groton relies heavily on volunteers for many of its management efforts. This section outlines Groton's management needs related to conservation lands, recreation lands, trails, and administration and staffing.

## **Conservation Land Management**

While Groton has successfully protected many parcels of conservation land, the properties need to be maintained in a sustainable and ecologically appropriate manner. Overgrowth of invasive species and inappropriate activities can harm natural resources or inhibit enjoyment of recreational assets. Due to the unique natural conditions and land use history of each parcel, individualized attention is required to address their specific needs. Some conservation lands are appropriate for agricultural, forestry, or recreational activities, while others are preferably maintained undisturbed. The Groton Conservation Commission (GCC) and volunteers have prepared stewardship plans documenting existing conditions and identifying management concerns for many parcels. However, there is more to be evaluated, and continued monitoring is needed.

Much of Groton's environmentally sensitive land is privately owned and/or impacted by neighboring properties. Environmental awareness and improved stewardship practices must extend to landowners throughout the town. Expansion of volunteer engagement, education efforts, and further coordination with local conservation groups, neighboring communities, and private land owners would help to ensure the efficacy of land management efforts.

More detailed inventories and analyses of the town's ecological systems would help with identifying the land protection and stewardship needs that are most important to ecological function and assist in prioritization of resources. The ecological inventory and analysis can also be used to assess the effectiveness of existing environmental regulation, such as the value of wetlands buffers in protecting sensitive ecological resources. If the existing regulations are found to be insufficient, the Town should consider modifying them to include alternate buffer zones or enhanced performance standards to protect key species and resources.

Groton's Conservation Administrator manages the Town's open space inventory, which includes public and private conservation parcels, municipal landholdings, and unprotected parcels owned by nonprofits and institutions. Expanding the open space database to include information on each parcel's resource value, CRs, and stewardship plans could enable users to better understand the role each parcel plays in the larger ecosystem, and enhance information sharing between different staff and stakeholder groups to track management needs.

# Recreation Facilities Capital Planning and Management

The Park Commission oversees the day-to-day management, including maintenance and scheduling, of Groton's active recreation facilities. To a varying degree, several of the Town's recreational facilities are also supported by user groups and participant fees. For example, the Hazel Grove Association privately

manages Town-owned Hazel Grove, the Country Club is self-sustaining through fees, and private athletic groups contribute to the cost of capital improvements on Town fields. Since the municipal recreation department was eliminated several years ago, there is very limited staff support for long-term planning, advocacy, administration, or programming of recreational facilities. There is also a shortage of staffing in the Department of Public Works to provide an optimal level of maintenance. Increasing management capacity either through establishing a recreation commission, private user group(s) comparable to the Hazel Grove Association, or generating fee revenues to pay for additional Town staffing could help to ensure adequate maintenance. Facilitating information-sharing through a detailed GIS-linked database of recreational assets and providing for public input on specific recreation needs could help to augment long-term planning and advocacy for recreational needs.

### **Trail Management**

Groton has about 130 miles of trails, which are managed and maintained by the volunteer Trails Committee. While these volunteers do an excellent job, the sustainability of the trails system relies on recruiting and maintaining a high level of volunteer participation, as well as training, equipment, and coordination. In addition, some trails and sensitive habitat areas have been damaged by motorized vehicle use or other disturbing activities. These issues may be addressed through continuing with education efforts, signage, monitoring, and coordination with partner organizations and property owners.

Dog walking is an important and growing recreational activity. NEFF's Groton Place and Sabine Woods serve up to 700 dog walkers per week, based on the number of "mutt mitts" used for dog waste. NEFF supplies mutt mitts, removes trash, and mows trails and fields to accommodate the high level of public use. NEFF and the Town should continue to collaborate on resolving problems which have resulted from this becoming such a popular location for dog walkers.

Dog feces is a growing public health and environmental problem. The Town should consider requiring that dog walkers clean up after their dogs on any town-owned and private properties. Education is key, and signage could help.

### Partnership

Groton is fortunate to have numerous volunteer committees, community groups, nonprofit conservation organizations, and other local and regional partners that work actively and successfully to protect natural resources and manage open space and recreational resources. Fostering greater coordination between these groups, as well as broadening awareness of the work that they are doing, can help to strengthen the Town's capacity for stewardship, planning, and investment.

# Section 8: Goals and Objectives

In this section the overarching goals identified in "Community Vision" (Section 6) are synthesized into specific goals and objectives that will drive the development of more specific recommendations in the "Seven-Year Action Plan" (Section 9). The goals and objectives from the previous *Open Space and Recreation Plan* were revised based on the updated "Analysis of Needs" (Section 7) and input from Town boards and staff and local residents. The following goals and objectives are not listed in rank order.

Goals	Objectives
<ol> <li>Promote the preservation of important land resources.</li> <li>Protect water resources.</li> </ol>	<ul> <li>Prioritize open space protection.</li> <li>Strengthen partnerships between Groton Town committees, organizations, institutions, neighboring communities, and state agencies.</li> <li>Engage the public to support natural resource protection.</li> <li>Prevent disturbance of riparian areas and wetlands and encourage infiltration, water flow.</li> <li>Prevent or reduce the impact of water pollution from local and regional sources.</li> </ul>
	• Evaluate and implement strategies for surface water quality and invasive plant control.
3. Promote resiliency to climate change and sustain biological diversity.	<ul> <li>Protect wildlife habitat and contiguous greenway corridors.</li> <li>Ensure that activities and amenities on conservation and recreation lands are compatible with the protection of their resources.</li> <li>Provide resources for effective open space stewardship.</li> <li>Promote public awareness of natural resources and ecological issues.</li> <li>Plan and implement strategies for hazard mitigation.</li> </ul>
4. Support local agriculture.	<ul> <li>Secure preservation of priority farmlands.</li> <li>Facilitate agricultural use of prime farmland.</li> <li>Promote policies, programs, and economic development tools to support local farms.</li> </ul>
5. Provide recreational opportunities to meet Groton's needs.	<ul> <li>Expand trail linkages to connect recreational areas.</li> <li>Acquire or reserve additional land for recreational activities.</li> <li>Develop/improve facilities to support programming and serve future growth areas of town.</li> <li>Update facilities to improve accessibility for people with disabilities.</li> </ul>
6. Facilitate the shared use of recreation facilities by residents of all ages and interests	<ul> <li>Expand recreation programming to provide more variety.</li> <li>Effectively coordinate and manage recreation areas.</li> <li>Provide information to the public about passive and active recreation offerings.</li> </ul>
7. Enhance Groton's community identity through landscape and cultural awareness.	<ul> <li>Identify, preserve, commemorate, and promote historic landscapes, sites, and structures.</li> <li>Increase awareness of Groton's historic, natural, and community assets.</li> </ul>

## Section 9: Seven-Year Action Plan Update

This action plan builds on the "Goals and Objectives" (Section 8) by developing specific strategies to be completed by responsible parties, and assigning each a timeframe in which to be completed. The actions listed below are essentially steps that need to be taken to accomplish the outlined objectives. The action plan items are organized by goal and objective, corresponding with Section 8. While neither the goals and objectives nor the action items are presented in rank order, the action items in themselves suggest priority actions necessary to achieve each objective. The timeframes provide a sense of the immediacy of each action item. Many of the action items are ongoing in nature and will continue to be addressed from 2019 through 2026.

Goal	Objective	Action	Responsible Party	Timeframe
1. Promote the preservation of important land	1.1. Prioritize open space protection	<ul> <li>Create and adopt criteria- based ranking system for open space acquisitions.</li> </ul>	Conservation, Park	2020
resources.	Funding sources: - Volunteer and	<ul> <li>Update prioritized list of parcels to target for acquisition.</li> </ul>	Conservation, Planning, Trails, Greenway	2020
	staff time - CPA Funding - DCS LAND Grant - MA Land & Water Conservation Fund Grant	<ul> <li>Continue to support funding of Conservation Fund to acquire open space and agricultural land through annual CPC application and other means.</li> </ul>	Select Board, Conservation, Community Preservation Committee	Ongoing
	Program - Field Use fees	<ul> <li>Continue to negotiate for open space preservation during permitting processes.</li> </ul>	Planning, Conservation, Trails	Ongoing
		<ul> <li>Identify additional funding for open space acquisition or preservation restrictions.</li> </ul>	Conservation, Greenway	Ongoing
	1.2. Strengthen partnerships	<ul> <li>Collaborate with land trusts and Conservation Commissions in adjoining</li> </ul>	Select Board, Conservation	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>Private donations</li> <li>State Universities</li> </ul>	towns, as well as the New England Forestry Foundation, Massachusetts Dept. of Fisheries and Wildlife, and Mass Audubon in land protection efforts.		

Appendix A, Map 8 illustrates the Action Plan elements that are geographically specific.

Goal	Objective	Action	Responsible Party	Timeframe
	- Public & Private Schools (gifts)	<ul> <li>Continue/expand periodic meetings of environmental and stewardship organizations, institutions, and public entities to share information and facilitate collaboration.</li> </ul>	Conservation, Greenway, various groups	Ongoing
	1.3. Engage the public to support natural resource protection.	<ul> <li>Conduct public outreach to support conservation funding and key land acquisitions.</li> </ul>	Select Board, Conservation, Greenway	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>CPA Funding</li> <li>Local Newspapers (good will)</li> </ul>	<ul> <li>Continue to identify priorities for CPA funding, and promote the value of investment in open space and other Town assets through local revenue and state matching funds.</li> </ul>	Community Preservation Commission	Ongoing
		• Conduct public events to highlight conservation lands.	Trails, Conservation, Greenway	Ongoing
		<ul> <li>Reach out to owners of priority parcels to identify opportunities for preservation.</li> </ul>	Conservation, Greenway, Park, Agricultural	Ongoing
2. Protect water resources.	2.1. Prevent disturbance of riparian areas and wetlands and encourage infiltration, water flow, and wildlife movement in rivers and streams.	<ul> <li>Emphasize acquisition of lands adjacent to wetlands, streams, and water bodies (including 300-foot corridor along rivers and tributaries) and around well sites included in DEP- delineated Zone IIs.</li> </ul>	Water Districts, Conservation, Select Board, Greenway	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>CPA funding</li> <li>MVP</li> </ul>	<ul> <li>Enhance LID regulations and promote stormwater management best practices through consistent regulation, policies, and education.</li> </ul>	Conservation, Planning, Building, Stormwater, Sustainability	Ongoing
	Implementation Grant	<ul> <li>Coordinate with other communities to protect shared water resources.</li> </ul>	Conservation, Water Departments, Greenways	Ongoing
	<ul> <li>Stormwater "Rain" fees</li> <li>Private donations</li> <li>In-kind: student</li> </ul>	<ul> <li>Provide incentives for farmers to keep natural vegetated buffers along rivers and streams.</li> </ul>	USDA Natural Resources Conservation Service, Conservation	Ongoing
	<ul><li>projects</li><li>NRWA</li></ul>	<ul> <li>Consider incentives, education, or advocacy to address unregulated types of activities that might disturb riparian zones.</li> </ul>	Conservation Stormwater, Sustainability, Agricultural	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
		<ul> <li>Evaluate the need for updates to conservation regulations to reflect changes in water flow to streams, wetlands, and ponds.</li> </ul>	Conservation, Health	2022 or Ongoing
		<ul> <li>Continue water conservation and education, i.e., odd/even watering.</li> </ul>	Water Districts	Ongoing
		<ul> <li>Provide adequate culverts and fish ladders to facilitate wildlife mobility.</li> </ul>	DPW, NRWA	Ongoing
	2.2. Prevent or reduce the impact of water pollution from local and regional sources.	<ul> <li>Continue to investigate non-point sources of pollution in the Lost Lake/Knops Pond area.</li> </ul>	Great Ponds Advisory Committee, Health, Conservation	Ongoing
	Funding sources:	<ul> <li>Evaluate alternatives for sewering areas with failed sewage disposal systems.</li> </ul>	Sewer, Health	Ongoing
	<ul> <li>Volunteer and staff time</li> <li>MA Works Development Grant</li> <li>State Revolving</li> </ul>	<ul> <li>Continue to monitor landfill closures on the Nashua River and at Cow Pond Brook and consider maintaining as early successional grassland.</li> </ul>	Select Board, Health, Greenway, NRWA	Ongoing
	Loan Funds for Water & Sewer Infrastructure	<ul> <li>Explore regional approaches to protect groundwater resources.</li> </ul>	Nashua River Watershed Association (NRWA), Conservation, Water Districts	Ongoing
	MassDEP Gap II     Grant	<ul> <li>Foster public education about pollution from household chemicals such as lawn treatment or pharmaceuticals, as well as protecting and testing private wells.</li> </ul>	Health, NRWA, Conservation, Water Districts	Ongoing
	2.3 Evaluate and implement strategies for water resource surface water quality and invasive plant control.	<ul> <li>Encourage development of comprehensive lake management plans for Great Ponds, particularly Lost Lake/ Knops and Baddacook Ponds.</li> </ul>	Select Board, Great Ponds Advisory Committee, Conservation, NRWA	Ongoing
	<ul><li>Funding sources:</li><li>Volunteer and</li></ul>	<ul> <li>Monitor where nutrients are coming from that contribute to aquatic plant overgrowth.</li> </ul>	Great Ponds Advisory Committee, Health, Conservation	Ongoing
	staff time Town NRWA in-kind	<ul> <li>Work regionally to improve water quality of the Nashua and Squannacook Rivers and to remove invasive species.</li> </ul>	NRWA, Greenway, Conservation	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe											
	<ul> <li>Groton Lakes Association fundraising</li> </ul>	<ul> <li>Continue volunteer water quality monitoring program on local streams, rivers, and ponds to provide baseline data on stream health.</li> <li>Install and maintain boat</li> </ul>	NRWA DCR, Conservation	Ongoing											
		washes at all formal State and Town boat launches.													
3. Promote resiliency to climate change and sustain	3.1. Protect wildlife habitat and contiguous greenway corridors.	<ul> <li>Identify likely wildlife corridors and prioritize habitat value for open space acquisition.</li> </ul>	Conservation, Groton Conservation Trust, NHESP, Greenway	Ongoing											
biological diversity.	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>CPA funding</li> </ul>	<ul> <li>Continue to acquire and link land along the Nashua and Squannacook Rivers and other identified wildlife corridors.</li> </ul>	NRWA, Greenway, Conservation, Trails	Ongoing											
	<ul> <li>MA Wildlife Habitat Grant</li> <li>Private donations</li> <li>NRCS (for private lands bordering</li> </ul>	<ul> <li>Work with land trusts and institutions to obtain CR's to permanently protect critical biodiversity or resource protection value.</li> </ul>	Conservation	Ongoing											
	open spaces) <ul> <li>Garden Club</li> <li>Federation of MA</li> <li>College/Student</li> </ul>	<ul> <li>Investigate the protection of Massapoag Pond's shore line in Groton and Dunstable.</li> </ul>	Conservation	Ongoing											
	<ul> <li>Conege/student projects</li> <li>Neighborhood donations</li> </ul>	<ul><li>projects</li><li>Neighborhood</li></ul>	<ul><li>projects</li><li>Neighborhood</li></ul>	<ul><li>projects</li><li>Neighborhood</li></ul>	projects <ul> <li>Neighborhood</li> </ul>	<ul><li>projects</li><li>Neighborhood</li></ul>	<ul> <li>Work with surrounding communities to preserve areas adjoining The Throne (including Old County Road), Reedy Meadow, and Nashua River.</li> </ul>	Conservation, Trails	Ongoing						
		<ul> <li>Perform a wildlife and flora inventory for conservation parcels.</li> </ul>	Conservation	Ongoing											
		<ul> <li>Develop and implement sustainable management and stewardship plans for conservation parcels based on resources and species present.</li> </ul>	Conservation, Trails	Ongoing											
		<ul> <li>Continue notifying development applicants of the presence of Priority Habitat of Rare Species on their property.</li> </ul>	Conservation, Building Inspector, Planning	Ongoing											
		<ul> <li>Work with partners such as NRWA, Merrimack River Watershed Council, NHESP to inventory, analyze, monitor, and protect habitat areas.</li> </ul>	Greenway Committee, Conservation	Ongoing											

Goal	Objective	Action	<b>Responsible Party</b>	Timeframe
		<ul> <li>Implement strategies for removing or controlling specific invasive species.</li> </ul>	Invasive Species Committee, Conservation, Agricultural, Park, Garden Club	2021
		<ul> <li>Foster education through various avenues to encourage public participation in controlling invasive species on both private properties and conservation lands.</li> </ul>	Invasive Species Committee, Conservation, Agricultural, Park	Ongoing, but more needed
	3.2. Ensure that activities and amenities on conservation and	<ul> <li>Implement a conservation and recreation sign program to improve access and appropriate usage.</li> </ul>	Conservation, Trails	Ongoing
	recreation lands are compatible with the protection of their resources.	<ul> <li>Coordinate with state and conservation organizations on trail management and usage policies.</li> </ul>	Conservation, Town Forest Committee, GCT, NEFF, DCR, MassAudubon	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>Town</li> <li>In-kind: student</li> </ul>	<ul> <li>Monitor conservation, recreation, and conservation-restricted parcels for encroachment and abuse; consider establishing new Monitoring Committee</li> </ul>	Conservation, Town Forest Committee, Parks, DCR	Ongoing
	projects	<ul> <li>Identify and mark boundaries of conservation parcels for purposes of enforcement and stewardship.</li> </ul>	Conservation	Ongoing
		<ul> <li>Manage inappropriate use of public trails by motorized vehicles using public education, signage, and enforcement techniques.</li> </ul>	Conservation, Trails, Groton Conservation Trust, Town Forest, Park, New England Forestry Foundation, Greenways Committee, DCR, Audubon, Police	Ongoing
		<ul> <li>Consider state BioMap identifying Core Habitat and Supporting Landscapes when planning for stewardship or for recreational or other usage.</li> </ul>	Conservation, Stewardship sub- committee	Ongoing
		<ul> <li>Investigate methods of reducing fertilizer use on recreation fields and golf course.</li> </ul>	Park, Country Club	Ongoing
		<ul> <li>Pursue sustainable forestry activities on Town-owned lands</li> </ul>	Conservation, Water Dept., Town Forest Committee, NEFF	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
		Consider signage and trail marking to re-direct hikers around sensitive wetland or wildlife resource areas.	Conservation, Trails	Ongoing
		<ul> <li>Promote best practices for all types of landowners for landscaping in ecologically sensitive areas. Educate &amp; inform townspeople of need to reduce fertilizers &amp; chemicals on lawns</li> </ul>	Conservation, Park, Garden Club, Stormwater, GCC, BOH	Ongoing
	3.3. Provide resources for effective open	Consider establishment of a Stewardship Committee.	Conservation, Park	2020
	space and water resource stewardship. Funding sources:	<ul> <li>Expand volunteer stewardship program, making available appropriate training and equipment.</li> </ul>	Conservation	Ongoing
	<ul> <li>Volunteer and staff time</li> <li>Athletic field user</li> </ul>	<ul> <li>Continue working with Park/DPW on periodic maintenance of Town conservation land.</li> </ul>	Conservation, Park, DPW	Ongoing
	<ul> <li>groups</li> <li>Other private donations</li> <li>MA Wildlife Habitat Grant</li> <li>CPA Funding</li> </ul>	<ul> <li>Investigate staffing needs for management, maintenance, and administration; identify specific roles for which additional staff support is needed.</li> </ul>	Select Board, Conservation	Ongoing
		<ul> <li>Continue coordination between Groton Town committees, organizations, institutions, neighboring communities, and state agencies.</li> </ul>	Select Board, Conservation, Trails, Greenway, Sustainability, Groton Conservation Trust	Ongoing
		<ul> <li>Consider the formation of neighborhood or homeowners association stewardship groups as part of the Planning Board permitting process.</li> </ul>	Conservation, Planning	Ongoing
		<ul> <li>Investigate funding opportunities for restoration or management of conservation lands, such as MassWildlife or CPA.</li> </ul>	Conservation	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
		<ul> <li>Develop and maintain a detailed database of conservation lands and priority open space parcels, including resource value, management plans, regulatory issues, recorded restrictions, or other information that can support stewardship, monitoring, and capital planning.</li> </ul>	Conservation	1919
	3.4. Promote public awareness of natural resources and ecological issues.	<ul> <li>Conduct outreach through local institutions, organizations and social groups to share information and promote best practices.</li> </ul>	Conservation, Stormwater, Library, various organizations	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>Town</li> </ul>	<ul> <li>Post interpretive signs and kiosks, and use media such as internet, newspaper, and brochures to inform people about resources and policies.</li> </ul>	Conservation, Trails, Stormwater, Park	Ongoing
	<ul><li>Boy Scouts</li><li>Local Newspapers</li></ul>	<ul> <li>Host guided hikes and other public events.</li> </ul>	Trails, Conservation, Greenway, NRWA	Ongoing
	(in-kind)	<ul> <li>Recruit volunteers for citizen science and stewardship programs.</li> </ul>	Conservation, Park, NRWA, NEFF, GCT, Trails	Ongoing
		<ul> <li>Support efforts to provide environmental education for children and adults through schools or other organizations.</li> </ul>	Conservation, Lawrence Academy, Groton School, GDR School District	Ongoing
	3.5. Plan and implement strategies for hazard mitigation.	<ul> <li>Coordinate implementation of regional hazard mitigation plan</li> </ul>	MRPA, Emergency Management	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>MVP</li> </ul>	<ul> <li>Monitor threats to forested areas from insects, blights, drought, or flooding which might result in large-scale damage. Consider in stewardship planning.</li> </ul>	Conservation, Invasive Species, various organizations and state entities, stewards, DPW	Ongoing
	Implementation Grant	<ul> <li>Undertake local planning to protect and mitigate impacts from wildfires, drought, flooding, and hazardous waste sites.</li> </ul>	Fire, Health, Emergency Management	Ongoing
4. Support local agriculture.	4.1. Secure preservation of priority farmlands.	<ul> <li>Assess whether there is a need to update the Town's Ch. 61 Right-of-First Refusal response assignment procedure.</li> </ul>	Select Board, Conservation, Agricultural, Planning, Assessors	2019

Goal	Objective	Action	Responsible Party	Timeframe
	<ul><li>Funding sources:</li><li>Volunteer and staff time</li></ul>	<ul> <li>Identify and prioritize important agricultural parcels to preserve for future farmers.</li> </ul>	Conservation, Agricultural Commission	Ongoing
	4.2. Facilitate agricultural use of prime farmland	<ul> <li>Encourage participation in Ch. 61 special use tax program.</li> </ul>	Conservation, Greenway, Agricultural	Ongoing
	<ul><li>Funding sources:</li><li>Volunteer and staff time</li></ul>	<ul> <li>Support sustainable agricultural activities, including licenses, on cleared conservation land suitable for farming.</li> </ul>	Conservation, Agricultural, Sustainability	Ongoing
	<ul> <li>CPA/Town funding</li> <li>School Projects</li> <li>NRCS Grants</li> <li>USDA Grants</li> <li>Sustainable</li> </ul>	<ul> <li>Develop and maintain inventory of agricultural land that may be available for sale or lease, to assist farmers in locating opportunity sites.</li> </ul>	Agricultural, Conservation	2020
	Agriculture Research & Education	<ul> <li>Encourage the establishment of community gardens; identify appropriate sites on Town-owned land.</li> </ul>	Planning, ZBA	Ongoing
	4.3. Promote policies, programs, and economic	<ul> <li>Encourage Community Supported Agriculture (CSA) and Farm-to-Table program.</li> </ul>	Select Board, Agricultural	Ongoing
	development tools to support local farms.	<ul> <li>Continue to support, expand, and promote the Farmer's Market.</li> </ul>	Williams Barn Committee, Agricultural	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>Fees</li> </ul>	Support education and demonstration programs to encourage and improve agricultural practices.	Agricultural, Sustainability, Grange	Ongoing
5. Provide recreational facilities to meet Groton's needs.	<ul> <li>5.1. Expand trail</li> <li>linkages to connect</li> <li>recreational areas.</li> <li>Funding sources:</li> <li>Volunteer and</li> </ul>	<ul> <li>Identify areas that would help to complete the Town's trail system; and explore options for obtaining Town ownership of 40-foot trail corridors through development</li> </ul>	Trails, Conservation, Planning	Ongoing
	staff time <ul> <li>CPA funding</li> <li>MassDCR Recreational Trails Grant</li> </ul>	<ul> <li>permitting.</li> <li>Map trails that could be used as linkages to open space and gain permission for their use.</li> </ul>	Trails, Conservation	Ongoing
	Private funding	Consider old railroad bed lines to link with adjoining communities.	Trails, Conservation, Dunstable Rural Land Trust and Conservation Commission, YMCA	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
	• Friends of Groton Elders	<ul> <li>Explore developing a river walk along the Nashua and Squannacook Rivers.</li> <li>Provide information to the public about potential links and trail improvements to encourage support and cooperation.</li> </ul>	Select Board, NRWA, Greenway, Trails, Park, Conservation, Planning Trails, Conservation	Ongoing Ongoing
	5.2. Acquire or reserve additional land for recreational activities. Funding sources:	<ul> <li>Evaluate existing Town- owned parcels to determine if there are sites that would be feasible and appropriate to convert to active recreational uses.</li> </ul>	Park, Conservation, Select Board	Ongoing
	<ul> <li>Volunteer and staff time</li> <li>CPA Funding</li> <li>Private fundraising</li> <li>Parkland</li> </ul>	<ul> <li>Request dedication of land and/or provision of recreation facilities by private developers when permitting larger development projects.</li> </ul>	Park, Planning	Ongoing
	Acquisitions and Renovations for Communities (PARC) Grant Program	<ul> <li>Acquire additional land for active recreation fields.</li> </ul>	Select Board, Park	Ongoing
	5.3. Develop/Improve facilities to support programming and serve future growth areas of town.	<ul> <li>Identify specific facilities and improvements needed to support the demand for athletic fields, courts, and recreational programs.</li> </ul>	Park	Ongoing
	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> <li>Private fundraising</li> </ul>	<ul> <li>Target population and growth areas for development of neighborhood recreation facilities (Lost Lake, West Groton).</li> </ul>	Park, Planning	Ongoing
	CPA/Town     funding	<ul> <li>Install artificial turf on additional fields to increase their capacity for use.</li> </ul>	Select Board, Park, GDR School District	2024
	<ul> <li>Community fundraising groups</li> </ul>	<ul> <li>Add irrigation systems, lighting or other improvements to Town fields without them.</li> </ul>	Park, DPW	Ongoing
		<ul> <li>Explore partnerships and other funding opportunities for recreation facilities improvements.</li> </ul>	Park, GDRSD, Groton School, Lawrence Academy, Country Club, Grotonwood	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
		<ul> <li>Identify appropriate location for seasonal skating rink</li> </ul>	Park	2020
		<ul> <li>Explore alternatives to expand swimming or other water-based recreation opportunities.</li> </ul>	Recreation	Ongoing
	5.4. Update facilities to improve accessibility for people with disabilities. Funding sources:	<ul> <li>Incorporate Section 504         recommendations into         capital improvements for         Town recreation and         conservation properties, as         well as school associated         facilities and complete.</li> </ul>	Select Board, School, Commission on Accessibility	Ongoing
	<ul> <li>Volunteer and staff time</li> <li>CPA funding</li> <li>Private fundraising</li> <li>Municipal ADA Improvement Grant</li> <li>Establish dedicated ADA fund.</li> </ul>	<ul> <li>Identify additional areas to provide accessible trails, picnic areas, and recreational opportunities that can be used by people with disabilities.</li> </ul>	Trails, Parks, Commission on Accessibility, Seven Hills Foundation	Ongoing
6. Facilitate the shared use of recreation facilities by	6.1. Expand recreational programming to provide more variety.	<ul> <li>Identify recreational activities that are desired by residents which could be provided or expanded.</li> </ul>	Park, Country Club, GDRSD	Ongoing
residents of all ages and interests	<ul> <li>Funding sources:</li> <li>Volunteer and staff time</li> </ul>	<ul> <li>Identify venues for developing new recreational programs among existing committees, departments, or organizations.</li> </ul>	Park, Select Board, GDRSD, Friends of Prescott, Council on Aging, Library	Ongoing
	<ul><li>Fees</li><li>Town</li></ul>	<ul> <li>Continue relationships with private schools, regional school district, Council on Aging, and other entities to support use of facilities.</li> </ul>	Select Board, Park	Ongoing
		<ul> <li>Establish capacity to recruit and coordinate volunteers to support recreational programming, trail management, stewardship, and other community needs.</li> </ul>	Park, Trails	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
		<ul> <li>Evaluate whether additional staff capacity is needed, under an existing department or through reinstatement of a recreation department, to facilitate recreational programming, and/or volunteer coordination.</li> </ul>	Select Board, Town Manager, Park	2021
	6.2. Effectively coordinate and manage recreational areas.	<ul> <li>Evaluate staffing needs for park and recreation maintenance and administration.</li> </ul>	Select Board, DPW, Park	2021
	Funding sources: • Volunteer and	<ul> <li>Consider process for capital planning for recreational facilities with community input.</li> </ul>	Select Board, Park	Ongoing
	staff time • Fees	<ul> <li>Investigate potential for establishing private management entities for other parks similar to Hazel Grove Association.</li> </ul>	Park	Ongoing
	<ul> <li>6.3. Provide</li> <li>information to the</li> <li>public about passive</li> <li>and active recreation</li> <li>offerings.</li> <li>Funding sources:</li> <li>Volunteer and</li> <li>staff time</li> </ul>	<ul> <li>Integrate list and locations of conservation areas and Town trails maps on Town website. Provide information about facilities such as handicapped accessibility and picnic tables, and policies with respect to dog walking, hunting, or other activities.</li> </ul>	Conservation, Trails, website	Ongoing
		<ul> <li>Conduct public outreach for recreation areas and resources; publicize resources such as www.grotontrails.org</li> </ul>	Conservation, Trails	Ongoing
7. Enhance Groton's community identity.	7.1. Identify, preserve, and commemorate historic landscapes, sites, and structures.	<ul> <li>Install interpretive signs describing historic elements of parks, conservation lands, and other public spaces.</li> </ul>	Conservation, Parks, Historic (three groups)	2021
	Funding sources:	<ul> <li>Support community events commemorating Groton's heritage.</li> </ul>	Williams Barn, Cultural Council, Commemorations	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
	<ul> <li>Volunteer and staff time</li> <li>Town</li> <li>Private fundraising</li> <li>CPA Funding</li> <li>Freedom's Way</li> <li>MA Preservation Projects Fund</li> </ul>	<ul> <li>Identify and preserve archeological and historic sites.</li> </ul>	Conservation, Historic groups, Planning	Ongoing
	7.2. Increase awareness of Groton's natural, cultural, and community assets. Funding sources:	<ul> <li>Construct a centrally- located kiosk with a map of popular attractions and brochures with more information about what to see/do in Groton.</li> </ul>	Business Association, Trails, Historic Commission	2024
	<ul> <li>Volunteer and staff time</li> <li>Town</li> </ul>	<ul> <li>Post way-finding resources (maps, brochures, etc.) in public places such as Library and Town Hall.</li> </ul>	Business Association, Trails, Historic Commission	2024
	<ul> <li>Private Fundraising</li> <li>Freedom's Way</li> </ul>	<ul> <li>Develop and maintain a website and/or brochure locating recreation, historic, cultural and natural resources, as well as local businesses.</li> </ul>	Conservation, Planning, Trails, Historic Commission, Business Association	Ongoing
		<ul> <li>Improve portal for visitor information and maps on Town website.</li> </ul>	IT, Trails, Conservation, Historic	2020
		<ul> <li>Consider self-guided bike tours to highlight interesting areas.</li> </ul>	Complete Streets	Ongoing
		<ul> <li>Identify state resources and/or local institutional partners to support ecotourism marketing efforts.</li> </ul>	Select Board, Conservation, Rotary Club, Groton Business Association, Economic Development Committee, MRPC, Freedom's Way, National Park Service	Ongoing
		<ul> <li>Maintain a regular program of conservation walks and talks to encourage familiarity with available conservation land.</li> </ul>	Conservation, Trails, Prescott	Ongoing
		<ul> <li>Coordinate with organizations and groups to support educational programming and events pertaining to Groton's natural and cultural assets.</li> </ul>	Conservation, NRWA, Library, Friends of Prescott, Grange, History Center, others	Ongoing

Goal	Objective	Action	Responsible Party	Timeframe
		<ul> <li>Establish a portal for information about organizations, Town committees, civic groups, and volunteer opportunities, consider establishing an annual event to recognize volunteers.</li> </ul>	Council on Aging, GDRSD, Town Clerk, Library, others?	2022
		<ul> <li>Provide welcome packet and/or orientation program to enable newcomers to connect with local activities and volunteer opportunities.</li> </ul>	Economic Development Committee, Voter Registration	Ongoing

# Section 10: Public Comment

As required, a draft of this plan was reviewed by the Groton Select Board, the Groton Planning Board, and the Montachusett Regional Planning Commission. In addition, numerous boards and committees, Town staff, stakeholder organizations, and members of the public participated in working groups, engagement events and surveys, and/or attended a public forum. Comment letters received from the following entities are included below:

- Montachusett Regional Planning Agency
- Groton Select Board
- Groton Planning Board
- Groton Agricultural Commission
- Groton Park Commission
- Groton Commission on Accessibility
- Robert Collins, Esquire (long-time Groton resident)

A description of the input received through the public participation process is provided in Appendix B.



February 19, 2019

Nikolis A. Gualco Conservation Administrator Town of Groton 173 Main Street Groton, MA 01450

Re: Town of Groton Open Space and Recreation Plan

Dear Mr. Gualco,

The Montachusett Regional Planning Commission (MRPC) staff completed a review of Groton's Open Space and Recreation Plan (OS&RP). Staff used the Open Space Guidebook published by the Executive Office of Energy and Environmental Affairs (EEOEA), Division of Conservation Services (DCS) "Open Space and Recreation Plan Requirements" to determine if the local planning document contained the required sections.

Groton's Plan is an excellent document, thorough and put together very well. We would like to take this opportunity to congratulate all local residents and officials for completing a well prepared document.

Sincerely,

Jøhn Hume

John Hume Planning & Development Director



TOWN OF GROTON

173 Main Street Groton, Massachusetts 01450-1237 Tel: (978) 448-1111 Fax: (978) 448-1115

## Select Board

Barry A. Pease, Chairman Alison S. Manugian, Vice-Chairman John R. Giger, Clerk Joshua A. Degen, Member Rebecca H. Pine, Member

Town Manager Mark W. Haddad

February 27, 2019

Groton Conservation Commission Groton Town Hall 173 Main Street Groton, MA 01450

RE: Proposed 2019 Open Space Plan

Dear Members of the Commission:

Please be advised that at the regularly scheduled meeting of the Groton Select Board held on Monday, February 25, 2019, the Select Board voted unanimously to support the Town of Groton Open Space and Recreation Plan, 2019-2026.

As part of their support of this Plan, the Select Board further voted to state they have some concern with the statements on Pages 99 and 100 of the report that states the Select Board will provide on-going support to continue to fund the Conservation Fund to acquire open space. While the Select Board is generally in support of providing additional financial support for this purpose, the Select Board wants to make it clear that this support is contingent on available funding based on all spending priorities of the Town. The Select Board will determine annually what funding they are willing to support for Open Space and other Conservation and Recreation Activities in conjunction with an overall review of all Town priorities.

Please let me know if you have any additional questions or concerns with regard to this matter.

Sincerely. Mark W. Haddad

Mark VV. Haddad Town Manager

MWH/rjb

cc: Select Board



Office of the PLANNING BOARD

March 14, 2019

John Smigelski, Chair Conservation Commission 173 Main Street Groton, MA 01450

## TOWN OF GROTON

173 Main Street Groton, Massachusetts 01450 Tel: (978) 448-1105 Fax: (978) 448-1113 Planning@townofgroton.org

### RE: Open Space & Recreation Plan 2019

Dear Chairman Smigelski and Conservation Commission members,

Thank you for the opportunity to review and comment on the draft 2019 Open Space & Recreation Plan (OSRP). Please be advised that at its regular meeting on March 14, 2019, the Planning Board voted unanimously to support the OSRP and to commend the Conservation Commission for a job well done.

The goals and objectives identified in the OSRP are entirely consistent with the 2011 Master Plan's recommendations for open space and recreation, and the protection of natural resources. The Planning Board recognizes the importance of periodically reviewing the Town's inventory of open space and recreational assets; of evaluating the goals and objectives for those assets; and of planning for their protection and enhancement. The OSRP will serve as a valuable tool to the Planning Board in assessing our progress on implementing the Master Plan's recommendations, and eventually in updating the Master Plan in 2021. The OSRP will also be an important resource for the Community Preservation Committee, the Park Commission, and others who are concerned with open space and recreation in Groton.

The Planning Board looks forward to receiving the final Open Space & Recreation Plan when it is published.

Sincerely,

9.1.....

Takashi Tada Land Use Director/Town Planner



TOWN OF GROTON Agricultural Commission 173 Main Street Groton, MA 01450 (978) 448-3715 redstone 43@yahoo.com

February 10, 2019

Nikolis Gualco Groton Conservation Commission 173 Main Street Groton, MA 01450

In response to the Town's Open Space and Recreation Plan, Groton's Agricultural Commission would offer the following recommendations;

First, in order to advance the goal of supporting agriculture, various Town committees and commissions such as the Conservation Commission, Agricultural Commission, Trails Committee and neighborhood groups should work together to determine possible and best uses of land in order to return parcels to productivity.

There are certain requirements before land can be farmed. Water supply can be crucial. Electric power is of great benefit. In some instances, equipment sheds and livestock shelters are needed. Access through neighborhoods can be problematic as well.

It is costly to turn a parcel into productive land. Several years are needed to re-coup these costs, necessitating longer terms of lease. As well, leases could be drawn with the intent of giving compensation for start-up costs.

There are organizations which will match beginning farmers with landowners who want to keep their property in agriculture. Groton should reach out to these groups as parcels become available, and in addition work with owners of chapter 61 land in order to foster this arrangement.

In addition, there are forest parcels in Town that do not actually come under the jurisdiction of Groton's Agricultural Commission. However, the Commission strongly recommends periodic harvesting and thinning of these forests. This is simply good management practice and stewardship.

Sincerely,

beauge moore

George Moore, Chair Agricultural Commission

TOWN OF GROTON 173 Main Street Groton, MA 01450 Tel: 978-732-1893 Fax: 978-448-1115, Attn: Parks



Park Commissioners Tim Siok, Chair Donald Black, Vice Chair Kenneth Bushnell Anna Eliot Jonathan Strauss

October 15, 2019

John Smigelski, Chair Conservation Commission 173 Main Street Groton, MA 01450

### RE: Open Space and Recreation Plan 2019

Dear Chairman Smigelski and Conservation members,

Thank you for the opportunity to review and offer comment on the draft of the 2019 Open Space and Recreation Plan (OSRP). The Park Commissioners appreciate the dedication of the Conservation Commission in compiling such an important document.

The Park Commission considers itself fortunate in that we have so many dedicated User Groups that make major contributions to the welfare and upkeep of our Parks, Commons and Playing Fields. Without their assistance, the possibility of a full time Parks and Recreation Department would become a necessity. Through the User Groups, we receive a contribution of time, money, maintenance on our fields, and care and plantings on our many Commons. Through a cooperative effort we are able to keep and maintain the best and safest playing fields in the area.

Our goals and objectives for the future will be to strive for constant improvement in expansion, development of product and to accommodate any and all User Groups in their requests for improvement. To that extent, we recognize the importance of the periodical review of the ORSP and appreciate your dedication and allowing us to be part of the process.

We look forward to receiving the final ORSP when it is published.

Sincerely,

Groton Park Commission Tim Siok, Chair Donald Black, Vice Chair Kenneth Bushnell Anna Eliot Jonathan Strauss



## TOWN OF GROTON Commission on Accessibility

173 Main Street Groton, Massachusetts 01450 Telephone (978) 448-1105 FAX (978) 448-1113

August 26, 2019

Conservation Commission Town Hall 173 Main Street Groton, MA 01450

Re: Open Space and Recreation Plan

Dear Commission Members:

The Commission on Accessibility (Commission) received a copy of the letter dated May 24, 2019 from Melissa Cryan, Groton Programs Supervisor, at the Executive Office of Energy and Environmental Affairs, Division of Conservation and Recreation (DCR), stating that the section on ADA compliance is not complete.

The Commission would like to offer the following background information:

In 2015, the Commission worked with the Northeast Independent Living Program (NILP) to prepared a Self-Evaluation/Transition Plan of the Town's Open Space, Parks, and Playgrounds with funding from the Community Preservation Committee. The NILP is a not-for profit agency that provides services to people with disabilities as described on its website:

### https://www.nilp.org/about-us/

The Commission and NILP worked with local officials, including the Board of Selectmen, Park Commission, Conservation Commission, Trails Committee, and the Groton Conservation Trust on the project.

The Commission and NILP reviewed the list of all Town-owned open space, parks, and playgrounds and prioritized the properties that hosted public events such as Grotonfest, the Fourth of July Fireworks, and Riverfest, to be sure people with disabilities could participate in such programs. We also prioritized sites that had parking and trails that were not too steep or physically challenging. Commission members, the NILP staff and others visited various sites every Friday afternoon from June to November in 2015 to complete the evaluations. Conservation Commission August 26, 2019 Page 2

The Commission prepared Self-Evaluation/Transition Plans for the following 24 sites. The plans are posted on the Town's website:

> 1.Baddacook Pond Boat Launch 2.Bates Conservation Land 3.Bertozzi Wildlife Area 4.Cow Pond Brook Fields 5.Cutler Field 6.Farmer's and Mechanics (Jenkins Road) 7.Fitch's Bridge 8.Flat Pond 9.Gamlin Crystal Springs Area 10.Hazel Grove Park 11.Knowles Siding 12.Lawrence Playground 13.Legion Common 14.Lost Lake Boat Launch 15.Nashua River Rail Trail 16.Petapawaug Canoe Launch Area 17. Rich State Forest 18.Rider Basketball Court 19.Sargisson Beach 20.Surrenden Farm 21.Town Forest 22.Wheeler Park 23.Williams Barn 24 Woitiwicz Field

The Commission held a public hearing on December 15, 2015. The Board of Selectmen adopted the Self-Evaluation/Transition Plan and the required ADA policies and procedures at its meeting on January 25, 2016. The policies include "Title I of the ADA Employment Reasonable Accommodation Policy," "Title II of the ADA," prohibiting discrimination on the basis of disabilities, ADA Reasonable Accommodation Policy," "ADA Complaint Process," explaining the grievance procedure. The Town Manager has appointed Michelle Collette as ADA Coordinator annually from 2011 to the present time.

In addition to preparing the Self-Evaluation Transition Plans, The NILP conducted ADA Sensitivity Training workshops in May, 2016, and July, 2018. The workshops were well attended by Town staff as well as volunteer elected and appointed officials. Conservation Commission August 26, 2019 Page 3

The Commission would like to commend the Conservation Commission, Park Commission and Trails Committee for implementing most of the recommended improvements. One of the most noteworthy projects is the John Tinker Trail at the Rich State Forest, managed by the DCR. The universally accessible parking spaces with signage, accessible trail, and seating areas were installed with funds from the Community Preservation Act, a grant from DCR, and a considerable amount of volunteer labor.

The Trails Committee is planning to construct another accessible trail in the Partridgeberry Woods open space along the Nashua River, subject to funding and necessary approvals.

The Commission will request additional funding at the 2019 Fall Town Meeting to evaluate an additional 15 Town-owned properties.

Respectfully submitted,

Members of the Commission on Accessibility

**Robert Fleischer** 

Mark Shack

la Tu

Alan Taylor

Carol Ann Sutton

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Michelle Collette, ADA Coordinator

Robert L. Collins Attorney At Law P. O. Box 2031 Westford, Massachusetts 01886

Telephone (978) 448-3511 Factimile (978) 448-8511

Proton Office; 204 Jay Road Golon Massachusetts 01450

### 1 October 2018

The Groton Conservation Commission Town Hall 173 Main Street Groton, MA 01450

RE: Groton OSRP Inventory and Analysis Community Opportunities Group, Inc.

Dear Commission Members:

Michelle Collette shared the draft report with me, and I wish to share the following observations which the Commission may wish to include in the report:

- The section entitled "Conservation Land and Recreational Resources in Groton, Nashua River Corridor", (page 5) includes a listing of protected properties along the river; this list should include the protected acreage owned by the Taisey Family Nominee Trust at the Partridgeberry Woods subdivision. None of the properties listed would have been protected had it not been for the tireless efforts of Marion Stoddart, who ought to be given credit in this section.
- The section entitled "History of the Community" (starts on page 8) could include the fact that Groton's Conservancy District in the zoning by-law and Groton's local Wetlands By-law both predate the Wetlands Protection Act. A logical place for this fact would be the paragraph that begins at the bottom of page 9.
- 3. The fourth paragraph on page 9 dealing with the creation of Lost Lake is not accurate. Lost Lake was created by two successive dams constructed pursuant to damming rights conveyed by the various landowners starting in the 1840's. The rights were purchased by mill owners in Nashua seeking to control a steady waterpower source for their mills. The two dams (the first is below the surface but is still very visible) were constructed in the 1850's and 1870's, respectively. Lost Lake Development, a Massachusetts Business Trust, purchased 470 acres in the 1920's, and what is commonly referred to as "Lost Lake" was

The Groton Conservation Commission Page 2 1 October 2018

> developed from 1926 to 1932 at which time Lost Lake Development became insolvent. Lost Lake Development sold prefabricated buildings on these lots.

- 4. The section "Residential Growth Trends" (page 17) really does not accurately reflect the shift toward more responsible development which occurred after our by-law incorporated Flexible Development, the multifamily by law provision, and Site Plan Review in 1981. Development immediately shifted to reduced lot sizes under Flexible Development; since its adoption only a couple of subdivisions have used conventional lot divisions. The 2.08 acre average per unit developed does not include the substantial acreage which was set aside as open space during the 1980 to 1999 period. The shift toward cluster type development occurred without question in 1981, not subsequent to 1999 as stated.
- 5. On page 26, third paragraph, the sentence "As a result of these actions, much of Groton's land have been protected and the rate of development has slowed considerably since the 1990s" really should state 1980's, since it was the complete revision to our zoning which occurred in the 1979 to 1981 period which accounted for the change in the preferred development approach.
- On page 26, the reference to the approvals for Indian Hill Music is erroneous; this use is exempt under Chapter 40A, Section 3.
- On page 29, I am unaware of a hill named "Smoke Hill."
- On page 44, the Historic District on Farmers Row extends to Joy Lane; it encompasses much of the Groton School campus. As written, the section would lead one to conclude that the District ends at Groton School.
- 9 On page 59, the statement that the CR on 35 acres at the Grotonwood facility is unrecorded is erroneous; the restriction appears of record with the Middlesex South District Registry of Deeds in Book 63093 at Page 163.
- 10. On page 65, the paragraph dealing with the Conservation Trust should acknowledge the gift of land by John and Virginia Taplin, which formed the basis of the GCT holdings at the Lake, and the fact that Joe Skinner, a Groton resident, convinced Mr. & Mrs. Taplin to purchase this land, which they then gifted to the Trust.
- 11. On page 66, the paragraph which describes the land owned by Mass. Audubon really should state that this project, and the land which it protected, was the culmination of a twenty year effort by Arthur Blackman (a former Selectman), Bob P:ne, and others (I would be on that list, but I am not suggesting that you include me. But the fact of the matter is that we all worked on preserving this property from the mid 1980's until 2006. ). The Wildlife Sanctuary was gifted by Bob and Debby Lacombe and Dave and Nancy Moulton, Groton residents who purchased

The Groton Conservation Commission Page 3 1 October 2018

this property comprised of 650 acres, and then gave away most of it. They deserve credit for that gift in this section.

Thank you for the opportunity to review this draft.

Very truly yours,

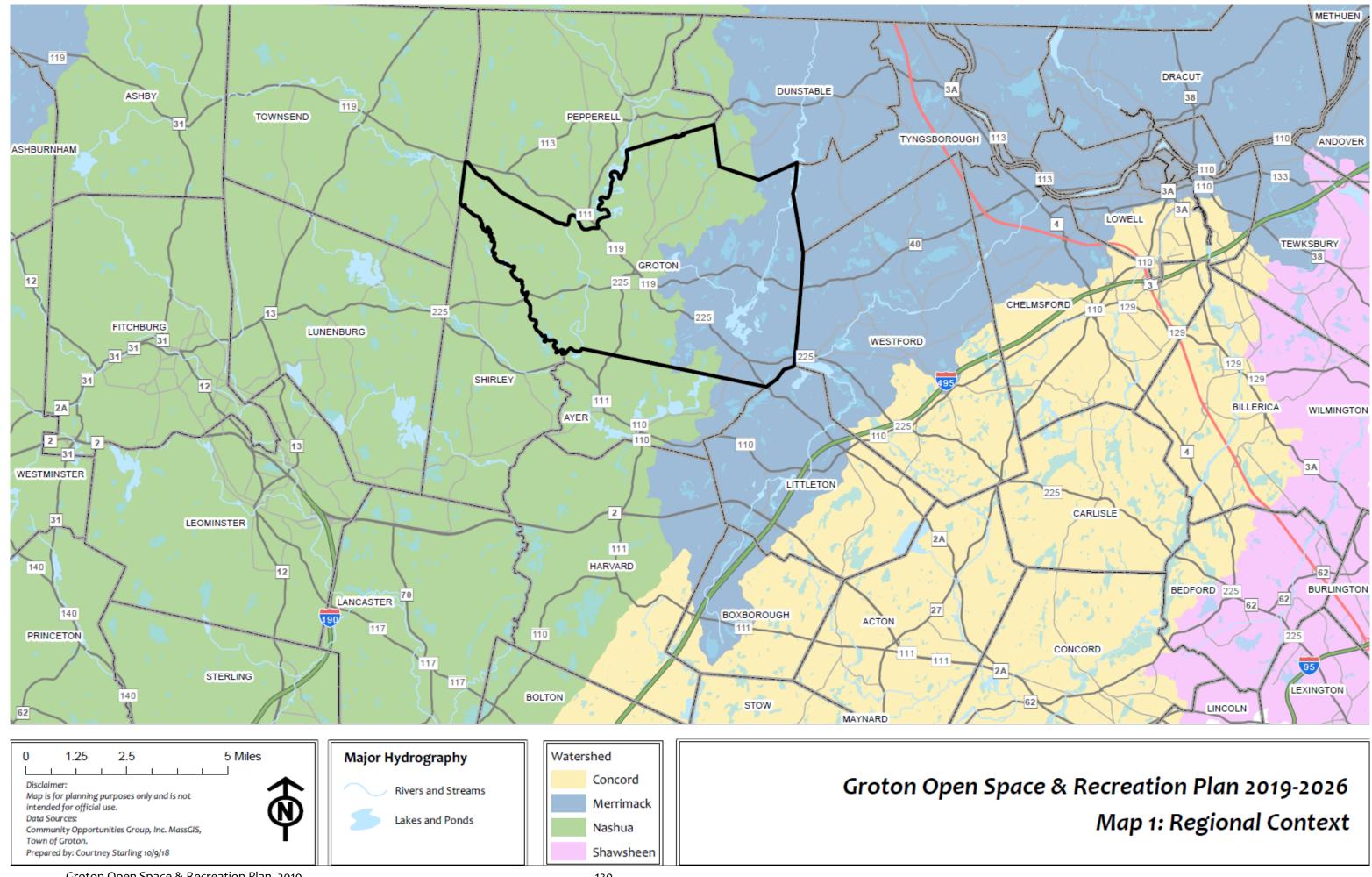
Robert L. Collins

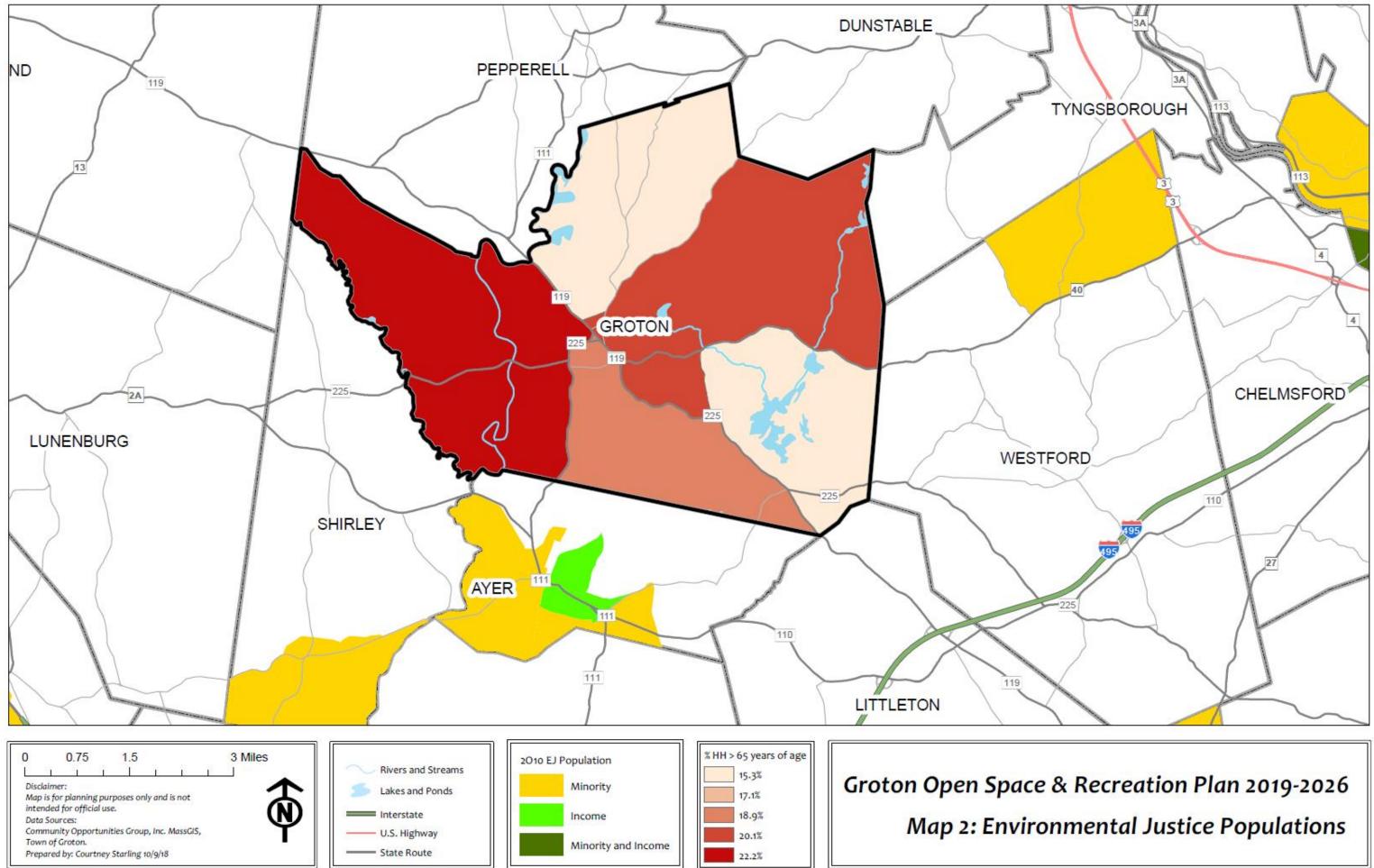
# Section 11: References

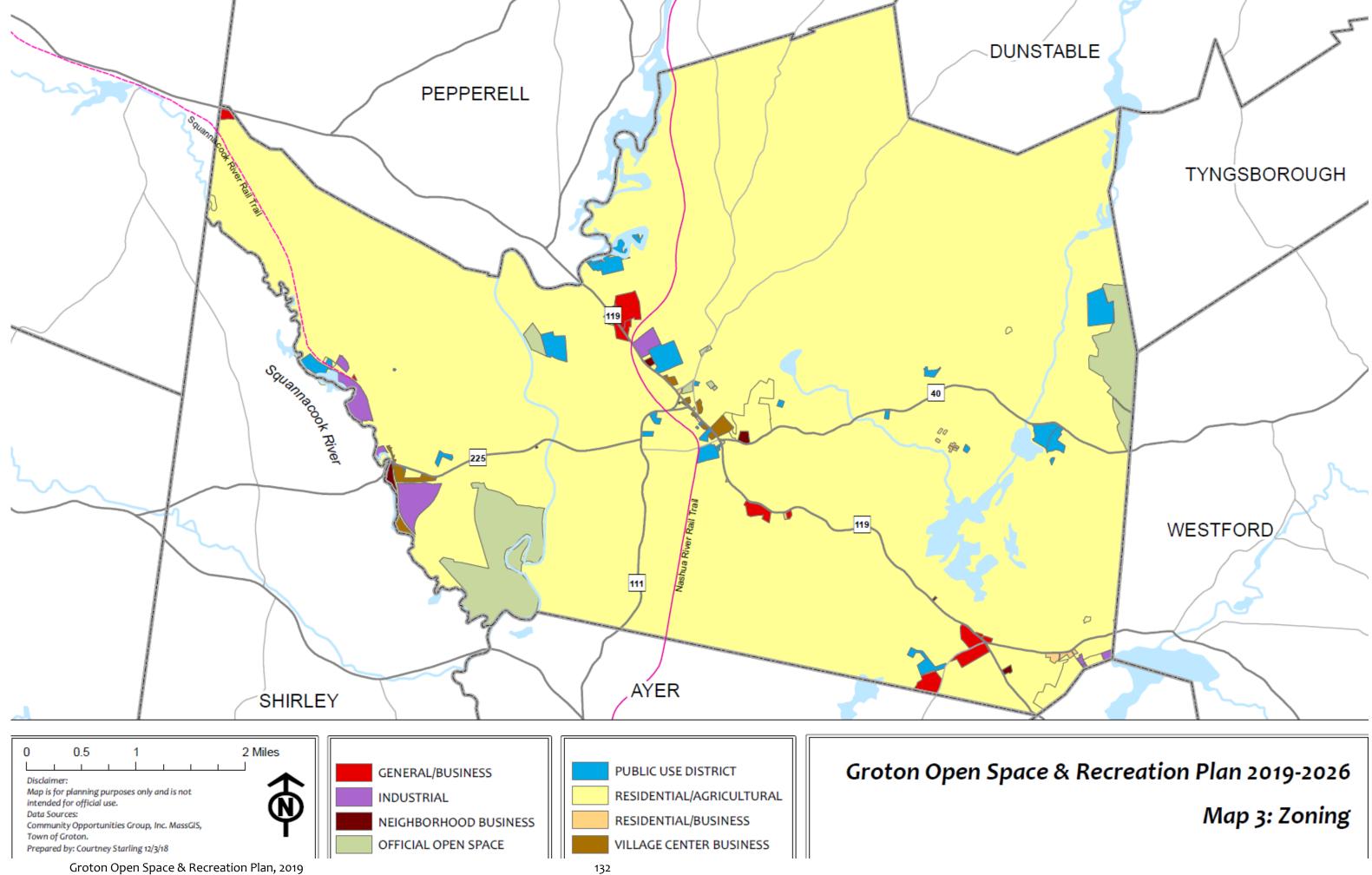
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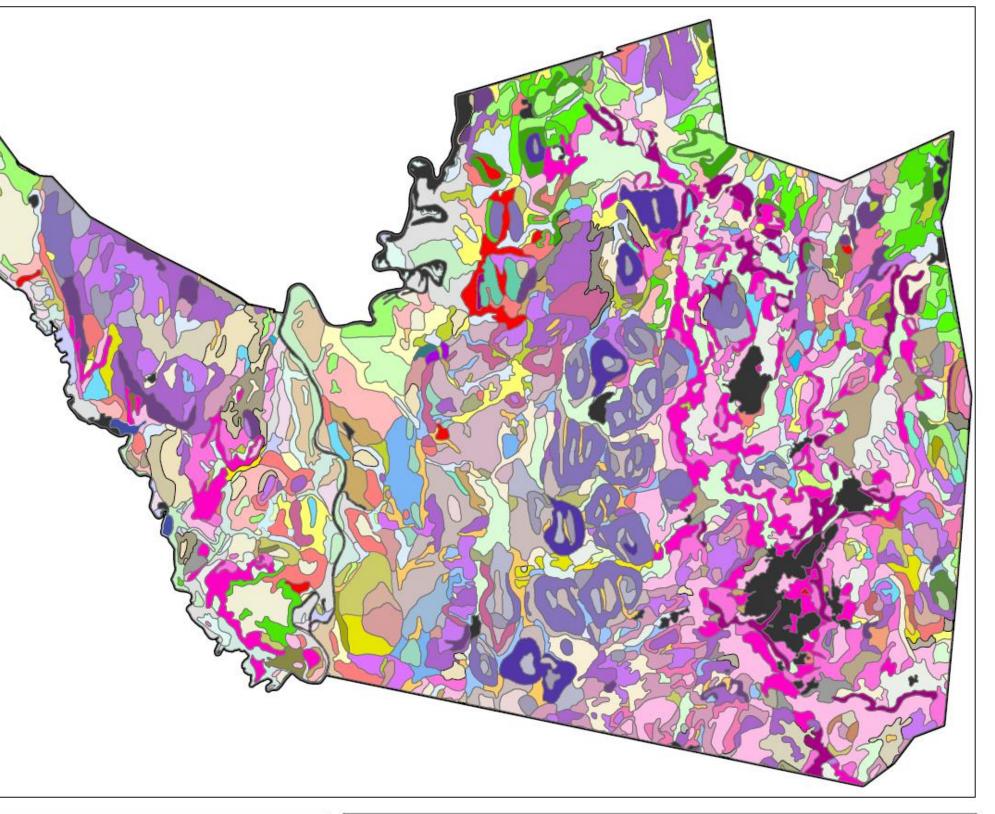






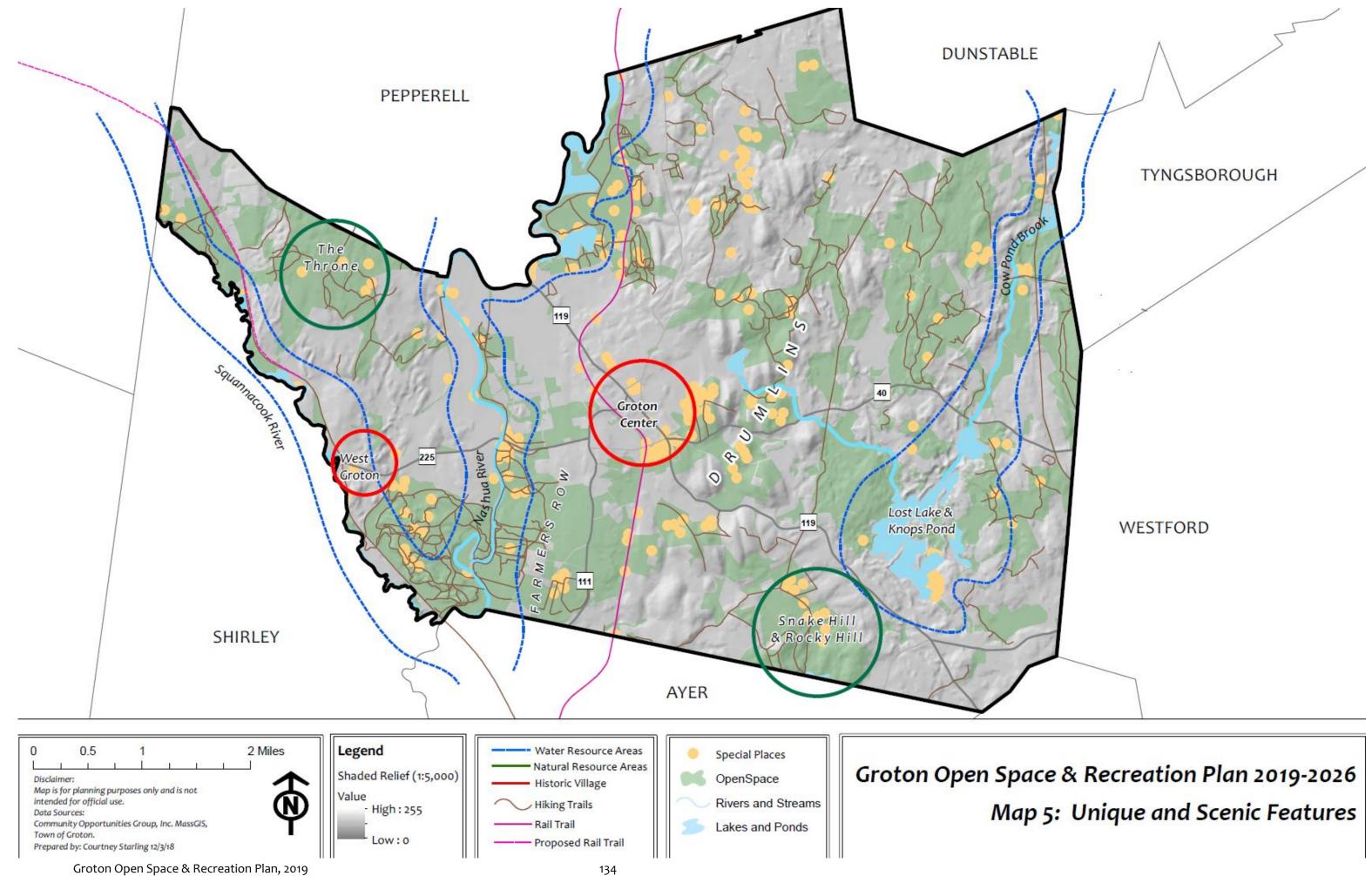
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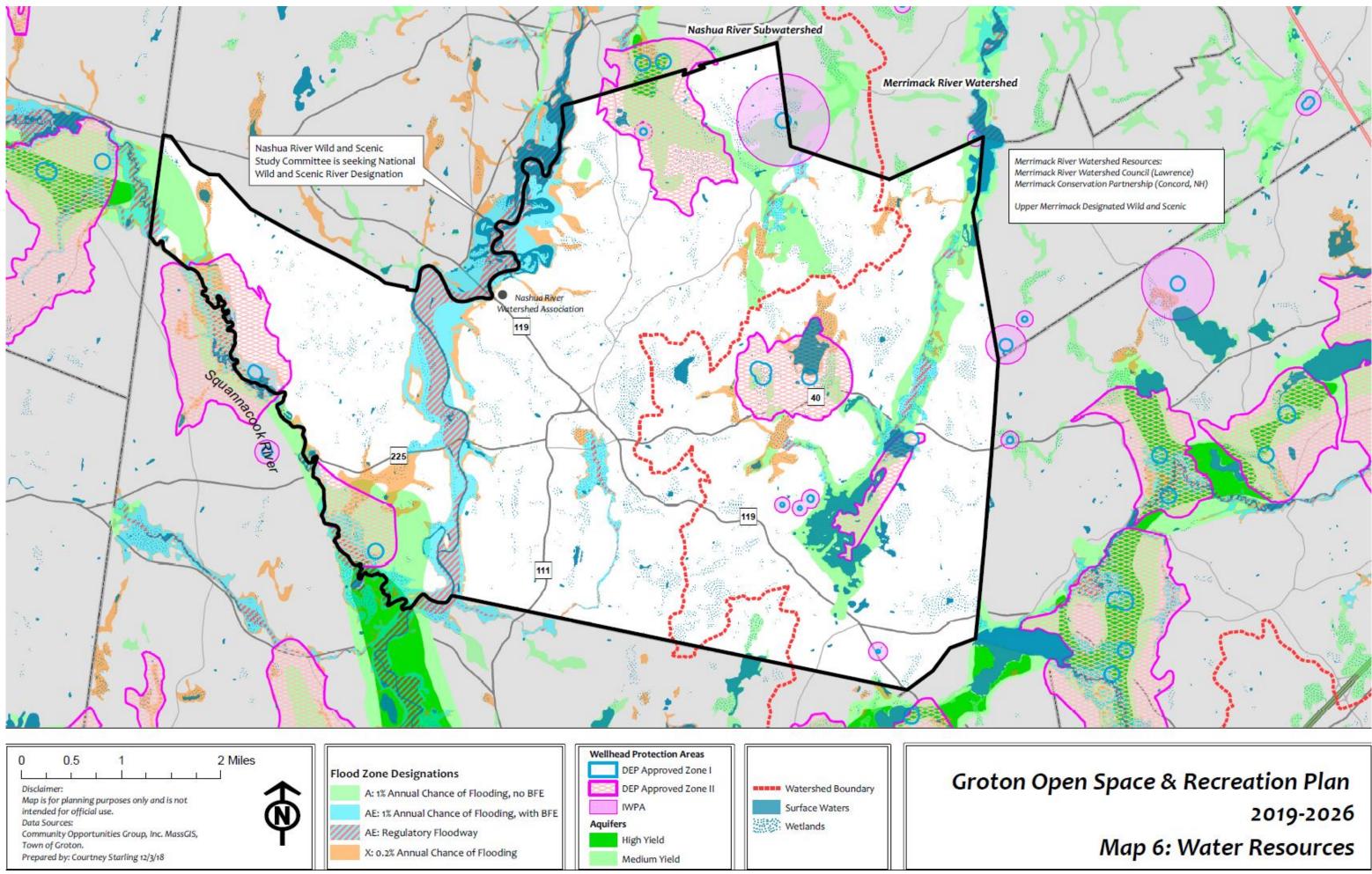
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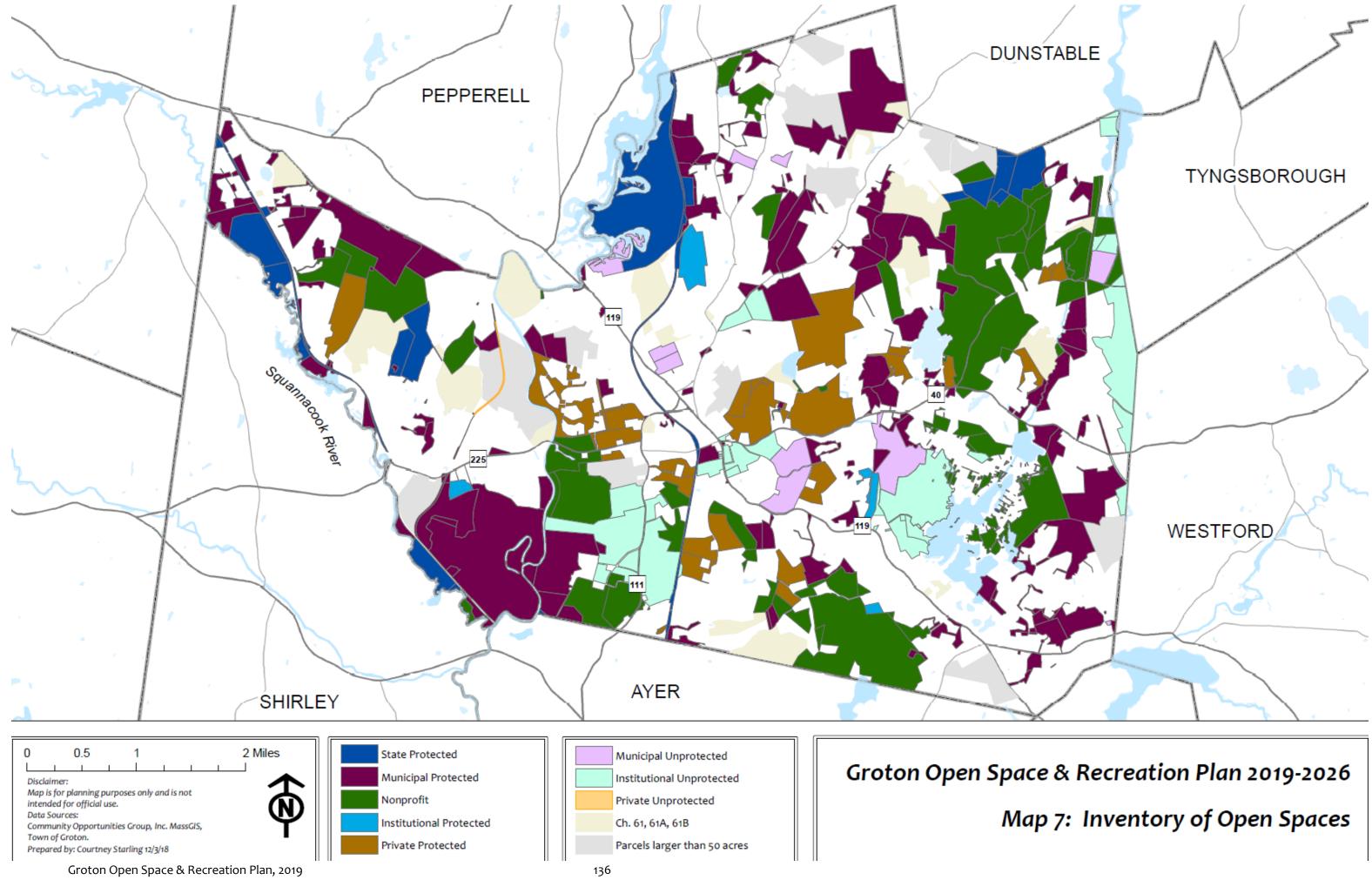
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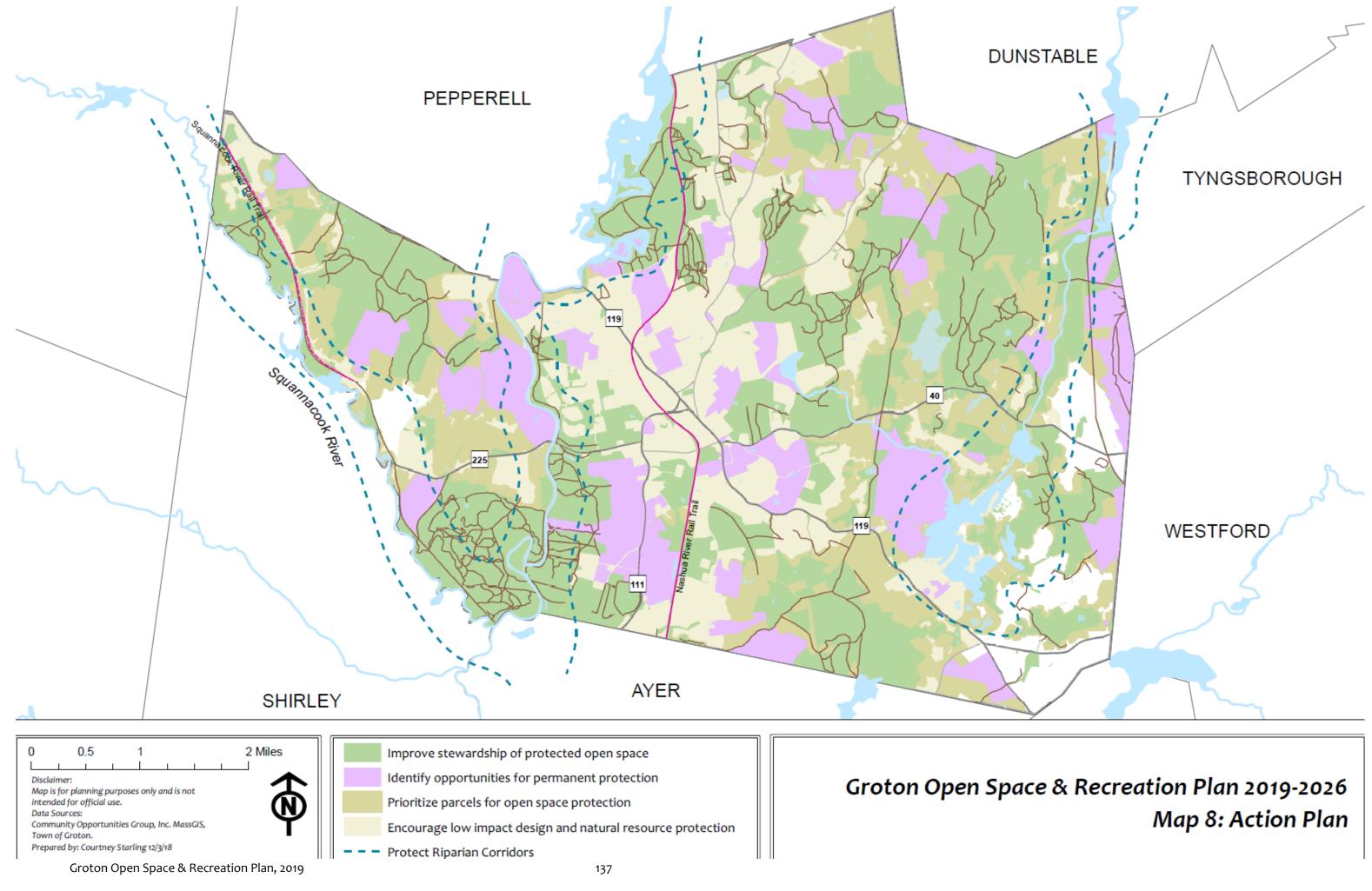
# Groton Open Space and Recreation Plan 2019-2026 Map 4: Soils





Groton Open Space & Recreation Plan, 2019





# OSRP Advisory Group, Working Groups, and Interviews

An Advisory Group met periodically with the consultant team throughout the planning process to provide guidance on the plan content, communication, and public and stakeholder outreach.

Three working groups were formed to provide feedback on the technical analysis and strategic planning elements of the OSRP, and to participate in a series of substantive discussions to identify issues, goals, and objectives. Working group participants included representatives from a range of organizations, institutions, volunteer groups, and Town committees, as well as Town staff who are involved in issues that relate to the OSRP. Working Group Members provided input by reviewing draft documents and providing written comments, as well as participating in a series of meeting discussions. The consultant also conducted interviews with Town staff and stakeholders, listed below.

Name	Affiliation(s)	OSRP Advisory Group	Working Group(s)	Interview
Stephen Babin	Groton Town Forest		•	
George Barringer	Planning Board		•	
Brian Bettencourt	Invasive Species Committee, Groton Conservation Trust		•	
Evan Boucher	Park Commission, Celebrations Committee		•	
Shawn Campbell	Groton Country Club		•	
Carl Canner	Sustainability Commission		•	
Diane Carson	Nashoba Paddler		•	
Willow Cheeley	Merrimack River Watershed Association			•
Christopher Clinton	Lacrosse		•	
Michelle Collette	Conductorlab Oversight Committee, ADA Coordinator, Complete Streets Committee, Earth	•	•	•
Robert Collins	Removal Storm Water Commission		•	
Peter Cunningham	Squannacook Greenways, biking		•	
Christopher Davey	Soccer		•	
Tessa David	Recycling Committee		•	
Tom Delaney	Town of Groton Department of Public Works		•	_
Darcy Donald	Groton Turtle Conservation		•	•
Bruce Easom	Community Preservation Committee, Zoning Board of Appeals, Electric Light, Conservation Commission, Williams Barn Committee		•	•
Anna Eliot	Parks Commission	•	•	
Ellen Ferraro	Groton Dunstable Regional High School Athletic Director, GD at Play		٠	
Lisa Fiorentino	Indian Hill Music		•	
Al Futterman	Nashua River Watershed Association		•	
Anne Gagnon	Massachusetts Division of Fish and Wildlife		•	
Marshall Giguere	Conservation Commission	•	•	
Wendy Goode	Groton Conservation Trust, Trails, Garden Club,	•	•	

Name	Affiliation(s)	OSRP Advisory Group	Working Group(s)	Interview
	horse owners	•		
Nikolis Gualco	Groton Conservation Administrator	•	•	•
Mark Haddad	Town of Groton Town Manager			•
Robert Hanninen	Board of Health		•	
Brad Harper	Groton Lakes Association		٠	
Cheney Harper	Squannacook Greenways		٠	
Stephen Hitchinson	Massachusetts Audubon Society			٠
Larry Hurley	Conservation Commission		•	
Donna Lapierre	Hazel Grove Association		•	
Donna LaPointe	Groton Pony Club		•	
Olin Lathrop	Conservation Commission, Trails, Invasive Species	٠	•	
Linda Loren	Friends of Trees		•	
Steele McCurdy	Town of Groton Fire Department		•	•
Eileen McHugh	Conservation Commission	•	•	
George Moore	Agricultural Commission		•	
Laura Moore	Lawrence Academy, Historic District Commission, Old Groton Meetinghouse Preservation Fund, Prescott Community Center	•	•	
Rich Muehlke	New England Forestry Foundation		•	
Lisa Murray	Groton Garden Club		٠	
Emma Newman	Hazel Grove Association, Groton Pony Club		•	
Jeanne Niemoller	GD at Play		•	
Thomas Orcutt	Water & Sewer Department		•	٠
Ed Perkins	Earth Removal Storm Water Commission		•	
Bob Pine	Groton Conservation Trust, Nashua River Watershed Association		•	٠
David Pitkin	Greenway Committee, Groton Dunstable Youth Soccer Club		•	
Art Prest	Finance Committee, Economic Development Committee		•	
Susan Randazzo	Indian Hill Music		•	
Rusty Russel	Merrimack River Watershed Association			•
Kathy Shelp	Council on Aging		•	•
Laurie Smigelski	Hazel Grove Association		•	
Marion Stoddart	Nashua River Watershed Association		•	
Takashi Tada	Town of Groton Land Use Department		•	•
Patrice Todisco	Freedom's Way National Heritage Corridor			•
Karen Tuomi	Commissioner of Trusts		٠	
Tobias Wolf	Groton Conservation Trust		٠	
Alex Woodle	Great Pond Advisory Committee		•	•

# **Groton OSRP Survey**

A survey of Groton residents was conducted to gather input about usage of Groton's open space and recreation resources, needs, and opportunities. A total of 342 responses were received over eight weeks from September through November, 2018. The survey was available online, and print copies were provided at the Library and the Senior Center. The survey was advertised through a flier inserted in residents' electric bills, as well as the Town's website, and newspaper, and it was shared via several boards and committees and the Groton Dunstable Regional School District. It was also advertised at tabling events including the Farmer's Market and Grotonfest.

The survey used many of the same questions as a survey conducted for the 2012 Open Space and Recreation Plan for purposes of comparison.

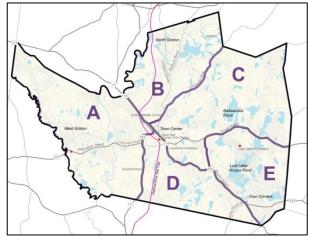
The first set of questions in the survey gathered information about respondents, to gauge how the survey respondents represent Groton's population overall.

- The majority of respondents are long-time residents. Over half have lived in Groton for more than 15 years, while 5 percent of respondents have lived in Groton for less than one year, and about 10-15 percent have lived in Groton for 1-5 years, 6-10 years, or 11-15 years.
- In terms of age distribution, the survey was fairly representative of Groton residents. Young adults (aged 19-25) took the survey at the highest rate, followed by seniors aged 55+, who comprise 23 percent of the total population and 29 percent of survey-respondent's households. The proportion of families with older school-aged children is slightly under-represented in the survey.
- The largest share of survey respondents, 28 percent, live in the West Groton section of town. A proportional share live in the three sections to the north and east of the Town Center/Boston Road, while a smaller proportion live in the south/central portion of town. In comparison with the actual number of households in each section of town, the Lost Lake/Knops Pond area had the highest rate of participation, followed by West Groton. The southern section of town had the lowest rate of participation.

The next set of questions focuses on what open space and recreation resources survey respondents are utilizing, and the needs and challenges they perceive.

- On the whole, conservation lands & trails are the most heavily used resources.

Age	% of Total Po	pulation	Sample as % of
Cohort	2010 Census	Survey	Total Population
0-5	5%	7%	14%
6-9	8%	8%	10%
10-13	10%	7%	6%
14-18	8%	8%	9%
19-25	4%	6%	16%
26-35	6%	5%	7%
36-45	14%	15%	10%
46-55	22%	16%	7%
55+	23%	29%	12%
Total	10,646	996	9%



	% of Total Hou	Sample as % of	
Section	2010 Census	Survey	Households
А	27%	28%	14%
В	14%	18%	11%
С	24%	23%	9%
D	26%	9%	3%
E	10%	21%	20%
Total	3,753	341	9%

- Sargisson Beach attracts the fewest visitors among survey respondents, although a majority of residents visit other ponds and rivers with some regularity.

- About one third of respondents are involved in consistent activities (at least 10 times per year) using athletic fields and indoor recreation facilities. Parks and playgrounds are utilized with moderate frequency; approximately half of respondents use these facilities 1-10 times per year.

How often do you visit or use any of the following Groton resources? (times per year)							
	15+	10-15	5-10	1-5	never	total responses	
Conservation land & trails	45%	11%	12%	26%	7%	284	
Nashua River Rail Trail	32%	10%	17%	26%	14%	280	
Ponds, lakes, & rivers	23%	12%	14%	42%	9%	271	
Athletic fields & indoor recreation facilities	27%	7%	6%	24%	36%	270	
Parks & playgrounds	20%	11%	11%	37%	21%	269	
Sargisson Beach	4%	4%	10%	27%	56%	259	

- Most Groton residents (81 percent) drive short distances to reach local recreation facilities.
- About 26 percent of survey respondents indicate that they drive longer distances to get to recreation facilities.
- Nearly half live in walking distance to the facilities they use, while one quarter bike to these destinations.
- Walking and hiking are nearly universal activities among survey respondents.

How do you typically get to recreation facilities in Groton? (Check all that apply)						
Walk	153	48%				
Bike	83	26%				
Drive (less than 10 minutes)	259	82%				
Drive (more than 10 minutes)	83	26%				
Total Respondents		317				

- Over half of survey respondents also appreciate boating, biking, and swimming, as well as wildlife-viewing, and museums and historic sites.
- A handful of respondents participate in equestrian activities, hunting, snowmobiling, and gymnastics and dance.
- About 46 percent of respondents walk dogs.

Please check all activities that you participated in over the past two years either in Groton or out of town:

92%	Walking	55%	Historic site visits	27%	Fishing	18%	Mountain biking
82%	Hiking	53%	Museum visits	25%	Golf	10%	Dance
65%	Wildlife viewing	49%	Fitness training	24%	Cross country skiing	9%	Equestrian activities
58%	Biking	46%	Dog walking	22%	Skiing	8%	Gymnastics
57%	Boating	40%	Picnicking	22%	Ice skating	5%	Hunting
56%	Swimming	33%	Snow shoeing	19%	Camping	3%	Snowmobiling

- There is a near consensus that Groton is well- served by hiking, biking, and walking trails. (Some respondents note that they would nevertheless support acquiring more of them, especially to provide linkages.)
- Agreement is mixed on the amount of other recreation facilities. Nearly 30 percent would like to see additional neighborhood playgrounds and parks, and about one quarter of respondents would be interested in more conservation land or courts for basketball and tennis.
- About one third are undecided on the sufficiency of several types of active recreation facilities.
- Respondents were also invited to suggest additional types of recreation facilities they would like to see.
   Suggestions included more places for swimming, playing tennis, more athletic fields another boat launch (near

Surrenden Farm), an enclosed dog park for letting dogs run off leash, dirt bikes/ATV areas, and more sidewalks and safe biking routes.

Do you feel Groton has an adequate number of:							
	Yes	No	Undecided		Yes	No	Undecided
Neighborhood playgrounds	45%	28%	27%	Conservation lands	67%	23%	9%
Playing fields	64%	13%	23%	Boating areas	50%	14%	37%
Hiking, walking or biking trails	81%	13%	7%	Fishing areas	46%	12%	42%
Basketball or tennis courts	44%	25%	31%	Parks & commons	54%	29%	17%

- Respondents indicated that better parking, bike access, and information such as through wayfinding signage and maps would increase their usage of Groton's parks and recreation areas.
- About 25 percent of respondents indicate that activities and facilities would draw them to utilize recreation areas more, such as boat launches, benches, places to walk dogs, and organized programs.

The next set of questions focused on identifying priorities with respect to open space and recreation resources, and the types of strategies that respondents would support.

What additional facilities would increase your use of conservation/ recreation land? (check all that apply)					
Trail maps	55%				
Better parking	40%				
Wayfinding signage	40%				
Safer bike access	28%				
More organized activities	28%				
Places to walk dogs	24%				
Boat or canoe launches	23%				
Benches	23%				
Better maintenance	22%				
Handicapped access	5%				
Equestrian facilities	4%				

- In general, natural resources preservation is the highest priority of those who responded to the survey. The majority ranked most of the types of natural resources in town as being "most important" to preserve.
- Preserving and enhancing historic resources and recreation facilities got a more moderate response among participants.
- Survey respondents were least motivated to support enhancements to promote ecotourism.

How important is it to preserve or to enhance resources?							
(1=least important, 5=most important)	1	2	3	4	5	Weighted Average	
Water supplies, wells, aquifers	2	4	8	28	270	4.79	
Rivers, lakes streams, wetlands, vernal pools	2	7	20	36	248	4.66	
Wildlife habitats/corridors	1	8	28	58	218	4.55	
Scenic areas and views	2	8	40	67	192	4.42	
Agricultural land	6	13	38	78	176	4.30	
Historic resources	4	11	52	69	174	4.28	
Recreation facilities	10	11	72	94	124	4.00	
Promote ecotourism for economic development	36	53	87	63	71	3.26	

- Respondents view threats to drinking water supply and pollution of water resources as their greatest concern with respect to open space and recreation issues.

- Shrinking wildlife habitat, invasive species, loss of farmlands, and diminishing of the town's rural character are also ranked as "most important" by a majority of respondents.
- The survey shows a more moderate level of concern for insufficient maintenance or lack of adequate recreation opportunities.

How important are the following open space problems to you						
(1=least important, 5=most important)	1	2	3	4	5	Weighted Average
Threat to drinking water supply	1	5	19	39	248	4.69
Pollution of water bodies and wetlands	0	8	20	57	227	4.61
Shrinking wildlife habitat	2	16	45	75	175	4.29
Invasive species	6	13	59	80	149	4.15
Loss of orchards and farmlands	9	23	63	73	144	4.03
Diminishing of the town's rural character	12	26	63	58	153	4.01
Insufficient maintenance	10	30	85	99	85	3.71
Lack of adequate recreation opportunities	34	44	99	71	58	3.25

A majority of respondents would support \_ continued acquisition of land for conservation and recreation purposes.

Should the Town of Groton continue to acquire land for the following:							
Yes No Undecided							
Conservation	72%	24%	16%				
Recreation	66%	23%	24%				
Agriculture	56%	28%	29%				

- Respondents are less firmly decided about the continued acquisition of land for agriculture.
- Asked about the need for the town to have a staffed recreation department, the responses were inconclusive, with an equal share indicating "No" or "Undecided".

Do you think recreation needs are adequately managed	Yes	No	Undecided
without a staffed recreation department?	27%	36%	36%

- The highest share of survey respondents would support Town funding for land management and invasive species control.
- A majority of respondents would also support Town funding for land acquisition or would donate to a conservation fund.
- A question of whether to institute fees for groups to use athletic fields and parks yields an inconclusive response.
- Relatively few consider donating land or conservation restrictions on their property.

To preserve land, improve or develop recreational facilities, would you be willing to:													
	Yes	No	Undecided										
Support a budget article at Town Meeting for land management/ invasive species control?	69%	11%	20%										
Support a budget article at Town Meeting for land acquisition?	60%	21%	19%										
Donate to a conservation fund?	54%	22%	24%										
Institute fees for group users of athletic fields and parks?	49%	25%	27%										
Donate land, Agricultural Preservation Restriction (APR) or Conservation Restriction (CR)?	16%	53%	31%										

The final section of questions in the survey collect information to help increase engagement with the public regarding open space and recreation opportunities and stewardship.

- Asked to identify all of the sources they use to find information about open space and recreation opportunities, most survey respondents engage with the Town's website, and a majority also use Grotontrails.org.
- The newspaper, social media, and the Library are also important sources where respondents obtain information about local events.
- Additional sources of information include word of mouth, google or other internet sites, the Groton Listserve or other local email groups, and signs (especially in the center of town.)
- Respondents were also asked whether they would volunteer to maintain or steward conservation land or trails. About one third of respondents declined, while nearly half were undecided. Those who indicated "yes" (23 percent), were invited to send an email to <u>volunteer@townofgroton.org</u>, so that they could be matched with future volunteer opportunities.

Space was provided for respondents to offer additional comments. Following are some highlights:

- Town should consider fiscal responsibility especially the need to increase the tax base.
- Need for strategic land acquisition to provide wildlife and trail linkages, protect river corridors.
- Need for maintenance, including control of invasive species, trash, park/playground maintenance, Country Club, control of dogs, and port-a-potties.
- Need for additional recreation facilities such as handicapped accessible trails, places to ride ATVs and snowmobiles, skate park, enclosed dog park.
- Consolidation of recreation management and coordination of activities and events through a staffed Recreation Department
- Preference that field fees be considered for out-of-town groups using Groton fields.

Following are additional comments offered by respondents:

- According to the Con Com Farmers and Mechanics Land was logged to raise funds to rehabilitate the forest at Williams Barn. I was opposed to logging that beautiful place. I often walk The Williams Barn trail. There is no evidence of attempt to control the invasives there. I hope there is a plan to do so.
- Consider more lights at recreational facilities so usable hours are extended.
- I wish the town would do more proactive poison ivy mitigation on and close to trails so my family and pets could enjoy more of the trails (walking, running). What's the point of having trails that we can't safely use?
- I AM IN A WHEELCHAIR AND UNABLE TO HELP OUTSIDE, SADLY.
- While Groton has been successful at protecting open space, there are critical missing pieces, including trail and wildlife connections and critical habitats, especially for endangered species and to buffer anticipated changes to, and loss of, habitat due to climate change.
- Better leash law needed Dedicated, confined dog park with fees
- This is a great survey and I hope it will help provide the town with direction regarding open space areas. It is very important to maintain open space and have wildlife corridors connecting to other towns. Thank you.
- Up until now I have not taken enough opportunity to explore and utilize the resources in Groton. I am very interested in getting more involved and accessing trails, parks, etc. My kids are older so we have not been actively using the sports fields but I would like to make sure that there are adequate and well maintained fields for current families. Also, adequate parks and playgrounds for families. My children attended Prescott

Town website	75%
Grotontrails.org	55%
Newspaper	43%
Social media	48%
Library	44%
GCTrust.org	29%
Schools	20%
Senior Center	10%
Other	10%

School and I think the fact that the newly installed (at the time of it's closure) playground there has been left to become overgrown and unusable is very sad and a waste of money and people's time. It could be a great resource for Groton Center. I would love to see it renovated.

- Please help find a way to reduce littering (mostly beer bottles/cans) at the Bertozzi area. Thank you for all your great work!
- List of additional recreational needs is port-o-potties!
- We have enough open space and land. Stop buying it up and maintain what you already have.
- Invasive species are a real problem, but I am very concerned about the use of herbicides to control them. Have you followed the lawsuit against Monsanto in California???
- We moved to Groton 6 years ago because of its rural character and abundant open space and recreational opportunities. Preserving what we have having and creating additional space and opportunity is most important to us.
- The level of caring about these issues and volunteerism in our town set our town aside from others and make it a very special place. I am most happy to live here.
- Are there any plans to build sidewalks along Chicopee Row? It's a windy road and cars drive fast.
- Would like to see the small house rebuilt to supply clothes for people. Know as "Give & Take Shop in Groton".
- Management of invasive plants & trees is a high priority.
- About user fees for groups: that's not an up or down question. Groton groups should not have to pay for
  access to town-owned land, but outside groups including private schools should have to pay a user fee if
  Groton public schools are not participating in use of that field. Also, this doesn't say anything about Groton
  resident access to private school facilities, which is something that perhaps should be addressed specifically, if
  in another venue.
- Please put a stop to the condo development on Jenkins road. The town should purchase the land to add to the adjacent Hazel Grove Park conservation parcel.
- SIDEWALKS IN THE C SECTION ARE ESSENTIAL
- As a single woman I don't feel confident/safe anymore being on trails hiking alone. Lately I'm looking more for group organized activities especially hiking. Don't mind so much cross country skiing alone.
- I would like to volunteer, but cannot do so at this time. But that time is coming.
- I am wondering how many people actually knew about this survey and completed it. Is there a minimum number of responses you require to make renew the plan?
- Wildlife corridors are super important. Thank you.
- [Will volunteer] When we retire. Absolutely disagree with those (Town Hall & Select Board) who say that "Groton has enough open space." We will vote against those individuals who say such things.
- I was a trustee with the GCTrust for many years and retired from doing that important job, so leaving it to others at this point. I have no land to donate or protect here in Groton, but have actually helped my family do so in a neighboring town. Obviously, I find these issues to be extremely important on so many levels.
- I would like to see some shorter, well marked trails with good parking for older adults and people with disabilities. The rail trail can be dangerous for people walking with pets and people with disabilities. A Recreation department could bring all the recreation opportunities, events, facilities etc into a monthly newsletter, instead or info. being spread across many platforms.
- Groton does a great job of making land available for conservation and maintaining these properties. We are lucky to have such beautiful areas for hiking, running, swimming, and biking. It is also a great asset for the

community to offer outdoor recreation for free, including the use of Sargisson Beaches and Bertozzi for camping. Groton is doing a great job conserving and making land accessible. Thank you for all you do!!

- Assess fees for field use for out-of-town groups. In-town and in-town non-profits shouldn't have to pay for field use.
- Indian Hill music center, Hindu temple, Groton Inn, these will impact future use of our recreational facilities. We need to prepare by encouraging investments and economic growth to enhance the facilities we have.
- All remaining land in Groton should be converted to undevelopable conservation land.
- Educational opportunities for identifying invasive species would be welcome.
- Groton needs more cohesive recreational management to draw together Groton Country Club, Twomey Center and Groton Park Commission offerings. Practically speaking, good maintenance, adhering to procurement laws, and responsive active recreation offerings will probably require additional staffing.
- Maintaining the local Groton golf course and pool is important to maintaining the culture of the town and excellent recreation facilities
- I encourage you to consider corridors for snowmobiles and ATVs. I have to travel to NH and the far western MA to enjoy recreation on motorized vehicles. Although there may be concerns about erosion and noise, NH has done a nice job of managing these issues.
- Too much emphasis on conservation land Vs. recreation. The town should dedicate land to mixed use recreation including off-road motorized vehicles.
- Access is fine now (There is no option to select .... 'adequate as is '). There is no need for added parking nor advertising. It is the natural access and settings that make the places interesting to me... no need to commercialize it.
- I already steward trails.
- Please return Groton Place..W. Main to its original intended use as a conservation area for Groton residents. Not able to walk there & enjoy nature anymore. The dogs barking & running around has taken its toll....no longer an area where you can go & enjoy nature. And lets not forget the dogs are unleashed & at times run towards you full force barking & growling & that you are forced to sidestep their "poop". Lets get it back to the original intention which was a conservation area.
- Need better access to get kids and adults to bike trail at Smith Street. For example, a crosswalk on Old Ayer Rd to get from Dale Lane to Smith Street without getting run over by traffic speeding down Old Ayer Rd.
- [Cannot volunteer] because of age/health issues
- Thank you for your conservation efforts!
- I believe based on the recent increases to the school budget and potential increases of our taxes that we should also be encouraging more responsible commercial development to help stabilize the towns income. We already have a tremendous amount of conservation land, maintaining our agricultural and recreational spaces has to be leveraged against increasing our tax base.
- Playing fields and parks must be sprayed for ticks. Hunting should be eliminated or greatly restricted in conservation lands -- being unable to hike or enter these areas in the fall is dangerous and offensive.
- Survey lacks any questions regarding one of the town's most significant recreational assets the country club
- Thank you for putting this together.
- The run-down tennis courts at the country club seem like a great opportunity to create some additional recreation space. Skate park?
- Thanks for putting this together

- Question 4. should include Golf Country Club (golf course and pool).
- Important to coax/entice/force users of town property and facilities to contribute meaningfully (financially) to their maintenance/upkeep.
- It has always bothered me that many (most?) of the trails in Groton are restricted to "non-motorized vehicles." We need to learn to share our resources among all Groton residents, including those who would use them with, for example, off-road motorcycles, ATVs, and snowmobiles.
- besides the rail trail and woods what recreational places is this survey referring to? There's nothing else here and forget doing anything after dark the cops will make you leave.
- Try to attract Trustees of Reservations to Groton. The Prescott House that Indian Hill is going to tear down could have been preserved. How can the Town of Groton allow this historic home to be demolished. I'm losing faith in the wisdom and choices of our select persons and other decision makers.
- I think the town has enough conservation land and would like to see a build up of CPA funds to deal with Prescott instead fo buying more land.
- It would be nice to have areas FREE from dogs. I live in West Groton and don't use nearby space because it is considered "the dog park" and I'm uncomfortable around dogs, especially since many are unleashed. I also took my grand children to Sargisson Beach and my young grandson stepped in dog poop so clearly people are not picking up after their pets and it's a health hazard.
- While I support having conservation land, I feel that the town has set aside too much at the expense of growing the town's population and economic activity, leading to a tax base that is too small for the town's future. I feel that the town's current high property taxes and land valuations are proving to be a burden on the small population we have, and at the same time limited funds are impacting public schools.
- Conservation is great but meaningless if the town falters because our schools fail (and all young families begin to move away) due to budget cuts since there is not enough economic development/non-property tax revenues in this town
- I am concerned about the availability of town character and resources for my grandchildren and their parents and friends and schoolmates.
- the town needs to be more fiscally responsible. More land use and purchase is fine, but what will the town give up. This is a trade off the community needs to make in the context of all community priorities schools, tax rate, etc.
- Expanding the recreation class schedule would be great. I currently participate in Littleton's classes. I don't support buying land specifically for recreation.
- There are plenty of conservation properties in town. Stop spending money on new properties. Keep a lower tax rate
- More bike lanes, fewer invasive species!! As far as agriculture goes, fruits and vegetables are great but animals are just wasteful.
- To me, Groton is Groton because of its open space, trails, views and waterways.
- I don't support donating land because I don't have any to donate. We have many miles of trails in town, but there is still a need for strategic purchases of small parcels to create a more connected network.
- I don't think the town should continue to buy open space and take land off the tax rolls. The town budget is already unsustainable.
- We love attending the annual 4th of July fireworks, a great event that is well-organized and fun. Wish there were more opportunities like this to get together as a community. Perhaps a recreation/community relations

dept would help. In addition, our kids play a lot of sports at a hefty price, maybe a rec department could streamline this process and lessen costs for families.

- Thank you for offering these surveys! My husband and I are expecting our first and hope to continue living in Groton to raise our son there and these kinds of initiatives make this seem more feasible!
- I would love to volunteer but age has it's restrictions
- The library playground needs updating. And maintenance yearly. For example there is a great sandbox but no sand. The kids play in woodchips in the sandbox
- I am not sure why citizens would be charged a fee to use town fields. What are our taxes for?
- We moved to Groton for the characteristics of the town as-is. While we would always be open to
  improvements of facilities and support ensuring the continued thriving of wildlife and agriculture, we haven't
  been provided with the information to make an educated decision on some of these questions. Also, as a new
  family with young children, our priorities on some of these questions may change with our future experiences
  (see recreation facilities).
- We have plenty of open space which is what makes our towns beautiful but it is time to start spending significant portions on recreation facilities for the enjoyment of all.
- our wild space need more management of invasive species.
- We need a turf field for recreation purposes that groups like adult soccer can pay fees to use. School fields are not maintained properly and GD kids end up playing first half of spring season sports at all the other communities' turf fields. Time to upgrade like Littletown, Townsend, Pepperell, etc so our kids have equal opportunity to play at home. Athletic Boosters shouldn't spend their money on indoor turf time for teams because our town is too cheap to get turf and let our grass fields rest and be properly maintained.
- I do not support a recreation center. These kids are over worked with school and after school activities. They need down time. No, I don't want taxes to go up to have to pay to use a rec center. Not everyone is making over \$100,000 in fact many are just squeezing by.
- Would love a place for kids to roller skate, skateboard or bike (that's a little more contained than the rail trail but won't ruin the new basketball courts)
- the lack of uniformly applied or presented public use policies for land available for public use (town, state or privately owned) makes enjoying the land more confusing. lack of facilities and maintenance on land available for public use is frustrating
- Keeping the rural character of Groton is extremely important. The rural character is the reason we moved here over 40 years ago. It seems "some" are leaning in another direction.
- Q15 assumes that I am not already volunteering. I am. Because I am not looking for another opportunity to volunteer, I could have voted NO. If I voted YES, I would be put in the "sign me up" category. I am probably skewing the results. For everybody else, it's a good outreach question.
- Sidewalk to connect to post office from town important. Connect new sidewalk along 119 to Rail-Trail with paved access trail at trail overpass with 119.

#### **Groton Open Space & Recreation Plan Survey**

The Town of Groton is in the process of updating its Open Space and Recreation Plan. Groton completed previous plans in 1985, 1998, 2005, and 2012 to identify the Town's recreation and open space needs. A current municipal Open Space and Recreation Plan will allow Groton to qualify for state funding for the acquisition and protection of important open space and recreation resources.

As part of this planning project, the Town is seeking community input. Responses to the survey will assist the town in identifying the needs and concerns of residents in Groton regarding open space and recreation facilities.

1) How long have you lived	in Groton?							
Less than 1 year	1-5 years	6-10	) years		_11-15 yea	rs	16	or more years
2) Ages of persons in your l	household? (Plea	se indicate the i	number	of persons	in each ag	e range)		
Age range How many		Age range	How n	nany	Age	e range	H	ow many
0-5 years		14-18 years			36-	45 years		
6-9 years		18-25 years				-55 years		
10-13 years		26-35 years			Ov	er 55 yea	rs _	
3) On what street do you li	ve?							
4) How often do you visit o	r use any of the f	ollowing Grotor	n resour	ces?				
		Visits per	year:	15+	10-15	5-10	1-5	Never
	n lands & trails							
Ponds, lakes								
	ls and indoor rec	reation facilities	5					
Parks & play	-							
Sargisson Be								
Nashua Rive	r Rail trail							
5) How do you typically get	to recreation fac	cilities in Grotor	n? (Chec	k all that ap	oply)			
Walk	Bike	Drive (less t	han 10 i	minutes)		Drive (m	nore tha	n 10 minutes)
				· · · · <b>/</b>		- (		<b>,</b>
6) Please check all activities	s that you partici	pated in over th	e past t	wo years e	ither in Gro	oton or ou	ut of tov	vn:
Boating	Golf	-		Swimming	3		Walki	ng
Fishing	Bikin	g _		Ice skatin	g		Muse	um visits
Hiking	Picni	cking		Gymnasti	cs		Histor	ic site visits
Camping		ife viewing		Skiing			Dance	2
Equestrian activitie	s Fitne	ss training		Cross cou	ntry skiing		Snow	shoeing
Mountain biking	Hunt	ing		Snowmob	oiling		Dog w	valking
7) Do you feel Groton has a	an adequate num	ber of:						
	Yes	No Undeci	ided			Yes	No	Undecided
Neighborhood playgrounds			(	Conservatio	on lands			
Playing fields			E	Boating are	as			
Hiking, walking or biking tra	ails		F	ishing area	as			
Basketball or tennis courts			5	Swimming a	areas			
Other			F	Parks and c	ommons			
8) What additional facilities	s would increase	vour use of con	servatio	on/recreation	on land: (d	heck all th	at annlv	)
Better parking		Trail maps		, i cei cuti				, e launches
								e iaunulles

 Better paining
 Inaminaps
 Boat of cance ladicities

 Better maintenance
 Handicapped access
 Safer bike access

 Benches
 More organized activities
 Wayfinding signage

 Places to walk dogs
 Equestrian facilities
 Places

Not Important	1	2	3	4	5	V	ery Important
Rivers, lakes streams, wetlands, vernal pools							
Agricultural land							
Scenic areas and views							
Historic resources							
Wildlife habitats/corridors							
Water supplies, wells, aquifers							
Recreation facilities							
Promote ecotourism for economic development							
<b>10)</b> How important are the following open space pro		you <b>(Rate 1</b> -5	5 – least to n	nost)			
Not Important	1	2	3	4	5	V	ery Important
Loss of orchards and farmlands							
Diminishing of the town's rural character							
Shrinking wildlife habitat							
Invasive species							
Lack of adequate recreation opportunities							
Pollution of water bodies and wetlands	<u> </u>		. <u> </u>				
Threat to drinking water supply			. <u></u>				
Insufficient maintenance		·	. <u></u>				
11) Should the Town of Groton continue to acquire	land for th	ne following:			Yes	No	Undecided
			Conserva				
			Recreation				
			Agricultu	ire			
12) Do you think recreation needs are adequately m	nanaged w	ithout a staf	fed recreat	ion depa	artment	?	
YesNoL	Indecided						
13) To preserve land, improve or develop recreation	nal facilitie	s, would you	ı be willing	to:			
					Yes	No	Undecided
Donate to a conservation fund?				·			
Donate land, Agricultural Preservation Restriction			Restriction	(CR)?			
Support a budget article at Town Meeting for land	-			-+			
Support a budget article at Town Meeting for land	-	ent/invasive	species co				
Institute fees for group users of athletic fields and	parksr			-			
14) Check all of the following sources you use to fin	d informat	tion about op	oen space a	nd recre	eation of	oportu	nities:
Grotontrails.org Librar	у		Newsp	paper			
Town website Senio	r Center						
GCTrust.org Schoo	ls						
15) Would you volunteer to maintain or steward co	nservatior	land or trail	s?	Yes	No		Undecided
If yes, please send an email descri							
16) Your input is appreciated! Please use the space						-	
			. 0				

# Groton OSRP Outreach Events

#### **Facilitators**

Farmer's Market (August 10, 2018): Roberta Cameron, Michelle Collette, and Eileen McHugh Grotonfest (September 29, 2018): Roberta Cameron, Nicolas Gualco

#### **Activities:**

- Large format map on poster board: invite people to stick pins in the board showing where they live and what are their favorite places in Groton.
- Two 11x17 Posters, each with a question at the top: "Name/Describe your favorite places in Groton" and "What recreation improvements would you like to see?" Facilitators engaged in conversation with participants and took notes on sticky notes, placing them on the appropriate poster.
- Table also had the following materials:
  - Fliers advertising the survey
  - Hard copies of the survey (to be offered on request)
  - Stickers (at Grotonfest only)

## Farmer's Market

#### Favorite places most frequently mentioned:

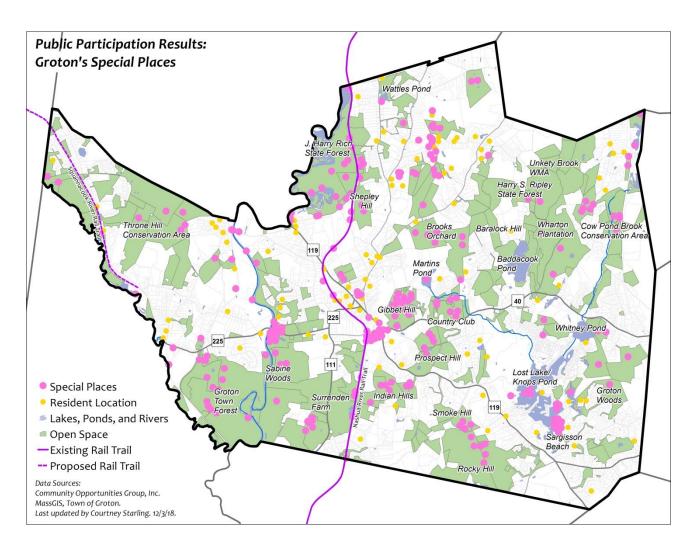
- Library, playground next to the Library
- Sargisson Beach
- Groton Place/Dog Park/Bird Sanctuary
- William's Barn/Groton Farmer's Market
- Nashua River/Nashoba Paddler
- Country Club
- Indian Hill/"The Bells"
- Rail Trail

#### Other places mentioned:

- "You can see Boston from the water tower they have added benches there."
- Gamlin Crystal Spring
- Petapawag Canoe launch
- Town Forest
- Legion Field
- Historic marker on Longley Road
- Mason Back 100
- Harry Rick Forest
- Gibbet Hill / The Castle
- Adult programming at Twomey Youth Center
- School
- The Old Cemetery

Some people were focused on activities they like to do, rather than special places. Activities included mountain biking, snow shoeing, cross-country skiing, soccer, basketball, walking, skate boarding, canoeing/kayaking, fishing





## Things that people would like to see:

- More sidewalks, repair broken sidewalks so that they are safe for elderly walkers, strollers, skateboards, young bicyclists, etc.
- Miss having concerts at the gazebo behind the Library
- Would like to see Town and/or state acquire orchard(s) to preserve and maintain as a public enterprise.
- More organized recreation options that are not organized sports
- Protect rare wildlife "bobcat in my backyard I am concerned that new construction and traffic will interrupt his habitat and threaten his safety."
- Want a place to skateboard
- Want people to walk with on the Nashua River Rail Trail

#### Notes about specific places:

Nashua River: Several kids mentioned that they have recently attended summer camps on the Nashua River, either through NRWA or Nashoba Paddler. Nashua river in Pepperell Pond (near Harry Rich Forest) is covered in algae so that it is not pleasant to see.

Groton Place: There were several people who complained that there are too many dogs there – that it ought to be a bird sanctuary, while lots of people like it as a "dog park".

MassAudobon: At least one person commented that it is a beautiful place, but that it is hard to find and nobody knows about it.

Farmer's market: Many people came from out of town – Acton, Ayer, Townsend, Pepperell, North Chelmsford, and Brookline, NH. Many families with young children, as well as elderly, empty nesters, and young adults. (And people with disabilities and minorities and renters. Pretty much every kind.) Included brand new residents, lifelong, and everyone in between. "Best" or "only" farmer's market around. However one person commented that they need more people to come to the market in order to make it worthwhile for vendors.



## Grotonfest

#### Favorite places most frequently mentioned:

- Gibbet Hill
- Town Center/Lawrence Playground
- Sargisson Beach
- J. Harry Rich State Forest
- Groton Place
- MassAudobon/Rocky Hill
- Gamlin Crystal Spring
- Nashua River Rail Trail
- Williams Barn
- Throne Hill

#### Things that people would like to see:

- More sidewalks
- Buy farmland to facilitate farming
- Winter activities skiing, ice skating (as a community facility/activity)
- Connect trails
- More conservation for wildlife
- Don't sell Town-owned property. Preserve for open space
- Unused playground equipment at Prescott School
- More Town-wide community events (like there had been at 300 anniversary year)
- A botanical garden (to draw visitors)
- Visitors center (perhaps at the old Give & Take shop)
- More marketing/communications
- Stadium fields renovation project (fundraising underway)

#### Other places and activities mentioned:

- The Bells
- Kemp Woods
- Town Forest (mountain biking)
- Haze Woods
- Groton Inn
- Places for hunting
- Trails/wildlife close to our house
- Snow shoeing
- River Walk by Lawrence School
- Bertozzi
- Senior Center
- Café
- Grotonfest
- Cowpond Field
- Karate
- Groton Inn
- Chestnut Hill

#### Notes about Grotonfest

- Many vendors from outside of Groton
- Most visitors from Groton, but also out of towners from Ayer, Pepperell, Townsend, Lowell, Westford, Chelmsford, New Hampshire, Harvard, Westwood, Haverhill, Leominster, Dunstable, Littleton, West Boylston, Lexington, and Boston.

# **Groton OSRP Public Forum**

A forum took place on January 31, 2019 at the Groton Inn, facilitated by Roberta Cameron and Courtney Starling, consultants from Community Opportunities Group, Inc. A presentation of the draft plan was followed by a guided discussion.

#### Attendees

Bon Anderson Jody Anderson Jeff & Olga Box Michelle Collette, Town of Groton Jean Cunningham, Citizen Peter Cunningham, Squannacook R.T. Anna Eliot, Parks John Giger, Select Board Beth Gula, NEFF Nikolis Gualco, Town of Groton Peggy Knight Olin Lathrop, GCC Linda Loren Jim Luening, GPAC/GLA Ray Lyons, NEFF Mike McCaffrey, GD Athletic Director Eileen McHugh, GCC George Moore, Agricultural Commission Laura Moore, Historic Districts Commission Richard Muehlke, GCT Carolyn Perkins, PB Ed Perins, Stormwater Bob Pine, GCT Art Prest, Groton Lakes Association Alex Woodle, Groton Lakes Association

#### **Notes from Discussion**

- We need to clarify what we mean by 'Protected' and 'Un-protected.' It seems that we have the Trust lands as Protected and NEFF lands as unprotected. Both of these are private non-profits. There are numerous Trust properties that do not have CR's on them. [Plan was subsequently revised to include all nonprofit land under one category defined as "protected".]
- It was recommended that we report the amount of open water acreage in town when reporting the amount of open space conserved. Also, we should reference the percentage these values are to the total Town size.
- The group discussed whether or not the Town actually has the capacity to coordinate the recreational and management needs of its parks and open spaces. Some members referenced the strong volunteer force as a strength not a need. It was later clarified that the needs regarding volunteers has more to do with sustaining the force in the face of succession how to we better support and grow our volunteer base.
- The Town needs to be realistic when balancing land conservation with economic development and to consider the need for commercial development.
- The Action Plan map is missing Baddacook Pond.
- We discussed the parcel prioritization list. The previous prioritization effort was largely categorical (e.g., parcel size, proximity to conservation land, contains vernal pools). It was unclear if we need to re-create the map of specific parcels or to apply a list of characteristics on a case by case basis. Developing a list of priority parcels should be an action plan item, to be carried out within the first year after the plan is finalized.
- The need for wayfinding resources posted/installed in public places (Town Hall and Library were examples given) was discussed. There was another reference to the need for paper maps or a way to better connect people who are not yet in the know of all the trails in Town. The Trails Committee online map was also discussed.
- The recent report to the Town linking the majority of phosphorus loading in Lost Lake to Martin's Pond Brook was referenced.
- The biggest need for the lake conservation is stewardship and defined this as volunteers and funding.
- Education and outreach to the public at large is critical in maintain support for open space, which will then support efforts to fund the acquisition and manage lands.

- In discussion of climate change, Ray Lyons of NEFF referenced innovative ways of forest management. NEFF is developing a laminated wood product that can be used to build multi-story buildings while sequestering carbon and using undesirable products (crooked and/or small diameter trees).
- With respect to climate change, discussion of the importance of water infiltration and how this directly addresses many concerns of climate change (e.g., flooding, ground water recharge [re summer drought], water temperature). A further discussion ensued regarding whether the stormwater regulations should be updated to better reflect the challenges of climate change. It was stated that the Stormwater Committee will actually be updating their regulations soon.
- Discussion of Chapter 61 prioritization and whether the Town's current system is sufficient or not.
- Hunting was discussed and the need for more comprehensive/available information about where hunting is and is not allowed.
- We recognized the asses that is the Town's volunteerism and how do we grow this base and address the aging population (succession).
- Favorite hikes are those that are guided (educational). How we can expand this activity and centralize the awareness so others in town (or beyond) can learn about these and participate?
- Finally, a discussion ensued about the importance of the CPA and how we can better highlight its value to the Town.

# Appendix C: Hazardous Waste Sites

	Reporting	Notification	Compliance			RAO	
Site Name Location Aid	Category	Date	Status	Date	Phase	Class	Chemical Type
Insco Corp	NONE	01/15/1987	RAO	10/18/1994		B1	Oil and Hazardous Material
Hollingsworth & Vose Co	NONE	01/15/1987	LSPNFA	02/27/1995		ы	Wateria
Town Hall	72 HR	09/20/1996	RAO	02/27/1993		A2	Oil
							UII
Property	NONE	10/01/1993	RAO	11/28/1997	PHASE II	A2	
Town Of Groton	TWO HR	09/19/1997	RAO	12/19/1997		B1	Hazardous Material
Mill St Junkyard	NONE	07/15/1988	DEPNFA	03/26/1998			
Texaco Station Fmr	NONE	08/21/1992	RAO	05/04/1998		A2	Oil
Macgregor Farm	120 DY	08/17/1998	RAO	08/19/1998		B1	Hazardous Material
No Location Aid	TWO HR	06/20/1998	RAO	08/19/1998		A2	Oil
Cumberland Plaza	120 DY	09/11/1998	RAO	09/11/1998		B1	Oil
Residence	TWO HR	10/23/1998	RAO	02/08/1999		A2	Oil
Joy Ave Fmr	120 DY	08/28/1996	RAO	05/07/1999	PHASE II	A3	Oil
Joy Ave Fmr	120 DY	01/15/1997	RAO	05/17/1999		B2	Oil
Joy Ave Fmr	120 DY	12/19/1996	RAO	05/17/1999		B2	Hazardous Material
West Groton Service	72 HR	04/23/1999	RTN CLOSED	06/22/1999			Oil
Lawrence Academy	TWO HR	11/03/1999	RAO	01/10/2000		A2	Hazardous Material
Former Gas Sta	120 DY	01/18/2000	RAO	01/18/2000		B1	Hazardous Material
Waste Management Corp	TWO HR	03/31/2000	RAO	05/24/2000		A1	
Wilsons Texaco	120 DY	07/03/2000	RAO	09/22/2000		A2	Oil and Hazardous Material
Wilsons Texaco	120 DY	11/23/1999	RAO	11/29/2000	PHASE II	B1	Hazardous Material
Gladys Parker Estate	72 HR	12/11/2000	RAO	04/11/2001		A1	Oil
Groton Mobil Fmr	NONE	07/06/1992	RAO	09/06/2001	PHASE V	A2	
Groton Electric Light Co	TWO HR	09/15/2001	RAO	11/15/2001		A1	Oil
871 Boston Rd Property	NONE	01/15/1989	RAO	12/28/2001	PHASE III	A2	
Building And Grounds Facility	120 DY	01/31/2002	RAO	06/18/2002		A2	Hazardous Material
Residence	TWO HR	07/05/1995	RAO	11/19/2002		B1	Oil
Groton Dunstable High School	TWO HR	08/28/2003	RAO	08/28/2003		A2	Oil
145 Longly Rd Vehicle							
Accident	TWO HR	08/14/2003	RAO	10/10/2003		A1	
Citgo Station In Front Of Fmr Wilson	120 DY	02/13/1998	RAO	11/14/2003	PHASE IV	A2	Oil and Hazardous Material
Texeco	120 DY	09/21/2004	URAM	09/28/2004			Oil
Farmers Row Llc	120 DY	04/16/2004	RAO	12/09/2004		A2	Oil and Hazardous Material Oil and Hazardous
Pgi Realty Llc	72 HR	11/19/2004	RAO	12/21/2004		B1	Oil and Hazardous Material

Hollingsworth&Vose Co	120 DY	03/02/2001	RAO	03/21/2005	PHASE IV	C1	Hazardous Material
Conductorlab	120 DY	04/13/2004	RTN CLOSED	04/13/2005			Hazardous Material
Conductorlab Peterborough Oil	120 DY	11/02/2004	RTN CLOSED	04/14/2005			Hazardous Material
Company Masco Contractor	NONE	01/15/1989	RAO	05/05/2005	PHASE V	PN	
Services, Inc	TWO HR	03/29/2005	RAO	05/27/2005		A1	Oil
Florence Roche School	TWO HR	08/03/2006	RAO	11/17/2006		A1	Hazardous Material
Country Day School	72 HR	12/13/2007	RAO	12/22/2008		A2	Oil
Groton Electric Substation	TWO HR	03/07/2009	RAO	05/05/2009		A2	
Residence	72 HR	03/10/2009	RTN CLOSED	02/11/2010			Oil
Groton Dpw Facility	72 HR	03/25/2010	RAO	05/25/2010		A1	Oil
Leatherboard Mill Fmr	72 HR	11/17/1999	RAO	03/09/2011			Oil
Nielson Molding	NONE	01/15/1987	RAO	03/09/2011	PHASE IV	A2	Oil
A.L. Prime Station	72 HR	04/06/2010	RAO	04/07/2011	PHASE II	A2	Oil
Residential Garage Former Campus Disposal	TWO HR	06/01/2011	RAO	10/03/2011		A1	Oil
Area	120 DY	12/08/2009	TIERI	10/11/2011	PHASE IV		Hazardous Material
Groton Screw Machine Groton-Dunstable	NONE	08/20/1987	RAO	10/14/2011	PHASE II	A2	Oil
Prescott School	72 HR	07/26/2011	RAO	04/16/2012		A2	Oil
Residence	TWO HR	01/07/2009	RAO	01/07/2013	PHASE IV	A2	Oil
Mill St Junkyard	120 DY	01/18/2000	RAO	11/25/2013	PHASE IV	A2	Hazardous Material
Fmr Groton Inn	72 HR	08/30/2013	RAO	12/10/2013		A2	Oil
Residence - Smigelski	TWO HR	12/28/2008	RAO	01/06/2014	PHASE IV	A2	Oil
Hollingsworth & Vose Co	72 HR	10/29/2014	PSC	08/21/2015		PA	Oil
Town Of Groton Dpw Former May And Hally Oil	TWO HR	07/01/2015	PSNC	10/28/2015		PN	
Со	72 HR	05/17/2013	PSNC	07/17/2017	PHASE II	PN	Oil
Conductor Labs Kytron Cir	NONE	10/29/1986	TMPS	05/07/2018	PHASE V	TF	Hazardous Material
Residence	TWO HR	06/20/2017	TIER1D	06/27/2018			
Roadway	TWO HR	06/26/2018	PSNC	08/21/2018		PN	

# Appendix D: Inventory of Protected Open Space Conservation Parcels

## Table D-1: Town-owned Parcels (Open Space)

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
204/ 10/ 35/ /	Academy Hill Land	10.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Cherry Tree Ln	2007	Undeveloped public access	Neighborhood Recreation	Undeveloped
202/ 77/ 0/ /	Academy Hill Land	0.9	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Stormwater Retention Basin	Limited - Street	2019	718 Townsend Rd	2007	Undeveloped public access	None - Stormwater Basin	Undeveloped
202/ 98/ 0/ /	Academy Hill Land	7.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Cherry Tree Ln	2007	Undeveloped public access	Neighborhood Recreation	Undeveloped
204/ 14/ 0/ /	Academy Hill Land	13.0	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Fieldstone Dr	2007	Undeveloped public access	Neighborhood Recreation	Undeveloped
204/ 5/ 0/ /	Academy Hill Land	181.2	RA	Ρ	CR - DFW	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Townsend Rd	2007	Trail	Trail	Undeveloped
211/ 54/ 0/ /	Allen Conservation Area	4.9	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Long Hill Rd	1978	Undeveloped public access	Passive	Undeveloped
205/ 24/ 0/ /	Amelia Way	6.2	RA	Р	Art. 97	Yes	Special Permit	Groton Conservation Commission	No	Limited - Street	2019	Amelia Way	2006	Undeveloped public access	Neighborhood Recreation	Undeveloped
218/ 1/ 0/ /	Ames Meadows Conservation Area	17.7	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Adjacent Parcel	2019	Wharton Row	1999	Undeveloped public access	Wildlife Viewing	Undeveloped
126/ 33/ 0/ /	Baddacook Woods Conservation Area	3.3	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Allens Trl	1999	Undeveloped public access	Wildlife Viewing	Undeveloped
Has not been assigned yet	Baddacook-NEFF Conservation Land	48.7	RA	Р	Art. 97	Yes	LAND Grant - CPA Funds	Groton Conservation Commission	No	Adjacent - Parcel	2019	Old Dunstable Rd	2011	Undeveloped public access	Wildlife Viewing	Undeveloped
105/ 2/ 0/ /	Balcom Estates Conservation Area	1.2	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No (Potential ADA trail)	Yes	2019	Spencer Cir	1997	Trail	Trail	Undeveloped
124/ 22/ 0/ /	Balsam Walk Conservation Area	0.1	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Balsam Walk	2017	Undeveloped public access	Wildlife Viewing	Undeveloped
135/ 3/ 0/ /	Batten Woods Conservation Area	27.7	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Orion Way	2002	Trail	Trail/Hunting	Undeveloped
129/ 224/ 0/ /	Bedigian Land Next to Sunken Garden	0.1	RA	Р	Art. 97	Yes	Unknown	Groton Conservation Commission	No	No	2019	Boathouse Rd	2007	Undeveloped public access	Passive	Undeveloped
225/ 31/ 0/ /	Best-Fitch Preserve	24.4	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No (Potential ADA trail)	No - Pending	2019	Longley Rd	2019	Undeveloped public access	Accessible Trail	Undeveloped
129/ 220/ 0/ /	Boathouse Road to Sunken Garden	0.0	RA	Р	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	Boathouse Rd	2008	Undeveloped public access	Passive	Undeveloped
129/ 186/ 0/ /	Brennan Land	0.1	RA	Р	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	13 Boathouse Rd	2011	Undeveloped public access	Passive	Undeveloped
137/ 19/ 0/ /	Brookfield Commons	2.0	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Rear Hayden Rd	1992	Undeveloped public access	None	Undeveloped
234/ 56/ 0/ /	Brookside Place Conservation Area	16.9	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Whitman Rd	1996	Undeveloped public access	Neighborhood Recreation	Undeveloped

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
137/ 1/ 0/ /	Carmichael I Conservation Area	48.5	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Hayden Rd	1987	Undeveloped public access	Hunting	Undeveloped
136/30/0//	Carmichael II Conservation Area	2.6	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Madeline Dr	1997	Undeveloped public access	Neighborhood Recreation	Undeveloped
106/ 10/ 0/ /	Charles Bixby Conservation Area	1.8	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	Yes - Across Street	2019	West Main St	1967	Undeveloped public access	Passive	Undeveloped
106/ 13/ 0/ /	Charles Bixby Conservation Area	0.9	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Yes - Across Street	2019	West Main St	1967	Undeveloped public access	Passive	Undeveloped
106/ 36/ 0/ /	Charles Bixby Conservation Area	0.3	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	Yes - Across Street	2019	West Main St	1967	Undeveloped public access	Passive	Undeveloped
227/ 5/ 0/ /	Cold Spring Pond Conservation Area	8.9	RA	Ρ	Art. 97	Yes	Tax Title Taking	Groton Conservation Commission	No	Adjacent Parcel	2019	Longley Rd	2001	Trail, but mostly undeveloped public access	Passive/Trail	Undeveloped
129/ 176/ 0/ /	Cow Pond Brook Land	0.2	RA	Ρ	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	Baby Beach Rd	2011	Undeveloped public access	None	Undeveloped
249/ 47/ 0/ /	Cow Pond Brook Conservation Area	31.8	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Flavell Rd	1983	Undeveloped public access	Passive	Undeveloped
227/ 3/ 0/ /	Cronin Conservation Area	36.2	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Adjacent Parcel	2019	Longley Rd	1988	Trail	Trail	Undeveloped
202/26/0//	Crosswinds II Conservation Area	7.5	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Squannacook Dr	1989	Trail	Trail/Passive	Undeveloped
202/37/0//	Crosswinds II Conservation Area	1.5	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Crosswinds Dr	1989	Undeveloped public access	Neighborhood Recreation	Undeveloped
202/47/0//	Crosswinds II Conservation Area	25.5	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Crosswinds Dr	1989	Undeveloped public access	Neighborhood Recreation	Undeveloped
202/ 52/ 0/ /	Crosswinds II Conservation Area	1.5	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Crosswinds Dr	1989	Trail	Trail Head Parking	Undeveloped
202/61/0//	Crosswinds II Conservation Area	9.9	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Adjacent Parcel	2019	Crosswinds Dr	1989	Undeveloped public access	Accessible Trail	Undeveloped
211/ 2/ 2/ /	DeCilio Land - Groton School Donation	1.2	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	West Main St	2015	Undeveloped public access	None	Undeveloped
127/ 12/ 0/ /	Deerhaven Conservation Area	1.1	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Deerfield Dr	1998	Undeveloped public access	Neighborhood Recreation	Undeveloped
127/ 40/ 0/ /	Deerhaven Conservation Area	17.0	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Deerfield Dr	1998	Undeveloped public access	Trail/Passive	Undeveloped
251/ 57/ 0/ /	Desrosiers Land (Groton Woods)	0.2	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Acorn Path	1993	Trail	Trail	Undeveloped
130/ 11/ 0/ /	Eldridge Conservation Area	0.1	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Pine Trl	1993	Trail	None	Undeveloped
221/43/1//	Eliades Conservation Area	13.7	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Hay Field (Leased)	Limited - Street	2019	Pacer Way	1998	Trail	Trail/Passive	Undeveloped
217/ 78/ 1693/ /	Farmers and Mechanics	19.7	0	Р	Art. 97	Yes	Eminent Domain	Groton Conservation Commission	No	Yes	2015	Jenkins Rd	1967	Trail	Trail	Undeveloped

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
213/67/0//	Fitch's Bridge Estates	0.9	RA	Р	Art. 97	Yes	Tax Title Taking	Groton Conservation Commission	No	Adjacent Parcel	2019	Wallace Rd	2006	Trail	Trail	Undeveloped
203/ 48/ 0/ /	Flat Pond Conservation Area	3.9	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2015	Lakin St	1989	Trail	Trail	Undeveloped
250/ 72/ 3732/ /	Flavell Crossing Conservation Area	106.8	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	Eagle Scout Bridge	Yes	2019	Rear Graniteville Rd	1995	Trail	Trail/Passive	Undeveloped
250/ 33/ 0/ /	Flavell Road Conservation Area	1.9	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Flavell Rd	1991	Undeveloped public access	None	Undeveloped
133/ 38/ 0/ /	Fletcher Hill	0.4	RA	Ρ	Art. 97	Yes	Unknown	Groton Conservation Commission	No	No	2019	Forge Village Rd	1990	Undeveloped public access	None	Undeveloped
134/ 8/ 0/ /	Fletcher Hill Conservation Area	4.4	RA	Ρ	Art. 97	Yes	Unknown	Groton Conservation Commission	No	No	2019	Off Fletcher Hill Ln	1990	Undeveloped public access	Trail/Passive	Undeveloped
231/95/0//	Floyd Conservation Area	53.6	RA	Р	Art. 97	Yes	Conserv. Fund	Groton Conservation Commission	No	Adjacent Parcel	2019	Off Chicopee Row	1973	Trail	Passive/Trail	Undeveloped
225/ 54/ 0/ /	Fritz and Helen Walker Conservation Area	67.9	RA	Ρ	CR - GCT	Yes	CPA/ LAND Grant	Groton Conservation Commission	No	Yes	2019	Chicopee Row	2013	Trail	Trail/Passive	Undeveloped
225/ 55/ 0/ /	Fritz and Helen Walker Conservation Area	43.3	RA	Ρ	CR - GCT	Yes	CPA/ LAND Grant	Groton Conservation Commission	No	Yes	2019	Chicopee Row	2013	Trail	Trail/Passive	Undeveloped
233/ 98/ 1/ / & 233/ 98/ 2/ /	Fuccillo Conservation Land	6.5	RA	Р	Art. 97	Yes	CPA/ LAND Grant	Groton Conservation Commission	No	No	2019	Lowell Rd	2009	Undeveloped public access	Passive	Undeveloped
230/ 46/ 0/ /	Groton Dunstable Regional High School CR Land	73.5	RA	Ρ	CR - GCC	Yes	Donation – MESA Review	Groton Conservation Commission	No	Yes	2019	Chicopee Row	2004	Trail, but mostly undeveloped public access	Passive/Trail	Undeveloped
117/ 4/ 0/ /	Gilson Conservation Area	15.2	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Boston Rd	1994	Undeveloped public access	None	Undeveloped
234/ 38/ 0/ /	Gilson Estates Conservation Area	2.3	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Nicole Ln	1999	Undeveloped public access	Neighborhood Recreation	Undeveloped
234/ 40/ 0/ /	Gilson Estates Conservation Area	1.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Nicole Ln	1999	Undeveloped public access	Neighborhood Recreation	Undeveloped
232/ 38/ 0/ /	Groton Hills Conservation Area	31.2	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Eagle Scout Bridge	Limited - Street	2019	Kailey's Way	1996	Trail	Trail	Undeveloped
251/29/0//	Groton Woods Conservation Area	1.3	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Winding Way	2018	Undeveloped public access	Trail	Undeveloped
131/ 2/ 0/ /	Groton Woods Conservation Area	101.8	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Whiley Rd	1994	Trails	Trail/Passive	Undeveloped
132/42/0//	Groton Woods Conservation Area	1.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Hidden Valley Rd	1994	Trail	Trail	Undeveloped
132/ 55/ 0/ /	Groton Woods Conservation Area	1.5	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Improved Path	No	2019	Hidden Valley Rd	1994	Trail	Trail	Very Good
132/60/0//	Groton Woods Conservation Area	1.5	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	No	Rear Hayden Rd	1994	Undeveloped public access	Neighborhood Recreation	Undeveloped

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
132/61/0//	Groton Woods Conservation Area	7.5	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	No	Rear Hayden Rd	1994	Trail	Trail	Undeveloped
132/66/0//	Groton Woods Conservation Area	6.7	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Maintained open meadow	No	2019	New Pond Rd	1994	Undeveloped public access	Neighborhood Recreation	Undeveloped
133/23/0//	Groton Woods Conservation Area	1.2	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	New Pond Rd	1993	Undeveloped public access	Neighborhood Recreation	Undeveloped
133/ 25/ 0/ /	Groton Woods Conservation Area	1.4	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	New Pond Rd	1994	Trail	Neighborhood Recreation	Undeveloped
133/ 26/ 0/ /	Groton Woods Conservation Area	0.7	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	New Pond Rd	1994	Undeveloped public access	Trail	Undeveloped
251/22/0//	Groton Woods Conservation Area	1.9	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Winding Way	1994	Undeveloped public access	Neighborhood Recreation	Undeveloped
221/21/0//	Half Moon Swamp Conservation Area	2.8	RA	Р	Art. 97	Yes	Donation & Tax Taking	Groton Conservation Commission	No	No	2019	Half Moon Rd	1967	Undeveloped public access	Passive	Undeveloped
221/22/0//	Half Moon Swamp Conservation Area	7.9	RA	Р	Art. 97	Yes	Donation & Tax Taking	Groton Conservation Commission	No	No	2019	Half Moon Rd	1958	Undeveloped public access	Passive	Undeveloped
243/ 17/ 0/ /	Harrison S. Ripley Forest	54.2	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Off Martins Pond Rd	1986	Undeveloped public access	Passive	Undeveloped
244/26/0//	Harrison S. Ripley Forest	15.0	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Off Martins Pond Rd	1986	Trail	Trail/Passive	Undeveloped
231/63/0//	Hawtree Conservation Area	24.1	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Boy Scout Observation Deck	Limited – off-street	2019	Hawtree Way	1997	Trail	Trail/Passive	Undeveloped
102/56/0//	Hemlock Grove	11.8	RA	Р	Art. 97	Yes	Conserv. Fund	Groton Conservation Commission	No	Limited – off-street	2019	Fox Run	1997	Trail	Neighborhood Recreation	Undeveloped
234/ 3/ 0/ /	Heron Ridge Conservation Land	15.7	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Otter Ln	1987	Undeveloped public access	None	Undeveloped
226/67/0//	Hilda O'Hara Conservation Area	1.0	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Nashua Rd	2009	Undeveloped public access	None	Undeveloped
222/ 14/ 0/ /	Hurd Conservation Area	17.7	Not Listed (RA?)	Р	Art. 97	Yes	Self-Help Grant	Groton Conservation Commission	No	Yes	2019	Boston Rd	1997	Trail	Trail/Passive	Undeveloped
222/ 19/ 2/ /	Hurd Conservation Area	14.0	RA	Р	Art. 97	Yes	Self-Help Grant	Groton Conservation Commission	No	Yes	2019	Boston Rd	1997	Trail	Trail/Passive	Undeveloped
105/26/0//	Integrity Estates Conservation Area	5.6	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Integrity Way	2000	Trail	Neighborhood Recreation	Undeveloped
124/67/0//	Isbitski Land	0.1	RA	Р	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	Whitewood Rd	2011	Undeveloped public access	None	Undeveloped
216/61/0//	James River Greenway Conservation Area	0.9	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No?	2019	Fitch's Bridge Rd	1980	Undeveloped public access	Wildlife Viewing	Undeveloped
216/ 63/ 0/ /	James River Greenway Conservation Area	0.3	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	Adjacent Parcel	2019	Main St	1980	Undeveloped public access	Common	Undeveloped
212/15/0//	Johnston Land Conservation Area	15.4	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Limited - Street	2019	Maple Ave	1997	Trail	Trail/Passive	Undeveloped

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
122/ 108/ 0/ /	Knopps Pond Island	0.2	RA	Р	Art. 97	Yes	Tax Title Taking	Groton Conservation Commission	No	No	2019	Off Weymisset Rd	1966	Undeveloped public access	None	Undeveloped
112/ 17/ 0/ /	Knowles Siding	2.1	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Yes	2015	Pleasant St	???	Trail, connection to Nashua River Rail Trail	Passive	Undeveloped
113/92/0//	Knowles Siding	1.2	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Yes	2015	Whistle Post Ln	1998	Undeveloped public access	Passive	Undeveloped
137/ 8/ 0/ /	Labbe Road	0.2	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Labbe Rd	2002	Undeveloped public access	None	Undeveloped
105/ 18/ 0/ /	Lawrence Park at Fox Run	11.8	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Pepperell Rd	1970	Trail	Trail	Undeveloped
129/ 103/ 0/ /	Levine Lane	0.1	RA	Ρ	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	Lost Lake Dr	2011	Undeveloped public access	None	Undeveloped
227/ 37/ 0/ /	Longley Estates I Conservation Area	21.3	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Paquawket Path	1987	Trail	Trail	Undeveloped
226/ 15/ 0/ /	Longley Estates II Conservation Area	31.2	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Longley Rd	1985	Trail	Neighborhood Recreation	Undeveloped
226/ 49/ 0/ /	Longley Estates II Conservation Area	11.6	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Drumlin Hill Rd	1985	Trail	Neighborhood Recreation	Undeveloped
234/ 2/ 0/ /	Martins Pond Brook Culvert	0.0	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Lowell Rd	2018	Undeveloped public access	None	Undeveloped
250/ 23/ 0/ /	McCarthy Drive Parcel	5.3	RA	Ρ	Art. 97	Yes	Donation & Tax Taking	Groton Conservation Commission	No	No	2019	Lowell Rd	2006	Undeveloped public access	Neighborhood Recreation	Undeveloped
226/92/0//	McClain's Woods	0.7	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	McClain's Woods Rd	1993	Undeveloped public access	Trail	Undeveloped
226/ 95/ 0/ /	McLain's Woods Conservation Area	4.2	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Eagle Scout Bridge; maintained open meadow	Limited - Street	2019	McClain's Woods Rd	1993	Trail	Trail	Undeveloped
231/ 11/ 0/ /	McLain's Woods Conservation Area	28.1	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Off McClain's Woods Rd	1993	Trails	Trail	Undeveloped
228/ 38/ 0/ /	Meadowbrook Conservation Area	19.9	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Stream X-Ing	Limited - Street	2019	Meadow View Rd	1993	Trail, but mostly undeveloped public access	Neighborhood Recreation	Undeveloped
203/ 27/ 0/ /	Milton Starr Land	10.7	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Townsend Rd	1999	Undeveloped public access	ADA: Wildlife Viewing Platform	Undeveloped
227/69/0//	Northwoods Conservation Area	2.0	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Northwoods Rd	1997	Trail	Trail	Undeveloped
227/ 80/ 0/ /	Northwoods Conservation Area	13.5	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Northwoods Rd	1997	Trail	ADA: Wildlife Viewing Platform	Undeveloped
247/ 42/ 0/ /	Old Dunstable Road (part of Woodland Park Conservation Area)	1.2	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	Limited - Street	2019	Old Dunstable Rd	2006	Undeveloped public access	None	Undeveloped

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
208/ 1/ 0/ /	Old Mill Conservation Area	8.5	RA	Ρ	Art. 97	Yes	Donation (Town Meeting Vote), Tax Taking	Groton Conservation Commission	No	Adjacent Parcel	2019	West Main St	2001	Undeveloped public access	Passive	Undeveloped
216/ 16/ 0/ /	O'Neill Way	2.2	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	O'Neill Way	1997	Undeveloped public access	Agriculture: Grazing	Undeveloped
106/31/0//	Patricia Hallet Conservation Area	5.1	RA	Ρ	Art. 97	Yes	Conserv. Fund (CPA)	Groton Conservation Commission	No	Adjacent Parcel	2019	West Main St	2018	Undeveloped public access	Trail	Undeveloped
106/32/0//	Patricia Hallet Conservation Area	12.4	RA	Р	Art. 97	Yes	Conserv. Fund (CPA)	Groton Conservation Commission	No	Adjacent Parcel	2019	West Main St	2018	Undeveloped public access	Trail	Undeveloped
216/ 64/ 0/ /	Petapawag Canoe Launch	2.8	RA	Ρ	Art. 97	Yes	Tax Title Taking	Groton Conservation Commission	Boat Ramp, Picnic Tables	Yes	2015 & 2019	Nod Rd	1953	Boat launch, picnic area, fishing	ADA Improvements (Picnic Area)	Very Good
202/ 14/ 0/ /	Peter E. Bertozzi Conservation Area	35.6	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	Yes	2015	Townsend Rd	1965	Trail, camping site, fishing, swimming hole	ADA Improvements (Trail, Picnic Area)	Undeveloped
224/ 18/ 0/ /	Priest Family Conservation Area	18.4	RA	Ρ	Art. 97	Yes	Conserv. Fund (CPA)	Groton Conservation Commission	No	Limited - Street	2019	Martins Pond Rd	2019	Undeveloped public access	ADA Improvements: Trail, Picnic Area	Undeveloped
129/ 138/ 0/ /	Redskin Trail Land	0.1	RA	Р	Art. 97	Yes	Tax Title Taking	Groton Conservation Commission	No	No	2019	Redskin Trl	2008	Undeveloped public access	Canoe Launch	Undeveloped
230/ 22/ 0/ /	Reedy Meadow Conservation Area	53.0	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Reedy Meadow Rd	1997	Undeveloped public access	Trail/Hunting	Undeveloped
230/ 29/ 0/ /	Reedy Meadow Conservation Area	3.4	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Reedy Meadow Rd	1997	Undeveloped public access	Trail/Hunting	Undeveloped
228/ 59/ 0/ /	Reedy Meadow Estates	10.6	RA	Ρ	Art. 97	Yes	Donation - special permit	Groton Conservation Commission	No	Adjacent - Street	2019	Olivia Way	2017	Trail, though mostly undeveloped public access	Neighborhood Recreation	Undeveloped
228/61/0//	Reedy Meadow Estates	1.4	RA	Ρ	Art. 97	Yes	Donation - special permit	Groton Conservation Commission	No	Limited - Street	2019	Red Pepper Lane	2017	Undeveloped public access	Trail Head	Undeveloped
231/ 4/ 0/ /	Reedy Meadow Road Land	1.9	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Reedy Meadow Rd	2008	Undeveloped public access	None	Undeveloped
132/ 14/ 0/ /	Richard F. Priest Memorial Area	5.3	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Yes	2019	Off Whiley Rd	1978	Trail	Trail	Undeveloped
120/ 2/ 02/ /	Rocky Hill Land	17.4	RA	Р	Art. 97 (CR in deed)	Yes	Donation	Groton Conservation Commission	No	Limited - Street	2019	Sandy Pond Rd	2007	Undeveloped public access	Ecological Preservation	Undeveloped
225/ 17 & 19/ / /	Rollins Trail Easement	0.1	RA	Р	Easement	Yes	Easement	Groton Conservation Commission	No	Adjacent - Parcel	N/A	Sand Hill Rd	2011	Trail	Trail	Undeveloped
227/91/0//	Sampas Conservation Woods	11.5	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Longley Rd	2006	Undeveloped public access	Neighborhood Recreation	Undeveloped
132/21/0//	Sargisson Beach	16.7	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	Swim Beach, Picnic Tables	Yes	2015 & 2019	Off Whiley Rd	1967	Trails, swimming beach, picnic area, fishing	ADA Improvements (Trail)	Very Good
132/20/0//	Sargisson Beach	2.0	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	Parking For 25+ Vehicles	Yes	2015 & 2019	Off Whiley Rd	1968	Parking area	Trail	Very Good

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
232/ 14/ 0/ /	Sawtell Conservation Area	0.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Sawtell Dr	2003	Undeveloped public access	Neighborhood Recreation	Undeveloped
232/ 9/ 0/ /	Sawtell Conservation Area	29.6	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Yes	2019	Sawtell Dr	2003	Trail	Trail	Undeveloped
232/ 56/ 0/ /	Shattuck Homestead (a.k.a., Baddacook Field)	35.8	RA	Ρ	CR - GCT	Yes	Fall Town Mtg 10/18/99	Groton Conservation Commission	No	Yes	2019	Martins Pond Rd	1999	Trail	ADA Improvements (Trail)	Undeveloped
125/ 127/ 0/ /	Sheedy Land	0.8	RA	Ρ	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	Chestnut Rd	2011	Undeveloped public access	None	Undeveloped
125/ 128/ 0/ /	Sheedy Land "Felix Benoit" Tax Title Possession	0.0	RA	Ρ	Art. 97	Yes	Town Meeting Vote	Groton Conservation Commission	No	No	2019	Chestnut Rd	2011	Undeveloped public access	None	Undeveloped
(portions of) 220/ 10/ 0/ / & 220/ 10/ 1/ /	Southern Groton James Brook CR Area	3.8	RA	Ρ	CR - GCC	No	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Culver Road	2006	Private property (no public access)	None	Undeveloped
205/ 5/ 0/ /	Squannacook River "Picnic Area"	2.2	RA	Р	Art. 97	Yes	Unknown	Groton Conservation Commission	No	?	2019	TOWNSEND RD	1963	Undeveloped public access	Ecological Preservation	Undeveloped
253/6/0//	Stonebridge Conservation Area	1.0	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Old Carriage Path	1996	Undeveloped public access	Neighborhood Recreation	Undeveloped
219/ 8/ 0/ /	Surrenden Farm	135.5	RA	Ρ	CR - DFW	Yes	Self-Help, Donations, CPA, Bond	Groton Conservation Commission	Hay field (leased)	Yes	2019	Shirley Rd	2006	Trail, agriculture	Trail	Undeveloped
220/ 35/ 0/ /	Surrenden Farm	25.9	RA	Ρ	CR - DFW	Yes	Self-Help, Donations, CPA, Bond	Groton Conservation Commission	No	Yes	2019	Shirley Rd	2007	Undeveloped public access	Trail	Undeveloped
205/41/0//	Throne Hill Land	0.6	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Throne Hill Rd	2018	Trail	Trail	Undeveloped
213/ 3/ 0/ /	Throne Hill Land	0.1	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Pepperell Rd	2003	Undeveloped public access	None	Undeveloped
231/ 94/ 0/ /	Torrey Woods Conservation Area	36.2	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	Adjacent Parcel	2019	Chicopee Row	1997	Trail, though mostly undeveloped public access	Trail/Passive	Undeveloped
251/72/0//	Viola Day Robinson Conservation Area	14.8	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Adjacent Parcel	2019	Graniteville Rd	2016	Undeveloped public access	Passive	Undeveloped
109/24/0//	Walnut Run	9.5	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	Hay field (leased)	Limited - Street	2019	Canterbury Ln	1999	Agriculture	Passive	Undeveloped
231/ 25/ 0/ /	Watson Way Conservation Area	5.4	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Watson Way	1994	Trail	Trail	Undeveloped
247/22/0//	Whispering Brook Conservation Area	13.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	Limited - Street	2019	Whispering Brook Rd	1993	Undeveloped public access	Neighborhood Recreation	Undeveloped
235/ 41/ 0/ /	Wiewel Land	40.0	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Limited - Street	2019	Skyfields Dr	1997	Trail	Trail	Undeveloped
225/ 61/ 0/ /	Williams Barn - Sorhaug Woods	97.1	RA	Ρ	Art. 97	Yes	Conserv. Fund (Auctio	Groton Conservation Commission	Eagle Scout Bridge	Yes	2015	Chicopee Row	1997	Trails, historic preservation, community events	ADA Improvements (Trail)	Undeveloped

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
														(e.g., farmers market)		
225/ 52/ 0/ /	Williams Conservation Area	8.1	RA	Р	Art. 97	Yes	Donation	Groton Conservation Commission	No	Yes	2019	Chicopee Row	1992	Undeveloped public access	Passive	Undeveloped
247/ 50/ 0/ /	Woodland Park Conservation Area	21.8	RA	Р	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Wildflower Ln	2000	Undeveloped public access	Neighborhood Recreation	Undeveloped
247/37/0//	Woodland Park Conservation Area	1.2	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Island Pond Rd	2001	Undeveloped public access	Neighborhood Recreation	Undeveloped
247/38/0//	Woodland Park Conservation Area	1.1	RA	Ρ	Art. 97	Yes	Donation	Groton Conservation Commission	No	No	2019	Island Pond Rd	2001	Undeveloped public access	Neighborhood Recreation	Undeveloped
132/ 59/ 0/ /	Woodland Pond Conservation Area	0.7	RA	Ρ	Art. 97	Yes	Subdivision Spec. Permit	Groton Conservation Commission	No	No	2019	Hidden Valley Rd	1994	Trail	Trail	Undeveloped
115/33/0//	Groton Country Club	49.9	RA	L	Unknown	Limit	Town Funds	Groton Country Club	Country Club	Yes	No	LOVERS LN	1989	Golf course, swimming pool	Golf Course, Swimming Pool	Good
115/ 34/ 0/ /	Groton Country Club	62.0	RA	L	Unknown	Limit	Town Funds	Groton Country Club	Country Club	Yes	No	94 LOVERS LN	1989	Golf course	Golf Course, Swimming Pool	Good
210/ 5/ 0/ /	Groton Town Forest	6.6	RA	Р	CR	Yes	Unknown	Town Forest Committee	No	Yes	2015	West Main St	2003	Trails	Trail/Passive	Undeveloped
210/ 4/ 0/ /	Groton Town Forest	497.4	RA/O	Ρ	CR - DFW	Yes	Unknown	Town Forest Committee	No	Yes	2015	West Main St	1952	Trails	Trail/Passive	Undeveloped
209/ 1/ 0/ /	Groton Town Forest	10.3	RA	Ρ	Unknown	Yes	Unknown	Town Forest Committee	No	Yes	No	West Main St	?	Undeveloped public access	Passive	Undeveloped
129/ 206/ 0/ /	Boat House Rd Property	0.01	RA	Ν	Unknown	Yes	Unknown	Town of Groton	No	No	No	Boathouse Rd	?	Undeveloped public access	None	Undeveloped
248/9/0//	Bridge Street Property	34.9	RA	Ν	Unknown	Limit	Unknown	Town of Groton	No	Yes - Not Public	No	Bridge St	1988	Undeveloped public access	Trail	Undeveloped
249/ 57/ 0/ /	Cow Pond Brook Playing Fields	23.6	RA	Ρ	Art. 97	Yes	Town Funds	Town of Groton	Athletic Field, Access Road	Yes	Yes	Cow Pond Brook Rd	1988	Access to playing fields, Undeveloped public access	Athletic Fields/Passive	Good
249/51/0//	Cronin Land - Lot A	10.4	RA	Ν	Unknown	Yes	Town Funds	Town of Groton	No	Adjacent Parcel	No	Hoyts Wharf Rd	1988	Undeveloped public access	Trail	Undeveloped
n/a	Fitchs Bridge	n/a	n/a	Ρ	Unknown	Yes	СРА	Town of Groton	Foot Bridge	Yes	Yes	Fitch's Bridge Rd	2013	Trail	ADA River- crossing	Good
234/ 4/ 0/ /	Gay Property OR "Brown Loaf Property"	107.9	RA	N	Unknown	Yes	Unknown	Town of Groton	No	Adjacent Parcel	No	Gay Rd	1999	Undeveloped public access (trails exist under the powerlines)	Trail	Undeveloped
105/ 30/ 0/ /	Hemlock Grove - "Integrity Way (off Fox	0.1	RA	Ν	Unknown	Yes	Subdivision Spec. Permit	Town of Groton	No	Limited - Street	No	Integrity Way	2005	Undeveloped public access	Passive	Undeveloped
131/44/0//	Island Road Property	0.1	RA	Ν	Unknown	Yes	Unknown	Town of Groton	No	No	No	Island Rd	?	Undeveloped public access	Neighborhood Recreation	Undeveloped
112/ 106/ 0/ /	Legion Hall & Common	1.4	RA	Ρ	Art. 97	Yes	Unknown	Town of Groton	Legion Hall, parking	Yes	2015	75 Hollis St	?	Meeting space (building), town common	ADA Improvements/ Commons	Good

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
202/ 83/ 0/ /	Meredith Bissell Property	36.3	RA	Ρ	CR - GCC/DCR	Yes	Town Funds - Right of First Refusal	Town of Groton	No	No	2019	Off Townsend Rd	2000	Undeveloped public access	Trail	Undeveloped
234/ 18/ 1/ /	Morton Land - Brownloaf Property	11.3	RA	Ν	Unknown	Yes	Unknown	Town of Groton	No	Unofficial - Row	No	Brown Loaf Rd	1999	Undeveloped public access (trails exist under powerlines)	Trail	Undeveloped
213/ 60/ 0/ /	Norris CR	52.4	RA	Ρ	CR - GCC/DCR	Yes	Town Funds - Right of First Refusal	Town of Groton	No	Adjacent - Street	2019	Pepperell Rd	2000	Trail	Trail	Undeveloped
216/ 70/ 0/ /	Old Town Dump	40.0	RA	Ν	Unknown	Yes	Unknown	Town of Groton	No	Yes	No	Nod Rd	1963	Undeveloped public access	Trail	Undeveloped /Hazardous
113/ 43/ 0/ /	Prescott School	4.0	RA	Ν	Unknown	Yes	Town Meeting Vote	Town of Groton	Old School Building/ Grounds	Yes	No	145 Main St	1963	Community center (building), vacant field and playground	Playground, Community Center	Poor
220/ 33/ 2/ /	Surrenden Farm	14.6	RA	U	Unknown	Yes	Self-Help, Donations, CPA, Bond	Town of Groton	No	No	2015	Shirley Rd	2007	Undeveloped public access	Park Land, Affordable Housing	Undeveloped
126/ 6/ 0/ /	Baddacook Pond Well Land	1.4	RA	L	Private	Limit	Unknown	Town of Groton Water Department	Retention basins	No	No	Baddacook Pond Rd	1897	Water Supply Protection	None	N/A
126/ 8/ 0/ /	Baddacook Pond Well Land	4.8	RA	L	Private	Limit	Unknown	Town of Groton Water Department	Wellhead, Pump House	No	No	541 Lowell Rd	1897	Water Supply Protection	None	N/A
210/ 8/ 0/ /	Campbell Well Site	9.7	RA	L	CR - DFW	Limit	Self-Help, Donations, CPA, Bond	Town of Groton Water Department	No	No	No	West Main St	2007	Water Supply Protection	None	N/A
224/ 20/ 0/ /	Gibbet Hill Water Storage Tank	1.8	RA	L	Private	No	Unknown	Town of Groton Water Department	Water Tank	No	No	Off Lowell Rd	1897	Water Supply Protection	None	N/A
120/ 2/ 0/ /	Rocky Hill	4.5	RA	L	Private	Limit	Subdivision Spec. Permit	Town of Groton Water Department	No	No	No	Sandy Pond Rd	2002	Water Supply Protection	None	N/A
233/ 54/ 0/ /	Webber Conservation Area	40.0	RA	L	Limited	Limit	Aquifer Land Acquisition	Town of Groton Water Department	No	No	No	Martins Pond Rd	1988	Water Supply Protection	None	N/A
233/ 78/ 0/ /	Webber Conservation Area	23.9	RA	L	Limited	Limit	Donation	Town of Groton Water Department	No	No	No	Lowell Rd	1988	Water Supply Protection	None	N/A
250/95/0//	Whitney Pond Well Land	19.5	RA	L	Limited	Limit	Town Funds - Donation	Town of Groton Water Department	No	Yes - Limited	No	Lowell Rd	1986	Water Supply Protection	None	N/A
250/96/0//	Whitney Pond Well Land	20.6	RA	L	Limited	Limit	Town Funds - Donation	Town of Groton Water Department	Wellhead, Pump House	Yes - Limited	No	864 Lowell Rd	1986	Water Supply Protection	None	N/A
106/11/0//	Blood Land	95.6	B-1	L	Limited	Yes	Unknown	West Groton Water Supply District	Wellhead, Pump House	Adjacent Parcel	No	160 West Main St	2005	Water Supply Protection	None	N/A
106/ 12/ 0/ /	Blood Land	5.5	RA	L	Unknown	Yes	Unknown	West Groton Water Supply District	No	Adjacent Parcel	No	160 West Main St	2005	Water Supply Protection	None	N/A
206/ 55/ 0/ /	Kemp Street Water Storage Tank	0.2	RA	L	Limited	Limit	Unknown	West Groton Water Supply District	Water Tank	No	No	Kemp St	1963	Water Supply Protection	None	N/A
210/ 7/ 0/ /	Squannacook-Town Forest W. Water Lands	45.6	RA	L	Limited	Limit	Unknown	West Groton Water Supply District	No	No	No	Off West Main St	2009	Water Supply Protection	None	N/A

Parcel ID	Property Name	Acres	Zoning **	Protect. Level*	Restriction	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Evaluated	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
210/ 6/ 0/ /	Town Forest Water Supply Land	4.2	RA	L	Limited	Limit	Unknown	West Groton Water Supply District	No	Adjacent Parcel	No	Off West Main St	2003	Water Supply Protection	None	N/A
204/ 12/ 0/ /	Townsend Road Water Storage Tank	8.6	RA	L	Limited	Limit	Unknown	West Groton Water Supply District	Water Tank	Yes - Not Public	No	700 Townsend Rd	1996	Water Supply Protection	None	N/A
206/ 10/ 0/ /	West Groton Well Field	16.5	RA	L	Limited	Limit	Donation	West Groton Water Supply District	No	Adjacent Parcel	No	Townsend Rd	1963	Water Supply Protection	None	N/A
206/ 6/ 0/ /	West Groton Well Field	0.6	RA	L	Limited	Limit	Donation	West Groton Water Supply District	No	Adjacent Parcel	No	Townsend Rd	1952	Water Supply Protection	None	N/A
206/ 8/ 0/ /	West Groton Well Field	1.1	RA	L	Limited	Limit	Donation	West Groton Water Supply District	Water Department Buildings	Yes	No	305 Townsend Rd	2000	Water Supply Protection	None	N/A
206/ 9/ 0/ /	West Groton Well Field	0.3	RA	L	Limited	Limit	Donation	West Groton Water Supply District	No	Yes	No	Townsend Rd	?	Water Supply Protection	None	N/A

\* Protection Types include: P = Permanent; L = Limited; T = Temporary; N = None; U = Unknown

\*\* See Appendix A, Map 3: Zoning

# Table D-1A: Town-owned Parcels (Recreation Facilities)

Property Name	Parcel ID	Acres	Zoning *	Restriction	Protection Level	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Eval.	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
Alvin Sawyer Baseball Field	113/ 23/ 0/ /	14.7	RA	Art. 97	Permanent	Yes	Donation	Park Commission	Baseball Field	Yes	2015	Part of Lawrence Field parcel	?	Baseball field	Active Recreation	Very Good
Boynton Common	112/ 106/ 0/ /	0.4	0	Art. 97	Permanent	Yes	Town Funds, Donations	Park Commission	Memorial	Yes	2015	Part of Legion Common parcel	?	Public access - Town common	ADA Improvements	Very Good
Carol Wheeler Memorial Park	101/ 13/ 0/ /	0.2	M1	Art. 97	Permanent	Yes	Donations	Park Commission, Garden Club	Improved Path	Yes	2015	Off West Main St	2002	Public access - Town common	Accessible Park	Good
Charles R. Gordon/ Fireman's Common	112/ 40/ 0/ /	0.1	RA	Art. 97	Permanent	Yes	Multiple Donations	Park Commission, Garden Club	Improved Path, crosswalk	No	2019	Main St	?	Passive Recreation	Accessible Park	Very Good
Chicopee Row School House #7	231/91/0//	0.5	RA	Unknown	Unknown	Limited	Dedicated 501(c)(3)	Park Commission/ Sawtell School Association	Historic School House	Limited – Street	2019	Chicopee Row	Early 2000's (mgmt)	Historic Preservation	Historic Preservation	Very Good
Christine Hanson Memorial Playground	113/ 23/ 0/ /	14.7	RA	Art. 97	Permanent	Yes	CPC, Private Donations	Park Commission, Garden Club	Playground	Yes	2015	Part of Lawrence Field parcel	2001	Playground	Active Recreation	Very Good
Cow Pond Brook Playing Fields	248/ 39/ 0/ /	1.0	RA	Art. 97	Permanent	Yes	Town Funds	Park Commission	No	Yes	2015 & 2019	Hoyts Wharf Rd	1994	Undeveloped public access	Passive recreation, expanded parking for athletic fields	Undeveloped
Cow Pond Brook Playing Fields	248/ 40/ 0/ /	29.6	RA	Art. 97	Permanent	Yes	Town Funds	Park Commission	Concession stand, portable toilets	Yes	2015 & 2019	Cow Pond Brook Rd	1994	Baseball, soccer, lacrosse, football fields	Athletic Field	Very Good
Cutler Memorial Field	103/ 1/ 0/ /	11.2	M1	Art. 97	Permanent	Yes	CPC, Donation	Park Commission	ADA	Yes	2015 & 2019	Townsend Rd	1966	Baseball and general athletic fields, basketball court, playground, picnic area	Multi-use Active Recreation	Very Good
Evan Holofcener Ice Rink	112/ 106/ 0/ /	n/a	0	Art. 97	Permanent	Yes	N/A	Park Commission	Ice Rink	Yes	2015	Part of Legion Common parcel	n/a	Seasonal ice rink (outdoor)	Active Recreation	Very Good
George & Agnes Rider Park	125 / 83/ / /	n/a	RA	Art. 97	Permanent	Yes	Donation	Park Commission	Basketball Court	Yes	2015 & 2019	Park of Lost Lake Fire Station parcel	?	Basketball court	Active Recreation	Very Good
Hazel Grove Fairgrounds	217/ 79/ 0/ /	28.3	RA	Art. 97	Permanent	Yes	Private Lease	Park Commission	Non-potable water	Yes	2015 & 2019	Jenkins Rd	1940	Equestrian recreation (riding track, jumps)	Equine Facilities	Very Good
Hill - Maple Park Land	104/31/0//	0.1	RA	Unknown	Permanent	Yes	Unknown	Park Commission	No	No	2019	Maple Ave	?	Undeveloped public access	Passive Recreation	Undeveloped
Hill - Pepperell Park Land	104/6/0//	0.2	RA	Unknown	Permanent	Yes	Unknown	Park Commission	No	No	2019	Pepperell Rd	?	Undeveloped public access	Passive Recreation	Undeveloped
John Tinker Memorial Common	216/62/0//	0.1	RA	Art. 97	Permanent	Yes	Tercentenary Donation	Park Commission	Memorial Stone	No	2019	Main St	?	Public access - Town common	Common	Good

Property Name	Parcel ID	Acres	Zoning *	Restriction	Protection Level	Public Access	Funding Source	Manager Name	Improvements	Parking	ADA Eval.	Address	Year Acqu.	Current Use	Recreation Potential	Property Condition
Lawrence Field	113/ 23/ 0/ /	14.7	RA	Art. 97	Permanent	Yes	CPC, Private Donations	Park Commission	Athletic Field, ADA parking, portable toilet	Yes	2015	Broadmeadow Rd	1901	Baseball field, basketball court	Active Recreation	Very Good
Lawrence Memorial	113/23/0//	n/a	RA	Art. 97	Permanent	Yes	Town Funds, Donations	Park Commission	Monument	Yes	2015	Part of Lawrence Field parcel	1901	Public observance of monument	Active Recreation	Very Good
Legion Common/Boynton Memorial	112/ 106/ 0/ /	1.0	0	Art. 97	Permanent	Yes	Town Funds, Donations	Park Commission	Monument	Yes	2015	Part of Legion Common parcel	?	Public access - Town common	ADA Improvements	Very Good
Longley Monument	225/32/0//	0.0	RA	Art. 97	Permanent	Yes	Unknown, donation	Park Commission	Stone Monument	No	2019	Longley Rd	1955	Public observance of monument	Common	Fair
Minute Man Common	113/ 12/ 0/ /	0.5	RA	Art. 97	Permanent	Yes	Trust Funds, Private Donations	Park Commission	No	Ample - Street	2019	Main St	?	Public access - Town common	ADA Improvements	Good
New Town Common	111/ 40/ 0/ /	1.7	0	Art. 97	Permanent	Yes	Donations	Park Commission	Town Common	Ample - Street	2019	Hollis St	?	Public access - Town common	ADA Improvements	Good
Old Burying Ground	112/ 105/ 0/ /	3.1	0	Art. 97	Permanent	Yes	Old Burying Ground Commission, Town Funds, Donations	Park Commission	No	Adjacent Parcel	2019	Hollis St	?	Public access – historic graveyard	Passive Recreation	Very Good
Orchard Common	225/ 72/ 0/ /	0.7	RA	Art. 97	Permanent	Yes	Subdivision creation, Town Funds	Park Commission	No	No	2019	Blossom Ln	1954	Public access - Town common	Common	Good
Prescott Common/Byron Wilson Square	115/ 42/ 0/ /	0.3	RA	Art. 97	Permanent	Yes	Groton Garden Club, Town Funds	Park Commission	Town Common, Prescott Memorial	No	2019	Old Ayer Rd	?	Public access - Town common	ADA Improvements	Very Good
Samuel Badger Memorial Common	108/ 30/ 0/ /	0.4	RA	Art. 97	Permanent	Yes	Town Funds	Park Commission	Improved Path,	No	2019	Pleasant St	?	Public access - Town common	ADA Improvements	Very Good
Sgt. Woitowicz Tennis Courts	135/ 54/ 0/ /	n/a	RA	Art. 97	Permanent	Yes	Donation	Park Commission	Tennis Court	Yes	2015 & 2019	Forge Village Rd	1993	Tennis court	Replace and Improve	Poor
Sgt. Woitowicz Field	135/ 54/ 0/ /	10.9	RA	Art. 97	Permanent	Yes	Donation, Town Funds	Park Commission	Parking lot	Yes	2015 & 2019	Forge Village Rd	1993	General athletic field	Athletic Field	Very Good
Veterans Memorial Common (aka Sawyer Common)	111/ 50/ 0/ /	0.7	0	Art. 97	Permanent	Yes	Town Funds, Garden Club	Park Commission, Garden Club	Memorial Common	Limited - Street	2019	Hollis St	?	Public observance of monument	ADA Improvements	Very Good

\* See Appendix A, Map 3: Zoning

# Table D-2: Non-Profit Parcels

Parcel ID	Property Name	Acres	Zoning**	Restriction	Public Access	Manager Name	Parking	Trail	ADA Evaluated	Address
247/35/1361//	Red Line Path	13.7	RA	Art. 97	YES	Groton Conservation Trust	Yes	Yes	No	Off Bridge St
244/12/0//	Mason Back 100	9.4	RA	CR - DCR	YES	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Off Old Dunstable Rd
226/ 4/ 0/ /	Shepley Hill	72.3	RA	CR - DEED	YES	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Off Longley Rd
243/23/0//	Gamlin Crystal Spring	18.0	RA	CR - DFW	YES	Groton Conservation Trust	No	Yes	No	Off Old Dunstable Rd
248/4/1//	Gamlin Crystal Spring	26.1	RA	CR - DFW	YES	Groton Conservation Trust	No	Yes	No	Old Dunstable Rd
248/ 7/ 0/ /	Gamlin Crystal Spring	42.7	RA	CR - DFW	YES	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Old Dunstable Rd
248/ 8/ 0/ /	Gamlin Crystal Spring	0.8	RA	CR - DFW	YES	Groton Conservation Trust	No	Yes	No	Bridge St
232/ 50/ 5/ /	Baddacook Consevation Land	40.7	RA	CR - GCC	YES	Groton Conservation Trust	Limited - Pull Off	Yes	No	Martins Pond Rd
218/ 7/ 0/ /	Lawrence Woods	25.7	RA	CR - GCC	YES	Groton Conservation Trust	Yes	Yes	No	Long Hill Rd
227/ 110/ 0/ /	Still Meadow	31.9	RA	CR - GCC	YES	Groton Conservation Trust	Limited - Street	Yes	No	Northwoods Rd
220/32/0//	The General Field	63.4	RA	CR - GCC	YES	Groton Conservation Trust	Yes	Yes	No	Farmers Row
220/33/1//	The General Field	72.0	RA	CR - GCC	YES	Groton Conservation Trust	Yes	Yes	No	Shirley Rd
212/12/0//	Hayes Woods	46.4	RA	CR - GCC/DCR	YES	Groton Conservation Trust	Yes	Yes	No	Pepperell Rd
205/40/0//	Throne Hill II CR	121.1	RA	CR - GCC/DCR	YES	Groton Conservation Trust	Adjacent - Street	Yes	No	Throne Hill Rd
205/ 43/ 0/ /	Throne Hill III - Lawrence Land CR	42.2	RA	CR - GCC/DCR	YES	Groton Conservation Trust	Adjacent - Street	Yes	No	Townsend Rd
205/ 23/ 0/ /	West Throne Hill (Wheatley CR)	54.8	RA	CR - GCC/NEFF	YES	Groton Conservation Trust	Yes	Yes	No	Townsend Rd
222/ 25/ 0/ /	Bates Land	40.5	RA	CR - TTOR	YES	Groton Conservation Trust	Yes	Yes	Yes (2015)	Old Ayer Rd
222/31/0//	Blackman Land	8.8	RA	CR - TTOR	YES	Groton Conservation Trust	Limited - Street	Yes	No	Indian Hill Rd
233/ 113/ 0/ /	Angus Acre	2.3	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Martins Pond Rd
236/ 22/ 0/ /	Blackman Field and Woods	47.6	RA	Limited - Land Trust	YES	Groton Conservation Trust	Limited - Street	Yes	No	Indian Hill Rd
244/ 13/ 0/ /	Bruner Land	27.0	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Off Old Dunstable Rd
249/ 48/ 0/ /	Cronin Land	3.6	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Off Hoyts Wharf Rd
247/36/0//	Cronin-Massapoag	12.9	RA	Limited - Land Trust	YES	Groton Conservation Trust	Yes	Yes	No	Island Pond Rd
247/61/0//	Cronin-Massapoag	17.9	RA	Limited - Land Trust	YES	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Bridge St
131/ 68/ 0/ /	Duck Pond	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whiley Rd
131/69/0//	Duck Pond	0.0	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whiley Rd
226/94/0//	Fitch-Woods	29.6	RA	Limited - Land Trust	YES	Groton Conservation Trust	Adjacent - Street	Yes	No	, Chicopee Row
247/2/0//	Gamlin Crystal Spring	27.5	RA	Limited - Land Trust	YES	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Dan Parker Rd
216/ 58/ 0/ /	Gamlin Picnic Site	1.3	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	Yes (2015)	Fitchs Bridge Rd
236/ 15/ 0/ /	Genthner Woods	4.9	RA	Limited - Land Trust	YES	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Nate Nutting Rd
130/ 80/ 0/ /	Lost Lake (Bruner)	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Paul Revere Rd
122/ 100/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Monroe Rd
122/ 106/ 0/ /	Lost Lake Parcels*	0.1		Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Radio Rd
	Lost Lake Parcels*		D 4	Limited - Land Trust			No	No	No	Lost Lake Dr
123/32/0//	Lost Lake Parcels*	0.2	RA		YES	Groton Conservation Trust		No		
123/33/0//		0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No		No	Lost Lake Dr
124/ 1/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Harding Rd

Parcel ID	Property Name	Acres	Zoning**	Restriction	Public Access	Manager Name	Parking	Trail	ADA Evaluated	Address
124/ 18/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Tavern Rd
24/ 20/ 0/ /	Lost Lake Parcels*	2.6	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Tavern Rd
24/29/0//	Lost Lake Parcels*	0.1		Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Capt Kidd Trl
24/64/0//	Lost Lake Parcels*	0.5	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whitewood Rd
24/65/0//	Lost Lake Parcels*	2.4	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Whitewood Rd
24/ 66/ 0/ /	Lost Lake Parcels*	2.0	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whitewood Rd
24/ 68/ 0/ /	Lost Lake Parcels*	2.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whitewood Rd
24/ 70/ 0/ /	Lost Lake Parcels*	0.6	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Whitewood Rd
24/72/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whitewood Rd
24/74/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Whitewood Rd
24/8/0//	Lost Lake Parcels*	1.4	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Cedar Rd
24/ 80/ 0/ /	Lost Lake Parcels*	0.8	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Shore Dr
25/ 129/ 0/ /	Lost Lake Parcels*	0.3	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Lost Lake Dr
25/ 134/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Beecher Rd
25/55/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Hemlock Rd
25/7/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Mohawk Trl
5/ 75/ 0/ /	Lost Lake Parcels*	0.0	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Fir Rd
9/ 100/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/ 101/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/102/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Lost Lake Dr
9/ 104/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	Yes	No	Lost Lake Dr
9/ 105/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Meridian Rd
9/ 117/ 0/ /	Lost Lake Parcels*	0.0	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Pine Trl
9/ 127/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	YES	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/ 13/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/135/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Massasoit Trl
29/143/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Redskin Trl
29/ 173/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Baby Beach Rd
29/ 175/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Baby Beach Rd
29/ 177/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Baby Beach Rd
29/ 178/ 0/ /	Lost Lake Parcels*	0.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Ross Rd
29/18/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Ridge Rd
29/ 180/ 0/ /	Lost Lake Parcels*	1.0	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/ 181/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Lost Lake Dr
9/ 188/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Boathouse Rd
29/21/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Tamarack Rd
29/22/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Georgia Rd
29/226/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Boathouse Rd
29/235/0//	Lost Lake Parcels*	5.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Boathouse Rd
9/ 24/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Georgia Rd

arcel ID	Property Name	Acres	Zoning**	Restriction	Public Access	Manager Name	Parking	Trail	ADA Evaluated	Address
29/ 246/ 0/ /	Lost Lake Parcels*	0.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Arrow Trl
29/ 253/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Arrow Trl
29/ 254/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Arrow Trl
29/ 256/ 0/ /	Lost Lake Parcels*	0.5	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Balsam Walk
29/ 263/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Indian Rd
29/ 273/ 0/ /	Lost Lake Parcels*	0.5	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Longfellow Rd
29/ 28/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Georgia Rd
29/37/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Lost Lake Dr
29/45/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/5/0//	Lost Lake Parcels*	0.5	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Off Lost Lake Dr
9/76/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Long Cope Rd
9/77/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Long Cope Rd
9/ 78/ 0/ /	Lost Lake Parcels*	0.0	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Long Cope Rd
9/ 79/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Long Cope Rd
9/ 80/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Long Cope Rd
9/82/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/85/0//	Lost Lake Parcels*	0.0	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
9/86/0//	Lost Lake Parcels*	0.0	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Berry Trl
0/1/0//	Lost Lake Parcels*	0.0	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Pine Trl
0/ 10/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Pine Trl
0/ 12/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Pine Trl
0/14/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lincoln Rd
0/ 15/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
0/ 19/ 0/ /	Lost Lake Parcels*	1.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	470 Lost Lake Dr
0/21/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Lost Lake Dr
0/ 43/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Whiley Rd
80/46/0//	Lost Lake Parcels*	12.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	, Whiley Rd
0/ 51/ 0/ /	Lost Lake Parcels*	5.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Highland Rd
0/ 58/ 0/ /	Lost Lake Parcels*	5.4	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Juniper Pt
0/6/0//	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Pine Trl
0/8/0//	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Pine Trl
1/ 29/ 0/ /	Lost Lake Parcels*	4.6	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Shenandoah Rd
1/ 65/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Whiley Rd
0/ 102/ 0/ /	Lost Lake Parcels*	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Berry Trl
0/ 103/ 0/ /	Lost Lake Parcels*	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Berry Trl
1/ 23/ 0/ /	Lotz Land	13.9	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Limited - Street	Yes	No	Half Moon Rd
3/33/1//	Macys' Fen	13.6	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Martins Pond Rd
3/1/0//	Martins Pond Brook	1.5	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Martins Pond Rd
0/29/0//	Moors Schoolhouse	1.9	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Farmers Row
0/ 31/ 0/ /	Moors Schoolhouse	0.2	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Limited - Pull Off	No	No	Culver Rd

Groton Open Space & Recreation Plan, 2019

Parcel ID	Property Name	Acres	Zoning**	Restriction	Public Access	Manager Name	Parking	Trail	ADA Evaluated	Address
222/ 40/ 1/ /	Reynolds Tract	18.5	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Limited - Street	Yes	No	Indian Hill Rd
236/ 26/ 0/ /	Riley Land	6.5	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Nate Nutting Rd
218/ 2/ 0/ /	Sabine Memorial Woods	12.8	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Long Hill Rd
129/ 106/ 0/ /	Skinner Forest	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Meridian Rd
107/294//	Skinner Forest	138.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Off Lost Lake Dr
250/ 99/ 450/ /	Skinner Forest	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	No	No	Owl Trl
125/84/0//	Skitapet	2.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Rear Lowell Rd
.28/ 6/ 0/ /	Skitapet	17.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Rear Lowell Rd
.28/ 7/ 0/ /	Skitapet	31.4	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Adjacent - Parcel	Yes	No	Rear Lowell Rd
128/4/0//	Taplin Wildlife Sanctuary	4.6	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	Lowell Rd
219/ 10/ 0/ /	The General Field	7.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Yes	No	No	Shirley Rd
209/2/0//	Valentine Hollingsworth	7.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	No	Yes	No	West Main St
27/ 55/ 0/ /	Wattles Pond	0.7	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Yes	Yes	No	Longley Rd
27/ 56/ 0/ /	Wattles Pond	0.1	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Yes	Yes	No	Longley Rd
228/ 15/ 0/ /	Wattles Pond	2.0	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Yes	Yes	No	Longley Rd
28/ 16/ 0/ /	Wattles Pond	23.3	RA	Limited - Land Trust	Yes	Groton Conservation Trust	Yes	Yes	No	Longley Rd
.25/ 6/ 0/ /	Baddacook Woods	1.2	RA	CR - GCC	Yes	New England Forestry Foundation	Limited - street	No	No	Lowell Rd
.26/ 28/ 0/ /	Baddacook Woods	14.5	RA	CR - GCC	Yes	New England Forestry Foundation	Limited - street	No	No	Allens Trl
18/3/0//	Groton Place	140.5	RA	Limited	Yes	New England Forestry Foundation	Yes	Yes	No	Off Farmers Row
218/ 5/ 0/ /	Groton Place	47.5	RA	Limited	Yes	New England Forestry Foundation	Yes	Yes	No	Long Hill Rd
22/57/0//	Phoebe Keyes Woods	32.9	RA	Limited	Yes	New England Forestry Foundation	No	Yes	No	Peabody St
22/61/0//	Phoebe Keyes Woods	24.9	RA	Limited	Yes	New England Forestry Foundation	No	Yes	No	Higley St
243/ 18/ 0/ /	Wharton Plantation	297.5	RA	Limited	Yes	New England Forestry Foundation	Yes	Yes	No	Martins Pond Rd
243/29/0//	Wharton Plantation	168.7	RA	Limited	Yes	New England Forestry Foundation	Yes	Yes	No	Old Dunstable Rd
248/12/0//	Wharton Plantation	10.1	RA	Limited	Yes	New England Forestry Foundation	No	Yes	No	Bridge St
248/13/0//	Wharton Plantation	28.7	RA	Limited	Yes	New England Forestry Foundation	No	Yes	No	Bridge St
243/31/0//	Wharton Plantation	134.2	RA	Limited	Yes	New England Forestry Foundation	Yes	Yes	No	Old Dunstable Rd
48/10/0//	Wharton Plantation	13.9	RA	Limited	Yes	New England Forestry Foundation	No	Yes	No	Bridge St
43/29/0//	Wharton Plantation	5.6	RA	Private	Yes	New England Forestry Foundation	Yes	Yes	No	Old Dunstable Rd
20/2/27//	Rocky Hill Wildlife Sanctuary	18.1	RA	CR - GCC	Yes	Massachusetts Audubon Society, Inc.	Yes	Yes	No	Robin Hill Rd
20/2/4//	Rocky Hill Wildlife Sanctuary	4.0	RA	CR - GCC	Yes	Massachusetts Audubon Society, Inc.	No	No	No	Robin Hill Rd
36/ 24/ 0/ /	Rocky Hill Wildlife Sanctuary	381.9	RA	CR - GCC	Yes	Massachusetts Audubon Society, Inc.	Adjacent - Parcel	Yes	No	Sandy Pond Rd
236/30/0//	Rocky Hill Wildlife Sanctuary	17.4	RA	CR - GCC	Yes	Massachusetts Audubon Society, Inc.	Adjacent - Parcel	Yes	No	Indian Hill Rd

\* The Groton Conservation Trust owns numerous small properties (many of which were donated by John and Virginia Taplin in 1975 and 1988). These properties are periodically sold to neighboring land owners and therefore do not hold the same protection status as other properties owned by the Trust. However, while owned by the Trust they are open to the public.

\*\* See Appendix A, Map 3: Zoning

# Table D-3: State-owned Parcels

Parcel ID	Property Name	Acres	Zoning*	Restriction	Public Access	Manager Name	Parking	Trail	ADA Evaluated	Address
220/34/0//	Ayer Game Farm	0.9	RA	Art. 97	Limited	Commonwealth of Massachusetts	Adjacent - Parcel	Yes	No	Shirley Rd
243/35/0//	Baddacook Boat Launch	0.2	RA	Art. 97	Yes	Commonwealth of Massachusetts	Yes	Yes	Yes (2015)	Martins Pond Rd
244/ 11/ 0/ /	Bruner Land	8.7	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Old Dunstable Rd
224/ 19/ 0/ /	Gibbet Hill Fire Tower	0.5	RA	Unknown	No	Commonwealth of Massachusetts			No	Lowell Rd
212/6/0//	Gleason Connector	0.4	RA	Art. 97	Yes	Commonwealth of Massachusetts	No		No	Pepperell Rd
216/71/0//	J. Harry Rich State Forest	366.8	RA	Art. 97	Yes	Commonwealth of Massachusetts	Yes	ADA Access	Yes (2015)	Longley Rd
226/48/0//	J. Harry Rich State Forest	14.4	RA	Art. 97	Yes	Commonwealth of Massachusetts	Yes	ADA Access	Yes (2015)	Sand Hill Rd
103/12/0//	Kemp Woods	1.5	RA	Art. 97	Yes	Commonwealth of Massachusetts	?		No	72 Kemp St
130/ 78/ 0/ /	Lost Lake Boar Ramp	0.6	RA	Art. 97	Yes	Commonwealth of Massachusetts	Yes		Yes (2015)	Paul Revere Rd
110/ 32/ 0/ /	Nashua Rail Trail	5.5	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Main St
113/33/0//	Nashua Rail Trail	5.8	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Off Station Ave
221/53/0//	Nashua Rail Trail	3.6	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Smith St
221/56/0//	Nashua Rail Trail	11.5	RA	Other	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Smith St
222/62/0//	Nashua Rail Trail	5.4	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Old Ayer Rd
226/5/0//	Nashua Rail Trail	9.5	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Sand Hill Rd
226/8/0//	Nashua Rail Trail	17.8	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Sand Hill Rd
110/7/0//	Nashua Rail Trail	0.7	RA	Art. 97	Yes	Commonwealth of Massachusetts			Yes (2015)	Main St
112/15/0//	Nashua Rail Trail	0.2	RA	Art. 97	Yes	Commonwealth of Massachusetts			Yes (2015)	53 Pleasant St
110/ 8/ 4843/ /	Nashua Rail Trail	6.8	RA	Art. 97	Yes	Commonwealth of Massachusetts		Yes	Yes (2015)	Main St
203/ 18/ 0/ /	Squannacook River WMA	2.9	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Townsend Rd
201/2/0//	Squannacook Wildlife Management Area	30.3	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Townsend Rd
202/12/0//	Squannacook Wildlife Management Area	3.3	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Townsend Rd
202/13/0//	Squannacook Wildlife Management Area	96.3	RA	Art. 97	Yes	Commonwealth of Massachusetts	Adjacent Parcel	Yes	No	Townsend Rd
205/ 4/ 0/ /	Squannacook Wildlife Management Area	1.0	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Townsend Rd
206/17/0//	Squannacook Wildlife Management Area	0.9	RA	Art. 97	Yes	Commonwealth of Massachusetts	No		No	Townsend Rd
206/18/0//	Squannacook Wildlife Management Area	9.2	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Townsend Rd
209/3/0//	Squannacook Wildlife Management Area	2.3	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Off West Main St
247/3/0//	Unkety Brook WMA	87.1	RA	Art. 97	Yes	Commonwealth of Massachusetts	No	Yes	No	Blood Rd

\* See Appendix A, Map 3: Zoning

# Table D-4: Privately-owned Parcels with Restrictions (Chapter 61, APR, Conservation Restrictions)

Parcel ID	Address	Acres	Manager Name	Restriction	Protection Level	Zoning*	Public Access	Parking	Trail
244/ 25/ 0/ /	Martins Pond Rd	14	Bennett Black Trust	61	Temporary	RA	Limited	No	Yes
230/ 49/ 0/ /	Chicopee Row	15.2	David Woods	61	Temporary	RA	Limited	No	Yes
229/ 18/ 0/ /	2 Yvonne Dr	13.6	Giorgio Vestri	61	Temporary	RA	Limited	No	Yes
206/ 47/ 0/ /	Kemp St	53.3	Hollingsworth And Vose	61	Temporary	RA	Limited	No	Yes
206/46/0//	Townsend Rd	40.1	Hollingsworth And Vose	61	Temporary	RA	Limited	No	Yes
244/ 16/ 0/ /	Raddin Rd	25.8	Marsh Family Trust	61	Temporary	RA	Limited	No	Yes
230/31/0//	Reedy Meadow Rd	15.6	Marsh Family Trust	61	Temporary	RA	Limited	No	Yes
225/22/0//	162 Common St	15.3	Ralph Smith	61	Temporary	RA	Limited	No	Yes
247/55/0//	Old Dunstable Rd	13.1	Brian Stevenson	61	Temporary	RA	No	No	Yes
221/25/0//	Half Moon Rd	23.9	Cow Field Trust	61	Temporary	RA	No	No	Yes
221/27/0//	Off Indian Hill Rd	34.1	Estate Of George V. Moore	61	Temporary	RA	No	No	Yes
221/28/0//	Half Moon Rd	13.5	GVM Realty, Inc.	61	Temporary	RA	No	No	Yes
104/30/0//	Maple Ave	68.9	Hayes Family Real Estate Trust	61	Temporary	RA	No	No	Yes
212/ 13/ 0/ /	Maple Ave	23.4	Hayes Family Real Estate Trust	61	Temporary	RA	No	No	Yes
224/ 15/ 0/ /	125 Martins Pond Rd	50.9	Helen H. Trimper Investment Trust	61	Temporary	RA	No	No	Yes
103/ 2/ 0/ /	219 Townsend Rd	33.6	Hollingsworth And Vose	61	Temporary	IND	No	No	Yes
206/44/0//	Kemp St	16.1	Hollingsworth And Vose	61	Temporary	RA	No	No	
206/35/0//	Park Dr	5.7	Hollingsworth And Vose	61	Temporary	RA	No	No	
225/19/0//	232 Common St	10.7	Ida Souther	61	Temporary	RA	No	No	Yes
121/10/0//	Old Lantern Ln	9.1	Kenneth Thompson	61	Temporary	RA	No	No	Yes
242/1/0//	59 Baddacook Pond Rd	20.4	LKB Baddacook, LLC	61	Temporary	RA	No	No	Yes
212/ 8/ 0/ /	321 Pepperell Rd	31.8	Robert Catlin	61	Temporary	RA	No	No	
250/ 59/ 0/ /	Off Graniteville Rd	15.7	Westford Sportsmen Club Land	61	Temporary	RA	No	No	Yes
236/28/0//	Half Moon Rd	16.9	Zelda Moore	61	Temporary	RA	No	No	Yes
213/88/0//	Fitchs Bridge Rd	52.2	Gary Wilkins	61A	Temporary	RA	Limited	No	Yes
225/33/0//	128 Longley Rd	43.5	Valerie Jean Best	61A	Temporary	RA	Limited	No	Yes
233/ 43/ 0/ /	523 Martins Pond Rd	10	Ann Katherine Corbey	61A	Temporary	RA	No	No	Yes
232/ 52/ 0/ /	75 Floyd Hill Rd	9.5	Beal Family Trust	61A	Temporary	RA	No	No	Yes
232/55/0//	Floyd Hill Rd	24.9	Beal Family Trust	61A	Temporary	RA	No	No	Yes
232/54/0//	Off Floyd Hill Rd	25.6	Beal Family Trust	61A	Temporary	RA	No	No	Yes
249/49/0//	Hoyts Wharf Rd	60	Bennett Black Trust	61A	Temporary	RA	No	No	Yes
225/14/0//	125 Common St	36	Big Johns Trust	61A	Temporary	RA	No	No	Yes
216/ 107/ 0/ /	Common St	5.1	Big Johns Trust	61A	Temporary	RA	No	No	
216/72/0//	Off Common St	26.9	Big Johns Trust	61A	Temporary	RA	No	No	Yes
216/73/0//	Off Common St	29.8	Big Johns Trust	61A	Temporary	RA	No	No	Yes
206/31/0//	328 Townsend Rd	7.4	Brooks Thomas Lyman	61A	Temporary	RA	No	No	
233/36/0//	435 Martins Pond Rd	15.1	Bruce Easom	61A	Temporary	RA	No	No	
245/7/0//	Raddin Rd	10.2	Carl Flowers Jr. Revocable Trust	61A	Temporary	RA	No	No	Yes
212/ 16/ 0/ /	134 Maple Ave	73.3	Cecelia Shattuck	61A	Temporary	RA	No	No	Yes
235/ 1/ 0/ /	227 Boston Rd	16.8	Christine Lindemer	61A	Temporary	RA	No	No	
	22, 20000000	10.0		01/1	· cinportiry	10.1			

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Parcel ID	Address	Acres	Manager Name	Restriction	Protection Level	Zoning*	Public Access	Parking	Trail
225/29/0//	129 Longley Rd	14.1	Eliot Realty Trust	61A	Temporary	RA	No	No	Yes
229/ 10/ 0/ /	21 Wyman Rd	17.1	George Kirk	61A	Temporary	RA	No	No	Yes
229/ 10/ 1/ /	53 Wyman Rd	8.7	James Kirk	61A	Temporary	RA	No	No	
211/ 82/ 0/ /	72 Hill Rd	1.8	James Reilley	61A	Temporary	RA	No	No	
228/ 50/ 0/ /	401 Nashua Rd	9.8	Jeffrey Mendenhall	61A	Temporary	RA	No	No	Yes
221/ 14/ 0/ /	10 Worthen Dr	32.6	Jodie Gilson	61A	Temporary	RA	No	No	Yes
216/ 74/ 0/ /	126 Nod Rd	17.5	John Franzek	61A	Temporary	RA	No	No	Yes
211/ 83/ 0/ /	54 Hill Rd	77.6	Nutile Family Trust	61A	Temporary	RA	No	No	Yes
225/30/0//	145 Longley Rd	22.3	Raymond E. Tolles Trust	61A	Temporary	RA	No	No	Yes
221/68/0//	284 Old Ayer Rd	14.7	Roy Macgregor, Jr.	61A	Temporary	RA	No	No	
221/ 1/ 0/ /	Old Ayer Rd	8.7	Roy Macgregor, Jr.	61A	Temporary	RA	No	No	Yes
213/86/0//	Fitchs Bridge Rd	42.2	Russell Wilkins	61A	Temporary	RA	No	No	Yes
111/ 28/ 0/ /	13 Common St	8.7	Sally Smith	61A	Temporary	RA	No	No	
115/ 16/ 0/ /	73 Fairway Dr	18.1	The Orchard Trust	61A	Temporary	RA	No	No	
224/21/0//	284 Martins Pond Rd	10.5	William Willcox	61A	Temporary	RA	No	No	Yes
108/ 1/ 0/ /	Pleasant St	11.3	Lawrence Homestead Trust	61A	Temporary	RA	No	Yes	
231/45/0//	495 Chicopee Row	84.2	Ann Harris	61A	Temporary	RA	Yes	Yes	Yes
203/47/0//	Lakin St	41.5	James Mcbee	61B	Temporary	RA	No	No	Yes
231/56/0//	Raddin Rd	3.3	Marsh Family Trust	61B	Temporary	RA	No	No	Yes
244/21/0//	Raddin Rd	66.1	Marsh Family Trust	61B	Temporary	RA	No	No	Yes
225/39/0//	56 Longley Rd	12	Michael Cusumano	61B	Temporary	RA	No	No	
232/30/0//	Martins Pond Rd	115.3	Department Of Agricultural Resource	APR	Permanent	RA	Limited	No	Yes
222/52/0//	Old Ayer Rd	28.3	Fairview, Inc.	APR	Permanent	RA	Limited	No	
234/ 55/ 0/ /	Whitman Rd	42.3	Fairview, Inc.	APR	Permanent	RA	Limited	No	
107/3/0//	Farmers Row	20.8	Groton Fruit Farm Realty Trust	APR	Permanent	RA	Limited	No	YES
107/8/0//	Higley St	24.3	Groton Fruit Farm Realty Trust	APR	Permanent	RA	Limited	No	
222/26/0//	Old Ayer Rd	40.2	Indian Hill Music	APR	Permanent	RA	Limited	No	YES
222/53/0//	Old Ayer Rd	31.4	Indian Hill Music	APR	Permanent	RA	Limited	No	
108/25/0//	44 FARMERS ROW	34.6	Trustees Of Lawrence Homestead Trus	CR - GCC	Permanent	RA	No	No	No
130/ 55/ 0/ /	MOOSE TRL	0.1	Thomas Wilson	CR - GCC	Permanent	RA	No	No	No
117/ 13/ 0/ /	GAY RD	18.8	The American Baptist Churches	CR - GCC	Permanent	RA	Limit	Limited - Row	Unoffic ial
234/ 29/ 0/ /	OFF GAY RD	8.4	The American Baptist Churches	CR - GCC	Permanent	RA	Limit	Limited - Row	Unoffic ial
217/ 34/ 0/ /	OFF RIVERBEND DR	44.5	Taisey Family Nominee Trust	CR - GCC	Permanent	RA	Yes	Adjacent - Parcel	Yes
217/6/0//	OFF RIVERBEND DR	6.2	Taisey Family Nominee Trust	CR - GCC	Permanent	RA	Yes	No	No
233/ 90/ 0/ /	138 HEMLOCK PARK DR	24.0	Rutledge James W. Jr.	CR - WATER	Permanent	RA	No	No	Yes
217/ 55/ 0/ /	OFF RIVERBEND DR	13.3	Robert M. Hicks Inc.	CR - GCC	Permanent	RA	Yes	Limited - Street	Yes
220/ 1/ 0/ /	5 CULVER RD	1.1	Orchard Realty Trust	CR - GCC	Permanent	RA	No	No	No
234/ 1/ 0/ /	245 LOWELL RD	133.2	Meredith Scarlet	CR - GCC/DCR	Permanent	RA	Yes	Limited - Street	Yes
108/ 18/ 0/ /	59 LONG HILL RD	8.1	Marion Stoddart	CR - GCT	Permanent	RA	Yes	No	Yes

Groton Open Space & Recreation Plan, 2019

Parcel ID	Address	Acres	Manager Name	Restriction	Protection Level	Zoning*	Public Access	Parking	Trail
233/ 89/ 0/ /	158 HEMLOCK PARK DR	9.9	Margaret E. Roberts	CR - WATER	Permanent	RA	No	No	Yes
236/33/0//	INDIAN HILL RD	15.8	Janet Boucher	CR - GCT	Permanent	RA	Limit	Limited -	Stree T
109/ 8/ 0/ /	OFF RIVERBEND DR	3.5	HOMESTEAD REAL PROPERTIES INC	CR - GCC	Permanent	RA	Yes	No	No
217/ 1/ 0/ /	OFF RIVERBEND DR	3.1	HOMESTEAD REAL PROPERTIES INC	CR - GCC	Permanent	RA	Yes	No	Access Rd
217/ 19/ 0/ /	OFF RIVERBEND DR	31.1	HOMESTEAD REAL PROPERTIES INC	CR - GCC	Permanent	RA	Yes	Adjacent - Parcel	Yes
248/ 4/ 11/ /	CRYSTAL SPRINGS LN	12.5	High Oaks Realty Trust	CR - GCC	Permanent	RA	No	No	Limited
116/3/1//	MARTINS POND RD	91.6	Gibbet Hill Farm LLC	CR - GCC/DCR	Permanent	RA	Limit	Yes	Yes
224/ 45/ 0/ /	MARTINS POND RD	1.9	Gibbet Hill Farm LLC	CR - GCT	Permanent	RA	No	No	Yes
224/ 44/ 0/ /	196 MARTINS POND RD	4.8	GCC/DCR	CR - GCC/DCR	Permanent	RA	No	No	No
224/ 40/ 0/ /	MARTINS POND RD	26.1	GCC/DCR	CR -GCC/DCR	Permanent	RA	No	No	Yes
206/32/0//	TOWNSEND RD	99.8	GCC	CR - GCC	Permanent	RA	No	No	No
244/ 9/ 0/ /	DAN PARKER RD	28.1	Dunstable Rural Land Trust	CR	Permanent	RA	Yes	No	Yes
242/ 12/ 0/ /	ALLISON PARK	22.5	Deerhaven Homeowners Trust	CR - GCC	Permanent	RA	Yes	- Adjacent Street	No
108/29/0//	2 FARMERS ROW	32.5	Deborah S. Macdonald Revocable Trust	CR - GCT	Permanent	TA	No	No	Yes
109/39/0//	65 WEST ST	1.8	David J. Bryan	CR - GCT	Permanent	RA	No	No	
109/43/0//	108 PLEASANT ST	5.7	David J. Bryan	CR - GCT	Permanent	RA	No	No	
248/4/10//	CRYSTAL SPRINGS LN	0.4	Crystal Springs Homeowners Trust	CR - GCC	Permanent	RA	No	No	Limited
222/39/0//	179 INDIAN HILL RD	30.3	Arthur F. Blackman	CR - GCT	Permanent	RA	Limit	Limited -	Street
109/ 7/ 0/ /	MILL ST	2.8	Albert Stone	CR - GCC	Permanent	RA	Yes	No	Access Rd
Multiple Parcels	Jenkins Road		Multiple Landowners, MaDFW	CR - GCC/DFW	Permanent	RA	No	No	No

\* See Appendix A, Map 3: Zoning

# Summary<sup>46</sup>

The Town carried out a Self-Evaluation and Transition Plan with support of a consultant, Northeast Independent Living Program, Inc., in the summer of 2015. The study specifically focused on open space and recreation facilities, evaluating 24 sites throughout the town. The Town agreed to undertake the recommended improvements over 2016-2017. Some improvements were already programmed and under construction at the time of the self-evaluation. The Town indicated that future installations of recreation equipment planned for some locations would incorporate handicapped accessibility in their design.

Since the 2015 Self-Evaluation, the Town of Groton has assessed its public buildings as well as the previously un-assessed town commons. A copy of the 2019 self-assessment of town commons can be found in Appendix G. A copy of the 2015 Self-Evaluation and Transition Plan can be found at:

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf.

The Town completed its review of all open space and recreation facilities in 2019. Information from the 2015 report was added to the report below. All facilities listed below were evaluated using the facility inventory form (found in Appendix G of the Open Space and Recreation Planner's Workbook). Below you will find a summary of these evaluations.

# **CONSERVATION AREAS**

Facility: Academy Hill Land 1 (Map and Parcel: 204-10.35) Location: Cherry Tree Lane Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	None	Not accessible	N/A
Trail	No trails – undeveloped forest	Not accessible	N/A

Facility: Academy Hill Land 2 (Map and Parcel: 202-77) Location: Townsend Road Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan	
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A	
Signage	None	Not accessible	N/A	
Trail	No trails – undeveloped forest	Not accessible	N/A - The site is mostly a storm retention basin for Cherry Tree Lane.	

Facility: Academy Hill Land 3 (Map and Parcel: 202-98)

Location: Cherry Tree Lane

Activity	Equipment/	Assessment	Transition Plan						

	Improvements		
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	None	Not accessible	N/A
Trail	No trails – undeveloped forest	Not accessible	N/A

# **Facility:** Academy Hill Land 4 (Map and Parcel: 204-14) **Location:** Fieldstone Drive **Manager:** Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	None	Not accessible	N/A
Trail	No trails – undeveloped forest	Not accessible	N/A

# Facility: Academy Hill Land 5 (Map and Parcel: 204-5) Location: Cherry Tree Lane

# Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	<ul> <li>Available at <u>adjacent</u> <u>parcels ONLY</u>:</li> <li>Pull-off on road at Castle Drive;</li> <li>Paved parking area at end of Rockwood Lane</li> </ul>	Castle Drive – not accessible (no room to make handicapped parking space) <u>Rockwood Lane</u> – Accessible parking for several vehicles on paved surface.	N/A
Signage	None	Not accessible	N/A
Trail	Unimproved trail with rough surface through vast remote woods	Not accessible	N/A
Wildlife Management	Two-foot tall chain link fence (turtle exclusion) border the boundary along Cheery Tree Lane	Not accessible	Limited development options due to State-held Conservation Restriction

Facility: Allen Conservation Area (Map and Parcel: 211-54) Location: Long Hill Road

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	None	Not accessible	N/A
Signage	None	Not accessible	N/A
Trail	No trails – undeveloped wetland forest	Not accessible	N/A

# Facility: Amelia Way (Map and Parcel: 205-24) Location: Amelia Way

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	
Signage	None	Not accessible	N/A
Trail	No trails – undeveloped forest	Not accessible	N/A

# Facility: Ames Meadow (Map and Parcel: 218-1)

Location: Wharton Row

Manager: Conservation Commission

Note: Parcel is landlocked and is accessed only via Town Forest.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	<ul> <li>Available at <u>adjacent</u></li> <li><u>parcels ONLY</u>:</li> <li>Gravel parking in Town</li> <li>Forest (main entrance</li> <li>off Town Forest Road)</li> </ul>	Accessible	N/A
Signage	None	Not accessible	N/A
Trail	No trails on Ames Meadow, property is managed as a wet-open meadow	Not accessible; trail from parking is unimproved woodland path with rough surface, stream fords	N/A
Scenic Views	Nashua River bank, riverside open meadow	Not accessible	Under evaluation

# **Facility:** Baddacook Woods Conservation Area (Map and Parcel: 126-33) **Location:** Allen's Trail

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	Name of property only, no kiosk	Meets accessible standards but is only viewable from road	N/A
Trail	No trails – undeveloped forest with small pond	Not accessible	N/A
Scenic Views	Scenic view of unnamed pond	Not accessible	Under evaluation

Facility: Baddacook Conservation Area (Map and Parcel: Not yet added to Assessor's database. Divided portion of 243-31)) Location: Old Dunstable Road

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	<ul> <li>Available at <u>adjacent</u> <u>parcels ONLY</u>:</li> <li>Small dirt parking area on rough surface</li> </ul>	Not accessible, parking surface uneven and steep	None: parking not located on Town-owned land
Signage	Name of property only, no kiosk	N/A	N/A
Trail	Trail on rough, uneven surface, stream crossings	Not accessible	N/A
Scenic Views	Scenic view of Baddacook Pond	Not accessible	N/A

Manager: Conservation Commission (formerly held by New England Forestry Foundation)

Facility: Balcom Estates Conservation Land (Map and Parcel: 105-2)

# Location: Spencer Circle

Manager: Conservation Commission

**Note:** This small parcel connects Spencer Circle to the Groton Senior Center along an old rail line. This trail is utilized primarily as a corridor for equestrian travel.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside (Spencer Circle); Groton Senior Center	Spencer Circle: Not accessible, parking surface uneven and steep Groton Senior Center: Accessible	None: parking not located on Town-owned land
Signage	No sign	N/A	N/A
Trail	Trail on old railroad bed; fairly level and smooth	Not accessible	N/A

Facility: Balsam Walk Conservation Land (Map and Parcel: 124-22)

## Location: Balsam Walk

Manager: Conservation Commission

Note: This small parcel is land locked.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

**Facility:** Batten Woods Conservation Area (Map and Parcel: 135-3) **Location:** Orion Way

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	
Signage	No sign	N/A	N/A

Trail	Trail on rough, uneven surface, numerous stream	Not accessible	N/A
	crossings		

# Facility: Bedigian Land Next to Sunken Garden (Map and Parcel: 129-244) Location: Boathouse Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Fitch-Best Conservation Area (Map and Parcel: 225-31)

Location: Longley Road

Manager: Conservation Commission

Note: this parcel was donated to the Town in 2018 and no improvements have been made yet.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	No sign	N/A	Under evaluation
Trail	No Trail	Not accessible	Under evaluation

Facility: Boathouse Road to Sunken Garden (Map and Parcel: 129-220)

# Location: Boathouse Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

## Facility: Brennan Land (Map and Parcel: 129-186)

Location: Boathouse Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Brookfield Commons (Map and Parcel: 137-19)

Location: Rear Hayden Road

Manager: Conservation Commission

Note: this parcel is landlocked. The only access is either through the adjacent swamp or over private land in Westford, MA.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A

Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Brookside Place Conservation Area (Map and Parcel: 234-56)

# Location: Whitman Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Carmichael 1 Conservation Area (Map and Parcel: 137-1)

Location: Hayden Road

Manager: Conservation Commission

**Note:** parcel is almost entirely swamp/marsh.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A
Scenic Views	View of Carmichael Swamp from Hayden Road	Not accessible	N/A

# Facility: Carmichael 2 Conservation Area (Map and Parcel: 136-30)

Location: Madeline Drive

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Charles Bixby 1 Conservation Area (Map and Parcel: 106-10)

Location: West Main Street

Manager: Conservation Commission

**Note:** site is mostly wetlands

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Charles Bixby 2 Conservation Area a (Map and Parcel: 106-13)

## Location: West Main Street

Manager: Conservation Commission

Note: site is mostly wetlands

Activity	Equipment/ Improvements	Assessment	Transition Plan
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Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Charles Bixby 3 Conservation Area (Map and Parcel: 106-36)

Location: West Main Street

Manager: Conservation Commission

**Note:** the parking for this site is technically on parcel 106-34, which is connected to parcel 106-33 (Squannacook Sportsmen's Club), however it is widely used by the public.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Dirt parking area	Accessible	Under evaluation
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

# Facility: Cold Spring Pond Conservation Area (Map and Parcel: 227-5)

## Location: Longley Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	No sign	N/A	N/A
Trail	Unimproved trail connects from Drumlin Hill Road	Not accessible	N/A

# Facility: Cow Pond Brook Land (Map and Parcel: 129-176)

## Location: Baby Beach Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

**Facility:** Cow Pond Brook Conservation Area (Map and Parcel: 249-47)

## Location: Flavell Road

Manager: Conservation Commission

**Note:** this property is almost entirely swamp/marsh/stream

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A
Scenic Views	Scenic view of Cow Pond Brook	Not accessible	N/A

# Facility: Cronin Conservation Area (Map and Parcel: 227-3)

# Location: Longley Road

# Manager: Conservation Commission

**Note:** parcel is landlocked and accessed via adjacent conservation parcels.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking on-site. Parking available approx. ¾ mi. south (via the accessible Nashua River Rail Trail) at Sand Hill Road.	No means to improve parking on site (parcel is landlocked).	N/A
Signage	No sign	N/A	N/A
Trail	Unimproved trails, rough surfaces, steep slope	Not accessible	N/A

Facility: Crosswinds II "A" Conservation Area (Map and Parcel: 202-26)

Location: Crosswinds Drive

Manager: Conservation Commission

**Note:** this trail functions as a neighborhood 'cut-through' and connects the various roads of the Crosswinds Sub-development to the adjacent Peter E. Bertozzi Conservation Area (Town-owned) and Squannacook River Wildlife Management Area (State-owned).

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	No sign	N/A	N/A
Trail	Unimproved trails, rough surfaces	Not accessible	N/A

Facility: Crosswinds II "B" Conservation Area (Map and Parcel: 202-37)

# Location: Crosswinds Drive

Manager: Conservation Commission

**Note:** this trail functions as a neighborhood 'cut-through' and connects the various roads of the Crosswinds Sub-development to the adjacent Peter E. Bertozzi Conservation Area (Town-owned) and Squannacook River Wildlife Management Area (State-owned).

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	No sign	N/A	N/A
Trail	Unimproved trails, rough surfaces	Not accessible	N/A

Facility: Crosswinds II "C" Conservation Area (Map and Parcel: 202-47)

Location: Crosswinds Drive

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	No sign	N/A	N/A

Trail	Unimproved trails, rough surfaces, wetland fords	Not accessible	N/A
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# Facility: Crosswinds II "D" Conservation Area (Map and Parcel: 202-52)

Location: Crosswinds Drive

Manager: Conservation Commission

Note: this parcel and its trail provide access from Crosswinds Drive to Crosswinds II "E".

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible	Under evaluation (establish handicapped parking spaces): this parcel could provide an accessible parking area for the soon to be completed Squannacook Rail Trail as well as Crosswinds II "E", which could be improved with accessible trails.
Signage	No sign	N/A	Under evaluation
Trail	Unimproved trails, rough surfaces, steep slope	Not accessible	Under evaluation (establish handicapped accessible trail)

# Facility: Crosswinds II "E" Conservation Area (Map and Parcel: 202-61)

Location: Crosswinds Drive

Manager: Conservation Commission

**Notes:** this parcel is land locked; this parcel is an old air strip and is maintained as open meadow.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	Under evaluation: see Crosswinds II "D"
Signage	No sign	N/A	Under evaluation: establish accessible interpretative signage.
Trail	Mowed field lanes	Not accessible – trail is not regularly maintained; uneven surface	Under evaluation: candidate for assessible trail development
Scenic Views	Open meadow	N/A	

**Facility:** DeCilio Land - Groton School Donation (Map and Parcel: 211-2.2) **Location:** West Main Street

Manager: Conservation Commission

**Note:** this property is almost entirely swamp/marsh/stream

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A
Scenic Views	Scenic view of Nashua River	Not accessible	N/A

Facility: Deerhaven "A" Conservation Area (Map and Parcel: 127-12)

# Location: Deerfield Drive

Manager: Conservation Commission

**Note:** this property is an undeveloped house lot.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Deerhaven "B" Conservation Area (Map and Parcel: 127-40)

# Location: Deerfield Drive

Manager: Conservation Commission

Note: this property is almost entirely swamp/marsh, but there is a small trail connection between Deerfield Drive and Lowell Road.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	Not accessible	N/A
Signage	No sign	Not accessible	N/A
Trail	Unimproved trail along wooded path	Not accessible	N/A

# Facility: Desrosiers Land (Groton Woods) (Map and Parcel: 251-57)

## Location: Acorn Path

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

**Facility:** Eldridge Conservation Area (Map and Parcel: 130-11) **Location:** Pine Trail

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Eliades Conservation Area (Map and Parcel: 221-43.1)

Location: Pacer Way

Manager: Conservation Commission

Note: the majority of this property is managed agriculturally as a leased hay field.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	Trail post	Not accessible	N/A
Trail	Mown field lanes	DOJ Evaluation Needed	Under evaluation

Facility: Farmers and Mechanics (Map and Parcel: 217-78.1693)
Location: Jenkins Road
Manager: Conservation Commission
Notes: see Report #6 in Town of Groton ADA Transition Plan (2015): at
https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible	Install one van accessible parking spot (see report for details)
Signage	No sign	Not accessible	Install 'Van Accessible' sign (see report for details)
Trail	Unimproved trail, gentle slope, uneven surface	Not accessible	N/A
Restroom	Portable toilet (at adjacent Hazel Grove Fairgrounds)	Not accessible	Install fully accessible portable toilet at adjacent Hazen Grove Fairgrounds
Scenic Views	Scenic views of the Nashua River	N/A	N/A

Facility: Fitch's Bridge Estates (Map and Parcel: 213-67) Location: Wallace Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	Unimproved trail atop old rail bed	Not accessible	N/A

**Facility:** Eldridge Conservation Area (Map and Parcel: 130-11) **Location:** Pine Trail

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	Not accessible	N/A

Facility: Flat Pond Conservation Area (Map and Parcel: 130-11)

Location: Pine Trail

Manager: Conservation Commission

Notes: see Report #8 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission\_on\_Accessibility/ADA\_Assessment\_Report\_2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Parking at end of public road	Not accessible – no room or sufficient grade for installing handicapped parking spot	
Signage	No sign	N/A	N/A

Trail	Unimproved trail through wet forest, wetland crossings	Not accessible	Improve trail (grading and vegetation clearing) to provide safer conditions to trail users. Due to terrain, these changes will still not bring about ADA compliance.
Boat launch	Ramp to launch water craft, access pond for fishing, ice skating, etc.	Not accessible	Improve grading and clear path to boat launch to provide safer conditions for the general public. Due to terrain, these changes will still not bring about ADA compliance.

# **Facility:** Flavell Crossing Conservation Area (Map and Parcel: 250-72.3732) **Location:** Rear Graniteville Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Paved parking	Accessible – approx. 30' x 30', adequate for two handicapped parking spots or one van spot.	N/A
Signage	No sign	N/A	N/A
Trail	Unimproved trail through forest and wetland crossings (Eagle Scout bog bridges available)	Not accessible	N/A

# Facility: Flavell Road Conservation Area (Map and Parcel: 250-30)

# Location: Flavell Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

# Facility: Fletcher Hill (Map and Parcel: 133-38)

Location: Forge Village Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

**Facility:** Fletcher Hill Conservation Area (Map and Parcel: 134-8) **Location:** Off Fletcher Hill Lane

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

# Facility: Floyd Conservation Area (Map and Parcel: 231-95)

# Location: Off Chicopee Row

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

# **Facility:** Fritz and Helen Walker Conservation Area (Map and Parcel: 225-54 & 55) **Location:** Chicopee Row

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Ample gravel parking across Chicopee Row (William's Barn)	Not accessible – while the parking area itself is accessible, the lack of a road crossing structure means the parking lot is not accessible to these two parcels.	Evaluate feasibility of improving road crossing.
Signage	Property sign and trail signs	Not accessible	N/A
Trail	Unimproved trail, gentle and steep slopes, uneven surface	N/A	N/A

# Facility: Fuccillio Conservation Land (Map and Parcel: 238-98.1 7 98.2) Location: Lowell Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	Property sign only	Not accessible	N/A
Trail	No Trail	N/A	N/A

# Facility: Groton Dunstable Regional High School CR Land (Map and Parcel: 230-46)

## Location: Chicopee Row

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Large parking lot (school)	Accessible	N/A
Signage	No sign	N/A	N/A
Trail	Emergency access trail connects school parking lot to North Street. Pave bridge over wetland crossing; trail mostly graded gravel. Spurring off access trail are several smaller unimproved trails	Access road: Accessible Spur trails: Not accessible	N/A: improvements on the property are limited due to the conservation restriction.

that go over uneven	
surfaces.	

Facility: Gilson Conservation Area (Map and Parcel: 117-04)

Location: Boston Road

Manager: Conservation Commission

Note: This property is almost entirely comprised of wetlands and its primary value is wildlife habitat/water conservation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Gilson Estates Conservation Area (Map and Parcel: 234-38 & 40)

Location: Nicole Lane

Manager: Conservation Commission

Note: These properties are almost entirely comprised of wetlands and their primary value is wildlife habitat/water conservation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Groton Hills Conservation Area (Map and Parcel: 232-38)

Location: Kailey's Way

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	Property sign and trail signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface; numerous wetland crossings (fords)	Not accessible	N/A

Facility: Groton Woods Conservation Area (Map and Parcels: 131-2; 132-42; 132-55; 132-59; 132-60; 132-66; 133-23; 133-25; 133-26; 251-22; 251-29)

Locations: Whiley Road; Hidden Valley Road; Rear Hayden Road

Manager: Conservation Commission

Note: This rather large collection of open space lands is surrounded by suburban neighborhoods with no parking available.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	None	Not accessible - Street parking is not an option at these locations due to the inability to pull-off the road (sidewalk curbs)	

Signage	Trail marker signs only.	Not accessible – trail markers are adequate height from trail base.	N/A
Trail	Unimproved trail, steep slopes, uneven surface; numerous wetland crossings (fords)	Not accessible	N/A

Facility: Half Moon Swamp (Map and Parcel: 221-21 & 22)

Location: Half Mood Road (a decommissioned road)

# Manager: Conservation Commission

**Note:** These parcels are landlocked and only accessible via the decommissioned Half Moon Road (off Indian Hill Road or Snake Hill Road).

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No trail	N/A	N/A

# Facility: Harrison S. Ripley Forest (Map and Parcel: 243-17 & 244-26) Location: (off) Martins Pond Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking on-site: off- street pull off parking available at adjacent parcel (243-18).	Not accessible – dirt pull-off surface uneven	N/A
Signage	Property sign and trail signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface; numerous wetland crossings (fords)	Not accessible	N/A

# Facility: Hawtree Conservation Area (Map and Parcel: 231-63) Location: Hawtree Way

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	Property sign and trail signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface; trail muddy at times	Not accessible	N/A
Other	Observation deck	Not accessible – no accessible path to deck; no ramp; stairs to deck not accessible	None – due to the distance, terrain, and lack of parking options this feature does not make sense to improve

# Facility: Hemlock Grove (Map and Parcel: 102-56)

## Location: Fox Run

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside (off Integrity Way <u>and</u> Fox Run)	Not accessible-No room to make handicapped parking space	N/A
Signage	Property sign and trail signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface trail	Not accessible	N/A

Facility: Heron Ridge Conservation Land (Map and Parcel: 234-3) Location: Otter Lane

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

# Facility: Hilda O'Hara Conservation Land (Map and Parcel: 226-67)

Location: Nashua Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

# **Facility:** Hurd Conservation Area (Map and Parcel: 222-14 & 19.2) **Location:** Boston Road

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Off-street parking for half a dozen vehicles off Rt. 119 a the beginning of Skyfields Drive	Not accessible – while there is ample room for handicapped parking the surface is uneven	N/A
Signage	Property sign and trail signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface trail	Not accessible	N/A

# **Facility:** Integrity Estates Conservation Area (Map and Parcel: 105-26) **Location:** Integrity Way

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside (off Integrity Way)	Not accessible-No room to make handicapped parking space	
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Ibitiski Land (Map and Parcel: 124-67) Location: Whitewood Road Manager: Conservation Commission Note: Land locked parcel

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: James River Greenway conservation Area (Map and Parcel: 216-61 & 63)

Location: Fitch's Bridge Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Johnston Land Conservation Area (Map and Parcel: 212-15) Location: Maple Avenue

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Pull-off on roadside	Not accessible-No room to make handicapped parking space	N/A
Signage	Trail marker signs only.	Not accessible – trail markers are adequate height from trail base.	N/A
Trail	Unimproved trail, uneven surface trail; wetland crossing	Not accessible	N/A

# Facility: Knopps Pond Island (Map and Parcel: 122-108) Location: (off) Weymisset Road) Manager: Conservation Commission

**Note:** This parcel is an island with no improved features.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Knowles Siding (Map and Parcel: 112-17 & 113-92)
Location: Pleasant Street
Manager: Conservation Commission
Notes: see <u>Report #11</u> in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Paved parking (off-road) located off Whistle Post Lane for two vehicles.	While	N/A
Signage	No sign	N/A	If access to the Nashua Rail Trail is improved, adequate signage should be installed.
Trail	Crushed gravel sidewalk, which provides access to the adjacent Nashua River Rail Trail. The trail slope is steep.	The sidewalk that gives access to the trail does not have a curb cut. The ADA Access Guidelines standard for the ramp running slope is a 1:12 maximum	

Facility: Labbe Road (Map and Parcel: 137-8) Location: Labbe Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Lawrence Park at Fox Run (Map and Parcel: 105-18) Location: Pepperell Road Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking specific to site, however off-road parking is available off Integrity Way <u>and</u> Fox Run.	Not accessible-No room to make handicapped parking space	N/A
Signage	Trail marker signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface trail	Not accessible	N/A

 Facility: Levine Land (Map and Parcel: 129-103)

 Location: Lost Lake Drive

 Manager: Conservation Commission

 Note: This parcel is surrounded by the Groton Conservation Trust's 'Skinner Forest'.

 Activity
 Equipment/

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No Trail	N/A	N/A

Facility: Longley Estates I Conservation Area (Map and Parcel: 227-37)

Location: Paquawket Path

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	Trail marker signs	Not accessible	N/A
Trail	Unimproved trail, steep slopes, uneven surface trail	Not accessible	N/A

Facility: Longley Estates II Conservation Area (Map and Parcel: 226-15 & 49)

# Location: Longley Road & Drumlin Hill Road

Manager: Conservation Commission

Note: This property abuts the Nashua River Rail Trail, immediately north of the Sand Hill Road parking area (MassDCR managed).

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking		Not accessible-No room to	
	Pull-off on roadside	make handicapped parking	N/A
		space	
Signage	Property sign and trail	Not accessible	N/A
	marker signs	NOT accessible	N/A
Trail	Unimproved trail, steep	Not accessible	N/A
	slopes, uneven surface trail		N/ <i>P</i>

Facility: Martins Pond Brook Culvert (Map and Parcel: 234-2)

Location: Lowell Road

Manager: Conservation Commission

**Note:** This property is no accessible to the public as it is mostly contained in the Right-of-way and contains a culvert in which Martins Pond Brook crosses under Route 40 (Lowell Road).

Activity Equipment/ Assessment Transition Plan
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	Improvements		
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trail	N/A	N/A

**Facility:** "McCarthy Drive Parcel" (Map and Parcel: 250-23) **Location:** Lowell Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trail	N/A	N/A

**Facility:** McLain's Woods Conservation Area (Map and Parcel: 226-92 & 95; 231-11) **Location:** McClain's Woods Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	No on-street parking available	N/A
Signage	Trail markers and trail posts	N/A	N/A
Trail	Unimproved trail; uneven surface. Sidewalk along road	N/A	N/A
Scenic View	Open meadow	No accessible	N/A

# Facility: Meadowbrook Conservation Area (Map and Parcel: 228-38)

# Location: Meadow View Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Limited on-street parking along Kirk Farm Road	Not accessible: no space to develop a handicapped space; no curb cut on road	N/A
Signage	Property sign along Kirk Farm Road	N/A	N/A
Trail	Unimproved trails, uneven surface along seasonally wet areas; moderately steep slopes Unofficial stream crossing.	A trail links the abutting Still Meadow Conservation Area with the Wattles Pond Conservation Area (both managed by the Conservation Trust). Few other trails have been developed for this property	N/A

Facility: Milton Starr Land (Map and Parcel: 203-27) Location: Townsend Road Manager: Conservation Commission

Note: This parcel is land-locked and is primarily comprised of wetlands.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No sign	N/A	N/A
Trail	No Trail	N/A	N/A

# Facility: Northwoods Conservation Area (Map and Parcel: 227-69 & 80)

# Location: Northwoods Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No	N/A	N/A
Signage	Property sign, trail markers, trailhead posts	N/A	N/A
Trail	Unimproved along seasonally wet area; connects Still Meadow Conservation Area and Nashua Road. A second trail connects the beaver pond with Longley Road (same trail conditions except less wet).		N/A
Scenic Views	Beaver pond overlook	Not accessible due to curb	Under evaluation

# **Facility:** Old Dunstable Road (part of a Woodland Park Conservation Area) (Map and Parcel: 247-42) **Location:** Old Dunstable Drive

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Old Mill Conservation Area (Map and Parcel: 208-1)
Location: West Main Street
Manager: Conservation Commission
Note: This parcel is land-locked.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

**Facility:** O'Neil Conservation Area (Map and Parcel: 216-16) **Location:** O'Neil Way

Activity	Equipment/ Improvements	Assessment	Transition Plan

Parking	On-street parking only	Not accessible (no room to develop handicapped parking space & curb)	N/A
Signage	No signs	N/A	Under evaluation
Trail	No trails	N/A	N/A
Scenic View	Managed as open meadow	No accessible	N/A

Facility: Patricia Hallet Conservation Area (Map and Parcel: 106-31 & 32)

# Location: West Main Street

Manager: Conservation Commission

Note: These parcels are land-locked.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Parking just off Main St. leading towards the senior center. Off-street parking available for a number of vehicles	N/A	N/A
Signage	No signs	N/A	While trail markers and a property sign will be installed in the coming years, these will not constitute a transition plan.
Trail	Unofficial trails link these properties to the adjacent Lawrence Park. Trails are unimproved, steep slopes, uneven surface.	N/A	N/A

Facility: Petapawag Canoe Launch (Map and Parcel: 216-64)
Location: Nod Road
Manager: Conservation Commission
Notes: see <u>Report #16</u> in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission\_on\_Accessibility/ADA\_Assessment\_Report\_2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Ample off-road parking (dirt parking lot).	Not accessible	There are currently designated handicapped parking (HP) spaces provided at the canoe launch area, with no van accessible signs posted It is recommended that one van accessible HP space be installed. None of the dirt road parking spaces are marked, or striped at this time and the Town should do so.
Signage	Property and interpretative signage only.	Not accessible	Spaces shall have an additional sign stating, 'Van Accessible' mounted below the symbol of accessibility. Signs need to be mounted 5 to 8 feet above the

			ground as per the ADAAG requirements.
Picnic Area	Carved, stone picnic tables	Not accessible	We recommend that the Town provide one accessible picnic table.
Fishing Facilities	Popular location for fishing; annual fishing competitions	Not accessible	Under evaluation
Boat Launch Ramp	Boat launch to the Nashua River (impoundment segment)	Not accessible	Under evaluation
Restroom	Portable toilets during special events	Unknown	Work with event organizers to have accessible portable toilet installed during events open to public.

Facility: Peter E. Bertozzi Conservation Area (Map and Parcel: 202-14)

Location: Townsend Road

Manager: Conservation Commission

Notes: see Report #3 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission\_on\_Accessibility/ADA\_Assessment\_Report\_2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Dirt parking lot with ample parking available	Not accessible - no permanent Designated Accessible ('HP') signs posted at the site, and there are no 'Van accessible" spaces found.	The 2015 Plan recommended that one (1) permanent HP (Designated Accessible Parking being a van space be installed with in-ground pole or sign that is permanent. The Plan recommended the 4 feet van access aisle for the new van accessible space be installed at the spot in front of the barn door
Signage	Property sign, kiosk, and trail markers	Unknown	Requires follow-up evaluation
Trail	Graded path; surface uneven in some locations	Not accessible – uneven in places and overgrown in places	The 2015 Plan recommend the trail be re-graded, and the whole trail needs to be trimmed, removing the grass and brush that has overgrown into the trail.
Trail Gate	A metal gate separates the parking area from the trail	Not accessible – blocks the trail	Improve the 3.5-foot-wide pat of travel to the side of the gate.

Facility: Priest Family Conservation Area (Map and Parcel: 224-18)

# Location: Martins Pond Road

Manager: Conservation Commission

**Note:** This parcel was purchased in late-2018.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	"Unofficial" off-road parking available at the end of Shattuck Street by the	Not accessible – slope of parking area not flat; uneven surface; no room to	Develop dedicated parking area on-site.

	entrance to the Scarlet Hill open space (conservation restriction)	develop accessible parking; no crosswalk across Martin Pond Road (a curvy and dangerous road).	
Signage	No signs	N/A	Under evaluation
Trail	No trails	N/A	Under evaluation
Scenic Views	Property spans the entire southern shore of Martins Pond and offers views of the water.	Not (currently) accessible	Under evaluation

# Facility: Redskin Trail Land (Map and Parcel: 129-138) Location: Redskin Trail

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A
Scenic Views	Waterfront property on Lost Lake.	Not accessible	N/A

Facility: Reedy Meadow Conservation Area (Map and Parcel: 230-22 & 29)

Location: Reedy Meadow Road

Manager: Conservation Commission

**Note:** These properties are mostly comprised of wetlands.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Reedy Meadow Road Land (Map and Parcel: 231-4)

Location: Reedy Meadow Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

**Facility:** Richard F. Priest Memorial Area (Map and Parcel: 132-14) **Location:** (off) Whiley Road

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Parking available at Sargisson Beach (adjacent parcel) parking lot. Room for 25 vehicles	N/A (see Sargisson Beach below)	N/A
Signage	Trail marker signs	N/A	N/A

Trail	Unimproved trail: uneven surface; steep slopes	Not accessible	N/A
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# Facility: Rocky Hill Land (Map and Parcel: 120-2.02)

# Location: Sandy Pond Road

# Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	On-street parking (Robin Hill Road)	Not accessible – no off- street parking available	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A
Scenic Views	Two kettle ponds	Not accessible	N/A

Facility: Sampas Conservation Woods (Map and Parcel: 227-91)

# Location: Longley Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Sargisson Beach (Map and Parcel: 132-20 & 21)

Location: Whiley Road

Manager: Conservation Commission

Notes: see Report #19 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Hard-packed dirt parking lot, concrete stops	There is one designated accessible handicapped parking space at trailhead entrance.	Convert the accessible parking space to 'van accessible' and post accessible sign.
Signage	Multiple kiosks, trail markers, property signs, parking signs	Accessible – signs are of adequate height Not accessible – signs posted at the beach are not accessible due to lack of access (pathway).	N/A
Trail	Numerous trails; main trail leads from parking lot to beach area (wide, gentle slope, uneven surface)	Not accessible (main trail) due to water bars	The 2015 Plan calls for the installation of truncated domes over the water bars. However, the Sargisson Beach Committee in 2019 began the process of improving the main trail from the parking area to the beach. The new surface would be accessible and allow increased access for

			emergency vehicles to access the beach.
Restrooms	Standard portable toilet is available from Memorial Day to Labor Day	Not accessible	Purchase accessible portable toilet
Swimming Beach	A sandy beach approx. 1000-feet from the parking area.	Not accessible - needs improvement to access path	Improve pathway to beach from parking lot
Picnic Area	Numerous stone picnic tables (the 'South Point')	Not accessible	Add one accessible picnic table after improving the access path
Hand Railings	Presently, there are no hand rails provided along the trail that leads to the picnic area.	Not accessible	Add a railing to the trail, on both sides of the walkway
Fishing	A dedicated fishing area (the 'North Point') atop a block retaining wall	Not accessible	Under evaluation

# Facility: Sawtell Conservation Area (Map and Parcel: 232-9 & 14) Location: Sawtell Drive

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Off-street parking by the old Grolex building	Ample space for an accessible parking spot, however none currently exist	Under evaluation
Signage	Property sign, trail markers	N/A	N/A
Trail	Unimproved trail: seasonally wet area; wetland crossing, steep, uneven surface	Not accessible	N/A
Stream Crossing	Culvert (Unkety Brook)	N/A	N/A

# **Facility:** Shattuck Homestead (a.k.a., Baddacook Field) (Map and Parcel: 232-56) **Location:** Martins Pond Road

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Off-street parking on mowed grass	Not accessible: mostly level ground; no designated parking spaces; no parking signage	Under evaluation
Signage	No signs	N/A	N/A
Trail	Mowed grass trail, approx. 4-feet wide to edge of forest; level to steep slopes In forest: unimproved trail, uneven surface, gentle to steep slopes	Not accessible	Under evaluation
Scenic Views	Open meadow (old hay field) and water-front (Baddacook Pond)	N/A	N/A

# Facility: Sheedy Land Land (Map and Parcel: 125-127 & 128)

# Location: Chestnut Road

Manager: Conservation Commission

Note: These parcels are land-locked and are mostly comprised of wetlands.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A
Scenic Views	Waterfront property on Lost Lake.	Not accessible	N/A

Facility: Southern Groton James Brook CR Area (Map and Parcel: 220-10 & 10.1)

Location: Culver Road

Manager: Conservation Commission

**Note:** This area is on private properties with no public access.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Squannacook River "Picnic Area" (Map and Parcel: 205-5)

Location: Townsend Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Stonebridge Conservation Area (Map and Parcel: 253-6)

Location: Old Carriage Path

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Surrenden Farm (Map and Parcel: 219-8 & 220-35

Location: Shirley Road

Manager: Conservation Commission

**Notes:** Surrenden Farm consists of numerous large parcels owned by the Town as well as the local Conservation Trust. For an account of ADA accessibility on the Trust-owned property (a.k.a. 'the General Field'), which is where the majority of active recreation occurs, please see <u>Report #20</u> in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission\_on\_Accessibility/ADA\_Assessment\_Report\_2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
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Parking	Off-street parking on mowed grass	Not accessible due to uneven surface.	Under evaluation - the portion of this property owned by the Conservation Trust ("the General Field") is more suitable to accessible parking due to available scenic vista, trail, public events, and topography. This parcel is also protected by a Conservation Restriction and any improvements made would need to comply.
Signage	Kiosk	Not accessible due to being located in the inaccessible parking area; Kiosk contents are being re- evaluation/renovated currently.	Under evaluation
Trail	Mowed grass over steep slope to tree line. In forest: unimproved trail, uneven, yet mostly flat surface.	N/A	Efforts to increase accessibility should focus or "the General Field" portion of Surrenden Farm.
Scenic Views	Big-sky vista, sloping open meadow/hay field, forest along the eastern bank of the Nashua River	Not accessible	N/A

# Facility: Throne Hill Land (Map and Parcel: 205-41 & 213-3)

# Location: Throne Hill Road & Pepperell Road

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Torrey Woods Conservation Area (Map and Parcel: 231-94)

Location: Chicopee Row

Manager: Conservation Commission

**Note:** This parcel is land-locked and contains many wetland areas.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking – parking is available on an abutting open space parcel only.	N/A	N/A
Signage	Trail markers only	N/A	N/A
Trail	Two unimproved trails; steep uneven slopes	Not accessible	N/A
Scenic Views	Waterfront property on Lost Lake.	Not accessible	N/A

# Facility: Viola Day Robinson Conservation Area (Map and Parcel: 251-72)

Location: Graniteville Road

Manager: Conservation Commission

Note: This parcel is land-locked and is primarily comprised of wetland areas.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Walnut Run (Map and Parcel: 109-24)

Location: Canterbury Lane

Manager: Conservation Commission

**Note:** The Commission leases this property to a local farmer (hay field). Public access is allowed, however there are no trails or parking areas.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A
Leased Agriculture	Hay Field	N/A	N/A

# Facility: Watson Way Conservation Area (Map and Parcel: 231-25)

Location: Watson Way

Manager: Conservation Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	Trail markers;	N/A	N/A
Trail	Unimproved trail; uneven surface; wetland crossing	Not accessible	N/A
Scenic Views	Waterfront property on Lost Lake.	Not accessible	N/A

Facility: Whispering Brook Conservation Area (Map and Parcel: 247-22)

Location: Whispering Brook Road

Manager: Conservation Commission

**Note:** This parcel is mostly comprised of wetland areas.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	Unimproved trail; uneven surface; seasonally wet areas	N/A	N/A

Facility: Wiewel Land (Map and Parcel: 235-41)

Location: Skyfields Drive

Activity	Equipment/ Improvements	Assessment	Transition Plan	
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Parking	Off-street pull-off for one vehicle	Not accessible – slope of parking area not flat; uneven surface; no room to develop accessible parking.	N/A
Signage	Property and trail markers	N/A	N/A
Trail	Unimproved trails (steep slope, uneven surfaces); mowed grass path (gentle slope)	N/A	N/A

Facility: Williams Barn – Sorhaug Woods (Map and Parcel: 225-61)

Location: Chicopee Row

Manager: Conservation Commission

**Note:** Numerous public events utilize this site as a venue, including the weekly Farmer's Market (summer only). See <u>Report #23</u> in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Temporary portable Designated Accessible parking spaces during events;	Accessible	Install four (4) permanent designated accessible parking spaces, one of then being a van space with all required signage
Signage	Property sign; trail head marker; trail markers; interpretative signage	Accessible	Add signage as necessary to address needs of parking.
Trails	Numerous unimproved trails; gentle to steep slope, wetland crossing	N/A	Under evaluation
Restrooms	Portable accessible toilet	Accessibile	N/A
Public Events	Barn Loft	Not accessible	The Town should adopt a policy where the loft is not used for events where members of the public are invited.

Facility: Williams Conservation Area (Map and Parcel: 225-52)

Location: Chicopee Row

Manager: Conservation Commission

Note: This parcel is mostly comprised of wetland areas

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	Property name sign only	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Woodland Park Conservation Area (Map and Parcels: 247-37, 38, 50)

Location: Island Pond Road & Wildflower Lane

Activity	Equipment/ Improvements	Assessment	Transition Plan
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Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Groton Town Forest (Map and Parcel: 210-1, 4, 5)
Location: West Main Street
Manager: Town Forest Committee
Notes: See <u>Report #21</u> in Town of Groton ADA Transition Plan (2015): at
https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan	
Parking	Dirt parking area	Not accessible	Install one (1) permanent designated accessible parking space, specifically, a van space with adequate signage.	
Signage	Kiosk, trail markers	Accessible	N/A	
Trail	Numerous trails: narrow dirt roads and winding single lane trails, with lots of roots, rocks, leaves, uphill, and downhill. The walkways are best described as mostly smooth, sometimes sandy, and sometimes hilly. It is also my observation that the hills are not extremely large (though some are steep) but they offer a distinct hiking and jogging challenge.	Not accessible: portions of the most accessible trails are overgrown with vegetation (brush, roots).	The Town should trim the brush along the trail and saw and cutout large roots that have grown into the trail.	
Public Events	Trail race	Not accessible: due to trail conditions	Under evaluation (see above)	

# Facility: Meredith Bissel Property (Map and Parcel: 202-83)

### Location: (off) Townsend Road

Manager: Groton Select Board (Conservation Restriction held by Conservation Commission and MassDCR)

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A

Facility: Norris Property (Map and Parcel: 129-138)

## Location: Pepperell Road

Manager: Groton Select Board (Conservation Restriction held by Conservation Commission and MassDCR)

	•		
Activity	Equipment/	Assessment	Transition Plan

	Improvements		
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
	Unofficial trail: old		
Trail	(decommissioned) road	Not accessible	N/A
	along the Town line		

# **RECREATION AREAS**

Facility: Cow Pond Brook Playing Fields (Map and Parcel: 249-57; 248-39; 248-40)

Location: Cow Pond Brook Road; Hoyts Wharf Road

Manager: Park Commission

**Notes:** The park consists of three baseball fields, Lacrosse nets, three soccer, and one baseball field, four concession stands, one football field, nature study, wildlife habitat activities, extensive wetlands abutting Cow Pond Brook, a total of three accessible portable- toilets a batting cage/pitching practice court, all of which are currently in good condition. The fields comprise a total area of 33.0 acres.

See Report #4 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	ivity Equipment/ Improvements Assessment		Transition Plan	
Parking	Large, hard-packed parking lot with room for 50 – 75 vehicles; 2 designated handicapped accessible spaces	Accessible	A third handicapped accessible space should be installed meeting the requirements for van accessibility. Long-term improvements should include the paving of the entire parking lot.	
Signage	Property sign; handicapped parking signs	Accessible	The Town should install van parking space with adequate signage.	
Concession Stand	Concession stand counter	Not accessible – counter is too high	Lower a three-foot section of the counter to 34 inches	
Restrooms	Three portable toilets	Accessible – ADA compliant portable toilets installed; Not accessible – an on- going issue exists where the parking lot is crowded and people park in front of the portable toilets and block them in.	one, as the others on this site are.	
Trail	(Future plans for walking path)	N/A – the Town plans to install a full perimeter walking track.	N/A	
Game Areas	Athletic fields, baseball fields, football field	Accessible – level surface from parking area through entry gate, which is greater than 36 inches wide.	Currently, there are no accessible bleacher seats. The Park Commission could explore if this is a needed improvement.	

Facility: Lawrence Field (Map and Parcel: 113-23)

Location: Playground Road (off Broad Meadow Road)

Manager: Park Commission

**Notes:** This property contains several recreation features, including: the Alvin Sawyer Baseball Field; the Christine Hanson Memorial Playground (a.k.a., "Lawrence Playground" and "Library Playground"); the Lawrence Memorial; as well as several athletic fields and basketball courts.

See Report #12 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	One van-accessible handicapped parking space located next to the basketball court	Accessible – improvements listed in 2015 report have been completed	The 2015 ADA assessment called for the creation of a parking spot and the Town has completed this task.
Signage	Parking signs indicating van accessibility; kiosk installed at adequate height	Accessible	Complete
Playground	Playground with wood chip playing surface;	A paved parking area that connects to the basketball court area provides assessible access	Complete
Restrooms	Handicapped accessible portable toilet located between the basketball court and the playground.	Accessible	Complete
Memorial	A memorial plaque on a rock	Not accessible	Remove timber post and create a flat path from the parking area to the memorial.
Game Area	Basketball Court	Accessible – improvements listed in 2015 report have been completed	Complete
Gazebo	Ramp accessible outdoor structure with electric outlets for public events	Accessible – improvements listed in 2015 report have been completed	Complete

Facility: Legion Common (Map and Parcel: 112-106)

Location: 75 Hollis Street

Manager: Park Commission

**Notes:** This property contains several recreational features, including: Boynton Common, Evan Holofcener Ice Rink; Legion Common/Boynton Memorial; and the Old Burying Grounds.

See Report #13 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission\_on\_Accessibility/ADA\_Assessment\_Report\_2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	One Van-Accessible (with signage) parking space	Accessible – improvements listed in 2015 report have been completed	Complete
Signage	Parking signs indicating van accessibility	Accessible	Complete
Trail	Mowed grass trail through Old Burying Ground; trail is over even and gentle rolling grass hills		N/A

Public Events	Numerous outdoor public events (e.g., GrotonFest)	Accessible	The grounds of this property are accessible.
Restrooms	Portable toilets during public events	Ensure handicapped accessible toilets are required for all Town- events	In-progress
Legion Hall Meeting House	Historic meeting house	Access to the first floor is accessible while the second floor in inaccessible.	N/A

Facility: Carol Wheeler Memorial Park (Map and Parcel: 101-13)

Location: (off) West Main Street

Manager: Park Commission

**Notes:** Wheeler Park is approximately 15-20 years old, and it, is used for skating, ice fishing, meditation quiet beautiful walks, picnics, etc. Altogether the site consists of a small, un-paved parking area, a beautiful shore front walkway, with opportunities for fishing, picnicking, etc., and beautiful park memorials with a flagpole.

See <u>Report #22</u> in Town of Groton ADA Transition Plan (2015): at

### https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Crushed gravel parking area	No accessible parking spaces	The Town should install two accessible parking spaces, one of them being a van space be installed with inground poles or signs.
Signage	Designated handicapped parking signs	Not accessible	See report for details
Entrance	Connects parking area to walking path	Not Accessible	There is a ¾ inch lip at the entrance to the walking path at Wheeler Park. The recommendation is to work with the DPW, or volunteers to bevel the lip to provide a smooth, accessible entrance for all visitors to the park.
Trail	Walking path (stone dust, hard-packed; bricks)	Accessible, but need: improvement	Maintain walking path, cut-back vegetation to allow wheelchair access, consider improving the landscaping to better accommodate accessible 3-foot wide walking path (see report for details).
Boat launch, fishing area, ice-skating access	A gentle ramp leading from Townsend Road to the Squannacook River through this property provides access for launching small boats (e.g., kayaks, canoes), as wel as access for fishing and ice-skating.	Not accessible	Evaluate the need to provide accessible access to the ramp.

# Facility: Charles R. Gordon/Fireman's Common (Map and Parcel: 112-40)

Location: The Charles R Gordon/Fireman's Common is in the heart of downtown Groton on Main Street. It is at the corner of Pleasant Street next to Filho's Restaurant.

Manager: Park Commission

**Notes:** See <u>Appendix G</u> for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A - There is no dedicated parking for the common but with permission (and off hours) could share parking with the restaurant and the Groton Market.	N/A
Signage	Numerous monuments/memorials	N/A	N/A
Trail	Brick paver walking path bisecting the property. Accessible ramps and two cross-walks (one with light assisted crossing) connect this property to the downtown sidewalk system.	Accessible	Maintain brick path and considering improving if surface becomes uneven in the future.
Public Events	Annual Christmas Tree Lighting	Accessible	If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets

## **Facility:** Chicopee Row School House (Map and Parcel: 231-916) **Location:** Chicopee Row

Manager: Park Commission

**Notes:** This property contains the historic Chicopee Row School House #7, which is maintained under historic preservation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking – limited on- street parking on Sawtell Road.	Not accessible	N/A
Signage	No signs	N/A	N/A
Structure	Historic School House	Not accessible	N/A
Public Events	None	Not accessible	N/A

Facility: Cutler Memorial Field (Map and Parcel: 103-1)

Location: Townsend Road

Manager: Park Commission

**Notes:** The Cutler Field was first constructed in the late 1960's. The site consists of several baseball and soccer fields, two sets of slides, two swings, a storage shed (municipal employees only), an open field, and two accessible portable toilets.

See <u>Report #5</u> in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission	on Accessibility/ADA	Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Four (4) total handicap accessible parking spaces	Accessible – spaces are signed; parking area comprised of crushed gravel	In progress - convert one of the existing accessible parking spaces to "Van accessible."

Signage	Property name sign; parking area signs	Accessible – parking signs installed correctly	In-progress - add van accessible sign
Game Areas/Athletic Facilities	Basketball court, athletic fields	Accessible – entryway to basketball court greater thar 3 feet, level surface; transition from parking area to grass is level	Complete
Restrooms	Accessible portable toilets	Accessible	Complete
Playground	Playground including swing set	Accessible – entrance to playground (via path behind basketball court) is level and hard-packed; two accessible swings were installed following the 2015 report	Complete
Picnic Facilities	Two picnic tables (one by the entry way flagpole, the other within the playground area)	Not accessible	Renovate the playground picnic table to allow wheelchair access. Ensure hard-pack path extends to table from entry way path

Facility: George & Agnes Rider Park ([part of] Map and Parcel: 125-83)

Location: Lost Lake Fire Station (parcel), 185 Lost Lake Drive

Manager: Park Commission

**Notes:** Rider Basketball Court is owned by the Town of Groton, and is managed by the Park Commission in conjunction with the Groton Fire Department. The site consists of one neighborhood basketball court, and a parking lot in back of the Lost Lake Fire Station. See <u>Report #18</u> in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	One 'Van accessible' parking space located behind the fire station; paved parking area; level and free of pooling water	Accessible	Complete
Signage	'Van accessible' parking sign	Accessible – parking sign installed at sufficient height	Complete
Trail	Parking area for local trails	N/A – trails are not part of this property; however, the parking area serves the nearby trail network.	N/A
Game Area	Basketball Court	Accessible -asphalt flat surface; front entryway over 3-feet wide	Complete
Restrooms	Toilet inside Fire Station (available during office business hours)	Accessible (when building is open)	Recommend that an accessible, portable toilet is installed during any public event

Facility: Hazel Grove Fairgrounds (Map and Parcel: 112-106)

Location: Jenkins Road

Manager: Park Commission/Hazel Grove Agricultural Association

Notes: See Report #10 in Town of Groton ADA Transition Plan (2015): at

https://portal.grotonma.gov/storage/Commission on Accessibility/ADA Assessment Report 2015.pdf

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Large dirt parking area	Hard-packed, but not accessible due to the lack of designated accessible parking areas.	Install dedicated one 'Van accessible' parking space with required signage. Note: while the parking lot is large, a majority of vehicles will likely be pulling a trailer so we assessed the parking lot as containing "up to 25 spots".
Signage	Property name sign, informational kiosk	Accessible	Install parking signs as required for 'Van accessible' parking
Trail	Equestrian riding ring	N/A – the path is not intended for pedestrian use	N/A
Public Events	Equestrian events	Not accessible	If a public event occurs, temporary accessible portable toilets and designated parking signs should be installed.

Facility: Hill Road Park Lands (Map and Parcel: 104-6 & 31)

Location: Maple Ave and Pepperell Road

Manager: Park Commission

**Notes:** These two parcels are very small and currently undeveloped. As of the writing of this report there are no plans for developing (recreation) these parcels.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	None	N/A	N/A
Trail	None	N/A	N/A
Public Events	None	N/A	N/A

Facility: John Tinker Memorial Common (Map and Parcel: 216-62)

Location: The John Tinker Memorial Common is located near the Nashua River on Route 119 (Main Street) on the western edge of Groton. It is bordered by Nod Road and Fitch's bridge Roads.

Manager: Park Commission

Notes: Notes: See Appendix G for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	Not accessible - There is little opportunity for parking or pedestrians in the area. The annual Nashua River Celebration may spill over to this area.	N/A
Signage	Two stone monuments	N/A	N/A
Trail	No trails	N/A	N/A

Public Events Trail races	Not accessible	If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets.
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Facility: Longley Monument (Map and Parcel: 225-32)

Location: Longley Road

Manager: Park Commission

Notes: This monument has its own parcel; however, it was moved off the parcel many years ago and relocated closer to Longley Road. The parcel referenced above is surrounded by private land.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	Not accessible	Under evaluation - The monument is located along the side of the road. Plans to relocate it to a more accessible site have been discussed.
Signage	Large stone monument	N/A	N/A

Facility: Minute Man Common (Map and Parcel: 113-12)

**Location:** The Minuteman Common is located in the center of Groton along Main Street downhill from the Unitarian Church. A historic common it is bounded by Main Street, Lowell Road and Powderhouse Road of Lawrence Academy.

Manager: Park Commission

Notes: Notes: See Appendix G for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Near-by on-street parking on Main Street; un-marked accessible parking at the top of the hill	Not accessible – no room to develop handicap parking; no marking of accessible parking	The group recommends that future events place temporary HP signs at the parking area
Trail	Sidewalk	The property connects to the downtown sidewalk network.	In progress - Many ADA improvements have been made to the sidewalk network including, ramps and crosswalks with light- assisted crossing
Public Events	The Common is used for major events by the town including the 350 the Anniversary and for weddings.	Not accessible	Under evaluation – the construction of benches is being considered. The group
Restrooms	No restrooms on-site, however they are available within the adjacent Unitarian Church with permission.	Not accessible	During public events the group recommends placing an accessible toiled on-site.

Facility: New Town Common (Map and Parcel: 111-40)

Location: The New Town Common is across the street from the Veteran's Memorial Common. It is located at the intersection of Hollis Street and Common Street.

Manager: Park Commission

Notes: Notes: See Appendix G for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	No signs	N/A	N/A
Trail	No trails	N/A	N/A
Public Events	None	N/A - There are no known events on the common but it was noted that the site occasionally served as a parking area during the Memorial Day parade/celebration.	If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets

Facility: Orchard Common (Map and Parcel: 225-72)

**Location:** Orchard Common is a neighborhood park located off of Blossom Lane at the intersection with Branch Lane. It is near the Groton Cemetery.

Manager: Park Commission

Notes: Notes: See Appendix G for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	On-street parking along Blossom and Branch Lanes.	Not accessible – not room for developing handicap parking area.	N/A
Signage	No signs	N/A	N/A
Trail	No trails or walkways	N/A	N/A
Public Events	N/A - There are no known events on the common. The common is mostly used for walking, including dog walking, by neighbors.		N/A

Facility: Prescott Common/Byron Wilson Square (Map and Parcel: 115-42)

Location: The Prescott Common/Byron Wilson Square is located at the intersection of Main Street and Old Ayer Road in the downtown area of Groton.

Manager: Park Commission

**Notes: Notes:** This common is subject to be re-configured as part of the Indian Hill Music Center's traffic planning efforts. See Appendix G for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	N/A
Signage	It contains a monument to Commander Prescott and flags.	N/A	N/A
Trail	Side Walk	The common is along a sidewalk that connects it to downtown and is used for passive recreation.	In progress - Many ADA improvements have been made to the sidewalk network including, ramps

			and crosswalks with light- assisted crossing
Public Events	N/A	Not accessible	Any event should include temporary accessible parking and an accessible portable toilet.

Facility: Samuel Badger Memorial Common (Map and Parcel: 108-30)

Location: The Samuel Badger Memorial Common is located at the intersection of Pleasant Street and Mill Street near the Public Safety Building, the fire station and an estate known as The Elms.

Manager: Park Commission

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Limited on-street parking along Mill Street.	Not accessible – parking along Mill Street has broken asphalt and the surface is not level.	If a public event is planned, we recommend temporary handicap parking signs are installed along Mill and Pleasant Streets.
Signage	Memorial stone marker	Not accessible – no path leads to the marker and old tree roots make the ground uneven in placed	N/A
Trail	Bisecting sidewalk	Accessible: The sidewalk that runs through it is widely used and part of the sidewalk network from downtown Groton to the Nashua River and to Grotor School.	made to the sidewalk network including, ramps and crosswalks with light-
Public Events	None (the Bicentennial Celebration was the only noted event that occurs on this common).	Not accessible	If a public event is planned, we recommend a temporary handicap portable toilet is installed.

Facility: Sgt. Woitowicz Park (Map and Parcel: 135-54)

Location: Forge Village Road

Manager: Park Commission

**Notes:** Notes: See <u>Appendix G</u> for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	Hard-packed parking area for approx. 25 vehicles	Not accessible	The Town should install two (2) permanent designated accessible parking spaces with one being a van space be installed with in-ground pole or sign that is permanent.
Signage	Property name sign	N/A	N/A
Game areas	Athletic fields, tennis courts	Not accessible – due to lack of parking infrastructure	Any future development of the park should prioritize bringing the facility into ADA compliance

There are plans to convert	
the tennis courts to a	
basketball court.	

Facility: Veterans Memorial Common (a.k.a. Sawyer Common) (Map and Parcel: 111-50)

Location: The Veteran's Memorial Common is located at the intersection of Hollis Street and Martin's Pond Road. It contains a marker memorializing it as the site of the first town hall.

Manager: Park Commission

Notes: Notes: See Appendix G for details on 2019 ADA Evaluation.

Activity	Equipment/ Improvements	Assessment	Transition Plan
Parking	No parking	N/A	If a public event is planned, we recommend temporary handicap parking signs are installed along Hollis Street or Martins Pond Road.
Signage	Numerous memorial plaques throughout park	While there are no paved walking paths, the grounds are flat and the surface is even and generally <u>accessible.</u>	Continue to maintain the grass to provide access from the sidewalk to the various memorials.
Trail	Brick paver sidewalk (along Hollis Street)	Accessible	N/A
Restrooms	No restrooms	Not accessible	If a public event is planned, we recommend a temporary handicap portable toilet is installed.

#### Minuteman Common

Address: Main Street & Powderhouse Road, (Groton Assessor's Parcel 113-12)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



Photo credit: Google Maps Street View, 2019.

The Minuteman Common is located in the center of Groton along Main Street downhill from the Unitarian Church. A historic common it is bounded by Main Street, Lowell Road and Powderhouse Road of Lawrence Academy.

The common is lawn and trees on a steep slope surrounded by a historic granite post and square rail fence. It has a flag pole and power is available.

The Common is used for major events by the town including the 350th Anniversary and for weddings. The Unitarian Church has suggested adding benches and an Eagle Scout project will replace the historic rails in the next year.

Restrooms are available in the Church with Permission. There is un-marked accessible parking at the top of the hill.

The group recommends that future events place temporary HP signs at the parking area, an accessible Port a Potty and if benches are added that accessible seats be made available.

## Orchard Common

Address: Blossom Lane & Branch Lane, (Groton Assessor's Parcel 225-72)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



Orchard Common is a neighborhood park located off of Blossom Lane at the intersection with Branch Lane. It is near the Groton Cemetery.

The common is rolling land with lawn and trees. It has a lighted flagpole. There are no sidewalks or parking but Blossom Lane is a one-way street and Branch Lane is a side street with minimal traffic. Both roads could accommodate cars parking on the roadside and many pedestrians already walk in the street.

There are no known events on the common. The common is mostly used for walking, including dog walking, by neighbors.

If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets.

## Prescott Common/Byron Wilson Square

Address: Old Ayer Road & Main Street, (Groton Assessor's Parcel 115-42)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



Photo credit: Google Maps Street View, 2019.

The Prescott Common/Byron Wilson Square is located at the intersection of Main Street and Old Ayer Road in the downtown area of Groton.

The common is lawn and trees with some garden detail maintained by the Groton Garden Club. It contains a monument to Commander Prescott and flags.

There are no known events that occur on the common. There is no parking for the common though the common is along a sidewalk that connects it to downtown and is used for passive recreation.

The group discussed that the area may be reconfigured as part of the traffic planning for the new Indian Hill Music Center. We discussed making sure that pedestrians can still comfortably cross to the common. Any event should include temporary accessible parking and an accessible portable toilet.

### Veteran's Memorial

Address: Hollis Street & Martins Pond Road, (Groton Assessor's Parcel 111-50)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



The Veteran's Memorial Common is located at the intersection of Hollis Street and Martin's Pond Road. It contains a marker memorializing it as the site of the first town hall.

The common is a flat area with lawn, mature trees, paved areas and benches and memorials. It is on an accessible sidewalk route from downtown Groton and is along the route of the annual Memorial Day Parade.

During the parade a 20-minute event occurs on the common including speeches by local representatives.

There is no parking or restrooms available at the common but Martin's Pond Road is one way on two sides of the common and wide enough to accommodate on street parking and designated accessible spaces.

If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets.

#### New Town Common

Address: Hollis Street & Common Street, (Groton Assessor's Parcel 111-40)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



The New Town Common is across the street from the Veteran's Memorial Common. It is located at the intersection of Hollis Street and Common Street.

The common is a mostly flat lawn area surrounded by a sloped bank from the roads on two sides. Trees have been planted along the two roads. Private property defines the other two edges of the common giving some the impression that the New Town Common is private land.

There are no known events on the common but it was noted that the site occasionally served as a parking area during the Memorial Day parade/celebration. The Memorial Day event used to draw larger crowds.

There are no walks, flags or other site improvements. Both Hollis and Common Streets are busy with traffic and the edges of the roads are steep making parking along the roads difficult. A small section of sidewalk is available across Common Street and one of main sidewalk arteries is across Hollis Street.

If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets

#### Charles R Gordon/Fireman's Common

Address: Main Street & Pleasant Street, (Groton Assessor's Parcel 112-40)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



The Charles R Gordon/Fireman's Common is in the heart of downtown Groton on Main Street. It is at the corner of Pleasant Street next to Filho's Restaurant.

The common is densely planted and developed. The site is mostly flat and has sidewalk access through the space including to a small paved sitting area. There are several monuments and at least one memorial tree dedicated to Marion Stoddart's mother. The gardens are maintained by the Groton Garden Club.

The common is the site of the annual Christmas Tree Lighting event and is actively used as a destination park during the week and as spillover outdoor seating for the restaurant.

There is no dedicated parking for the common but with permission (and off hours) could share parking with the restaurant and the Groton Market.

If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets

### Samuel Badger Memorial Common

Address: Farmers Row & Mill Street, (Groton Assessor's Parcel 108-30)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



North side of common (memorial stone in foreground). South side of common.

The Samuel Badger Memorial Common is located at the intersection of Pleasant Street and Mill Street near the Public Safety Building, the fire station and an estate known as The Elms. Margaret Fuller, a transcendentalist and one of the first feminists, lived at The Elms in the 1800's.

The Common is a triangular property, with a mostly flat terrain. There is a stamped asphalt sidewalk running through it. Other improvements include a memorial to Samuel Badger, a flag with a solar powered light, and a Liberty Tree, planted in 1976 to mark the nation's bicentennial celebration.

The Bicentennial Celebration was the only noted event that occurs on this common. The sidewalk that runs through it is widely used and part of the sidewalk network from downtown Groton to the Nashua River and to Groton School.

There is no dedicated parking on the common but one portion of Mill Street is a side street and could accommodate on street parking.

If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets

## John Tinker Memorial Common

Address: Main Street & Nod Road, (Groton Assessor's Parcel 216-62)

ADA Self Evaluation of Town Commons (September 19, 2019)

Present: Michelle Collette, ADA Coordinator; Eileen McHugh, Conservation Commission; Anna Eliot, Park Commission; Donald Black, Park Commission.



The John Tinker Memorial Common is located near the Nashua River on Route 119 (Main Street) on the western edge of Groton. It is bordered by Nod Road and Fitch's bridge Roads.

The common is a small lawn and tree park next to a busy portion of Route 119. The common is easy to overlook as there are very few pedestrians in this area. Wandering into the park on foot, one discovers the monument to John Tinker an early Groton businessman whose business was close to the common location. An All is Welcome marker is part of the common.

There is little opportunity for parking or pedestrians in the area. The annual Nashua River Celebration may spill over to this area.

If an event is planned on the common, we recommend temporary Handicap parking signs and accessible portable toilets.