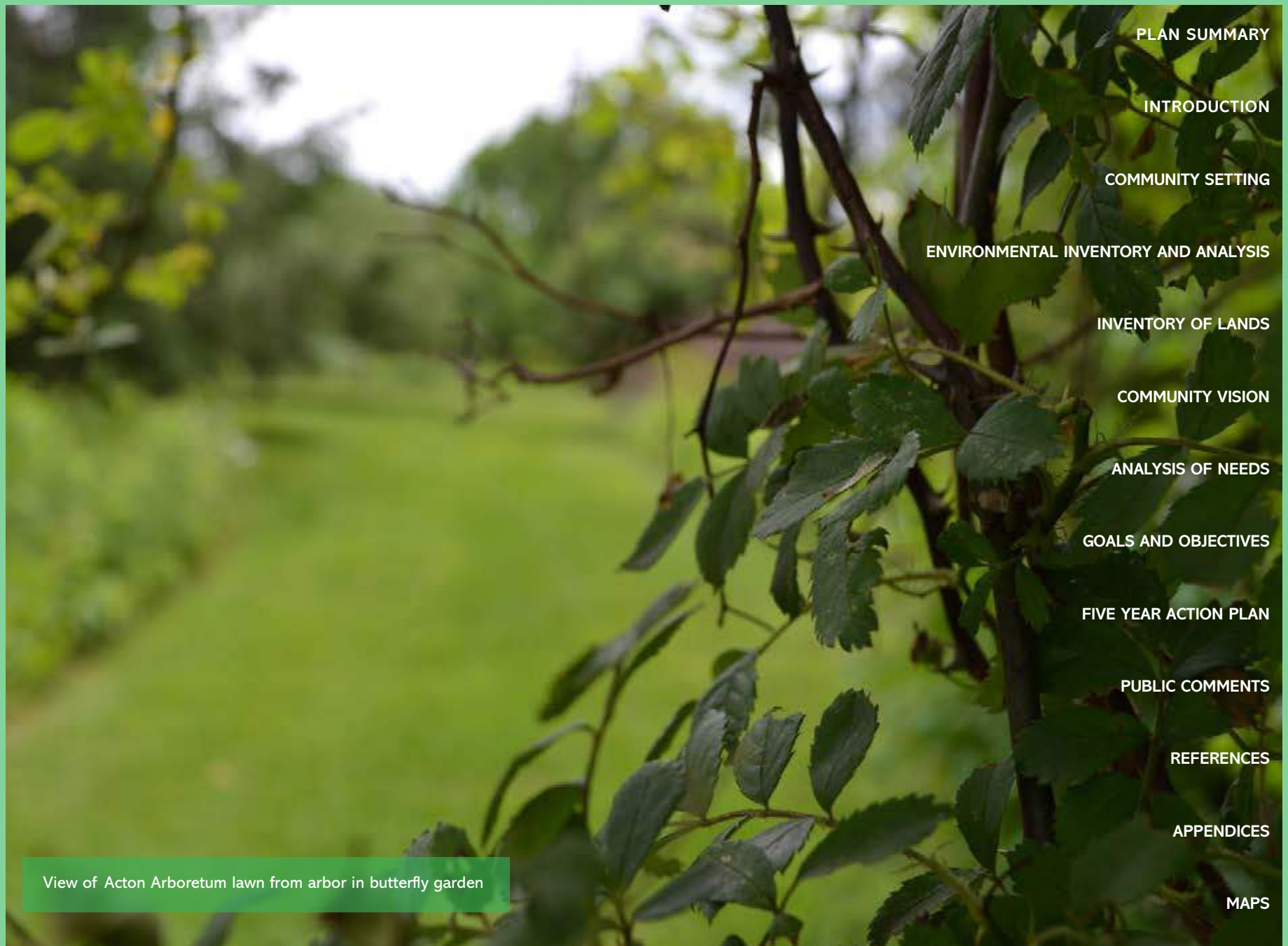
The Town of Acton Open Space and Recreation Plan 2014-2021

Spring flowering apple tree in Acton Arboretum

Table of Contents



View of Acton Arboretum lawn from arbor in butterfly garden

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Footbridge in Acton Arboretum

SECTION 1: PLAN SUMMARY

Clockwise from top: Ice House Pond; flowering crabapple trees, Acton Arboretum; Nagog Pond sunset; Acton Town Hall

The overall aspirations of the citizens of Acton have not fundamentally changed since the last Open Space and Recreation Plan was in effect through 2007. As in 2007, Actonians remain steadfast in their desire to 1) preserve Acton's rural character, 2) protect the environment, and 3) improve recreational opportunities for everyone. Within those three main aspirations are ongoing efforts to protect our water resources and wildlife habitats and corridors. Concurrently, the recently ratified Acton 2020 Comprehensive Community Plan reflects very similar goals and aspirations. In keeping with this consistent pattern, the current OSRP, for the period of 2014-2021, retains these three themes as the primary goals and objectives.

Acton's citizens recognize and respond to the critical need to preserve the remaining elements of Acton's rural character, such as fieldstone walls, ponds, streams, forests, meadows as well as historic buildings. Adopting the Community Preservation Act in 2002 has enabled Acton to purchase and protect valuable lands, preserve historic buildings and expand the town's recreational opportunities. The Acton Open Space Committee is comprised of knowledgeable members well-versed in potential open space resources that may become available for acquisition. In 2011, upon approval from Town Meeting, Community Preservation Funds were used to purchase over 15 acres of farmland in South Acton. Known as the Caouette-Simeone property, this land is now protected in perpetuity under a conservation restriction and continues to be farmed by a local farmer under a lease agreement with the town. There is a critical need for more funding and creative ways to acquire open space, since direct purchase of open spaces available for sale is typically cost-prohibitive. The Open Space Committee is concerned about fragmentation of landholdings, so it seeks parcels that are adjacent to existing town owned open space parcels, rather than isolated ones. The committee puts emphasis on parcels with diverse habitats to attract and sustain many species, lands that comprise combinations of upland, wetlands, and forests, for example.

The Acton community remains steadfast in its desire to protect water resources. There are several key ways that the Town of Acton works to accomplish that goal. The Acton Water District continues to monitor supplies closely and provide clean, safe drinking water. In July 2012 the water commissioners approved a new $12 million dollar water treatment plant for South Acton. The Water District's staff and Board of Water Commissioners work to develop new strategies to promote conservation; vigilantly safeguard water supplies by employing multiple barriers for protection; establish sustainable water use by working with developers and builders early in the process; provide ongoing monitoring and treatment; and adhere to the state mandated outdoor water use plan.

Ongoing major issues are storm water run-off from development, as well as the increased amount of paving. The Acton Conservation Commission meets twice monthly to process the steady pace of filings under the Wetlands Protection Act and the Town of Acton's Wetland Protection Bylaw. The Commission requires proper storm water and erosion mitigation; reduction or elimination of silt and sediment flow into Acton's wetlands, streams, ponds, brooks and rivers; proper construction setbacks; and strict protection of vegetated buffer zones. The expanding practice of building rain gardens next to parking lots, as is listed in the Acton Arboretum future goals, is one way to recharge the groundwater and our aquifers.

Another major issue affecting the protected conservation lands is the threat of invasive plant species. The Acton Land Stewardship Committee, the Natural Resources Department, and the Conservation Commission work to protect the environment from invasive plant species which threaten many of our resources. Ice House Pond and Robbins Mill Pond are both impounded portions of Nashoba Brook, and are being invaded by water chestnut plants *(Trapa natans)*. The seeds flow downstream and ultimately end up in the Assabet River. Multiflora rose, garlic mustard and honeysuckle pervade the Acton Arboretum. European barberry, oriental bittersweet, Japanese knotweed and European buckthorn are all spreading within our forests and meadows in conservation




Acton Natural Resources Deptartment coordinates local volunteer efforts to hand-pull invasive water chestnuts from Ice House Pond

land parcels such as Nagog Hill and Wetherbee. Ongoing volunteer workdays serve to remove and reduce the spread of these nuisance plants. The Conservation Commission recently joined the SuAsCo CISMA (Sudbury-Assebet-Concord Rivers Cooperative Invasive Species Management Area) to band together with other volunteers in neighboring communities in our watershed to remove these invasive species from our land and waterways. In 2011 a Massachusetts Forest Management Plan was written for the Wetherbee parcel that would manage the woodland and remove the existing invasives. It is part of the meadows by Land Steward volunteers and by Natural Resources grounds crews. (See Appendix B1-B6)

Recreation has evolved today to encompass healthier means of transporting ourselves by walking and biking instead of driving; and by creating ways for persons with disabilities to be included, by providing access to town resources whenever possible. Recent paving in 2010 and 2011 of a portion of previously eroded and impassible trail at the Acton Arboretum has enabled many more people to enjoy the natural surroundings there. Adding benches along trail systems allows people more chance to rest if necessary. Sidewalks are highly desirable and are expanding throughout the town as developers are often required to Include the construction of sidewalks. South Acton will be getting a new train station that will be located near the trail head of the Assabet River Rail Trail (ARRT). The new station will have handicap accessible platforms, an amenity it has sorely lacked. Conservation land trail systems are being mapped and descriptions updated so that persons with disabilities can evaluate the appropriateness of a visit.

The Town of Acton Recreation Department continues to upgrade playgrounds, such as the Goward Playground at the Acton Memorial Library and a drainage improvement to the NARA Park playground, with the goal of rendering all playgrounds handicapped accessible. The newest major project and significant accomplishment is the "Miracle Field" at NARA Park. This facility, the first of its kind in Massachusetts, can be enjoyed by everyone in the community such as families, friends, town staff and volunteers, assisting people with disabilities while they play the great game of baseball. Recently completed at NARA and adjacent to the Miracle Field is a new permeable parking lot that allows rainwater to flow through the surface and recharge groundwater supplies, rather than run-off to storm drains. This parking lot will serve as extra parking for field sports spring through fall, and convert to an ice rink for winter recreation. Other major projects that the town hopes to accomplish in the next five years are new, improved handicap accessible boardwalks at the Acton Arboretum. One such, the Bog Boardwalk, will connect from the Minot Avenue sidewalk so that people with disabilities, baby strollers and pedestrians can safely walk from the parking lot at Conant School.

The Board of Selectmen recently voted to name Acton's NARA Park after Nathaniel Allen, a Civil War hero who earned the Medal of Honor for his valor at the Battle of Gettysburg. We believe this will be an "enhancement of our Town character," one of Acton 2020 Comprehensive Community Plan's seven main goals, especially with regard to fostering an appreciation of Acton's history.

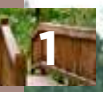


Actonians both commemorate and utilize their natural resources and open spaces

our ongoing efforts to reach out, educate and mobilize the public to get involved in the control and prevention of the spread of invasive plants. (See Appendix A1 and A2)

In 2012 the Natural Resources Department hired Oxbow Associates to investigate and create meadow management plans at several conservation lands, Heath Hen Meadow, Grassy Pond, Stoneymeade, and Jenks, as well as NARA park and Morrison Farm. Each plan evaluates habitat conditions and makes recommendations on how to manage the meadow habitat on each property. The documents summarize management goals and procedures for sustaining and enhancing meadow habitat. Many promote selective removal of woody invasive plant species (such as oriental bittersweet, honeysuckle and multiflora rose) in order to promote desired herbaceous vegetation cover. The plans provide guidelines for mowing and cutting

Reference: 2020 survey/census and most recent Open Space and Recreation survey questionnaire by Peter Ashton



Fourth of July concert at NARA Park

SECTION 2: INTRODUCTION

From left: Native American stone pile, Nashoba Brook; cross-country skiing at Wetherbee Conservation land; redwood and azalea in spring, Acton Arboretum

2.A. STATEMENT OF PURPOSE

The purpose of this plan is to identify and examine our current assets of conservation lands and recreational amenities and provide a course of action to optimize their benefits to the community. It was developed in conjunction with Acton's Comprehensive Community Master Plan, referred to as "Acton2020," with the approval and acceptance of the Plan's Goals and Objectives at the April 2012 Annual Town Meeting. Subsequently, the Planning Board approved and adopted the Plan spursuant to M.G.L. Ch. 41, § 81D.

The 2002-2007 Open Space and Recreation Plan emphasized the following needs:

1. Protecting water resources quantity and quality.
2. Protecting wildlife habitat and corridors.

The goals and objectives of the 2002-2007 OSRP were to:

1. **Preserve the remaining elements of Acton's rural character** by keeping apprised of highly-valued open space parcels' availability for purchase; preserving fields, woods, ponds, vistas, stone walls, etc; preserving and developing public open space and parks that border Fort Pond Brook, Nashoba Brook and the Assabet River; and protecting and maintaining remaining farmland..
2. **Protect the environment** by protecting the quality and quantity of Acton's water supply, protecting wildlife corridors, restoring polluted resources and strictly enforcing environmental laws.
3. **Improve recreational opportunities** by promoting the Assabet River Rail Trail (ARRT) and the Bruce Freeman Rail Trail (BFRT); enhancing and expanding opportunities for other diverse types of recreation and communicating those opportunities to the public; adding athletic fields; ensuring handicapped accessibility for all recreation activities, maintaining and improving assets already owned.

The 2014 Open Space and Recreation Plan re-examines and adopts the previous goals, **1) preserve Acton's rural character, 2) protect the environment, and 3) improve recreational opportunities for everyone**, but the current **objectives** reflect the accomplishments and changes since the prior Open Space Plan, as well as the most critical current and future needs and issues facing the town.

2.B. PLANNING PROCESS

The current OSRP builds on prior OSRPs, and relies heavily on input from Tom Tidman, Director of Natural Resources, and Jim Snyder-Grant, Chairman of the Land Stewardship Committee as well as co-chair of the Acton 2020 committee. Conservation Commissioners contributed much knowledge and expertise in developing the content of the report. Cathy Fochtman, Recreation Department Director, shared the pressing recreational needs of the town and laid out the path to meet those needs. Open Space Committee, Community Preservation Committee and the Acton Water District were all invaluable contributors to this document, as well as numerous members of the town staff. In addition, information and trends obtained in the development of the recent *Master Plan for the Town of Acton, Acton 2020*, as well as the *Open Space and Recreation Survey* conducted in the summer of 2007 contributed significantly in the development of this document.

Photo courtesy of courtesy of Theresa Ferraiolo

Acton-Boxborough Farmer's Market, West Acton

Susan Mitchell-Hardt, president of The Acton Conservation Trust (ACT) assisted in research and compilation of open space data for this report. Founded in 1962, ACT can hold permanent conservation easements, accept gifts of land, accept tax-deductible gifts to be used for open space preservation, and purchase land for conservation purposes. ACT is one of more than 130 such organizations in Massachusetts, and is a member of the Massachusetts Land Trust Coalition and the National Land Trust Alliance. Since 1998 ACT has participated in the protection of over 150 acres of open space in Acton, including two conservation restrictions held or co-held by ACT, and the purchase of land in the Heath Hen Meadow Brook area. Although not a government agency, ACT works actively on issues of land protection with Town Committees and Boards, such as the Community Preservation Committee and the Open Space Committee. — http://www.actonconservationtrust.org.

The following sections provide additional detail in the preparation and gathering of input from Acton citizens that ultimately shaped this document. In most if not all cases, multipronged efforts were employed to encourage participation. These included public notices in the local paper, the Assabet Valley Beacon; postings on the town

website; email notifications and meetings with various groups. Individual outreach was also used to encourage folks to contribute their thoughts and ideas. Surveys were conducted through individual mailings to each household. To encourage participation in the Public Forum, posters were distributed throughout the town, including at each of the conservation area kiosks. The Environmental Justice Communities were well represented. These communities are comprised of highly literate, community-minded and involved citizens who contribute a great deal to the Town. Their participation has been notable, particularly in the development of Acton 2020.

The Joseph Lalli Miracle Field, NARA Park

2.B.1. Open Space and Recreation Survey

In the summer of 2007, the Open Space Committee decided that a new survey was needed to gather input about Acton residents' open space and recreation needs. This survey was intended to be a follow-up to the survey that had been performed in 2001 which contributed to the OSRP published in 2002. A survey form was developed that was in many ways similar to the 2001 survey. This survey was mailed in the fall of 2007 to all of Acton's 6,700 households, and was also posted on the town's web site where it could be completed on-line. Over 1,200 surveys were completed either via on-line or by mail. The respondents' ages and residential locations reflected a good cross section of the town's demographics. A copy of the survey form and the compilation of the survey results are in the appendix. (See Appendix C1) The results of the survey were utilized in developing the goals, objectives and action steps for this updated Open Space and Recreation Plan.

2.B.2. Acton 2020 Comprehensive Community Plan

The recently approved twenty year master plan for Acton, called the "Acton 2020 Comprehensive Community Plan," outlines seven high level goals and objectives that are aligned with those of the current Open Space and Recreation Plan.

The extensive process of developing "Acton 2020" began in 2008 with Phase I, the Visioning Phase, completed in 2009. In this phase, a significant effort was made to reach out to EJ populations. Representatives of the committee attended a meeting of the Acton Latin Family Network, one of the regular seminars at the Acton Chinese Language School, and invited members of the Indian and Sri Lankan communities to a special meeting at the Town Hall. They also attempted to connect with the Brazilian Community. At least one member from the Indian community was successfully recruited to serve on the committee itself. Flyers were printed in English, Chinese and Portuguese.

Phase II, conducted from 2010 to 2012, included an inventory of existing conditions, prioritization and analysis of needs and finally approval and acceptance of the Plan at the April 2012 Acton Town Meeting. Phase III, implementation, began in 2013.

The goals and objectives of the Acton 2020 Comprehensive Community Plan, while much more expansive, encompass and overlap the goals and objectives of both the current and past OSRPs. These seven goals are as follows:

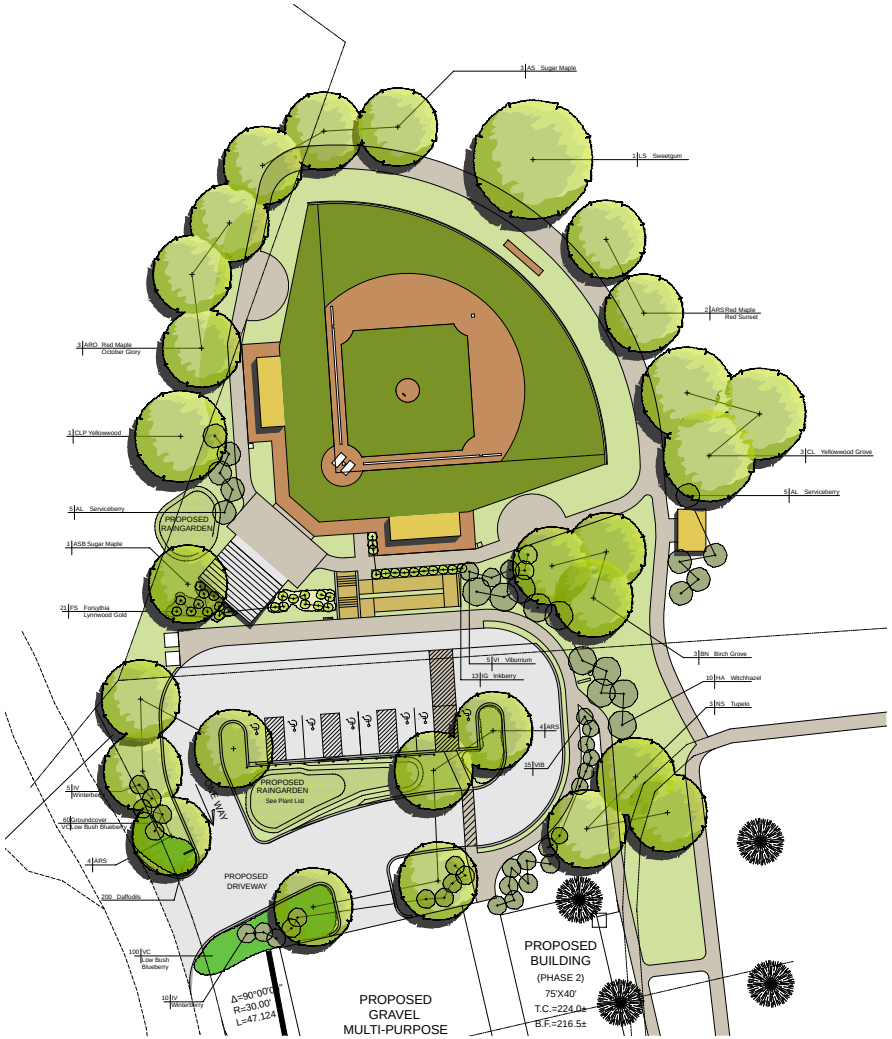
I. **Preserve and Enhance Town Character**
II. **Ensure Environmental Sustainability**
III. **Improve Connections**
IV. **Provide More Opportunities for Community Gathering and Recreation**
V. **Support Inclusion and Diversity**
VI. **Preserve and Enhance Town-Owned Assets**
VII. **Maintain and Improve Financial Well-being of the Town**

The 2014 OSRP was completed in conjunction with Acton's 2020 Community Plan. As part of the development of the 2020 plan, a survey was conducted that asked what the citizens of Acton considered the primary needs going forward. This survey lead to the development of the seven goals listed above. These goals, as they are relevant to open space and recreation planning, are echoed in this document.

2.B.3 OSRP Planning Meetings

The bulk of the work in developing the OSRP was accomplished during a lengthy process spanning several years. Beginning in July of 2010 a series of meetings were held under the auspices of the Conservation Commission which extended into the summer of 2012. These were working meetings, and the public was invited. Commission members researched, contacted knowledgeable members of the community and drafted assigned portions of the document which were reviewed by the OSRP subcommittee. It was determined that the overlapping meetings of the Acton 2020 project and additional input from individual contributors had produced sufficient information, coupled with the research and the expertise of the members of the Conservation Commission and Natural Resources staff to assess the primary needs and develop the goals and objectives for the town for the next five years. It was the desire of the committee to develop the document such that the community would have access to the document and would benefit from the incorporation of photos of the various Open Space areas

Planting plan of the Miracle Field



as well as some of the features of the town that elicit civic pride. Capturing those images was primarily done by Natural Resources staff, as well as developing the maps that accompany the document. It should be noted that the Town of Acton contracts with App-Geo to maintain a GIS viewer on its website. Developing the maps involved an intricate coordinated effort between Natural Resources staff and App-Geo that resulted in enhanced accuracy of the GIS as well as excellent maps that will endure for future reference. Concurrently, a volunteer citizen expended hours meticulously researching each of the land parcels listed on the Land Chart. (See Section 5, Table 5C.2.)

2.B.4 Public Forum

A Public Forum was held in February of 2014 to solicit additional concerns and priority issues from the citizens of the town. Full text of the minutes of the meeting may be found in the appendix. The concerns and issues they raised are reflected in Sections 7, Analysis of Needs; 8, Goals and Objectives; and 9, Five Year Action Plan. Approximately two dozen citizens participated in the meeting, sharing their perspectives on the issues they felt were Important to them and to the future of the town. Interest in additional public garden opportunities, pedestrian access and protection of wildlife were among the areas that generated the most discussion and support. See Appendix D1 for the minutes and compiled output of the meeting.

2. C. ACCOMPLISHMENTS 2002 – PRESENT

A great deal of progress has been made since the 2002 OSRP was created. Identification of open space opportunities, recognition of farming interests, enhanced recreational opportunities, and appreciation and protection of the many resources that characterize the town of Acton, both natural and cultural, have been addressed to some degree or are in the planning stages.

The Open Space Committee meets monthly to review and evaluate all privately owned unprotected land in Acton. Parcels are evaluated according to the following three criteria: 1. wildlife and environmental significance; 2. recreation potential; 3. rural character. Ratings of 1 to 10 are assigned for each of the three criteria for every parcel, with a 1 being least and 10 being most valuable. The most recent evaluation was completed in 2013 and has become a valuable tool for supporting requests to the town for protection of significant parcels undergoing change of use or becoming available for purchase.

The primary role of the Open Space Committee(OSC) is to discuss parcels that are undergoing changes of use, and, based on their value for open space, significance for wildlife or resource areas, to recommend some action by the town. This could mean a request for CPA funding or a direct request for town funds. To ensure the OSC is informed in a timely manner of potential changes of use of prioritized parcels, they work in close concert with Acton Conservation Trust and Sudbury Valley Trustees.

A greater focus on agriculture and farming interests has grown since 2002. This is evidenced in a number of instances over the last several years including acquisition by the town of protected open space.

- The Caouette/Simeone farm property in South Acton was purchased in 2010. A conservation restriction has since been placed on the property, ensuring protection in perpetuity. The land is being leased and actively farmed by the owners of Stonefield Farm, the adjoining farm. (See Section 5, Table 5.C.2.)
- Citizen interest in vegetable gardening has led to the addition of a community garden on the Morrison Farm property. Additional sites are being sought in other sections of town. Acton now has two actively maintained community gardens with a total of more than 70 productive gardens.

- The Morrison Farm reuse plan has been developed and is in the process of being rolled out. (See Section 8.A.3)
- In its fifth year, the Acton-Boxborough Farmers Market opens in June and runs through October. It supports local farmers and has become a popular gathering place for residents on Sunday mornings. (See www.ABFarmersMarket.org.)

One of the significant achievements in 2002 was voter approval of the Community Preservation Act, and these monies have become a major source of funding for procuring open space parcels as opportunities arise. This continues to be a primary funding source for open space needs as reflected in many of the objectives outlined in Section 8. With the recent approval of application of CPA funds for recreational facilities, playground enhancement and improvement projects which had been put on hold are now moving forward.

The Land Steward Committee, the hands-on committee tasked to maintain and protect our open space resources, has continued to make progress in improving our conservation areas. New and improved trails have been blazed, markings improved, standard kiosks installed on all the public access points. They have undertaken a consistent effort to remove and control the spread of invasives; to certify vernal pools; groom trails and reopen those rendered impassible due to tree falls. An updated conservation guide was issued in 2003 and a new publication as well as an on-line version is underway. This is a tireless group which encompasses the entire breadth of STEWARDSHIP in their contribution to our conservation properties.

A great deal of effort has been and continues to be applied to improving facilities at NARA, formerly North Acton Recreational Area, recently renamed the Nathanial Allen Recreation Area. Much of the work since the last OSRP was to improve drainage, pave trails, plant gardens, and improve the pond area. In addition, scheduled year round activities have continued to expand and, as a result, NARA has become the recreational center for the town and region. The amphitheater is used for summer concerts and plays. A winter carnival is scheduled annually, summer events occur weekly, and are all interspersed with intercultural events and seasonal festivals held either at the amphitheater or the bath house pavilion. Summer programs and a comprehensive summer camp are held for youth and are well attended. In 2012, the Miracle Field was built on the NARA site (see Section 5.C.2.1).

Treatment wetlands at NARA Park

A number of enhancements are planned as listed in the detailed objectives for NARA listed in Sections 8 and 9.

In 2005, the T.J.O'Grady Skating park was opened. A memorial park in honor of a young boy killed in a tragic accident in 1998, this has become a magnet for many skateboarders from both Acton and Boxborough. Improvements are currently underway for the park as listed in sections 8 and 9. A full description of the facility is found in section 5.C.2.3.13.

Construction of the Acton segments of the Assabet River Rail Trail (ARRT) and the Bruce Freeman Rail Trail (BFRT) have made little progress since the last OSRP, though advocacy efforts have continued. As of this printing, the state of Massachusetts, through Mass DOT, has approved funding for completion of these two bike trails, and construction is expected to commence in 2014. [(http://www.brucefreemanrailtrail.org/about/phase-two-acton-west-car.html) and (http://www.arrtinc.org/)] Refer to Section 5.C.5 for further information.

While little "new" space has been added for recreational use, a shift in focus has been to optimize the use of existing fields. Installing artificial turf and lighting extends the usability of the fields. The renovation of Leary Field in 2005, combined with the new artificial surface and lighting at the Lower Fields Project in 2012, have significantly reduced demand to develop new turf play surfaces. Providing irrigation for turf fields, better drainage, etc. has allowed for more field-time opportunities for our athletic organizations. See Section 8.C.8 for more information.

Clearly many of the objectives laid out in the 2002-2007 OSRP have been met. More importantly, those accomplishments laid the foundation to move forward with additions and improvements to our open space and recreational needs that will continue to enhance the life of the Acton Community.

Arrow arum *(Pettandra Virginiea)* growing at NARA Pond

SECTION 3: COMMUNITY SETTING

This Section focuses on Acton's setting, including a regional context, history, population and growth and development patterns. This information serves as a back drop to Acton's open space and recreation goals and needs, describing how the town has evolved and the demands it faces in the future.

3.A REGIONAL CONTEXT

3.A.1 Background

Acton is an upper middle class suburban community, located approximately 25 miles west of Boston, between Routes 495 and 128. It is in the SuAsCo (Sudbury, Assabet and Concord rivers) Watershed. Route 2 bisects the town, and serves as a major commuting route into Boston for residents of Acton and towns located to the west and north. The area along Route 2A, which runs east to west, is a commercial, retail and residential zone. The stores, offices and services on Route 2A are used by residents of Acton, Boxborough, Westford, Littleton, Carlisle, Stow, Concord, Maynard and Harvard. The Route 2A corridor also contains a large residential component consisting of apartment buildings, condominium complexes, some single-family homes and several large subdivisions. A large percentage of Acton's affordable units are located along the Route 2A corridor. A significant part of the Route 2A corridor runs parallel to the Nashoba Brook, which provides both important wildlife habitat and recreation opportunities. The Massachusetts Bay Transit Authority (MBTA) commuter rail runs through West and South Acton. A train stop is located in South Acton where the town maintains a commuter parking facility. Renovations and improvements to the facility are scheduled to begin in the spring of 2013.

The socioeconomic class of the majority of Acton's residents, the historic use of the majority of Acton's land, and the patterns of development have all impacted the use of open space and recreation lands. Zoning laws have played a major role, as well, by dictating lot sizes, frontage requirements, etc. The older residents of Acton remember what the town was like when it was a farming community and, along with newer residents, have supported some public purchases of land to provide open space, to protect the environment, and to help maintain property values. As a result, 1,700 acres of land have been protected since 1960. Some of this was procured through cluster development. In the last few years the Acton Conservation Trust (the local land trust) has pursued conservation restrictions to protect land. As forests and farmlands have been developed the public has exerted pressure to keep such areas open, and to place open space parcels adjacent to all major subdivisions. Consequently, there are conservation lands in nearly all parts of town.

TABLE 3.1. OPEN SPACE LANDS ABUTTING ADJACENT TOWNS

Abutting Town	Acton Open Space	Abutting Town's Land	Comments
Boxborough	Guggins Brook Conservation Land	Half Moon Meadow	A short walk down Isaac Reed Farm Road
	Jenks Conservation Land	Private land	Popular trails used by many
	Whitcomb-Clapp Wellfield area	Hagar Land; Fort Pond Brook and Flagg Hill	
Carlisle	Camp Acton/Spring Hill/ Nashoba Brook Conservation Lands		Connects via newly donated land From Robbins Mill Pond
	Robbins Mill Pond Conservation Land	Benfield Lands: Ben's Woods	Owned and managed by the Carlisle Conservation Foundation
	Robbins Mill Pond trail easement	Valentine Property	From Carlisle Road, Acton, to future site of BFRT
Concord	Stoneymeade Conservation Lands	Annursnac Conservation Area	Annursnac Hill
	School Street Athletic Fields (323 School Street)	Mass.Dept. of Correction/MCI Concord 28A Union Turnpike	
	School St. and Assabet Wellfields	MCI, Concord	Ft. Pond Brook
Littleton	Nagog Hill Conservation Lands and Nagog Pond	Sarah Doublet Forest / Nashoba Orchards	
Maynard	High Street Woods: Canoe launch	Assabet Riverway	Canoe launch into Maynard
	McGloin and Steinman Lands	Maynard Country Club; Rockland Conservation Land	Assabet River Rail Trail
Stow	Heath Hen Meadow	Barbicki Land/Heath Hen Meadow	Private strip of land separating these parcels
	Acton Water Department	Flagg Hill	
Westford	Kennedy Marshall Land	Butter Brook	

Nevertheless, much of Acton's rural character has disappeared in the past 20 years, a change that many residents noted with regret in a recent survey of open space and recreation needs taken for this update (see Section 2B). The economic upturn of the late 1990's has claimed more open space for residential construction. Since 2000 the number of new homes constructed in Acton has declined significantly, averaging about 40 per year compared with almost 90 per year during the 1990s. Much of the new housing stock has been in the form of 40B developments, the largest of which was constructed by Avalon Inc. in north Acton near Nagog. (See Section 13, Maps R-1A and R-1B.)

Acton map, 1794

Acton map, 1830

Acton map, 1890

3.A.2 Communication Links with Conservation Areas in Contiguous Towns

Several parcels of conservation land in Acton either abut, or are close to, neighboring towns, offering the potential for regional trail systems. Each one of our neighboring communities lies close to one of Acton's conservation lands, as summarized in Table 3.1 and Section 13, Maps R-7A and R-1B. As can be seen, there are several areas where conservation land in neighboring towns are adjoining, or close to adjoining.

The Land Stewardship Committee (LSCom) has initiated talks with these towns to continue to develop inter-town links across the common boundaries so that hiking trails can be extended and connected to those existing in abutting towns. The Bay Circuit Trail connects Acton with Concord; Reed Farm Road in Boxborough now has a blazed trail connecting to the Jenks and Guggins lands in Acton and to the Half Moon Meadow land in Boxborough. Other possible trail connections include:

- LSCom has already initiated a dialogue with the Littleton Conservation Trust to attempt to provide a permanent corridor between Acton's Nagog Hill property and Littleton's Sarah Doublet property. The intervening land runs along the shore of Nagog Pond across the Concord Water District property, where a fisherman's trail already exists. In order to utilize this trail, approval would be required from the Concord Water District.
- A connection between West Acton's Heath Hen Meadow and Stow's Captain Sargent Farm Conservation Area and Sudbury Valley Trustees (SVT) Conservation Restriction (CR) lands.
- A winter connection between the Whitcomb CR land (held by Acton Conservation Trust) and Stow's Heath Hen Meadow.
- A link from South Acton's McGloin and Steinman properties across the golf course to the Maynard Assabet Riverway property.
- A corridor or link from North Acton's Nashoba Brook Conservation Area via the Robbins Mill Pond land to the Carlisle Spencer Brook conservation land, and Valentine CR area. There is a new trail head on Carlisle Road in this area which could be used for this purpose, as well as for a bikeway connection.
- The rail spur behind Rex Lumber in North Acton could be part of an informal trail system linking up to Westford's lands near Powers Road.
- A path or link allowing access to Westford lands behind the Avalon development.

Nashoba Brook

Each of these possibilities presents a different challenge. The simplest, posting a sign announcing the connection, will only require an agreement between towns. The most difficult, acquisition by both towns of a landlocked parcel on each side of the boundary will require funding to purchase the intervening land as well as to construct a long boardwalk through a beautiful wetland that is home to many species of birds and mammals. This latter project, between Acton and Stow, would require considerable cooperation between the two towns as well as local and, possibly, state funding. The resulting connection would represent a splendid achievement for both environmental protection and enjoyment, but also for inter-town cooperative effort.

3.A.3 Regional Facilities in Acton

3.A.3.1 NATHANIEL ALLEN RECREATION AREA (NARA)

Acton's development of the recently renamed Nathaniel Allen Recreation Area, formerly North Acton Recreation Area, provides a regional recreation destination. A large 40 acre multi-use park, NARA has a beach and a 9-acre pond for swimming, fishing and boat rentals. Site amenities include playgrounds, athletic fields, a walking path encircling the property and a 2,000 seat amphitheater. NARA hosts recreation and cultural programs

throughout the year, including an evening summer concert series, and a summer camp.

In 2012, 284 out-of-town seasonal beach memberships were sold (over 478 resident memberships are sold each year). The Recreation Department estimates that approximately 7,000 people from other towns attended the July 4th 2012 celebration and about 800 non-residents partook in our summer evening concert series. Registration lists show that approximately 23% of the program participants were non-residents. Non-residents account for about 20% of field rentals at NARA. In 2012 Acton constructed a fully handicapped accessible baseball diamond at NARA called a "Miracle Field", the first of its kind in Massachusetts.

Approximately 70 children from other towns, or 22% of the participants, attend the NARA Youth Summer Program. For the youth sport leagues that use NARA, about 10% of the participants are non-residents.

3.A.3.2 CAMP ACTON

Camp Acton, formerly used by the Boy Scouts of America as a camping ground, was purchased by the town in 1995 and is still actively booked for campouts as well as evening campfires. Camp Acton is open to both residents and non-residents. Town records show that in the year 2012, Camp Acton was used by boy scouts from all over Massachusetts, and by a number of other groups, both resident and non-resident that used the camping area for evening campfires. In 2012, 14 out-of-town groups, most of them Cub Scouts, used Camp Acton, representing 61% of the reservations.

Opening Day at the Joseph Lalli Miracle Field, September 15, 2012

3.A.3.3 ACTON ARBORETUM

The Acton Arboretum is a specialized Acton conservation land parcel that is year-round regional destination for a diverse group of people. Encompassing 65 acres, the Arboretum contains formal and woodland gardens, wildlife ponds and a bog, meadows and forested areas. A circuit of handicapped-accessible stone dust and paved trails attracts many walkers, especially those who want to enjoy nature but are unable to do so elsewhere. The Arboretum is maintained by town staff and by volunteers from the Friends of the Acton Arboretum, Inc. and the Acton Garden Club. Groups from facilities serving handicapped clientele regularly visit the Arboretum and some even attend regular workdays. In July, 2013, the Acton Arboretum received level II accreditation from the Arbnet Arboretum Program and the Morton Arboretum. See actonarboretum.org for more information about the Arboretum.

3.A.3.4 QUAIL RIDGE COUNTRY CLUB

Quail Ridge, a semi-private 18-hole golf course, was built in 2007. The recent downturn in the economy resulted in the sale of the land to new owners and the decision to restrict the course to 9 holes and convert the remaining area to senior housing. This area abuts Nagog Hill Conservation Land and Concord Water District open space along Nagog Pond. As part of the original permit requirements, the owners granted a trail easement to the town to allow a connecting trail between Nagog Hill Conservation area on the south and the residential neighborhood to the north. The new owners fulfilled a requirement of this easement by building a boardwalk over wetlands near a vernal pool in the easement area. This allowed the trail to be completed and opened In 2012 by the Land Stewardship Committee. As part of the negotiations for new permits, the new owners also granted the town a second trail easement that includes a public parking area. This parking area will only be built if the final phase of the housing development is completed.

3.A.4 Other Regional Issues and Activities

3.A.4.1 ACTON CONSERVATION TRUST (ACT)

ACT has stimulated regional efforts to protect open space and biodiversity. In 2001, ACT hosted a meeting of representatives from area land trusts (Boxborough, Carlisle, Concord, Littleton, Stow, Westford, Sudbury Valley Trustees and Mass. Audubon) to explore the ways they could share resources, as well as to discuss regional open space issues.

In 2005, at the request of the Town of Concord, which was gifted the land, ACT became the backup holder to the Acton Water District of the Wagner Conservation Restriction. The CR totals 6+ acres at 49B Laws Brook Road, Concord and 66 Laws Brook Road, Acton. Should the Water Supply District of Acton no longer use the premises for water supply purposes or abandon or declare its land (immediately adjacent to this site) surplus, ACT will take over stewardship of the land and recreational use of the entire premises for walking and bicycle trails will be permitted.

In 2006, ACT purchased the 16 acre Whitcomb land adjacent to Heath Hen Meadow Brook at the Acton/ Stow line. It is part of an ongoing effort to work with the Sudbury Valley Trustees and the Stow Conservation Trust to connect the Heath Hen Meadow Brook Conservation Area to the Flagg Hill Conservation Area in Stow.

In 2008, ACT worked with the Sudbury Valley Trustees and the Concord Conservation Land Trust to gain Commonwealth open space protection for these lands along Route 2. 107 acres in Acton were protected along with 108 acres in Concord. This would not have been possible without regional cooperation.

In 2012, ACT purchased 1 acre of land at 81 Wood Lane abutting the Arboretum. This land represents an important open space addition to the Acton Arboretum. In 2013, the town purchased this parcel from ACT and it was added to the Arboretum.

ACT has met with the Littleton Conservation Trust in an effort to protect lands straddling both towns and

Concert at NARA Park

continues to be optimistic that a joint land protection project can be achieved.

ACT's goal is to continue to pursue regional land protection opportunities that are consistent with ACT's mission of protecting natural areas including farmland, woodland, natural habitat for wildlife, etc. for the enjoyment and benefit of the general public.

3.A.4.2 COMMUNITY PRESERVATION ACT (CPA)

The CPA allows communities to enact up to a 3% surcharge on local property taxes to establish a dedicated fund, to be matched by the Commonwealth, for open space acquisition, recreation, historic preservation and community housing. Acton's neighboring communities of Bedford, Carlisle, Chelmsford, Harvard, Stow and Westford have all passed the CPA. Acton adopted the CPA in 2002 at the 1.5% surcharge level. The town has successfully purchased several parcels of open space with CPA money including the Caouette farmland, the Groener and Gaebel properties, and most recently the Anderson Land off Arlington Street. (See Table 5.C.2.) The town currently has over $1.5 million of CPA funds in the open space set aside fund that is available for open space purchases. Each year, the Community Preservation Committee has allocated an average of over $400,000 to this fund. The Open Space and Recreation Committee has reviewed and prioritized all remaining open space parcels in the town. (See Appendix E1.)

3.A.4.3 BAY CIRCUIT TRAIL

Acton has dedicated its portion of the Bay Circuit Trail, a state recreation priority, which runs through the Nashoba Brook, Spring Hill, Camp Acton and Stoneymeade conservation areas. Acton's LSCOM is maintaining the trail and signs within Acton's boundaries. When planned trails are complete on the newly-acquired Robbins Mill land, the path of the trail will be able to be removed from hazardous stretches of route 27 and moved to Carlisle Road, which has a sidewalk, and then connect to the path of the new Bruce Freeman Rail Trail by using a trail easement that runs from Acton to Carlisle on land protected by the Valentine family.

3.A.4.4 BICYCLE TRAILS

Acton is working to realize two regional bicycle trails, the Bruce Freeman Rail Trail (BFRT) and the Assabet River Rail Trail (AART). The BFRT currently connects downtown Chelmsford to Lowell. The next phase will connect Westford, Carlisle, Acton, Concord and Sudbury. The AART will provide connection between several downtowns, including Hudson, Maynard and South Acton Village. Detailed discussion of these resources is provided in Section 5.C.5.

3.A.4.5 METROPOLITAN AREA PLANNING COUNCIL (MAPC)

The Metropolitan Area Planning Council (MAPC) is the regional planning agency representing 101 cities

and towns in the metropolitan Boston area. Created by an act of the Legislature in 1963, it serves as a forum for state and local officials to address issues of regional importance. Through eight sub-regional organizations, MAPC works with its 101 cities and towns. Each sub-region has members appointed by the chief elected officials and planning boards of the member communities and is coordinated by a MAPC staff planner. In 2008, MAPC adopted a 30 year visionary plan for the METRO Region, MetroFuture, which serves as a guide for the work in all areas of the agency. MetroFuture is comprised of 65 specific goals to be achieved by 2030, and 13 implementation strategies that contain recommendations for actions needed to achieve these goals. Acton's 2020 Master Plan reflects consistency with these goals and employs many of its recommendations as does the Open Space and Recreation Plan 2014-2021. Acton's consistent commitment to preservation of our natural resources, providing safe and adequate recreational facilities, and ensuring accessibility for all citizens simultaneously advances the goals and implementation strategies of MetroFuture, specifically Strategy #7, Protect Natural Landscapes and #13, Conserve Natural Resources. —http://www.mapc.org/metrofuture

3 A.4.6 MAGIC

The Minuteman Advisory Group on Inter-local Coordination (Acton, Bedford, Bolton, Boxborough, Concord, Carlisle, Hudson, Lexington, Lincoln, Littleton, Maynard, Stow and Sudbury) meets every other month to discuss and work on issues of inter-local concern. Focus is on transportation, the environment, energy, open space, affordable housing, economic and community development, and legislative issues. Current projects include subregional mapping of open space and green space and comprehensive agricultural planning,

3.A.4.7 SUDBURY VALLEY TRUSTEES

Sudbury Valley Trustees, founded in 1953, is a regional trust whose mission is to conserve land and protect wildlife in the Sudbury, Assabet and Concord river basin. SVT has been a partner in Acton's efforts to provide permanent protection for open space parcels, particularly through its close and valued association with Acton's Open Space Committee. SVT has provided assistance in land acquisitions, most notably the Anderson Parcel, and, with ACT, holds conservation restrictions on the Donald Land and the Caouette/Simeone Lands. See Section 5, Table 5.B.2.

3.B HISTORY OF THE COMMUNITY

The Acton 2020 Comprehensive Community Plan provides a history of Acton, which is provided here.

> "Prior to its settlement by farmers from Concord, present-day Acton was frequented by Nipmuck-related Native Americans, who may have practiced some limited agriculture, hunting, fishing and gathering. Many areas of Acton were good campsites especially areas along Nashoba and Fort Pond Brooks as well as Nagog Pond. Artifacts from early hunting and fishing villages have been found in Acton, especially in the area of Nagog Pond.
>
> "Nearly all of present day Acton's 12,990 acres is comprised of portions of four early land grants. The two largest were: Major Simon Willard's Grant (known as Iron Work Farm), and the New Grant or Concord Village. Next to these grants was the Praying Indian Township of Nashoba Plantation, which lay entirely outside present day Acton.
>
> "The early colonial landscape included large areas of meadows. These prime grazing lands were the reason Concord sought to annex these additional lands in 1655. The earliest European settler was John Law, Concord's shepherd, who built his home in 1656 on School Street near Lawsbrook Road.
>
> "By 1730 there were at least two-dozen settlers scattered across the town. In 1735 Acton was incorporated as a town. A meetinghouse was built in the center of town with roads coming from the outlying farms. Although Acton was primarily an agricultural community in its early days, residents were involved in a range of other economic activities including sawmills, gristmills, the manufacture of barrels to store and ship foodstuffs, a pencil factory and even a woolen industry centered on the Faulkner Mills in South Acton; one of the first large-scale manufacturers of woolen cloth in this country. Remnants of that original mill still exist.

Milkweed blooming at Heath Hen Meadow conservation land

"Only with the arrival of the railroad did the villages really begin to grow, especially West Acton Village. It wasn't until after the Civil War that the railroad finally went through East and North Acton. The rail beds remain today and are locations for the proposed Assabet River and Bruce Freeman Rail Trails.

"The 1890s brought a shift in population towards South and West Acton, which caused the precincts and school districts to be realigned. The North and East District Schools were combined into the Center District. Although the districts were officially changed the residents still thought of the villages as East and North Acton. The 1990 Master Plan proposed to revitalize these areas and rebuild their village character.

"At the turn of the century Acton was still an agricultural community, with five villages and a population of 2,120. Apples were Acton's main agricultural export being shipped not only to Boston but to Europe. Before modern refrigeration, space in the cellar of the town hall was auctioned off for storage. Apples were stored in the center of West Acton into the 1950s. Improvements were coming however; a water district was formed in 1912 for West and South Acton; the Center was added later. A town fire department, starting in 1915 with West Acton, replaced the independent fire companies.

"1950 marks the shift from apples to houses, with most of that development in the southern half of the town. There were 3,500 people in Acton in 1950; by 1974 there would be 17,000. The orchards and open fields turned into subdivisions; although Acton still kept its agricultural ties with apples being a major crop into the 1960s. The town was then three villages; Acton Center, West Acton and South Acton. The form of government remains Board of Selectmen — Open Town Meeting form as at the time of its incorporation."

—http://doc.acton-ma.gov/dsweb/View/Collection-4819

3.C POPULATION CHARACTERISTICS

3.C.1 Population

The total population of Acton according to the 2010 census was 21,924 versus 20,331 in 2000, reflecting growth of 7.8% or an annual growth rate of less than 1%. The town's population has generally leveled off in recent years after considerable growth during the 1990s when total population grew 14%. The number of inhabitants per household has also been declining slightly from 2.69 persons per household in 2000 to 2.66 in 2010. In 2011, median household income was approximately $116K, while the median Income for the state was approximately $63K. This was an increase from approximately $91K in 2000.

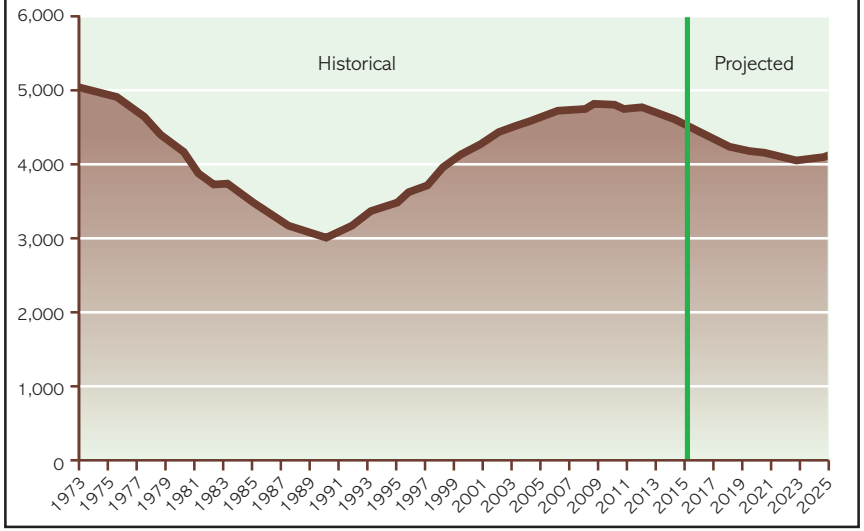
In 2000, 88% of Acton's total population was Caucasian, 8.6% Asian, 1.8% Hispanic, and 0.7% African-American. The 2010 Census indicates a significant change in ethnicity. 77.3% of Acton's population is estimated to be Caucasian, 18.6% Asian, 3.0% Hispanic, and 1.1% African-American. Acton has experienced an extraordinary growth in the Asian population in the last fifteen years. While distributed throughout the town, according to the Environmental Justice Population map (see Section 13, Map R-2A) minority populations have concentrated in the northern and southeastern sections of the town.

TABLE 3.2 - POPULATION AND DENSITY

Date	Population	Population/square mile
1930	2482	124
1940	2710	135
1950	3510	174
1960	7238	359
1970	14,770	732
1980	17,544	875
1990	17,872	894
2000	20,331	1013
2006	20,586	1032
2010	21,924	1098
2020*	22,021	1103
2030*	23,278	1166

* MAPC Forecasts

FIGURE 1: ACTON PUBLIC SCHOOL ENROLLMENT — K THRU 12



Acton's population growth has slowed in recent years as Table 3.2 indicates. Acton's population is growing about 0.50% per year, far less than the annual rate of 1.30% between 1990 and 2000. Acton's population has experienced several growth spurts – first in the 1950s and especially the 1960s, followed by another slower growth period in the 1970s and then another spurt in the 1990s. Projections developed by the Metropolitan Area Planning Council (MAPC) in March 2011 indicated relatively slow growth through 2035. These figures are somewhat lower than the projections found in the last OSRP.

School-age population and school enrollment increased markedly during the1900's and 2000's, peaking in 2009. Since 2009 enrollment has begun a steady, slow decline which is projected to accelerate over the next ten years. A general aging of the population, including a lower birth rate, coupled with lower housing turnover rates and fewer new homes have contributed to this reversal in school-age population. Whereas in the 1990s the average annual number of new single family homes was 88, during the current decade that annual average has fallen to 40. Additional new housing construction in the form of 40B developments has replaced the single family construction, however the number of school-age children in such developments is significantly smaller than found in single family homes. In addition, the birth rate in Acton has declined significantly. During the 1990s, the annual number of births averaged 252; during the period 2005-2011, that number has declined to 188. As a result enrollment is expected to decline by 12% over the next ten years. This enrollment trend is shown in Figure 1.

At the other end of the spectrum, Acton's senior population is the most rapidly growing segment of our population. Between 2000 and 2010, Acton's over-60 population grew at an annual average rate of 4.3% to over 3,900. Seniors now comprise over 17% of the town's total population compared to less than 12% in 2000. Seniors have stayed in Acton in part due to the construction of senior housing in town such as the Robbins Brook and Ellsworth Village projects; and there are other planned senior housing developments as well. Recent projections indicate that the senior population will continue to grow at an annual rate of 2-3% over the next twenty years, more than double the total population growth rate. Recent projections indicate that Acton's senior population will top 6,000 by 2030. This places new emphasis on the need for additional recreation opportunities for the town's senior population, and the town is currently studying the construction of a new senior center.

The average assessed value of single-family homes rose significantly from $292,642 in 2000 to $542,140 in 2007. Since 2007, with the economic downturn, it dropped and in the last two years stabilized at slightly more than $500,000. The total valuation of the town has also risen significantly during this time period, from approximately $2.03 billion in fiscal year 2000 to approximately $3.95 billion in fiscal year 2007, and since then dropping to $3.64 billion in 2012. The town's tax base is heavily oriented to residential, with over 87% of the total property valuation falling into the residential category.

Between 2000 and 2012, the average tax bill has increased at an annual average rate of 6.5%, whereas during the same period the average single family home has increased in value at an annual rate of about 5% per year, even including the effects of the recent economic downturn. Acton enjoys the highest (AAA) bond rating, having been upgraded in 2009 along with only 20 other municipalities in Massachusetts and 170 nationwide. The town currently has a very strong financial reserve position with total reserves in excess of 10% of its operating budget.

The demand to use undeveloped land for residential development has continued as more marginal parcels are being developed and greater "infill" takes place. The town has reviewed and updated its Master Plan as part of the development of a Comprehensive Community Plan. The "Acton Comprehensive Community Plan – Emerging Vision and Goals for Acton's Future" was published in April 2009 and the Acton 2020 Comprehensive Community Plan was published in April 2012.

3.C.2 Employment

The unemployment rate in Acton was only 4.3% as of late 2013 compared with the state average of 6.4%. Acton and the Commonwealth have recovered significantly since the depths of the recession in 2009 when unemployment in Acton exceeded 5%. The Acton 2020 Plan recently did a detailed review of economic development in the Town, which is summarized here:

> No single employer dominates Acton's workforce. There are approximately 11,248 people employed

in jobs within Acton. The major categories of employment are retail trade, public administration including public schools, health care and social assistance, computer systems design and related services, education services (not including public schools) and eating and drinking establishments. There are approximately 11,757 Acton residents in the labor force (working within or outside of Acton). The largest number of Acton residents are employed in the high wage/high education categories of management, computer/mathematical, educational training/library, sales related and office/administrative support. Nearly 90% of Acton's residents commute to work via automobile and 4.5% use public transportation. With the rise in fuel prices, there is an increased, unmet demand for public transportation, particularly for commuters into Cambridge and Boston.

In 1998 and in 2006 the Haartz Corporation placed conservation restrictions on a total of approximately 20 acres of forested uplands on its property. No other private employer supplies open space.

3.C.3 MAPC Build-Out

Most recently, MAPC's build-out projections for Acton have identified a future water supply shortage. This OSRP update has made water supply and conservation one of its major goals for the next five years and addresses the means to accomplish that goal in Section 9.

From Acton 2020:

- All of Acton's public water supply comes from groundwater wells.
- Water demand has been relatively constant over the past six years, approximately 600 million gallons per year (MGY), reflecting water conservation efforts. Acton's state permit allows up to 708.1 MGY.
- Residential water demand is estimated by Acton Water District to be roughly 55 gallons per bedroom per day, substantially lower than the norm of 70.
- 80% of Acton's homes have on-site septic systems, a high ratio for a town of Acton's population. The other 20% use sewers or package treatment to dispose of wastewater.

The following is from the I-495/MetroWest Development Compact Plan (pages 57-61):

- Sustainable water practices will increasingly depend on conservation and innovation throughout the I-495 corridor to ensure protection of both economic and environmental health.

The issue of water infrastructure in Massachusetts is of such importance that in 2010 the Legislature created the Water Infrastructure Finance Commission (WIFC). The Commission is charged with developing a comprehensive, long-range water infrastructure finance plan for the Commonwealth and its municipalities. Specifically, the Commission is charged to: "examine the technical and financial feasibility of sustaining, integrating and expanding public water systems, conservation and efficiency programs, wastewater systems and storm water systems of municipalities and the Commonwealth, including regional or district systems."

Water withdrawals are regulated by the Massachusetts Department of Environmental Protection (DEP) under the authority of the Water Management Act. Thus, new or increased municipal water supplies require permits and the reporting of water use data to DEP. Overall, growth projections are for population expansion of approximately 1% per year, with an accompanying growth in employment population of one-half of 1%. This growth will put increasing pressure on local water systems. While water is a relatively abundant resource in Massachusetts, it is a limited natural resource nonetheless. Of the communities in

Annual Fourth of July Celebration at NARA Park

the Compact Region, all but two are projected to increase their water use. In some cases, demand is projected to double.

Acton is listed as one of 22 towns (out of a total of 37 cities and towns in the MetroWest Region) in the I-495 MetroWest Development Compact Plan where water demand is projected to significantly exceed current authorizations.

Additionally, forecasted increases in water demand are likely to result in corresponding increases in wastewater demand. As of 2011, 19 out of 37 communities in the region had wastewater treatment facilities (Acton is one of these) and all were at or near their current discharge permit limits. Increased water use translates into direct impact on wastewater flow demand. Thus the need for expansion would present a serious challenge.

3.C.4 Land Use and Development Patterns

According to the Acton 2020 Comprehensive Community Plan (Executive Summary p. 13) Acton's land area is approximately 13,000 acres (20 square miles). There are about 2,200 acres of developable land (vacant and not wetland). 29% of Acton's land area is open space (lower than five of the towns it touches*). Roughly 1/3 of this open space is not protected from development. Based on 2008 land use data, approximately 1,800 additional housing units could be built on land now zoned residential, bringing the total at build-out to 10,300, or 22% more than today. This would take more than 30 years at projected growth rates.

3.C.5 State Model Open Space Design (OSD) Bylaw

The OSD Bylaw is provided for in MGL c.40A, section 9. To mitigate the effects of residential "sprawl," OSD offers a practical approach to residential subdivision design that promotes open space preservation based on environmental and social priorities. It features partnership in development design between municipal officials and

*These are Boxborough, Carlisle, Concord, Littleton, Maynard, Stow, Sudbury and Westford.

Wetlands restoration panel, NARA Park

developers that provides innovative flexible incentives for highest marketability, mixed housing types and land uses, and minimal disturbance to the natural terrain. Sprawl contributes to a variety of problems for Massachusetts communities such as Acton including loss of community character, lack of housing, social isolation of residents, and threats to natural resources and water quality. OSD is an alternative to "cluster zoning" and provides for a more "resource-based" approach to address specific needs of a community. Approximately 20 Massachusetts towns have adopted their own OSD model by-law. Acton has its own OSD zoning by-law (Acton's Zoning By-laws Section 4.2) as well as it's own Planned Conservation Residential Community (PCRC) developments by-law, Section 9.1 of Acton Zoning Bylaw. — http://www.mass.gov/envir/smart_growth-toolkit/pages/mod-osrd.html and Town of Acton Zoning By-Laws: http://www.acton-ma.gov/DocumentCenter/Home/View/659

3.C.6 The I-495/MetroWest Development Compact Plan

The Executive Office of Housing and Economic Development announced this plan in March, 2012. The 495/MetroWest Region is made up of 37 cities and towns along the I-495 corridor. The intent of the Plan is to plan for and promote future growth while ensuring that such growth is sustainable. At its core, the Compact Planning process is a locally driven effort built on the priorities identified by the communities in the region. The Plan identifies areas in the region that are considered Priority Development Areas (PDA's) and Priority Preservation Areas (PPA's) in each community, which are intended to guide future land use decisions. (url reference below)

The following is an excerpt from the I-495/MetroWest Development Compact Plan pages 4-6:

> The 495 Compact Region grew at a pace of 6% between 2000 and 2010, compared to 3% for the state overall, gaining 40,400 new residents in that time period. The Region has also grown more culturally and ethnically diverse in the past decade, with minority populations increasing by at least 5% in each of the Region's community types (Figure 3). The Latino and Asian populations experienced the largest percentage increases, with the Latino community growing in Regional Urban Centers like Worcester, Framingham and Marlborough, and the Asian community growing in the suburbs Westborough, Shrewsbury and Acton. There is every indication that this growing diversity trend will continue both in the Compact Region and statewide.
>
> Understanding the Region's demographic profile is critical to understanding and planning for our future economic profile. Demographic trends drive our labor force. There is a clear trend in declining school-age children in the Region overall (Figure 4). The working age population (defined as ages 18 – 64) grew by 7% over the past decade and, interestingly, this group grew faster in the Regional Urban Centers than it did in the Maturing and Developing suburbs. In contrast, the suburbs experienced increases in their population of people aged 65 and over.
>
> These changes have significant land use as well as fiscal, environmental and social implications. For example, growing suburban populations typically require expensive new infrastructure while population

and job growth in older population centers could take advantage of existing networks like roads, sewers and rail lines.

—http://www.495partnership.org/assets/Compact/FinalPlan/finalcompactplansmall2.pdf

3.C.7 Executive Order 418: Affordable Housing and the Community Development Guide

40B is a state statute, which enables local Zoning Boards of Appeals (ZBAs) to approve housing developments under flexible rules if at least 20-25% of the units have long-term affordability restrictions. The goal of Chapter 40B is to encourage the production of affordable housing in all cities and towns throughout the Commonwealth. The 40B standard is for communities to provide a minimum of 10% of their housing inventory as affordable. In 1988, only 2.1% of Acton's total housing stock was deemed affordable under Chapter 40B. As of April 2013, the Massachusetts Department of Housing and Community Development has Acton with 552 affordable housing units, or 6.5% of the total 8475 units of housing stock.

With projected growth expected to bring the housing stock to 9,176 by 2020, this would require that approximately one-half of the new homes would need to be affordable to achieve the 10% goal. The ACHC plays a major role in the creation of new affordable housing units by overseeing the development process. The Acton Housing Authority, a separate governmental agency, owns and manages public rental housing units.

The state has linked the environment and open space with its efforts to increase affordable housing in communities such as Acton that either have not met, or demonstrated compliance with, the state's affordable housing goals. The state required such communities to prepare a Community Development Plan that will set forth a process to increase affordable housing while protecting open space and the environment. See Section 13, Map R-7D.

3.D GROWTH AND DEVELOPMENT PATTERNS

3.D.1 Pattern and Trends

Acton started as a farming community with saw and grist mills centered around Nashoba and Fort Pond Brooks. For a review of Acton's early growth trends, refer to Section 3B, History of the Community.

After World War II, Acton quickly grew into a suburban bedroom community due to its proximity to Boston and major commuting highways, as well as commuter rail. In 1960, approximately 20% of Acton's tax base was from the commercial and industrial sector. That same split, 80% residential/20% commercial remained relatively constant until the mid-1990s when it changed to approximately 85% residential/15% commercial, where it stands today.

The typical development pattern in the 1950s through 1970s consisted of single-family home subdivisions, with lot sizes ranging from half-acre to two acres, depending upon the section of town. The early 1970s saw a few years of growth of apartment buildings, principally along Route 2A, but also in isolated areas of West and South Acton. Many of these units have now been converted to condominiums, either investor-owned or owner-occupied. More recently, residential development has occurred in clustered developments in response to zoning that allows density bonuses (and condominiums) for such developments in return for preservation of open space. In recent years, the average new single-family home constructed in Acton has increased in size and in value. New homes in town now typically are valued in the $500,000-$750,000 range. The median sales price through September 2010 was is $498,750 for single family units (The Warren Group, Banker and Tradesman).

Accessible Boardwalk, NARA Park

3.D.2 Infrastructure

Acton is bisected by Route 2, which provides a commuting route not only into Boston, but also to the industrial areas along Routes 128 and 495. Growth along the I-495 corridor has placed increasing demands on housing and other infrastructure in town. Route 2A (Great Road) serves as a significant regional retail and commercial corridor. Traffic along these major arteries has grown significantly in recent years, at an annual average rate of over 2%. Increasing commercial and residential development along Route 2A is placing greater traffic burdens on the road than it can handle. The town recently reached a compromise with the developer of a commercial development along Great Road reducing it in size due to concerns about traffic impacts. The town is also served by the MBTA commuter rail with service into Boston, and a stop in South Acton.

Public water is available in the majority of town and gas is available on about half the public roads. Electricity and telephone service exists on virtually all public roads. Acton completed construction of the Adams Street sewer treatment plant in February 2002. It serves approximately 10% of the town, and is at approximately 83% capacity, leaving 17% unused capacity for future use. The Board of Selectmen are developing a policy to determine how this

extra capacity will be used, and it is part of their Five Year Action Plan to do so.

3.D.2.1 TRANSPORTATION

Acton has approximately 120 miles of public roads: 10 miles consist of major state highways, approximately 50 miles consist of "historic" town roads, and about 60+ miles consist of subdivision roads built since the mid-1950s. The average household in Acton drives 76 miles per day, the lowest of the adjacent towns except Concord (Acton 2020 Executive Summary page 13).

According to the I-495/MetroWest Development Compact Plan travel demand model, the Distributed Growth Scenario projects a 16% increase in the total number of trips being made over the next 20 -30 years and a 21% increase in vehicle miles travelled (VMT). As a result congestion is also likely to be more widespread throughout the region.

Acton initiated the Minute-Van and Dial-A-Ride service in 2010. This unique transportation service offered by the Town of Acton can be utilized by calling the dispatcher or going on-line to book a trip 24 hours in advance. The service covers anywhere in Acton or within a 3.5 mile radius of Acton Town Hall on a space-available basis. Children under age 12 may ride with an adult. Children aged 12-18 may ride alone with parent permission. The service operates Monday through Friday, excluding holidays. Cost is generally $2/trip, $1/trip for Seniors/ Disabled and the van is equipped with a wheelchair lift. Out of town locations served include: West Concord Center, Emerson Hospital, Maynard Center, Skating Rink and Food Pantry in Boxborough. The Minute-Van also provides Rail Shuttle service from two satellite parking lots, Mt. Calvary Church on Prospect Street and the West Acton Fire Station on Central Street to the South Acton MBTA Commuter Rail. — http://www.minutevan.net

Yellow pond-lily floating on Robbins Mill Pond

3.D.2.2 ACTON'S WATER RESOURCES

The following information was obtained from the Annual Report of the Acton Water District for the year ending December 31, 2012 and the Acton Water District Winter 2012 Water Words Notice:

2012 marked the 100th anniversary of the incorporation of the Acton Water District by the General Court of the Commonwealth of Massachusetts. The capacity and quality of Acton's water resources has increased in size and distribution of the network to accommodate the needs of the Town's expanding population. Acton's population is currently increasing at a rate of about 1% per year. Ronald R. Parenti, Chairman of the Acton Water District, attests that conservation efforts have been very effective in reducing the average per person water usage (Annual Report Acton Water District for the year ending December 31, 2012). Sophisticated water filtration has become an important aspect of the District's operation. The North Acton Plant became operational in 2009 at a cost of approximately $6,000,000. Construction of a similar facility in South Acton will be initiated in 2013 to treat the two Assabet wells and the School Street well field, which represents the District's most productive water resource. The district strictly enforces water restrictions during the summer.

The Acton Water District supplied 95% of the residents of the Town in 2012. The piping network of the water distribution system has grown to 130 miles of pipes buried beneath the town. The District reports that they must continue a regimen of infrastructure replacement to maintain sustainability. As a result, ground breaking on a major new treatment plant in South Acton is expected to occur in the fall of 2013 and subsequent commissioning by December of 2014.

In 2011-2012 the Water District contracted with Wright-Pierce Environmental Engineers to create a 10-year system wide Master Plan. The document evaluates existing conditions. Additionally, the ability to supply water and capacity are assessed using population and projected growth. Acton's water system is ever expanding to support new building. The Water District intends to begin a process of new source exploration to find additional sources of water to meet additional demand.

Water Conservation is crucial to meeting increased demand. Water rebates were offered on a rolling basis in 2012 for customers replacing older toilets and washing machines with EPA WaterSense toilets and Consortium of Energy Efficiency Tier 3 washing machines. A free "Irrigation 101" class was offered, as well as offering customers access to the Home Water Works website, a powerful tool to understand water use and efficiency measures in the home.

Source Water Protection: The Environmental District Manager, Matthew Mostoller, provided technical support to the District Counsel with respect to encroachment (illegal dumping and off-road vehicle use, for example) at the Assabet Well Site. Water District staff also continued their participation in technical meetings and review of documents related to the ongoing Acton – WR Grace site cleanup process (information on the Superfund site can be found at www.epa.gov/region1/superfund and searching for "Acton"). The Landfill area treatment system continued to operate as did the Northeast Area treatment system. Both of these systems are designed to remove contaminants from the aquifer and limit the concentrations of contaminants reaching the vicinity of the District's wells. In June 2012, a transformer on a utility pole in Zone 1 of the Clapp wells fell and ruptured. District staff worked with NStar, MassDEP and Clean Harbors Environmental to assess and clean up the release of mineral oil from the transformer. Groundwater was not impacted by this incident.

The Acton Water District participates in many education and outreach programs to the public, including

TABLE 3.3: ACTON ZONING

		Total Acres[1]	Percent of Town	Developable Acres Remaining[2]	Percent of Total Acres
Residential Districts					
Residence 2	R-2	3,941.9	30.3%	454.8	11.5%
Residence 4	R-4	593.2	5.0%	68.2	11.5%
Residence 8	R-8	1,162.6	8.9%	187.0	16.1%
Residence 8/4	R-8/4	765.7	5.9%	342.8	44.7%
Residence 10	R-10	74.1	0.5%	7.8	10.5%
Residence 10/8	R-10/8	1,554.8	12.0%	669.2	43.0%
Residence A (multi-family)	R-A	225.2	1.7%	39.6	17.6%
Residence AA (multi-family)	R-AA	7.7	0.0%	0.5	6.5%
Village Residential	VR	62.6	0.5%	4.6	7.3%
Village Districts					
East Acton Village	EAV	31.1	0.2%	1.7	5.5%
East Acton Village 2	EAV-2	19.8	0.2%	0.3	1.5%
North Acton Village	NAV	43.0	0.3%	22.7	52.8%
South Acton Village	SAV	34.2	0.3%	7.0	20.5%
West Acton Village	WAV	22.9	0.2%	0.8	3.5%
Office Districts					
Office Park 1	OP-1	119.2	0.9%	64.2	53.9%
Office Park 2	OP-2	105.4	0.8%	22.1	21.0%
Business Districts					
Kelley's Corner	KC	47.0	0.4%	3.4	7.2%
Limited Business	LB	158.6	1.2%	9.6	6.1%
Powder Mill District	PM	72.8	0.6%	9.5	13.0%
Industrial Districts					
General Industrial	GI	135.1	1.0%	5.7	4.2%
Light Industrial	LI	39.1	0.3%	5.5	14.1%
Light Industrial 1	LI-1	191.5	1.5%	5.7	3.0%
Small Manufacturing	SM	119.0	0.9%	8.5	7.1%
Technology District	TD	302.6	2.3%	255.8	84.5%
Special Districts					
Agriculture-Recreation-Conservation	ARC	1837.0	14.1%	NA	NA
Planned Conservation					
Residential Community	PCRC	304.8	2.3%	0	0%

1. Zoning Districts generally exclude major roads and highways, so the total of this column is less than the total acreage in the land use table.
2. The acreages indicated as developable excludes public open space, private common land, and areas like known wetlands that are clearly not developable, but they remain as rough estimates of development capacity, as many factors influence the feasibility of development of a parcel of land.

public school students, local Discovery Museum, high school Envirothon Team, Cub Scouts, Acton Lions and Rotary clubs, Green Acton and the Council on Aging. Acton TV produced a documentary on the Water District.

The Acton Water District continually promotes water conservation. It participates in the Alliance for Water Efficiency. Homeowners are encouraged to visit the new website to identify water used and water wasted based on individual actions in the home. See Section 13, Map O-DA. — http://www.home-water-works.org

3.D.3 Long-term Development Patterns

Acton's land area is approximately 13,000 acres (20 square miles) of which 29% is open space (less than that of five of the abutting towns). Roughly 1/3 of this open space is not protected from development. There are about 2,200 acres of developable buildable land, i.e., vacant and not wetland. Based on 2008 land use data, approximately 1,800 additional housing units could be built on land now zoned residential, bringing the total build-out to 10,300, or 22% more than today. This would take more than 30 years at the projected growth rates.*

Acton 2020 presents an excellent analysis of long term development in the town. The following is an excerpt from pages 191 and 192 of the report which can be viewed in its entirety. — http://doc.acton-ma.gov/dsweb/Get/Document-35853/Volume2.pdf

"Table 8.3 [reproduced here as Table 3.3] contains an estimate of undeveloped land in each zoning district that is not clearly foreclosed from development by open space protection or factors such as major wetlands. As noted in the table, this is necessarily a rough estimate because many factors may affect the feasibility of development for a specific parcel, and most of these factors cannot be ascertained from the "bird's eye view" of the town-wide land use analysis.

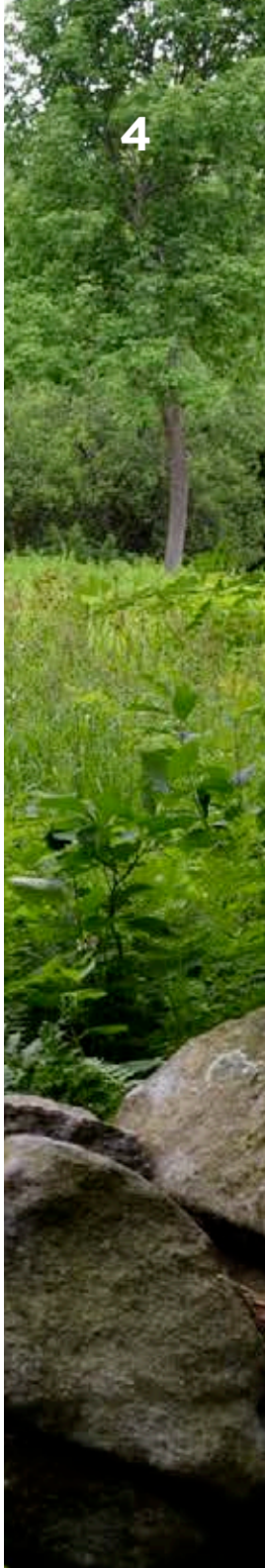
"A simple order of magnitude of potential future development can be calculated by using the intensity of development prescribed by the zoning bylaw for each district. For example, in R-2 district, the number of housing units per acre is approximately 2 (or potentially a little less when subdivision street lay-outs – typically about 15% of total land - are accounted for).

"Using this simplified analysis, approximately 1,842 new units could be built on the land shown in residential districts in Table 3.3. Added to the 8,530 housing units in Acton counted in the 2010 U.S. Census, this would result in approximately 10,372 total housing units (not counting housing units that could be built in Village Districts or Business Districts). This is roughly the same magnitude that other estimates made in the past. It is somewhat higher than the most recent previous build-out estimate in the 2004 To Live in Acton Community Development Plan because the estimate of developable land by zoning district (Table 3.3) reflects a more detailed examination of 2008 land use data which identified additional developable land; however, the previous estimate also made assumptions of the likelihood that infill development would occur on parcels of various sizes, and this reduces the calculated build-out from full use of all developable land…. The build-out analysis done for the 1998 Master Plan Update estimated that a total of 10,600 housing units could be built in Acton, given its available developable vacant land at that time. The 2004 To Live in Acton Community Development Plan reduced the estimated future increment to 10,200 dwelling units. The 2010 Census reports that Acton has 8,530 dwelling units in 2010 and that the number could increase to 9,176 by 2020 and 9,515 by 2030, given current zoning. (The future estimates are based on MAPC projections of population and households.)

"A detailed analysis of vacant lots approved for residential use done by the Acton Planning Department indicates that there are 343 lots ready for construction. These are scattered around town in various subdivisions and approved residential projects and in a few cases (15 lots) on land where subdivision approval is not required. (See Section 13, Map R-3 Acton Zoning.) A key point is that residential build-out is unlikely to be reached within 20 years. A more useful build-out analysis can be done by considering scenarios for development, including the use of overlay districts, or even the "what-if" scenario of zoning change. This is a step that goes beyond the inventory phase of the Acton 2020 plan. It also must be kept in mind that a build-out analysis does not necessarily provide any information about the time that it would take to reach full development, and that development does not necessarily stop when no more buildable land remains, because redevelopment at a higher or lower density could ultimately occur."

*Acton 2020 Comprehensive Community Plan Executive Summary, page 13.

SECTION 4: ENVIRONMENTAL INVENTORY AND ANALYSIS



Heath Hen Meadow conservation land

4.A TOPOGRAPHY, SOILS, GEOLOGY, AND CLIMATE

4.A.1 Soils

The soils of Acton are predominantly moist, but rough and stony in character, with many areas of sandy loam. Wet soils are associated with the stream valleys, and certain areas of town have a number of ledge outcroppings.

The soil types identified in this report were compiled for the Town of Acton by the Natural Resources Conservation Service and reported in "Soil Survey of Middlesex County, Massachusetts", 2009. (See Section 13, Map R-4A, General Soil Map of Middlesex County, MA.) These soils are described in the sections that follow. There are 547 acres of prime agricultural soils (See Agricultural Survey, appendix H.) and a limited number of active farms in town that total about 167 acres, according to the land classification of the Acton Assessors (Chapter 61: 97 acres, other, 70 acres). Much of the prime farmland is no longer in agricultural use. The general soil map shows broad areas which have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape, typically, consisting of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas, and is named for the major soils or miscellaneous areas. The components of one map unit can occur in another, but in a different pattern. (See Section 13, Maps R-4B, C, and D.)

The general soil map can be used to compare large areas for general land uses. Areas of suitable and unsuitable soils for different uses can be inferred from the map. Because of its small scale, the general map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. More detailed mapping is available for those purposes. The soils in any one map unit differ from place to place in slope, depth, drainage and other characteristics that affect management. Any particular site can have a variety of soil types.

4.A.1.1 HINCKLEY-FREETOWN-WINDSOR (BEIGE, #3 ON MAP)

Nearly level to steep, very deep, excessively-drained sandy soils that formed in glacial outwash; and nearly level, very deep and very very poorly-drained organic soils.

Excessively-drained Hinckley soils are on glacial outwash plains and terraces. Nearly level, very poorly-drained Freetown soils are in large depressions and along streams. These typically have layers of muck, mucky peat and peat to a depth of about 65 inches.

Excessively-drained Windsor soils are on glacial outwash plains, and the tops of terraces and deltas. Typically, the soils have an 8-inch surface layer of loamy sand. The 15-inch subsoil consists of loamy sand in the upper part and sand in the lower part. The substratum consists of gravelly sand and sand.

The dominant minor soils in this general map unit are the somewhat excessively-drained Merrimac soils on smooth-sloping plains, moderately well-drained Sudbury and Deerfield soils on low plains and in swales, and both poorly-drained Wareham and Raynham soils and very poorly-drained Scarboro soils in depressions and along drainage-ways.

This map unit is mostly forested. Some areas are cropland. Many areas are used for home sites. A few isolated areas are used as sources of sand and gravel.

This map unit has severe limitations for onsite sewage disposal, as the Hinckley and Windsor soils readily absorb, but may not adequately filter and treat, the effluent from septic tanks and may contaminate ground water resources. This map unit is poorly suited to cultivated crops and pasture as the Hinckley and Windsor soils are droughty and require irrigation for optimum crop production. Freetown soils have severe limitations for urban use because they are wetlands.

4.A.1.2 PAXTON-MONTAUK-WOODBRIDGE (YELLOW, #6 ON MAP)

Nearly level to steep, very deep, well-drained and moderately well-drained loamy soils formed in glacial till on drumlins and smooth-sloping ground moraines.

Well-drained Paxton soils are on top slopes and side slopes of drumlins. Typically, the soils have a 7-inch surface layer of sandy loam. The subsoil has fine sandy loam in the upper part and sandy loam in the lower part. The approximately 43-inch substratum is firm sandy loam in the upper part and very firm fine sandy loam in the lower part.

Well-drained Montauk soils are on smooth sloping ground moraines and broad, irregularly- shaped drumlins. Typically, the soils have a 7-inch surface layer of fine sandy loam. The subsoil is about 22 inches thick and consists of sandy loam. The substratum is firm, gravelly loamy sand.

Moderately well-drained Woodbridge soils are in drainage swales and on top slopes, upper side slopes, and

toe-slopes of drumlins. Typically, the soils have a 2-inch surface layer of fine sandy loam. The subsoil of fine sandy loam has distinct, brown and yellowish-red masses of iron accumulation. The substratum is firm, fine sandy loam with similar red masses of iron accumulation.

The dominant minor soils are moderately well-drained Scituate soils on drumlins and moraines, and poorly-drained Ridgebury and very poorly-drained Whitman soils in depressions and drainage-ways. Many small areas of very poorly drained Freetown and Swansea soils occur in depressions and small narrow valleys.

This map unit is mostly forest. Some areas are orchards, hay, or pasture. Some areas are used for home sites. It has severe limitations for onsite sewage disposal because of restricted permeability and a seasonal high water table. Where slopes do not exceed 15%, this map unit is well suited to cultivated crops, orchards and pasture, and has good potential for conifer production. Areas with slopes in excess of 15% are suitable for orchards, but are subject to erosion.

4.A.1.3 URBAN LAND-MERRIMAC-UDORTHENTS (BLUE, #4 ON MAP):

Soils are nearly level to strongly sloping, very deep, somewhat excessively-drained Merrimac soils on broad outwash plains and valleys, plus areas of urban land and udorthents (man-altered land).

Nearly level and gently sloping, somewhat excessively-drained Merrimac soils are in areas where less than 85% of the land is covered with impervious surfaces, and most areas are in intricate patterns with urban land. Typically, the soils have a surface layer of fine sandy loam about 9 inches thick. The subsoil is gravelly sandy loam in the upper 9 inches and gravelly loamy coarse sand in the lower 8 inches. The substratum is gravelly coarse sand in both the upper and lower parts. Urban land consists of areas where 85% or more of the land is covered with impervious surfaces such as buildings and pavement.

Udorthents consist mainly of areas where soil has been removed and areas that have been filled. Where the surface soil has been removed, loamy or sandy subsoil and substratum layers are exposed. The fill consists of soil, rubble, refuse and spoil from dredging, and ranges from 2 to 20 feet thick.

The dominant minor soils are well-drained Canton, Charlton, and Paxton soils on uplands. Also included are moderately well-drained Sudbury soils in swales and depressions and excessively-drained Hinckley soils on knolls and low ridges. Freetown, Swansea, and Scarboro soils occur in isolated wetlands.

This map unit is mostly in residential, commercial and industrial developments. Because of the Merrimac soils, this map unit has severe limitations for septic tank absorption fields; but since most of these areas are served by municipal water and sewage disposal systems, there are few limitations for additional development, as far as the major soil components are concerned.

NOTE: The Acton 2020 plan goes into a discussion of septic and soil suitability.

Canada goose feather floating on pond, Nashoba Brook

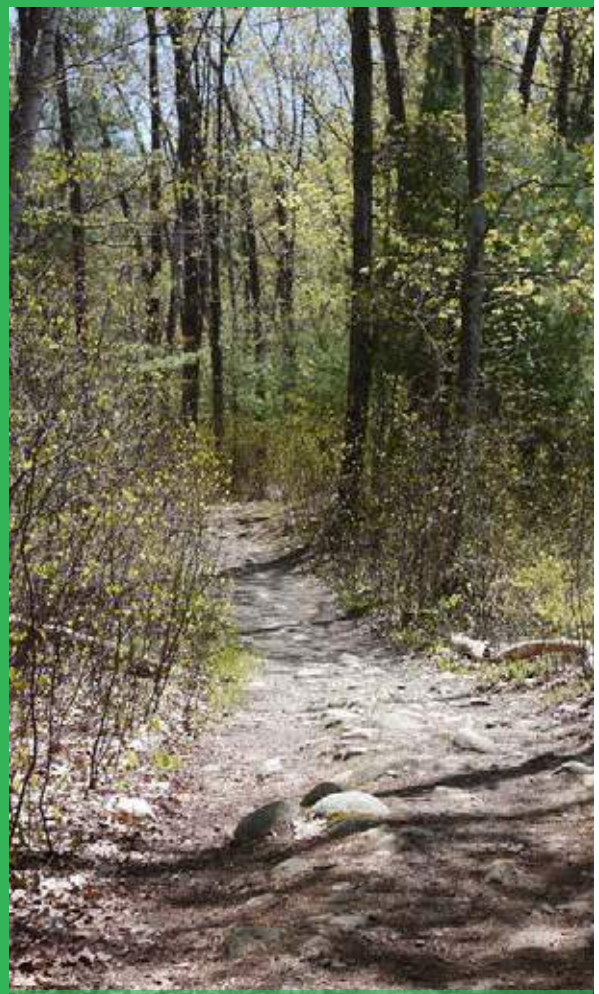
4.A.2 Geology

Acton is underlain by old metamorphic rocks, which were reshaped and covered during the continental ice ages. The bedrock beneath Acton is the Nashoba Formation, an assemblage of metamorphic rocks (Hansen, 1956; Alvord, 1975). These rocks were originally sandstones and similar sedimentary rocks, but were altered by heat and pressure over geologic time into metamorphic rocks. The Formation is largely gneiss, a relatively coarse-grained rock which shows different layers of minerals upon close examination. There is considerable variety in the mineral composition of the rocks in the Nashoba Formation, and numerous subdivisions have been identified. Most of the Formation in Acton is biotite gneiss, in which can be seen small plate-like crystals of the mineral biotite, a black form of mica. The Formation is relatively old, dating back to the Ordovician geologic period, which occurred between 430 and 500 million years ago.

The Nashoba Formation has been subjected to extreme forces over geologic time, during which at least one mountain range rose and was eroded away. As a result, the Formation is extensively folded and faulted (Goldsmith, 1991). The various subgroups within the Nashoba Formation are mapped as elongated bands stretching from northeast to southwest. Relic faults separate the Formation from the neighboring rocks to the northwest and southeast. These faults are technically inactive and do not present a significant geologic hazard. Nonetheless, small magnitude earthquakes occur once every year or two. If residents even notice these earthquakes they often mistake them for a large truck passing on the road, although sometimes they are accompanied by a sudden loud noise like a cannon shot.

The Nashoba Formation is punctuated in places by younger plutonic (volcanic) rocks, known as Acton granite. Granite deposits were formed when molten magma intruded from the subsurface into the Nashoba Formation. The intrusions, which are relatively small features, were mined in the past in several small quarries in Acton.

A glacial esker can be found along a portion of the loop trail at Will's Hole conservation land. An esker is a sand and gravel ridge deposited by a stream that flowed beneath a melting glacier. The curving form of this narrow, raised landform, with steeply sloping sides, functions as a drainage divide. Water on its easterly side flows into Nonset Brook; water on the westerly side flows southward to Wills Hole Brook.



Glacial till on path near Will's Hole

Quarries are located in North Acton off Quarry Road and in the Acorn Park subdivision. The large foundation stones seen in colonial houses and barns around Acton are usually Acton granite.

The geologic character of Acton is largely determined by younger deposits that overlie the bedrock. These varied formations were deposited during the continental ice ages which ended 10,000 years ago, a very recent time geologically. During the ice ages, sheets of ice, over a mile thick in places, blanketed Canada, New England and the north- central United States. The glaciers formed, wasted away, and reformed although only the effects of the most recent ice age are clearly discernible in the area's geology. During each ice age, massive sheets of ice moved over the landscape, scraping and re-depositing rocks and sediment. In Acton, the last glacier moved more or less due south. Glacial striations, marks scraped by the moving glacier and the rocks it carried, can still be seen on smooth rock outcrops.

The ice ages resulted in numerous and varied geologic deposits formed when the glacier passed, and also during the post-glacial period as the melting glacier produced torrents of water. Much of Acton is blanketed by glacial till, a compact mixture of sediment. Till is composed of a wide range of grain sizes, from very fine clay particles to large boulders. These various grain sizes were compressed under the moving glaciers into a poorly sorted mixture that is tight to water. The high water tables and poor drainage that interfere with on-site wastewater treatment system performance in much of Acton are caused by these till deposits. The rocky soils that discourage farming in New England are also a consequence of the glacial till soils.

One striking manifestation of till is drumlins, elongated hills aligned with the direction of movement of the glacier. There are nine drumlins in Acton, ranging in height from 310 to 430 feet above mean sea level. They include Faulkner Hill in South Acton, Wright or Mead's Hills in West Acton, and Great Hill near the intersection of Routes 27 and 111.

The lower elevations are generally occupied by glacial outwash deposits of sand and gravel deposited in water running from the melting glaciers. Fine-grained clay and silt were washed from these deposits by the running water, and therefore these soils are more open and drain more readily than the till soils. All of Acton's public water-supply wells are located in sand and gravel outwash, and these deposits generally require greater protection from pollution than the areas covered by till.

The sand and gravel outwash deposits are punctuated by a variety of intriguing glacial features. Blocks of ice left by the wasting glacier eventually melted to create kettle-holes in the outwash. Grassy Pond and Will's Hole formed in such glacial kettle holes. Today, these two ponds have evolved into quaking bogs in which mats of sphagnum moss float on the water. With time, the floating mats will slowly close in on the open water and eventually the ponds will disappear and give way to meadows.

Eskers, long sinuous gravel deposits, are also found in Acton. These deposits were made in tunnels under the wasting glacier. Today, they stand as narrow causeways, 10 to 30 feet high, winding through the woods. Were it not for their tortuous path, one would mistake them for constructed road or railroad beds. Eskers are found in the Town Forest in North Acton and in the Acton Arboretum.

Other glacial deposits include kames, kame terraces, and kame deltas. Kames are relatively flat-topped hills that formed in holes in the ice sheet. Kame terraces were formed by glacial melt-water streams along the margin between the wasting ice sheet and higher valley walls. Where these streams flowed off the ice onto ice-free land they formed kame deltas. A large kame delta occupies the area south of Fort Pond Brook along the Concord town line and west to Parker Street. A kame terrace lies to the north of the brook along School Street. Forest Road runs on top of a kame west of Hosmer Street.

Acton's geology continues to change in present times, and there are geologic formations that postdate the ice ages. They include swamp deposits, which are forming in

wetlands throughout the town, and alluvium, which forms in stream beds.

Few commercial rock or mineral deposits exist in Acton. Historically, Acton granite was quarried and deposits of bog iron were used to produce a low-quality ore. Several gravel pits were recently active, producing aggregate from esker and glacial outwash deposits.

There are no features that pose significant geologic hazards or limitations on development. Perhaps the only exception is the recent swamp deposits, which have poor bearing capacity for structures. These deposits generally occur within wetlands, which are precluded from development by town bylaw and the Massachusetts Wetlands Protection Act.

4.A.3 Climate

Based on National Oceanic and Atmospheric Administration data at Hanscom in Bedford, the region generally shows seasonal average high temperatures in July of approximately 83 degrees and seasonal low average temperatures in January of 16 degrees. Normal annual precipitation is approximately 43 inches, generally evenly spread with 3-4 inches of precipitation each month throughout the year. Acton is located on the western side of Route 128, traditionally seen as the snow/rain line beyond which heavier snowfalls have often resulted than in Boston. However, in the last 5-10 years that "snow line" appears to have moved westward to Route 495; whether this is a minor variation or a sign of long-term climate change remains to be seen.

4.B LANDSCAPE CHARACTER

10,000 years ago, during an atmospheric warming period, North America's most recent continental glacier began its slow recession north, which marked the beginning of an evolution into the landscape of Acton we know today. Local topography is dotted with glacial features mentioned in the geology section. The early European settlers found the scant existing topsoil was acidic and densely mixed with glacial cobble. The results of their painstaking efforts to clear these marginal fields for crops can be seen in the many stone walls criss-crossing the landscape. While several successful farms still operate, most small subsistence farms were abandoned between 1860 and the 1930's; thus many of the mature red oak and white pine forests are about 70 years old, some slightly older.

Beaver dam and lodge, built next to Heath Hen Meadow conservation land pedestrian bridge which spans across Heath Hen Meadow Brook. Additional beaver lodges exist upstream. A larger dam is built downstream, at the convergence of Fort Pond Brook and Heath Hen Meadow Brook. These beaver dams can cause water levels to rise in West Acton neighborhoods, threatening abutting residents' septic systems.

Acton's most noticeable landscape aspect has been its abundance of trees, although even newcomers are watching familiar woody lots being cut and developed. As noted elsewhere, the open fields, pastures, and orchards of Acton's farming past are rapidly becoming obscured by forest re-growth. The town has run an active street-tree maintenance and planting program since the time of the depression, and most new home buyers in the subdivisions immediately plant their yards heavily. Acton has been recognized by the nation's Arbor Day Foundation as a "Tree City USA" since 1984.

Acton's center corridor, running east to west from Acton Center to the Littleton town line, is particularly woodsy, and contains two large conservation areas, including Nagog Hill and Grassy Pond. Nagog Hill Road is on Acton's scenic road list. Grassy Pond, small and boggy, is important habitat. There are relatively few homes in this area; and development should be guided elsewhere.

Acton's heavy tree cover, which provides a beautiful, cool, leafy appearance to the streets and public areas, and a habitat for birds and small mammals, is a mixed blessing. Acton has very few long vistas. Its many hills disappear behind the trees, and many streams and small ponds are not visible from the road. Many structures that are noteworthy from an historic or architectural point of view are similarly obscured.

The landscape continues to evolve as beavers have created several beaver ponds, killing stands of trees and providing open areas and new ecosystems.

To encourage diverse habitat and to provide aesthetic beauty, unforested open space should be preserved not only from development, but also from the encroaching forest. See Section 4.D.8 for early successional habitat preservation/meadow management information. See Maps, Section 13-R-5, Acton's Unique Features.

4.C WATER RESOURCES

4.C.1 Acton's Streams and Ponds

Two major streams flow through the town. Fort Pond Brook, fed by Grassy Pond, Guggins Brook and Heath Hen Meadow Brook, flows through the western and southern portions of town. Nashoba Brook flows across the eastern portion of the town; Butter Brook, Will's Hole Brook, Conant Brook and Nagog Brook are its tributaries. Spencer Brook and its tributaries drains the extreme northeast corner of town. Since approximately 75% of the watershed areas for Fort Pond and Nashoba Brooks are located in Acton, the quality of these brooks depends on how well we protect them. The streams and associated wetlands mentioned above provide an estimated average of 65% of the recharge of the aquifers, the source of Acton's water. See Section 13 Map R-6E, Sudbury, Assabet and Concord Watershed.

Other than the pond at NARA, the town does not have any large ponds or lakes that are used for public swimming, as do many surrounding towns. Ice House Pond, located off Concord Road, was used as a source of ice for many years. Grassy Pond, with its bog-like characteristics, is home to many rare plants and a diverse wildlife population. Part of Nagog Pond is located in Acton (the other part is in Littleton), although water supply rights were assigned to Concord by the General Court in 1884.

The state has classified all of Acton's surface waters, with the exception of Nagog Pond, as Class B waters. This classification indicates the waters are generally suitable for primary and secondary contact recreation, may be used for water supply with appropriate treatment, and will provide good wildlife habitat. Nagog Pond is classified as Class A water, reflecting its high quality and use by Concord for drinking water.

Excess nutrients are a problem in Acton's surface water bodies. During the summer and early fall, a green carpet of aquatic plants, indicating eutropic conditions, can be seen on Robbins Mill Pond, an impounded section of Nashoba Brook. Ice House Pond has had problems in the past with water chestnut overgrowth.

In addition to the nine-acre pond at NARA, Acton has numerous water-related recreational options, which are detailed in the description of water-based recreation in Section 5.C.4. Some of the town's waters are popular for fishing, skating, boating, and wildlife observation. Many of the ponds and streams can only be accessed by hiking through town conservation lands, but some, such as Ice House Pond, are adjacent to parking. These bodies of water are discussed further in Section 5.C.4 Water Based Recreation. The Massachusetts Division of Fisheries and Wildlife stocks both Acton's Fort Pond Brook and Nashoba Brook with rainbow, brown, brook and tiger trout each spring. See Massachusetts Department of Fish and Game official website for more information. —www.mass.gov/dfwele/dfw/. See Section 13-Map R-6E.

Fishing at NARA Park

4.C.2 Acton's Water Protection and Conservation Measures — Acton Water District (AWD)

Environmental Manager, Matthew Mostoller, is a member of the New England Water Works Association Conservation Committee, providing him an opportunity to network with other water suppliers and interested parties who are involved in water conservation efforts in New England *(Environmental Manager's Report 2011)*. The AWD Offered water conservation rebates in 2012 for replacement toilets and washing machines. In 2013 they offered a free irrigation 101 class attended by over 30 customers. The District has a membership in the Alliance for Water Efficiency to offer customers access to Home Water Works website, a tool to understand home water efficiency measures.

> "For a community the size of Acton, it is unique in both its natural and engineered water systems. All of our water is drawn from groundwater wells located within the Town of Acton. It is true that the aquifers that supply these wells cross many communities, but our ability to access these aquifers is local. In disposing of our wastewater, most of this is returned to our aquifers or local water bodies through septic systems, clustered wastewater plants, and the sewered portions of South Acton and Kelley's Corner. This is in contrast to many nearby communities or ones that we may have moved from or grown up in. Water is usually shipped in or shipped out, sometimes even both, creating the potential for a serious alteration of the natural water cycle. Here in Acton, we do not import or export our water, which means we have more control and therefore greater

Nashoba Brook

responsibility, to address our water and wastewater systems. We all need to be mindful of what we dispose of down our drains, how much water we use during the summer months when it is least plentiful, and increasingly, how we deal with our storm water and balance aquifer recharge and protection needs with new and existing development."

For more information, please visit their website. — www.actonwater.com/Web%20Ready/WaterWords.pdf

AWD PROTECTION MEASURES:

Mr. Mostoller provided technical support to the District Counsel with respect to encroachment at the Assabet Well site. In 2011, he was appointed to the Massachusetts Waste Site Cleanup Advisory Committee to represent water supply interests on regulations and policies regarding contaminated site cleanup. The AWD continued participation in technical meetings and review of documents related to the ongoing Acton-WR Grace site cleanup process. Most notably, the AWD has been able to change the regulatory status of 1,4-dioxane and participated in a community update held in May 2011. The sediment cleanup in Sinking Pond and the North Lagoon wetlands was completed in 2011. For a complete 2013 report by the Environmental Protection Agency (EPA) with maps, visit www.epa.gov/region1/superfund/sites/graceacton/530655.pdf. The Landfill area treatment system continued to operate as did the Northeast Area treatment system. Both of those systems were designed to remove contaminants from the aquifer and limit the concentrations of contaminants reaching the vicinity of the District's wells. The AWD continues to plan perennial improvements to Acton's aging infrastructure and, in the realm of treatment and regulatory compliance, they are turning their eye toward South Acton and the full-scale treatment of the Assabet and School Street wells. Construction of a sophisticated water filtration system is being initiated in 2013. (Excerpted from *Environmental Manager's Report 2011*).

For more information about water supply and demand see Section 3.C.3 MAPC Build-Out. Also, see Section 13, Map O-DA, Acton Water District, depicting wellhead locations and the critical protective areas (Zone II) surrounding each well.

FLOOD PLAINS PROTECTION:

Parts of Acton are vulnerable to flood damage. Because of low descent rates, Acton's brooks tend to meander, resulting In silty, broad flood plains. It has been estimated that 20% of the town is flood plain. The flood plains store peak water during wet periods and moderate the discharge rates of flood waters. The protection of these flood plan areas is critical to the inhabitants of Acton and its neighboring towns. In Acton's past, when farming dominated its economy, many wetlands and smaller streams were channeled to drain land for agricultural use. With the passage of time, many of these ditches have filled in, causing much slower drainage after storms. This delayed drainage is beneficial for flood control regionally, but may be detrimental locally if poorly drained areas have been developed for residential use. Over time, development has increased the rate of runoff generally, also worsening flooding and drainage in parts of town. Through flood plain zoning and wetlands protection, virtually all new development in flood plains is prohibited.

Acton participates in the National Flood Insurance Program. The town's zoning bylaw contains a flood plain overlay district that restricts development within flood plains. Acton's zoning bylaws also limit certain land use activities within the Groundwater Protection District to protect the town's present and future drinking water supply. See Section 13, Map R-6F, 2013 FEMA flood zones and Map R-6D, Groundwater protection districts.

4.C.3 River Protection

The Organization for the Assabet, Sudbury and Concord Rivers (OARS) is a 501(c)(3) non-profit organization whose mission is to protect, preserve and enhance the natural and recreational features of the Assabet, Sudbury and Concord Rivers, their tributaries and watersheds and to increase public awareness of the rivers' values as important natural resources. Established in 1986 as the Organization for the Assabet River, OAR added the Sudbury and Concord Rivers to its mission in 2011, becoming OARS. It raises awareness of the rivers, collects data, works with local and state governments and promotes stewardship. Its most recent accomplishment was an Army Corps of Engineer's sediment remediation study funded and completed in 2010. The Assabet River runs through a tiny portion of the southeast corner of Acton. The Acton tributary to the Assabet River is Nashoba Brook. There is a canoe launch on Route 62 in South Acton where one can fish, go boating or birding. OARS conducts annual cleanup events, during which many volunteers have removed tons of trash (such as tires and appliances) from the Assabet River at the "Canoe Launch" parcel and along the shoreline above the Powder Mill

Dam in Acton. For more information including water quality reports and the EPA-approved monitoring program, visit www.oars3rivers.org. Refer to Section 13, Maps R-6F and G for 2013 and 2010 FEMA Flood zones.

Acton Stream Teams founder, Mary S. Michelman, passed away from breast cancer in December of 2010. For many years, her organization sought to identify and reduce sources of pollution and excessive nutrients to Acton waterways, and to raise awareness of the wildlife habitat and recreational opportunities provided by Acton's local streams. In 2012, the Natural Resources Department and the Friends of the Acton Arboretum, Inc. collaborated to publicly name a previously-unnamed stream after Mary. The stream, named "Mary's Brook" flows through the Acton Arboretum and into Cole's Brook, which flows into Fort Pond Brook. Street signs were installed on Minot Avenue and a plaque placed on the fern boardwalk in the Acton Arboretum. A locally-recognized natural resource may become eligible for federal recognition five years after the honoree has passed away. The Town intends to seek such recognition for Mary's Brook.

Waterlily and water chestnut plants on Robbins Mill Pond

4.D VEGETATION

As stated in the Natural Heritage and Endangered Species Program BioMap2 Town Overview: "Acton lies within the Southern New England Coastal Plains and Hills Ecoregion, an area comprised of plains with a few low hills. Forests are mainly central hardwoods with some transition hardwoods and some elm-ash-red maple and red and white pine." This section describes the vegetation of Acton, including both an historic and management perspective. As per the Open Space and Recreation Plan Requirements, this section includes the following specific topics:

- General Inventory
- Forest Land
- Public Shade Trees
- Agricultural Land
- Wetland Vegetation
- Rare Species
- Unique Natural Resources
- Vegetation Mapping Projects

4.D.1 Historic Overview

Acton's natural plant life still echoes the town's agricultural past, and is typical of vegetation elsewhere in the region. Acton, like most of Massachusetts, was essentially clear-cut during the Colonial era, and as late as 1900, over 90% of the town was in open fields. As the town was subdivided, starting in 1950, many developments were established in old orchards, fields, and areas that were just beginning to revert to forest. In 1990, those areas of town that were not covered with structures, pavement, or maintained lawns, were approximately 90% forested (including treed house lots), with most trees between 25 and 75 years old. Conversely, MassGIS reports that of the approximately 13,000 acres in Acton, 68% was undeveloped land and 32% was developed land in 1971. In 1999, that had changed to 54% undeveloped and 46% developed.

4.D.2 General Inventory

The principal native forest type in Acton is red and white oak, hickory, and white pine in the upland areas, with most flood plains, that had once been excellent hay meadows, reverting to a red maple monoculture. Acton is seeing the growth of new habitats as many of the 30-year-old red maple swamps are flooded by beaver activity. With the inundation of water, the trees have died, and the swamps are becoming open marshes. This circular progression is inviting new species such as spotted turtles and herons. The growing open marsh on Newtown Road is a good example of such a new habitat, although the flooding in nearby residential areas has endangered septic systems. In isolated areas, such as ravines and steep north slopes, there are stands of beech, birch, and hemlock. An excellent example of a hemlock and beech stand occurs in the Spring Hill Conservation Area.

Since 1900, a number of factors have limited diversification of the town's woodlands compared to what existed in pre-Colonial times. Chestnut blight has eliminated American chestnut, once one of Acton's most valuable species, from its predominant place in the forest. Virtually all American elms of any size have succumbed to Dutch elm disease. The sugar maples planted along our roadways at the turn of the century have now naturalized into the woodlands, and many of the white ash trees are now dying of "ash decline." This loss of diversity in the woodlands could have serious consequences if the area is faced with a new insect or disease complex; in fact, the over-abundance of oak has been a liability during the gypsy moth outbreaks of the early 1980s and again

in 1990-1991. Acton is beginning to see occurrence of the Hemlock woolly adelgid, which has decimated hemlocks south of Massachusetts. In August, 2008, the Asian Longhorned Beetle was identified in Worcester, Massachusetts. This alien invasive is a tremendous threat to the hardwood forests of New England, and State and Federal officials have begun a quarantine and eradication program over a sixty-square-mile area, resulting in the removal of over 20,000 trees thus far. If the beetle escapes from the quarantine area, it would only be a matter of time before it reaches Acton. Because the preferred host trees for the beetle include maple and birch, the species selection for roadside trees should be evaluated further.

A number of non-native species are naturalizing into the woodlands. These include Norway maple, European and common buckthorn, oriental bittersweet, burning bush, autumn olive, Japanese honeysuckle, Japanese knotweed and multiflora rose. Mile-a-minute vine, a very aggressive invasive, has been reported in Littleton. Purple loosestrife, an invasive wetland plant originally from Europe and Asia, is present in Acton's wetlands. In the United States, there are no native "pest" species that control purple loosestrife. As a result, the plant spreads rapidly and causes significant negative impacts, including reduced native plant coverage, lower plant diversity and impaired wildlife habitat. Water chestnut, an aquatic invasive, has been found at Ice House Pond and the pond at Robbins Mill. Management of purple loosestrife and water chestnut is described in Section 4.D.8. In 2009 the Commonwealth enacted a "Prohibited Plant List", outlawing the planting of invasive alien species, such as Norway maple, burning bush, and honeysuckle. This will not seriously impede the spread of these invasives, but will set a good educational tone for the public and the green industry.

Despite the loss of many forest species as noted above, a wide variety of plant species exists in Acton. A list of the plant species found in the Arboretum was compiled by Dr. Richard Howard in 1986 (see Appendix Section 12-F1). Disease-resistant elms have also been planted at the Arboretum, and, in a limited way, on conservation land, and are part of the ongoing streetscape plantings described in Section 4.D.8. Visit www.elmpost.org for more information on "Saving the American Elm."

4.D.3 Forest Land

Acton has an abundance of forestland. The habitat map (See Section 13, Map R-6A,) shows about 7,000 acres of forest, including forested wetlands, in Acton (about 50% of the town's total area). A large forested area (720+ acres), in a largely roadless part of town, is located in the northeast corner, east of Nashoba Brook. Part of this area is protected by Spring Hill ,Nashoba Brook, Camp Action and the recently acquired Robbins Mill conservation lands. Another large forested area (400+ acres) is located south of Nagog Pond. Part of this area is protected by the Nagog Hill conservation land. Mixed oaks dominate the upland areas, sometimes mixed with white pine, American beech, pitch pine, black birch, sassafras and pignut hickory. Three hundred and four acres of Acton's privately-owned forests are in the State's Chapter 61 tax abatement program. The program allows the owner to pay reduced taxes as an incentive to keep the land in forest and gives the town first right to purchase the land when the owner wishes to sell.

Much of Acton's forest land is in small private holdings, including street-side trees and the back land of residential lots. Some of these areas are ecologically significant as wildlife habitat and movement corridors, and make important contributions to the town's character.

Mowing at Wetherbee conservation land

The Massachusetts Department of Conservation and Recreation's (DCR) Urban and Community Forestry Program has developed guidance for community forest management. A municipality can receive a Massachusetts Sustainable Community Forestry Award if it attains the following six goals:

- Hire professionally trained forestry staff
- Enact a local tree protection ordinance
- Establish an advocacy group
- Develop a Forest Resource Management Plan
- Achieve Tree City USA status
- Maintain good interagency coordination

Acton has achieved four of these six goals. The Municipal Properties Director serves as the Tree Warden and is a certified arborist. Acton has enacted a local tree protection ordinance under the Scenic Roads Bylaw, and further protection is provided under MGL Chapter 87 for public shade trees (see also Section 4.D.4 and 4.D.8). Advocacy groups such as the Acton Garden Club and the Friends of the Acton Arboretum have been established and provide a forum for forest management. The town has good coordination between these groups and departments, as well as the Acton Conservation Commission and the Land Stewardship Committee of the Conservation Commission, which provides stewardship for the Acton conservation lands. Acton has a Forest Management Plan for the 72-acre Wetherbee Conservation land, described in section 4.D.8. In order to receive accreditation as a Tree City, the following four criteria must be satisfied:

1. Have a tree board or department (such as an active Tree Warden)
2. Possess a community tree ordinance (such as enforcement of MGL Chapter 87)
3. Maintain an annual urban forestry budget of at least $2 per capita

4. Host an Arbor Day observance and proclamation

4.D.4 Public Shade Trees

Public shade trees include those along streets, in cemeteries and parks, or any other publicly-owned and managed trees. These trees are overseen by the Municipal Properties Department under MGL Chapter 87. Street trees are also protected under the Scenic Road By-Law. The Municipal Properties Director, Dean Charter, also serves as Tree Warden. The incumbent is both a Massachusetts Certified Arborist and an International Society of Arboriculture Certified Arborist. He has also served as President of the Massachusetts Tree Wardens and Foresters Association and as President of the New England Chapter, International Society of Arboriculture. The Director and members of the staff are also Massachusetts Certified Pesticide Applicators. Street tree maintenance and the town's shade tree planting program are described in Section 4.D.8.

4.D.5 Agricultural Lands

Acton has a number of farms that are important to preserving the town's remaining rural character. "Prime farmland" (PF) is land available for agricultural purposes (and not currently in urban use) with a favorable combination of physical and chemical characteristics for producing food, feed, forage, fiber and oil seed crops. "State or locally important farmland" (SLIF) soils are those that fail to meet the requirements of prime farmland but are still important to the production of crops. (Map 4: Soils and Geologic Features Map)

Current active farms include:

- Stonefield Farm in South Acton at the end of Martin Street, a 60-acre working farm that has been in the Simeone family since 1929 (small amount of PF, mostly SLIF). This includes the 15-acre Caouette-Simeone property, purchased at the October 2010 special town meeting. It abuts the Assabet River Rail Trail, forms an important link in a Fort Pond Brook greenbelt, and provides access to the brook and the historic South Acton mill pond.
- Cucurbit Farm, a 17-acre family-owned farm at 32 Parker Street, a working farm (PF and SLIF).
- Idylwilde Farm, owned by the Napoli family, includes approximately 100 acres in and around West Acton, but most of it behind the Central Street location near Route 2. A major portion of the farm's acreage is in the Fort Pond Brook flood plain and is too wet to grow spring crops. Abutting the farm are the conservation areas of Guggins Brook to the south and Jenks to the north (PF and SLIF).
- The Hennessey Farm on Prospect Street, a 17-acre farm containing a feeder tributary to Fort Pond Brook and abutting town-owned conservation land on Central Street.
- Kennedy Farm, a large Westford pig farm, also has 140-acres of land in Acton. Most of the original pig farm has been converted to the Butter Brook Golf Course in Westford, while the Acton portion of the land is classified under Chapter 61 (forestry) and contains a gravel operation.
- The state Northeastern Correctional Facility's farm fields abutting Route 2, approximately 100 acres of fields that in the past were used to grow corn and alfalfa for their dairy herd, which was sold in 2002
- The State Police horse barn and fields, a 16-acre parcel abutting Route 2.
- Bobby's Ranch, a large horse farm behind Nagog Park, has an Acton address, but the land is in Westford and Littleton. Bobby's usually has over five dozen horses available for trail riding and lessons.
- Horse farms can also be found in the Pope Road/ Strawberry Hill Road/Estabrook Road area, on Wetherbee Street/Route 2, on Nagog Hill Road, in West Acton and other sections of town.

All agricultural activities should use best management practices, such as those developed by the Massachusetts Audubon Society, to prevent pollution of adjacent wetlands. For a more comprehensive listing, see *MAGIC Agricultural Survey*, Appendix Section 12-H-1.

Wildflower garden on Meetinghouse Hill, Acton Center

4.D.6 Rare Species

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) lists only one plant in Acton that has status under the Massachusetts Endangered Species Act (MESA). The dwarf mistletoe, *Arceuthobium pusillum*, a Species of Special Concern, was last observed in Acton in 1898. BioMap2 states that there are 7 species of Conservation Concern: 1 bird, 2 reptiles, 2 amphibians, 1 insect, 3 mussels and 1 plant.

4.D.7 Unique Natural Resources

Acton encompasses numerous unique natural resources. These are described in full in Section 4.F. According to the 2012 NHESP Atlas, Acton has 715 Core Habitat acres, 40% of which is protected. Acton has 79 Acres of Critical Natural Landscape of which 32.2% is protected.

4.D.8 Town Vegetation Management

Vegetation management activities undertaken by the town include programs geared to developed areas, such as roadsides, and also undeveloped areas, such as Conservation Lands. Management of vegetation in developed areas is performed by the Municipal Properties Department (see Section 4.D.4). Vegetation management activities undertaken by the town include the following programs:

- Roadside mowing — Road shoulders are mowed on an annual basis, providing for traffic visibility while allowing wildflowers to flourish.
- Street tree maintenance — Public shade trees, as defined under MGL Chapter 87, are pruned and cared for, to provide for both safety and aesthetic quality. Dead or structurally unsound trees are removed as public hazards.
- Shade tree planting program — The town has run a tree-planting program since 1941. Over 2,000 trees have been planted, set back from the road edge, under this program. The town has attempted to plant no more than 10% of any one species, so as to maintain diversity in street trees. Both funding considerations and a lack of suitable planting spots have prevented a "one for one" replanting program for street trees, although natural forest re-growth is a significant factor not only in the woods, but also along the roadsides. In 2009, Town Meeting appropriated the sum of $10,000 in Community Preservation Funds (Historic Preservation) to restore the historic traditional streetscape in the three Historic Districts through the planting of street trees. Approximately 15-20 trees have already been planted with this funding, the majority of which were disease- resistant elms. This funding stream should generate another 10-20 new plantings over the next three years.
- Poison ivy control — The Town conducts a very limited poison ivy spray program along the roadsides and hiking trails to allow the public to safely use those areas. A more extensive program has been curtailed due to the onerous requirements of the Vegetation Management Plan, which requires the application of herbicides to a right-of-way, and which has been filed with the Massachusetts Pesticide Bureau.
- Wildlife openings — Any open fields on conservation lands are mowed each fall with a brush hog to keep the fields open and provide a diversity of habitat. As time allows, new fields are also placed on the annual mowing schedule. Six meadow management plans were created in 2013 by Oxbow Associates. These include meadows at NARA; Stoneymeade, Heath Hen Meadow, Grassy Pond and Jenks conservation lands; as well as 3 areas at Morrison Farm. The two primary goals of these plans are to maximize diversity of native flora associated with early successional communities, and minimize or eradicate invasive flora. Other habitat goals of these plans are to establish and maintain the aesthetic appeal of the management area; provide recreational and/or agricultural activities; and establish a mosaic of different types of meadow habitat. See appendices, Section 12, B1 through B6 for all *Oxbow Associates Meadow Management Plans*.
- Purple loosestrife control — In 2001, the Acton Conservation Commission authorized the release into two wetlands areas (Great Hill Conservation Area and NARA Park) of Galerucella beetles that eat loosestrife and lay eggs only on that plant. This initiative has had positive effects on controlling the spread of loosestrife, though it has fallen short of reducing loosestrife by 90% in those areas as had been hoped.
- Water chestnut control — Ice House Pond was dredged in 1995 to control the infestation of water chestnut. This invasive species has, however, returned. The Natural Resources Department and the Conservation Commission work collaboratively with SuAsCo Cooperative Invasive Species Management Area (CISMA) to schedule volunteer workdays for hand-pulling water chestnuts. Hand-pulling of water chestnut began on Ice House Pond during the summer of 2011 and will continue with scheduled work-days in 2013, 2014 and 2015.
- Forest Resource Management — In June, 2011, a DCR Forest Management Plan was created for the Wetherbee conservation land. Its stewardship is overseen by the Acton Conservation Commission.

Pile of water chestnuts pulled from Ice House Pond

Robbins Mill Pond, part of Nashoba Brook

The plan's purpose is to manage the parcel sustainably for long-term forest health, productivity, diversity and quality, as well as to enhance cultural, historical and aesthetic resources. See Appendix, Section 12-A-1 for the full copy of the plan.

4.E FISHERIES AND WILDLIFE

As per the Open Space and Recreation Plan Requirements, this section includes the following specific topics:

- Inventory
- Vernal Pools
- Wildlife Migration Corridors
- Rare Species
- Wildlife Management

4.E.1 Overview

Over the last 30 years, Acton, like many suburban communities within the Route 495 belt, has experienced a transformation from an agrarian/orchard community to a residential community with greater than 70% forest cover. As a result of this dramatic change in land use and increased forest cover, Acton has experienced a reintroduction of many wildlife species which have been uncommon in eastern New England for the past 150 years.

While wildlife can be found in even the most densely-populated areas of town, the most productive and diverse wildlife habitat corridors follow the two major stream basins, Nashoba Brook and Fort Pond Brook. Together, these streams and their associated tributaries represent Acton's contribution to the Assabet River watershed and are home to a rich wildlife community.

Nashoba Brook enters Acton from Westford and flows in a southerly direction, eventually running under Route 2 near the Concord line. The brook traverses a distance of 4.5 miles before it converges with Fort Pond Brook and feeds into Warner's Pond in West Concord. Fort Pond Brook enters Acton from Boxborough and runs in a southerly and easterly direction. Each of these major stream basins and associated tributaries are rich in floodplain/wetlands habitat.

The inventory section of the report focuses on the two major stream basins described above. Each basin's wildlife species are identified, as are the important unprotected open space parcels essential to preserving contiguous, unfragmented habitat. The goal of this section is to identify both inter- and intra-town wildlife corridors vital to the survival success of native species.

4.E.2 Inventory - Nashoba Brook Drainage Basin

The Nashoba Brook Drainage Basin can be broken into three general sections, as described in the following sections.

4.E.2.1 NORTHERN NASHOBA BROOK BASIN — NORTH ACTON TO GREAT ROAD

Nashoba Brook and Butter Brook converge in North Acton and flow south into the Robbins Mill impoundment The northernmost portion of Nashoba Brook is characterized by open marsh/floodplain habitat utilized primarily by beaver, mink, otter and fisher. Much of the flooded red maple swamp associated with recent beaver activity has produced favorable habitat for wood ducks and other cavity-nesting species. Many acres of young red maple swamp common to this riverine ecosystem have been flooded and drowned by beaver activity within the past five years. Muskrats, beaver and river otter populate the open marsh region bordering the inlet to Robbins Mill Pond. Many songbird species nest in the extensive cattail marsh borders.

Of greatest value to the diversity of wildlife species in this area is the undisturbed acreage running north and west into Westford. To the south and east, the unprotected Robbins Mill parcels were developed after a ballot vote to purchase this property was defeated in 2000. However, this property was developed as a cluster subdivision and 60% of the total 235 acres has been granted to the town. When combined with the existing conservation lands of Spring Hill, Camp Acton, Nashoba Brook and Hearthstone Hill, this area represents more than 600 acres of contiguous undisturbed uplands forest habitat, as well as extensive forested wetlands. Collectively, the properties along the east side of the Robbins Mill impoundment represent diverse wildlife habitat. The uninterrupted corridor running north into Carlisle and east into Concord should be preserved wherever possible. The uplands forested swamps east of the Robbin's Mill impoundment provide critical habitat for many common forest species, both mammal and bird.

The section of Nashoba Brook running south towards Great Road has open marsh and floodplains that have been cited as critical habitat for wood turtles. A cooperative project is being conducted to assess habitat and population of wood turtles in this section of Nashoba Brook, which employs both students and professionals from Oxbow Wetlands Associates. Small radio trackers have been attached to several of the wood turtles to follow their migratory patterns.

4.E.2.2 SOUTHERN NASHOBA BROOK BASIN — LAKE NAGOG TO ICE HOUSE POND

South of Great Road and flowing into the Ice House Pond Basin, Nashoba Brook meanders, forming a series of deep pools with steep banks and broad floodplains. This is a prized area for fishing and is populated by both beaver and otter. Beginning in this region and running in a westerly direction, including Conant Brook and Nagog Brook, is an extensive unbroken chain of open space parcels producing one of the most significant wildlife corridors in Acton. This broad wildlife corridor is important to deer, coyote, fox, fisher and the occasional black bear. It connects the Nashoba Brook Basin with Lake Nagog, Nagog Hill Conservation Area, Nagog Brook, Grassy Pond, Wills Hole Brook and several critical unprotected parcels west of Route 27. The blend of both stream corridor and uplands hardwood forest create habitat suitable for white-tailed deer, coyote, red fox, barred owls, screech owls, sharp-shinned hawk, Coopers hawk, broad-winged hawk and wild turkeys, as well as many species of song birds. Access to and viewing of the Nashoba Brook riverine ecosystem will be made easier for the public as implementation and construction of the Bruce Freeman Rail Trail becomes a reality.

The portion of the Nashoba Brook Basin south of Brook Street also provides a diverse wildlife habitat. South of the Brook Street bridge, there is a large tract of land (town atlas E-4, Parcel 47) with rich habitat value containing a tapestry of forested uplands, open pastureland and floodplain/marsh. This important unprotected open space provides a critical connection to the properties in the Nagog Brook drainage basin, where white-tailed deer follow a well-traveled corridor to the open space parcels on the west side of Route 27.

The Ice House Pond Basin, in combination with the Morrison Farm and Woodlawn Cemetery property, represents an uninterrupted wildlife corridor through to the Acton Arboretum. White-tailed deer, coyote, red fox and fisher frequent this travel corridor. The Ice House Pond Basin and connected open marsh represent important wildlife habitat for a variety of migratory ducks, as well as nesting habitat for mallards, Canada geese, wood ducks, and a healthy population of muskrats and beaver. Since the dredging of Ice House Pond in 1995 to control the infestation of water chestnut, this area has once again become a favorite fishing spot for Acton residents. An annual volunteer-based workday was begun in 2011, overseen by the Natural Resources Department, to remove water chestnuts from Ice House Pond.

The southern extent of Nashoba Brook in Acton is an area encompassing the farm fields owned by the Commonwealth of Massachusetts, Route 2 conservation land and an unprotected parcel (Town Atlas Plate G-4, Parcel 174); the combined area represents more than 100 acres of open space with high wildlife value. This is an area frequented by Canada geese, white-tailed deer, coyote, and several nesting pairs of eastern bluebirds.

4.E.3 Inventory — Fort Pond Brook Drainage Basin

Fort Pond Brook enters Acton from Boxborough and flows in a southerly and easterly direction through much of West and South Acton. A considerable portion of Fort Pond Brook runs through heavily-developed residential areas. The major tributaries associated with Fort Pond Brook are Guggins Brook, Heath Hen Meadow Brook, Grassy Pond Brook, Muddy Brook, Pratt's Brook and Cole's Brook. The Fort Pond Brook Drainage Basin can be broken into three general sections, as described below.

4.E.3.1 FORT POND BROOK BASIN — WEST ACTON/ BOXBOROUGH

Guggins Brook and the associated open marsh habitat, specifically near the Boxborough town line, have proven to be significant breeding habitat for both wood turtles and spotted turtles. The Natural Resources Department has been working with Brian Butler of Oxbow Associates studying the wood turtles in Guggins

Native cinnamon ferns grow in large clumps in moist woods in Acton

Brook. Mr. Butler and the staff of the Acton Water District (AWD) have cooperatively set aside an area on AWD land, which is comprised of sand and gravel where the turtles lay eggs, in order to study and measure their population changes over time. Throughout the Fort Pond Brook watershed, beaver activity is extensive, requiring monitoring and management over the next five years. Evidence of flooding and groundwater infiltration into septic systems (resulting from beaver activity) has been experienced in the Flint Road area south of Massachusetts Avenue. Beaver activity along the Heath Hen Meadow Brook and Muddy Brook tributaries will be monitored, but do not now pose a health or safety concern to West Acton residents. In both locations impoundments caused by beaver dams have greatly diversified wetlands ecosystems by killing off large stands of red maple.

4.E.3.2 FORT POND BROOK BASIN — SOUTH ACTON/ STOW

The Heath Hen Meadow riverine ecosystem contains extensive wetlands habitat, much of which is protected open space. The Acton Conservation Trust purchased the 16-acre Whitcomb land in 2005 in an effort to connect the Heath Hen Meadow Brook and Flagg Hill conservation areas, making an unbroken wildlife corridor connecting conservation land in Acton to the protected Captain Sargent conservation land in Stow. The upstream section of Heath Hen Meadow Brook represents diverse riverine habitat and an extensive red maple swamp. Beaver activity is widespread in the watershed.

Douglas-Gates boardwalk

4.E.3.3 FORT POND BROOK BASIN — ACTON CENTER — GRASSY POND

Grassy Pond exhibits peat land characteristics with many associated bog species; the pond and connected wetlands provide important wildlife habitat. There are two unprotected parcels in this area that are very important to protect for their wildlife habitat and corridor benefits. The first parcel (Town Atlas D-3, parcel 11) is a 14-acre forested property on Newtown Road, abutting Grassy Pond and the Grassy Pond Conservation Area. It contains significant wetlands and provides habitats for important species of birds and warblers. The second parcel (Town Atlas D-3, parcel 10) is a 39-acre property abutting Bulette Road and the Bulette Town Forest. Preserving this property would safeguard a wildlife corridor running from Grassy Pond to Route 2.

In the future, the outlet to Grassy Pond at the intersection of Newtown Road and Arlington Street will require management to eliminate the impoundment caused by beaver activity.

4.E.4 Vernal Pools

Vernal pools are small seasonal ponds that often are not connected to streams or other water bodies. Thus, they depend on groundwater, snowmelt and rainwater, and usually become dry by late summer. Twenty-three Certified Vernal Pools and 142 "potential vernal pools" are identified on the Habitat Map for Acton. Vernal pools are critical habitats for some salamander species, wood frogs, and a wide variety of other wildlife. Some species of salamanders and wood frogs migrate from surrounding forested uplands to these pools in the spring to breed. Without these vernal pools, we would lose these animals. Potential vernal pools are small topographic depressions or small pockets of suspected standing water identified from topographic maps and aerial photographs by NHESP as possible candidates for being vernal pools. A vernal pool is certified by NHESP following submission of documentation that a species of animals that require vernal pool habitat are actually present. Acton's wetland regulations provide a degree of protection for vernal pools regardless of their certification status. Ponds and vernal pools also provide preferred habitat for the following wildlife species: bullfrog, pickerel frog, eastern painted turtles, little brown bat, big brown bat, mink, and beaver. (See Section 13, Maps R-6A and R-6B.)

4.E.5 Wildlife Migration Corridors

The Nashoba Brook and Fort Pond Brook watersheds described in Section 4.E.2 and 4.E.3 provide the main wildlife migration corridors between Acton and adjoining towns. Several transportation corridors, most notably Routes 2 and 27, as well as developed areas, serve as barriers to unrestrained migration. See Section 13, Map O-F.

4.E.6 Rare Species

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) lists eight species in Acton that have status under the Massachusetts Endangered Species Act (MESA). The 2012 list of rare species published by NHESP lists the occurrences of rare or endangered animals in Acton with the date they were last noted. Estimated Habitats of Rare Wetlands Wildlife mapped by NHEPS are indicated on the *Habitat Map*. These areas are known sites for rare or threatened species and receive an extra degree of protection from the Massachusetts Endangered Species Act, administered by NHESP, and the Massachusetts Wetlands Protection Act, administered by DEP and the Acton Conservation Commission. It is likely that there are

other important wildlife species and habitats, and more vernal pools in Acton that are as yet unmapped.

The seven listed animal species include one threatened species, the vesper sparrow (*Pooecetes gramineus* 2003), and six species of special concern -- blue-spotted salamander (*Ambystoma laterale* 2002), twelve-spotted tiger beetle (*Cidindela doudecimguttata* 1930), frosted elfin butterfly (*Callophrys irus* 2008), dwarf mistletoe (*Arceuthobium pusillum* 1898), wood turtle (*Glyptemys insculpa* 2006), and eastern pondmussel (*Ligumia nasuta* 1999).

4.E.7 Wildlife Management

Much of the vegetation management undertaken by the town, as described in Section 4.D.8, has a wildlife management component, especially as regards to habitat. Maintenance of wildlife openings and control of invasive species such as purple loosestrife and water chestnut help keep a diverse and healthy wildlife population. The Forest Resource Management Plan also has a large wildlife component. Other specific management efforts include:

- Acton Bluebird Recovery Project — This project has worked with the elementary schools to construct and place bluebird boxes throughout conservation areas. A dedicated group has monitored bluebird boxes, replacing older boxes with better-quality ones, and greatly helping to control the population of house sparrows.
- Vernal pool certification — As indicated above, the town has, in the past, taken an active role in certifying vernal pools throughout the town. Identification of these resources helps manage adjacent areas to protect these resources. See Section 13, Maps R-6A and B.

4.F SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

Acton has a variety of scenic areas and unique environments worthy of preserving, and fortunately, many of these areas already have some form of protection. As per the Open Space and Recreation Plan Requirements, this section includes the following specific topics:

- Scenic Resources
- Geologic Resources
- Cultural Resources
- Unique Resources

In addition, specific attention is given to the biodiversity of Acton.

4.F.1 Scenic Resources

Acton has diverse scenic resources, encompassing both cultural and natural settings. Specific areas are discussed below in Section 4.F.2 and 4.F.4 (natural) and 4.F.3 (cultural). This section notes general scenic inventories and protections afforded by the town.

4.F.1.1 STATE SCENIC LANDSCAPE INVENTORY

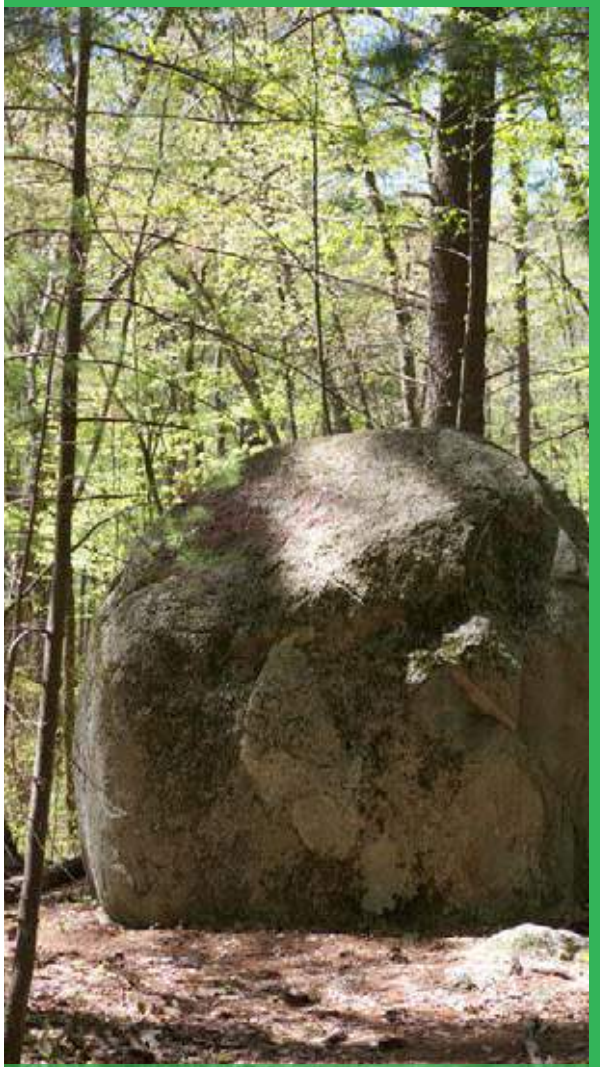
Acton has three areas listed as Distinctive or Notable on the state's Scenic Landscape Inventory. One is Nagog Pond and its shoreline. Another includes portions of Pope, Strawberry Hill and Esterbrook roads. The third area is Grassy Pond, some of which is conservation land, but much of the shoreline is unprotected. For more details, see "The Acton Reconnaissance Report/Freedom's Way Landscape Inventory" online. — http://www.mass.gov/eea/docs/dcr/stewardship/histland/recon-reports/acton-with-map.pdf

4.F.1.2 SCENIC ROAD BYLAW

Acton's Scenic Road Bylaw provides, in part, that any repair, maintenance, reconstruction or paving work done with respect to any road designated as a scenic road shall not involve or include the cutting or removal of trees; or tearing down or destruction of stone walls, or portions thereof, except with prior written consent of the Planning Board after a public hearing. The bylaw covers all or portions of the following:

Windsor Avenue	Arlington Street	Robbins Street
Stow Street	Liberty Street	Martin Street

Glacial erratics are stones and rocks that were transported by a glacier, and then left behind after the glacier melted. Erratics can be carried long distances, and are a piece of rock that differs from the size or type of rock native to the area in which it rests. Scientists sometimes use erratics to help determine the route of ancient glacier movement.



Resting Rock in Nagog Hill Conservation Land

High Street	School Street	Piper Road
Hayward Road	Coughlin Street	Taylor Road
Minot Avenue	Forest Road	Newtown Road
Concord Road	Pope Road	Proctor Street
Spring Hill Road	Esterbrook Road	Central Street
Brook Street	Carlisle Road	Fort Pond Road
Nagog Hill Road	Quarry Road	Hammond Street
Minuteman Road	Strawberry Hill Road	Bulette Road
Isaac Davis Trail	Wheeler Lane	Simon Hapgood Lane

4.F.2 Geologic Resources

Acton has a rich history of utilizing its granite deposits to produce products shipped around the northeast for building construction. Throughout much of North Acton, evidence of these open pit gravel quarries can be seen. In recent years the largest of the quarries, located off Quarry Road, has been purchased privately and some of the granite is now once again being used to generate sculptures. Evidence of rich gravel deposits resulting from the last continental glacial period 10,000 years ago can be found throughout Acton. The Nathanial Allan Recreation Area (NARA) 9-acre pond was excavated from alluvial outwash material. One hundred eighty thousand cubic yards of gravel from this deposit were shipped to Boston and became incorporated into the Central Artery Tunnel roadway reconstruction, otherwise known as "The Big Dig." Other notable gravel deposits in the form of eskers can be found throughout Acton. Three notable eskers on publicly-owned land are the esker at Wills Hole/Town Forest, the esker in the Acton Arboretum and the esker on the Bulette land near Route 2. Acton's conservation lands feature numerous "egg rocks." These glacial erratics can be found highlighted in the Acton trail guides.

4.F.3 Cultural Resources

Acton has a rich historic background, as described in Section 5. With specific regards to open space and recreation, the town's resources include the Town Common and several historic sites, structures and corridors as described below.

Veteran's Memorial monument, Acton Center

4.F.3.1 TOWN COMMON

Acton is blessed with a traditional town common, which still marks the governmental center of town, and is the town's geographic center as well. This area includes "Meeting House Hill", the site of the first meetinghouse in Acton, which is now a small park and wildflower garden maintained by the Acton Garden Club. The wide grass expanses, mature trees, historic homes and stone monuments complete the "New England small town" tableau. The town common itself is protected by both its Chapter 40C Historic District designation, and as part of the Acton Center National Historic Register District. However, its appearance could benefit from having the utilities put underground, and any attempt to widen busy Route 27, which bisects the Common, should be resisted.

The Acton Congregational Church, a traditional New England structure with spire and a well-maintained street-front garden, has expanded the church building and its parking area on a previously-wooded parcel of land, Boardman's Hill, in town center. This loss of a charming rural lot in the town center was offset somewhat by additional parking for the church that will keep vehicles off the narrow residential roads during church functions.

The expansion of the Acton Memorial Library required the use of Goward Field for parking. This change in use required a vote of the State Legislature. The adjoining residential property, where portions of the Library's septic system are located, was purchased by the Town for future municipal use. The Library's 1890 building, which faces Main Street, was not changed. The small playground located behind the Library on land that was part of Goward Field is a popular park for young children. A new handicapped-accessible playground was installed in the summer of 2013.

On the 11th hour of the 11th day of the 11th month, the signing of the Armistice in 1918 ended the First World War. On the 11th hour of the 11th day of the 11th month in 2011, Acton saw a new Veterans' Memorial on the Town Common. The granite memorial was carved by Acton artist, Yin Peet, and is of an eagle with a revolutionary flag in one talon and an American flag in the other talon. The wording on the monument reads:

> "To all Veterans, and those now active in the Armed Forces of the United States of America:
>
> We honor your service and recognize the hardship of your loved ones,
> We welcome you home, while remembering those who have yet to return,
> And we Grieve for those who have made the ultimate sacrifice.
> With heartfelt gratitude that
> Our Freedom will endure and flow to future generations,
> We hereby dedicate this Memorial to you.
> The People of Acton
> 11*11*11"

4.F.3.2 HISTORIC SITES, STRUCTURES AND CORRIDORS

South Acton Historic District: Parcels H2A 48 and 49 (9 and 13-23 School Street): The former South Acton depot lot (H2A-49) and the lot just west (H2A-48), which was the site of at least two buildings of the Tuttles, Jones & Wetherbee Company, are both now open. In recent years the depot lot has reverted to the town. Part of this lot could be reserved for open space.

North Section of Parcel H2A-57: This is an old sawmill lot, owned by the owners of Erikson Grain Mill, which lies on the north bank of Fort Pond Brook and dates from 1728. It is a small grassy space used frequently by walkers, with foot access along a short path remaining from the original main road dating before 1703. It crosses the brook over a stone arch bridge dating from 1906. If Erikson Grain Mill has no use for this relatively inaccessible space, the town or other agent could negotiate the acquisition of at least the sawmill site for conservation or recreation.

Faulkner Mill Dam, located on Parcel H2A-57: This dam was rebuilt in 1848 as a replacement for the original dam which had stood at the location since 1702. The South Acton Village Plan assigned a high priority to preserving the structural integrity of the dam, which is the only reason the Mill Pond exists. The dam's collapse would eliminate Mill Pond as a scenic and recreational resource.

Isaac Davis Trail: The Trail was listed on the National Register in 1972, and is part of the April 19, 1775 "line of march". It runs along portions of Hayward Road, Musket Drive, Minuteman Road, Woodbury Lane and Main Street, as well as through some open land, into Concord. Vistas, stone walls and roadside vegetation are a part of this trail's aesthetic.

4.F.4 Unique Resources

Acton has numerous unique resources. Five key resource types or areas are described below. Biodiversity, which in part incorporates unique resources, is discussed in Section 4.F.5.

4.F.4.1 QUAKING BOGS

There are three large quaking bogs, or peat lands, in Acton. They are located at the Arboretum, Grassy Pond and Will's Hole. These areas are home to many bog plants, including sphagnum moss, pitcher plants, sundew, black spruce and tamarack.

The Arboretum's bog or peat land is entirely owned by the Town and is home to a wide variety of acid-loving plants. While several species of sphagnum blanket the entire bog, leather leaf and northern pitcher plants are also common. This is one of only a few locations in town where poison sumac can be found. A boardwalk traverses the bog and is a favorite stop for school groups and nature lovers. Plans are in place to rebuild the bog boardwalk along with handicap access from Minot Avenue. Construction will occur in 2014.

Grassy Pond exhibits bog-like characteristics, and has been identified by the Natural Heritage and Endangered Species Program (NHESP) as being "worthy of protection". Approximately one quarter of the shoreline is town conservation land, and a considerable amount of the watershed for this pond is also town-owned. With a pH of 5.5, the water is not extremely acidic, and has a considerable fish population. As adjacent land becomes available, it should be considered a high-priority purchase.

Will's Hole looks very much like the classic quaking bog, and it is also totally on town conservation land. However, a portion of the water in the bog is supplied by a small stream, rather than springs, and off-site development along Nagog Park should be closely monitored so that the water quality in this feeder stream is not degraded. Thanks to the hard work of the Acton Conservation Commission at the time, recent development adjacent to this bog area was performed in such a way as to practically eliminate the impact on Wills Hole.

View through the trees at Heath Hen Meadow conservation land

4.F.4.2 ICE HOUSE POND

This millpond is an impoundment of Nashoba Brook and part of the Nashoba Brook greenbelt. The town owns the pond bottom and the entire shoreline. Located in a very high-visibility area close to the heavily-populated areas of Acton Center and East Acton Village, the pond provides fishing, picnicking, and canoeing opportunities. In 1995, in response to the pond being rapidly overwhelmed with water chestnuts, the town dewatered and dredged the pond, taking away approximately 25,000 cubic yards of organic sediment. The pond now has a depth of 5-6 feet, instead of the 2 feet prior to dredging. The dam control structure (under private ownership) was also rebuilt by the town in 1995, allowing for periodic drawdowns to control future infestations of nuisance weeds. Water chestnut has begun to spread throughout the pond again. Workdays to

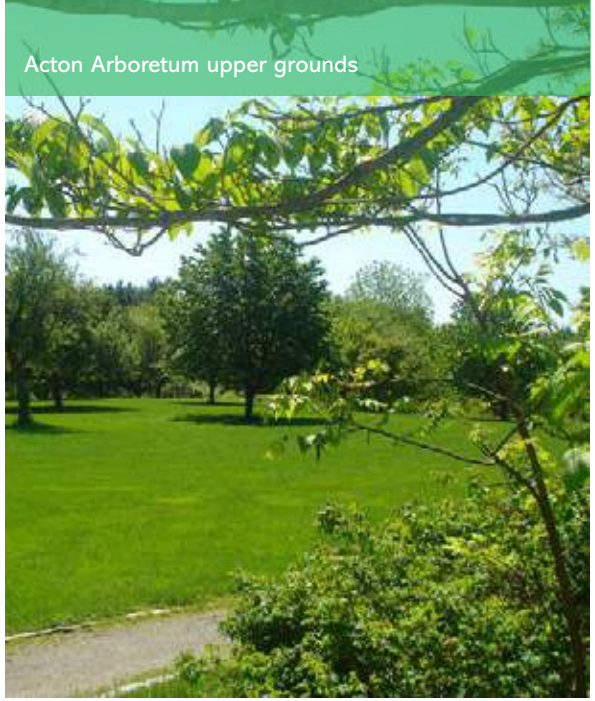
manually remove water chestnut began in earnest in 2011 and will continue in years to come.

4.F.4.3 GREENBELTS

The town has identified two greenbelts associated with the major watersheds in Acton: Fort Pond Brook and Nashoba Brook (Refer to Section 4E on Wildlife for a complete description of these two water basins). These greenbelts extend the full length of each of these brooks. These areas have been mapped, and this OSRP update includes a priority list of possible areas to protect. Many parcels close to the brooks have high conservation and recreation value, but very little development potential at this time, so they might be acquired in lieu of taxes. In recent years, several parcels of land abutting Fort Pond Brook have been deeded to the town for conservation, including the Cunningham land and Prescott land. In addition, the back section of the Morrison property which abuts Nashoba Brook is an important part of the Nashoba Brook greenbelt. The back of the property, currently classified as general municipal property, should be protected as conservation land.

4.F.4.4 REFORMATORY FIELDS

These large agricultural areas flanking Route 2 near the Concord line provide a vital break from the urbanized section of Route 2 that traverses Concord near the reformatory. They are a unique combination of agricultural, recreational and scenic resources that provide a gateway as drivers enter Acton from the east. Some of the fields have been protected. For instance, one field is town-owned conservation land leased to the state to grow corn and alfalfa for the dairy herd maintained by the Department of Corrections farm. All of the fields are zoned conservation (ARC). If any of these fields become available, the town's highest priority should be to purchase them from the state, as was done with the Wetherbee parcel, and keep them in agriculture and as a scenic overlook.



Acton Arboretum upper grounds

4.F.5 Biodiversity

Biodiversity encompasses the habitats and interactions of native species in a particular area, with emphasis on the quality of the community. NHESP has recently issued BioMap 2, a biodiversity conservation plan for the Commonwealth. In addition, the Sudbury, Assabet and Concord (SuAsCo) Biodiversity Protection and Stewardship Plan provides more specific biodiversity information within those target watersheds. Together, these two projects have identified several areas of interest within Acton.

4.F.5.1 BIOMAPS

NHESP produced the first BioMap and Living Waters plans in 2001 and 2003. BioMap 2 was issued in 2010 and encompasses the NHESP data on rare species and natural community data, the MA Division of Fisheries and Wildlife 2005 State Wildlife Action Plan and The Nature Conservancy's assessments of large ecosystems throughout the Commonwealth. BioMap2 is comprised of Core Habitats and Critical Natural Landscapes. Core Habitats include:

- Habitats for rare, vulnerable or uncommon plant and animal species
- Priority Natural Communities
- High quality wetland, vernal pool, aquatic and coastal habitats
- Intact forest ecosystems

Critical Natural Landscapes are areas that complement the Core Habitat areas and include large landscape blocks and buffers that support habitat, ecological processes and connectivity, and which provide ecological resilience.

BioMap2 identifies five areas in Acton. These include:

1. NARA/Wills Hole/Kennedy/Marshall Land/Nashoba Sportsman Club: This is also a Zone II Wellhead Protection Area, Priority Habitat of Rare Species, Estimated Habitat of Rare Wildlife, medium-yield aquifer
2. Grassy Pond: includes a small area of Critical Natural Landscapes, NHESP Natural Community, Scenic Landscape
3. Heath Hen Meadow: medium-yield aquifer, Zone II Wellhead Protection Area, Priority Habitat of Rare Species, Estimated Habitat of Rare Wildlife
4. Assabet River in southeastern corner of town: Priority Habitat of Rare Species, Estimated Habitat of Rare Wildlife, medium- and high-yield aquifer, Zone II Wellhead Protection Area
5. Reformatory Fields/Wetherbee Conservation Land: Ag fields, medium- and high-yield aquifer, Zone II Wellhead Protection Area, Priority Habitat of Rare Species

4.F.5.2 SUASCO (SUDBURY, ASSABET, CONCORD RIVERS) BIODIVERSITY PROTECTION AND STEWARDSHIP PLAN

The SuAsCo Biodiversity Protection and Stewardship Plan, a research project on biodiversity within the watershed of the Sudbury, Assabet and Concord Rivers, was released in August 2000. Written by naturalist Frances Clark under the direction of the Massachusetts Riverways

Program, and in conjunction with the Massachusetts Watershed Initiative, the plan was undertaken to help the 36 communities of the three river basins "conserve and restore natural biodiversity in the watershed."

The plan highlights biodiversity sites that are critical to the Sudbury, Assabet and Concord Rivers watershed. All of the sites were selected based on current conservation biology science and for their biodiversity value. Scientific evidence has demonstrated that biodiversity drops significantly in areas smaller than 1000 acres, requiring the rich variety of habitat types or natural communities that exist within the areas surveyed in the report. Clark wrote: "It is…clear that healthy ecosystems depend on healthy streams, rivers, and riparian areas…. Large protected upland areas in one part of the watershed need to be connected to other areas so that over the long term populations of wild animals can intermingle…".

Seven critical biodiversity sites, all part of the Assabet River Watershed, lie within Acton. The report urges them to be considered priorities for conservation. Portions of these sites are already protected.

1. Heath Hen Meadow: On the border between Acton and Stow, this is one of the largest red maple swamp and stream systems in the entire watershed, with over three miles of unfragmented stream.
2. Great Swamp: Shared by Acton, Stow and Maynard, this large red maple swamp in the heart of the SuAsCo watershed serves as an important linkage area for species. Development, as well as road maintenance and repair, could impact the future quality of biodiversity within this site.
3. Long Pond / Fort Pond site: This site contains the headwaters of Fort Pond Brook, two large ponds, a wide diversity of habitats, and is a critical link between Grassy Pond and Nagog Pond. Endangered amphibians and reptiles are also found here.
4. Grassy Pond: This forest of black birch and hop hornbeam is home to species of special concern identified by the Natural Heritage Program.
5. Will's Hole: This is one of the few bogs in the watershed. Despite protected upland nearby, questions remain about the hydrology impact as a result of the nearby industrial park.
6. Nagog Pond and Brook: This great pond is a significant stopover for migratory ducks and waterfowl, including common loon, bald eagle and osprey. The nearby roads, Nashoba Road and Route 2A, are cause for concern, and may impact the quality of biodiversity on the site.
7. Spring Hill/Nashoba Brook site: This is one of the last remaining large forest tracts in the eastern part of the watershed. It protects over a mile of Nashoba Brook, and serves as a very important wildlife corridor. The development of the Robbins Mill Pond land and increasing traffic on surrounding roads are of significant concern and will likely impact the biodiversity quality in this area. (See also Section 13, Map R-5)

Spring flowering apple tree in Acton Arboretum

4.G ENVIRONMENTAL CHALLENGES

4.G.1 Hazardous Waste and Brownfield Sites

Hazardous material releases are reported to the Massachusetts Department of Environmental Protection (Mass DEP) and the Town of Acton Board of Health per Massachusetts General Laws Chapter 21E and associated regulations (the "Massachusetts Contingency Plan"). The regulations define the assessment, reporting, and remediation requirements for releases of hazardous materials to the ground and sub-surface. This includes the notification of abutters or other potential receptors.

All known hazardous materials release sites in the Town of Acton have been remediated or are currently under-going evaluation and/or remediation. The MassDEP "Waste Site and Reportable Release Look-up" data base includes 117 listings for the Town of Acton. These include all reported hazardous material releases dating back to 1987, from small surface spills cleaned up immediately to the on-going investigations and remediation activities at the WR Grace site. The list also includes duplicate listings (14) and sites deemed "not reportable or otherwise not hazardous" (7). Of these Mass DEP listings, all but 10 have been addressed, cleaned-up or otherwise remediated to a level requiring no further action.

Of the 10 currently active hazardous materials release sites in Acton, the largest (by several magnitudes) is the WR Grace site which is treated separately in the next section. The remaining sites include four gas stations, two former industrial sites, a home builder facility, a tire warehouse, and a dry cleaning facility. Active remediation in the form of the pumping and treating of groundwater is being conducted at four of these sites, while investigations are on-going at the remaining six sites.

4.G.1 W. R. Grace

In September of 2013 the town filed a lawsuit against W.R. Grace & Co. over the company's shutting down of a ground-water pumping and treatment system that was put in place to remove chemical contaminants flowing from its hazardous waste site in the southeast part of town. The US Environmental Protection Agency had informed the town that the treatment system was shut down four days after the agency had given the company conditional approval for the step.

Rather than using the treatment system, W.R. Grace intends to rely on "natural attenuation'' to deal with the pollution. The process allows chemicals to degrade and be absorbed naturally and through precipitation at the site. The town's lawsuit states that a shutdown violates the town's ground-water cleanup standards bylaw and prolongs the cleanup period. The bylaw, passed unanimously by Town Meeting in 1997, requires that any ground-water cleanup must meet certain standards before the operation can be discontinued. The town relies exclusively on ground water for its public drinking-water supply.

The lawsuit notes that concentrations of vinylidene chloride, a possible human carcinogen, exceeds the bylaw's cleanup standards in a plume about a mile long and 1,200 feet wide extending from Grace's property toward town wells northeast of the site. Shutting down the treatment system would prolong the time to restore the contaminated ground-water resource areas to a fully usable condition.

W.R. Grace requested permission from the EPA earlier this year to shut down and remove the treatment system. After taking comments from the town and the Water District, the EPA issued a letter providing conditional approval of the shutdown. Conditions outlined in the letter stated that the company cannot remove the treatment system, and must conduct quarterly sampling of nearby wells for the next year. As long as the conditions are met, Grace can shut down the system. In support of its decision, the EPA said the concentration of vinylidene chloride is below the maximum allowable level, and has been since the system became operational.

As the year ended the town was still waiting for a decision from the federal court system.

Robbins Mill Pond after water chestnut removal by volunteers

4.G.2 Landfills

The Acton Landfill site, located on Route 2, began operating around 1927 and closed in 1985. Since then, the site has been used as a transfer station. However, the original landfill area, stabilized, capped with clay and compacted, became the only viable site for a solar energy installation which was completed in 2013.

The Town of Acton Solar Array installation occupies approximately 5.5 acres and is comprised of over 6,000 panels that are guaranteed to produce over 32 megawatts of power in its 20-year lifespan. It was completely funded by the builder, thus did not cost Acton any money to install. Given the current power mix in New England's regional grid, the total greenhouse gasses being avoided by the PV system on Acton's landfill over the 20 year period are nearly 11,000 MtCO2e (metric tons of carbon dioxide equivalent). This is the same amount of greenhouse gasses used by nearly 1,200 single-family homes during the year 2000. It is also the same amount of carbon taken out of the air in one year by approximately 30 square miles of mature forest. In 2014 it is anticipated that over 65% of the electricity used by Acton's municipal buildings will be produced by the solar panels on the landfill. See Solar Facts at http://www.acton-ma.gov/DocumentCenter/View/2867.

4.G.3 Erosion

Acton has no specific large scale erosion issues. Localized erosion may be associated with construction sites, but these are generally overseen by local permitting requirements.

4.G.4 Chronic Flooding

Acton has periodic flooding issues caused by beaver dams but no chronic flooding. The impact of beaver activity

on flooding is discussed in section 4.G.11.b, Wildlife Management: Beavers.

4.G.5 Sedimentation

Acton has not experienced a significant increase in the rate of sedimentation in its watersheds in the past five years. In large part, this is the result of a rigorous catch basin cleaning program each spring. In recent years Acton has moved away from the use of NaCl and untreated sand during winter months. They are now using a sand-and-salt mix that is pre-treated with a compound that significantly improves its effectiveness in treating road surfaces. The increased efficiency has allowed for a significant reduction in per storm application tonnage of both salt and sand.

Acton is working on a Storm Water bylaw aimed at identifying and addressing untreated point and non-point source pollutants from entering our watersheds.

4.G.6 New Development

New development can create a number of environmental challenges, including water quality and quantity issues, habitat loss and fragmentation, and water supply and wastewater treatment capabilities. Acton has seen large new developments, such as Avalon and Quail Ridge, as well as numerous smaller developments, that are infilling vacant lots or expanding existing developed areas. This continuing encroachment can lead to an overall degradation of the open spaces and natural environment in the town. Acton has a number of mitigation measures to minimize and control these impacts. The town has most recently purchased 20.68 acres of the Anderson parcel at 180 Newtown Road, and is continuing to explore opportunities to remove undeveloped lots from development pressure through purchase or establishment of Conservation Restrictions. The Town has also worked with developers to construct projects that maximize environmental protection through storm-water management and cluster development. It is expected, however, that development pressure from both large and small projects will continue.

Demand for water in Acton has become more stable since the last Open Space and Recreation Plan was written. This has been a combined result of demand management, advances in efficiency, changes in development patterns, and a concerted effort by the community. This does not lessen the need for managing the supply of water, especially in light of continued residential growth and desired commercial growth as outlined in the Acton 2020 plan. The Acton Water District is currently operating under the Permit Extension Act of 2010 and subsequently extended in 2012, for the amount of water we can withdraw from the groundwater sources in Acton. This permit is scheduled to be renewed in August 2015.

A new State policy known as the Sustainable Water Management Initiative (SWMI) and pending updates to the Water Management Act regulations, are anticipated to impose increased requirements and restrictions on water withdrawals in Acton. The goal of these changes is to manage water resources more holistically and account for environmental needs when calculating safe water withdrawals. It will link water usage to the health of local rivers and streams, as measured by fish populations and flows. The exact impact of these policy changes is unknown at this time and therefore makes meaningful projections difficult. Due to the fact that Acton has implemented many of the "low fruit" conservation and efficiency measures considered to be best practices, the bar could be higher for achieving increased gains.

The science utilized in developing the policy shows development and impervious surfaces have a far greater impact on river and stream health than groundwater withdrawals by public water suppliers. State policies should consider how communities can most efficiently invest in water management, including storm water and wastewater systems. By targeting drinking water independently, the proposed regulations miss an opportunity to develop an integrated policy that considers all competing water uses and a variety of factors impacting rivers and streams. These alternative stressors to local waterways should be evaluated as part of Acton's planning

Virginia bluebells on Acton Arboretum Wildflower Trail

processes, especially in light of the impacts it may have on the District to supply sufficient quantities of water.

4.G.7 Ground and surface water pollution, point and non-point sources

Acton's surface waters contain pathogens that contribute to the contamination of local streams, ponds and rivers. This contamination can originate from a variety of sources. Previous studies identified several point discharges which were eliminated. In 1987 the health department began a Watershed Monitoring Program to focus on the potential non-point sources of contamination. These sources contribute to observable levels of Escherichia coli and nitrogen-loading which find their way into the watershed from birds, water fowl, failing septic systems, domestic animals, and/or natural animal populations such as beavers. The presence of these contaminants in the watershed can lead to hyper-trophication. One example is the "bloom" or great increase

Native American stone pile cluster at Nashoba Brook on Trail Through Time

of phytoplankton, in a water body as a response to increased levels of nutrients.

In response to this concern the health department identified micro-watersheds where sampling locations could be sited to monitor the levels of contamination in each micro-watershed. Over 60 sampling stations were put in place and since 1987 each station is sampled quarterly with results recorded in a data base for tracking. The overall result of the monitoring program indicates a gradual increase in contaminant levels with one notable exception. The micro-watersheds adjacent and within the sewer collection system that was completed in 2002 have seen a drop in contaminant levels.

4.G.8 Impaired Water Bodies: Surface Water Quality

The Federal Water Pollution Control Act of 1972 and subsequent amendments are collectively known as the Clean Water Act (CWA). The objective of this statute is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. As one step toward meeting this goal each state must administer a program to monitor and assess the quality of its surface and groundwater and provide periodic status reports to the United States Environmental Protection Agency, the United States Congress, and the public.

The CWA codifies the process whereby surface waters are assessed with respect to their capacity to support designated uses as defined in each of the states' surface water quality standards. For surface waters these uses include aquatic life support, fish and shellfish consumption, primary contact (e.g., swimming), secondary contact (e.g., boating) and aesthetics. Water bodies meeting a particular standard are deemed to "support" that standard, while water bodies not meeting a particular standard are deemed "impaired" for that standard. For any water body found to not meet the above standards, the CWA requires the development of plans and a schedule to bring that water body into compliance with the specific standard(s).

In conducting the above assessments, the Massachusetts Department of Environmental Protection has divided the principal surface water features of Acton into four segments: Fort Pond Brook, Nashoba Brook, the 1.2 mile stretch of the Assabet River above the Powdermill Dam on Route 62, and the 6.4 mile stretch of the Assabet River below the Powdermill Dam. Of these segments, information for Fort Pond Brook is deemed insufficient to make an assessment as to its compliance with the above standards, while Nashoba Brook and both of stretches of the Assabet are deemed impaired for one or more standards. The status of these impaired water bodies is reviewed below.

- Nashoba Brook — The impairment classification for Nashoba Brook is for aquatic life only. The brook has not been assessed for fish consumption, primary contact, secondary contact or aesthetics. The aquatic life impairment classification is the result of low fish numbers at specific sampling points. While no cause has been identified, it has been suggested that the proximity of the sampling points to Robbins Mill Pond and the increased ponding by beavers may be a factor. It was noted that one of the fish species present in the sampling analysis is relatively intolerant of pollution, thereby suggesting that polluted water is not necessarily the cause of the low counts. It has also been noted that the Brook suffers from extreme low flows in the summer months, and is classified by the Massachusetts Department of Conservation and Recreation as a "high stressed basin" as relates to stream flow.
- Assabet River — The Assabet River segment immediately upstream of the Powdermill Dam is deemed impaired for aquatic life, primary contact, secondary contact and aesthetics. Fish consumption has not been assessed. The impaired classification is for water quality is-sues, noxious and non-native aquatic plants, nutrient/ eutrophication issues, trash and debris, and the predominance of fish species moderately to highly tolerant of pollution. Suspected sources of the impairment include the multiple upstream point source discharges, sanitary sewer overflows, and discharges from multiple stormwater sewer systems. In response, the state has developed a total maximum daily load (TMDL) for nutrients for the river and is conducting ongoing assessments. Considerable river improvement efforts have also been con-ducted by the watershed advocacy group Organization for the Assabet, Sudbury and Concord Rivers (OARS), including critical review of discharge permits in the basin, ongoing monitoring of river water quality, public education, and the sponsorship of river clean-up events.

In contrast to the above, the lower segment of the Assabet River in Acton is deemed to support aquatic life, secondary contact and aesthetics and is deemed impaired relative only to primary contact (fish consumption has not been assessed). The impaired classification is for water quality issues, and the suspected sources include

discharges from multiple storm-water sewer systems. The above TMDLs and the ongoing work of OARS are contributing to the clean-up of this segment of the river.

4.G.9 Invasive Species

Invasive species management is a major effort in Acton. The Land Stewardship Committee has taken a lead in meeting the challenge through education, planning and action. In 2003, the Town's Land Stewardship Committee sponsored an indoor/outdoor training session led by Chris Mattrick of the New England Wildflower Society. This led the Committee to inventory the invasive plants of the conservation lands and then write a report with recommendations on priority actions for addressing them (htt;://www.actoninvasives.org/Plans). The Conservation Commission reviewed and approved this plan in 2006 and the following ongoing actions began:

- Dozens of volunteers at multiple sites have engaged in a multi-year effort to identify and hand pull Garlic mustard (*Alliaria petiolata*) from all Conservation Lands.
- Beginning in 2011 dozens of volunteers, during multiple sessions per year, hand-pull Water chestnut (*Trapa natans*) from Ice House Pond using canoes and kayaks.
- Starting in the summer of 2013, dozens of volunteers began the task of hand-pulling Water chestnut (Trapa natans) from Robbins Mill Pond in the Nashoba Brook watershed.
- A four-year volunteer effort is underway to eradicate glossy buckthorn (*Frangula alnus*) from under a stand of hemlock and white pines at Guggins Brook conservation land.
- A volunteer, with assistance from the Department of Natural Resources, removed Norway maple (*Acer platanoides*) from the Acton Arboretum by girdling and hand-pulling saplings.
- There have been numerous smaller efforts to remove or limit the spread of invasives from near trails as time and volunteer enthusiasm allow: multiflora rose (*Rosa multiflora*), glossy buckthorn (*Frangula alnus*), autumn olive (*Elaeagnus umbellata*), oriental bittersweet (*Celastrus orbiculatus*), Japanese barberry (*Berberis thunbergii*), the invasive bush honeysuckle species (such as *Lonicera tartarica, L. morrowii, L. x bella*) and others.
- Since 2009 volunteers work seasonally at Acton Canoe Launch to cut, hand-pull and smother, with plastic tarps and mulch, Japanese knotweed (*Polygonum cuspidatum*).
- In 2012 Galerucella beetles were released at NARA to control purple loosestrife (*Lythrum salicaria*).
- In 2013 volunteers began cutting Japanese knotweed (*Polygonum cuspidatum*) at the Acton Arboretum.
- The Acton Conservation Commission endorsed a series of Meadow Management plans developed by Oxbow Associates starting in 2013 (see Appendix B1 through B6), targeting invasive plant species by mowing, pulling, cutting, digging and employing the "cut and dab" method of herbicide application.
- In 2012 the Conservation Commission joined a regional invasive management group called the SuAsCo CISMA (Sudbury, Assabet, Concord Rivers Cooperative Invasive Species Management Area) as a supporting member.

4.G.10 Environmental Equity

The Recreation Department has worked extensively and proactively over the past 5 years to reach out to community organizations to create partnerships – Acton Lions Club, Middlesex West Chamber of Commerce, and Danny's Place Youth Services. It is notable that the department works to involve all citizens in its programming of NARA Park. As a result, they have forged partnerships with a number of local groups to highlight their rich cultural heritage. Recreation conducts extensive planning

Acton Arboretum lawn and picnic area, 2 Taylor Road

meetings with the organizations and participates in the execution of these events. They have hosted many successful festivals and cultural events listed below:

- Acton Chinese Language School
- 2009 Acton Chinese Music Night, Acton-Boxborough Regional High School
- 2010 Acton Chinese Culture Day, NARA
- 2011 Acton Chinese New Year & Town 275th Anniversary, ABRHS
- 2012 Acton Chinese Music Night, ABRHS
- 2014 Chinese Music Dance Night, NARA
- Sunanda Sahay and Seema Kapoor, Essence of India, NARA, 2012-2014
- Sri Lanka Association of New England, Sri Lanka Day, NARA, 2010-2012

The Recreation Department's letter to the Acton Chinese Language School containing photos and references to their partnership may be found in the appendix, Section 12-H-2.

Acton's conservation areas are pretty evenly distributed throughout the town, allowing access to open space opportunities wherever one resides. The major challenge the town faces is in the area of accessibility for people with disabilities. While an effort has been made to expand access opportunities at the NARA Park site and the Arboretum, there is much more work to be done. Sections 7, 8 and 9 address this issue in greater detail. See Appendix, Section 12-G-12 for the ADA assessment.

4.G.11 Wildlife Management

4G.11.1 DEER

The Massachusetts Division of Fisheries and Wildlife (DFW) estimates the deer population in Acton and the surrounding communities to be in the range of 26 to 30 deer per square mile. In contrast, the DFW management goal for the area is 6 to 8 deer per square mile. At the current population level' the deer herd is essentially

Acton Arboretum wildflower replacement project

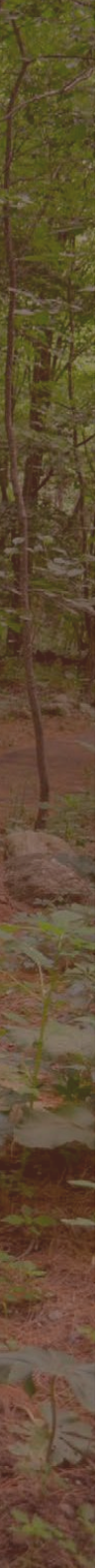
resulting in the over-grazing of local forests and fields. Excessive browsing can result in a decrease in native plant diversity and a coincident increase in non-native and/or invasive species. Certain plants, such as lady's slippers, are particularly attractive to deer, while others, such as European buckthorn, are not. Overgrazing can also result in a decrease in the regeneration of tree species as young tree shoots are more readily accessible to the grazing deer. Finally, the decrease in understory as a result of overgrazing can also impact the populations of ground nesting birds and other mammals that normally find protection in the underbrush. Other issues associated with the large deer population include the potential relationship to the increase in Lyme disease, the encroachment on residential yards and gardens, and the increase in automobile/deer collisions.

DFW and many other governmental and non-governmental organizations have been and are studying the effects of deer over-population and continue to evaluate various methods of managing deer populations. Deer hunting has long been allowed in Acton on private properties. Many neighboring communities are contemplating limited hunting on conservation lands. Idylwilde Farm in West Acton has had success with controlling deer damage to crops through the use of 8-foot high fencing. While not practical or even desirable for conservation lands, the successful use of such fencing highlights the fact that the use of multiple solutions to deer management may be necessary. Ultimately, however, the high population densities over a wide range suggest that a coordinated, regional approach will likely be required.

4.G.11.2 BEAVER

Acton's riverine ecosystems have undergone considerable successional modification since the trapping laws changed in 1996. A noticeable increase in Acton's beaver population was realized almost immediately and continues to be observed. In large part, the modification to wetlands habitats caused by beaver impoundments has been very beneficial for many species of wildlife. Specifically, flooding large tracts of forested red-maple swamp has caused trees to drown; thus returning shaded swamps to open full-sun marshes. A good example of the successional return to open marsh can be seen on Conant Brook, between Newtown Road and Nagog Hill Road, where greater than 15 acres of forested wetlands are now open marsh. Plans are in the works to develop a pocket park in this area, with the potential for an accessible boardwalk allowing visitors to take in the beauty of the open marsh habitat and the many species of wildlife calling this unique habitat home, all thanks to beaver engineering.

Unfortunately, not all beaver activity is seen as beneficial. In 2012 and 2013, Acton's Highway Department, removed dams from culverts on Charter Road, Stow Street, Martin Street, south Main Street, Kinsley Road, Parker Street, Mass Ave and Central Street. This represents a significant ongoing expense for the town, as many of these dams are removed several times each year. We have experimented with various types of beaver deceivers, some successful, others not. Unfortunately, the negative effects of plugged culverts, causing street flooding and in some instances septic system flooding require immediate action by the Highway Department. Our greatest success with beaver deceiver devices has happened on conservation land, where we have installed several over the past five years.



5

SECTION 5: INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

Veteran's Memorial monument, Acton Center

5.A INTRODUCTION

Table 5.A.1 is a summary of the grouping of open space lands, both public and private, in the town of Acton. Detailed descriptions and a breakdown of component parcels are included in the sections that follow.

TABLE 5.A.1: INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

5.B Private Parcels	Acres
Chapter 61 Forestry Land	494.0
Chapter 61A Agricultural Land	171.0
Chapter 61B Recreation Land	44.0
Conservation Restrictions	184.0
5.C Public and Non-Profit Parcels	**Acres**
Conservation Areas	1745.0
Municipal Facilities	
NARA Park	40.0
Athletic Fields and Playgrounds	30.0
Morrison Farm	32.0
Acton Town Common	10.0
West Acton Village	1.0
School Department Fields and Playgrounds	66.0
Water District Lands	399.5
Cemetery Lands	
Woodlawn Cemetery	80.0
Mount Hope Cemetery	94.0
Forest Cemetery	0.5
State Owned Lands	203.0
Concord Lands	58.0
Total Acres	**3594.0**

5.B PRIVATE PARCELS AND CONSERVATION RESTRICTIONS

5.B.1 Chapter 61, 61A, and 61B Lands

In 2013, a total of 679.69 acres of Acton's open space fell under Chapter 61, 61A and 61B tax classifications. These state statutes allow for reduced real estate taxes in exchange for keeping the land "open" for forestry, agricultural or private recreational use. Chapter 61 applies to forestland; Chapter 61A applies to land in agriculture, and Chapter 61B applies to private recreational lands. These lands can be developed, but in the event of a change in use, the town, in exchange for its having foregone the full taxation on the property, is afforded an opportunity to match a bona fide Purchase and Sale Agreement within 120 days. The 120-day right of first refusal may be exercised by the town or a non-profit nominee designated by the town, such as the Trustees of Reservations, Sudbury Valley Trustees, the Audubon Society or a local land trust. The owner or applicant must follow a fairly prescribed process, including the repayment of five years of back taxes, and the presentation of a contract of sale that must be non-contingent and without the need for any zoning relief, sub-division approvals, variances from wetlands regulations, et cetera.

In 2010 the Town of Acton followed this procedure in its efforts to acquire the Caouette land, a 10.5-acre parcel of land (with a mill pond) in South Acton, by allocating funds from the Community Preservation Act. Once the town informed the landowner, who was in possession of a bona fide offer from a developer for six houses, that it intended to exercise its right of first refusal, the town and the landowner entered into discussions that progressed beyond the 120-day statutory limit, but extensions were mutually agreed upon by the parties. The process was prolonged because, during a period of due diligence, contaminants were discovered on the land, and a survey found that there was less land than had been previously thought. This reduced the number of houses that could be built on the property, and hence diminished the agreed-upon value of the land. These problems were eventually resolved, and the sale to the town took place. Part of the land was leased back to Stonefield Farm for ten years, as the Simeone family, owners of Stonefield Farm, had been farming the land for years. Another portion of the land, which adjoins the terminus of the Assabet River Rail Trail, is being considered as a possible trailhead for the rail trail. Although the funding dates for the rail trails continue to slide, as of this writing the funding is scheduled to be available in 2014.

Natural Resources Director, Tom Tidman plans for construction of the new "Miracle Field" in North Acton

Chapter 61, 61A and 61B open spaces, although not owned by the town, have a significant impact on the environment and aesthetics of the community. Maintaining their enrollment in the chapter programs is a desirable course of action for the town.

In 2011, the land enrolled in the Chapter 1/61A/62B programs was as follows:

- Chapter 61 (forestry land) 494 acres
- Chapter 61A (agricultural land) 171 acres
- Chapter 61B (recreation) 44 acres

Unfortunately, since the last OSRP inventory in 2002, the amount of land in these classifications has declined by 25%, which is roughly equivalent to the decline between 1995 and 2002. Some of these withdrawals, however, are for positive reasons, in that several properties have gone from privately-owned open space to municipally-owned conservation land, e.g., the aforementioned Caouette

land in South Acton. Even the Robbins Mill Pond land, a residential housing development in North Acton, is not a total loss of open space as a significant proportion of the 233 acres was deeded to the Town of Acton in 2011 for open space and some recreation. In all, some 119 acres were turned over to the town.

The progressive diminishment of Chapter 61 lands over the past 16 years is as follows:

- 1995 1,255 acres
- 2002 940 acres
  Notable conversions: Robbins Mill Pond land (housing development), DiDuca Farm (shopping center)
- 2011 706 acres
  Notable conversions: Palmer land (Quail Ridge Golf course), Caouette land (town acquisition for conservation). See Section 13, Map O-C.

5.B.2 Conservation Restrictions

With the increasing cost of purchasing a fee interest in lands for conservation purposes, the Town has increasingly relied on donations of restrictions on the use of privately-held parcels to protect open space. Conservation restrictions are generally granted in perpetuity and list prohibited acts, including construction of buildings, excavation of materials, dumping, and cutting of vegetation. All conservation restrictions must be approved by the Acton Board of Selectmen and by the Executive Office of Environmental Affairs (EOEEA). Over 125 acres are currently subject to private conservation restrictions. Acton's Zoning By-Laws permit the proposal of a Planned Conservation Residential Community (PCRC) on a tract of land greater than 8 acres. The Zoning By-Law requires that 60% of the tract be set aside for conservation or other public purposes and that this land be deeded to the Town or to a non-profit agency. If conveyed to a non-profit agency, a conservation restriction must be conveyed to the Town. With the adoption of the Community Preservation Act in 2002, the town was able to purchase additional parcels, the Groener, Caouette, Gaebel, and Anderson parcels. Such parcels are required to be permanently protected through the application of a Conservation Restriction. The Groener Land CR is managed by the Acton Conservation Trust (ACT), and the Caouette CR is managed jointly by ACT and the Sudbury Valley Trust (SVT). As shown in Table 5.B.2, there are, or soon will be, over 170 acres of properties protected by a permanent conservation restriction in the Town of Acton.

5.C PUBLIC AND NON-PROFIT PARCELS

5.C.1 Public Conservation Lands Owned by the Town of Acton

Acton has over 1700 acres of designated Conservation and Town Forest properties, with about 1600 acres grouped into "Conservation Areas." All conservation lands are owned by the Town of Acton and most are maintained by the Land Stewardship Committee (hereafter "LSCom") under the direction of the Department of Natural Resources and the Conservation Commission, and in cooperation with other town departments. Table 5.C.2 lists all conservation properties owned by the Town of Acton, grouped into three Divisions. Division One, the largest, consists of all the properties that have been grouped according to their designated titles as "Conservation areas." These most often consist of two or more contiguous parcels that comprise an area having specific characteristics such as an historic site, vernal pools, or public gardens and are actively managed by LSCom. Division Two consists of groups of contiguous parcels that have yet to be incorporated into the actively managed Conservation Areas by LSCom. Division Three is a group of isolated parcels that are owned by the town that have not been incorporated into the large conservation scheme and have limited value for public access.

Table 5.C.2 provides the following information for each parcel: Name of Conservation Area or parcel; Total Acres for the area as well as each component parcel; Usage, i.e. Passive Recreation, Agriculture, Camping; Facilities available; Parcel ID according to Acton's GIS; Address of the component parcel; Size in acres; Zoning; Acquisition Date; Level of Protection, Funding Source; and Additional comments as appropriate. Facilities available at the site are coded as follows: H = Handicap Accessible; K = Information Kiosks; P = Parking available; T = Trails blazed.

Table 5.C.1 is a summary of the three divisions of conservation lands.

5.C.1 THREE DIVISIONS OF CONSERVATION LANDS

Division One	All Conservation Areas actively managed by LSCom	1645.60 acres	18 unique areas
Division Two	Conservation areas not yet being actively managed by LSCom	119.56 acres	8 areas
Division Three	Isolated parcels with limited public access	16.67 acres	7 parcels
Total		**1781.83 acres**	

Article 97 of the Articles of Amendment to the State Constitution, (Article 97) protects certain lands acquired for natural resources purposes, i.e. conservation land, as a way to conserve our vanishing natural resources. Transfer from Conservation to another use is intentionally difficult and requires a majority vote of the Conservation Commission—stipulating that the land in question is no longer needed—plus a two-thirds vote of Town Meeting and a two-thirds vote of each house of the state legislature. Parcels with a Self-Help number are restricted by state regulations to passive recreation use only. Great Hill Conservation Area is also regulated by a Land and Water grant.

5.C.1.1 CONSERVATION LANDS AND THE LAND STEWARDSHIP COMMITTEE

The current excellent condition and public accessibility of our conservation lands can be attributed in large measure to the efforts of the Land Stewards who have blazed extensive trail systems in all of the

TABLE 5.B.2. CONSERVATION RESTRICTIONS ON LANDS WITHIN THE TOWN OF ACTON

FY	Common Title or Reference	Grantor/Owner	Grantee	Acres	Protection	Received	Approved	Book	Page	GIS ID	Location	Comments	CR
1979	Breezy Point	Harold & Devena Buxton	Town of Acton	13.9	P	12/12/78	12/27/78	13615	339	C4-15 & C4-17	484-486 Great Road	Adjacent to Water Dept. land; CR extened in 2007 to ensure perpetuity	ON file
1990	Audubon Hill	R.Smith Associates, Inc.	Restricted	49.77	P	10/2/89	2/2/90	20065	415	H2A-51-101; H3B-19-10	10 Brewster Lane	Conservation Commission was granted an easement for inspection purposes, and for public access from High St., over Audubon Drive and Brewster Lane to Pratt's Brook Conservation land.	ON file
1998	Haartz Property	The Haartz Corp.	Town of Acton	14.5	P	10/15/96	9/9/97	27757	537	E3-101	Charter Road & 87 Hayward Rd	Industrial District Buffer	ON file
2002	James & Mary Donald	Gifted to Town: 2001	SVT & ACT	11.2	P	3/15/00	12/13/01	11456	403	F3-78-1	33 Minot Ave	Mary's Brook, 600 foot tributary to Fort Pond Brook; abuts Acton Arboretum	ON file
2005	Canoe Landing	Leo F. Bertolami	Conservation Commission	4.56	P	4/15/04	10/27/04	16728	584	J3-49 & J3-59-6	67 Powder Mill Rd and 50 - 56 Powder Mill Rd.	Canoe access for public/CR requ. As part of DEP 85-707 wetlands permit; 3.59 and .97 acres	ON file
2005	Wagner Land/ Lawsbrook	Paul & Alan Wagner, Lexington Sand & Gravel	Acton Water District	0.13	P	7/21/04	5/25/05	11822	511	H4-126-1	66 Lawsbrook Rd.	Groundwater protection/ 3.8 acre portion at 49B Lawsbrook Rd., belongs to Concord	ON file
2006	Haartz Property	The Haartz Corp.	Town of Acton	6.3	P	3/27/06	5/3/06	50696	555	E3-85 & F3-1	Charter Road & 87 Hayward Rd	Industrial District Buffer; added 6.3 acres to restricted area	ON file
2010	Woodlands at Laurel Hills	Aria @ Laurel Hills	Town of Acton	6.67	P	10/5/06	8/27/10	55334	311	B5-11 & B5-7	50 Nagog Park Beside and Avalon Drive	Acton/Westford Border	
2007	Kingman Land	William & Nancy Kingman	Acton Cons. Trust	6.41	P	10/30/06	12/7/06	48652	563	F5-15-2 & F5-15-1	63 & 67 Esterbrook Road	Two parcels on either side of 65 Esterbrook Rd. Property contains a tributary to Nashoba Brook.	
2008	Valentine Land	John and Elizabeth Valentine	Carlisle Cons. Foundation	14.19	P	10/29/08	12/29/08	22622	245	B6-20	West St., Acton St. (Acton/Carlisle border)	Ground water protection for Acton Water supply. Part of 119 acres of protected land granded to the Town of Carlisle	
2010	W.R.Grace	W. R. Grace & Co. - Conn	Town of Acton	15.3	P	6/21/10				I4-2	50 Independence Road	Preserving natural, scenic value, and serve as a buffer for any future development of Grantor's remaining land.	
2010	Groener Land	Town of Acton	Acton Cons. Trust	12.1	P	5/18/07	1/10/14	50251	161	D4-37-6	193 Nagog Hill Road	Deeded to town 10/19/2007; CR approved January, 2014	
2011	Gaebel/Piper Road	Town of Acton	Acton Cons. Trust	5.24	P	4/13/11				H3A-4	6 Piper Road Rear	Deeded to town 2/20/2009	
2011	Caoette/ Simeone Land	Town of Acton	Sudbury Vally Trustees/Acton Conservation Trust	10.22	P	7/25/11	6/10/13	56002	381	H2A-62	2 Stow Street	Caouette/Simeone Irrevocable Trust	
2012	90 Martin Street	Israel & Christine Ross	Town of Acton	3.68	P	1/11/212	1/19/12	58324	328	H2-95	90 Martin Street	Lot 2, including house and garage	
2012	6 Piper Road	James Cullen	Acton Cons. Com.	0.2	P	3/12/12	4/20/12	58934	314	H3A-4-1	6 Piper Road	Small portion of lot forming connection between Piper Road easement and Great Hill Conservation Land	
2013	Anderson Land	Town of Acton	tbd	20.68	P	7/29/13	tbd	13793	582	D3-10	180 Newtown Road	Town purchased about half of 39 acre parcel abutting Bullette Conservation Land using CPC funds	
Total Acres				**181.87**									

managed conservation areas. LSCom, established in 1996 in fulfillment of a recommendation from the prior OSRP, is an all-volunteer committee under the direction of the Conservation and Natural Resources Director. This committee is composed of up to 20 members who each take on responsibility for one of the conservation areas, including the key tasks of maintaining conservation areas, educating the public, and advocating for the protection of biodiversity of the lands under their care. The LSCom has successfully completed projects that have improved individual conservation areas, town-wide projects to ensure consistency and standardization among the conservation areas, and educational projects to help the public understand and appreciate the meadows, woods, and wetlands of Acton.

Kiosks of standard design and color have been installed in most of the conservation areas. Kiosks are sturdily-built structures equipped with map boxes, roofs, and a notice-board surface on which standard information including the parcel's map, steward contact, and land use regulations are posted. These were constructed, for the most part, by Eagle Scouts, with direction from an LSCom mentor. All entrances to principal conservation areas are now marked with similar "Conservation Area" signs, including the name of the area, and in some places, rules and regulations.

Acton's conservation areas are complete with trail systems, often with one or more secondary trails, where appropriate, and one or more access points. Major trails (yellow-blazed) are usually loop trails unless the land configuration prohibits this. Secondary trails (blue-blazed) either bisect the loop or provide access to a more remote portion of the conservation area that is of special interest. All secondary trails leave and rejoin the major trail. Access trails, red-blazed, either provide access to a loop trail through a narrow corridor or easement, or act as connectors between two conservation areas that are either contiguous or close to one another. Blazing has been done in both directions for the least intrusion. Refreshing blaze markers is the responsibility of LSCom members assigned to the task.

Among its many accomplishments, LSCom has installed bridges at stream crossings and extensive boardwalks in many of the perennially wet areas. Nesting boxes have been installed for bluebirds and other species, blight-resistant elm trees planted for future shade where appropriate, and heavy trash and old farm equipment of no historical interest has been removed. Maintenance of special habitat areas such as meadows, fields, old orchards, and a pine-barrens—open lands rare in Acton—has been performed at the lowest level deemed necessary to maintain the unique character of the area. Otherwise, management practices have been limited to keeping trails open while allowing natural succession processes to occur. In addition, attention has been directed at control of invasive species such as bittersweet, Norway maple, barberry and euonymus.

LSCom continues to be assisted in its activities by Boy Scout Eagle candidates, Cub Scout dens and Girl Scout troops, ABRHS Senior Community Service Day participants, the Merriam School Service Learning Project 5th and 6th graders, as well as by other public-spirited citizens. The Acton Arboretum is supported by Friends of the Acton Arboretum Inc., a private non-profit organization, with help from town staff.

Areas listed in the matrix as Miscellaneous Parcels have not been actively taken under LSCom's responsibility.. Town staff manage the Community Gardens as open agricultural space. It is expected that the town rezones all conservation lands after purchase as ARC (Agriculture, Recreation, and Conservation). The isolated parcels are yet to be evaluated for their possible future use as part of the public access conservation system.

Acton takes just pride in its conservation lands, and it is particularly grateful for the dedication and efforts of the Land Stewards who have done an outstanding job in managing these lands for the benefit of the citizens of Acton.

5.C.1.2 SUMMARY LISTING OF CONSERVATION LANDS AND AREAS

(See Section 13, Maps R-7A, R-7B, R-7C.)

5.C.1.2.1 Town Forests

Acton has two areas historically designated Town Forest: the Wills Hole parcel, off Quarry Road, acquired in 1949; and Bulette town forest, acquired in 1926. The Bulette land was the first parcel to be designated town forest. It is comprised of two parcels at 20 Bulette Rd. Rear consisting of approximately 30 acres. As adjacent parcels were acquired, these two areas were rolled into the larger Wills Hole conservation area and the Bulette Conservation area. Both are considered conservation land and managed by LSCom. See Table 5.C.2 for details.

5.C.1.2.2 Acton Conservation Lands

The following section refers to the Conservation Matrix, Table 5.C.2. Much of the text is excerpted from "A Guide to Acton Conservation Lands," a publication offering maps and details of most of these major conservation areas. The guide, originally published in 1996, is now in its third printing and is available to the public, through the Recreation Department, for a small fee. It can also be accessed electronically through Acton's website. (http://www.actontrails.org/CasD.htm) Additional information has been provided and reviewed by Jim Snyder-Grant, Chairman of the Land Steward Committee, and Tom Tidman, Natural Resources Director for the Town of Acton.

5.C.1.2.3 Acton Arboretum

The Acton Arboretum, in the town's center, consists of 65 acres of woods, meadows, swamp, ponds, old apple orchards, a glacial esker, and a bog. The land, successively owned and improved by the Craigins, the Reeds, the Tuttles, and the Bridges, was acquired by the town in 1976 and 1977. It was formalized as an Arboretum in 1986 when Town Meeting funded the purchase of plant materials and site improvements, and the original warrant article was amended by John Whittier to specify

Forsythia and daffodils brighten Meetinghouse Hill, Acton Center

use of the property for an arboretum. Since then, the Arboretum has been developed through the efforts of the Friends of the Acton Arboretum, Inc., assisted by many volunteers. In 2002, an 11acre parcel adjacent to the Arboretum's southwesterly corner was donated to the town. Encompassing a red maple swamp and some wooded upland, it has an unimproved trail passing through it from the Highland/Bog Loop's esker to the Wildflower Loop. In 2013, the town purchased the one-acre parcel of 81 Wood Lane Behind from the Acton Conservation Trust to add to the Arboretum. In 2012 the Acton Board of Selectmen approved naming a small, previously unnamed stream, which flows through the Acton Arboretum, in honor of Mary S. Michelman, who passed away in 2010 and was an esteemed citizen who created the Acton Stream Team and worked assiduously to keep Acton's drinking water safe and clean. A commemoration ceremony dedicating "Mary's Brook" was held in October, 2012. Mary's Brook is part of Acton's watershed that eventually flows into the Assabet and Concord Rivers. An excerpt of the Arboretum's Master Plan with future goals is found in Section 12-F2.

5.C.1.2.4 Bulette Conservation Area

The Bulette Conservation Area is the first parcel of land the Town of Acton acquired for conservation purposes. Its purchase was authorized at the 1965 Annual Town Meeting. The land abuts Acton's first Town Forest which was purchased in 1926. Together, the two parcels total 38 acres, much of which is wetlands. For many years the only access into this area was on a fire road that was annually cleared of vegetation and obstructions to assure passage for fire apparatus.

The first hiking trails were cut in 1974 as an Eagle Scout project. In the following years, development and maintenance resources were focused on the newer and larger conservation tracts the Town acquired and this area was overlooked. In 1999, access trails and loop trails were cut. The area is notable for its plentiful glacial features: a number of large erratics and an esker that may be seen from the trail crossing a wetlands. An easy bushwhack during dry periods will take the hiker to the top of this esker, which has an animal track along its top, with views of both hemlock forest and additional wetlands beyond.

5.C.1.2.5 Camp Acton Conservation Area

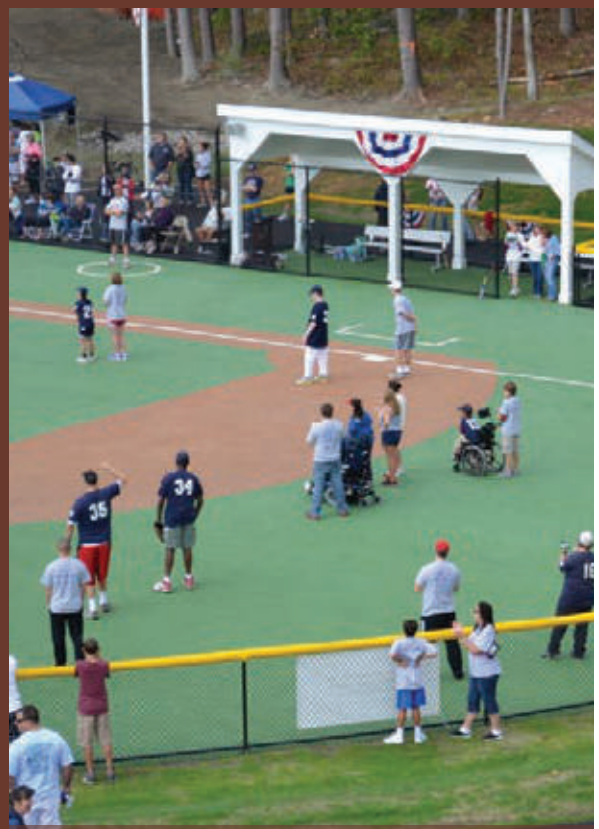
The Camp Acton Conservation Area, a property formerly owned by the Boy Scouts, was acquired by the town in 1996 with the aid of a state Self Help grant. This area is one of four contiguous conservation areas, the others being Spring Hill, Nashoba Brook and, the most recent addition, Robbins Mill. Together, they comprise almost 500 acres of preserved conservation open space.

Camp Acton's unique feature is its suitability for a type of passive recreation that is not offered by any other presently-owned town property. Picnicking, as well as individual or group day or overnight camping may be enjoyed with a permit from the Recreation Department of the Town of Acton. There are six large, primitive campsites, established by the Boy Scouts, maintained free of poison ivy, brambles, and damp or stony ground. Each is equipped with a rustic picnic table and crude stone-ring fireplace, and each is located in a woodsy setting that allows some privacy. The gated internal parking area makes possible easier access with gear to these sites. Close to the parking area is a large stone masonry fireplace suitable for group gatherings. Further modest enhancements are anticipated. Wetlands comprise about 20% of the acreage in Camp Acton. Other natural features include two isolated vernal pools and an unnamed stream, which eventually flows into Spencer Brook.

5.C.1.2.6 Community Gardens

This small, 5-acre property provides space for community gardens in the North Acton area on Route 27 just south of Carlisle Road. Flanked by Nashoba Brook's Robbin's Mill Pond, the property sits in fertile lowland. This rich earth is prime farming land and is the major asset of this site. A small picnic area is also located there. Due to its small size, no trails have been developed, but a small parking lot for both the community gardens and fishing

Acton Recreation/Natural Resources was selected as the winner of the 2013 Massachusetts Recreation and Park Association's "Design of Facility Agency Award" for constructing the Miracle Field.



Opening Day at Joseph Calli Miracle Field

access was built in 1992. No stewarding is currently being done at this site.

Community gardens have been located at this site for over 30 years. The field area is subdivided into 39 plots, all of which are rented to both residents and non-residents. The Town of Acton Recreation Department, located in Town Hall, manages the rental of the garden plots. Currently water for irrigation purposes is obtained by a direct hookup to the town's water line. Developing access to the water in the nearby Robbins Mill Pond is under consideration, though no detailed plans have been developed at this time.

5.C.1.2.7 Grassy Pond Conservation Area

Grassy Pond Conservation Area is one of Acton's larger conservation areas, with over 95 acres located between Newtown Road and Nagog Hill Road close to the adjacent town of Littleton, and lying west of Acton Center. It is also one of the town's most diverse conservation areas because of its varied habitats and ecosystems. These include the Pond, an extensive wetlands at the pond's outlet, two small streams, a boulder field, a large meadow, many stone walls, dense stands of eastern white pine, and open stands of northern hardwoods such as white ash and red and white oak. Mosses are prolific, coating many of the stones and tree stumps.

About half the land was acquired by the town in 1968 and 1972 through two Self Help grants, and the remainder was acquired in 1971 and 1984. It was one of Acton's first conservation areas to have a Master Plan. The stated purpose was to maintain the unspoiled serenity of the area while increasing its potential for use and enjoyment. The first trail, designed according to this plan, was built in 1978 as a Boy Scout Eagle project with assistance from the Young Adult Conservation Corps (YACC) and it entered the property from Newtown Road. Gradually, the boardwalk across the wetlands, the pier at the pond's edge, the trail in from the Nagog Hill Road side, and the Willis Holden Drive trail were added. Inmates of the Northeastern Correctional Center, as well as Boy Scouts working on Eagle projects, carried out many of these improvements. In 1998, members of the Land Stewardship Committee modified the main trail into a loop.

There are three entrances to the Grassy Pond Conservation Area — from Nagog Hill Road, Newtown Road and Willis Holden Drive. Nagog Hill has designated parking facilities, and the Newtown Road and Willis Holden Drive entrances have on-street parking only.

Grassy Pond is a naturally occurring kettle hole exhibiting bog characteristics around its shoreline. Nowhere is the pond more than 15 feet deep, although the level has fluctuated in recent years due to beaver activity. The gradual colonization of the perimeter areas by species of plants that thrive in very wet and highly acid areas continues to shrink the open water through an ever-quickening process. Leading this advance are sphagnum moss, pitcher plants, leatherleaf, highbush blueberries, larches and red maples. A short side path off the loop trail leads to the pond's edge, and a recently constructed boardwalk leads through the wetlands boundary of the pond to an observation deck providing good views and an appreciation of the bog's characteristics.

5.C.1.2.8 Great Hill Conservation and Recreation Area

Great Hill Conservation and Recreation Area, located in a busy section of South Acton, is a large tract, diverse in topography, vegetation, natural features, and uses available to the public. This 192-acre conservation area is bounded on its southerly side by School Street, where there is a major access behind the South Acton Fire Station. The property's other boundaries are provided by Piper Road on the east, Massachusetts Avenue on the north, and Main Street on the west, with a minor access across from Oakwood Road. The Main Street access, located across from the intersection of Prospect Street and Main Street, is a second major access and also provides parking. A second minor access is from Francine Road. Kiosks are positioned at the top of the meadow beyond the fire station playing fields and the Main Street entrance.

The town acquired the land, with state and federal assistance, in two phases between 1971 and 1975 with the purchase of seven contiguous parcels that had no existing structures on them other than the common New England stone walls. Since then, the area just beyond the fire station entrance has been developed for limited recreational uses. These include installation of basketball hoops, soccer fields, and barbecue pits and picnic tables. A former marshy area was dredged in 1986 and made into a skating pond. A large open meadow beyond the playing fields creates a feeling of spaciousness, and slopes up to the wooded areas where the trail system begins. In 2009, an additional 5.5 acres of abutting land was purchased with Community Preservation funds. The land at 8 Piper Lane Rear (see Tables 5.C2 and 5.B.2) is to be protected under a permanent Conservation Restriction (2008 Special Town Meeting Warrant, Article 2).

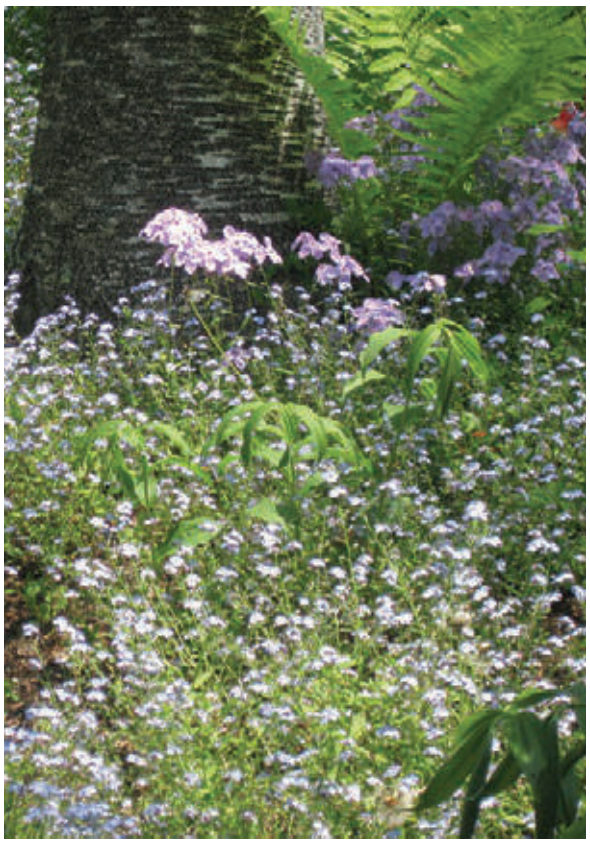
5.C.1.2.9 Guggins Brook Conservation Area

The 61-acre Guggins Brook Conservation Area, acquired in 1975 and 1976 through a Self Help grant, is predominantly a low-lying, frequently wet area through which Guggins Brook and Inch Brook flow. The main access is from a small parking lot on the northerly side of Route 111 (opposite Birch Ridge Road) about 0.5 mile west of West Acton center. Here the conservation area abuts Water District land and can be traversed by a fairly lengthy access trail, much of which consists of muddy ground before crossing Inch Brook on a short boardwalk into the main Guggins property. A secondary access, also lengthy, is from Central Street by way of an easement granted by the New View Co-Housing community. Public parking for this entrance is about 0.3 mile away, in the playing field lot on nearby Elm Street. It is also possible to access the area from the Jenks Conservation property via a private trail across the back of Idylewilde Farm.

This conservation area is not suitable for either horses or mountain bicycles because of the wetness, but there are some very scenic areas, particularly along Guggins Brook where it flows through a canal bounded on one bank by a raised dike. Here the water calms and flows quietly through a straight streambed. Trees found on the parcel include white pine, red maple, oaks, hemlocks, quaking aspens, and occasional apple trees (remnants of the orchards that were once common throughout Acton).

5.C.1.2.10 Heath Hen Meadow Conservation Area

Heath Hen Meadow Conservation Area in southwest Acton comprises 113 acres of streams, meadows, upland forest, and large tracts of wetlands. Only one-third of this conservation area is upland. The major portion of the property, almost 100 acres, was purchased using both town and state funds in 1974. Smaller parcels, providing access corridors, were acquired in 1995. The area is crisscrossed by several stone walls which serve as reminders of its use as farmland during the 17th and 18th centuries. The conservation area is named for the Heath Hen Meadow Brook which rises in Stow and meanders through the property, picking up the Muddy Brook tributary, and eventually merging with Fort Pond Brook just beyond the property's border.



Wildflowers, Meetinghouse Hill, Acton Center

Heath Hen Meadow is home to a variety of wildlife including beaver, skunk, raccoon, opossum, deer, and ducks.. The meadows and surrounding woods provide habitat for numerous species of songbirds, as well as insects and amphibians.

5.C.1.2.11 Jenks Conservation Area

Jenks Conservation Area comprises 30 acres consisting primarily of a broad, sweeping meadow, once part of the extensive apple orchards formerly located throughout this area. To the west, however, the property is bisected by the MBTA commuter railroad line. Wedged between this railroad line and the Idylewilde Farm property is a 7-acre extension of the Jenks Land. This conservation area and the nearby Guggins Brook Conservation Area both serve the same immediate area of West Acton, and both lie within the same aquifer protection zone. The land was purchased using town and state funds in 1975.

The main entrance to Jenks is from a small parking area off Central Street. A barrier gate with a small notice board and map box maintained by the Land Stewardship Committee separates the parking area from the beginning of the access trail. This access leads slightly downhill through a narrow corridor bordered with tangled shrubs and berry bushes to a concrete and stone culvert through which Fort Pond Brook flows. The shrubby area along the corridor has been partially brushed out to provide visual access to two ponds just downstream from the culvert. A second minor entrance to the property comes into the 7-acre parcel on the westerly side of the railroad line, from private property beyond. There is also an access from the adjacent town of Boxborough, and a trail access from Idylewilde Farm that connects to Guggins Brook

North Acton Community Gardens

Conservation Area. Plans are underway to expand the Central Street parking lot to allow spaces for up to 4 cars.

5.C.1.2.12 Nagog Hill Conservation Area

Nagog Hill Conservation Area comprises over 175 acres providing trails that are generally wide, well-marked, and in good condition. Much of the area was once cleared farmland, and there are many dry-stone walls delineating the boundaries of the former farm fields. The property was acquired by the town in a series of purchases between 1975 and 1980 using both state and town funds. An additional 12 acres was purchased by the town in 2007 from the Groener family using CPA funds.

A special feature that exists in this area is a large glacial erratic, called Egg Rock, on the south side of the main trail just north of the most easterly stream crossing. A large vernal pool just south of the main trail where it crosses the open field beyond the horse corral is home to many species that breed only in such habitats. Just outside of the conservation property is Nagog Pond, one of the Commonwealth's 'great ponds', as defined under the State Statutes. Rights to this pond, relinquished by Acton in 1886, were given to the Town of Concord which continues to use it as a back up water supply.

5.C.1.2.13 Nashoba Brook Conservation Area

Nashoba Brook Conservation Area's 123 acres were donated to the town beginning in 1987 as part of the Arbors cluster development approval process, and as such they are exempt from further development. This conservation area is one of a group of three contiguous conservation lands -- Nashoba Brook, Spring Hill, and Camp Acton--comprising almost 400 acres, each with its own trails and separate entrances.

This conservation area is probably the most scenic and varied of all the town's conservation lands, due in large part to the mostly unspoiled Nashoba Brook that runs through the land from north to south. The exceptional stonework, including the foundations of early mills, two earth fill dams, many stone walls, and the enigmatic corbelled stone chamber built into a hillside, together with a variety of riverine and upland habitats, make this conservation area a jewel of its kind. In 2009 Linda McElroy, first chairman of the Acton Land Stewardship Committee, received a grant from the Community Preservation Fund to create a "Trail Through Time." The project entails several phases, some of which have been completed, such as the total renovation of the ancient stone chamber. Other aspects include handicap accessible trails, picnic areas, viewing platforms, mill restoration, and restoration of a granite block homestead foundation. The project has been assisted by several Eagle Scouts.

5.C.1.2.14 Pacy Conservation Area

The 38.2-acre Pacy Conservation Area, acquired in 1975 and 1979, is tucked in between Central Street and the residential neighborhoods of Tupelo Way and Tuttle Drive. The land is bisected, north to south, by a mature red maple swamp that takes up about one third of the entire Pacy area. A lovely vernal pool can be seen from the southern end of the loop trail. An unnamed feeder tributary in the middle of the swamp drains into Fort Pond Brook. The western uplands, near Tuttle Drive, have no trails. The eastern uplands have a single loop trail. There are two access points to this loop. The first is a cul-de-sac at the end of Tupelo Way, which provides room for parking, along with a kiosk and map box. The other entrance, on Central Street, opposite Martin Street, is for pedestrian access only since it has no room for parking. The loop provides a pedestrian connection between the commercial area near upper and lower Prospect Street and Martin Street, and access to Jones Field and beyond.

The uplands have the appearance of a former early 20th-century pasture land, abandoned when the surrounding areas were developed, and now providing habitat for deer. There are many forty-year-old and older canopy trees, white pines, sugar maples, white ash, hickory, red oak and other hardwoods. But there are almost no saplings, young or small trees in the mid-story, and the understory is dominated by small and young plants that have been able to grow in the shaded conditions, such as hay-scented ferns, Mayflower, Jewel-weed, barberry, and other plants that deer typically avoid.

5.C.1.2.15 Pratt's Brook Conservation Area

Pratt's Brook Conservation Area, located in South Acton in the area between Parker Street and High Street, has three access points. The most heavily used is the Parker Street entrance, with parking near the railroad

crossing. A second access is from the large parking area at the end of Brewster Lane, off High Street. A minor access at the end of Valley Road, also off High Street, was most recently opened.

This conservation area, formerly belonging to Frank and Zillah Averett, was purchased in 1980 for $88,000 through a combination of town and state funds. It comprises 60 acres of wetlands, forested uplands, a pine barrens unique to this part of Massachusetts, Pratt's brook, and a small pond and vernal pool. The brook bisects the property, entering it as a briskly flowing stream that soon spreads out into a broad wetlands area with multiple channels before plunging down a rocky slope to join with Fort Pond Brook just beyond the conservation land's southeastern boundary. A smaller stream, the outlet from Tenney Circle Pond, meanders across the southern portion of the land.

The parcel is suitable for hiking and cross-country skiing as well as enjoyment of several different habitats. South of the wetlands is an area of uplands, forested with white pine, red oak and pitch pine and characterized by a series of hilly shoulders that reach down to the wetlands. This area is most suitable for cross-country skiing. Adjacent to the Brewster Lane parking area, a 2-acre park was created for enjoyment by residents of the contiguous Audubon senior community. This area has been enhanced, with the help of Boy Scout Eagle projects, by the introduction of wild grasses, native wildflowers and ground covers, an elm tree for shade, birdhouses, and rustic benches. An attractive, gently-graded and woodchip-covered trail has been cut leading down into the pine barrens area.

5.C.1.2.16 Spring Hill Conservation Area

Spring Hill Conservation Area's 213 acres, acquired by the Town of Acton between 1966 and 1995 through a series of purchases and donations, are home to a variety of wildlife, natural features, and recreational opportunities. The major entrance is along a short access from the Spring Hill Road cul-de-sac off Pope Road. A secondary (red-blazed) access to the Spring Hill loop trail (yellow-blazed) enters through the Hearthstone Hill Land from its entrance on Jay Land off Strawberry Hill Road.

Spring Hill is covered with a deciduous forest of mostly red and white oak, red maple, and black and white birch. A scattering of beech, larch, hemlock, and white pine are found throughout. A distinct community of ground covers and low-story vegetation exists on the forest floor. These include mosses, partridgeberry, princess pine, and several other members of the clubmoss family, all of which are indigenous to wet or heavily shaded areas. The under-story vegetation is dominated by high-bush blueberry and swamp azalea.

Trail at Great Hill conservation land, South Acton

The Hearthstone Hill Land, now an integral part of Spring Hill's southeast corner, is a 32-acre parcel extensively covered with a hemlock swamp. The Hearthstone Hill access trail, 1.0 mile in length, leads from the cul-de-sac at the end of Jay Lane off Strawberry Hill Road, and skirts the swamp along its westerly edge. The trail, which follows a predominantly upland area through a stand of beech extending down into the hemlock lowlands, crosses a boardwalk in a low area before joining the main Spring Hill loop trail close to its main entrance. The entire Hearthstone Hill Land is contained within a rectilinear stone wall.

5.C.1.2.17 Stoneymeade Conservation Area

Stoneymeade Conservation Area was donated to the town in 1989. Located off Pope Road in East Acton, this conservation area borders conservation land in the town of Concord. Stoneymeade's 44.5 acres, a mix of fields, small streams and bordering woods, preserves one of the largest remaining open fields in Acton. The distant vistas seen from the main field encompass a small pond surrounded by marshy growth, more fields beyond, a horse farm with corrals, and forestland on the far edge. Much of what can be seen here lies in Concord, but the boundary between the two towns is seamless, enabling both towns to enjoy this tranquil open area. On the Acton side, the field is kept open by mowing late each fall to prevent forest succession from occurring.

Stoneymeade's main entrance is from the far side of Stoneymeade Way, off Pope Road, where a prominent sign marks the beginning of an access trail. A short walk along this pleasant, tree-shaded path brings one to the large open field that makes up most of the Stoneymeade Conservation Area. A large, stately oak tree surrounded by ledge stands in the center of the field. The other access is from the town of Concord, across the Annursnac Conservation Area. The distance from the main entrance to the boundary with Concord is only 0.4 mile.

Stoneymeade Conservation Area is home to many species of birds. Among those that can be observed raising their young here are scarlet tanagers, red-winged blackbirds down beside the marshy margin of the pond, and tree swallows. Year-round resident species such as chickadees, robins and titmice also make Stoneymeade their home. The Acton Bluebird Recovery Group's concerted efforts to encourage bluebirds to reestablish after years of decline resulted in a successful nesting pair in 1999. Several pairs of bluebirds now nest here annually, as well as a pair of bobolinks.

5.C.1.2.18 Wetherbee Conservation Land

The Wetherbee Conservation Land, located in East Acton, totals just over 72 acres. The property is bounded by Wetherbee Street to the east, Route 2 to the south, state property/Berry Lane to the west and Alcott Street/ Moritz Land to the north. It currently has a single formal entrance, which is on Wetherbee Street where it runs beside the farm field. Parking is available along the western edge of this road.

This conservation land was purchased from the state in 1982 for $108,000. The state acquired it in 1898 from the Heywood/Sellors family; before this, it had been part of the Wetherbee Farm. Wetherbee Land's eastern section is one of only two actively-farmed agricultural fields belonging to the town of Acton. This gently rolling terrain is used by the state for rotating silage crops. Just northwest of the farm field is a small, sloping, short-grass meadow, accented with crab apple trees. South of and below this meadow lies a marshy habitat that feeds a tiny north/south stream and collection-pool that separate the woods from the field's edge. The property's back section, to the west, is wooded and typical of New England upland secondary growth. It features red maple, black and red oak and white pine, with a scattering of ash, sassafras and hawthorn. In the woods, old stone walls still define early boundaries. One of these, running north/south, is ancient, the others are more recent. This property is considered one of the conservation areas most conducive to initiating a forest management program, implemented in 2013. There is also access to the future Bruce Freeman Bike Trail.

The area generally is suitable for cross-country skiing, as well as walking, horseback riding, snow shoeing and tracking/birding. After harvest, the fields themselves are used for a variety of activities, including Boy Scout meets, dog obedience training, rocketry contests, kite-flying, sky-watching/photography and star-gazing during unusual celestial events.

A Forest Management plan was written in June, 2011 and submitted to the Massachusetts Department of Conservation Resources in Ch61/61A/61B Forest Stewardship Program for the Wetherbee parcel. Primary goals of the plan are to promote biological diversity; enhance habitat for birds; enhance habitat for small and large animals; preserve and improve scenic beauty; and improve access for walking, skiing and recreation. Goals of secondary importance in the plan are to enhance the quality and quantity of timber products to generate long term income for management of open space properties. Invasive shrub species are abundant on many portions of the property. The long-term management objective is to improve the health of the forest. The 13th Edition of the Natural Heritage Atlas indicates that the field is within a Priority Habitat Area. Through a Forest Stewardship Outreach Plan, the Conservation Commission's desired goal is to educate the public about the benefits of active management, and to gain its acceptance of multiple-use management of the town's open space.

Native Arruncus *dioicus*, or "goat's beard," Acton Arboretum

5.C.1.2.19 Wills Hole Conservation Area

The Wills Hole Conservation Area and the contiguous Town Forest, located in North Acton near NARA Park, have been combined into one conservation area that comprises 90 acres. The 49 acres of the Town Forest was purchased in 1943 for $490 and was intended for the harvesting of timber and firewood by Acton residents. It is covered with stands of red oak, white oak, red maple and white pine. Abutting properties contain former quarries. The remaining property includes 24 acres assembled from two land parcels purchased in 1969 and 1971 for conservation purposes. In 1999, the Captain Handley Road subdivision granted another 17 acres along its perimeter which provides a conservation corridor from Harris Street into the Wills Hole area.

There are three entrances to the area: Captain Handley Road entrance;, Quarry Road, off Route 27; and Nagog Park Drive cul-de-sac off Route 2A. Wills Hole is a classic quaking bog. A 170-foot boardwalk, completed in 2000 by LSCom volunteers, leads from the esker to the open water edge of the bog. At its center it is an open pond, but ringing the open water is a mat of floating sphagnum moss. The sphagnum mat is in turn ringed by a

Wildflower garden at Meetinghouse Hill, Acton Center

more upland zone of dense shrubs and trees. Carnivorous plants found at Wills Hole bog include pitcher plant and sundew. Other non-carnivorous plants on the sphagnum mat include American cranberry, leatherleaf, sheep laurel, and swamp loosestrife. Just a short distance upland from the sphagnum mat, shrubs and small trees, including black spruce, North American tamarack and swamp azalea, are found. All these plants may be seen from the boardwalk.

5.C.1.2.20 Miscellaneous and Isolated Parcels

Approximately 150 acres of conservation areas are in this category. They comprise a number of parcels that can be grouped together but have not yet been taken under the management of the Land Steward Committee. Some are not suitable for public access, such as the extensive flood plain wetlands that border Flint Road and West Acton. The Caouette Land is a recent addition to the town's conservation properties. It was approved for purchase in 2011, with an agreement that allows current farmers to continue leasing the land for active farming for the next ten years. A conservation restriction is also being drawn up for this property, and there are plans to use a small portion for parking access to the Assabet Rail Trail that runs adjacent. In 2013, the Anderson Property was approved for purchase with CPA funds. This 20 plus acre parcel, which runs along Arlington Street near Newtown Road, represents a combination of "managed" forested uplands and riverine ecosystem associated with Grassy Pond Brook. Both habitats have extremely high wildlife value. The remaining, privately owned property remains a focus of the Open Space Committee as it would allow for a connecting trail to the abutting Bulette Conservation area. The two Arborwood parcels are non-contiguous, though in close proximity. The one- and-one-half-acre parcel is a small upland pine stand, and the larger parcel contains a pond surrounded by a red maple swamp. The Monson property is an open marshy bog, bounded by the railroad tracks and Central Street. The unnamed stream that runs through Pacy Land drains here, and this wetland eventually drains into Fort Pond brook. The Putnam Land consists of an open marsh flood plain adjacent to Conant Brook. The marsh was created in recent years by beaver activity, indicated by trees killed from the flooding but still standing. These, like the Flint Road and West Acton parcels, may prove to be unsuitable for public access.

Marshall Crossing, a sixteen-and-one-half-acre parcel that buffers two large developments, Marshall Crossing and Robbins Mill, has potential as a public access facility. It is accessible from either the Marshall Crossing development or the Robbins Mill development, and consists of sloping, forested rocky uplands. Similarly, Patriot's Hill parcels are comprised of two adjacent vacant lots accessible from Washington Street. Conant Brook runs through the middle of these 15 acres. The Steinman & McGloin parcels, which make up an area slightly more than forty acres, are forested wetlands in the southern part of town that borders the neighboring town of Maynard. These three areas will be assessed in the future for potential trail access, vegetative population, and suitability for being included in the group of managed conservation areas.

The remaining 7 parcels of conservation lands total just over 12 acres, but their value for passive recreation use is minimal, due to their location, size and characteristics. The lots at 5 Samual Parlin Drive Rear and 2 Minot Avenue Rear are surrounded by residences and have no public access. The parcel at 915 Main Street is an open marsh, adjacent to Nashoba Brook, and the Stow Street parcel is a red maple swamp adjacent to Fort Pond Brook. The Harris Street parcel is still to be explored, and the small Tuttle Drive parcel, adjacent to an old railway bed, has not yet been characterized. The Martin Street parcel, a small piece of wooded upland also next to Fort Pond Brook, may have some potential for inclusion in the managed parcels, but this is yet to be determined.

5.C.2 Municipal Facilities and Open Spaces

The following sections describe areas owned and/or managed by the town of Acton's Recreation Department. For instance, the Recreation Department manages the assignment of garden plots both for the Community

TABLE 5.C.2 CONSERVATION LAND OWNED BY THE TOWN OF ACTON

Managed Conservation Areas				Component Parcels											
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Total Conervation Areas, Acres: 1645.6															
Acton Arboretum	Passive		T, P, K, A	E, W, G											Pedestrian access from Town Center
Total Acres: 65.86					F3-78-1	33 Minot Ave	11.20	R-2	6/5/2002	35623	499	GIFT/CR	5	ConCom/ SVT and ACT	Donald Land; CR held by SVT and ACT
		Main Entry			F3A-76	2 Taylor Rd	14.81	ARC	12/27/1977	13361	526	SH 31	3	ConCom	Bridges Land; taken for conservation purposes - $60K
		Corridor			F4-28	47 Wood Ln	30.00	ARC	11/1/1976	13085	558	SH 30	3	ConCom	Easement between 41 & 49 Wood Ln
					F4-41-1	81 Wood Ln	1.03	R-2	9/13/2013	62628	89	Town	3	ConCom	Purchased by Town from ACT
					F4-44	17 Minot Av	6.42	ARC	12/16/1976	13112	231	SH 30	3	ConCom	Bean Land; held by ConCom
		Wood Lane Entry			F4-45	86 Wood Ln	2.01	ARC	9/28/1976	13065	198	GIFT	3	ComCom	Wheeler Land, deeded to ConCom
		Corridor/ Access from Concord Rd.			F4-40-4	7 Concord Pl Beside	0.39	ARC	12/2/1998	29460	425	GIFT	2	ConCom	
Bulette Conservation Land - Town Forest	Passive		T, K	W, H, B											First conservation parcel
Total Acres: 47.35		Main entry			D2-10	20 Bulette Rd Rear	13.33	ARC	8/13/1965	10900	136	SH 1	3	ConCom	to ConCom; ATM 1971 64 picnic tables; Pacy Land
		Town Forest/ Veteran's Memoral Rec. Area			D3-12	20 Bulette Rd Rear	18.80	ARC	3/23/1926	04950	435	Town	2	ConCom	3/8/25: TM approved $200 for land purchase for purpose of a town forest; Durkee Lot
		Town Forest			D3-16	20 Bulette Rd Rear	12.00	ARC	3/23/1926	04950	435	Town	2	ConCom	3/8/25: TM approved $200 for land purchase for purpose of a town forest; Durkee Lot
					D3-22-4	53 Arlington St	3.22	ARC	12/21/1979	13863	336	Gift/CR	5	ConCom	Gifted to Town with early CR; McGloins
Camp Acton Conservation Land	Passive/ Camping		T, P, K	B, C, H, W											Only Public Camping Ground in Acton; permit required
Total Acres: 56					D5-31	362 Pope Rd	15.00	R108	3/7/1996	26115	336	SH 34	3	Rec/ ConCom	
	Main Entry				E6-7	362 Pope Rd	41.00	R108	3/7/1996	26115	336	SH 34	3	Rec/ ConCom	
Community Gardens	Agriculture	Directly off of 27	P, K	G											Taylor Land
Total Acres: 5.38					C5-41	861 Main St	0.88	ARC	12/23/1975	12913	6	SH 23	3	Rec/ ConCom	ConCom and Rec.
					C5-51	845 Main St	4.50	ARC	12/23/1975	12913	6	SH 23	3	Rec/ ConCom	ConCom and Rec.

[1] Facilities: T=Trails; P=Parking; K=Kiosks; A=Accessible
[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels											
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Grassy Pond Conservation Land	Passive		T, P, K	B, H, W											Viewing platform constructed in 2013
Total Acres: 95.61		Entry			D3-14	149 Newtown Rd	28.95	ARC	10/30/1968	11594	514	SH 4	3	ConCom	ConCom; Parlin Pond Development, Charbonneau Land
		Corridor			D3-14-5	13 Willis Holden Dr	0.24	R-8	11/2/1984	15861	102	GIFT	2	ConCom	Willoughby Land: for conservation to be kept in open & natural state
					D3-14-27	22 Samuel Parlin Dr	16.82	R-8	11/2/1984	15861	102	GIFT	3	ConCom	
		Island Lot			D3-14-34	12 Willis Holden Dr	1.05	R-8	11/2/1984	15861	102	GIFT	3	ConCom	
		Island Lot			D3-14-41	13 Samuel Parlin Dr	0.23	R-8	11/2/1984	15861	102	GIFT	3	ConCom	
		Corridor			D3-14-47	14 Samuel Parlin Dr	0.52	R-8	11/2/1984	15861	102	GIFT	3	ConCom	
		Island Lot			D3-23-9	5 Samuel Parlin Dr Rear	4.20	ARC	1/8/1971	11942	74	GIFT	3	ConCom	ConCom; Parlin Pond Devel., Charbonneau
		Main Entry			D4-1-2	236 Nagog Hill Rd	43.60	ARC	6/11/1974	12646	305	SH 22	3	ConCom	Young Land: Conservation and recreation; Grantee: ConCom
Great Hill Conservation Land	Mixed use		T, P, K	B, F, W											
Total Acres: 191.1					G2-124	219 Main St	14.71	ARC	7/17/1972	12246	280	SH 15	3	ConCom	Town, ConCom grantee; Flanagan Land
					G2-152	199 Main St	16.79	ARC	7/20/1972	12249	46	SH 14	3	ConCom	
		Corridor			G3-10–1	264 Mass Av	38.52	ARC	12/18/1974	LC475	89	SH17	3	ConCom	Abraham & Ruth Katz Land for conservation
					G3-68	Kelley Rd End	13.44	ARC	1/11/1973	LC830	39	SH 19	3	ConCom	Conservation purposes
					G3-79	18 Stoney St	13.52	ARC	12/29/1972	12355	195	SH 20	3	ConCom	ConCom grantee; Colloins, Wold Land
					G3-111	46 Piper Rd	33.00	ARC	2/8/1973	12376	554	SH 18	3	ConCom	ConCom grantee; Tinkler Land
					H3-11–1	36 Piper Rd Rear	2.00	ARC	8/22/1975	12848	237	SH 27	3	ConCom	ConCom grantee, Reed Land
					H3A-1–1	34 School St Rear	53.62	ARC	11/21/1972	12333	412	SH 12	3	ConCom	ConCom grantee; Merriam Land
					H3A-4	6 Piper Lane Rear	5.50	R-2	2/20/2009	52270	164	CPA	4	ConCom/ ACT	Land partitioned and house lot sold. Portion of house lot, granting permanent easement, has a CR. CR for town-owned parcel in process.
Guggins Brook Conservation Land	Passive		T, P, K	B, W											Pedestrian access from W. Acton
Total Acres: 61		Main Entry			F1-5	667 Mass Av	55.50	ARC	12/24/1975	LC870	90	SH 28	3	ConCom	Conservation & outdoor rec purposes; Cacciatore Land
		Wetland			F1-2	659 Mass Av	5.50	ARC	1/25/1978	13381	6	Town	2	Municipal	Considered part of Conservation Area though Municipal Property

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[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels											
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Heath Hen Meadow Conservation Land	Passive		T, K	W, B											Pedestrian access from S. Acton and also W. Acton via Mt. Hope Cemetery
Total Acres: 113.37					G2-184	19 Overlook Dr. Behind	1.99	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					G2-184–1	17 Overlook Dr Behind	1.39	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
	Corridor	Corridor			G2-193–14	19 Overlook Dr. Beside	0.07	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					G2-194	15 Overlook Dr. Behind	3.11	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					G2-194–1	13 Overlook Dr Behind	2.64	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					G2-194–2	11 Overlook Dr Behind	1.59	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					G2-194–3	9 Overlook Dr Behind	0.61	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					G2-194–4	7 Overlook Dr Behind	0.82	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
		Main Entry			H2-1	Robbins St End	84.00	ARC	7/19/1974	12670	362	SH 21	3	ConCom	Gifted to town for Conservation Purposes
					H2-7-5	3 Overlook Dr Behind	0.51	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					H2-7–11	1 Overlook Dr Behind	0.70	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					H2-7–16	5 Overlook Dr Behind	1.14	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					H2-36	123 Stow St	14.80	ARC	5/14/1974	12630	111	SH 16	3	ConCom	Gifted to town for Conservation Purposes
Jenks Conservation Land	Passive		T, P, K	B, W											Meadowland, great birding area
Total Acres: 28		Main Entry			E2-20	396 Central St.	22.00	ARC	12/2/1975	12902	200	SH 24	3	ConCom	ConCom Grantee
					E2-60	396 Central St Rear	6.00	ARC	12/2/1975	12902	200	SH 24	3	ConCom	ConCom Grantee
Nagog Hill Conservation Land	Passive		T, P, K	B, H, W											
Total Acres: 176.54					D4-1-3	257 Nagog Hill Rd	53.89	ARC	12/2/1975	12902	197	SH 29	3	ConCom	Young Land; for Cons. And Rec.; ConCom listed as Grantee
		Main Entry			D4-6	221 Nagog Hill Rd	88.14	ARC	1/2/1980	13871	233	SH 33	3	ConCom	ConsComm; Quin Land
					D4-14	568 Main St Rear	6.00	ARC	12/6/1985	16619	567	TM	3	ConCom	ConCom Grantee
					D4-15	568 Main St Rear	5.00	ARC	12/6/1985	16619	567	TM	3	ConCom	ConCom Grantee
					D4-21	288 Main St. Rear	5.00	ARC	12/6/1985	16619	567	TM	3	ConCom	ConCom Grantee
					D4-22	558 Main St. Rear	6.00	R108	3/23/2004	42294	359	TM	3	ConCom	New access coming from Quail Ridge
					D4-37-6	193 Nagog Hill Rd	12.51	R-8	10/19/2007	50251	161	CPA	4	ACT	Groener; gifted w/CR to Town for Open Space

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[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels											
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Nashoba Brook Conservation Land	Passive		T, P, K, H	B, W											Trail Through Time runs through this area
Total Acres: 123.29					D5-6	Wheeler Ln Rear	1.80	PCRC	11/22/1971	12114	415	Town	3	ConCom	
					D5-11–18	21 Milldam Rd	0.53	R-2	10/27/1989	20163	11	GIFT	3	ConCom	North Briar access; ConCom is grantee
					D5-11–33	17 Sawmill Rd Rear	2.26	R-2	9/26/1988	19361	363	GIFT	3	ConCom	ConCom Grantee
		Main Entry			D5-22	1-17 Blue Heron Way	112.00	PCRC	11/10/1987	18682	0183	GIFT	3	ConCom	ConCom Grantee
					D5-25	Davis Rd Rear	6.70	PCRC	11/10/1987	18682	0183	GIFT	3	ConCom	ConCom Grantee
Pacy Conservation Land	Passive		T, K	B, W											Pedestrian access from S. Acton
Total Acres: 38.32		Corridor			G2-123–37	39 Tuttle Drive Behind	0.25	ARC	1/23/1979	13631	143	GIFT	3	ConCom	ConCom; Moulton Gift 39,850 sq ft
					G2A-17	55 Central Street Rear	30.30	ARC	12/23/1975	12913	178	TM	3	ConCom	ConCom Grantee
		Corridor			G2A-17–1	43 Central Street	1.13	ARC	12/23/1975	12913	178	TM	3	ConCom	ConCom; Arnold Levitt dba Eastern Mortgage Co. Land
		Main Entry			G2A-18	30 Prospect St./Tupelo Way End	6.64	R8/4	5/3/2001	32802	136	GIFT	1	Municipal	Municipal Property considered part of conservation area
Pratt's Brook Conservation Land	Passive		T, P, K	B, W											Blueberry Barrens
Total Acres: 59.39		Main Entry			H3-237	95 Parker St	26.54	ARC	4/18/1980	13948	187	SH 32	3	ConCom	Averett Land; ConCom Grantee
					I3-2	108 Parker St Rear	31.00	ARC	4/18/1980	13948	187	SH 32	3	ConCom	Averett Land; ConCom Grantee
		Corridor			I3-5	16 Broadview St	1.75	ARC	10/20/1970	LC797	165	GIFT	3	ConCom	J&E Co., ConCom grantee
		Corridor			I3-20	15 Broadview St	0.10	R-2	10/20/1970	LC797	165	GIFT	3	ConCom	J&E Co., ConCom grantee
Robbins Mill Conservation Land	Passive		T, P, H	B, W											Newest area, viewing platform planned
Total Acres: 132.59					B6-20-5	2 Marshall Path	0.97	R108	5/15/1997	27294	343	GIFT	1	Municipal	Municipal Property considered part of conservation area
		Main Entry			C5-115	9-17 Carlisle Rd.	19.73	ARC	8/18/2011	57315	205	GIFT	5	ConCom	Deeded as permanent conservation land
					C6-8	13 Carlisle Rd.Rear	2.99	R108	10/6/1947	7197	290	TAKEN	1	Municipal	Municipal Property considered part of conservation area
					C6-9	3-19 Carlisle Rd Behind	12.86	R108	5/15/1997	27294	350	GIFT	1	ConCom	corrected page no.
		Corridor			C6-11	Canterbury Hill Rd.	0.30	R108	8/18/2011	57315	205	GIFT	5	Rec/ ConCom	Deeded for Recreation
		Corridor			C6-14-14	22 Blueberry Path	0.31	R108	8/18/2011	57315	205	GIFT	5	Rec/ ConCom	Deeded for Recreation
		Corridor			C6-19	27 Marshall Path	0.17	R108	5/15/1997	27294	343	GIFT	1	Municipal	Municipal Property considered part of conservation area
					D6-2	Canterbury Hill Rd. Behind	95.26	ARC	8/18/2011	57315	205	GIFT	5	ConCom	Deeded as permanent conservation land

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[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels											
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Spring Hill Conservation Land	Passive		T, K	B, H, W											Native Artifacts on site
Total Acres: 213.2					D5-23	Wheeler Ln End	2.43	ARC	8/19/1971	12058	587	SH 10	3	ConCom	ConCom grantee; Martin Land
					D5-24	Wheeler Ln	7.99	ARC	6/10/1971	12012	564	SH 11	3	ConCom	ConCom; Hollowell Land
					D5-29	Spring Hill Rd End	36.20	ARC	11/22/1971	12114	415	Town	3	ConCom	Conservation Land, applied for grant
					D5-30	Spring Hill Rd	9.67	ARC	5/31/1967	11331	359	SH 3	3	ConCom	Richardson Land for conservation
					D5-30–1	320 Pope Rd	0.45	ARC	5/31/1967	11331	359	SH 3	3	ConCom	Deeded for Conservation
		Main Entry			D5-35	Spring Hill Rd End	49.81	ARC	11/22/1971	12114	415	Town	3	ConCom	Conservation Land
					D5-36	308 Pope Rd Rear	5.82	ARC	12/23/1966	11270	552	Town	3	ConCom	Grantee: ConCom; transferred from BOS
					D5-37	Spring Hill Rd	7.94	ARC	11/1/1971	12101	686	SH 13	3	ConCom	Deeded for Conservation
					D5-37–1	Spring Hill Rd Rear	7.92	ARC	11/1/1971	12101	686	SH 13	3	ConCom	deeded for conservation purposes
					D5-38	Wheeler Ln	2.34	ARC	6/10/1971	12012	564	SH 11	3	ConCom	to be controlled by ConsComm; Hollowell Land
					E5-4	Spring Hill Rd	12.13	ARC	11/22/1971	12114	415	SH 3	3	ConCom	Taken for conservation purposes
					E5-16–2	10 Jay Lane	31.70	R108	12/4/1998	29450	341	GIFT	1	ConCom	deed also describes right of public to use a parcel to access conservation land described in this deed...you have to read the deed carefully; Parcel A is conveyed as PCRC land
					E5-45	21 Spring Hill Rd Behind	22.76	ARC	9/19/1966	11214	347	SH 2	3	ConCom	deeded for conservation purposes
					E5-7	Spring Hill Rd Rear	16.04	ARC	5/31/1967	11331	359	SH 3	3	ConCom	deeded for conservation purposes with easements
Stoneymeade Conservation Land	Passive		T, K	B, H, W											Abutts Concord Conservation land
Total Acres: 44.51					F5-12-11	93 Pope Rd	44.51	R8	3/24/1989	19719	283	GIFT	3	ConCom	
Wetherbee Conservation Land	Passive/ Agri		T, K	W											Agricultural field & Managed Forest
Total Acres: 72.68		Main Entry			G4-173	65 Mass Av	72.68	ARC	2/8/1982	14534	117	TM	3	ConCom	Actively farmed

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[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels												
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Wills Hole Conservation Land - Town Forest	Passive		T, P, K	B, H, W											Bog area, pedestrian access from NARA Park
Total Acres: 121.41					B5-33	Off Quarry Rd	20.80	ARC	10/8/1969	11749	734	SH 5	3	ConCom	Britt Land aka the Grant Lot
		Town Forest			B5-34	Off Quarry Rd	49.00	ARC	12/31/1943	06734	596	TM	2	ConCom	Texas lot Town Forest purchased about 1940
		Main Entry			C5-3	70 Quarry Road	5.03	ARC	2/27/1976	12940	132	GIFT	2	Municipal	
					C5-10–1	12 Harris St Rear	3.25	ARC	8/03/1971	12047	586	SH 8	3	ConCom	ConCom; Plamondon Land
					C5-10	12 Harris St	15.07	R108	5/5/1999	30137	563	GIFT	1	Municipal	Municipal Property considered part of conservation area
		Corridor			C5-10–18	1 Capt Handley Rd	2.03	R108	5/5/1999	30137	563	GIFT	1	Municipal	Municipal Property considered part of conservation area
					C5-24	22 Alexandra Way	19.61	R108	9/21/2004	43751	66	GIFT	3	ConCom	Deeded for conservation, recreation, agriculture (ARC)
					C5-45	3 Alexandra Way	6.62	R108	9/21/2004	43751	66	GIFT	3	ConCom	Deeded for conservation, recreation, agriculture (ARC)
							1645.60								
Miscellaneous Parcels															Areas currently not actively managed
Total Acres: 140.25															
Anderson Conservation Land				B, W											
Total Acres: 20.69					part of D3-10	Arlington St near Newtown Rd	20.69	R108	11/1/2013	62873	193	CPA	4	ConCom/ ACT and SVT	Purchased in 2013, CR to be held by SVT and ACT
Arborwood Conservation Land	Passive			W											Separate, non-contiguous parcels
Total Acres: 8.78					H3-38	Robinwood Road (end)	1.57	R2	12/6/1985	16619	565	GIFT	3	ConCom	Upland pine stand
					H3-80-6	11 Sandy Drive	7.21	R2	12/6/1985	16619	565	GIFT	3	ConCom	Pond surrounded by red maple
Caouette Simeone Farm Land	Agri.			W											Leased from town for farming
Total Acres: 10.22					H2A-62	2 Stow St.	10.22	R8/4	12/7/2010	56002	381	CPA	4	ACT	
Flint Road and West Acton Conservation Land	Wetland														Flood plain wetlands, adjacent to Fort Pond Brook
Total Acres: 23					F2-122	492-496R Mass. Avenue	4.50	R2	6/8/1993	23276	0559	GIFT	3	ConCom	Deeded for Conservation
					F2-128	488-492R Mass. Avenue	6.00	R2	10/2/1987	18589	160	GIFT	3	ConCom	Deeded for Conservation
					F2-149	494 MASS Ave. Behind (39 Flint Rd Rear)	3.00	R2	10/27/1989	20163	0013	GIFT	3	ConCom	Deeded for Conservation
					F2-150	494-500R Mass. Avenue	1.50	R2	6/8/1993	23276	0559	GIFT	3	ConCom	Deeded for Conservation
					F2-151	482-500R Mass. Avenue	8.00	R2	10/2/1987	18589	160	GIFT	3	ConCom	Deeded for Conservation

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[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels												
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
Monsen Conservation Land	Wetland														Large Bog area
Total Acres: 15.76					G2-178	86–104 Central Street	9.76	ARC	6/7/1971	12010	0058	TM	3	ConCom	ConCom grantee
					G2-185	84 Central Behind	6.00	ARC	2/14/1980	13902	0236	TM	2	Municipal	Municipal Property considered conservation land
Patriot's Hill Conservation Land	Passive														Contiguous lots
Total Acres: 6.06		Corridor			E3-87–54	36 Washington Drive	0.56	R2	4/8/1974	12612	0024	State	3	ConCom	ConCom Grantee
					E3-87–64	22 Musket Drive (rear)	5.50	ARC	5/29/1974 4/8/1974	12637 12612	0474 25	State	3	ConCom	ConCom Grantee
Putnam Conservation Land	Wetland														Flood plain open marsh
Total Acres: 15.3					E3-80	65-67 Newtown Road	15.30	ARC	1/21/1976	12924	0635	Town	3	ConCom	refers to maint. under Mass Gen'l Law Ch 40 Sec 8C
Steinman and McGloin Conservation Land	Wetland														Borders Maynard
Total Acres: 40.44					I2-71	66 Conant Street	17.76	ARC	12/27/1978	13614	120	GIFT	3	ConCom	Refers to maint. under Mass Gen'l Law Ch 40 Sec 8C
					I3-127	48 Conant St. Behind	1.40	R-4	5/11/2000	31392	195	GIFT	1	Municipal	Municipal Property considered conservation land
					I3-132–1	7 Putter Drive Rear	8.63	ARC	7/21/1970	11863	640	GIFT	3	ConCom	Fletcher land off Parker St.
		Corridor			I3-132–29	14R Robert Road	0.10	R4	2/25/1982	14547	245	GIFT	3	ConCom	ConCom grantee
					I3-148	14R Conant Street	10.00	ARC	12/23/1966	11270	552	Town	3	ConCom	
					I3-150	30 Carlton Dr. Behind	2.20	R-4	5/11/2000	31392	195	GIFT	1	Municipal	Municipal Property considered conservation land
		Corridor			I3-153	31 Carlton Dr	0.35	ARC	5/11/2000	31392	195	GIFT	2	Municipal	Municipal Property considered conservation land
Isolated Parcels															Unclassified parcels
Total Acres: 16.67															
915 Main Street	Wetland				C5-9	915 Main Street	0.65	R2	10/19/1970	11905	0673	TM	3	ConCom	An open marsh adjacent to Nashoba Brook. Controlled by ConCom; Clapp Land
52 Harris St. Rear	To be evaluated				C5-74	52 Harris St. Rear	1.00	ARC					2		Area to be evaluated. In aerial photo has buidings on it. No sale date on GIS.
145 Great Road Rear	Cons. & Rec				F4-37-5	145 Great Rd Rear (Estabrook Rd)	5.82	R8	4/3/2002	35208	334	GIFT	3	ConCom	for conservation and recreation with easement deed and amended easement deed; off Esterbrook Rd
2 Minot Avenue Rear	Isolated Forest				F4-47–1	2 Minot Avenue Rear	0.70	R2	5/29/1984	15594	551	Town	1	Municipal	Municipal Property considered conservation land
									11/7/1977	13327	695				taken for taxes

[1] Facilities: T=Trails; P=Parking; K=Kiosks; A=Accessible
[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Managed Conservation Areas				Component Parcels											
	Current Use	Public Access	Facilities[1]	Recreation Potential[2]	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding[3]	Level of land protection[4]	Managing Agency[5]	Comment
41 Tuttle Drive	To be evaluated				G2-123–25	41 Tuttle Drive	0.91	ARC	1/23/1979	13631	0143	GIFT	3	ConCom	To be evaluated
53-73 Stow Street	Red Maple Swamp				H2-41	53-73 Stow Street	4.70	R2	5/7/1992	22013	592	GIFT	3	ConCom	Red maple swamp adjacent to Fort Pond Brook; for conservation; Prescott Paint Land
46-54 Martin Street	Cons.				H2A-41–3	46-54 Martin Street	0.50	R2	8/31/1993	23604	0448	GIFT	3	ConCom	Deeded for Conservation
133 River St	Cons. & Rec				H3-238	133 River Street	2.39	L1	12/20/2003	41699	377	GIFT	2	ConCom	Deeded for Conservation or recreation
Total Isolated Parcels	16.67														
Total Miscellaneous Properties	119.56														
Total Managed Conservation Areas	1645.60														
Total all conservation property	1781.83					Total Municipal parcels	50.05	50.05	Require more protection						

[1] Facilities: T=Trails; P=Parking; K=Kiosks; A=Accessible
[2] Recreation Potential: B=Biking; C=Camping; E=Education; F=Fishing; G=Gardening; H=Horseback; S=Swimming; W=Walking
[3] Source of Funding: Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain
[4] Level of land protection: 0. None; 1. By Use; 2. Zoning; 3. Article 97; 4. CPA; 5. CR
[5] Managing Agency: Municipal; ConsCom; Land Trust; ACT SVT

Gardens, which is part of the conservation land inventory described above, and the Morrison Farm gardens, which remain general municipal property at this time. Recreational facilities owned by the town, including playing fields, playgrounds and school facilities, as well as several areas of the town that have historic interest and help to maintain the town's rural characteristics, are described below.

5.C.2.1 NATHANIAL ALLEN RECREATIONAL AREA (NARA PARK)

NARA Park has been operating for over ten years, opening to the public in the spring of 2000. This 40-acre outdoor recreation area is home to 6.5 acres of irrigated softball/soccer fields, a 3,000-seat amphitheater and storage shed/snack bar, a playground, volleyball courts, handicap-accessible paved walking trails, a 500-foot-long bathing beach with a swimming area, a bathhouse with snack bar, changing and bathroom facilities. Three canopy tents with picnic tables are rented as picnic areas. This area is a hot bed of activity during the summer months. Programs include beach operations: lifeguarded beach, Red Cross swimming lessons, boat rentals and snack bar, NARA Summer Camp for ages 4-15, free outdoor summer concert series, Acton Adult Softball League (AASL), recreation and league-sponsored athletic events, and the annual July 4th celebration. NARA Park hosts many community events each year, such as American Cancer Society's Acton Relay for Life, theater productions, and cultural events such as Sri Lanka Day, Acton Chinese Cultural Day and Celebrate India. NARA Park beach provides the only public swimming area in town and serves over 600 seasonal members, in addition to selling over 4,500 daily passes each season. NARA is also home to many special events each year: Halloween Monsterbash, Winter Carnival, and Beach Party. The Recreation Department offers a variety of classes for all ages at NARA Park through its Spring-Summer and Fall-Winter programs. Many individuals and companies also use NARA's picnic areas and fields for large functions such as weddings and corporate picnics.

5.C.2.2 COMMUNITY GARDENS

Two areas of the town offer opportunity for residents and non-residents to rent a small garden plot each season for a minimal fee. This is managed through the Recreation Department. North Acton Community Gardens, an approximately 5-acre parcel of Conservation Land, is located off Route 27 in North Acton. There are 46 total plots, 12 of which are half size plots, including a permanent herb garden which is not rented. See Sec. 5.C.1.2.6 for details. Morrison Farm Community Gardens are located on Concord Road. There are currently 38 organic garden plots at Morrison Farm. A full description of the entire Morrison Farm property is treated in Sec. 5.C.4.1.

5.C.2.3 ATHLETIC FIELDS AND TOWN PLAYGROUNDS

The Town of Acton provides approximately 30 acres of town-owned athletic fields, in addition to the facilities provided by the local and regional schools that are frequently used for non-school activities. The location, sizes, and most common uses of these fields are detailed

in Table 5.C.2.3, Inventory of Recreation Department Fields and Playgrounds, and reviewed below. Most areas are suited for a variety of athletic uses, with some areas capable of supporting multiple simultaneous uses. However, others are restricted by field and infrastructure limitations. Jones Field and Great Hill Field, for example, are often too wet in the spring to be playable, and Gardner Field was taken offline in 2000 due to lack of parking. Similarly, aging playgrounds were removed at Great Hill in 2005 and Elm Street in 2010. Elm Street is planned for replacement in 2014. Goward, Hart, MacPherson and Little Great Hill fields are all limited in their utility due to their size and geometry. In each case, only certain levels of play are possible. The difficulty of parking near some of the fields makes them less desirable for their targeted age groups as the very young players are required to walk on the side of, or across, busy town streets. These issues are discussed in detail in Section 7, and the Recreation Department's comprehensive five-year plan is presented in Section 9.

The scheduling of field use is the responsibility of the Recreation Department. In addition to use by athletic leagues, many community groups and companies reserve the athletic areas for games and picnics. Athletic fields, and their associated picnic and playground areas, are also intensively used by families and groups of children.

Maintenance of the town athletic fields is the responsibility of the Recreation/Natural Resources Department. The Town's Natural Resources crew provides routine trash removal and weekly mowing for the athletic fields, and the Recreation Department has made efforts to reinstitute regularly-scheduled field seeding, fertilization and aeration utilizing the services of outside contractors and using funds accumulated from field and picnic reservations. However, due to budget and manpower constraints, the Town's maintenance of athletic fields is limited in scope. Some leagues provide their own lining of fields, and materials such as silt or stone mix and amenities. Youth Baseball and Soccer frequently re-sods or reseeds worn areas of fields, and the leagues that use the illuminated fields at Elm Street and 2A/27 provide their own funding for lights. Such donations of time, labor and services from leagues have been the mainstay of field upkeep for Acton's fields. Fields and playgrounds are itemized in Table 5.C.2.3 with individual descriptions in the sections that follow.

The scheduling of field use is the responsibility of the Recreation Department. In addition to use by athletic leagues, many community groups and companies reserve the athletic areas for games and picnics. Athletic fields, and their associated picnic and playground areas, are also intensively used by families and groups of children.

5.C.2.3.1 Jones Field

Jones Field is located on Martin Street, near the intersection of Stow Road and Martin Street. This field consists of a playground and a full size baseball diamond. Routine maintenance has occurred at Jones Field including playground repairs and field repairs from vehicle damage. In 2010, the Recreation Department replaced a large safety net that was in tatters between the ball field and playground area to protect children using the play structures. Infield improvements have been made by the Acton-Boxborough Youth Baseball organization.

5.C.2.3.2 Concord Road Field

Concord Road Field (a.k.a. Woodlawn Field) is located on Concord Road. between Ice House Pond and the Woodlawn Cemetery entrance. It is an irrigated multiuse soccer field. Concord Road was originally leased under a ten-year agreement between the Recreation Commission and the Cemetery Commission, and the site will eventually be used for burial purposes. This field has undergone repeated turf maintenance over the past five years in an

TABLE 5.C.2.3. INVENTORY OF RECREATION DEPARTMENT FIELDS AND PLAYGROUNDS

Ref.	Field Name	Acres	Playground	Field Uses	Location
1	Jones Field	3.3	Yes	Baseball	Martin St., S. Acton
2	Concord Road Field	2	No	Soccer	104 Concord Rd.
3	Hart Field	2	No	Baseball	80 Taylor Rd.
4	MacPherson	1	No	Baseball	80 Taylor Rd.
5	Great Hill	2.5	No	2 Soccer	54 School St.
6	Little Great Hill	.5	No	Soccer	54 School St.
7	Elm Street Field	2	No	Softball/Football/ Tennis/Soccer/ Picnic Shelter	21 Elm St.
8	Veterans Memorial Field	2	Yes	2 Baseball	655 Main, intersection of Rts. 2A & 27
9	School Street	14	No	6 Soccer	343-347 School St., off Rt. 2 E
10	Goward Field	1.69	Yes	Basketball	486 Main St., behind Acton Memorial Library
11	Gardner Field	1.6	Yes	Basketball; Grass Field closed for league use due to lack of parking	Rt. 111, W. Acton
12	NARA Fields	6.5	No	Softball/3 Soccer	25 Ledge Rock Way, off Quarry Rd.
13	T.J. O'Grady Skate Park	1.15	No	Skateboarding, Inline Skating	66 Hayward Rd., near ABRHS
14	Robbins Mill Rec. Area	1	Yes	Soccer, Basketball, Picnic Shelter	61 Canterbury Hill Rd.
Total Acres		**31.25**			

effort to produce a better-quality playing surface. Current challenges have been the need to reseed or re-sod worn areas and the infiltration of crabgrass. Overseeding in the fall and winter has recently been attempted. Frequent irrigation system repair is required. Winter skating rinks on the field were discontinued in 2008, due to maintenance issues.

5.C.2.3.3 Hart Field

Hart Field is located at the Conant Elementary School. This field consists of a baseball/softball diamond. Routine maintenance has taken place at Hart Field over the past five years.

5.C.2.3.4 MacPherson Field

MacPherson Field is located at the Conant Elementary School. This field consists of a baseball diamond. MacPherson received two new shaded dugouts in May 2008 from Acton-Boxborough Youth Baseball (ABYB), which led the construction effort with Town support and a grant from the Melanoma Foundation. Field vandalism from vehicles was an issue and was resolved by blocking field entry with boulders.

5.C.2.3.5 Great Hill Field

Great Hill is located on School Street behind the South Acton Fire station. This field contains two soccer fields adjacent to the Great Hill Conservation Area. A station with dog waste bags is provided by the Recreation Department. A playground with outdated equipment was removed in 2005 and has not been replaced. Great Hill has been extensively used by Acton-Boxborough Youth Soccer (ABYS) for soccer play. The field and pond area are also frequented by dog owners and their pets. A routine Sunday morning gathering of dogs has been reported to number up to fifty at a time, and tensions between dog owners and sports players have at times been addressed by the Recreation Commission. Field wear has been on the increase and has been addressed with reseeding and resting. Overseeding in the fall and winter has been recently attempted, since access to this field in the spring is often delayed due to its wetness.

5.C.2.3.6 Little Great Hill Field

Little Great Hill is located off of School Street behind the South Acton Fire station and to the left of the Great Hill Field. This field contains small sized soccer fields. In the past five years, Little Great Hill has been used in a more limited capacity by Youth Soccer. The path to the field is in need of a boardwalk extension closer to the parking lot due to frequent muddy conditions. The existing boardwalk has occasionally been reported as a site of ground bee nests that attack passersby and need removal.

5.C.2.3.7 Elm Street Field

The Elm Street playing fields are located next to the Douglas Elementary School in West Acton. The Elm Street fields consist of a picnic shelter, two tennis courts and a lighted softball diamond, outfield multiuse practice area, and adjacent small soccer field. Most notably, Elm Street Field underwent a major lighting replacement project that was completed in August 2007. The new Musco lighting system provides safer illumination of playing fields, reduces undesirable lighting of neighboring properties, and meets Town lighting bylaw requirements. Lighting of the field is automatically scheduled by the use of Musco's Control-Link computer system. The lighting project expanded the softball outfield's lit area to provide multifield use by Pop Warner, the local Youth Football league. In 2008, Elm Street playground was the oldest playground in our inventory and the Recreation Department was awarded a Community Preservation Act (CPA) grant for a new fenced and handicap-accessible toddler playground. The "Seideman vs. City of Newton" court decision in November 2008 caused the Town to put this grant on hold, and the Community Preservation Committee (CPC) chose not to renew the grant when the 3-year grace period for project initiation expired. The funding was returned to the CPC in 2011. The Elm Street playground was dismantled in 2010.

Wetherbee conservation land agricultural field

5.C.2.3.8 Veterans Memorial Field (Route 2A/27)

Veteran's Field is located at the intersection of Route 2A and Route 27. This field consists of two irrigated Little League diamonds and a playground. This is a tournament-quality lighted field that has been heavily utilized over the past five years. Insufficient parking is often an issue and parking along Route 27 and overflow parking into the Acton Woods Plaza parking lot across the intersection of Route 27 and Route 2A is sometimes needed. Acton-Boxborough Youth Baseball (ABYB) has invested time, materials and funds in its upkeep, replacing fence caps and scoreboards, re-sodding turf and contributing to lighting system repairs. They have a 3-year renewable Agreement with the Town that allows ABYB to display sponsorship signage on the outfield fence. An effort was made in 2008 to design and construct shaded dugouts funded by the Melanoma Foundation, but size limitations caused ABYB and the Town to conclude that they should be built instead

Stone Reading Circle, Acton Arboretum

at MacPherson field. Also in 2008, the Town developed a design for a new three-bay North Acton firehouse to be situated on the rise above the Veterans Field along Route 27, but the funding and construction of the project was put on hold due to a downturn in the economy.

5.C.2.3.9 School Street Fields

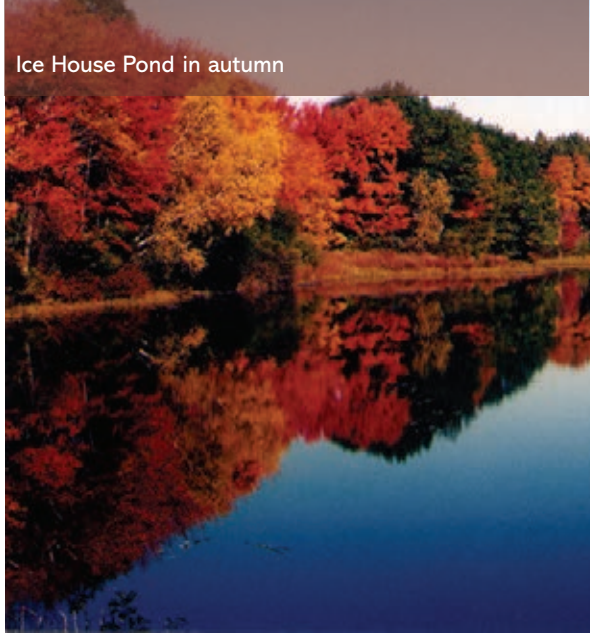
The School Street fields are located at the end of School Street off of Route 2 East. In 2006, an additional 10 acres was added to the Commonwealth of Massachusetts Corrections System lease, for a total of 14 acres. The lease was due for renewal of a ten-year term from the Department of Corrections, in return for that agency's use of 25 acres of Acton's Wetherbee Conservation Land. Coupled with this expansion, a CPA grant for $69K to build a twin baseball field was awarded to the Recreation Department. Due to a variety of circumstances at the State level, the multi-year lease remains in negotiation with the State, and the Twin Ball field project remains on hold, with extensions granted by the CPC. Since then, the field has remained a heavily-used soccer field, although in the past five years little has been done to maintain the field, as the site has remained under an annual lease renewable at the end of each calendar year while the multiyear lease negotiation has been in process. These fields are difficult to keep in playable condition because the soil is sandy with a gravel base and does not retain water. The proximity of the fields to Acton Water District wells (at 315 School Street and Lawsbrook Road) and an aeration tower restrict the Town or the sports leagues from irrigating the fields. The fields must be "rested" as much as field demand allows in order to retain a minimum amount of vegetation. The 10-acre parcel is "unplayable" for lacrosse users due to poor turf conditions. The Lion's Club Town Fair utilized this location in 2011, after using NARA Park playing fields in 2009 and 2010.

5.C.2.3.10 Goward Playground

Goward Playground is located behind the Acton Memorial Library at 486 Main Street in Acton Center. In the past five years, the wooden structures deteriorated and many complaints about its condition were voiced. This has traditionally been a very heavily-used playground; however, some residents reported that they were going out of town to use other facilities because of the playground's condition. Recreation invested significant funds on Goward Playground maintenance in 2010 to replace failed components and bring the playground up to ASTM F-1487 Playground Safety standards. A citizen's fundraising organization, "Friends of the Playground," launched a fundraiser in 2011 to supplement the $150,000 requested in capital funding in FY12 to build a new playground. Town Meeting approved $150,000 for the playground and the Friends of the Playground ultimately raised $60,000. The new playground was designed in 2012, equipment purchased and site preparation completed in 2013. The majority of the equipment was installed in December 2013. Final installation of structures, safety surfacing, paved sidewalks and sponsorship signage and brickwork were completed in time for the 2014 spring opening.

5.C.2.3.11 Gardner Playground

Gardner Field is located on Route 111 (Massachusetts Avenue) near Kinsley Road. This field consists of a playground, basketball hoop and field area. Recent maintenance updates to the playground have included complete replacement of worn swing components and replenishment of wood safety fiber surfacing surrounding two climbing play structures. Parking access to the playground is limited to three designated paved spaces and increased parking has long been desired to again make use of the field area for organized sports activities.


Ice House Pond in autumn

5.C.2.3.12 Nathanial Allen Recreational Area (NARA)

NARA Park was opened in the spring of 2000. It is located at 25 Ledge Rock Way off Route 27 (Main Street). NARA Park is home to the NARA Youth and Mighty Mini Summer Camp and summer concert series. The park consists of a playground, man-made pond and beach, a paved walking trail (approx. one mile loop), an irrigated softball field, three soccer fields, three picnic areas, a bathhouse pavilion, and an outdoor amphitheater stage. Three stations with dog waste bags are provided by the Recreation Department.

The NARA fields are used quite extensively. On any given Saturday, the three soccer fields are broken down into multiple play areas to allow several teams to practice simultaneously. The Acton Boxborough Regional High School cross country program also uses the fields in the fall of each year. At the end of 2009, field vandalism from a vehicle severely damaged the playing fields and took the field offline for the 2010 spring season for repair. Since then, a regular program of fertilization, aeration and reseeding has resulted in an improved playing surface. Frequent irrigation system repair is required.

5.C.2.3.13 T.J. O'Grady Memorial Skate Park

This facility is for skateboarding and inline skating and was opened in the fall of 2005. The park is free and is open to the general public during daylight hours. The Skate Park is located at 66 Hayward Road, adjacent to the Acton-Boxborough Regional High School (ABRHS).

On November 20, 1998, a fourteen-year-old boy named T.J. O'Grady was struck and killed by an automobile while skateboarding down a residential road in Boxborough. Soon after this tragic accident, T.J.'s mother, Lori O'Grady, along with many of T.J's friends and their families, formed the T.J. O'Grady Memorial Skate Park Committee. The goal of this non-profit organization was to construct a safe place for children and adults to skateboard and inline skate.

Due to the lack of local facilities in Acton and Boxborough, those who enjoy skating had no choice other than to skate in streets and parking lots. Such a setup would put skaters and motorists in dangerous situations, and create both an annoyance and a liability for local businesses. A designated skating area would offer a responsible alternative, and, for this reason, the committee gained instant support from many organizations across town.

The Committee raised $78,500 from private and business donations in addition to the $80,000 that the Town of Acton approved in April, 2001. The town moved to accept the conveyance of 1.15 acres of land from the Commonwealth of Massachusetts for $2,500 to be used for the Skate Park. The land was accepted after the Annual Town meeting in 2003. In a series of several CPA grants (under "recreation"), the Town came up with the additional funding necessary to complete construction, totaling $285,000. Following the Town's acquisition of the property from the Commonwealth, over a period of years, the property topography, site engineering and design was completed as a donation from the engineering company of Stamski and McNary. The lot was cleared and rough-graded thanks to the donation of services by Ace Brothers and Onyx Transportation and paving was donated by Lazaro Paving. Additional generous donations from many contributors made the construction of the park possible.

The grand opening of the T.J. O'Grady Memorial Skate Park took place in June of 2006. The Recreation Department holds an annual concert with the support of Danny's Place Youth Services, consisting of live bands and skating demonstrations. This has been a free event because of the generosity of local businesses and is open to the public. A valuable addition to the Town of Acton, the Skate Park builds community by providing a shared recreational opportunity for all ages.

5.C.2.3.14 Robbins Mill Recreation Area

In April 2011, the Robbins Mill Recreation Area was accepted as a gift to the Town of Acton from the Robbins Mill Estates Subdivision. It consists of a playground, picnic shelter, water fountain, basketball court, small soccer field and 40-space parking lot provided by the developer, Pulte Homes. The Recreation Department had the condition of the field assessed by a landscape contractor over the summer and had it fertilized and seeded in the fall to improve the playing surface, which had not developed adequate turf coverage. The playground was inspected by the Recreation Department for routine maintenance and a bolt for the multi-pondo teeter-tooter was replaced. The playground equipment for the subdivision was purchased in 2006 and was stored onsite at the Recreation Area parcel but was not installed until Pulte Homes began the construction of the Recreation Area in 2010 when home purchases in the subdivision neared 90%, a delay attributed to the economic downturn in 2008.

5.C.2.3.15 Miracle Field

In 2009, Lauren and Andy Richardt formed the Miracle League of Boston, a local franchise of a nationwide organization, Miracle League, which sponsors baseball opportunities for children with disabilities. It was the first such franchise formed in Massachusetts. The mission of the nation-wide organization is to provide support for spreading their model of a fully handicapped accessible

baseball field throughout the United States. After several years operating a very successful program in Boxborough with 90+ participating children from 40 surrounding towns, the Richardts were looking for both a permanent home for their league and sufficient financial sponsorship. They took on the non-profit organization name, "Miracle League of Massachusetts" [www.miracleleagueofma.com] and told their story to the Acton Recreation Department and many potential supporters.

In 2010, Town of Acton Natural Resources Director, Tom Tidman, came up with a proposal to tuck the new field into a corner of Town property currently utilized by the Department of Public Works, adjacent to NARA Park, and connected to the soon-to-be expanded NARA parking lot which had just secured funding. With the support of the Board of Selectmen, the Town Manager and DPW, Tom signed on the assistance of George Dimakrakos, partner of Stamski & McNary, an Acton Civil Engineering firm, to develop the design. Kim Ahern of Kim Ahern Landscape Architects created the landscape plan for the facility. A beautiful plan resulted, which included birch and maple and native shrubs. Local philanthropist Steven Steinberg offered to match up to $100,000 in donations by naming the new facility in honor of his business partner, the "Joseph Lalli Miracle Field." The gift was accepted by the Town.

The field was constructed in time for the September 15, 2012 start of the fall season. The location of the site was advantageously located near stockpiles of base material available for construction. J. Redmond Corporation, located nearby, signed on to do the construction. The result is a story of a perfect private-public partnership. The field is managed by the Acton Recreation Department and can also be used for other activities and variations like "Whiffle Ball" and for other groups, such as handicapped Veterans.

Fourth of July celebration at NARA Park amphitheater

5.C.2.4 OTHER RECREATIONAL AND OPEN SPACE PUBLIC AREAS

The following section describes the miscellaneous properties belonging to the town of Acton not fully covered in the above listings. Most notably is the Morrison Farm property and the Acton Town Common.

5.C.2.4.1 The Morrison Farm Property

Located at 116 Concord Road in East Acton, the 32-acre Morrison Farm property lies between two Town-owned properties, the Woodlawn Cemetery and Ice House Pond. The front portion (about 17 acres) on Concord Road is open field with a farmhouse, garage, barn and three out-buildings and the rear portion (about 15 acres) is wooded. The Farm property in its entirety can be divided into four general areas: pine woodlands, open hayfield, lower meadow, and farm buildings and paddocks.

An historic inventory prepared in 2005 by Arthur Krimm of the Massachusetts Historical Commission determined that both the Morrison Farm and the Ice House Pond properties were eligible for placement on the National Register of Historic Places.

In the spring of 1997, Town Meeting voted to acquire the property for $1.3MM. The warrant article was supported for three overriding reasons: (1) use for passive recreation and conservation; (2) potential use for active recreation; and (3) elimination of a potential for residential development. The Morrison Farm was purchased with a life estate to the resident, Betty Morrison, and in 2003 when Mrs. Morrison permanently vacated the property, it then came under the control of the Town.

The Board of Selectmen appointed an advisory committee in 2004 composed of members representing various interests concerning the recommended reuse of the property. The goal of the Morrison Farm Reuse Committee was to develop a reuse plan that would accommodate citizens' desires for active and passive recreation while taking into account the land's value in terms of conservation and rural character. This committee held meetings open to the public welcoming proposals

from special interest groups and town residents, including an open forum at Town Hall.

Following upwards of 18 months of meetings, the Committee reached consensus on several fundamental goals. Most importantly, the agricultural heritage of the property should be preserved. Since 1669, the fields have remained in the same general condition. It is also important that the familiar rural views from Concord Road be preserved, and the Morrison Farm Property be integrated into the surrounding cultural context through incorporation of nearby existing properties into the proposed Farm design. Lastly, a portion of the property should be set aside for recreational use in accordance with the original Town Meeting vote in 1997.

Several additions to existing trails have been proposed, along with an observation platform and canoe launch on the pond, which would enrich both the fitness and wildlife-viewing aspects of the property. The 19th-century Nashoba Brook Bridge should be reconstructed, which would provide access to the Farm property from potential alternate parking locations along Great Road. Integrating the proposed East Acton Village Green, the future Bruce Freeman Rail Trail, Woodlawn Cemetery, the historic Captain Robbins' site, and the Nashoba Brook ecosystem into the design planning of the Morrison Farm would enhance the region through the creation of a community complex. A multi-purpose recreation field is included in the recommended goals, but the committee strongly suggests that the Farm remain a last resort for active recreation development. A Community Organic Farm was established on the southwestern portion of the property, to great success. There are currently 38 organic garden plots.

Such recommendations for this property aim to optimize land use in a historically and environmentally sensitive manner. Through thoughtful management of our natural resources, the splendor of this valuable town resource can be appreciated well into the future.

Implementation of the final-design recommendations are pending due to budget limitations. The current lease for the Concord Road soccer fields, which are on cemetery property, was renewed in 2012 for a period of 5 years, at which time the Cemetery Commissioners shall review the needs of the cemetery, before renewing the agreement on an annual basis.

In October, 2012 the Pam Resor Organic Orchard was commemorated at the farm. A Massachusetts Senator, Pamela Resor spent much of her career in support of environmental stewardship, especially with regard to keeping toxics out of the soil, air and water. A new sign was installed on site, made possible with funding from the Toxics Use Reduction Institute at the University of Massachusetts in Lowell.

5.C.2.4.2 The Acton Town Common

The Acton Town Common, for the purposes of this discussion, includes the open space and buildings that constitute the civic center of Acton. The various parcels of land that make up the "Common" were purchased and assembled over many years, beginning in 1735 when the property now known as Meeting House Hill was established as the site of the first meeting house (combined church and town hall) in Acton; such a building being a prerequisite for Acton to split off from Concord and become an incorporated Town. Other parcels were added in 1802 when the property for the Town Hall was purchased. At that time the Common was graded by citizen work parties assembled by school districts. There were numerous unsuccessful attempts to make the Common a public livestock grazing area. In 1838 the Selectmen had a formal survey of the Common conducted to stop the infringement onto public property by abutters. In April, 1840 the Town voted to set out trees on the Common, and a combination of buttonwood, rock maple, elm, and white ash were set out. In 1851 the Davis Monument was erected on the Common in memory of Capt. Isaac Davis, Abner Hosmer, and James Hayward, all killed at the Battle of the North Bridge on April 19, 1775, and their remains are entombed in the monument. In 1889 a small parcel was added to allow the construction of the

Playground at NARA Park

Acton Memorial Library, which was donated by William H. Wilde as a library, Civil War monument, and meeting room for the Grand Army of the Republic. In 1899 the Common was further improved with landscaping and addition of the granite post and chain fence around the Davis Monument. Beginning in 1901 the Town, in compliance with the Massachusetts Shade Tree Law, appointed a Tree Warden and formalized the care of public shade trees, beginning with those trees on the Common:

> *"The trees upon the Common, those on the roadside near Woodlawn Cemetery, and others in different parts of the Town are much in need of judicious trimming, both for the sake of the trees and to the travelling public. I beg leave to suggest that an appropriation for this purpose might be wisely made"*
>
> **— Charles J. Williams, Tree Warden, 1901 Acton Town Report**

The land now known as Goward Field, located behind the Memorial Library, was purchased from the


Joseph Lalli Miracle Field, NARA Park

Acton Agricultural Fair in 1941 for the site of the Highway Department. That operation was moved in 1960 and the parcel is now used as open space and a playground. In the early 1960s the Acton Center School, which had occupied the site of the first meeting house, was torn down, and Meeting House Hill became landscaped open space maintained by the Town of Acton and the Acton Garden Club. In 1996 Town Meeting voted to use part of Goward Field for an expansion to the Memorial Library, and at the same time approved funds to purchase the residence at 17 Woodbury Lane. A portion of this property is used for parking, a portion for open space, and a portion is still occupied by the now vacant house.

The Common now consists of approximately ten acres, including the Monument Triangle, the Town Hall/ Memorial Library complex, Center Fire Station, Municipal Properties office at 468 Main Street, Goward Field playground, Meeting House Hill and the "front lawns" of the buildings along Main Street from Newtown Road to Nagog Hill Road. This property is the true geographical, civic and emotional center of Acton. On the Common and on the surrounding structures are monuments and remembrances of the Revolution, the War of 1812, the Civil War, the Spanish American War, the First World War, the Second World War, the Korean War, and the Vietnam War. There is tremendous activity in this area with most Town offices still located in Town Hall, and over 1,000 patrons per day visit the Memorial Library.

The grounds of the Common are maintained primarily by the Acton Municipal Properties Department with assistance, especially at Meeting House Hill, from the Acton Garden Club. Any formal activities on the Common are regulated by the Board of Selectmen. The Common is the site of events such as plant sales, book sales, reenactments, and parades. This is truly passive recreational space that is accessible to all.

5.C.2.4.3 West Acton Village Open Space

West Acton Village has several very small parcels of publically-owned land that have significance as historical and cultural open spaces. These are reviewed below.

Edwards Square. Edwards Square is a small (1,000 SF +/-) green triangle at the confluence of Massachusetts Avenue, Arlington Street and Central Street. It is dedicated to the memory of Sidney Edwards who was killed by hostile fire in France during World War One while serving in the Canadian Army. This parcel serves as the terminus of the Memorial Day parade every other year, and was the site of peace vigils during the Vietnam War. It is just a bit of grass with three Ash trees and a c. 1900 horse trough that is planted by the Acton Garden Club, but it acts as a bit of relief to the dense urban core that represents other portions of West Acton Village.

Windsor Building. The Windsor Building is the current name for the 1904 West Acton Fire Station. That building was spun off for other uses (Teen Center, meeting area for the "Acton Minutemen", Food Pantry), and has now come back to public use. The Municipal Properties Department has been conducting a historic restoration of the building using Community Preservation Funds, and eventually it will be used for public meetings and events. The grounds (7,770 SF) and building are now used for smaller events, such as support space for the Farmer's Market, Octoberfest, and the West Acton Citizens' Library book sales.

West Acton Citizens' Library. The West Acton Citizens' Library on Windsor Avenue is Acton's original and oldest library, dating back to c. 1884. The building dates back to c. 1840. The Library has recently been totally renovated and restored, using gift money, operating budget funds, and the Community Preservation Fund. The grounds (8,277 SF) have been landscaped in period fashion by the Municipal Properties Department and the Acton Garden Club. The entire parcel is used for public events, such as library book sales, Octoberfest, and the Farmer's Market, which is held on Pearl Street (adjacent) on Sundays.

5.C.3 School Department Fields and Playgrounds

The Acton-Boxborough Regional School District owns approximately 66.6 acres of land, and the Acton School District controls 121.77 acres of land which is under town ownership. Although there are buildings on much of this acreage, the school campuses and grounds provide valuable recreation space. In addition, almost 80 acres are forest, wetland or undeveloped open space. See Table 5.C.4 for a detailed listing of all properties including estimated acreage, location and associated school.

In addition to those parcels directly associated with the various school campuses, the District owns a separate, undeveloped 25-acre parcel of particular interest as a potential conservation parcel. This parcel is located at 24 Arlington Street and was acquired in 1962 as a potential school site. However, the soils were subsequently determined to be unsuitable for construction. In addition, the parcel contains two centrally-located vernal pools protected under the local and state wetland regulations.

5.C.3.1 SCHOOL PLAYGROUNDS AND PLAYING FIELDS

There are a number of playgrounds and playing fields located on the various school campuses in town. These include the following:

PLAYGROUNDS	
Luther Conant School,	80 Taylor Road
Paul P. Gates School	75 Spruce Street
C.T. Douglas School	21 Elm Street
Merriam School	11 Charter Road
McCarthy-Towne School	11 Charter Road
PLAYING FIELDS	
R.J. Grey Junior High School	16 Charter Road
Acton-Boxboro Regional High School	36 Charter Road

5.C.3.2 Intermunicipal Agreements

Intermunicipal Agreements between the Town of Acton and the Acton-Boxborough Regional School District have created expanded recreational opportunities at school facilities for all of the Acton community, beyond their routine school usage. These agreements were forged as a key piece of several funding initiatives for active recreation projects through the Community Preservation Act (CPA). The projects funded via this method to date include:

- 2005 High School Synthetic Turf Football Field – Leary Field, ABRHS
- 2006 Douglas School Basketball Courts – Douglas School
- 2007 High School Baseball and Tennis Court Sports Lighting, ABRHS
- 2012 Lower Fields Project (sports lighting, parking, skating bowl), ABRHS and T.J. O'Grady Skate Park

5.C.4 Water Based Recreation

This section provides a review of the water-based recreation areas in Acton.

5.C.4.1 NARA PARK

NARA Park Beach provides the only public swimming area in town and serves over 600 seasonal members, in addition to selling over 4,500 daily passes each season. Fishing and boating are enjoyed by patrons.

5.C.4 SCHOOL PROPERTIES LAND USE ANALYSIS

Property ID	Location	School/Campus	Total Area	Forest/Wet/ Undeveloped	Open	Playground	Athletic Field	Parking/ Roads/ Building
137	80 Taylor Rd	Conant	24.4	7.29	6.5	0.64	1.76	8.21
E2-247	7 Elm St	Gates / Douglas	33.9	14.72	1.86	1.26	4.62	11.44
F3-74-1	312 Main St	Charter Rd. Campus	4.24	4.24	0	0	0	0
F3-15	70 Hayward Rd rear	Charter Rd. Campus	15.92	9.35	0	0	6.57	0
F3-6	88 Hayward Rd	Charter Rd. Campus	0.74	0.74	0	0	0	0
F3-16-1	68 Hayward Rd	Charter Rd. Campus	0.33	0.33	0	0	0	0
F3-31-1	23 Charter Rd rear	Charter Rd. Campus	3	0	0	0	3	0
F3-31	9 Charter Rd	Charter Rd. Campus	25.15	9.71	0.5	2.73	1.89	10.32
F2-109	441 Mass Ave	Charter Rd. Campus	7.32	0.85	0.92	0	0.73	4.82
F2-101	12 Charter Rd	Charter Rd. Campus	16.59	3.7	0.53	0	4.88	7.48
F2-49	108 Hayward Rd rear	Charter Rd. Campus	9.09	3.96	0	0	0	5.13
F2-50	92 Hayward Rd rear	Charter Rd. Campus	8.76	0	0	0	0	8.76
F3-27	23 Charter Rd	Charter Rd. Campus	9.1	0	0	0	5.12	3.98
E3-8	24 Arlington St rear	n/a	24.94	24.94	0	0	0	0
Totals			**183.48**	**79.83**	**10.31**	**4.63**	**28.57**	**60.14**

(Estimated areas in acres)

5.C.4.2 GREAT HILL RECREATION AREA SKATING POND

The pond is a ¾-acre impoundment created by excavating an old, silted-up farm pond that was reverting into a red maple swamp. Completed in 1986, the pond is used for skating, fishing and wildlife viewing.

5.C.4.3 MILL POND RECREATION AREA

This half-acre site is located between Main Street and the Fort Pond Brook Mill Pond, above the 1848 stone dam near the site of Faulkner Mills. The site has a half-acre of grass, and is open to the water for fishing and related activities. This area's use is somewhat limited by lack of on-site parking. Eventual completion of the Assabet River Rail Trail near this site will improve access. This location also houses a pumping facility for Acton's wastewater treatment system.

5.C.4.4 ROBBINS MILL POND

This is a man-made impoundment in the Nashoba Brook Conservation Area. The pond, approximately three acres in size, is the site of mill foundations and an earth fill dam that dates back to pre-Colonial times. In 1990, the town, using funds for materials donated by the Acton Conservation Trust, rebuilt the dam extensively. The restored impoundment is suitable for fishing, canoeing and wildlife study. Additional reconstruction was undertaken in 1995, utilizing an eight-man crew from the Northeastern Correctional Facility in Concord.

5.C.4.5 GRASSY POND

The boardwalks and trails leading to Grassy Pond, in the Grassy Pond Conservation Area, provide access into the pond for fishing, canoeing and wildlife study. This large pond covers about 20 acres.

5.C.4.6 ARBORETUM POND

A 4,000-square-foot pond was excavated at the Arboretum in 1991. This small pond provides an open water habitat for birds and other wildlife that reside in, or migrate through, the Arboretum.

5.C.4.7 ARBORETUM BOG BOARDWALK

There is a 100-yard-long boardwalk across the quaking bog located at the Arboretum. This boardwalk, which includes an observation bench, allows close study of bog plants and related wildlife. Many elementary school classes study the bog and its inhabitants each year during outings hosted by the Natural Resources Department.

5.C.4.8 WILL'S HOLE BOG BOARDWALK

The boardwalk into Will's Hole, a kettle-hole pond and associated quaking bog, provides safe access to the pond for wildlife and plant observation.

5.C.4.9 ICE HOUSE POND

This is a four-acre impoundment of Nashoba Brook, located on town-owned land at the intersection of Concord Road and Great Road. Since management activities (including yearly draining) related to ice harvesting stopped in the 1950s, the pond was very rapidly filling with floating and emergent vegetation that cut into the recreational potential of the site. In 1995 the pond was de-watered and dredged to restore its value as a boating and fishing area. Because of the proximity of the parking area to the water's edge, this site has the potential for handicapped access for water recreation.

5.C.4.10 SANDY POND

In 1988 a contractor dredged a two-acre pond located near Sandy Drive, off of School Street, that is located on town conservation land. This impoundment is accessible to the public for fishing and nature study.

5.C.5 Planned Bike Trails

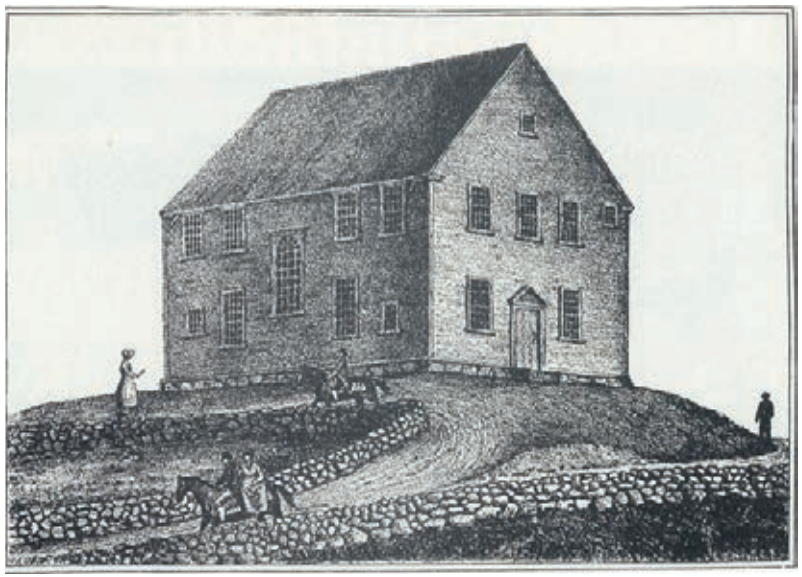
Two bike trails are planned to run through portions of the town: the Assabet River Rail Trail, passing through South Acton, and the Bruce Freeman Rail Trail, passing through North Acton. At this time, funding constraints have delayed the construction of the Acton sections of both of these trails.

5.C.5.1 ASSABET RIVER RAIL TRAIL (ARRT)

5.C.5.1.1 ARRT Regional Overview

The ARRT is planned as a multi-use recreational rail trail that will pass through the communities of Marlborough, Hudson, Stow, Maynard and Acton. The trail will be built along the abandoned rail bed of the former Marlborough Branch RR, which was active from 1850 until 1979. As of September 2005, 5 miles of the trail have been paved in Marlborough and Hudson and are open to the public.

At Acton Town Meetings in 2004 and 2006, articles were passed that funded Acton's local contribution to the cost of designing and building the Acton-Maynard-Stow sections of the trail. A total of $255,000 has been appropriated. In 2007, Acton took ownership of the 0.7 miles of the MBTA right-of-way at no cost. The same year, an easement across the private Wedgewood-Beacon property was signed which resolved all the trail access issues in Acton.



The first meetinghouse in Acton which once stood on "Meetinghouse Hill" on the corner of Main Street and Nagog Road.

5.C.5.1.2 ARRT Trail Description — Acton

Approximately 1.1 miles of the trail will run through Acton. The trail's alignment will follow the railroad right-of-way (ROW) from the Maynard-Acton town line on Route 27, run in front of the Beacon building, then behind the Saab dealership and pass west of Sylvia Street. After it crosses Mill Pond on an existing 37-foot-long timber trestle bridge, the trail will reach the edge of the adjacent Caouette Farm. Subject to the conservation restrictions on the farm, the trail will skirt the edge of the fields and exit out the property's access to Maple Street. This will be the limit of the formal ARRT in South Acton Village.

Trail users will be able use a new crosswalk across Maple Street to reach the south platform of the Acton MBTA station, where new bike racks are planned. The trail head is relatively close to the Acton-Boxborough school campus at Kelley's Corner, Great Hill Recreation Area, and the Acton Discovery Museum. Historic buildings are close by in South Acton Village, Including Exchange Hall, Jones Tavern and the Faulkner Homestead.

The southernmost portion of the ARRT in Acton is flanked on each side by a red maple swamp. These wooded wetlands give rise to a brook that flows under the trail and under Route 27, eventually joining Pratt's Brook. This section of the ARRT is within a Groundwater Protection District Zone 3, and the 100-year flood plain.

In the vicinity of Sylvia Street, the trail runs east of Stonefield Farm, classified by the state as "Prime Farmland". The trail runs through wetlands once again as it nears Mill Pond, which was created by damming Fort Pond Brook. The Mill Pond and its

surroundings are strikingly beautiful. The trestle crossing the pond will offer a prime viewpoint. Waterfowl observed at the pond include great blue heron, wood duck, osprey and mallards. Fort Pond Brook is an important wildlife corridor and is part of one of the two greenbelts in town. White-tailed deer and eastern coyote travel along such corridors. The area around the pond, with its wetlands and floodplain, is part of the Groundwater Protection District Zone 3. Fort Pond Brook ultimately provides water which enters the aquifer that supplies the Lawsbrook well field.

The following design issues will have to be addressed for the trail:

- The trail crossing at Pratt's Brook Culvert must be reviewed.
- The existing timber trestle crossing Mill Pond is being replaced, which must support emergency vehicle design load.
- The final connection to the South Acton Commuter Rail Station will likely be by way of a new crosswalk across Maple Street. Signage and pavement markings will be needed.

5.C.5.2 BRUCE N. FREEMAN MEMORIAL BICYCLE PATH (BFRT)

The Bruce Freeman Rail Trail (BFRT), when built, will a provide 4.9 mile handicap-accessible pedestrian and bicycle route within Acton, and will connect to an additional 20 miles of the trail to the north (Carlisle, Westford, Chelmsford, and Lowell) and the south (Concord, Sudbury, and Framingham). Within Acton, it will provide access to the following areas of interest from north to south:

- Bay Circuit Trail
- Robbins Park
- NARA Park
- Nashoba Brook Conservation Area
- Veterans Memorial Field (Route 2A/27 Little League complex)

Canada lily at Acton Arboretum

- Isaac Davis Trail
- Great Road commercial district
- Ice House Pond and the Morrison Farm
- East Acton Village District

5.C.5.2.1 BFRT Regional Overview

The BFRT is planned as a 25-mile multi-modal trail running from Lowell to Sudbury via the dormant Penn Central Railroad (a/k/a New Haven Railroad Framingham & Lowell line) right-of-way now owned by the Commonwealth of Massachusetts and by the transportation firm CSX . Trail development is segmented into the following phases:

- Phase 1 is 6.8 miles in length and constructed in Westford and Chelmsford.
- Phase 2A includes 4.9 miles from Route 27 / Route 225 in Westford, through Carlisle and Acton with a terminus at Teamworks (nee Acton Indoor Sports) in East Acton. This section is currently in final design, which is scheduled to be completed in 2013. (Approximately 4.6 of the 4.9 miles are in Acton.)
- Phase 2B is 0.8 miles continuing in Acton to the Concord Border at Route 2, then crossing Route 2 via a bridge terminating at Commonwealth Avenue in Concord. The 25% design (i.e., preliminary design) should be complete by the end of 2011 (Approximately 0.3 miles of Phase 2B are in Acton.)
- Phase 2C is 3.0 miles and continues on the ROW to the Concord border. This section is currently in final

design (under the same contract as Phase 2A) with design scheduled to be finished in 2013.

- Phase 2D (not the official name, yet) continues 4.6 miles on the ROW to approximately Route 20 in Sudbury. Preliminary assessment has been completed, with no current definitive plans for future design.
- Phase 3 continues 4.7 miles on the ROW to approximately Route 30 in Framingham. Negotiations for purchase of the ROW from CSX by the towns of Framingham and Sudbury (separately for their respective sections) are ongoing.

On June 28, 2012, funding was approved for phase 2A by the Boston Metropolitan Planning organization (Boston MPO) and construction is expected to commence in 2014. Currently there is no scheduled construction for Phase 3.

5

5.C.5.2.2 BFRT Trail Description — Acton

Approximately 4.9 miles of the BFRT will be located in Acton. The trail will be bituminous concrete (blacktop) and for the vast majority be 12 feet wide with 2 feet shoulders. It will reduce to 10 feet wide where needed. In addition much of the BFRT in Acton will be bordered by a parallel 6 feet wide soft surface path that may be preferred by runners, equestrians, and cross-country skiers. Access will likely be restricted to pedestrians, equestrians, and non-motorized vehicles with the exception of wheelchairs and emergency vehicles.

Starting in the north at the Carlisle border just to the east of Main Street (Route 27) the trail travels south through woods. Just south of the Carlisle border the Town has acquired land for BFRT parking at 1013 Main Street. This section first parallels and then crosses Main Street at grade about 0.4 miles south of the Carlisle border.

West of Main Street the trail follows a causeway over wetlands of Butter Brook, crossing the Nashoba Sportsman's Club driveway, and continuing behind the Robbins Brook development. It deviates off the ROW to the west of Rex Lumber[1], and then hugging the Rex Lumber property it enters NARA Park. Just south of NARA Park it again crosses Main Street at grade. This section is approximately 1.3 miles.

After crossing Main Street the trail enters the Nashoba Brook Conservation Area. It will parallel Nashoba Brook through woods and then over a causeway until crossing Great Road (Route 2A) via a bridge after approximately 1.1 miles. This section of the trail could provide easy access to the Pencil Factory and many Nashoba Brook Conservation Area trails via a bridge crossing Nashoba Brook.

Top and middle: volunteers clean up; Ice House Pond
Bottom: kite flying at Indian Festival, NARA Park

The BFRT continues south on the west side of Great Road and travels behind Gould's Plaza until reaching Brook Street for an at-grade crossing after approximately 0.3 miles.

South of Brook Street, the trail parallels Great Road for 1.1 miles until reaching Concord Road. This section crosses Nashoba Brook twice as well as the Isaac Davis Trail (for which there is pedestrian access only twice yearly: Patriots Day and July 4th). Much of the trail abuts commercial properties along Great Road. Access to the eastern section of Great Road at the Brookside Shops stop light will be provided by an easement at Powers Gallery at 144 Great Road. Just to the south of 144 Great Road access to the Morrison Land is possible via an old cart path. There is a path perpendicular to the BFRT which leads to a causeway. A small bridge will be needed to cross Nashoba Brook and enter the Morrison property. Just before reaching Concord Road the trail will enter the planned East Acton Village Green area with access to the Ice House Pond portion of Nashoba Brook.

After crossing Concord Road, the trail continues southeast behind Bursaw's and first parallels and then crosses Nashoba Brook again until reaching Wetherbee Street for an at-grade crossing after 0.3 miles.

After crossing Wetherbee Street, Phase 2A terminates at Teamworks after approximately 0.1 miles.

The final portion of the trail in Acton is part of Phase 2B and follows the ROW southeast 0.3 miles until reaching the Concord Border just short of Route 2. The planned crossing of Route 2 will be via a bridge.

Updated information can be found at the Town of Acton website (www.acton-ma.gov and search on BFRT) who is managing the project, or the Friends of the Bruce Freeman Trail site. —www.brucefreemanrailtrail.org

[1] The ROW runs directly through the Rex Lumber property at 840 Main Street. Rex Lumber provided access to the NARA Park property with the agreement that the Town would make all best efforts to work with the Commonwealth to have the BFRT go around rather than through the Rex Lumber property. These efforts were successful, and the designed trail will provide safe access to NARA Park.


Footbridge crossing Nashoba Brook

5.C.6 Regional Hiking Trails

5.C.6.1 BAY CIRCUIT TRAIL

The Bay Circuit Trail (BCT) is a two-hundred-mile-long corridor of connected publicly-accessible open spaces running between the north shore and the south shore of Massachusetts Bay and touching fifty Massachusetts towns. The concept behind this "Outer Emerald Necklace" dates back to 1929.

Acton has been a part of the Bay Circuit Trail for over ten years, and both the Conservation Commission and the Board of Selectmen have dedicated the trail corridor that runs through the Nashoba Brook, Spring Hill, Camp Acton and Stoneymeade conservation areas to the Bay Circuit Trail. The trail dedication was made possible by the purchase, in 1995, of Camp Acton. The Municipal Properties Director serves as the local liaison on the Board of Directors of the Bay Circuit Alliance. Acton's LSCom is maintaining the trail and signs within Acton's boundaries.

5.C.6.2 ISAAC DAVIS TRAIL

The Isaac Davis Trail or "Acton's Trail" is an historic seven-mile trail running east-west between the towns of Acton and Concord, ending at the Old North Bridge. This is the trail used in 1775 by Captain Isaac Davis and the Acton Minutemen in the march to Concord during the battles of Lexington and Concord. It was added to the National Register of Historic Places in 1972. (See Section 12, Map O-Aa.)

Each year, as part of Patriots Day events, Boy Scouts assemble for a camp-out, most typically on the School Street fields. They assemble at dawn for the Isaac Davis March, retracing the steps of the Acton Minutemen to the Old North Bridge. The Acton Minutemen Militia, as well as other militia companies in the area, participate in the march, which originates from the Isaac Davis House on Hayward Road. The recreation of the march to the North Bridge, and the reenactment of the encounter with English troops are the focus of the events marking the celebration of Patriots Day in Acton.

5.C.7 Water District Lands

The Acton Water District, a separate political unit from the Town of Acton, owns a total of 399.5 acres of land In Acton. These parcels protect the groundwater wells, Acton's only source of public water. Some of these parcels were purchased for future well sites or storage reservoirs.

No recreational use of these lands is permitted, but they hold value for wildlife and open space. It appears that most potential well sites have been identified, so the Water District probably will not purchase a great deal of additional land. These lands do not generate any tax revenues, but they are protected from development.

5.C.8 Cemetery Lands

There are three cemeteries in Acton. Woodlawn, located on Concord Road in Acton Center, was established in 1738, and comprises 80 acres, of which 31 are developed. Mount Hope, located on Central Street in West Acton, was established in 1848, with 94 acres, 11 of which are developed. Forest Cemetery, a half acre in size, and located on Carlisle Road in North Acton, was established in 1750. It is now fully developed and retired.

These three municipal cemeteries have value as open space both in their undeveloped and developed conditions. The undeveloped land provides wildlife habitat and is useful for the sorts of passive recreation that commonly occurs on conservation lands. The developed areas of the cemeteries provide beautifully landscaped grounds and wide, paved roadways that are commonly used for walking and bird watching. The cemeteries also provide an aesthetically pleasing, peaceful setting for quiet contemplation and study of the social and cultural history of the town.

The Recreation Department has an agreement with the Cemetery Department to use a portion of Woodlawn as a soccer field. The original agreement, made in 1988, was for a ten year period, to allow the Town sufficient time to acquire land and develop additional recreation fields. Originally set to expire in 1998, the agreement was extended to 2002 and again in 2008. It was renewed in 2012 for a period of 5 years, at which time the Cemetery Commissioners shall review the needs of the cemetery, before renewing the agreement on an annual basis.

At the present rate of use, the two active cemeteries will provide sufficient room for at least 100 years. Even

when fully developed, some areas will be left untouched such as wetlands and flood plains that have value as conservation land. The value of the developed cemeteries will only increase in the years to come.

Acton's Land Stewardship Committee, with support from the Cemetery Commission, has improved undeveloped land behind Mt. Hope Cemetery in West Acton. They have built a footbridge spanning Heath Hen Meadow Brook, linking the Heath Hen Meadow Conservation Land to the Mt. Hope Property. This provides a connection between West Acton and the Acton-Stow border.

5.C.9 State Owned Lands

The state owns 202 acres of land in Acton, 159 acres of which have been identified as having high conservation and/or recreation value. The state-owned land falls into four major categories of open space: land that is part of the Department of Corrections Farm (about 100 acres containing active farm fields), a 16-acre parcel containing the State Police horse barn and fields, parcels that were taken when Route 2 was built but that lie outside of the actual right-of-way, and the Whittier land (25 acres) under the Department of Fisheries and Wildlife.

The Corrections Department land is very significant to the town due to the fact that the open fields abutting Route 2 add a great deal to Acton's rural image. If these

TABLE 5.C.6 LANDS OWNED BY THE ACTON WATER DISTRICT

Plate	Parcel	Location	Deed (Book/ Page)	Acquisition Date	Acres
B-5	35-1	924R Main Street	8548/226	1987	12.1
B-6	1	960-962R Main Street	19375/003	1988	33.33
B-6	1-1	960-962 Main Street	15833/313	1984	24.34
B-6	11	954-956 Main Street	19375/003	1988	0.42
B-6	12-1	941-959 Main Street	LC997/172	1985	10.92
B-6	2-3	962 Main Street	unknown	unknown	.2
C-3	8	283-295 Nagog Hill Road	12582/076	1974	26.5
D-4	30	629-639 Main Street	14500/437	1981	1.48
D-4	34	619-627 Main Street	14500/437	1981	2.98
D-5	13	13 Wyndcliff Drive	14044/050	1980	7.29
E-1	2	693-699 Mass Ave.	LC652/167	1961	10.58
E-1	3	677-683 Mass Ave.	LC654/074	1961	10.34
E-1	4	687-689 Mass Ave.	unknown	unknown	5
E-4	4	599-615 Main Street	8681/282	1956	
E-4	4	599-615 Main Street	3737/531	1956	
E-4	4	599-615 Main Street	8619/590	1955	13.67
E-4	4	599-615 Main Street	8681/230	1956	
E-4	47-1	Behind Post Office Square	25911/36	1995	24.25
F-1	1	693 Mass Ave.	LC652/167	1961	0.5
F-1	4	680-700 Mass Ave.	12621/663	1974	40.44
F-1	7	1 Birch Ridge Rd.	12621/663	1974	0.75
F-1	11	5 Birch Ridge Rd.	12621/663	1974	0.46
F-1	19	7 Birch Ridge Rd.	12621/663	1974	0.47
F-1	27	9 Birch Ridge Rd.	12621/663	1974	0.53
F-1	39	11 Birch Ridge Rd.	12621/663	1974	0.48
F-2	121	500R Mass Ave.	19703/504	1989	5.29
F-2B	31	504 Mass Ave.	15915/301	1984	5.5
F-2B	31-1	514 Mass Ave.	15915/301	1984	1.45
G-1	102	9R Ticonderoga	13226/656	1977	11.38
G-1	141	51R Ethan Allen	10384/195	1963	2.03
G-1	322	37 Squirrel Hill Road	unknown	unknown	.08
G-2	139	211 Main Street	unknown	unknown	5
H-4	76	315 School Street	11816/511	1970	29.12
H-4	113	28 Lawsbrook Road	11828/413	1970	13.9
H-4	114	64R Lawsbrook Road	11828/413	1970	9.4
H-4	119	56R Lawsbrook Road	11803/226	1970	13.3
H-4	126	64 Lawsbrook Road	11828/413	1970	5
H-4	130	44 Lawsbrook Road	11828/413	1970	5.3
H-4	134	52R Lawsbrook Road	LC791/049	1970	0.85
H-4	135	52R Lawsbrook Road	11824/156	1970	1.51
H-4	139-1	60R Lawsbrook Road	11280/135	1967	0.96
I-3	135-01	39-41R Independence	19427/393	1988	0.45
I-3	136-01	104-106R Powder Mill Rd.	18980/054	1988	4.78
I-3	145	25-27R Independence Rd.	19427/393	1988	1.83
J-3	21	082R Powder Mill Rd.	LC831/084	1973	9.6
J-3	34	284-290 High Street	11919/434	1970	56
J-3	34-5	16 Knox Trail - 28	unknown	unknown	4.10
			Total Acres		**410.57**

lands were ever to be disposed, the town would consider them a high priority purchase, as it did when given the opportunity to buy the Route 2 Conservation Area (now the Wetherbee Conservation Area, see section 5.C.2.18) from the state in the early eighties. Part of that parcel is now leased back to the state for agricultural purposes.

On August 14, 2008, the Massachusetts legislature authorized Chapter 313 of the Acts of 2008, "An Act Designating Certain Land in the Towns of Acton and Concord for Conservation, Agricultural, Open Space and Recreational Purposes." Chapter 313 essentially designated approximately 106 acres of DOC land in Acton, and a similar area of land in Concord, to be "held solely for the purpose of open space protection, management and conservation, agriculture, forests, and limited public access for passive and specified active recreation and enjoyment." For the full text of Chapter 313 of the Acts of 2008 see Table 5C.9.

Currently, the T own of Acton has a ten-year lease agreement with the Commonwealth to use 14 acres of open space that runs along Route 2 and School Street. These fields are described in section 5.C.2.3.9. This agreement has effectively given the Commonwealth leasing rights to farm a portion of the Wetherbee parcel in return for the use of the 25 acres of School Street property for recreation playing fields. The current negotiations include an additional requirement for the town to protect the forested component of the remaining Wetherbee property not in agricultural use by instituting a forest management program.

5.C.10 Lands Owned by the Town of Concord

The town of Concord owns 58 acres in Acton. This land abuts Nagog Pond, one of Concord's principal water supplies. This land provides a significant wildlife corridor, greatly contributes to the rural character of that part of Acton, and has both active and passive recreation potential. If Concord should ever change its use of this property, Acton should seek to protect this land from development.

TABLE 5.C.9 LANDS OWNED BY THE COMMONWEALTH OF MASSACHUSETTS

Plate	Parcel	Location	Deed (Book/Page)	Acquisition Date	Acres
C-5	89	066-070 Harris Street	8181/354	1953	1.4
C-5	090-02	066R Harris Street	10928/156	1965	0.5
E-3	81	60R Washington Drive	7866/367	1952	3.98
D-4	23	592 Main St. Rear	unknown	1993	8
D-4	24	592 Main St. Rear	unknown	1993	2
E-4	3-1	600 Main St.	unknown	1992	25
F-3	90	349R Main Street	unknown	unknown	2.5
G-3	12	332-338 Mass Ave.	12449/652	1973	1
G-4	176	99 Mass Ave.	11703/603	1969	2.22
G-4	184	60 Hosmer Street	12717/213	1974	0.92
G-4	185	135-139 Mass Ave.	12731/213	1974	0.78
G-4	187	105-125 Mass Ave.	unknown	unknown	4
G-4	197	70-88 Hosmer Street	7751/053	1951	13
G-4	198	92-126 Mass Ave.	unknown	unknown	21
G-4	209	58-76 Wetherbee Street	unknown	unknown	16
G-5	95	66R Wetherbee Street	unknown	unknown	4.6
G-5	96	25 Keefe Road rear	unknown	unknown	1.1
H-3	38-1	5 River St. and rear	unknown	unknown	3
H-4	5	320-346 School Street	unknown	unknown	42
H-4	6	323-347 School Street	unknown	unknown	50
			Total Acres		203

Trail at Heath Hen Meadow conservation land

SECTION 6: COMMUNITY VISION

A variety of native flora carpets Acton's woodlands

6.A DESCRIPTION OF PROCESS

In setting forth the values of the town relative to open space and recreation needs, a number of sources were utilized:

- The 2002 – 2007 Open Space and Recreation Plan.
- The 2007 Acton survey, specifically developed and spearheaded by the Open Space Committee Chairperson, Peter Ashton, in preparation for the next OSRP report. A series of sixteen questions, chosen specifically to provide input for the next Open Space and Recreation Plan, was mailed to all households. Approximately 1200 households, representing about 15% of the total population, responded. Survey questions and tabulated responses are printed in appendix C1. The summary of results was presented to the Board of Selectmen by Peter Ashton in March of 2008.
- The Acton 2020 Plan — a comprehensive community development plan begun in 2008. Acton 2020 is intended to be the primary planning document that will set the course of the town for the next ten to Twenty years. This planning process is required by the state and offers residents the opportunity to engage with one another in developing a direction for the town over the next several decades. Phase I gathered input from residents, business owners and town staff through attendance at visioning workshops and survey responses. Out of this process came a set of shared values and priorities, recognition of primary assets and identification of challenges. The goals and objectives synthesized through this process guided the development of the Phase II action plan. Phase III, the implementation phase, addresses the fiscal and planning realities.

Bog boardwalk at Douglas-Gates

The major portion of the work in developing the OSRP was accomplished during a lengthy process spanning several years. Beginning in July of 2010 a series of meetings were held under the auspices of the Conservation Commission extending into the summer of 2012. These were working meetings, and the public was invited. Commission members researched, contacted knowledgeable members of the community and drafted assigned portions of the document which were reviewed by the OSRP subcommittee. It was determined that the overlapping meetings of the Acton 2020 project and additional input from individual contributors had produced sufficient information, coupled with the research and the expertise of the members of the Conservation Commission and Natural Resources staff to assess the primary needs and develop the goals and objectives for the town for the next seven years. It was the desire of the committee to develop the document such that the community would have access to the document and would benefit from the incorporation of photos of the various Open Space areas as well as some of the features of the town that elicit civic pride. Capturing those images was primarily done by Natural Resources staff, as well as developing the maps that accompany the document It should be noted that the Town of Acton contracts with App-Geo to maintain a GIS viewer on its website. Developing the maps involved an intricate coordinated effort between Natural Resources staff and App-Geo that resulted in enhanced accuracy of the GIS as well as excellent maps that will endure for future reference Concurrently, a volunteer citizen expended hours meticulously researching each of the land parcels listed on the Land Chart. (See Section 5, Table 5C.2.)

A Public Forum was held in February of 2014 to solicit additional concerns and priority issues from the citizens of the town. Full text of the minutes of the meeting may be found in the appendix. The concerns and issues they raised are reflected in Sections 7, Analysis of Needs; 8, Goals and Objectives; and 9, Action Plan. Approximately two dozen citizens participated in the meeting, sharing their perspectives on the issues they felt were important to them and to the future of the town. Interest in additional public garden opportunities, pedestrian access and protection of wildlife were among the areas that generated the most discussion and support. (See minutes in Appendix, Section 12, D1.)

In addition to the above sources, the following persons or groups provided information and knowledge used in developing the goals and objectives of the OSRP: Tom Tidman, Natural Resources Director, Jim Snyder-Grant, Land Stewardship Committee Chairman, Cathy Fochtman, Recreation Department Director, Department of Health, the Department of Engineering, Recreation Commission, Conservation Commission, Acton Water District, Open Space Committee, Community Preservation Committee, Acton Conservation Trust, Friends of the Acton Arboretum, Inc.

6.B STATEMENT OF OPEN SPACE AND RECREATION GOALS

The prior plan, OSRP 2002 – 2007, retained the three high-level goals originally defined in the 1998 plan, specifically:

- Preserve the remaining elements of Acton's rural character
- Protect the environment
- Improve recreational opportunities

The Acton 2020 Plan, the ten-year master plan for the town defined seven high-level goals for the Town:

- Preserve and enhance the town's character
- Ensure environmental sustainability
- Improve connections
- Provide more opportunities for community gathering and recreation
- Support inclusion and diversity
- Preserve and enhance town-owned assets
- Maintain and improve the financial well-being of the town

The Acton Survey, specifically structured to be used as input to the next OSRP, revealed similar concerns, closely paralleling results from a prior survey conducted in preparation for the 2002 OSRP:

- Monitor residential growth
- Protect open space
- Enhance existing recreational space
- Preserve the character of town

Recognizing the synergy apparent in these various sources, the Conservation Commission chose to essentially retain the three primary goals originally espoused in the 1998 OSRP with only minor changes. Acton is located in the Central Region of the State and benefits from a mix of recreational opportunities as well as large protected water supplies. Preserving and protecting the resources of the town that also serve to characterize and enhance its desirability as a place to live, work and play is an overriding goal. Retaining Acton's rural character as well as protecting its environmental resources are both essential to preserving the "character" of the town. In addition, expanding development and population growth has contributed to the need for more recreational opportunities. To that end, the current Open Space and Recreation Plan has a greater focus on recreational needs than prior OSRPs. The three primary goals and the sub-goals defining specific areas of focus that support these goals are presented in Section 6.B.

Wetland behind Douglas-Gates playground and sports fields

6.B.1. Preserve the remaining elements of Acton's rural character

- Protect existing open fields/meadows and agricultural parcels
- Support local farming
- Continue to maintain and support communication with key landowners to discuss options for open space protection in the future

6.B.2. Protect critical environmental resources

- Support compliance with the town's Storm Water Discharge Permitting bylaw
- Acquire parcels necessary to preserve and protect Acton's water supplies
- Manage and control invasive and nuisance species
- Encourage regional planning with abutting towns as well as within the town to create more expansive wildlife corridors
- Develop public education programs designed to heighten awareness of environmental issues

6.B.3. Improve and expand recreational opportunities

- Ensure playground facilities are made up-to-date, safe and conform to the State mandate for accessibility for persons with disabilities
- Enhance the quality of Acton's athletic fields through improved, environmentally-conscious maintenance techniques
- Provide additional athletic fields to meet the needs of the town's growing population

- Ensure accessibility for people with disabilities is available for recreational activities (e.g., trails, picnicking, water-based recreation and camping) at both recreational and conservation areas
- Develop and extend trail networks both within the town and with abutting towns
- Enhance possibilities for hiking, cross-country skiing, horseback riding, boating and fishing on conservation lands
- Expand public outreach to better inform the public of available passive and active recreation opportunities
- Acquire and develop pocket parks/commons in Acton villages

An expanded discussion of the current needs of the Town, including reasonable and attainable objectives for the next seven years, is presented in subsequent sections of this report.

Garden and Beach at NARA Park

7

SECTION 7: ANALYSIS OF NEEDS

Many conservation parcels were acquired through Self-Help grants, bestowing on them permanent protection.

View over the marsh and stream in Heath Hen Meadow conservation land

Acton's needs closely align with the Statewide Comprehensive Outdoor Recreation Plan (SCORP) for townships in Middlesex County, considered part of Boston's expanding suburbs. Acton has made a great deal of progress since the last OSRP. However, there is still much to be done, for demographic changes and ongoing development continue to put pressure on our natural resources as well as our recreational re-sources. The following items, focused on specific areas, reflect a continuum of improvements, enhancements and on-going efforts to support the goals and objectives of Acton's Open Space and Recreation Plans, both past and current.

7.A SUMMARY OF RESOURCE PROTECTION NEEDS

The adoption of the Community Preservation Act has opened up opportunities to secure open space parcels but has also heightened awareness for the need to permanently protect vulnerable properties al-ready owned by the town. Protecting water resources remains a priority, both for consumption and recreation, justifiably so as continued development taxes existing resources. Resource protection now includes concern about invasive species threatening natural flora, preserving and protecting shrinking agricultural resources, developing active management programs for forests and meadows, managing deer and beaver populations, understanding the complexity of wildlife corridors and significant habitat properties and purchasing properties to protect resources when possible.

7.A.1 Protect existing open fields/meadows and agricultural parcels

There are approximately 18 actively managed meadowlands in Acton, most held under Chapter 61A. A meadow management program, developed and managed by the Natural Resources Department, and working through the Land Stewardship Committee, is needed to maintain the meadowlands on existing conservation properties. This would include frequency and time of mowing, removal of invasive species, introduction of native species, and, in the case of privately owned properties, educational outreach.

7.A.2 Post boundaries of conservation lands

The lack of posted boundaries on existing conservation lands leads to uncertainty and confusion regarding jurisdiction and accessibility, as well as enforceability of rules for conservation lands. However, it is recognized that historic land markers on existing properties would be prohibitively expensive to locate. A more reasonable and cost-effective approach could be to work with the Planning Board to establish the practice of marking boundaries for all future and, where feasible, most recent acquisitions to conservation properties.

7.A.3 Support local farms and farming

The increasing popularity of Farmers Markets in the area has placed renewed focus on the value of locally-grown produce. Community awareness has made the need to preserve remaining farms, as well as to provide opportunities for citizens to rent community gardens, a priority. The availability of locally-grown produce contributes to the health and wellbeing of the citizens of the town. In addition, local farms preserve the rural character that defines the town of Acton and which is valued by so many of its citizens.

7.A.4 Ensure all conservation lands are adequately and permanently protected

Many conservation parcels were acquired through Self-Help grants, bestowing on them permanent protection. In addition, some lands gifted to the town came with explicit stipulations that the land be maintained in perpetuity for conservation purposes only. In addition, the acquisition of open space lands with the use of CPA funds automatically ensures that a permanent conservation restriction be applied and a custodian, such as the Acton Land Trust, be assigned to oversee and monitor the property. However, approximately 50 acres of town owned property that are considered part of conservation areas

are actually municipal parcels, not technically protected conservation land. (See Section 5, table 5.C.2) These parcels need to be rezoned and permanent restrictions added to their deeds so they cannot be altered in the future. This is particularly important for parcels that serve as corridors into conservation areas.

7.A.5 Preserve and protect Acton's water resources

In conjunction with the new State policy known as the Sustainable Water Management Initiative (SWMI) and the pending updates to the Water Management act regulations, the Acton Water District must be prepared to adopt even more stringent practices than currently in place. While demand for water in Acton has been stable since the last OSRP, due to a combination of demand management, improved efficiency, changes in development patterns, and community effort, continued development demands the continuous need to manage the water supply, particularly In light of the emphasis on commercial development outlined in the Acton 2020 Plan. It would be desirable for SWMI policy to consider an integration of all competing water uses taking into account a variety of factors impacting local rivers and streams. These alternative stressors could be evaluated as part of Acton's planning process, as the District seeks to supply sufficient quantities of water.

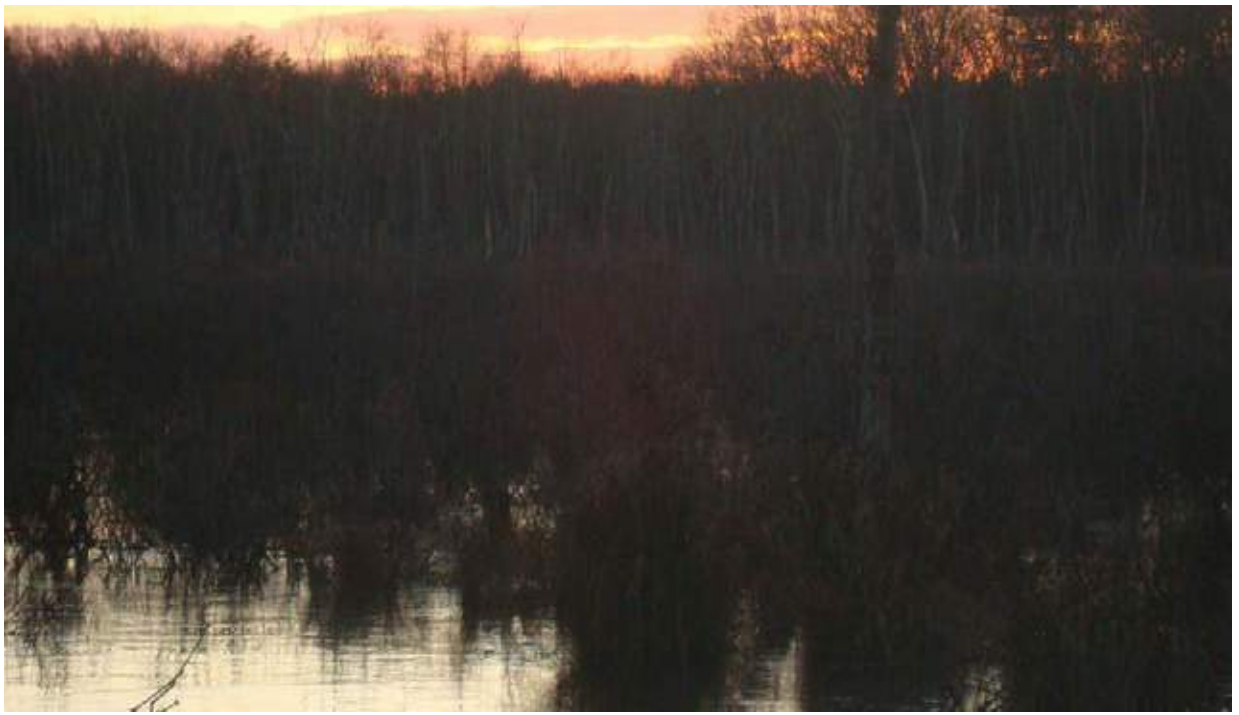
Excess nutrients are a problem in Acton's surface water bodies, resulting in eutrophic conditions observed in a number of Acton's mill ponds. Reducing the amount of chemical fertilizers used, as well as treating surface run off, would contribute to the reduction of these pollutants in our waterways. To that end, the Water District and the Conservation Commission promote the Storm Water Run-off Bylaw to minimize non-point-source pollution of ground water supply. Continuing to promote efforts to support and expand water conservation practices, optimizing the amount of water provided from existing wells and managing demand continue to be major priorities. Preserving open space, restoring previously disturbed sites, managing storm-water runoff, and restoring natural hydrology all benefit groundwater sources.

7.A.6 Manage and control invasive and nuisance species

As in many of the adjacent towns, Acton has an ever-growing number of non-native species naturalizing in our various ecosystems. These include Norway maple, European and common buckthorn, oriental bittersweet, burning bush, autumn olive, Japanese honeysuckle, Japanese knotweed and multiflora rose. Mile-a-minute vine, a very aggressive invasive, has been reported in the adjacent town of Littleton. In wetland areas, purple loosestrife and water chestnut have both become significant intruders, though reed grass has been minimally invasive in Acton. See Section 4.D.8.

Nuisance beaver control has become a significant municipal budget expense over the past 10 years. The town, through its Natural Resources Department and Land Stewardship Committee, has installed control devices in Conant Brook and at the Guggins Brook Conservation Area to maintain acceptable water depths in beaver ponds. In 2010, the town's Highway Department removed dams from culverts on Charter Road, Main Street in South Acton, Stow Street and Central Street (Fort Pond Brook). In 2011, dams were removed from culverts under Central Street, Charter Road, Lawsbrook Road, Arlington Street (Grassy Pond Brook) and Main Street in North Acton (Butter Brook). In addition, 10-day permits were obtained from the Board of Health for beaver removals at various locations in town where flooding was impacting septic systems. Beaver population control and impact to private property is a growing problem faced by the town.

Lyme disease, primarily spread through the bite of an infected "deer tick" (*Ixodes scapularis*) has reached significant levels of incidence in the community, and has become a major concern in both Acton and the



Sunset over the marsh at Heath Hen Meadow conservation land

Footbridge over creek wetland in winter, Acton Arboretum

neighboring town of Boxborough. Controlling the vectors, deer and mice in particular, as well as plants such as Japanese barberry which attracts mice and harbors the nymphs, is a priority in the effort to reduce the incidence and spread of Lyme disease.

7

7.A.7 Preserve and protect forests and specimen trees

Preserving the integrity and health of our forested areas can be supported by a properly-implemented Forestry Management program. This entails, but is not limited to, maintaining age diversity, promoting understory growth and controlling invasive species, thereby promoting diverse wildlife habitat and continued health and sustainability of our forests. It's been suggested that a holistic approach to managing parcels rather than just focusing on forestry, would be a more effective approach to developing and implementing such a program. In addition, a tree planting and replacement program, replacing damaged or non-native trees with healthy, native specimens, and planting additional ones as appropriate, contributes to maintaining the rural character of the town.

7.A.8 Develop and extend corridors both within the town and with abutting towns

Several parcels of conservation land in Acton abut, or are close to, neighboring towns, offering the potential for regional trail systems. Each one of our neighboring communities lies close to one of Acton's conservation lands. The following sections identify parcels suitable for regional or inter-town connections.

Heath Hen Meadow and Captain Sargent Farm Conservation Area. A link from West Acton's Heath Hen Meadow to Stow's Captain Sargent Farm conservation area is partially complete. The link uses land that runs through the Acton Conservation Trust's Whitcomb property, adjacent to the town conservation land, and runs close to the Stow border. At this time, a walk to Stow's Captain Sargent land can only be done in cold weather, when there is enough thick ice formed to get over the many marshy areas. It also requires the use of an old and well-used hunting trail system on private property that runs through Stow and part of Acton. This same trail system connects to a public trail easement over to West Acton Road in Stow at an entrance to the Flagg Hill conservation area.

Guggins Brook and Jenks Conservation Areas. Since 2010, Guggins Brook conservation area and the Jenks conservation area have a wooded trail link through an easement along the edge of Idylwilde Farm and the Boxborough border. An old easement leading from Reed Farm Road to the Jenks/Guggins connector trail was re-opened by the Boxboro trail committee. This new Boxborough easement allows for a short walk up Reed Farm Road to an entrance to Boxborough's Half Moon Conservation land. With the acquisition of the Wright Hill Parcel in 2014, a pedestrian connection to be created from West Acton Center to Guggins Brook can be established.

Nashoba Brook/Camp Acton/Spring Hill and Benfield Conservation Areas. Conversations are underway with the town of Carlisle and the Carlisle Conservation Trust to link North Acton's large combined Nashoba Brook/Camp Acton/Spring Hill Conservation Areas via the newly-donated Robbins Mill Pond Land to Carlisle's new Benfield conservation land. The Acton land and the Carlisle land meet at a single point, and a short access over private land is needed to complete this link.

Nagog Hill to Wills Hole. A Quail Ridge trail easement from the Acorn Park access at Hazelnut Street would link Nagog Hill conservation area to Route. 2A and then, via the entrance at Captain Handley Drive, to Wills Hole town forest. A boardwalk over a stretch of wetland is to be built by the current owner and developer.

Wetherbee Conservation Area to Hosmer Street. The Commonwealth owns three parcels of land adjacent to the far western edge of the Wetherbee conservation area that would link to Hosmer Street if an easement could be obtained. It would also offer possible parking access.

7.A.9 Encourage regional planning with abutting towns as well as within the town to create more expansive wildlife corridors

The Nashoba Brook, Spencer Brook and Fort Pond Brook watersheds provide the main wildlife travel corridors between Acton and adjoining towns. Several transportation

corridors serve as barriers to unrestrained migration. The uninterrupted corridor running north into Carlisle and east into Concord should be preserved wherever possible.

Sites of old railroad beds are often viable wildlife corridors. Therefore, the routes of the proposed rail trails should be protected from any major development efforts. The rail trails themselves will not be a barrier to wildlife travel, and will enhance travel for some species. Consideration should also be given to protecting a portion of the Kennedy property, adjacent to NARA Park, which contains a railroad spur that runs through dry upland, serving as a desirable wildlife corridor that could also serve as a trail corridor.

Spring Hill/Nashoba Brook/Camp Acton areas provide a large tract that continues through the Robbins Mill site. The point at which Robbins Mill meets the Carlisle conservation area narrows to a "pinch point" that should be expanded to protect the full length of this corridor.

7.B SUMMARY OF COMMUNITY NEEDS

Community demands in Acton are similar to those compiled in the SCORP, particularly as they pertain to accessibility. Meeting the requirements of the American with Disabilities Act becomes an enhanced focus in the current OSRP. In doing so, we accrue the benefits of enhanced accessibility to our aging populations, safer playgrounds for our children, conveniently located walking areas for all residents, environmental benefits of locally grown food and the benefit of healthful exercise.

7.B.1 Ensure accessibility for persons with disabilities is available for recreational activities (e.g., trails, picnicking, water-based recreation and camping) at both recreational and conservation areas

Acton's recreational and conservation areas need to meet minimum accessibility requirements as dictated by the Americans with Disabilities Act(ADA). Meeting these minimum standards does not ensure, however, that all of Acton's citizens have equal ability to enjoy the town's resources. The Recreation Department and Recreation Commission are committed to improving access in every feasible way so that recreational and conservation areas can be enjoyed by all interested citizens. Specific areas for consideration follow:

- Acton Arboretum handicap accessible trail improvements
- Sidewalk extensions to popular recreation sites, particularly from north of Route 2A on Route 27 (Main Street), linking Veterans Field to NARA Park. (See Section 13, Maps, Page 4)
- ADA accessibility improvements at existing facilities such as NARA beach, picnic areas, and playgrounds
- ADA accessibility at new or renovated facilities such as East Acton, Goward, and Elm Street playgrounds; NARA Picnic Pavilion; and T.J. O'Grady Skate Park
- ADA accessible gardening at Morrison Farm Community Garden
- ADA accessible trail encircling the pond at Great Hill Conservation Land
- Creation of paper and web-based universal access brochures for each conservation land trail system and each recreation facility, detailing trail conditions and ADA accessibility

(For the complete ADA Self-Evaluation, see Section 12, Appendix G)

7.B.2 Improve and expand recreational opportunities

Meeting the demands of our expanding population for recreational facilities, from the youngest to the oldest, is a pressing need. The following items present opportunities to optimize the use of existing facilities as well as adding several new facilities:

Create and Implement a Master Plan for Nara. Nathanial Allen Recreational Area (NARA park) comprises about 40 acres of land. It was officially opened in 2000 and has been expanding its facilities for public recreational activities each year. The potential to become a major recreational center for Acton, thereby substantially contributing to the recreational needs of the town, can best be met with the creation of a comprehensive master plan for the area that incorporates expansion of existing facilities and improvements as well as additional facilities. Because of its diverse offerings, NARA has rapidly become a regional recreation destination as well. The Bruce Freeman Rail Trail, opening in 2015, will provide many new opportunities as well as stressors for the NARA park facility.

Implement the Morrison Farm Reuse Plan. The Morrison Farm property comprises 32 acres purchased by the town in 1997 for conservation purposes, passive recreation and potentially active recreation. A comprehensive plan for the property was developed in 2004 but has had limited rollout due to funding constraints. Implementing the Morrison Farm Reuse Plan would contribute to providing additional recreational opportunities. Phase I of the plan, developing a community garden, has been completed and is an enormous success. A new trail system along with accessible boardwalks, received CPA funding in 2014.

Develop and Expand Facilities at Ice House Pond. This four-acre impoundment of Nashoba Brook, located on town-owned land at the intersection of Concord Road and Great Road, was dewatered and dredged in 1995 to remove sediment and eliminate a serious water chestnut infestation. This has restored its value as a boating and fishing area. Proximity of the parking area to the water's edge offers potential for handicapped access for water recreation. This is the ideal site for an East Acton playground, linked via a loop trail to the Morrison meadows, the parking area and a picnic area, and with a bridge over Nashoba Brook, to the Bruce Freeman Rail Trail and the future East Acton Village Green.

Provide Additional Recreational Indoor Space. There is a pressing need for indoor recreational space. Several possibilities offer a solution, including the Harris Street site, a new Senior Center/Community Center complex now being considered, the renovation or reconstruction of the barn at Morrison Farm and the reuse

of the existing Senior Center. Any and all of these options, should they succeed, could meet the current need, wholly or in part, for recreational indoor space.

Develop New and Improved Facilities. The Recreation Department has had numerous requests for new facilities such as a Deck Hockey rink, a water spray park, and a dog park and an additional community gardens in West and South Acton. New or enlarged parking areas at Veterans Field, Morrison Farm, Gardner Playground, a Piper Road access to Great Hill Conservation Area, and a Newtown Road parking area for the Grassy Pond Conservation Area are sorely needed. Improvements such as field leveling and resurfacing, improving drainage, installing spectator seating, expanding existing facilities, installing simple dugout roofs for sun protection are some of the items under consideration. These are outlined in detail in Sections 8 and 9.

7.B.3 Ensure playground facilities are made up-to-date, safe and accessible

Many of Acton's playgrounds are comprised of aging equipment that is becoming very expensive to maintain. Moreover, while some sites meet minimum accessibility standards, Acton does not have a fully-accessible playground where children with physical and mobility challenges can play side-by-side with their peers. Many families, whether by necessity or choice, travel to neighboring towns to access this type of recreational facility. Acton's youngest citizens deserve better, and improving playground facilities is a top priority for the Recreation Commission and Recreation Department in the coming years.

7.B.4 Enhance the quality of Acton's athletic fields through improved, environmentally-conscious maintenance techniques

Because of the high demand for field access by youth and adult sports leagues, there is little time, funding or manpower for vital maintenance and rest periods for the town's athletic fields. The town has benefitted by the

Bridge over Nashoba Brook

cooperation of some leagues to fund and carry out the rebuilding of worn turf and to maintain the fertility of the soil. In order to ensure that our playing fields are safe and sustainable, the Recreation Commission and Recreation Department are committed to identifying and directing the use of more efficient, sustainable approaches to field maintenance that take into account the needs of users as well as best practices in "green" techniques for turf management.

7.B.5 Optimize the condition and allocation of athletic fields to meet the needs of the town's growing population

The level of demand for field use in Acton has increased 100% in the last 5 years, diminishing the quality of the turf and creating scheduling difficulties for all of the town's field users. Some of the fields, such as the School Street fields, are in poor general condition, limiting their use for sports such as lacrosse. With the increasing pressure on existing resources, it's important that all fields be maintained in optimum condition to ensure their availability to meet recreational needs. The Recreation Commission and Recreation Department are determined to identify alternate sites for the creation of additional field space, or optimize the use of existing fields, with the ultimate goal that all participants are accommodated.

7.B.6 Expand public outreach to better inform the public of available passive and active recreation opportunities

Acton has a wealth of opportunities for passive and active recreation, but, if town residents are not aware of them, they will be underutilized. Informing residents about all of these resources will not only ensure greater use but will also keep residents informed about the maintenance and improvement requirements of the facilities, hopefully ensuring greater buy-in as fiscal needs arise. The Recreation Department and Recreation Commission are committed to exploring a variety of methods of communication, from direct mail to web-based communication, in order to effectively reach the broadest segment of the town's population.

7.B.7 Identify and communicate which of the 18 conservation areas are conducive to specific recreational activities

This will encourage the use of these areas for such activities. Adding this information to the kiosks set up for each of these areas and posting trail markers that point to the appropriate areas for specific activities such as hiking, birding, cross-country skiing, horseback riding, boating and fishing would encourage and promote their use.

7.B.8 Improve communication with residents regarding facilities available, events and procedures (e.g., for reserving fields and facilities at NARA)

7.B.9 Improve communication and coordination with neighboring towns, such as information-sharing regarding procedures and coordination of similar events

7.B.10 Establish easier access to internet-based resources regarding Acton's passive and active recreational opportunities

7.B.11 Prepare for the development of the two regional bike trails planned to run through Acton

Purchase or develop areas for access and parking that will facilitate utilization once they are completed. In addition, undertaking an analysis of the parcels involved to identify possible access links or parking would be prudent to avoid any delay once the funding becomes available to move ahead.

7.B.12 Acquire and develop pocket parks/commons in Acton's villages

The fourth goal of Acton's 2020 Master Plan calls for providing "more opportunities for community gathering and recreation." One of the objectives to support this goal was to "maintain and improve existing gathering spaces and look for opportunities to create informal gathering spaces." Pocket parks are small areas of open public spaces, easily accessible that offer a place for children and/or adults to gather informally. They can be naturalized settings, gardens, small playgrounds, or simply attractive and inviting areas for public enjoyment. This aligns with one of the goals and objectives of the SCORP.

7.B.13 Prepare for and address demographic trends

To meet the needs of the growing population of senior citizens, conservation areas should continue to be enhanced to improve accessibility of trails, installing bench/seating areas and improving parking facilities.

There is also an interest in more "family friendly" trails on some of the conservation areas. These would be easily accessible trails attractive to children that convey a sense of safety and security. Currently the Arboretum has such trails and could be a model for designing similar trails in one or two of the other conservation areas.

As sidewalks continue to be built along Acton streets, many of the smaller parcels, such as Pratt's Brook, become more accessible to pedestrians. A walking route that links all or most of the conservation lands has been mapped out by one of the Land Stewards using a combination of trails and sidewalks. The map is available on Google Earth.

Native cattails, wetland NARA Park

Promoting sidewalk construction will render conservation areas more accessible for citizen use.

7.C MANAGEMENT NEEDS, POTENTIAL CHANGES OF USE

7.C.1 Improve communication and organizational efficiency

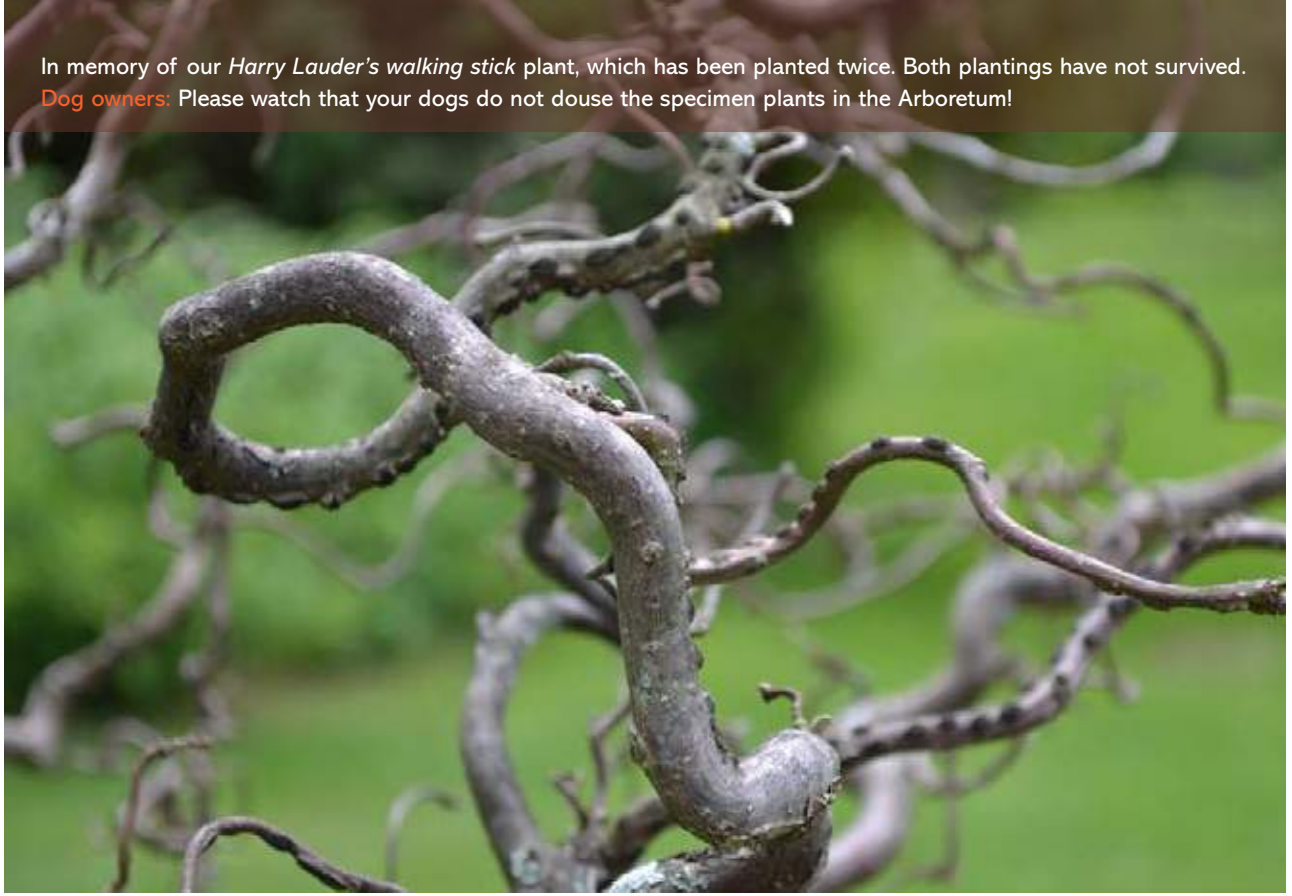
Efficiency and improved communication are needs for Acton, as in most towns. This applies to both interdepartmental interactions and interactions with the public. Under consideration for addressing these needs by the Town Manager is the creation of a "Land Use Department." This would combine the Health, Building, Engineering, Planning and Natural Resources Departments. The goal of this group would be to simplify and streamline the permitting process, both for the citizenry and administrators, through the utilization of digital technology and an expanded use of the town's GIS, ultimately benefiting both the public and those who serve them.

7.C.2 Expand and promote the availability of web-based information

There is a need to facilitate and encourage public access to information through the expansion of the use the town website. Currently, town maps are accessible on-line, the Conservation Guide is accessible and downloadable, and meeting notices as well as archived documents are all available on-line. Encouraging and promoting the use of these tools should be an on-going effort, and finding ways to enhance and expand the use of the website should be pursued.

7.C.3 Support and maintain communication with key landowners

The Open Space Committee should continue to discuss and explore options for protection in the future, by maintaining an awareness of land purchasing opportunities as they arise. This requires continued coordination of their efforts with organizations such as Acton Conservation



In memory of our *Harry Lauder's walking stick* plant, which has been planted twice. Both plantings have not survived.
Dog owners: Please watch that your dogs do not douse the specimen plants in the Arboretum!

Trust and Sudbury Valley Trust.

7.C.4 Find a new facility for the Recreation Department

Current facilities are not conducive to public outreach by the Recreation Department or the Natural Resources Department. Effective indoor programs, the dissemination of informational material and being more accessible to the general public would be enhanced if the Recreation Department was housed in an appropriate facility, particularly an area that had the capacity to provide an indoor recreational gathering space. Proximity to the town's recreational center, NARA Park, would facilitate management of the expanding programs offered at the park as the Recreation Department continues to strive to meet the growing needs of the town. An expanded facility would also satisfy the need for storage and working space.

The ideal location would be a "one-stop-shopping" facility, close to NARA Park, manned by the Recreation Department, where materials are available for pickup, staff is available to answer questions and residents can view published information about Acton's recreational opportunities, both passive and active. A prime candidate for such a facility is 68 Harris Street, the former Massachusetts Fish and Wildlife building.

7.C.5 Finalize agreement with the Commonwealth for leasing the School Street Fields

In 2011 the Town of Acton, through its Conservation Commission, initiated a forest management plan for its Wetherbee Conservation land. Located along the north side of Route 2, this 72- acre tract, with 31 acres in agricultural fields and 41 acres in woodland, is one of the fields that give Acton its distinctive country feel. The agricultural fields are farmed by the Massachusetts Correctional Institute of Concord under a lease agreement, and in the summer of 2012 the plan was to farm 16 acres of corn, which, combined with the agricultural fields on the south side of Route 2, produced significant forage for the livestock at the prison. This use agreement between the Department of Corrections and the Acton Conservation Commission, the Wetherbee Farmfield Use Agreement, requires review and updating in the coming year . Meanwhile, the Commonwealth continues to allow the Town of Acton to use an additional 13 acres of fields on the south side of Route 2 and east of School Street Extension as soccer fields. As of December 2013, the multi-year lease was awaiting final sign-off by the Department of Capital and Asset Management and Maintenance (DCAMM).

To compensate for taking that prime 13-acre agricultural parcel out of circulation, the Commonwealth proposed that Acton establish a forest management plan for the wooded portion of the Wetherbee land. This is an area that the Conservation Commission, with responsibility for approximately 1,500 acres of conservation land and town-owned land, has long considered. So the commission hired a licensed professional forester to create a management plan, and Acton enrolled in the Forest Stewardship Program. The long-term objective for this plan is to maintain the forest, while improving biodiversity, maintaining passive recreational use and improving the health and condition of the forest. A part of the program involves public outreach and the commission has reached out to the Land Stewards and other landowners interested in forestry practices. Active management was begun in the summer of 2012.

SECTION 8: GOALS AND OBJECTIVES

Focusing on the three high level goals that are the guiding principles of Acton's efforts to preserve and protect open space and provide for the use and enjoyment of these resources for all the citizens of the town, the following action steps reflect the outcome of the discussions, analysis and input from the many contributors to this plan. Closely aligned with the needs that were presented in section 7, the following items layout the tasks to be undertaken to preserve town character, protect environmental resources and provide adequate recreational opportunities for our citizens.

8.A GOAL #1: PRESERVE THE EXISTING ELEMENTS OF ACTON'S RURAL CHARACTER

8.A.1 Preserve and protect forests and trees

The Conservation Commission and the Land Stewardship Committee have the opportunity to work together to develop and implement a self-sustaining Forestry or Parcel Management Program to actively manage selected forested areas of our conservation lands. This delivers the benefits of diversifying forest age and ensuring protection of these resources for future generations. Using an integrated approach that considers not just trees and forest but the entire ecosystem of a given parcel would include the promotion of understory growth, removing and controlling invasive species, and promoting the wildlife value of the parcel. This would be a holistic approach to healthy forest management with an intense focus on habitat diversity and carbon sequestering.

Acton's streets are lined with lovely trees, which provide natural beauty and are a major contribution to the rural character of the town. Instituting a tree planting and replacement program, replacing damaged or non-native trees with healthy, native specimens, secures this important resource for future generations.

Morrison Farm house and barn

8.A.2 Protect existing open fields, meadows and agricultural parcels

NARA Park, Morrison Farm, Grassy Pond, Heath Hen Meadow, Stoneymeade and Jenks conservation lands all have meadow management plans developed by Oxbow Associates. (See Appendix, Section 12, B1 – B6). Implementing these plans would ensure protection for these valuable areas. In addition, identifying and securing a funding source for Meadow Management training for staff and a budget for yearly management requirements would demonstrate a commitment to the preservation of these resources. Implementing best management practices for the maintenance of all public parcels is the ultimate objective.

The welcoming vista of the open fields stretching along Route 2 must also be secured by renewing the lease agreement with the Department of Corrections for the Wetherbee Farm field.

8.A.3 Support local farms and farming

Preserving agricultural parcels is a challenge for Acton. A first step would be to explore the use of Agricultural Restrictions through the Agricultural Preservation Restriction Program, intended to offer farmers a non-development alternative for the disposition of their farms. Adoption of this program would require extensive outreach and educational efforts to both farmers and the committees and individuals who have traditionally been most involved with preserving open space.

Supporting local farming includes support for community gardening. This is an area that has become increasingly popular in the town and the effort to identify additional sites in West and South Acton for community gardens has taken on new urgency. There is potentially a site in West Acton located on Town property abutting Arlington Street. On a broader scale, the Morrison Farm site offers an ideal setting for a community greenhouse and a venue for offering community education courses in sustainable gardening practices. Implementing the Morrison Farm Reuse Plan would be a major step in supporting this objective.

There has been a great deal of discussion about establishing an Agricultural Commission to give agricultural and farming concerns a greater voice. This should be explored in the near future.

8.A.4 Maintain communication with key landowners

The Open Space Committee (OSC) has worked in close concert with regional land trusts such as the Acton Conservation Trust and Sudbury Valley Trustees. Continuing this relationship and maintaining communication with key landowners ensures that the OSC is aware of opportunities for the acquisition of key parcels in a timely manner. The creation of a part-time position in the Department of Natural Resources in 2013 to be point person working with the Open Space Committee and the Land Trusts on acquisitions and conservation restriction decisions has been a major step in accomplishing this objective.

8.B GOAL #2: PROTECT CRITICAL ENVIRONMENTAL RESOURCES

8.B.1 Preserve and protect Acton's water supplies and conservation values

There are a number of avenues to pursue to support this objective. The Conservation Commission and the Open Space Committee must continue to work jointly with the Acton Water District to locate and promote the acquisition of parcels that have potential for well protection, conservation interests and passive recreation. Pursuing state and federal funding for Zone 1 and 2 protections supports this effort. The Water Resources Advisory Committee has developed a draft bylaw, Chapter U, regulating storm water runoff. Passage of this bylaw would be a major step toward reducing surface water pollutants that contaminate groundwater. The Conservation Commission and the Department of Natural Resources must support and stay abreast of the status of this bylaw with the expectation that it will be ready for presentation at a special town meeting in the fall of 2015. Finally, finding irrigation sources for the community gardens and Acton Arboretum that do not rely on town well water demonstrates the commitment to water conservation in all areas.

8.B.2 Ensure permanent protection status of all conservation parcels

There are a number of parcels considered part of the major conservation areas that are owned by the Town of Acton but lack permanent protection status. These comprise over 50 acres in total, and a number of them serve as corridors into these conservation areas. Placing conservation restrictions on some of the more vulnerable parcels is necessary to ensure permanent protection on these parcels. (See Section 5, Table 5.C.2, Land Chart.)

8.B.3 Manage and control invasive and nuisance species

Continue to support the efforts of the Land Steward Committee in the on-going removal of target species on conservation land which was begun in 2006. Recent studies have shown dramatic reduction in tick populations with the removal of Japanese Barberry, suggesting Barberry be one of the high priority target species. The targeted use of herbicides for species such as Japanese Knotweed which do not respond well to hand-pulling, should also be considered.

Launching a public education and awareness campaign, including publication of "success" stories such as water chestnut removal from Ice House Pond, would promote the Invasive Species Removal program and lead to the expansion of the number of individuals and organizations that can assist in this effort. In 2014 the Conservation Commission will meet with Massachusetts Department of Transportation to review DOT invasive species monitoring and removal plans for the Bruce Freeman Rail Trail.

Finally, demonstrate the commitment to these efforts by joining the Sudbury/Assabet/Concord River Watershed Cooperative Invasive Species Management Area (SUASCO CISMA) partnership as a full member.

8.B.4 Develop and extend trail networks

A number of opportunities for extending trail networks exist, such as connecting the Trail Through Time (TTT) and the Bay Circuit Trail with adjacent conservation land in Carlisle; working with the Concord Water District to secure access to land running along the shore of Nagog Pond thereby enabling the creation of a permanent corridor through Nagog Hill property to the Sara Doublet property in Littleton; dialoguing with Concord and Maynard to develop a walking path along the Assabet River; developing a public trail easement tying the shoreline of Grassy Pond to Grassy Pond Brook, and, in conjunction with the Acton Water District, developing a trail from Knox Trail to the W.R. Grace Property. Additional opportunities are included in Section 9.

Herb garden, Acton Arboretum

8.B.5 Create more expansive wildlife corridors

An effort must be made to encourage regional planning with abutting towns as well as within the town to identify opportunities to expand and protect existing wildlife corridors. This includes acquiring additional open space parcels that are particularly valuable as wildlife habitat. Developing plans for protection of wildlife on existing conservation lands must include space for human corridors as well. A plan to protect the riverine habitat along Grassy Pond Brook and the vernal pools located in adjacent properties is one of the major priorities. Such a plan would provide a human corridor connecting Arlington Street and Grassy Pond Conservation land to the east with the Bulette conservation land and Town Forest to the West.

Parking access to Nagog Hill conservation land off Nagog Hill Road

8.B.6 Develop public outreach and education programs

Public outreach and education is an ongoing need. Development of education programs to promote familiarity with Acton's Open Space resources, for all demographic populations in the community, could be effectively accomplished through the collaborative efforts of the Natural Resources Department, the Land Stewardship Committee, the Recreation Department, Friends of the Acton Arboretum, Inc, and the Acton Water District. Topics could include invasive species recognition and management, gardening with native plants and water conservation practices. In addition, the Recreation Department and the Community Education Department could expand its offerings of nature walks, as well as gardening class opportunities at Morrison Farm.

8.B.7 Improve access to and use of managed conservation areas

Systematically upgrading appropriate conservation areas to render them universally accessible is a major priority. (See Section 13, Appendix G.) This includes modification to trail systems where practicable, expanding parking facilities, installing benches and seating areas along pathways, and updating trail guides to indicate levels of difficulty. While addressing the needs of people with disabilities, all citizens benefit from such improvements. Another initiative is to add boundary markers to conservation areas where feasible, recognizing cost limitations for such an effort. Adding signage along roads and river intersections that identify river-ways contribute to citizen awareness and appreciation of our water resources.

8.C GOAL #3: IMPROVE AND EXPAND RECREATION OPPORTUNITIES

8.C.1 Expand universal accessibility to open space and recreation sites

Ensure universal accessibility to recreational facilities, including trails, picnicking, water-based recreation and camping, as well as playgrounds and parks. It also includes better signage. The Arboretum has been expanding its accessible facilities each year with improvements to trails, boardwalks and sidewalks. This effort will be systematically addressed in the rollout plan outlined in Section 9. Accessibility improvements are underway at both the Goward and Elm Street Playgrounds.

8.C.2 Expand public outreach to better inform the public of available passive and active recreation opportunities

A centralized location for the Recreation Department would facilitate the execution of this objective. In another vein, several initiatives can support enhanced public outreach and communication efforts. One suggestion would be to initiate a series of regular "walks" with members of the Land Use Department to familiarize them with the richness of Acton town lands. This would promote common ideas for improvements, future acquisitions, and appreciation of the resources available to the townspeople of Acton. Creating paper and web-based accessibility brochures for each conservation land trail system and each recreation facility, detailing trail conditions and ADA accessibility, would be a major communication enhancement. In addition, adding information to the guidebooks about suitability of the trails for passive recreation such as hiking, horseback riding, and cross-country skiing, would encourage the use of our open space resources.

8.C.3 Improve and expand the facilities at the Nathanial Allen Recreation Area (NARA Park)

NARA Park has become the center of summertime recreational and cultural facilities in Acton. Finishing the master plan for NARA is an important step in systematically enhancing and improving this major recreational resource for Acton. Section 9, the rollout plan, lists the detailed activities planned for NARA that will enhance its use as a recreational and cultural facility. A major accomplishment for the park was the installation of Miracle Field in 2013. This field, the first of its kind in Massachusetts, is specifically designed for young people with some disability, allowing them to participate in a sports activity. Additional amendments that are needed to improve the facility are expanded parking, a concession stand and restroom facility, and re-grading of pathways to meet ADA Accessibility requirements.

8.C.4 Develop the Ice House Pond Recreation Area

The Acton 2020 Master Plan calls for enhancing the village sections of the town. With the installation of a playground on the old icehouse factory location, connecting it with a trail that links the parking area, playground and Morrison Farm fields, an expanded recreational facility for the East Acton area becomes a reality. With the addition of picnic facilities and a foot bridge over Nashoba Brook linking the Bruce Freeman Rail Trail to the Ice House Pond recreational area and the future East Acton Village Green, the area becomes complete.

8.C.5 Secure Recreational Indoor Space

This is item influences the success of each of the recreation goals addressed in this section. Currently, space for the Recreation Department is totally inadequate. The needs of the town have grown as the demographics have diversified. There are young families, senior citizens, persons with disabilities, a variety of cultural and ethic backgrounds, all deserving and expecting access to recreation and open space resources that meet their particular needs. Securing space for indoor recreation is a major priority. And securing an appropriate location for the Recreation Department that permits proper interaction with the citizens of the town is equally important.

8.C.6 Create additional facilities to meet the diverse needs of the town

Citizen requests for additional recreational facilities abound. As cited in several instances in this report, community gardens are increasingly popular, and sites are needed in West and South Acton. There have been requests for a skating rink at the Robbins Mill Recreation Area, a deck hockey facility, spray parks, dog parks, and more parking at any and all facilities. As NARA Park is the only public swimming facility in town, Acton has limited water resources. Pursuing the possible future use of Nagog Pond in some recreation capacity would be a major benefit to the town.

8.C.7 Improve and update existing facilities

A number of projects are being explored for adding and improving recreational facilities, included in the role out plan, Section 9. These would include extending the use of school facilities to Town and community groups through such projects as the ABRHS Lower Fields project, new or extended parking lots for some of the playground and conservation areas, a new playground in East Acton Village, a shade structure at NARA, additional structures at the T.J. O'Grady Skateboard Park. Priority tasks are to improve and enhance existing facilities and maximize usability.

8.C.8 Ensure playground facilities are made up-to-date, safe and accessible

A number of playgrounds are either overdue or are scheduled within the next 4 years for replacement. These include Jones Field (2016), Gardner Playground (2017) and Veterans Field Playground (2018). The design and construction of these playground facilities will ensure universal accessibility for all children. At the Elm Street facility, a concrete, accessible walkway to the pavilion and

Identifying funding sources is a priority. Sponsorships, grants, CPA funds where applicable and fundraising activities should all be explored.

Indian Festival, NARA Park

the reconstruction of the playground is scheduled for 2014.

8.C.9 Enhance the quality of Acton's athletic fields

Maintenance of athletic fields is an ongoing priority. The intent is to be environmentally responsible while ensuring well maintained surfaces for youth activities. The installation of artificial turf fields at Acton-Boxborough Regional High School has demonstrated the benefit of such installations to extend the use of the fields while minimizing maintenance. Additional opportunities for such installations will be explored. Employing environmentally-responsible maintenance techniques requires an investment in educating the town maintenance staff in environmentally-sound approaches to turf management, as well as seeking qualified outside contractors to augment Town manpower. A concerted effort is needed to enhance the School Street fields that include finalizing the multi-year lease with the Commonwealth of Massachusetts, providing some form of irrigation for the fields, developing additional softball and baseball fields, and expanding parking facilities.

8.C.10 Acquire and develop pocket parks/commons in Acton villages

The Acton 2020 Comprehensive Town Plan specifically calls for the development of small recreational gathering spaces to be sprinkled throughout the town that would encourage neighborhood interaction. The SCORP also calls for recreational spaces within residential walking distances. The Conservation Commission and the Recreation Department will work more closely with the Open Space Committee to identify and prioritize available private open space parcels of interest to the town. Citizen interest also lies in developing village walks. One such walk could be developed in conjunction with the West Acton Village Ecology (WAVE) project developer to design a West Acton trail from Arlington Street to Route 111.

8.C.11 Relocate and centralize operations of the Department of Recreation; provide equipment storage for the Natural Resources Department grounds crew; secure recreational indoor space

There is a critical need for indoor recreational space. A number of possibilities need to be explored and the most appropriate solution agreed upon and implemented. One solution would be to use the Senior Center for indoor recreational space, satisfying one of the objectives. Another possibility is to find a new site that would meet all three objectives, housing the Recreation Department offices, with a lobby and information center, offering space for storing maintenance equipment, and providing space for indoor activities. The site at 68 Harris Street is a strong potential, particularly being located within a mile of NARA Recreation Center. A second alternative would be to construct a new facility at NARA.

Watching fish swim from the footbridge crossing the edge of NARA Park pond

SECTION 9: FIVE YEAR ACTION PLAN

INTRODUCTION: The following action items support specific goals and objectives discussed in Section 8. Prioritization is from 1 to 5 for each item within an objective. Items are ordered within each objective first by priority and then date. Funding source and responsible party are keyed as follows:

AWD	Acton Water District	LSC	Land Steward Committee	OSC	Open Space Committee
BFRT	Friends of the Bruce Freeman Rail Trail	LUD	Land Use Department	REC	Recreation Department
BoS	Board of Selectmen	MFIC	Morrison Farm Implementation Committee	ToA	Town of Acton
CPA	Community Preservation Act (funding only)	MP	Municipal Properties Department	ToC	Town of Concord
CWD	Concord Water District	NR	Natural Resources Department	TL	Town Leagues
FoAA	Friends of Acton Arboretum	OARS	Organization for the Assabet, Sudbury and Concord Rivers	TTT	Trail Through Time Committee

ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
GOAL #1: PRESERVE THE EXISTING ELEMENTS OF ACTON'S RURAL CHARACTER				
9.A.1 Preserve and protect forest and trees				
Rollout a Forest Management/Parcel Management Program	1	NR	NR/LSC	2014-on-going
Develop parcel management plans	2	NR	NR	2014-on-going
Find a suitable location and begin a street-tree nursery on municipal land	3	ToA	MP	2015
Working in conjunction with the Tree Warden, begin a tree planting and replacement program along Acton's streets	4	ToA	MP	2016
Replace dead apple trees in the Arboretum with new apple trees	5	FoAA	FoA/NR	2014-on-going
Add new fruit trees to the Morrison Orchard	5	MFC	MP	2017
Begin a multiyear introduction of disease resistant American Chestnut	5	FoAA	FoAA	2018
Plant additional apple trees in the Jenks Conservation Area meadow	5	NR	NR	2019
9.A.2 Protect existing open fields, meadows and agricultural parcels				
Renew lease agreement with the Department of Corrections for the Wetherbee Farm field	1	n/a	BoS/NR	2014
Arrange for appraisal of Stonefield Farm property	2	CPA	OSC	2014
Send appropriate personnel to a Meadow Management training program	3	ToA	MP	2015
Implement the Meadow Management Plans for NARA Park, Morrison Farm, Grassy Pond, Heath Hen, Stoneymeade and Jenks conservation areas	4	NR	NR	2014-on-going
Initiate dialogue with the Land Use Department and the Board of Selectmen to examine and consider an Open Space Design bylaw for the town	5	n/a	NR/LUD	2021
9.A.3 Support local farms and farming				
Design and install a parking lot and trail system along Ice House Pond frontage connecting to Morrison Farm property, extending the trail along Ice House Pond shoreline to Morrison Farm.	1	CPA	MFIC	2014
Find an irrigation source for the Morrison Farm Community Garden	1	CPA	REC	2015
Implement the Morrison Farm Reuse Plan, working with the Board of Selectmen and newly-formed Morrison Farm Implementation Committee, to advance activities at the farm	1	CPA	MFIC	2015
Find an irrigation source for North Acton Community Gardens so the site is no longer dependent on town drinking water supplies	1	CPA	REC	2015
Complete renovations to the Morrison Farm house as outlined in the "Morrison Farm Feasibility & Preliminary Design Study" (Stephen Kelleher Architects 2012) to ready the house for occupancy	2	ToA	BoS	2016
Design and install community gardens in West Acton and South Acton	2	OSC	NR	2017
Restore the Wet Meadow at Morrison Farm	3	NR	NR	2016
Find a caretaker to live in the Morrison Farm house and oversee the property	3	n/a	BoS	2016
Determine if larger farms in town could have agricultural restrictions placed on them	3	n/a	OSC	2017

ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
Seek funding for the design of Nashoba Brook Bridge to connect to BFRT from Morrison Farm and Ice House Pond Recreation Area.	3	n/a	NR	2017
Explore the possibility of establishing an Agricultural Commission in town to give agricultural and farming concerns a greater voice.	4	n/a	OSC	2018
Install a greenhouse at Morrison Farm	4	CPA	MFIC	2018
Seek CPA funding for design of the Morrison Education Center to be built on the site of the existing barn	5	CPA	MFIC	2021
9.A.4 Maintain communication with key landowners				
On-going: At the monthly meetings with the Open Space Committee and Acton Conservation Trust, continue discussions regarding additional open space protection for all of Acton's conservation parcels.	1	n/a	OSC/NR	2014-on-going
GOAL #2: PROTECT CRITICAL ENVIRONMENTAL RESOURCES				
9.B.1 Preserve and protect Acton's water supplies and conservation values				
Work with the Water District to identify and purchase protected open space parcels with value for existing well-field protection, new well potential and conservation value	1	AWD	AWD/OSC	2014-on-going
Install a rain garden adjacent to the new parking lot at the Acton Arboretum (see Section 9.B.7) to address storm-water runoff	1	CPA	NR	2014
Reevaluate the Open Space Inventory for water protection value (see Appendix, Section 12-E1)	1	n/a	AWD/OSC	2015
Develop a comprehensive plan with the town of Concord and the state to establish an aquatic recreation agreement for Nagog Pond	3	n/a	ToC/AWD/OSC	2017
Review the condition of municipal parking lots and develop a plan to address storm water runoff	5	n/a	LUD	2018
9.B.2 Ensure permanent protection status of all conservation parcels				
Rezone and place permanent restrictions on properties considered part of the Conservation Areas but are municipal properties with no permanent protection status. This is particularly important for parcels that serve as corridors into conservation areas.	1	n/a	BoS/OSC	2017
9.B.3 Manage and control invasive and nuisance species				
Join SUASCO CISMA as a full member	1	n/a	LSC/NR	2014
Continue to update the invasive plant species plan, and implement its recommendations	2	n/a	LSC/NR	2014
Evaluate various invasive species management strategies	2	n/a	LSC/NR	2015
Enhance efforts at removing Japanese barberry	2	n/a	LSC/NR	2015
Target the use of herbicides for certain high-priority and difficult invasive plant situations not being kept in check by hand-pulling	2	n/a	LSC/NR	2015
Continue efforts to recruit hand-pickers, and to educate gardeners and landscape managers on how to avoid and remove invasive plants.	2	n/a	LSC/NR	2015
Install "Stop Aquatic Hitchhikers" signs at regularly-paddled waterways such as the Canoe Launch off Route 62, Ice House Pond off Concord Road in North Acton, and Mill Pond in South Acton	3	n/a	NR	2016
Periodically publicize and make available to the general public informational articles and handouts regarding invasive species recognition and control techniques	3	n/a	NR	2017
Periodically, dewater Robbins Mill Impoundment, the source of the continued water chestnut infestation, to reduce opportunity for invasive species migration	4	n/a	LSC/NR	2020
9.B.4 Develop and extend trail networks				
Continue dialogue with conservation entity in Carlisle regarding the connection of the "Trail Through Time" (TTT) and the Bay Circuit Trail in Acton with a trail in Carlisle highlighting sites of historic significance	1	n/a	NR	2014-on-going
Build a three car parking lot at the Newtown Road entrance to Grassy Pond Conservation Area	1	NR	NR	2014-2015
Resolve the need for universally accessible parking at the Arboretum Bog Boardwalk entry from Minot Avenue	1	CPA	NR/FoAA	2015

ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
Develop a trail system in West Acton Center, from Arlington Street to Route 111 on parcel F-2, 75-14, 8 Knowlton Drive	2	CPA	NR/LSC	2015-2017
Develop a trail system on the 20 acre Anderson Land, on Arlington Street near Newtown Road purchased in 2013	2	NR	NR/LSC	2017
Initiate discussions with the Concord Water District to secure access to land running along the shore of Nagog Pond, creating a permanent corridor through the Nagog Hill property to the Sara Doublet property in Littleton	3	n/a	NR	2014-on-going
Develop a pocket park at 8 Meadowbrook Road	3	CPA	NR/Rec	2016
Develop a trail from Knox Trail to the W.R. Grace property.	4	AWD/NR	AWD/NR	2018
Initiate discussions with the adjacent towns of Concord and Maynard to develop a walking path along the Assabet River through the three towns	4	n/a	NR	2019
Seek funding from OARS and CPA to design and construct an "Assabet River Walk" connecting Acton with Concord and Maynard	5	CPA/ OARS	NR	2018
Enter into discussions with abutting property owners to develop a public trail easement tying the shoreline of Grassy Pond to Grassy Pond Brook	5	n/a	NR	2020
Establish or create public access for a non-motorized boat launch at Nagog Pond	5	CPA	CWD/ToA	2021
9.B.5 Create more expansive wildlife corridors				
Install "Caution: Turtle Crossing" signs at Route 2A/27 and Route 111 (Fort Pond Brook) and Newtown Road (Conant Brook)	1	NR	NR	2014
Protect vernal pool and riparian habitat on the remaining Anderson Property parcel (see appendix E1).	1	CPA	OSC	2015-2016
Develop a plan to protect riverine habitat along Grassy Pond Brook and the vernal pools located in adjacent properties.	2	n/a	NR	2016
9.B.6 Develop public outreach and education programs				
Develop a "Recognizing and Controlling Invasives" program to be offered through the Acton Public Library	1	n/a	NR	2015
In collaboration with Friends of the Acton Arboretum, initiate seasonal public walks at the Arboretum	1	n/a	FoAA/NR	2015
Working together, the Recreation Department and the Acton Water District will provide "Water-wise" education courses.	1	n/a	REC/AWD	2015
Upgrade Conservation Land Maps to include better electronic options, including moving the trail data to publicly available mapping sources, such as Open Street Maps or Google Maps.	1	n/a	NR	2015
9.B.7 Improve access to and use of managed conservation areas				
Replace the Arboretum Parking lot	1	CPA	NR	2014
Replace the Bog Boardwalk at the Acton Arboretum, tying this new, universally accessible boardwalk to the Minot Ave. sidewalk	1	CPA	NR	2014
Install additional stream signs at the following locations: Assabet River – Route 62, Inch Brook-Route 111, Nashoba Brook – Route 2, Fort Pond Brook – Route 111, Mary's Brook – Minot Ave. and Spencer Brook – Pope Road	2	NR	NR	2015
Begin construction of an observation platform at the Wheeler Lane Mill site, constructing a universally accessible path to the site; design, build and install an information kiosk at the platform site.	3	CPA	TTT	2015
Install a parking lot for the Great Hill Conservation/ Recreation area from the Piper Road access point	5	NR	NR	2017
GOAL #3: IMPROVE AND EXPAND RECREATION OPPORTUNITIES				
9.C.1 Expand universal accessibility to open space and recreation sites				
Continue to improve Acton Arboretum universally accessible trails	1	CPA	FoAA	2014-2017
Ensure universal access at existing facilities such as NARA beach, picnic areas, and playgrounds	1	CPA/ Grant	REC/NR	On-
Construct an ADA compliant ramp from Minot Ave. sidewalk to the accessible bog boardwalk, and develop a short loop trail along the perimeter of the bog	1	CPA/NR	ToA	2015

ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
Add sidewalk extensions to popular recreation sites, particularly from north of Route 2A on Route 27 (Main Street), linking Veterans Field to NARA Park	1	ToA	ToA	2016
Add a universally accessible gardening facility at Morrison Farm Community Garden	2	ToA	REC	2015-2016
Rebuild Mary's Brook bridge to conform to ADA requirements	2	CPA/ Grant	NR	2017
Provide universal accessibility to Veteran's Field and Jones Field	3	CPA	REC	2018
Pave a universally accessible trail at Great Hill along the western edge of the playing field to the pond	3	CPA	ToA	2018
Install an ADA-compliant portable or composting toilet in the parking area at Camp Acton	4	CPA	NR	2019
At Guggins Brook Conservation Area, create a scenic overlook (over the marsh) next to the parking lot with a bench and an ADA-compliant parking spot	5	NR	NR	2020
Improve accessibility from Quarry Road entrance to Will Hole/Town Forest along the access road to Nagog Park	5	CPA	NR	2021
9.C.2 Expand public outreach and communication to better inform the public of available passive and active recreation opportunities				
Continue to provide opportunities for educational nature walks and guided birding walks	1	n/a	REC	2014-on-going
Initiate a series of regularly-scheduled walks with members of the Land Use Department	1	n/a	REC	2015
Promote all forms of recreation, both passive and active, through informational brochures and informed Recreation staff	1	NR	NR/REC	2016
9.C.3 Improve and expand the facilities at the Nathanial Allen Recreational Area (NARA) park				
Install a pond aeration system to improve water quality	1	ToA	ToA	2014
Provide additional picnicking facilities throughout the park	1	NR	NR/REC	2014
Open up a spur from the BFRT bike path to bathhouse for additional public access	1	BFRT	BFRT	2015-2016
Complete the master plan for NARA park	1	n/a	NR/REC	2016
Add Signage: "NARA Park" to large sign on Route 2 near Route 27 exit.	2	n/a	REC	2015
Install a NARA Ledge Rock Way entrance sign to be composed of a stone base and wrought iron arch	2	Grant	REC	2016
Install solar panels to support energy sustainability	2	Grant	ToA	2016
Build a concession and restroom facility to service Upper Fields and Miracle Field (see 8.C.4)	2	CPA	REC	2016
Install lighting around upper fields to extend usability	2	CPA	REC	2017
Install solar lighting along pond path, and around upper and lower parking areas.	2	Grant	REC	2017
Replace failing trees and plant new trees in strategic areas such as the playground and beach, to ensure shade for future generations of park patrons	3	REC	REC	2015
Set up surrey bicycle rental and storage area for Bruce Freeman Rail Trail users	3	Grant	REC	2016
Expand parking access	3	ToA	ToA	2016
Extend street lights along Quarry Road and town Forest Trail	3	ToA	ToA	2018
Install a water spray area	3	CPA	REC	2019
9.C.4 Develop the Ice House Pond Recreation Area				
Initiate design phase of a new parking lot that meets standards for minimizing storm water runoff	1	CPA	LUD/MFC	2014
Create a trail connecting a universally accessible parking area at Ice House Pond to the Morrison Farm fields	2	CPA	LUD/MFC	2014-2016
Include a picnic area at the Ice House Pond factory site	3	CPA	LUD/MFC	2015
Install an East Acton playground on the site of the old Ice House factory foundation. Design phase will being in 2014	4	CPA	REC/MFC	2016
Build a bridge over Nashoba Brook to link the Bruce Freeman Rail Trail to this expanded recreation area	5	CPA/ToA	LUD/BFRT	2017-2018
9.C.5 Secure Recreational Indoor Space				

ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
Explore the possibility of utilizing facilities at the Senior Center for additional indoor recreational space	2	ToA	REC	2018-2019
Relocate the Recreation Department to the 68 Harris Street site in North Acton, or some other appropriate site that will provide facilities for indoor recreation	1	ToA	NR/REC	2015
9.C.6 Create additional facilities to meet the diverse needs of the town				
Develop community gardens in West Acton and South Acton	1	CPA/ Grant	REC/NR	2015-2016
Create new or expanded parking lots at Morrison Farm, Gardner Playground, Great Hill Conservation Area off Piper Rd. and Jenks Conservation Land	2	ToA/CPA	REC	2016-2018
Identify properties that can support new recreational uses, such as deck hockey	3	n/a	OSC/LUD	2015-2016
Build a 2-rink deck hockey facility to meet demand	3	CPA	REC	2017
Install inline skating rink at Robbins Mill Recreation Area	4	CPA	REC	2019
Find sites and begin planning for a water spray park and a dog park, in recognition of citizens' interest	4	CPA	REC	2018
Work with the Town of Concord and the Commonwealth to develop non-motorized boat and recreation agreement for the recreational use of Nagog Pond	5	ToC/MA/ ToA	LUD	2016-2017
Develop an Aquatic Recreation Program for Nagog Pond	5	CPA	REC	2017-2019
9.C.7 Improve and update existing facilities				
T.J. O'Grady Skate Park: remove graffiti and develop oversight controls	1	REC	REC	Underway
T.J. O'Grady Skate Park: construct a new plaza	1	REC/ Private	REC	2014
T.J. O'Grady Skate Park: construct a new skating bowl	1	CPA	REC	2015
T.J. O'Grady Skate Park: Seek proportionate funding from Boxborough	1	n/a	REC	2015
School Street Fields: install a well and irrigation system	1	TL	REC	2016
School Street Fields: install a baseball field to serve Little League, Pony, Babe Ruth and softball	1	CPA/TL	REC	2016
School Street Fields: install a turf field for multi-use to include lacrosse and soccor	1	CPA/TL	REC	2016
Veterans Field: expand parking capacity and install tiered spectator seating	1	TL	REC	2016
Install dugout roofs for sun protection at Jones and Veterans baseball fields and NARA softball field	1	TL/Grant	REC	2016-2017
Elm Street: replace backstop and sideline fencing and install new perma-lines	3	TL	REC	2017
9.C.8 Ensure playground facilities are made up-to-date, safe and accessible				
Improve accessibility to Gazebo and install new playground at Elm Street	1	CPA	REC	2014
Build a shade structure at the NARA Park playground	1	CPA	REC	2014
Renovate Gardner basketball court	1	CPA/ Prvate	REC	2015
Renovate Goward basketball court	1	CPA	REC	2016
Renovate Jones Field Playground	3	CPA	REC	2017
Renovate Veterans Field playground	3	CPA	REC	2018
9.C.9 Enhance the quality of Acton's athletic fields				
Seek qualified outside contractors to augment Town manpower	1	REC/TL	REC	2014-on-going
Provide education and training to maintenance staff in environmentally-sound approaches to turf management	2	ToA	REC	2014-on-going
9.C.10 Acquire and develop pocket parks/ commons in Acton Villages				
Design and construct West Acton Village – Fort Pond Brook loop trail from Arlington Street to Route 111	1	CPA	LUD/Private	2015-2016
Map out short, safe and accessible walks within the villages	1	CPA	NR/ConCom/ LUD	2016
Create a Fort Pond Brook riverfront park	2	CPA	OSC/REC/ NR/AWD	2015
Develop a pocket park on Patriot's Road, and loop the accessible boardwalk to Newtown Road	2	CPA	LUD/NR	2016-2017

ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
Construct East Acton Village Green	2	CPA	LUD/BFRT	2017
In conjunction with Acton Water District, create a loop trail at Knox Trail	3	CPA	LUD/AWD	2018
9.C.11 Relocate and centralize operations of the Recreation Department				
Purchase the Harris Street Fish and Wildlife building and relocate the Department of Natural Resources and Recreation offices	1	Private/ General Fund	NR	2015
Finalize agreement to transfer municipal property to the Department Of Fish and Wildlife in exchange for the 1.3-acre Harris Street site	1	General Fund	BoS	2015
Sign license agreement with the Department of Fish and Wildlife to allow municipal access to the site for use by the Department of Natural Resources.	1	n/a	BoS	2015
Initiate remodeling of and upgrades to office space	1	General Fund/ Prvate	NR	2015
Move the Department of Recreation office to the Harris St. facility	1	General Fund/ Prvate	BoS	2015
Seek funding sources, including CPA, for universally accessible facilities at the site, including the indoor activity center	1	CPA	REC	2015-2016
Renovate existing office workshop to become an indoor activity space; renovations to include a new sewage disposal system	1	CPA/ Private	NR/REC	2015-2016
Remove existing garage and resurface the parking lot	1	Private	NR	2015-2016

The Recreation Department, in conjunction with the Water District, will continue efforts to provide "Water-wise" education courses.

Pickerel weed in marsh pond, Douglas-Gates

Granite marker at Nagog Hill Conservation Land

SECTION 10: PUBLIC COMMENTS

From left: site of future picnic pavilion, NARA Park; Arboretum picnic area; bench on handicapped accessible path in Acton Arboretum

An early draft of Acton's Open Space and Recreation Plan, sent in January of 2014, was received very enthusiastically by reviewers, primarily because of the photographs and extensive maps that were included in the publication. That version of the document was sent to all town committees and boards as well as interested parties. It was also showcased at the public hearing on February 27, 2014 and received excellent reviews. The Committee received a great deal of comments and suggestions for improving the document, including items that were overlooked. To the degree practicable, these suggestions were incorporated into the final draft.

Melissa Cryan, Parkland Acquisitions & Renovations for Communities (PARC) Grant Coordinator, was the contact at the Executive Office of Energy and Environmental Affairs (EOEEA) who reviewed our draft for compliance with the Commonwealth of Massachusetts' guidelines for creating an Open Space and Recreation Plan. She provided invaluable feedback and direction crucial to bringing this document to a successful completion.

In addition to the written comments, a number of individuals reviewed and edited the draft, providing extensive notations which were incorporated into the final text. There were a number of suggestions for additional material, which in some cases could not be incorporated without significant delay to a process that had already spanned a number of years.

The final draft, conditionally approved by EOEEA, was distributed to the following persons or organizations for their final review and approval:

Board of Selectman, Mike Gowing, Chairman

Metropolitan Planning Council, Joan Blaustein, Senior Regional Planner

Acton Planning Department, Roland Bartl, Director

Conservation Commission, Terry Maitland, Chairman

Open Space Committee, Andrew Magee, Chairman

Friends of the Acton Arboretum, Inc., Catherine Hatfield, President

Acton Conservation Trust, Susan Mitchell-Hardt, President

Sudbury Valley Trustees, Lisa Vernegaard, Executive Director

Letters and comments are printed in their entirety.

Old wildflower boardwalk, Acton Arboretum

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6611
Fax (978) 929-6350

Board of Selectmen

December 15, 2014

Thomas Tidman, Director
Town of Acton Natural Resources Department
472 Main Street
Acton, MA 01720

Re: Town of Acton: 2014-2021 Open Space and Recreation Plan

Dear Tom:

The Acton Board of Selectmen is pleased to submit this letter in support of the final version of the Open Space and Recreation Plan for 2014-2021 ("OSRP" or "Plan"), to which the Massachusetts Executive Office of Energy and Environmental Affairs has given its conditional approval. The Selectmen voted unanimously on December 15, 2014 to endorse the final version. The Plan is an impressive piece of work, reflecting the prodigious collective effort over several years of many individuals, including Town committee members, Town staff members, residents and others.

The OSRP has well-developed, easy-to-read content that will make it a valuable tool and reference for all in the Town. The Plan reiterates the Town's commitment to protecting its rural heritage and the environment, and improving recreational opportunities for all, including individuals with disabilities. These commitments dovetail nicely with the top goals of the Town's recently completed comprehensive community plan, better known as Acton 2020. More importantly, and in support of those broad goals, the OSRP provides an astonishing wealth of information about the Town, including an environmental inventory, open-space inventory, wonderful photographs, educational information boxes, detailed charts and an appendix of some 30 maps. The maps in themselves are worthy of hours of study and contain fascinating information on an array of Town characteristics: zoning, soils and geology, unique buildings and locations, vernal pools and other wildlife habitat, wildlife travel corridors, wetlands and streams, groundwater protection districts and the Acton Water District wells, flood zones, conservation lands and other open space, sewer district, Isaac Davis Trail and historic districts, and projected statewide population changes.

We commend all contributors for a job very well done and look forward to making the final OSRP available to residents on the Town's website. Our sincere thanks to all.

Very truly yours,

Mike Gowing
Chairman

MAPC
METROPOLITAN AREA PLANNING COUNCIL

SMART GROWTH AND REGIONAL COLLABORATION

February 2, 2015

Tom Tidman
Director of Natural Resources
472 Main Street
Acton, MA 01720

Dear Mr. Tidman:

Thank you for submitting the "Town of Acton Open Space and Recreation Plan 2014-2021" to the Metropolitan Area Planning Council (MAPC) for review. The Division of Conservation Services (DCS) requires that all open space plans must be submitted to the regional planning agency for review. This review is advisory and only DCS has the power to approve a municipal open space plan. While DCS reviews open space plans for compliance with their guidelines, MAPC reviews these plans for their attention to regional issues generally and more specifically for consistency with *MetroFuture*, the regional policy plan for the Boston metropolitan area.

Consistency with MetroFuture - *MetroFuture* is the official regional plan for Greater Boston, adopted consistently with the requirements of Massachusetts General Law. The plan includes goals and objectives as well as 13 detailed implementation strategies for accomplishing these goals. We encourage all communities to become familiar with the plan by visiting the web site at http://www.mapc.org/metrofuture and scrolling down to the PDF of the implementation strategies.

The Acton Open Space and Recreation Plan does not specifically mention *MetroFuture*. We encourage communities to include a brief paragraph about *MetroFuture* in Chapter III under Regional Context. Ideally this paragraph should explain ways in which the Acton Open Space and Recreation Plan will help to advance some of the goals and implementation strategies that relate specifically to open space, recreation, and the environment generally.

In the case of Acton's plan, this shouldn't be too hard to do since we see many positive connections between your plan and *MetroFuture* such as the discussion of regional open space resources and adoption of the Community Preservation Act.

The Acton Open Space and Recreation Plan is very thorough and it should serve the town well as it continues its efforts to preserve open space and provide for the recreational needs of its residents.

Thank you for the opportunity to review this plan.

Sincerely,

Marc D. Draisen
Executive Director

TOWN OF ACTON
472 Main Street
Acton, Massachusetts 01720
Telephone (978) 929-6631
Fax (978) 929-6340
planning@acton-ma.gov

Planning Department

MEMORANDUM - UPDATE

To: Natural Resource Department ***Date:*** December 11, 2014

From: Roland Bartl, AICP, Planning Director

Subject: **2014-19 Draft Open Space & Recreation Plan**

I reviewed the most recent revised draft and found that the Planning Board comments of 2/7/14 (attached) were generally addressed to my satisfaction. Thank you for making the changes.

TOWN OF ACTON
472 Main Street
Acton, Massachusetts. 01720
Telephone 978-929-6634
Fax 978-929-6340

Conservation Commission

January 5, 2015

Mr. Thomas Tidman
Town of Acton Director of Natural Resources
Acton Town Hall
472 Main Street
Acton, MA 01720

Dear Mr. Tidman,

At last we hold in our hands the 2014-2021 Town of Acton Open Space and Recreation Plan, which is the product of hundreds of hours (thousands of hours?) of volunteer efforts with a truly spectacular result. The Open Space and Recreation Plan is like an encyclopedia of the Town of Acton. It contains a catalogue of information too numerous to specify -- on conservation land, municipal land, Chapter 61, Chapter 61A and 61Bands, undeveloped parcels, recreational land and facilities, community gardens, and so on.

The Open Space and Recreation Plan catalogues the aspirations and determination of a town with an abundance of public spirit that is willing to support, with Community Preservation funds and volunteer efforts, these many acquisitions and accomplishments. One of the chief goals of the citizens is to retain the rural character of the town. This is not so easy in a town of nearly 22,000 residents with a fair measure of development. But to review the town's 2002-2007 Open Space plan, and compare it to this current document is to recognize how many of the goals have been realized from the earlier plan. Acton is a generous town and a visionary one. If as many goals are achieved by 2021, Acton will continue to be a wonderful town in which to live.

My personal thanks and appreciation go out to every person who worked on this Open Space and Recreation Plan, as well as to the approximately 250 town residents who serve as appointees on various boards and commissions. Not to mention all the volunteers who turn out for projects as varied as pulling water chestnuts from various ponds or policing the roadways during Acton clean-up day every spring.

My congratulations to all!

Sincerely,

Terrence Maitland

Terrence Maitland
Chair, Conservation Commission

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 264-9631
Fax (978) 264-9630

Open Space Committee

January 7, 2015

Mr. Thomas Tidman
Town of Acton Director of Natural Resources
Acton Town Hall
472 Main Street
Acton, MA 01720

RE: Town of Acton Open Space and Recreation Plan

Dear Mr. Tidman:

The Town of Acton Open Space Committee has received and reviewed the November 2014 draft of the Town of Acton Open Space and Recreation Plan (OSRP). The Committee is greatly impressed with the quality and depth of the material presented therein, and sees this document as a valuable resource in the future conduct of the Committee's business.

The mission of the Open Space Committee includes the identification of key open space and recreation parcels for protection and the submittal of recommendations to the Board of Selectman regarding the purchase of lands that become available to the Town. Given the relatively high cost of land in Acton, the Committee must be very deliberate in its approach to recommending specific land acquisition and protection measures. This new OSRP offers a key tool in identifying for purchase and protection those lands with the highest and best open space, natural resource, and recreational value. The Committee looks forward to utilizing the OSRP as a resource in its deliberations, and believes it will also serve as a useful guide for the citizens of Acton to the existing open space and recreational resources of the Town.

The Open Space Committee is highly supportive of the OSRP goals and, in particular, those goals for increasing the protection of existing conservation lands through the use of Conservation Restrictions and through the adoption of zoning changes that recognize that development is only reasonable when natural resources are well protected. The Committee is also supportive of those goals that introduce our citizenry, and particularly our youth, to the joys and benefits of the outdoors and outdoor activities. The relocation and centralization of the Town of Acton Recreation Department as identified in the OSRP would do much to advance these goals.

Finally, the Committee cannot express enough its gratitude to the volunteers and town employees who have done such a tremendous job in researching and compiling this document. The result is a comprehensive and thorough document that meets and exceeds the Committee's hopes. It will undoubtedly serve the Open Space Committee, and indeed the entire Town, well for many years. The Committee extends its sincere thanks to all of those responsible for the production of this valuable resource protection tool.

Respectfully yours,

Andrew D. Magee, Chair
Town of Acton Open Space Committee

Friends of the Acton Arboretum Inc.
P.O. Box 2607
Acton, Massachusetts 01720
www.ActonArboretum.org

Tom Tidman, Acton Natural Resources Director
Andy Magee, Chairman of Open Space Committee
Terry Maitland, Chairman of Acton Conservation Commission
Acton Town Hall
472 Main Street
Acton, MA 01720

Gentlemen,

I have reviewed the newest draft of the Open Space and Recreation Plan representing the Friends of the Acton Arboretum, Inc. The document is a highly detailed and comprehensive plan that represents a great deal of amazing work. The new information contained in the document makes it richer and much more informative.

The Acton Arboretum is an important open space for the Town of Acton. It is a regional gem, drawing visitors from many towns outside Acton. Signs over the nearby Route 2 direct visitors to the property, one of the only town-owned landmarks noted on those signs. In addition, the word is out that the Arboretum has many accessible features to attract families and groups with members needing to capitalize on those features. Not only do we see more wheelchair bound and elderly visitors, but we also have groups from local agencies serving handicapped clientele regularly volunteering to work at the Arboretum!

My recent review of the final draft of the new Open Space and Recreation Plan showed that my earlier concerns have been addressed. In addition, town staff provided an excellent accessibility assessment of the Arboretum which should provide a great baseline of information for a future "Guide to Accessibility at the Arboretum".

I have noted a few remaining issues I saw in the document that I was asked to mention so they can be addressed in future versions of this plan. (Some comments go beyond my scope as a reviewer for the Friends of the Acton Arboretum, Inc. but are drawn from baseline information I contributed to the team creating this document.)

- Maps 13-R-7A and 13-R-8 neglect to show the parcel at 81 Wood Lane Behind as Town-owned conservation land. Map 13-R-7D shows the parcel correctly.
- Map 13-R-7A does not show the complete Jenks Conservation Land.
- The maps showing the Bruce Freeman Rail Trail do not accurately depict the path of the rail trail through NARA property.
- I understand that the timing of this document does not allow for the latest land parcels purchased by the town to be depicted properly on the maps. The missing parcels are the Anderson Land off Arlington Street, the Wright Hill property in West Acton, and the small parcels near the Putnam land off Newtown Road.

Sincerely,

Catherine M. Hatfield
President, Friends of the Acton Arboretum, Inc.
www.ActonArboretum.org
December 18, 2014

1

Acton Conservation Trust

A Non-Profit Land Trust

December 30, 2014

Tom Tidman
Natural Resources Department
Town of Acton
472 Main Street
Acton, MA 01720
(Sent by email)

Dear Tom:

The Acton Conservation Trust wishes to thank you, the Natural Resources Department, the Acton Conservation Commission, and the Open Space Committee for producing this beautiful document of which we all can be very proud. It is very well written and detailed. (For example, it explains esoteric subjects such as BioMap2 and Chapter 61.)

Thank you for so kindly acknowledging the role of the Acton Conservation Trust for protecting open space since the last plan was published.

Attached please find the comments approved by our Board of Trustees.

Sincerely,

Susan Mitchell-Hardt

Attached: "Comments on the Town of Acton 2014-2021 Open Space and Recreation Plan from the Board of Trustees of the Acton Conservation Trust"

Comments on the Town of Acton 2014-2021 Open Space and Recreation Plan from the Board of Trustees of the Acton Conservation Trust (ACT)

I. Page 5-4: Conservation Restrictions,

Page 5-4 5.B.2 **Conservation Restrictions Held by the Town of Acton:** 2013 Caouette/Simeone Land Grantee: Sudbury Valley Trustees & **ACTON CONSERVATION TRUST (co-holders).** (Please add comments in caps and bold).

2012: 6 Piper Road Grantee: **TOWN OF ACTON (not ACT)** (Please add comments in caps and bold).

II. Appendix E1, "Ranking of Open Space Parcels":
Omission of Two Agricultural Parcels totaling 30 acres

(This appendix was omitted from the first draft of the Open Space and Recreation Plan (OSRP), which is why ACT did not comment on the omission.)

Both 135 Strawberry Hill Road (currently shown as 181 Pope Road on Mass. GIS) and 145 Strawberry Hill Road were listed on the Prioritized Chapter 61 List which was part of the Open Space and Recreation Plan 2002-2007. (The Town of Acton Assistant in Natural Resources Department, Fran Portante, was sent a scan of the page from the previous OSRP listing both properties).

ACT believes this is an oversight as nothing has changed to diminish the agricultural, historical, visual, and conservation value of either of these properties. It should be noted that 181 Pope Road is contiguous with the Stoneymeade Conservation Area, which should further enhance its value. It is not apparent from the Acton maps that if either of these two parcels were protected, that it would be a short walk down Strawberry Hill Road to access the network of trails in the Town of Concord.

III. Section 13: MAPS:
Omission of 135 Strawberry Hill Road, currently known as 181 Pope Road

Page 13-33 Acton Plan of Lands to Be Protected and/or Improved

The 16 acre agricultural parcel at 145 Pope Road is colored red indicating "Private Lands to Purchase and Protect". It appears that the adjoining 14-acre agricultural parcel which abuts conservation land, was accidentally omitted. Please replace it. Together these parcels provide one of the most scenic and historic vistas on the Isaac Davis Trail. Both parcels were listed in the previous Open Space and Recreation Plan (OSRP) list of Priority Parcels. We believe they should both be colored Red for "Private Lands to Purchase and Protect".

The two agricultural/historic parcels were part of the previous owner's pre-revolutionary farm, totally approximately 150 acres before it was broken up. These two parcels provide views to the historic farmhouse, barn, and open meadows.

F-5 12-6 145 Strawberry Hill Road, 15.8 acres open field. New owners occasionally pasture cows and horses.

F-5 12-5, 135 Strawberry Hill Road (currently known as 181 Pope Road by Mass. GIS), 14.2 acres, open field. It is the present day Stoneymeade Farm, which comprises a residence, riding school, and stable.

It's also important to note that on page 4-16 of the Open Space and Recreation Plan (OSRP) the Isaac Davis Trail description includes a description of "Vistas, stone walls and roadside vegetation [that] are a part of this trail's aesthetic." A key element of these vistas is the above parcels, which afford a view from Strawberry Hill Road across open fields to both that Stoneymeade and Annursnac Conservation Areas. Note also that Parcel F-5 12-5 directly abuts the Stoneymeade Conservation Area.

Finally, the Acton Reconnaissance Report of June 2006, " Freedom's Way Landscape Inventory" designates Stoneymeade Farm as a "heritage landscape". (See p. 23 of the appendix).

IV. Page 12-H-1 MAGIC Agricultural Survey is incomplete
The entire survey was included in Draft I. The final draft only includes the first half of the survey through Regulation, Question 5: Master Plan through C). It omits Questions 6 and Question 7.

ACT would like to see the entire original survey question included.
In addition, we would like to recommend adding the following:

Adjust Agriculture Zoning Bylaw regarding Livestock
The Town of Acton zoning bylaw, 3.2.1 Agriculture, states that on more than 5 acres one may board, keep or raise livestock. On a parcel of 2 acres or more one may board, keep and raise not more than one horse, goat or sheep, plus its offspring up to one year of age. This bylaw is too restrictive at the low end and not restrictive enough at the high end. The bylaw should be location dependent and subject to Animal Inspector approval.

V 8.A.3 Support local farming:

ACT would like to suggest inclusion of the following ideas (some of which are drawn from the MAGIC report):

Methods to Strengthen Existing Agricultural Efforts

We should continue to encourage and support the public school district purchase of local foods as stated in the MAGIC Survey, support the continuation of the local Acton-

Boxborough Farmers Market, as well as supporting Boxborough Grange #131 (includes Acton).

Create a Community Food Report similar to that done by Concord
(See http://issuu.com/conwaydesign/docs/concordfood2012.)

This would include essential data collection on existing farms in Acton, including information on specific issues of concern to our current farmers. It would also promote small scale food production, protect privately owned Chapter 61A lands whenever they become available for sale, and assess conservation lands to determine where woodlands could be converted back to agricultural use.

SUDBURY
VALLEY
TRUSTEES

Conservation, Collaboration, and Community since 1953

December 23, 2014

Acton Natural Resources
472 Main Street
Acton, MA 01720

Dear Sir or Madam:

Sudbury Valley Trustees is pleased to submit this letter in support of the Town of Acton's 2014-2019 Open Space and Recreation Plan.

As a partner on many conservation efforts, SVT is an enthusiastic supporter of the work of the Acton Open Space Committee and the Natural Resources Department. We applaud the efforts of the working group that developed this plan, for its design, scope, and for the very ambitious goals set out in the five year action plan. Of particular note is the very helpful map book that accompanies the plan, and the focus on land management, including control of invasive species.

We support your outstanding planning process to meet the Town's municipal needs, achieve balanced growth, and preserve the Town's unique character in the years ahead. We look forward to continued collaboration with Acton officials to protect the important resources identified in your plan.

Sincerely,

Lisa Vernegaard
Executive Director

SECTION 11: REFERENCES

SECTION 1:

www.invasivespeciesinfo.gov/aquatics/waterchestnut.shtml#.USKF_FJYRhc

SECTION 2:

2002-2007 Open Space and Recreation Plan

Acton 2020 Comprehensive Community Plan:
www.doc.acton-ma.gov/dsweb/View/Collection-4819

Acton Conservation Trust: http://www.actonconservationtrust.org

ABFM photos courtesy of the Acton-Boxborough Farmers Market, through Debra Simes, Communications Coordinator of ABFM

AB Farmers Market: http://www.ABFarmersMarket.org

Bruce Freeman Rail Trail:
http://www.brucefreemanrailtrail.org/about/phase-two-acton-west-car.html

Assabet River Rail Trail: http://www.arrtinc.org/

SECTION 3:

495/MetroWest Development Compact Plan:
http://www.495partnership.org/assets/Compact/FinalPlan/finalcompactplansmall2.pdf

Acton 2020 Comprehensive Community Plan:
www.doc.acton-ma.gov/dsweb/View/Collection-4819

http://www.mapc.org/metrofuture

http://www.mass.gov/envir/smart_growth-toolkit/pages/mod-osrd.html

Annual Report of the Acton Water District for the year ending December 31, 2012 and the Acton Water District Winter 2012 Water Words Notice

http://www.acton-ma.gov/DocumentCenter/Home/View/659

http://www.minutevan.net

www.home-water-works.org

www.epa.gov/region1/superfund, search on "Acton"

SECTION 4:

2002-2007 Open Space and Recreation Plan

Acton 2020 Comprehensive Community Plan:
www.doc.acton-ma.gov/dsweb/View/Collection-4819

Environmental Protection Agency 2013 report on the Grace Cleanup:
www.epa.gov/region1/superfund/sites/graceacton/530655.pdf

"Saving the American Elm": www.elmpost.org

Acton Water District Environmental Manager's Report 2011:
www.actonwater.com/Web%20Ready/WaterWords.pdf

Biomap2: http://maps.massgis.state.ma.us/dfg/biomap2.htm

MASS Rivers Alliance: www.massriversalliance.org

Organization for the Assabet River: www.oars3rivers.org

"The Acton Reconnaissance Report/Freedom's Way Landscape Inventory" online at
www.mass.gov/dcr/stewardship/histland/reconReports/acton.pdf.

SuAsCo Biodiversity Protection and Stewardship Plan by Frances Clark, 2000

SECTION 5:

www.acton-ma.gov: search on BFRT

www.brucefreemanrailtrail.org

SECTION 12: APPENDICES

In 2011 the Town of Acton, through its Conservation Commission, initiated a forest management plan for its Wetherbee Conservation land. Located along the north side of Route 2, this 72- acre tract, with 31 acres in agricultural fields and 41 acres in woodland, is one of the fields that gives Acton its distinctive country feel. The agricultural fields are farmed by the Massachusetts Correctional Institute of Concord under a lease agreement, and in the summer of 2012 the plan was to farm 16 acres of corn, which, combined with the agricultural fields on the south side of Route 2, produced significant forage for the livestock at the prison. Meanwhile the Commonwealth has allowed the Town of Acton to use an additional 13 acres of fields on the south side of Route 2 and east of School Street Extension as soccer fields.

To compensate for taking that prime 13-acre agricultural parcel out of circulation, the Commonwealth proposed that Acton establish a forest management plan for the wooded portion of the Wetherbee land. This is an area that the Conservation Commission, with responsibility for approximately 1,500 acres of conservation land and town-owned land, has long considered. So the commission hired a licensed professional forester to create a management plan, and Acton enrolled in the Forest Stewardship Program. The long-term objective for this plan is to maintain the forest, while improving biodiversity, maintaining passive recreational use and improving the health and condition of the forest. A part of the program involves public outreach and the commission has reached out to the Land Stewards and other landowners interested in forestry practices. Active management began in the summer of 2012.

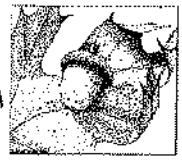
Based on the success of the Wetherbee forest management, Acton will need to identify other tracts of conservation land suitable for a forest management plan.

dcr

FOREST MANAGEMENT PLAN

Submitted to: Massachusetts Department of Conservation and Recreation
For enrollment in CH61/61A/61B and/or Forest Stewardship Program.

JUN 30 2011



CHECK-OFFS

CH61	CH61A	CH61B	STWSHP	C-S
cert. ☐	cert. ☐	cert. ☐	new ☒	EEA ☐
recert. ☐	recert. ☐	recert. ☐	renew ☐	Other ☐
amend ☐	amend ☐	amend ☐	Green Cert ☐	
			Conservation Rest. ☐	
Plan Change: ____ to ____			CR Holder ____	

Administrative Box

Case No.	002-9193	Orig. Case No.	—
Owner ID	502900	Add. Case No.	—
Date Rec'd	6-30-11	Ecoregion	221
Plan Period	2012-2021	Topo Name	
Rare Spp. Hab.	Yes	River Basin	Concord

OWNER, PROPERTY, and PREPARER INFORMATION

Property Owner(s) Town of Acton, Conservation Commission
Mailing Address 472 Main Street; Acton, MA 01720 Phone 978-264-9631
Email Address ttidman@acton-ma.gov

Property Location: Town(s) Acton Road(s) Wetherbee St. & Route 2

Plan Preparer Charles E. Caron Mass. Forester License # 29
Mailing Address 247 Bragg Hill Road; Westminster, MA 01473 Phone 978-874-5469

RECORDS

Assessor's Map No.	Lot/Parcel No.	Deed Book	Deed Page	Total Acres	Ch61/61A 61B *Excluded* Acres	Ch61/61A 61B **Certified** Acres	Stewshp *Excluded* Acres	Stewshp Acres
64	173	14534	117	72.68	0.0	0.0	31.68	41.00
			TOTALS	72.68	0.0	0.0	31.68	41.00

Excluded Area Description(s) (if additional space needed, continue on separate paper)
Beginning at the most southeastern corner of the property at the intersection of Wetherbee St. and Route 2, N85W 1200' by Route 2, thence N9E 990', thence N58W 90', thence N9E 200', thence S75E 670', thence S77E 626', thence by Wetherbee St, S10W 114' and S12W 867' to the point of beginning.

HISTORY

Year acquired 1982 Year management began 1982

Are boundaries marked: Yes ☐ blazed/painted/flagged/signs posted (circle all that apply)? No ☒ Partially ☐

What treatments have been prescribed, but not carried out (last 10 years if plan is a recert.)?

stand no. ____ treatment ____ reason ____
(if additional space needed, continue on separate page)

Previous Management Practices (last 10 years)

Stand #	Cutting Plan #	Treatment	Yield	Acres

RECEIVED
Date SEP 12 2011
ACTON CONSERVATION COMMISSION

Remarks: (if additional space needed, continue on separate page)
Boundaries are almost entirely stone walls or roadways. Blazing and painting will take place at the beginning of the management period.

FOREST MANAGEMENT PLAN A2

Revised May 2009

Landowner Goals

Please **check** the column that best reflects the importance of the following goals:

Goal	Importance to Me			
	High	Medium	Low	Don't Know
Enhance the Quality/Quantity of Timber Products*		X		
Generate Immediate Income			X	
Generate Long Term Income		X		
Produce Firewood			X	
Defer or Defray Taxes			X	
Promote Biological Diversity	X			
Enhance Habitat for Birds	X			
Enhance Habitat for Small Animals	X			
Enhance Habitat for Large Animals		X		
Improve Access for Walking/Skiing/Recreation	X			
Maintain or Enhance Privacy			X	
Improve Hunting or Fishing			X	
Preserve or Improve Scenic Beauty	X			
Protect Water Quality		X		
Protect Unique/Special/ Cultural Areas		X		
Attain Green Certification Other:			X	

*This goal must be checked "HIGH" if you are interested in classifying your land under Chapter 61/61A.

In your own words, describe your goals for the property: To improve the overall condition of the forested portions of the property, while promoting biological diversity and passive recreation.

Stewardship Purpose

By enrolling in the Forest Stewardship Program and following a Stewardship Plan, I understand that I will be joining with many other landowners across the state in a program that promotes ecologically responsible resource management through the following actions and values:

1. Managing sustainably for long-term forest health, productivity, diversity, and quality.
2. Conserving or enhancing water quality, wetlands, soil productivity, carbon sequestration, biodiversity, cultural, historical and aesthetic resources.
3. Following a strategy guided by well-founded silvicultural principles to improve timber quality and quantity when wood products are a goal.
4. Setting high standards for foresters, loggers and other operators as practices are implemented; and minimizing negative impacts.
5. Learning how woodlands benefit and affect surrounding communities, and cooperation with neighboring owners to accomplish mutual goals when practical.

Signature(s): Terrence Maitland, CHAIR **Date:** 6/28/2011

Owner(s) (print) Town of Acton
Acton Conservation Commission

(This page will be included with the completed plan.)

Property Overview, Regional Significance, and Management Summary

The Town of Acton's "Wetherbee Lot" is located at the intersection of Wetherbee Street and Route 2. The easterly portion of the site contains a 31 acre agricultural field, while the remaining 41 acreas are forested. The primary management objectives of the Town are to improve the condition of the forest while promoting biological diversity and passive recreation, and to generate income to be used to manage its open space properties.

The most abundant tree species on the property include white pine, oaks and red maple. Saplings of the overstory species and glossy buckthorn predominate in the understory. The forests stands appear to represent a progression of agricultural abandonement, ranging from the relatively mature Stand 4 to Stand 5 which is only beginning to revert to forest. In general the quality of the timber is low and stocking is highly variable. Invasive shrub species are abundant on many portions of the property.

No unusual insect or disease problems were observed. The only cultural features that were observed are the stone walls.

The property is located within a generally suburban area, but some of the immediately surrounding area is agricultural.

The property contains a small vegetated wetland just west of the field, within which there is a certified vernal pool. There is also a certified vernal pool in the southwest portion of the site. This vernal pool is very small and may not be truly functional. The 13th Edition of the Natural Heritage Atlas indicates that the field is within a Priority Habitat Area, but the forested portions of the property are not.

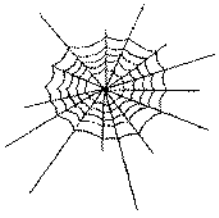
The elevation of the property ranges from 145 feet to 210 feet. The site's topography is generally gently sloping. The soils on the site are are variable and glacial till and glacial outwash are both present.

The land's existing wildlife habitat will be maintained by ensuring that the site remains forested.

The long-term objective for the management of the property's forest is to maintain it as forest, while improving biodiversity, maintaining passive recreational use and improving the health and condition of the forest.

Stewardship Issues

Massachusetts is a small state, but it contains a tremendous variety of ecosystems, plant and animal species, management challenges, and opportunities. This section of your plan will provide background information about the Massachusetts forest landscape as well as issues that might affect your land. **The Stand Descriptions and Management Practices sections of your plan will give more detailed property specific information** on these subjects tailored to your management goals.



Biodiversity: Biological diversity is, in part, a measure of the variety of plants and animals, the communities they form, and the ecological processes (such as water and nutrient cycling) that sustain them. With the recognition that each species has value, individually and as part of its natural community, maintaining biodiversity has become an important resource management goal.

While the biggest threat to biodiversity in Massachusetts is the loss of habitat to development, another threat is the introduction and spread of invasive non-native plants. Non-native invasives like European Buckthorn, Asiatic Bittersweet, and Japanese Honeysuckle spread quickly, crowding out or smothering native species and upsetting and dramatically altering ecosystem structure and function. Once established, invasives are difficult to control and even harder to eradicate. Therefore, vigilance and early intervention are paramount.

Another factor influencing biodiversity in Massachusetts concerns the amount and distribution of forest growth stages. Wildlife biologists have recommended that, for optimal wildlife habitat on a landscape scale, 5-15% of the forest should be in the seedling stage (less than 1" in diameter). Yet we currently have no more than 2-3% early successional stage seedling forest across the state. There is also a shortage of forest with large diameter trees (greater than 20"). See more about how you can manage your land with biodiversity in mind in the "Wildlife" section below. (Also refer to *Managing Forests to Enhance Wildlife Diversity in Massachusetts* and *A Guide to Invasive Plants in Massachusetts* in the binder pockets.)

Rare Species: Rare species include those that are **threatened** (abundant in parts of its range but declining in total numbers, those of **special concern** (any species that has suffered a decline that could threaten the species if left unchecked), and **endangered** (at immediate risk of extinction and probably cannot survive without direct human intervention). Some species are threatened or endangered globally, while others are common globally but rare in Massachusetts.

Of the 2,040 plant and animal species (not including insects) in Massachusetts, 424 are considered rare. About 100 of these rare species are known to occur in woodlands. Most of these are found in wooded wetlands, especially vernal pools. These temporary shallow pools dry up by late summer, but provide crucial breeding habitat for rare salamanders and a host of other unusual forest dwelling invertebrates. Although many species in Massachusetts are adapted to and thrive in recently disturbed forests, rare species are often very sensitive to any changes in their habitat

Indispensable to rare species protection is a set of maps maintained by the Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program (NHESP) that show current and historic locations of rare species and their habitats. The maps of your property will be compared to these rare species maps and the result indicated on the upper right corner of the front page of the plan. Prior to any

regulated timber harvest, if an occurrence does show on the map, the NHESP will recommend protective measures. Possible measures include restricting logging operations to frozen periods of the year, or keeping logging equipment out of sensitive areas. You might also use information from NHESP to consider implementing management activities to improve the habitat for these special species.

Riparian and Wetlands Areas: Riparian and wetland areas are transition areas between open water features (lakes, ponds, streams, and rivers) and the drier terrestrial ecosystems. More specifically, a **wetland** is an area that has hydric (wet) soils and a unique community of plants that are adapted to live in these wet soils. Wetlands may be adjacent to streams or ponds, or a wetland may be found isolated in an otherwise drier landscape. A **riparian area** is the transition zone between an open water feature and the uplands (see Figure 1). A riparian zone may contain wetlands, but also includes areas with somewhat better drained soils. It is easiest to think of riparian areas as the places where land and water meet.

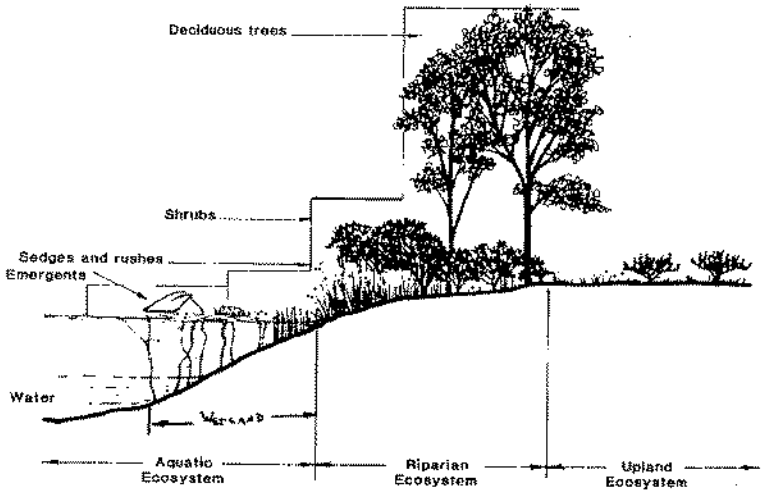


Figure 1: Example of a riparian zone.

The presence of water in riparian and wetland areas make these special places very important. Some of the functions and values that these areas provide are described below:

Filtration: Riparian zones capture and filter out sediment, chemicals and debris before they reach streams, rivers, lakes and drinking water supplies. This helps to keeps our drinking water cleaner, and saves communities money by making the need for costly filtration much less likely.

Flood control: By storing water after rainstorms, these areas reduce downstream flooding. Like a sponge, wetland and riparian areas absorb stormwater, then release it slowly over time instead of in one flush.

Critical wildlife habitat: Many birds and mammals need riparian and wetland areas for all or part of their life cycles. These areas provide food and water, cover, and travel corridors. They are often the most important habitat feature in Massachusetts' forests.

Recreational opportunities: Our lakes, rivers, streams, and ponds are often focal points for recreation. We enjoy them when we boat, fish, swim, or just sit and enjoy the view.

In order to protect wetlands and riparian areas and to prevent soil erosion during timber harvesting activities, Massachusetts promotes the use of "Best Management Practices" or BMPs. Maintaining or reestablishing the protective vegetative layer and protecting critical areas are the two rules that underlie these common sense measures. DCR's Massachusetts Forestry Best Practices Manual (included with this plan) details both the legally required and voluntary specifications for log landings, skid trails, water bars, buffer strips, filter strips, harvest timing, and much more.

The two Massachusetts laws that regulate timber harvesting in and around wetlands and riparian areas are the Massachusetts Wetlands Protection Act (CH 131), and the Forest Cutting Practices Act (CH132). Among other things, CH132 requires the filing of a cutting plan and on-site inspection of a harvest operation by a DCR Service Forester to ensure that required BMPs are being followed when a commercial harvest exceeds 25,000 board feet or 50 cords (or combination thereof).

Soil and Water Quality: Forests provide a very effective natural buffer that holds soil in place and protects the purity of our water. The trees, understory vegetation, and the organic material on the forest floor reduce the impact of falling rain, and help to insure that soil will not be carried into our streams and waterways.

To maintain a supply of clean water, forests must be kept as healthy as possible. Forests with a diverse mixture of vigorous trees of different ages and species can better cope with periodic and unpredictable stress such as insect attacks or windstorms.

Timber harvesting must be conducted with the utmost care to ensure that erosion is minimized and that sediment does not enter streams or wetlands. Sediment causes turbidity which degrades water quality and can harm fish and other aquatic life. As long as Best Management Practices (BMPs) are implemented correctly, it is possible to undertake active forest management without harming water quality.

Forest Health: Like individual organisms, forests vary in their overall health. The health of a forest is affected by many factors including weather, soil, insects, diseases, air quality, and human activity. Forest owners do not usually focus on the health of a single tree, but are concerned about catastrophic events such as insect or disease outbreaks that affect so many individual trees that the whole forest community is impacted.

Like our own health, it is easier to prevent forest health problems then to cure them. This preventative approach usually involves two steps. First, it is desirable to maintain or encourage a wide diversity of tree species and age classes within the forest. This diversity makes a forest less susceptible to a single devastating health threat. Second, by thinning out weaker and less desirable trees, well-spaced healthy individual trees are assured enough water and light to thrive. These two steps will result in a forest of vigorously growing trees that is more resistant to environmental stress.

Fire: Most forests in Massachusetts are relatively resistant to catastrophic fire. Historically, Native Americans commonly burned certain forests to improve hunting grounds. In modern times, fires most often result from careless human actions. The risk of an unintentional and damaging fire in your woods could increase as a result of logging activity if the slash (tree tops, branches, and debris) is not treated correctly. Adherence to the Massachusetts slash law minimizes this risk. Under the law, slash is to be removed from buffer areas near roads, boundaries, and critical areas and lopped close to the ground to speed decay. Well-maintained woods roads are always desirable to provide access should a fire occur.

Depending on the type of fire and the goals of the landowner, fire can also be considered as a management tool to favor certain species of plants and animals. Today the use of prescribed burning is largely restricted to the coast and islands, where it is used to maintain unique natural communities such as sandplain grasslands and pitch pine/scrub oak barrens. However, state land managers are also attempting to bring fire back to many of the fire-adapted communities found elsewhere around the state.

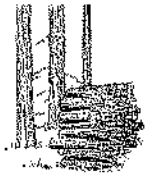
Wildlife Management: Enhancing the wildlife potential of a forested property is a common and important goal for many woodland owners. Sometimes actions can be taken to benefit a particular species of interest (e.g., put up Wood Duck nest boxes). In most cases, recommended management practices can benefit many species, and fall into one of three broad strategies. These are **managing for diversity, protecting existing habitat, and enhancing existing habitat**.

Managing for Diversity – Many species of wildlife need a variety of plant communities to meet their lifecycle requirements. In general, a property that contains a diversity of habitats will support a more varied wildlife population. A thick area of brush and young trees might provide food and cover for grouse and cedar waxwing; a mature stand of oaks provides acorns for foraging deer and turkey; while an open field provides the right food and cover for cottontail rabbits and red fox. It is often possible to create these different habitats on your property through active management. The appropriate mix of habitat types will primarily depend on the composition of the surrounding landscape and your objectives. It may be a good idea to create a brushy area where early successional habitats are rare, but the same practice may be inappropriate in the area's last block of mature forest.

Protecting Existing Habitat – This strategy is commonly associated with managing for rare species or those species that require unique habitat features. These habitat features include vernal pools, springs and seeps, forested wetlands, rock outcrops, snags, den trees, and large blocks of unbroken forest. Some of these features are rare, and they provide the right mix of food, water, and shelter for a particular species or specialized community of wildlife. It is important to recognize their value and protect their function. This usually means not altering the feature and buffering the resource area from potential impacts.

Enbancing Existing Habitat – This strategy falls somewhere between the previous two. One way the wildlife value of a forest can be enhanced is by modifying its structure (number of canopy layers, average tree size, density). Thinning out undesirable trees from around large crowned mast (nut and fruit) trees will allow these trees to grow faster and produce more food. The faster growth will also accelerate the development of a more mature forest structure, which is important for some species. Creating small gaps or forest openings generates groups of seedlings and saplings that provide an additional layer of cover, food, and perch sites.

Each of these three strategies can be applied on a single property. For example, a landowner might want to increase the habitat diversity by reclaiming an old abandoned field. Elsewhere on the property, a stand of young hardwoods might be thinned to reduce competition, while a "no cut" buffer is set up around a vernal pool or other habitat feature. The overview, stand description and management practice sections of this plan will help you understand your woodland within the context of the surrounding landscape and the potential to diversify, protect or enhance wildlife habitat.



Wood Products: If managed wisely, forests can produce a periodic flow of wood products on a sustained basis. Stewardship encompasses finding ways to meet your current needs while protecting the forest's ecological integrity. In this way, you can harvest timber and generate income without compromising the opportunities of future generations.

Massachusetts forests grow many highly valued species (white pine, red oak, sugar maple, white ash, and black cherry) whose lumber is sold throughout the world. Other lower valued species (hemlock, birch, beech, red maple) are marketed locally or regionally, and become products like pallets, pulpwood, firewood, and lumber. These products and their associated value-added industries contribute between 200 and 300 million dollars annually to the Massachusetts economy.

By growing and selling wood products in a responsible way you are helping to our society's demand for these goods. Harvesting from sustainably managed woodlands – rather than from unmanaged or poorly managed forest – benefits the public in a multitude of ways. The sale of timber, pulpwood, and firewood also provides periodic income that you can reinvest in the property, increasing its value and helping you meet your long-term goals. Producing wood products helps defray the costs of owning woodland, and helps private landowners keep their forestland undeveloped.

Cultural Resources: Cultural resources are the places containing evidence of people who once lived in the area. Whether a Native American village from 1,700 years ago, or the remains of a farmstead from the 1800's, these features all tell important and interesting stories about the landscape, and should be protected from damage or loss.

Massachusetts has a long and diverse history of human habitation and use. Native American tribes first took advantage of the natural bounty of this area over 10,000 years ago. Many of these villages were located along the coasts and rivers of the state. The interior woodlands were also used for hunting, traveling, and temporary camps. Signs of these activities are difficult to find in today's forests. They were obscured by the dramatic landscape impacts brought by European settlers as they swept over the area in the 17th and 18th centuries.

By the middle 1800's, more than 70% of the forests of Massachusetts had been cleared for crops and pastureland. Houses, barns, wells, fences, mills, and roads were all constructed as woodlands were converted for agricultural production. But when the Erie Canal connected the Midwest with the eastern cities, New England farms were abandoned for the more productive land in the Ohio River valley, and the landscape began to revert to forest. Many of the abandoned buildings were disassembled and moved, but the supporting stonework and other changes to the landscape can be easily seen today.

One particularly ubiquitous legacy of this period is stone walls. Most were constructed between 1810 and 1840 as stone fences (wooden fence rails had become scarce) to enclose sheep within pastures, or to exclude them from croplands and hayfields. Clues to their purpose are found in their construction. Walls that surrounded pasture areas were comprised mostly of large stones, while walls abutting former cropland accumulated many small stones as farmers cleared rocks turned up by their plows. Other cultural features to look for include cellar holes, wells, old roads and even old trash dumps.

Recreation and Aesthetic Considerations: Recreational opportunities and aesthetic quality are the most important values for many forest landowners, and represent valid goals in and of themselves. Removing interfering vegetation can open a vista or highlight a beautiful tree, for example. When a landowner's goals include timber, thoughtful forest management can be used to accomplish silvicultural objectives while also reaching recreational and/or aesthetic objectives. For example, logging trails might be designed to provide a network of cross-country ski trails that lead through a variety of habitats and reveal points of interest.

If aesthetics is a concern and you are planning a timber harvest, obtain a copy of this excellent booklet: *A Guide to Logging Aesthetics: Practical Tips for Loggers, Foresters & Landowners*, by Geoffrey T. Jones, 1993. (Available from the Northeast Regional Agricultural Engineering Service, (607) 255-7654, for $7). Work closely with your consultant to make sure the aesthetic standards you want are included in the contract and that the logger selected to do the job executes it properly. The time you take to plan ahead of the job will reward you and your family many times over with a fuller enjoyment of your forest, now and well into the future.

Invasive Species Management: Invasive species pose immediate and long-term threats to the woodlands of MA. Defined as a non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human, animal, or plant health, invasives are well-adapted to a variety of environmental conditions, out-compete more desirable native species, and often create monocultures devoid of biological diversity. The websites of the Invasive Plant Atlas of New England, www.nbii-nin.ciesin.columbia.edu/ipane, and the New England Wildflower Society, www.newfs.org are excellent sources of information regarding the identification and management of invasive plants. Some of the common invasive plants found in MA are listed below.

- Oriental Bittersweet (Celastrus orbiculata)
- Glossy Buckthorn (Frangula alnus)
- Multiflora Rose (Rosa multiflora)
- Japanese Barberry (Berbis thunbergii)
- Japanese Knotweed (Fallopia japonica)
- Autumn Olive (Eleaeagnus umbellata)

Early detection and the initiation of control methods soon after detection are critical to suppressing the spread of invasive species. Selective application of the proper herbicide is often the most effective control method. See the next section for information on the use of chemicals in forest management activities.

Pesticide Use

Pesticides such as herbicides, insecticides, fungicides, and rodenticides are used to control "pests". A pest is any mammal, bird, invertebrate, plant, fungi, bacteria or virus deemed injurious to humans and/or other mammals, birds, plants, etc. The most common forest management use of a pesticide by woodland owners is the application of herbicide to combat invasive species. MA DCR suggests using a management system(s) that promotes the development and adoption of environmentally friendly no-chemical methods of pest management that strives to avoid the use of chemical pesticides. If chemicals are used, proper equipment and training should be utilized to minimize health and environmental risks. In Massachusetts, the application of pesticides is regulated by the MA Pesticide Control Board. For more information, contact MA Department of Agricultural Resources (MDAR), Pesticide Bureau at (617) 626-1776

On MA Private Lands Group Certification member properties, no chemicals listed in CHEMICAL PESTICIDES IN CERTIFIED FORESTS: INTERPRETATION OF THE FSC PRINCIPLES AND CRITERIA, Forest Stewardship Council, Revised and Approved, July 2002, may be used.

This is your Stewardship Plan. It is based on the goals that you have identified. The final success of your Stewardship Plan will be determined first, by how well you are able to identify and define your goals, and second, by the support you find and the resources you commit to implement each step.

It can be helpful and enjoyable to visit other properties to sample the range of management activities and see the accomplishments of others. This may help you visualize the outcome of alternative management decisions and can either stimulate new ideas or confirm your own personal philosophies. Don't hesitate to express your thoughts, concerns, and ideas. Keep asking questions! Please be involved and enjoy the fact that you are the steward of a very special place.

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	1	WH	21.9	12.1	137	4.7 MBF 12.3 Cords	65 (WP)

Stand 1 is a mixed-species stand dominated by white pine (43% of BA), white oak (24% of BA), scarlet oak (15% of BA) and red maple (15% of BA). The stand appears to have developed on an old-field, that was likely pasture, and contains some scattered, large, open-grown trees. The quality of the timber in the stand is low. Advance regeneration is patchy.

The stand's understory cover is 38%. It is dominated by glossy buckthorn (13%), red maple (9%) and white pine (7%). Cover in the groundcover stratum is 36%. Pennsylvania sedge and common dewberry are the predominant species.

The topography in the stand is gently sloping with varying aspects. There are no wetlands within Stand 1, other than a very small certified vernal pool near Route 2. The soil type in most of the stand is mapped as Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management. In the southwest portion of Stand 1 there is a narrow band of soil mapped as Ridgebury Fine Sandy Loam. Ridgebury soils are poorly drained soils that formed within depressions and drainage ways on compact glacial till. Due to their wetness Ridgebury soils can impose severe limitations on equipment operation, and withthrow and seedling mortality can be high. It does not appear that the Ridgebury soils on this site are as wet as typical, possible due to changes in hydrology caused by Route 2.

No unusual insect or disease problems were noted. Most of the white pine in the stand has been deformed by white pine weevil, as is typical in old field stands. Invasive shrub species are abundant, particularly glossy buckthorn. Invasive species are not abundant in the groundcover stratum. No cultural features other than stone walls were noted.

Stand 1 is in an intermdiatee stage of develop during which wildlife habitat quality and diversity is relatively low. The oaks in the stand do, however, provide for an abundant acorn crop. Acorns are an important food for a large number of wildlife species including deer, turkey, blue jays and most small mammals. Given the landscape position of the property it is likely to be inhabited primarily by habitat generalists that do well close to human disturbance. The stand does, however, support some forest species.

The desired future condition of Stand 1 is to maintain it as a mixed pine and hardwood stand. Cuttings may be considered that will improve habitat diversity and improve timber quality.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission Town(s) Acton

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	2	WO	7.0	10.5	115	3.5 MBF 13.7 Cords	65 (RO)

Stand 2 is a mixed-species stand dominated by scarlet oak (52% of BA), white oak (22% of BA), black oak (9% of BA) and red oak (9% of BA). The stand is well-stocked with acceptable growing stock. The trees in the stand are large-pole to small-sawlog sized and are generally of good quality. Advance regeneration is fairly abundant and includes red, black and white oaks, white pine and red maple.

The stand's understory cover is 16%. It is dominated by small saplings of white pine (8% cover) and red maple (6% cover). Cover in the groundcover stratum is 34%. Huckleberry is the most abundant species providing 14% cover. Lowbush blueberry, white oak and Canada mayflower are also common.

The topography in the stand is flat to gently sloping with varying aspects. There are no wetlands within Stand 2. The soil type mapped in the stand is Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management.

No unusual insect or disease problems were noted. The stand could be susceptible to defoliation during a gypsy moth outbreak due to the predominance of oaks. Some glossy buckthorn, a non-native, invasive species, was observed in the stand, but in relatively low density. No cultural features other than stone walls were noted.

Like Stand 1, Stand 2 is in an intermediate stage of develop during which wildlife habitat quality and diversity is relatively low. The abundance and diversity of oaks in the stand should yield a consistent acorn crop. Acorns are an important food for a large number of wildlife species including deer, turkey, blue jays and most small mammals, and as a result this stand is likely an important feeding area during the fall and early winter. Given the landscape position of the property it is likely to be inhabited primarily by habitat generalists that do well close to human disturbance. The stand does, however, support some forest species.

The desired future condition of Stand 2 is to maintain it as a mixed oak stand. It does not appear that any treatment or cutting in this stand will be necessary for some time. Control of the glossy buckthorn, and any other invasive species that may occur, would be advisable to ensure that these species do not hinder future regeneration of desirable tree species.

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	3	WH	4.2	4.6	120	0.7 MBF 9.0 Cords	65 (WP)

Stand 3 is an immature, mixed-species stand dominated by red maple (33% of BA), white oak (28% of BA), quaking aspen (23% of BA) and white pine (11% of BA). While white pine makes up a relatively small proportion of the basal area, most of the larger trees in the stand are pines. The stand appears to have developed on an old-field, that was likely pasture. The quality of the timber in the stand, especially the larger trees, is extremely low. Accordingly, stocking with acceptable growing stock is low. Invasive species are prevalent in the understory. Advance regeneration is sparse, but this is not an issue due to the stand's young age.

The stand's understory cover is 70%. It is dominated by glossy buckthorn (42% cover) and white pine (17%). Cover in the groundcover stratum is 45%. Pennsylvania sedge (20% cover) and lowbush blueberry (10% cover) are the predominant species.

The topography in the stand is flat to very gently sloping with an easterly aspect. There are no wetlands within Stand 3. The soil type mapped in all of the stand is Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management.

No unusual insect or disease problems were noted. Virtually all of the white pine in the stand has been deformed by white pine weevil, as is typical in old field stands. Invasive shrub species are extremely abundant, particularly glossy buckthorn. Invasive species are not abundant in the gourndcover stratum. No cultural features other than stone walls were noted.

Stand 3 appears to provide important wildlife habitat, although its quality may be impaired by the invasive species. The stand is still immature enough to support early successional habitat for species such as towhees, catbirds, and many small mammals. In addition, there is dense cover that can be used by a wide variety of species for nesting, feeding and cover.

The desired future condition of Stand 3 is to maintain it as a patch of early successional habitat. In the immediate future the invasive species need to be controlled. Once the invasives are under control the stand should be periodically cut and/or mowed to set back succession to an early stage. Ideally about half the stand should be managed every 5 years.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission Town(s) Acton

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	4	OH	7.1	12.8	116	5.2 MBF 6.4 Cords	70 (WP)

Stand 4 is the most mature forest on the property. Much of the stand is a wooded wetland, however there are significant upland areas as well. The stand contains several very large trees. The stand is well-stocked with acceptable growing stock, although some of the trees are becoming over-mature. It is dominated by red maple (45% of BA), black oak (24% of BA), white oak (10% of BA) and scarlet oak (10% of BA). Advance regeneration is present, but is not overly abundant, and red maple, black oak, sassafras and red oak are the most common species.

The stand's understory cover is 42%. It is dominated by glossy buckthorn (13% cover), red maple (9% cover), highbush blueberry (10% cover) and sassafras (7% cover) . Cover in the groundcover stratum is 90%. Cinnamon fern (34% cover,), Pennsylvania sedge (13% cover), skunk cabbage (12% cover), lady fern (12% cover) and swamp dewberry (10%) are the predominant species.

The topography in the stand is flat to moderately sloping with an easterly aspect. Over half of the stand is wetland, and there is a certified vernal pool near Route 2. The soil type in upland portion of the stand is mapped as Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management. The soil type in the wetland portion of the stand is Whitman Loam. Whitman soils are very poorly drained, and formed on compact glacial till in depressions and drainage ways. The water table in these soils is at or near the surface for much of the year. Whitman Loam can impose severe limitations on most aspects of forest management.

No unusual insect or disease problems were noted. Glossy buckthorn is prevalent in the understory and other invasive shrub species were observed. No cultural features other than stone walls were noted.

Stand 4 provides excellent conditions for several species of wildlife that require mature forest. Unfortunately, the stand's small size and proximity to Route 2 and areas of active agriculture likely limits the ability of these species to inhabit Stand 4. It does, however, provide good conditions for nesting and roosting owls and hawks, for the very reasons noted above. The oaks in the stand do, however, provide for an abundant acorn crop. Acorns are an important food for a large number of wildlife species including deer, turkey, blue jays and most small mammals. Given the landscape position of the property it is likely to be inhabited primarily by habitat generalists that do well close to human disturbance. The stand does, however, support some forest species.

The desired future condition of Stand 4 is to maintain it as a mixed hardwood stand. For the foreseable future the stand should not be actively managed to maximize its aesthetics, buffering, mature forest habitat quality, and due to the wet conditions.

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	5	AF	0.8	N/A	0	0	65 (WP)(est.)

Stand 5 is a small abandoned field that is starting to revert to forest. It contains scattered apple trees and patches of saplings of several tree species. The remainder of the area is vegetated by grasses, predominantly fescue, goldenrods, milkweed and other herbaceous species.

The topography in the stand is gently sloping with an easterly aspect. There are no wetlands within Stand 5. The soil type mapped in all of the stand is Sudbry Fine Sandy Loam. Sudbury soils are deep and moderately well-drained. They formed in depressions on glacial outwash plains and terraces. Sudbury soils do not impose any severe limitations on forest management.

No unusual insect or disease problems were noted. Invasive species are present but not in large numbers. No cultural features other than stone walls were noted. Stand 5 provides habitat for a variety of small mammals, snakes and songbirds.

The desired future condition of Stand 5 is to maintain it as a patch of early successional habitat dominated by grasses and scattered trees. Consideration should be given to controlling invasive species on a regular basis.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission Town(s) Acton

MANAGEMENT PRACTICES
to be done within next 10 years

OBJ	STD NO	TYPE	SILVICULTURAL PRESCRIPTION	AC	TO BE REMOVED BA/AC	TO BE REMOVED TOT VOL	TIMING
STEW	All		Blaze and Paint Boundaries				2012

The boundaries of the property are to be blazed and painted during the first year of the management period. The purpose of this treatment is to ensure that the boundaries are clearly visible.

STEW	All	WH	Invasive Species Control	41			2012-2021

A plan for the control of non-native, invasive species should be developed and implemented for the site. Invasive shrubs, especially glossy buckthorn, are abundant in many areas of the property. These species have the potential to impair biodiversity, habitat quality and forest regeneration. The control of these invasive species will require extensive cutting and the use of herbicides will likely be necessary. Invasives should be controlled in all of the stands, but the focus should first be on Stand 3 and then Stand 1.

STEW	1	WH	Group Selection	21.9	27	20 MBF; 53 Cords	2012-2015

Stand 1 should receive a group selection cutting near the beginning of the management period. The primary objective of this treatment will be to begin to create a variety of age classes to increase biological diversity. This treatment will create openings that can be utilized by a wide varierty of wildlife. The moderately sized openings will be large enough that regeneration of many tree species should be obtained. A secondary consideration of this treatment will be aesthetics.

Groups of trees should be cut that are between 0.2 and 0.5 acres in size that will encompass 20% of the stand's area. Most groups should be placed to remove patches of the lowest quality trees. Some groups should be located in the areas that contain aspens. Aspens vigorously resprout from their root systems and their cutting usually creates dense thickets of aspen saplings. Aspen thckets are the preferred habitat for woodcock, and young aspens are utilized be many other species for browse and cover. A few of the groups should also be placed around the large, open grown specimen tree to highlight those trees. These specimens trees are being crowded by the younger trees. Removing the competing trees and creating small openings should improve the stand's aesthetic qualities.

OBJECTIVE CODE: CH61 = Forest Products (for Ch. 61/61A/61B) STEW= Stewardship Program practices
STD= stand Type= Forest type AC= acre MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission Town(s) Acton

MANAGEMENT PRACTICES
to be done within next 10 years

OBJ	STD NO	TYPE	SILVICULTURAL PRESCRIPTION	AC	TO BE REMOVED		TIMING
					BA/AC	TOT VOL	
STEW	5	AF	Maintain as Meadow	0.8			2012-2021

Stand 5 should be maintained as a meadow containing a few trees. This small stand has the potential to be an aesthetically pleasing entrance into the property. Scattered trees should be selected to be left as specimen trees, including some of the apples. The remainder of the area should be mowed every one or two years to maintain a mix of grass and herbaceous cover.

STEW All Implement Outreach Plan 2011-2012

The attached Forest Stewardship Outreach Plan should be implemented at the beginning of the management period.

STEW All Wildlife Monitoring 2012-2021

Consideration should be given to monitoring wildlife habitat usage of the property on a regular basis. One option would be to conduct a yearly inventory of breeding birds using a point sampling methodology. Monitoring of wildlife before and after management practices are implemented would document changes in wildlife usage, and could be used to guide future management decisions.

OBJECTIVE CODE: CH61 = Forest Products (for Ch. 61/61A/61B) STEW= Stewardship Program practices
STD= stand Type= Forest type AC= acre MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission Town(s) Acton

FOREST STEWARDSHIP OUTREACH PLAN
TOWN OF ACTON, CONSERVATION COMMISSION

Goals: The desired goal of the Outreach Plan is to educate the public about the benefits of active management, and to gain its acceptance and support of multiple-use management of the town's open space.

Target Audience: The Outreach Plan will initially focus on the town's Land Stewards. Each of the town's open space parcels has a volunteer Steward that monitors the properties, works on trails and interacts with users of the property. This target audience should have the interest to participate in the outreach activities. In addition, if the Stewards come to understand and appreciate the benefits of management, they will be able to pass that on to the users of the towns open space, significantly leveraging the outreach effort. After conducting outreach with the Stewards the plan should be expanded to the general public.

Message: The primary message of the outreach effort will be that active forest management can be used to accomplish a wide variety of goals, including increasing biodiversity, managing for declining wildlife species and the generation of income that can be used to improve existing properties.

Activities: The initial phase of the plan will be to conduct walks with the Stewards to view forests that have been actively managed, explaining the goals of the management on those sites and discussing the outcomes. The sites to be viewed have not yet been definitely determined, but may include a site in Acton that has been managed using the shelterwood system, and a site in Westminster where large clearcuts have been used to create early successional habitat for songbirds. The second phase will be to conduct a walk on the Wetherbee lot to discuss the management measures proposed there.

The next phase of the outreach should be to expand it to the general public, hopefully with the participation of the Stewards. It is anticipated that the outreach will consist of "walks in the woods" on town-owned lands or possibly on other nearby managed woodlands. Ideally the walks would be held on a regular basis, possibly once or twice per year. Other outreach efforts may be considered based upon experience with the outreach program and input from participants.

In addition, information on the benefits of management will be added to the Conservation Commission's website by adding documents and/or providing links to other websites.

Advertising: The Stewards will be contacted by the Conservation Commission administrator by email and/or telephone. The best means to advertise the walks with the general public still needs to be determined.

Implementation: The initial walks with the Land Stewards should take place during 2011. The recommended schedule to accomplish this will be to determine the sites to be viewed and gain permission from the owners by August 15. The initial walk should be scheduled to take place in September 2011. The discussion at the Wetherbee lot should be scheduled for two to four weeks after the initial walk, likely taking place in October 2011. The work on the Commission's website should take place during the winter of 2011/2012. The outreach walks would the general public should begin in 2012, and continue regularly thereafter.

Owner(s): Town of Acton; Conservation Commission Town: Acton

FOREST STEWARDSHIP OUTREACH PLAN
TOWN OF ACTON, CONSERVATION COMMISSION

Outreach Plan Summary:

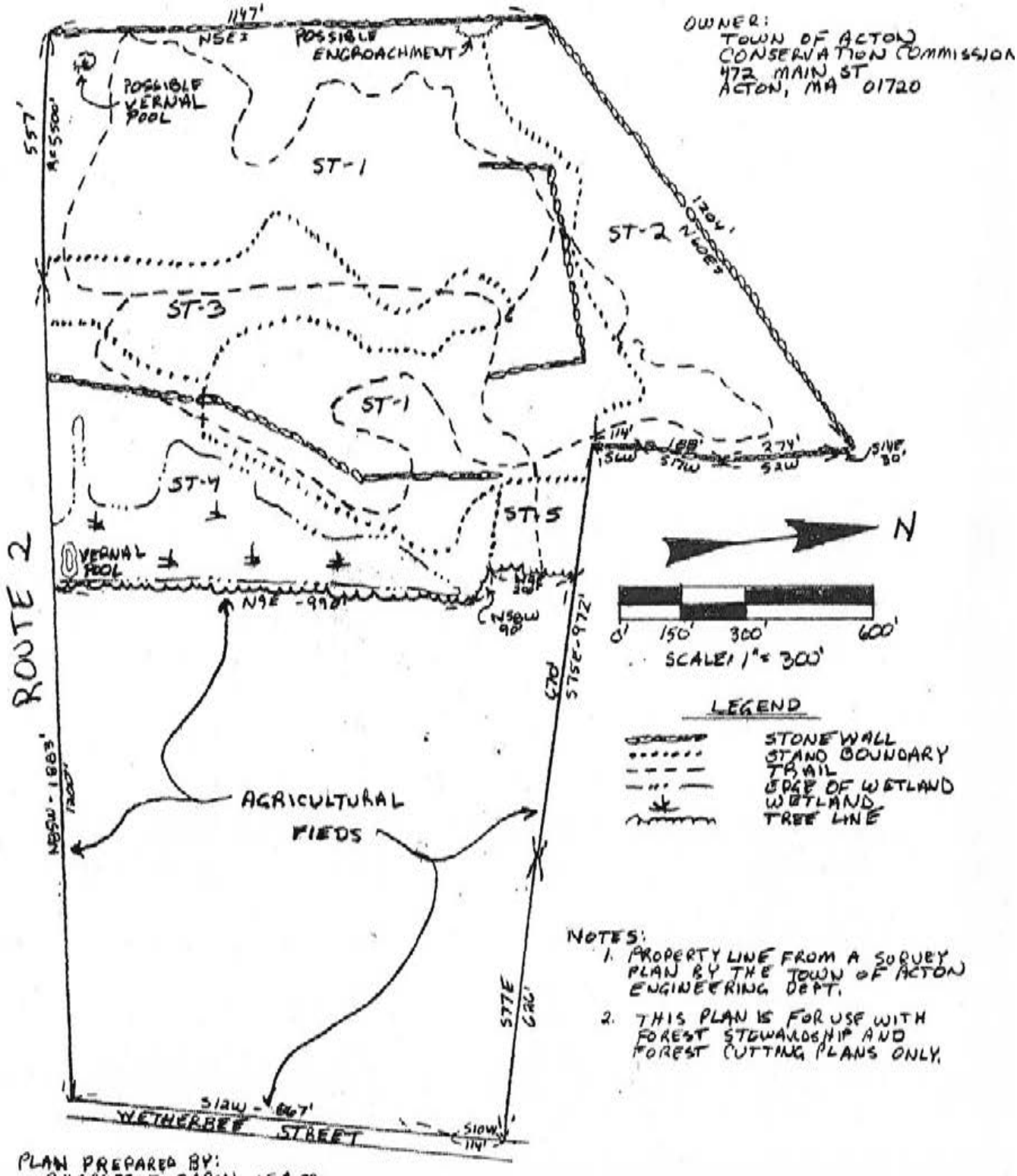
GOAL	TARGET AUDIENCE	MESSAGE	ACTIVITIES	ADVERTISING	IMPLEMENTATION
To gain the public's appreciation of the benefits of forest management.	The town's Land Stewards and the general public.	Active forest management can be used to accomplish a wide variety of beneficial goals.	Walks and discussions with the Land Stewards, followed by walks with the general public. In addition, information on forest management will be added to the Conservation Commission's web page.	The Land Stewards will be contacted by email or telephone. The best means to reach the general public needs to be determined.	The walks with the Land Stewards should take place in the late-summer to early-fall of 2011, walks with the public should begin in 2012 and work on the website should occur during the winter of 2011/2012.

Owner(s): Town of Acton; Conservation Commission

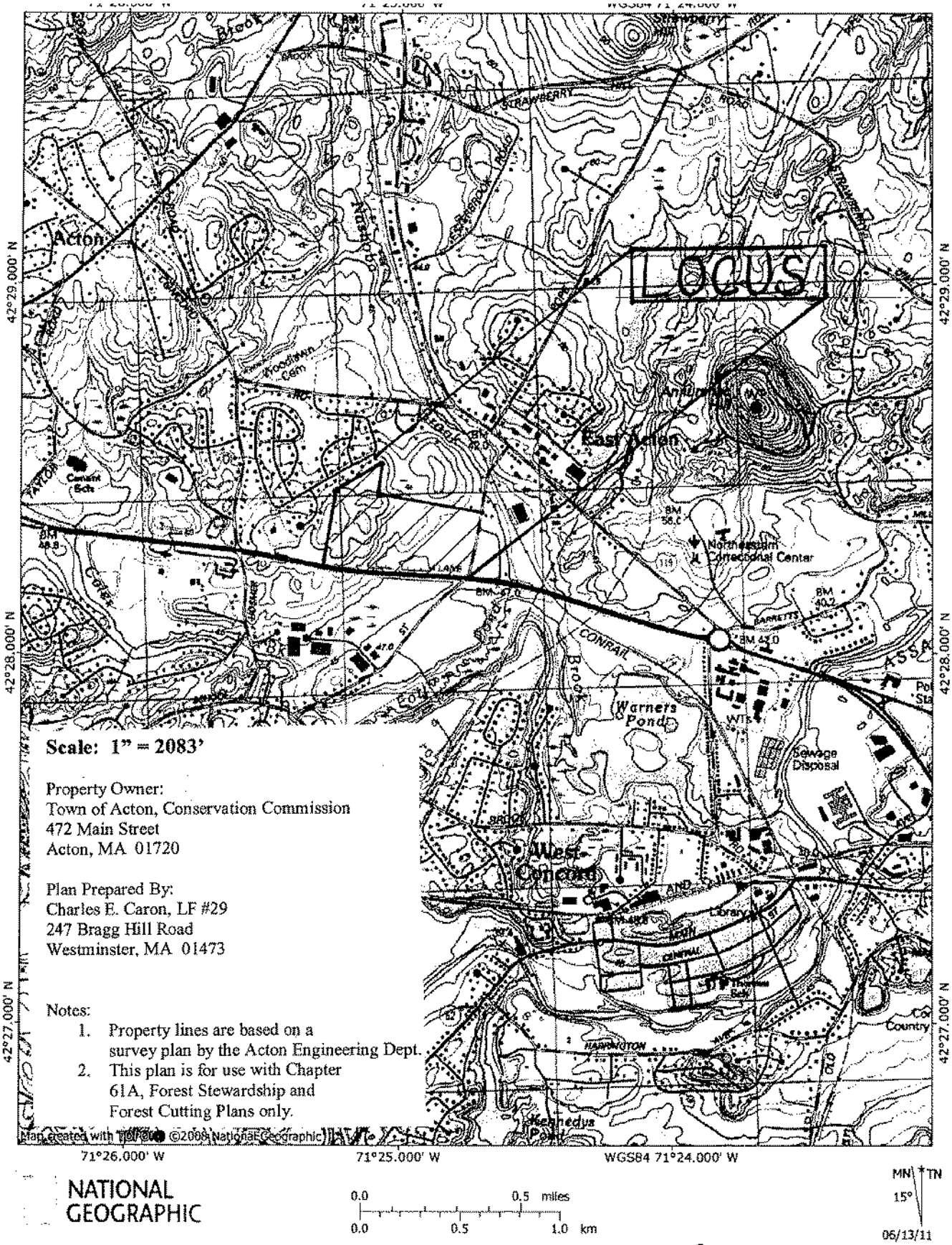
Town: Acton

Page: 19 of 22

ACTON CONSERVATION COMMISSION
WETHERBEE LAND



PLAN PREPARED BY:
CHARLES E. CARON, LF # 29
247 BRAGG HILL RD
WESTMINSTER MA 01473
JUNE 2011


LOCUS
Acton
East Acton
West Concord
Warners Pond
Kennedys Pond
Sewage Disposal
Scale: 1" = 2083'
Property Owner:
Town of Acton, Conservation Commission
472 Main Street
Acton, MA 01720
Plan Prepared By:
Charles E. Caron, LF #29
247 Bragg Hill Road
Westminster, MA 01473
Notes:
1. Property lines are based on a survey plan by the Acton Engineering Dept.
2. This plan is for use with Chapter 61A, Forest Stewardship and Forest Cutting Plans only.
Map created with TOPO! ©2008 National Geographic
71°26.000' W
71°25.000' W
WGS84 71°24.000' W
42°29.000' N
42°28.000' N
42°27.000' N
NATIONAL GEOGRAPHIC
0.0 0.5 miles
0.0 0.5 1.0 km
MN TN
15°
06/13/11

Page 21 of 22

Revised May 2009

Signature Page Please check each box that applies.

☐ **CH. 61/61A Management Plan** I attest that I am familiar with and will be bound by all applicable Federal, State, and Local environmental laws and /or rules and regulations of the Department of Conservation and Recreation. I further understand that in the event that I convey all or any portion of this land during the period of classification, I am under obligation to notify the grantee(s) of all obligations of this plan which become his/hers to perform and will notify the Department of Conservation and Recreation of said change of ownership.

☒ **Forest Stewardship Plan.** When undertaking management activities, I pledge to abide by the management provisions of this Stewardship Management Plan during the ten year period following approval. I understand that in the event that I convey all or a portion of the land described in this plan during the period of the plan, I will notify the Department of Conservation and Recreation of this change in ownership.

☐ **Green Certification.** I pledge to abide by the FSC Northeast Regional Standards and MA private lands group certification for a period of five years. To be eligible for Green Certification you must also check the box below.

☐ **Tax considerations.** I attest that I am the registered owner of this property and have paid any and all applicable taxes, including outstanding balances, on this property.

Signed under the pains of perjury: Town of Acton

Owner(s) Acton Conservation Commission Date 6/28/2011

Owner(s) Terrence Maitland, CHAIR Date 6/28/2011

I attest that I have prepared this plan in good faith to reflect the landowner's interest.

Plan Preparer [signature] Date 6/15/11

I attest that the plan satisfactorily meets the requirements of CH61/61A and/or the Forest Stewardship Program.

Approved, Service Forester Laura Dooley Date 7/27/11

Approved, Regional Supervisor _____ Date _____

In the event of a change of ownership of all or part of the property, the new owner must file an amended Ch. 61/61A plan within 90 days from the transfer of title to insure continuation of Ch. 61/61A classification.

Owner(s) Town of Acton Conservation Commission Town(s) Acton

RECEIVED
SEP 12 2011

OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Grassy Pond Conservation Land Meadow Management Recommendations Acton, MA

Prepared for:

Town of Acton Natural Resources Department
472 Main Street
Acton, MA 01720

Prepared by:

Oxbow Associates, Inc.
P.O. Box 971
Acton, MA 01720-0971
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January 24, 2013

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GRASSY POND CONSERVATION LAND

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow on the Grassy Pond Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Grassy Pond Conservation Land.

Grassy Pond Conservation Land Meadow Habitat Goals

1) Maximize diversity of native flora associated with the early successional community
2) Minimize or eradicate invasive flora

Meadow Management Suggestions

- Mow the full extent of meadow management area at least once annually

  This will reduce growth of woody species and promote growth of grasses and forbs.

  Oriental bittersweet and multiflora rose are present within portions of the meadow (particularly, a large patch in the center, with lesser amounts in the northwestern corner). These invasive shrubby areas can be easily differentiated from the grassy/forb-covered areas by the grayish-brown, woody stems rather than green herbaceous areas. Multiple annual close-cropped mowings within the shrubby patches within the meadow will control and help eliminate these invasive plants and promote the desired herbaceous vegetation cover.

  Conversely, if possible, selectively avoid mowing areas containing milkweed (a larval moth host plant) until it has developed mature seed pods. Mowing of milkweed individuals or patches between November 1st and May 1st will help promote the spread of this perennial herb.

- Selectively remove woody invasive plant species along meadow margins

  The northern and western margins of the meadow contain mostly native plant species, however, the southern and eastern margins of the meadow are laden with oriental bittersweet, multiflora rose, honeysuckle, barberry, winged euonymus, Norway maple, and glossy buckthorn (with denser patches to the west and in the southeastern corner). The bordering specimens provide a regular source of seeds that can spread into the meadow. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) can also be a very effective method of controlling these invasive plants.

  Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the typical May-June flowering period, prior to fruiting.

  Cut or pulled invasive plants should be piled for burning during winter.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Grassy Pond Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

GRASSY POND CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,

Brett Trowbridge
Field Biologist

Enclosures:
Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

Grassy Pond Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Mowing and Cutting

- Mow all vegetation growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs along the margins.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

Grassy Pond Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morowii*), Barberries (*Berberis vulgaris* and *B. thungbergii*), winged euonymus (*Euonymus alatus*), Norway maple (*Acer platanoides*), and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.

- Target patches of milkweed (*Ascleapias syriaca*) for preservation.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled "Cut" or "Mow".

YELLOW = MOW or CUT

- Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled "Avoid"

ORANGE = AVOID

- Please consider use of bio/photodegradable flagging tape (available at: http://www.forestry-suppliers.com/ or http://www.benmeadows.com/)

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OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Heath Hen Meadow Conservation Land Meadow Management Recommendations Acton, MA

Prepared for:

Town of Acton Natural Resources Department
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January 4, 2013

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HEATH HEN MEADOW CONSERVATION LAND

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the 2 meadows on the Heath Hen Meadow Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Heath Hen Meadow Conservation Land.

Heath Hen Meadow Conservation Land Meadow Habitat Goals

1) Maximize diversity of native flora associated with the early successional community
2) Minimize or eradicate invasive flora

Southern Meadow Management Suggestions

- Mow the full extent of meadow management area at least twice annually

  This will prevent further establishment of woody species and promote growth of grasses and forbs. Oriental bittersweet vines are prevalent along the margins of the southern (larger) meadow and also within the northern portion of the meadow itself. Multiple annual mowings will eliminate this invasive vine and promote herbaceous vegetation cover.

- Selectively remove woody invasive plant species along meadow margins

  The periphery of the meadow contains oriental bittersweet and glossy buckthorn (with denser patches to the west and in the southeastern corner). The bordering specimens provide a regular source of seeds that can spread into the meadow. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) can also be a very effective method of controlling glossy buckthorn and oriental bittersweet.

  Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

  Cut or pulled invasive plants should be piled for burning during winter.

- Consider removal of the black plastic on the western meadow margin

  The black plastic along the western edge of the meadow, presumably used to prevent growth of invasive plants, has deteriorated and is no longer serving its intended purpose. The proposed mowing regime will eliminate the need for the plastic, which in its current condition, is prone to littering the landscape.

Northern Meadow Management Suggestions

- Mow the full extent of meadow management area as frequently as possible

  Glossy buckthorn is rampant within the northern (smaller) meadow. Monthly (or similar) mowing will help stifle further establishment of this invasive shrub and promote growth of grasses and forbs. If resources allow, more frequent mowing will expedite the shift toward dominant herbaceous vegetation cover.

- Remove woody invasive plant species along meadow margins

  Glossy buckthorn is also prevalent along the margins of the northern meadow and within the adjacent woodlands. OA recommends removal via pulling or cutting. Herbicide treatments are also a powerful method of controlling glossy buckthorn.

HEATH HEN MEADOW CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

Cut or pulled invasive plants should be piled for burning during winter. Leaving windrows of invasive plants along the meadow margins to rot is not preferred as this creates thickets that harbor growth of the invasives.

Long term Recommendations

If buckthorn and bittersweet are successfully eradicated from within the meadows, it is likely that a single annual mowing will effectively maintain the early successional meadow habitat. At that point, the addition of native wildflowers will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area.

If resources allow in the future, reclamation of additional meadow habitat by removal of trees, particularly on the west and south flanks of the fields, should be considered. Long shadows cast by these maturing trees reduce the daily insolation of the meadows and encourages the advancement of woody species into the meadows.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Heath Hen Meadow Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,

Brett Trowbridge

Brett Trowbridge
Field Biologist

Enclosures:
Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

Heath Hen Meadow Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Mowing and Cutting

- Mow all vegetation growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs along the margins.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

Heath Hen Meadow Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*) and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled "Cut" or "Mow".

  YELLOW = MOW or CUT
- Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled "Avoid"

  ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: http://www.forestry-suppliers.com/ or http://www.benmeadows.com/)

Botanical References

Cullina, M.D., B. Connolly, B. Sorrie, and P. Somers. 2011. The Vascular Plants of Massachusetts: A County Checklist, First Revision. Massachusetts Natural Heritage and Endangered Species Program, Westborough, MA.

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IPANE. Invasive Plant Atlas of New England: http://www.eddmaps.org/ipane/.

Magee, D.W. and H.E. Ahles. 1999. Flora of the Northeast: A Manual of the Vascular Flora of New England and Adjacent New York. The University of Massachusetts Press, Amherst, MA.

Somers, P., R. Kramer, K. Lombard, and B. Brumback. 2008. A Guide to Invasive Plants in Massachusetts, Second Edition. Massachusetts Division of Fisheries and Wildlife.

OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Jenks Conservation Land Meadow Management Recommendations Acton, MA

Prepared for:

Town of Acton Natural Resources Department
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Prepared by:

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November 29, 2012

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JENKS CONSERVATION LAND

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow habitat on the Jenks Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Jenks Conservation Land. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

Jenks Conservation Land Meadow Habitat Goals

1) Maximize diversity of native flora and fauna associated with early successional communities
2) Minimize or eradicate of invasive flora

Short-term Management Suggestions

- Mow current maximum extents of herbaceous and low shrub growth.
- Retain all apple trees and dogwood and alder patches that have been flagged for preservation.
- Follow-up to identify areas containing invasive plants to be mowed, cut, or pulled.
- Burn piles of pulled and cut invasive plants during winter.

Long-term Management Suggestions

Establish a mosaic of micro-habitats including open areas, native shrubby thickets, and solitary fruit trees. The mosaic will necessarily change throughout time in response to colonization by invasive plants, many seeds of which are spread by birds.

- Identify and allow dense patches of native vegetation to grow to maturity, such as raspberries/blackberries, dogwoods, alder, and sumac (i.e., do not mow or cut for multiple years). This will allow native fruit and stock to be available for seed dispersion and offer mast for wildlife as well as provide protective cover from predators.
- Selectively remove invasive plants within preserved patches and on meadow margins. This will help reduce invasive seed dispersion on the property and surrounding areas.
- Cut/Mow patches of dense vegetation as necessary if overgrown by invasive plants.
- Burn piles of pulled and cut invasive plants during winter.

Timing of Management Efforts

- Mow once annually between October 15th and March 15th. This should minimize negative impacts to fauna such as birds and reptiles. Optimal field conditions for access will most likely exist between October 15th and December 1st (i.e., prior to snow cover).
- Cut or pull invasive plants at any time. For greatest reduction of plants and seed stock, the optimal time for cutting is during the May-June flowering period, prior to fruiting. Most of the invasive plants on the Jenks Conservation Land, Oriental Bittersweet, Multiflora Rose, Honeysuckle, Autumn Olive, and Glossy and Common Buckthorns, tend to flower starting during May and June.

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Monitoring of Management

When those managing the Jenks Conservation Land lack plant identification skills, accompaniment or prior flagging by a person knowledgeable with plant identification (i.e., Land Stewards, Conservation Commissioners, or NRC staff) is recommended. This will ensure that invasive plant species are being managed against and that areas of native vegetation are periodically preserved. OA is happy to assist with plant identification via trainings, email, etc. Also, several valuable botanical references are listed within the enclosed Guidelines for Flagging of Cutting and Preservation Areas.

If resources exist in the future, generation a map or sketch that identifies both cutting and avoidance areas may be helpful for management crews to use in the field.

Enclosed herewith, we present specific guidelines for mowing and cutting crews and separate guidelines for those that may be flagging vegetation for mowing and cutting crews. We suggest that these sets of guidelines be readily available so that vegetation management efforts by others, such as volunteering individuals or groups, adhere to these guidelines.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of the Jenks Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property and it is our belief that this general management plan can be expanded to include other management techniques and goals such as attracting specific species to the meadow on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,

Brett Trowbridge

Brett Trowbridge
Field Biologist

Enclosures:
Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Jenks Conservation Land Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”
YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”
ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morrowii*), Autumn Olive (*Elaeagnus umbellata*), Glossy Buckthorn (*Frangula alnus*), and Common Buckthorn (*Rhamnus cathartica*) for mowing or cutting.
- Target large patches of native vegetation including raspberries/blackberries (*Rubus* spp.), dogwoods (*Swida* spp.), alder (*Alnus* spp.), and sumac (*Rhus* spp.) for preservation. Flag obstacles such as sink holes, rock outcrops, etc. for avoidance.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled "Cut" or "Mow".

  YELLOW = MOW or CUT
- Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled "Avoid"

  ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: http://www.forestry-suppliers.com/ or http://www.benmeadows.com/)

Botanical References

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OXBOW ASSOCIATES, INC.
Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Morrison Farm
Meadow Management Recommendations
Acton, MA

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March 20, 2013

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MORRISON FARM

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the various meadow habitats at Morrison Farm during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadows on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat at Morrison Farm. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

The overall management goals for the meadow habitat on the Morrison Farm property include:

1) Maximizing the diversity of native flora and fauna associated with early successional communities
2) Minimizing or eradicating invasive flora
3) Establishing a mosaic of different types of meadow habitat
4) Provide areas for recreational and agricultural activities

Whereas the property contains extensive (at least 12 acres of) early successional vegetation cover, specifically in the south along Concord Road, it is possible to establish a variety of microhabitats by conducting different management activities in different sub areas. A historic anthropogenic drainage ditch partitions the early successional habitat on the property into 3 distinct regions (see enclosed orthophotograph). By managing the vegetation within each of these regions (the upper meadow, back meadow, and front meadow) differently, we hope to diversify the native plant species composition and enrich the wildlife habitat on the property while providing opportunities for human recreational and agricultural activities.

Upper Meadow Habitat Objectives

- Maintain existing open upland forb and grassland
- Remove invasive shrubs and vines
- Establish areas of native wildflowers and shrubs as wildlife attractants

Upper Meadow Management Suggestions

- Mow maximum extents of herbaceous and low shrub growth once annually between October 15th and March 15th.

  This will prevent colonization of woody species and promote growth of grasses and forbs, while minimizing negative impacts to fauna such as birds and reptiles. Optimal field conditions for access will most likely exist between October 15th and December 1st (i.e., prior to snow cover).

- Selectively remove woody invasive plant species along meadow margins

  Currently a few shrubby copses, dominated by glossy buckthorn, exist within the northern portions of the Upper Meadow. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) can also be a very effective method of controlling glossy buckthorn and oriental bittersweet; repetitive applications may be required.

  Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

MORRISON FARM
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Cut or pulled invasive plants should be piled and burned during winter.

- Consider planting native shrubs and wildflowers

  Whereas the vast majority of the shrub species within and bordering the meadow are non-native invasives that are targeted for removal, it would be desirable to plant native, seed-bearing shrubs as an alternative food source for wildlife such as birds. This would enhance the meadow habitat by increasing local biodiversity and zonation. Many reports indicate that native seeds have higher nutritive value than those of non-native plants.

  Given the rolling topography and both moist and dry soil conditions, OA recommends considering the following native small tree or shrub species fire-cherry (*Prunus pensylvanica*), winterberry (*Ilex verticillata*), hazelnut (*Corylus americana* or *cornuta*), chokeberry (*Aronia* spp.), shadbush (*Amelanchier* spp.), gooseberries (*Ribes americanum* or *hirtellum*), dogwoods (*Swida* spp.), sumacs (*Rhus* spp.), and highbush blueberry (*Vaccinium corymbosum*), although there are many other native options.

  Whereas town garden plots exist on the site, immediately to the south of the upper meadow, it may also be feasible to designate a portion of the upper meadow for cultivation native shrubs to be transplanted to other areas of the site (see back meadow suggestions below) or to transplant on other town-owned property (i.e., Stoneymeade Conservation Area). In this way, a portion of the vast open-canopy upper meadow, which is already set up for irrigation, can temporarily be used as a center for cultivation of native shrubs to be used for other town conservation and habitat enhancement activities.

  The addition of native wildflowers within the upper meadow will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias, Geranium, Scutellaria,* and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

Back Meadow Habitat Objectives

- Maintain existing open forb and grassland
- Increase mowing frequency to provide playing surface for athletic activities
- Remove invasive shrubs and vines along margins
- Establish native shrubs along margins as alternative wildlife food sources

Back Meadow Management Suggestions

- Mow maximum extents of herbaceous growth as needed to maintain playable field surface conditions.

  This will prevent colonization of woody species and promote growth of low grasses and forbs. Optimal conditions for mowing access will most likely exist during summer and fall months when ground water levels are lowest. The close-cropped ground cover will permit athletic uses and will maintain valuable edge habitat for a variety of different species including invertebrates, reptiles, mammals, and birds.

- Selectively remove woody invasive plant species along meadow margins

  Currently the margins of the back meadow are dominated by glossy buckthorn and oriental bittersweet. OA recommends removal via pulling or cutting and potentially, implementation of an herbicide treatment targeting glossy buckthorn and oriental bittersweet.

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

Cut or pulled invasive plants should be piled and burned during winter.

- Consider planting native shrubs along the meadow margins

  To re-vegetate areas managed against invasives, planting of native hydrophilic shrubs such as winterberry, chokeberry, highbush blueberry, or dogwoods will provide alternative food sources for wildlife. The planting of small caliper shrubs is not recommended along the margins of the back meadow given the solar aspect of the area (somewhat shaded by large white pines in the east) and abundance of invasive species cover. However, purchasing large shrub specimens can be cost prohibitive, therefore OA suggests acquiring smaller shrubs to be cultivated within the upper meadow, then transplanted along the margins of the back meadow. Cultivation within the upper meadow will provide adequate sunlight and water without competition from invasives, thereby favoring growth. When the shrubs are substantially developed and less susceptible to crowding out by more aggressive species they can be transplanted.

Front Meadow Habitat Objectives

- Re-establish open habitat
- Remove invasive species
- Promote native vegetation
- Establish access for wildlife viewing

Front Meadow Management Suggestions

- Selectively cut woody vegetation to re-establish previous extents of open habitat

  Woody species, including the invasive glossy buckthorn, have spread throughout most of the front meadow. OA recommends converting the current tall scrub-shrub growth to an open wet meadow with patches of native shrub cover. To do this significant thinning of vegetation within the front meadow will be required. OA suggests cutting of the invasive shrubs and vines, as well as potential herbicide application. Small patches of native shrubs should be avoided to create a smattering of shrubby vegetation for foraging and refuge. Together with the moist soil conditions, the re-defined woodland edges of the front meadow will promote a more diverse assemblage of wildlife.

  Vegetation spoils should be piled and burned during winter.

- Maintain the re-established meadow margins via mowing 1 to 2 times annually

  This will help prevent re-colonization of woody species and promote growth of grasses and forbs. Based on the high ground water within the front meadow, mowing may be recommended during ground frost conditions.

- Consider establishing wildlife viewing access

  The current extents of woody vegetation preclude reasonable access for wildlife viewing. The increased openness resulting from the vegetation management activities suggested for the front meadow will simultaneously promote use by numerous wildlife species and allow for pedestrian passage for viewing. Establishment of footpaths would facilitate access of wildlife enthusiasts. Given the high ground water conditions, boardwalks may be more appropriate.

MORRISON FARM
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Monitoring of Management

When Morrison Farm land managers lack plant identification skills, accompaniment or prior flagging by a person knowledgeable with plant identification (i.e., Land Stewards, Conservation Commissioners, or NRC staff) is recommended. This will ensure that invasive plant species are being managed against and that desirable patches of native vegetation are preserved. OA is happy to assist with plant identification via trainings, email, etc. Also, several valuable botanical references are listed within the enclosed Guidelines for Flagging of Cutting and Preservation Areas.

Enclosed herewith, we provide an orthophotograph to be used as a reference with this document. We also present specific guidelines for mowing and cutting crews and separate guidelines for those that may be flagging vegetation for mowing and cutting crews. We suggest that these sets of guidelines be readily available so that vegetation management efforts by others, such as volunteering individuals or groups, adhere to these guidelines.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of the Morrison Farm meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property and it is our belief that this general management plan can be expanded to include other management techniques and goals such as attracting specific species to the meadow on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,

Brett Trowbridge

Brett Trowbridge
Field Biologist

Enclosures:
2008 Orthophotograph
Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

NARA Park
Meadow Management Recommendations
Acton, MA

Prepared for:

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January 3, 2013

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NARA Park
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow area along the northern margin of the swimming pond at NARA Park during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat.

NARA Park Meadow Habitat Goals

1) Maximize diversity of native flora associated with the early successional community
2) Minimize or eradicate invasive flora
3) Establish and maintain aesthetic appeal of the management area

Management Suggestions

- Mow the meadow management area once annually in the fall

  This will prevent colonization by large woody tree and shrub species and maintain the grass and forb species composition.

- Selectively remove woody invasive plant species

  Specifically target the copse of black locust located between the walking path and the south facing hill along the northwestern margin of the pond. Although, significantly less represented, oriental bittersweet, glossy buckthorn, honeysuckle, multiflora rose, and olive should be cut or pulled as well. The use of herbicide treatment (i.e., cut and dab application) may be necessary to successfully remove the black locust.

- Selectively remove upland herbaceous invasive plants

  Specifically, the spotted knapweed and mugwort (primarily occurring on the south facing hillside slope) should be removed. Mowing/ weed-whacking prior to flowering can diminish seed dispersal, however, full removal is recommended. Manual removal of basal leaves and roots via shovel or fork can be very effective. Similarly, spot herbicide treatment of basal leaves can be effective. Ideally, removal efforts should precede flowering (July-October for both species) so as to interrupt the seed cycle, however, removal efforts can occur year round as conditions and resources allow.

- Work toward removal of wetland herbaceous invasive plants

  Yellow iris is present within the pond (along the boardwalk) and purple loosestrife is somewhat well established in the lower area of the meadow along the pond margin.

  While arguably very attractive, yellow iris is listed as an invasive species, which has a tendency to spread and can be difficult to remove once established. At the very least, OA recommends monitoring the vigor of this species so as to determine if it is out-competing native species and reducing diversity of native flora. If possible, we suggest manual removal of some or all of the yellow iris clumps.

  It is our understanding that the NRC may have the opportunity to conduct *Galerucella* beetle management of the purple loosestrife within the swimming pond. Given the extent of the purple loosestrife on the site and because it is extremely difficult to eradicate manually, OA strongly recommends pursuing inoculation of the NARA Park plants with the beetle. Beetle introduction has been shown to be an effective means of control and can be initiated with a single introduction in many cases. Beetles are seasonally available through the USDA at moderate cost.

NARA Park
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

- Establish a physical barrier delineating the meadow habitat so as to assist mowing crews

  Installation of posts, a row of native trees or shrubs, or other physical barrier will remove any ambiguity between lawn and meadow areas. The barrier will help guide mowing crews, thereby ensuring that the extents of the meadow habitat are maintained.

- Consider planting native wildflowers

  The addition of native wildflowers will increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias* and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

- Native tree cutting and pruning

  Cutting or pruning of the native "pioneer tree species" such as poplars and birches may be desirable to maintain the desired openness of the meadow habitat, establish and preserve vistas, and maintain access for seasonal mowing. Poplars spread clonally and both birches and poplars are prone to form copses or thickets, therefore it may be prudent to remove these species outright or selectively to achieve the habitat and aesthetic goals set forth above.

Closing

The management efforts put forth by the NRC and grounds keeper, Bruce Carley have successfully established a meadow at NARA Park that provides a scenic landscape and creates valuable habitat for wildlife. OA hopes that the above recommendations support and add to the current beauty and wildlife diversity on the site.

The recommendations and guidelines contained within this document are OA's professional opinions for management of NARA Park meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,

Brett Trowbridge

Brett Trowbridge
Field Biologist

OXBOW ASSOCIATES, INC.
Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Stoneymeade Conservation Land Meadow Management Recommendations Acton, MA

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January 4, 2013

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STONEYMEADE CONSERVATION LAND

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow on Stoneymeade Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Stoneymeade Conservation Land. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

Stoneymeade Conservation Land Meadow Habitat Goals

1) Maximize diversity of native flora associated with the early successional community
2) Minimize or eradicate invasive flora

Management Suggestions

- Mow the meadow management area once annually in the fall

  This will prevent colonization by large woody tree and shrub species and maintain the grass and forb species composition.

- Selectively remove woody invasive plant species

  Virtually all the large shrub specimens scattered within the meadow are listed as invasive plant species (multiflora rose, glossy buckthorn, honeysuckle, olive, and oriental bittersweet). The margins of the meadow and the area surrounding the large white oak tree also include many of these invasive shrub species. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) may be a more effective method of controlling glossy buckthorn and oriental bittersweet.

  Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting. Most of the invasive plants on the Stoneymeade Conservation Land (oriental bittersweet, multiflora rose, honeysuckle, olive, and glossy buckthorn) tend to flower starting during May and June with seed drop later in the season.

  Cut or pulled invasive plants should be piled for burning during winter.

- Consider planting native shrubs and wildflowers

  Whereas the vast majority of the shrub species within and bordering the meadow are non-native invasives that are targeted for removal, it would be desirable to plant native seed bearing shrubs as an alternative food source for birds. This would enhance the meadow habitat in that the biodiversity would be increased and many reports indicate that native seeds have higher nutritive value than those of non-native plants. Given the rolling topography and proximity to a small pond, OA recommends considering the following native small tree or shrub species fire-cherry (*Prunus pensylvanica*), chokeberry (*Aronia* spp.), shadbush (*Amelanchier* spp.), dogwoods (*Swida* spp.), sumacs (*Rhus* spp.), and highbush blueberry (*Vaccinium corymbosum*), although there are many other native options.

  The addition of native wildflowers will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias* and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

STONEYMEADE CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Stoneymeade Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,

Brett Trowbridge
Field Biologist

Enclosures:
Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

STONEYMEADE CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.
- Alternatively, pulling via tractor and chain may be effective at removing as much plant material as possible.

Stoneymeade Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morrowii*), Autumn Olive (*Elaeagnus umbellata*), and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled "Cut" or "Mow".

  YELLOW = MOW or CUT
- Orange flagging tape will be used to indicate individual native specimens or areas that should be avoided. These flags will be labeled "Avoid"

  ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: http://www.forestry-suppliers.com/ or http://www.benmeadows.com/)

Botanical References

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Magee, D.W. and H.E. Ahles. 1999. Flora of the Northeast: A Manual of the Vascular Flora of New England and Adjacent New York. The University of Massachusetts Press, Amherst, MA.

Somers, P., R. Kramer, K. Lombard, and B. Brumback. 2008. A Guide to Invasive Plants in Massachusetts, Second Edition. Massachusetts Division of Fisheries and Wildlife.

OPEN SPACE AND RECREATION PLAN SURVEY RESULTS

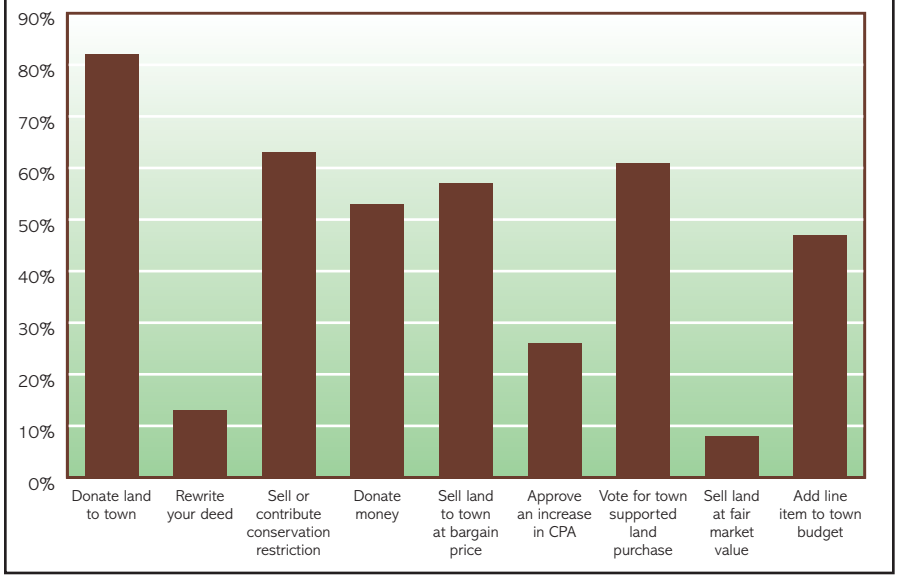
OVERVIEW

- Results of survey have been tabulated and reviewed
  - 16 questions: provide input into the update to the Open Space and Recreation Plan
- Survey very similar to prior one for comparative purposes
  - No cost to the town
- Draft by May-June
- Approximately 1200 responded — about 15% of Acton households

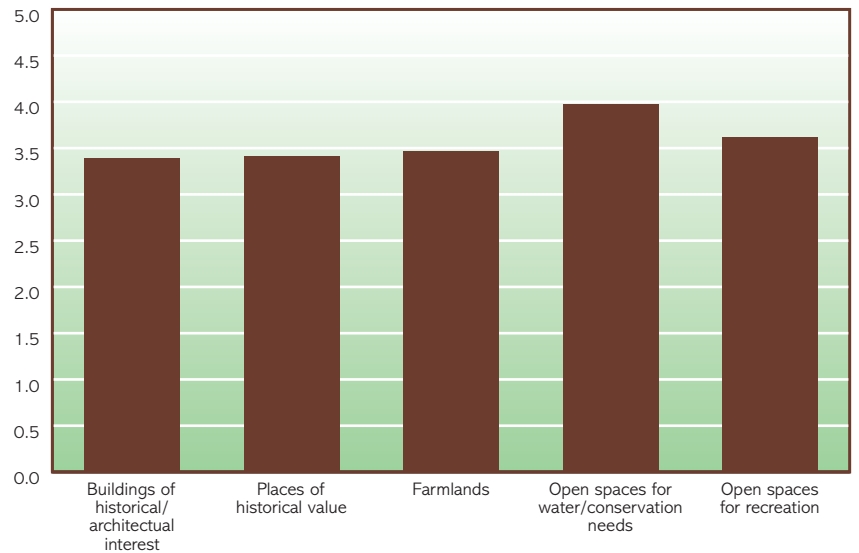
GENERAL CONCLUSIONS

- Results are remarkably similar to results of survey performed seven years ago
- Concerns about residential growth, protection of open space, recreation space, preserve character of town
- Emphasis on conservation restrictions; bike trails; willingness to support purchases of land

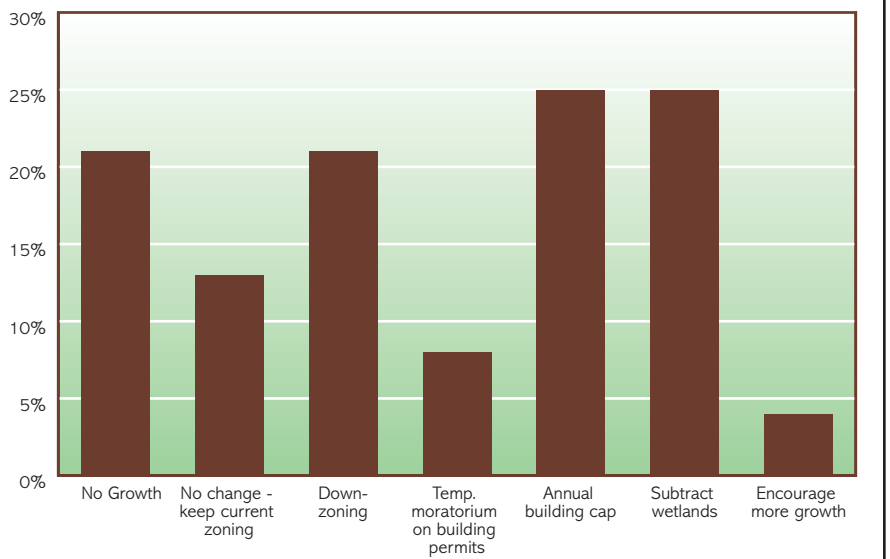
TO PRESERVE OPEN SPACE IN ACTON, WHAT ACTIONS WOULD YOU LIKE TO SEE PEOPLE DO?



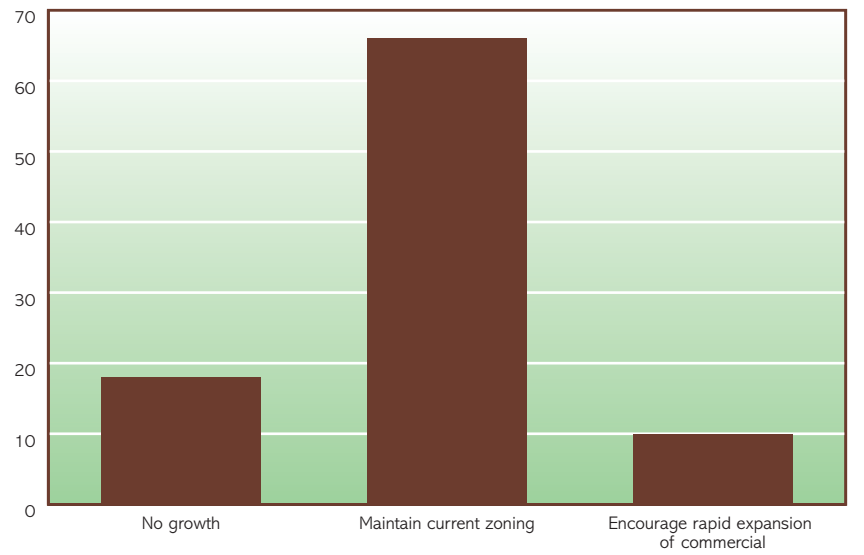
RANKING OF HOW IMPORTANT IS IT TO PRESERVE (on scale of 1-5)



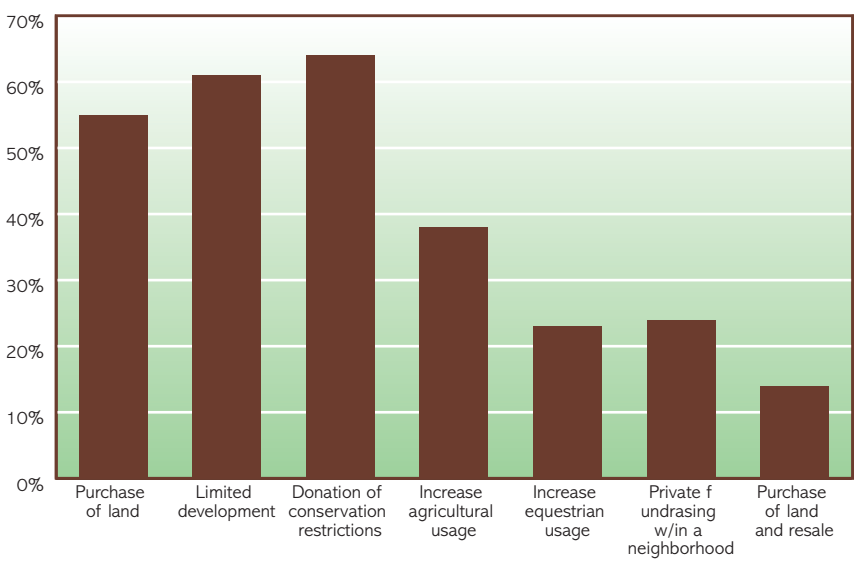
WHAT RESIDENTIAL GROWTH POLICY DO YOU FAVOR IN THE FUTURE?



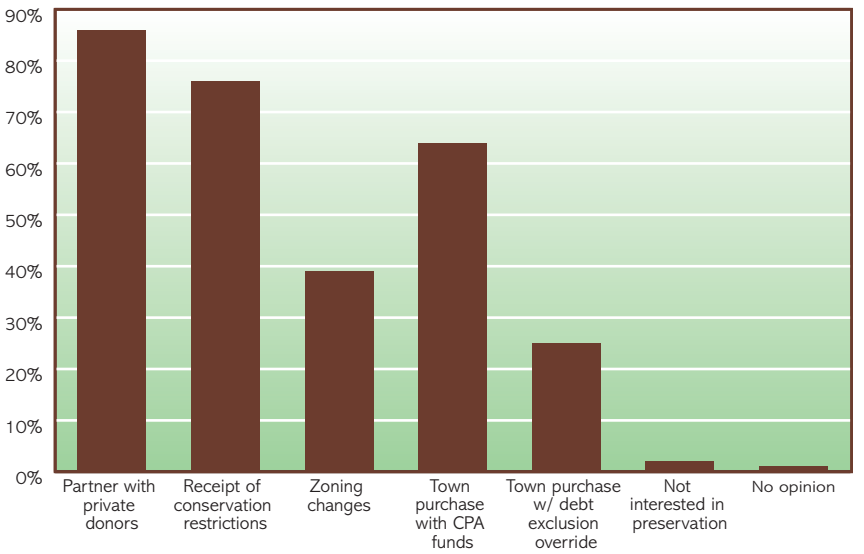
WHAT COMMERCIAL/INDUSTRIAL POLICY DO YOU FAVOR IN THE FUTURE?



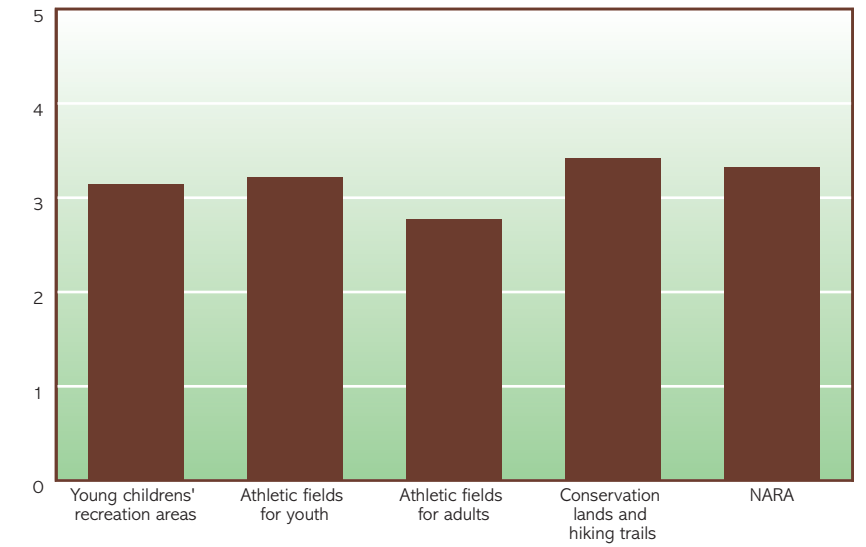
WHAT PRIVATE ACTIONS DO YOU FAVOR TO PRESERVE LAND?



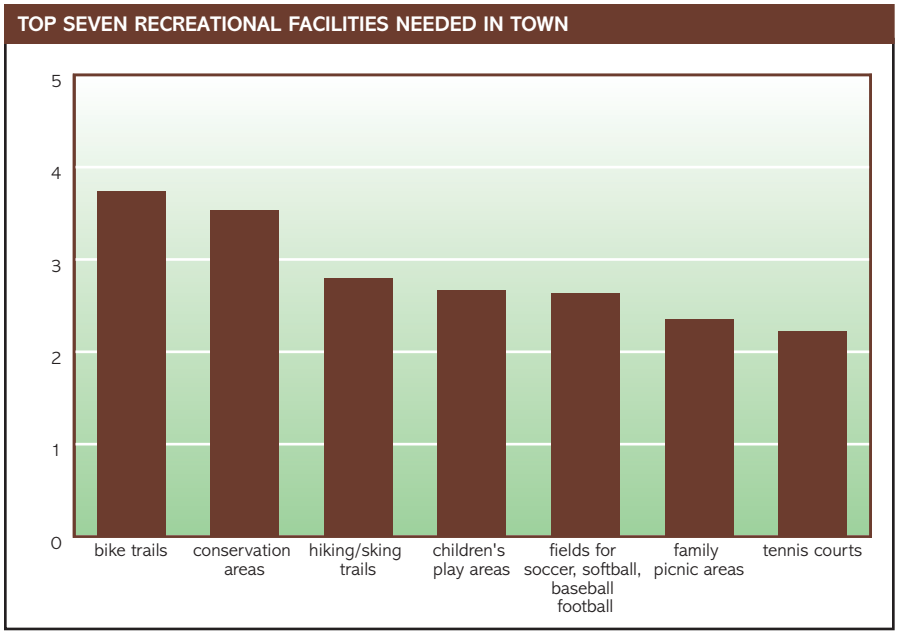
WHAT TOWN GOVERNMENT ACTIONS DO YOU FAVOR TO PRESERVE OPEN SPACE?



RANK ON SCALE OF 1-5 YOUR SATISFACTION WITH RECREATION AREAS



TOP SEVEN RECREATIONAL FACILITIES NEEDED IN TOWN



WHAT IS IT ABOUT ACTON THAT YOU LIKE THE BEST?

- Community
- Open space and conservation land
- Diversity of population
- School system
- Rural/town character
- Location
- Youth sports and other recreation opportunities

WHAT IS IT ABOUT ACTON THAT YOU LIKE THE LEAST?

- Traffic/congestion/need for sidewalks
- Too much residential development
- Taxes too high

Exactly the same three as last time

Overwhelming majority of views expressed

QUESTION 11 ASKED WHETHER YOU BELIEVED OUR CONSERVATION LANDS ARE PROTECTED AND FREE FROM THREAT OF DEVELOPMENT OR CONVERSION:

- 35% said yes
- 20% were unsure
- 45% said no

QUESTION 14 ASKED WHETHER YOU OWNED YOUR OWN HOME:

- 92% of respondents were homeowners (much higher than before)

QUESTION 15 ASKED WHETHER YOU OWNED 5 ACRES OF LAND OR MORE

- Only 2% of respondents owned 5 acres or more

QUESTIONS 12, 13 AND 16 REQUESTED HOW LONG YOU'VE LIVED IN TOWN, DEMOGRAPHIC DATA, AND LOCATION

- Ensure coverage in terms of responses
- Very even distribution geographically and demographically
  - 17% of respondents are seniors
  - 33% are families with young children
- About 60% of respondents have lived in town 10 years or more
  - Up from last time

OPEN SPACE AND RECREATION PLAN

PUBLIC FORUM

MINUTES

February 27, 2014

7:30 PM
TOWN HALL - 472 MAIN STREET
ROOM 204

Attendees: Matthew Mostoller, Andrew Magee, Roswithe Retzlaff-Pinto, James Colman, Mary Donald, Edward Ellis, Adria Osborne, Susan Whitcomb; Jack Culhane, John Sonner, Terra Friedrichs, John Watlington, Phyllis Novick, Bill Froberg, Joan Yatteau, Chris Culhane, M.W. Schuler**,**Theresa Portante-Lyle, Andrew Brockway, Catherine Hatfield

Facilitators and recorders: Terry Maitland, Tom Tidman, Jim Snyder-Grant, Cathy Fochtman, Bettina Abe, Melissa Rier, Fran Portante

Presentation: The meeting was convened promptly at 7:30 by Terry Maitland, Conservation Commission Chairperson. He presented a slide show, included as an attachment to this document, which provided explanation of the reason for having an Open Space and Recreation Plan, the background of the development of the current OSRP to date, a synopsis of progress made since the last OSRP was approved by the Commonwealth, and the purpose of the public forum. The breakout session followed immediately at 8:00 PM.

Goals and Objectives:

The proposed goals and objectives in the draft OSRP were the focus of the breakout sections. The handouts outlining these were given to each attendee as they signed in. After review and discussion of the proposed G&O, participants were asked for their opinions, agreements, and additional concerns. Output was to be compiled, posted on the Town's website and, where possible, sent directly to participants.

Process: Three discussion stations were set up conforming to the three high level goals: 1. Preserving Acton's Rural Character, facilitated by Tom Tidman, 2. Protecting the Environment, facilitated by Jim Snyder-Grant, and 3. Improving Recreational Opportunities, facilitated by Catherine Fochtman. Attendees were divided into three groups, and each was assigned to one of the three goal stations for a 20 minute discussion. At the end of the 20 minute discussion session, groups were asked to move to another goal station for the second discussion and so on to the third for the final 20 minute breakout period. This ensured each participant was able to contribute to each of the three high level goals. During each session, output was recorded on charts. Melissa Rier, Bettina Abe and Fran Portante recorded output for each of the stations.

Breakout Session Output: Recorded output was digitally scanned and stored on the Town's website. The consolidated and compiled version follows:

8.A. GOAL #1: PRESERVE THE EXISTING ELEMENTS OF ACTON'S RURAL CHARACTER

Community Gardens: General consensus on desirability of expanding number of gardens
Need to find suitable locations in South Acton and West Acton
Parking and general access issues must be considered in selecting appropriate sites.
Caouette land as potential S. Acton site needs to consider impact of Assabet River Rail Trail.

Forest Management:

- Pro: Promotes floral diversity, healthy and more prolific understory growth, quality of habitat; promotes diverse wildlife habitat, would include Invasives Management!
- Con: Objection to possible financial motivation to harvest timber
- Approach in past may not have been politically or objectively handled. Suggestion to look at the issue as "land" management or "parcel" management, or other generic term that would not focus just on forestry.
- Is it time to reach out to re-involve Land Stewards and others in the community and start a new dialogue?

Wildlife Management, particularly DEER management:

- General consensus was a concern over lack of some control of deer population in particular, but also concern for the welfare of the animals, not wanting to harm or destroy them. An area requiring further discussion and consideration.

Agriculture and support for local farms and farmers:

- Explore possibility of the town purchasing Agricultural Restrictions on some of the existing farm properties to ease burden of owners.
- Farmers' Market popular: desire for longer hours but lack volunteers to support expansion

Restoration Projects:

- Barkers Pond area mentioned as a potential inviting open space but encroachment by abutters and lack of management of the area inhibits its use.

Accessibility for people with disabilities or limited physical capacity

- Need to consider making changes to accommodate their need for accessibility
- Micro parks and/or trail systems close to access points, pocket parks in or near the villages
- Raised garden beds/tables at NARA

8.B.GOAL #2: PROTECT CRITICAL ENVIRONMENTAL RESOURCES

Forest Management Plans for Conservation Parcels

- Expand the term "Forest Management" to encompass more than just "forest" management
- Use terms such as "Parcel Management" or "Land Mangement" to include the entire ecosystem.

Stream restoration,

- Include dam removal, which allows for the free flow of water for fish, and for recreational boaters. Might also help with cleaning up invasive aquatic species that require still water.
- Revive Acton Stream Teams
- Revive water quality monitoring, especially on streams

- Change zoning to protect parcels not directly under the control of ConsCom, and/or aren't zoned ARC
- Change some access corridor parcels from "municipal" to "conservation" (some parcels are general municipal that are treated as if they are conservation parcels. The changes could be formally done via deed updates or other mechanisms
- Establish Industrial truck exclusions to protect environmental resources and dense residential neighborhoods.

- Survey for tax lien properties for acquisition, especially properties that meet the OSRP prioritized parcel goals, such as next to water resources, special habitats, adjacent to conservation land, etc.
- Identify, prioritize, and resolve conservation land encroachments.
- Establish hammerhead lot ratios as in other towns (our zoning allows crazy-shaped lots that other towns would not allow).

Wildlife Management and Protection:

- Consider where NOT to put trails on conservation lands, for wildlife protection.
- Focus Open Space protection on wildlife corridor protection and creation
- Overpopulation of deer
    - Bow hunting by permit [
        - *Discussion: how to keep walkers safe? Limit hunt to certain times & days & post really well. Why Bow hunting & not other ways? Bow hunters typically shoot down at an angle, and thus it's safer. Has this worked in other towns? Yes, but we have challenges here because our parcels are small and isolated: deer can just go elsewhere*.
    - Concern about Lyme Disease:
        - *Other action plans for Lyme disease prevention: removal of selected Japanese Barberry stands; research has shown reduced infected Lyme tick populations in areas where J barberry has been removed*

Open Space Connections:

- Protect 46 Wood Lane access corridor to Arboretum.
- Prioritize the selection of sidewalk segments to build that connect conservation land entrances. Example: 180 Newtown Road to Grassy Pond.
- Develop "micro trails" for connectivity of neighborhoods. This could depend on donations of private land to make these corridors available
- Develop trails, sidewalks and safe road crossings between schools and conservation parcels In conjunction with "school programs that get kids into the woods." This has become more difficult because the need and the expense to use school buses now that mid-day parent/kid carpooling for field trips is no longer practical for both logistical and legal reasons)

Education and outreach:

- More public education and signage on invasive plant identification.

    - (2) Audubon has info on how to attract a mix of birds to your backyard.
- Educate public about private land donations: how easy and welcome it is for particular types of land.
- Communicate to and educate public on open space land purchases, i.e. parcels potentially available, and their reason for importance.
- Encourage school programs that get kids in the woods
- Provide irrigation via a well or wells at the Arboretum.

8.C GOAL #3: IMPROVE AND EXPAND RECREATION OPPORTUNITIES

NARA Park:

- Expand Parking facilities
- Add more vegetation around the pond to intercept storm runoff

Morrison Farm

- Leave as is
- Introduce signage to indicate its location on Concord Rd.

Playgrounds and parks

- Publicize the playgrounds more
- Create maps diagramming where the playgrounds are located
- Separate “dog park” areas from Recreational Fields
- Kelly’s Corner: Old McDonald’s parking lot could be turned into a small park/green area

General Accessibility

- Plow NARA and Arboretum trails in the winter!
- Create a walkway from Tables to Teapots to the Acton Pharmacy
- Work with the Commission on Disabilities to advertise universal access and demonstrate where it exists
- Work with Emerson Hospital, Acton Nursing Services, and other service providers to promote use of NARA for rehabilitation

ACTON CONSERVATION COMMISSION
OPEN SPACE AND RECREATION PLAN PUBLIC MEETING
AGENDA
FEBRUARY 27, 2014
7:30 PM
TOWN HALL - 472 MAIN STREET
ROOM 204

7:30 Introduction and Presentation

Terry Maitland, chairperson of the Acton Conservation Commission, will provide an overview the Open Space and Recreation Plan, its significance to the town, and the process leading u to this meeting.

8:00 Breakout Session

Participants will be asked to provide feedback and give input to three high level goals, 1) preserving Acton's rural character, 2) protecting the environment, 3) improving recreational opportunities.

9:15 Reconvene and Summary

There will be a brief summary of output from the breakout session. A detailed summation wil be compiled and sent to participants as well as posted on the town website.

Acton 2014-2019 Open Space and Recreation Plan Public Input Meeting

February 27, 2014

Acton Conservation Commission

Acton Natural Resources Department

Acton Recreation Department

Tonight's Meeting

- Introduction
- What is the OSRP and Why Are We Doing It?
- Plan Process
- OSRP Goals
- Accomplishments Since Last Plan
- Break-out Session – 3 tables, 3 goals
- Reconvene and Summary

What is the OSRP?

We are now updating our "Draft" to reflect

2014-2019

Who Wrote It?

These contributors...and YOU

The Previous OSRP

Why do we need one?

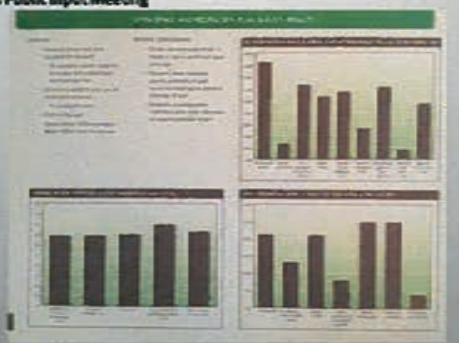
- It's a Good Planning Guide.
- Towns with current OSRP's are eligible for grants to buy open space.
- We become eligible to apply for annual "PARC" grants to improve Rec. facilities like the skatepark, fields and playgrounds.

2002 vs. 2014 Goals

2002	2014 Goals
1. Preserve the remaining elements of Acton's rural character.	1. Preserve Acton's rural character.
2. Protect the environment.	2. Protect the environment.
3. Improve recreational opportunities.	3. Improve recreational opportunities for everyone.

Plan Process

- 2008 Public Survey
- Years of Monthly Public Committee Meetings (Rec., LSC, OSC, Concom)
- Acton 2020
- Tonight's Public Input Meeting



Acton 2020

7 High-Level Priorities

1. Preserve and Enhance Town Character
2. Ensure Environmental Sustainability
3. Improve Connections
4. Provide More Opportunities for Community Gathering and Recreation
5. Support Inclusion and Diversity
6. Preserve and Enhance Town-owned Assets
7. Maintain and Improve Financial Well-being of the Town


Accomplishments Since 2002


Accomplishments Since 2002
• Open Space Committee Created 2001

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act

Community Preservation Act Annual Allocations for Open Space Acquisition

2004	$200,000.00
2005	$300,000.00
2006	$424,000.00
2007	$450,000.00
2008	$515,000.00
2009	$425,000.00
2010	$525,000.00
2011	$450,000.00
2012	$500,000.00
2013	$324,000.00
Avg.	$411,300.00

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property Acquired 2010

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property Acquired 2013

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel - TM April 2014

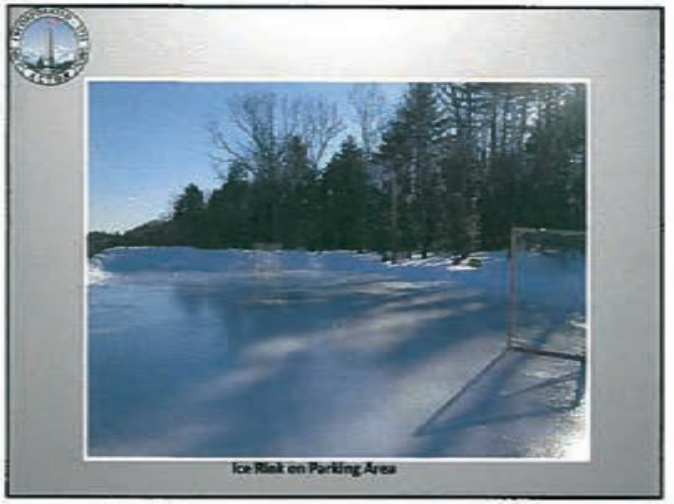
Accomplishments Since 2002

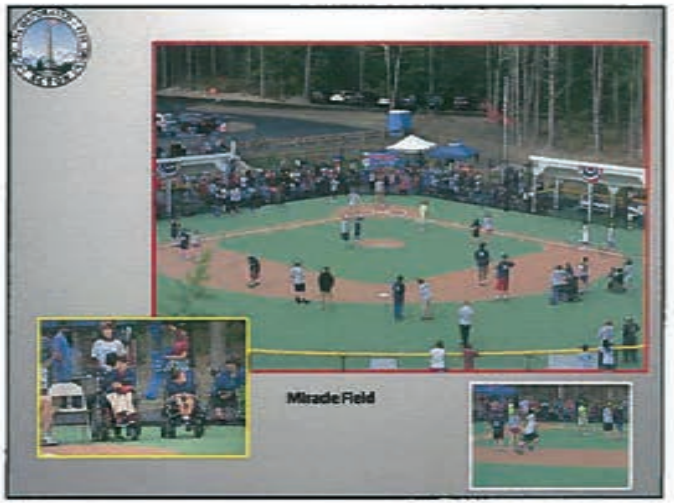
- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- **Morrison Farm Community Gardens**

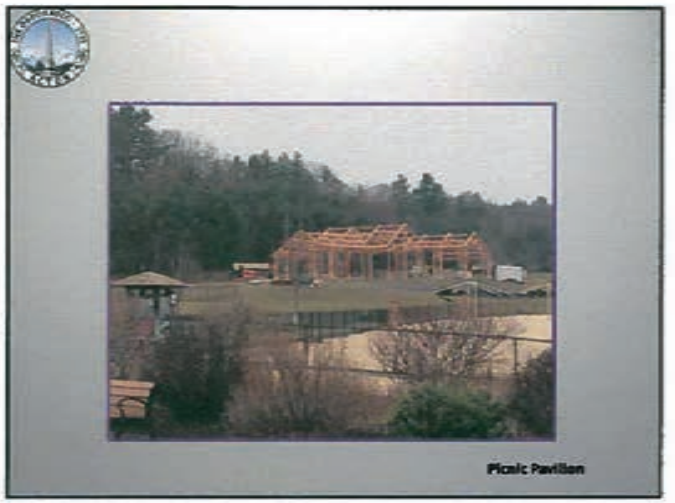
Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- **Continued improvements at NARA**


Summer Concert Program


Ice Rink on Parking Area


Miracle Field


Picnic Pavilion

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Morrison Farm Community Gardens
- Continued Improvements at NARA

- Assabet River and
- Bruce Freeman Rail Trails

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- Continued Improvements at NARA
- ARRT and BFRT

- T.J. O'Grady Skate Park

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- Continued Improvements at NARA
- ARRT and BFRT
- T.J. O'Grady Skate Park

- **Expanding Recreation Program**

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- Continued Improvements at NARA
- ARRT and BFRT
- T.J. O'Grady Skate Park
- Expanding Recreation Program

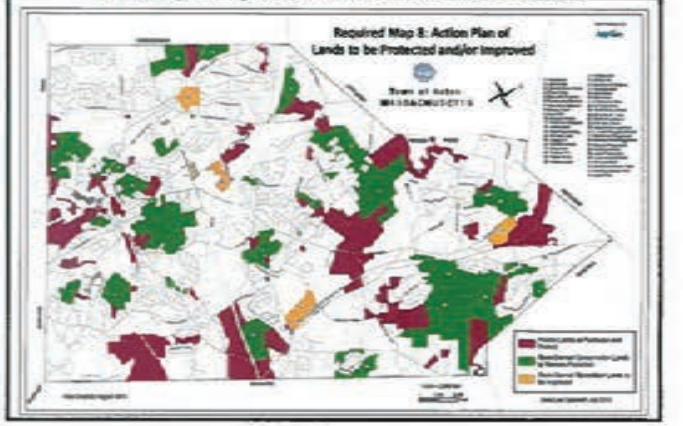
- **Upgrading Playgrounds**

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Anderson Property
- Wright Parcel
- Morrison Farm Community Gardens
- Continued Improvements at NARA
  - Summer Concerts
  - Ice Rink
  - Miracle Field
  - Picnic Pavilion
- Assabet River and Bruce Freeman Rail Trails
- T.J. O'Grady Skate Park
- Expanding Recreation Program
- Upgrading Playgrounds

This list is not comprehensive!

Green: Protected Open Space We Own
Red: Open Space to Purchase and Protect



"Misses"...

- Lost Robbins Mill
- Lost Quail Ridge Country Club
- Morrison – Re-use Plan not yet implemented

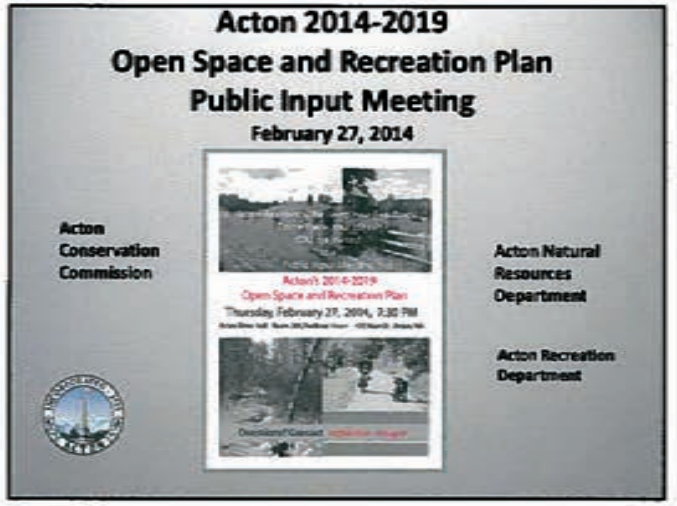
Not Completely

- Gained open space for trails and recreation
- Gained CR on Golf Course, parking, trail access, new boardwalk
- Successful Community Gardens, scenic open space

Your Turn

- Break-out Session
- 3 tables, each 3 main goals.
  - maps of recreation opportunites
  - section 8 Goals

- Rotate 15 minutes per table.
- Add your thoughts and input to the lists
- Reconvene and Summarize in 45 mins.


Acton 2014-2019
Open Space and Recreation Plan
Public Input Meeting
February 27, 2014
Acton Conservation Commission
Acton Natural Resources Department
Acton Recreation Department


The information gathered at this meeting will be compiled and incorporated into the updated OSRP.
THANK YOU FOR YOUR PARTICIPATION!

TOWN ATLAS PLATE	PARCEL	STRUCTURES	ADDRESS	NOTES	REC.	OPEN SPACE	ENVIRO. SIGNIF.	SCORE
C-4	14		339 Nagog Hill Road	Concord Water District- Nagog Shoreline	10	10	10	30
E-4	9	Yes	554 Main Street	Conant Brook, mixed forest, wetlands and meadows	10	10	10	30
E-4	47		549 Main Street	Open Meadow/Forest: Brook Street	10	10	10	30
C-4	24		524 Main Street	Abuts Nagog Hill Conservation Area	8	10	10	28
H-2	128		99 Martin Street	Stonefield Farm	8	10	9	27
H-2	101	Yes	91 Martin Street	Stonefield Farm	8	10	9	27
H-2	100		34 Liberty Street	Stonefield Farm	8	10	9	27
H-3A	47	Yes	55 River Street	Fort Pond Brook; possible pocket park	9	9	9	27
B-4	16	Yes	5 Breezy Point	On Nagog Pond	10	8	8	26
B-4	10-1	Yes	532 Great Road	On Nagog Pond	10	8	8	26
C-5	97		Wheeler Lane End	Boy Scouts: Abutting Robbins Mill Open Space Parcels	8	9	9	26
D-4	20		566 Main Street Rear	Abutts Nagog Hill Conservation Area	7	10	9	26
G-2	109	Yes	88 Prospect Street	Farm on Prospect Street	9	10	7	26
D-3	11	Yes	161 Newtown Road	Abuts Grassy Pond Brook & Grassy Pond Conservation Area	7	8	10	25
E-2	143		356 Central Street	Idylwilde	9	9	7	25
E-4	11		585 Main Street	Abuts Nashoba Brook, Corner of Brook and Main	7	10	8	25
G-4	174		19 Wetherbee Street	Forested parcel abutting Wetherbee Conservation Area	7	9	9	25
H-2	94		79 Martin Street	Stonefield Farm	7	10	8	25
H-2	61		10 Liberty Street	Stonefield Farm	7	10	8	25
H-3A	2	Yes	64 School Street	School St/Piper Lane	7	10	8	25
H-3A	3		4 Piper Lane Rear	School St/Piper Lane	7	10	8	25
H-3A	6	Yes	76 School Street	School St/Piper Lane	7	10	8	25
B-5	30		Quarry Road Rear	Parcel abutting NARA; Water District Wellfield Protection	10	8	6	24
B-5	16		Quarry Road End	Spur Trail to Westford: potential Rail Trail	10	8	6	24
C-5	38		9 Ledge Rock Way	Potential rail trail to Westford/Powers Road	10	8	6	24
E-4	60		210 Great Road	Abuts BFRT and Nashoba Brook	6	9	9	24
F-2A	1	Yes	18 Wright Terrace	18 Wright Terrace, warrant article for purchase:Town Meeting 2014	7	10	7	24
E-5	36	Yes	85 Esterbrook Road	85 Estabrook Rd	7	10	7	24
F-3	78	Yes	46 Taylor Road	Abuts Arboretum	7	9	8	24
G-4	197		70 Hosmer Street	Commonwealth parcel adjoining School St. fields	9	8	7	24
H-2A	74	Yes	86 Martin Street	Part of Stonefield Farm	9	10	5	24
H-4	6		323 School Street	Commonwealth owned	9	10	5	24
C-5	46-1	Yes	9 Granite Road	Fitness Club	10	7	6	23

TOWN ATLAS PLATE	PARCEL	STRUCTURES	ADDRESS	NOTES	REC.	OPEN SPACE	ENVIRO. SIGNIF.	SCORE
E-5	15	Yes	108 Strawberry Hill Road	Open meadow/forest, abutting Spring Hill Conservation Area	7	9	7	23
H-2A	66		36 Stow Street	Part of Stonefield Farm	8	10	5	23
E-4	8--6		126 Nagog Hill Road	Conant Brook	6	8	8	22
G-4	198		96 Mass Ave	Commonwealth owned	7	8	7	22
H-4	5		316 School Street	Commonwealth owned	7	10	5	22
B-5	31		Quarry Road Rear	Wellfield protection	6	8	7	21
C-3	22		215 Newtown Road	Open Orchard/Hardwood Forest	6	8	7	21
D-6	3--4		20 Triangle Farm Lane	Triangle Farm Lane	7	7	7	21
D-6	3--2		21 Triangle Farm Lane	Triangle Farm Lane	7	7	7	21
G-4	209		58 Wetherbee Street	State Police Barn	10	7	4	21
F-5	12-6		145 Strawberry Hill Road	Pasture, Vista	6	8	7	21
B-5	35	Yes	924 Main Street	Rifle Club: Welfield protection	7	7	6	20
B-5	15		Quarry Road End	Wellfield protection, abuts NARA Park	5	8	7	20
I-3	64-3		119 Parker Street Rear	Connection to Pratts Brook, Tenney Pond	5	7	8	20
I-3	1--1		112 Hight Street Behind	Abutts Pratts Brook & Pratts Brook Conservation Area	5	7	8	20
I-3	1--2		108 Parker St. Rear (Pratts Brook)	Abutts Pratts Brook & Pratts Brook Conservation Area	5	7	8	20
E-3	102		59 Newtown Road	Conant Brook Flood Plain	4	7	8	19
E-6	9--1		1 Duston Lane	Pope Road - Dustin Lane	7	8	4	19
G-5	95		66 Wetherbee St. Rear	Commonwealth owned	4	7	8	19
G-5	96		25 Keefe Rd Behind	Commonwealth owned	4	7	8	19
H-1	1		Willow Street Rear	Stow Border- Abuts Heath Hen Conservation Area	5	6	8	19
H-1	2		133 Stow St. Behind	Stow Border- Abuts Heath Hen Conservation Area	5	6	8	19
H-1	4		129 Stow St. Rear	Stow Border- Abuts Heath Hen Conservation Area	5	6	8	19
H-1	5		182 Willow St. Behind	Stow Border- Abuts Heath Hen Conservation Area	5	6	8	19
H-3A	38		5 River St	Parcel abut Fort Pond Brook	2	9	8	19
H-3A	38-1		5 River St. Rear	Parcel abut Fort Pond Brook	2	9	8	19
H-4	109	Yes	271 School Street	Fort Pond Brook floodplain; rear of house's lot abutts Fort Pond Brook	4	7	8	19
F5	12-5	Yes	135 Strawberry Hill Road	Pasture, Vista	5	8	6	19
B-5	25-4		108 Nonset Path	Back of Nonset- Abutts Wills Hole	3	7	8	18
D-2	15	Yes	6 Wampanoag Dr.	Rear Lots, Wetlands	3	7	8	18
D-2	15-1		48 Nashoba Road	Rear Lots, Wetlands	3	7	8	18
D-3	26		111 Newtown Road	Wetlands	2	8	8	18
E-2	151		86 Arlington St.	Wetlands- Grassypond Brook	3	7	8	18

TOWN ATLAS PLATE	PARCEL	STRUCTURES	ADDRESS	NOTES	REC.	OPEN SPACE	ENVIRO. SIGNIF.	SCORE
E-5	51		74 Strawberry Hill Road	Open Meadow	5	6	7	18
E-5	51-50		Strawberry Hill Behind	Davis Road Rear	5	6	7	18
E-5	51-51		Strawberry Hill Behind	Davis Road Rear	5	6	7	18
E-5	51-1		74 Strawberry Hill Road Behind	Open Meadow	5	6	7	18
E-5	6, 10		98 Strawberry Hill Road,	Abuts Spring Hill Conservation Area	5	6	7	18
F-2B	106	Yes	12 Summer Street	Rear of Lot, abuts Mt. Hope Cemetery	4	6	8	18
G-4	143		13 Wetherbee Street	Rail Trail Parking Lot	7	3	8	18
G-4	176		99 Mass Ave.	Abbuts Wetherbee	2	9	7	18
D-3	7--3	Yes	171 Newtown Rd. Rear	Abuts Grassy Pond/ Bog habitat	2	5	10	17
E-5	14-10		1 Lady Slipper Lane	Forested Open Space	5	6	6	17
H-2	58		84 Stow Street	Wetlands- Floodplain	3	7	7	17
H-2	132		75 Stow Street Rear	Wetlands- Floodplain	3	7	7	17
H-4	128-4		5 Lawsbrook Road	Fort Pond Brook floodplain; rear of house's lot abutts Fort Pond Brook	2	7	8	17
C-5	38-1	Yes	9 Ledge Rock Way	REX Lumber- Rear Lot abutting BFRT and NARA Park	10	3	3	16
E-6	6--1		12 Spring Hill Road	Forested wetland abutting Spring Hill Conservation Area	2	6	8	16
G-4	49-4		14 Horseshoe Drive	Across from Ice House Pond - Forested	1	8	7	16
G-4	49-6		123 Concord Road	Across from Ice House Pond - Forested	1	8	7	16
H-2A	8		12 Martin Street (Town Property)	Abutting commuter lot- all wetlands	0	8	8	16
H-3	226-1		105 River Street	Wetlands; on Fort Pond Brook	0	8	8	16
E-2	143-1		352 Central Street	Farm field abutting Idylwilde	2	6	7	15
E-5	46		Davis Road Behind	Detention pond	5	5	5	15
G-4	187		Mass. Ave. (State Property)	Farm field abutting Wetherbee	2	8	5	15
H-2A	41		17 Stow Street	Wetlands- Floodplain on Fort Pond Brook	0	7	8	15
H-2	25	Yes	45 Martin Street	Wetlands- Floodplain on Fort Pond Brook	0	7	8	15
D-6	3--3		10 Triangle Farm Lane	Triangle Farm Lane- Wet	0	7	7	14
E-3	102-2		17 Patriots Road	Patriot's Road - potential pocket park: gifted to town in 2014	6	4	4	14
E-4	13-5		8 Meadowbrook Road	Patriot's Road - potential pocket park: gifted to town in 2014	6	4	4	14
F-3A	89-1		49 Nagog Hill Road	Open Meadow	2	7	5	14
F-4	41-1		81 Wood Lane Rear	Back 1/2 of lot	3	6	5	14
G-4	184		60 Hosmer St.	Owned by Commonwealth	2	7	5	14
G-4	185		135 Mass Ave.	Owned by Commonwealth	2	7	5	14
E-5	14-11		11 Lady Slipper Lane	End of Ladyslipper Lane	5	3	5	13
H-3	5		6 Arborwood Road	Off Brucewood- Wetlands; on Fort Pond Brook	5	4	4	13

TOWN ATLAS PLATE	PARCEL	STRUCTURES	ADDRESS	NOTES	REC.	OPEN SPACE	ENVIRO. SIGNIF.	SCORE
I-2	20		15 Main Street Behind	Abutting Stonefield Farm	7	3	3	13
H-2A	41-1		70 Maple Street Behind	Wetlands- Floodplain on Fort Pond Brook	0	6	6	12
I-2	1	Yes	2 Apple Valley Drive	Abutting Stonefield Farm	2	5	5	12
I-2	3		30 Liberty St. Rear	Abutting Stonefield Farm	2	5	5	12
H-3	5		6 Arborwood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	6		4 Arborwood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	7		37 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	8		39 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	9		41 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	10		43 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
G-2	137-3	Yes	97 Central Street	Lowell, Acton, and Maynard Railway Co.	7	1	1	9
I-2	22		31 Conant Street	Large Parcel- Open Space	1	3	5	9
I-2	31		99 Martin Street Behind	Abutting Stonefield Farm	0	3	5	8
H-2	103	Yes	85 Liberty Street	Hammerhead off of Liberty	0	1	5	6
H-2	63		124 Stow Street	Forested wetlands	0	1	5	6
H-3A	5		60 School St. Rear (TOA)	School St	2	2	2	6
H-1	6		127 Stow Street	Stow Border, possible old dumpsite	0	0	0	0
H-2	62		129 Stow Street	Stow Border, possible old dumpsite	0	0	0	0
H-2	80		133 Stow Street	Stow Border, possible old dumpsite	0	0	0	0
H-3A	3-1		6 Piper Lane (TOA)	Easement: access to Great Hill from Piper Road	0	0	0	0
H-3A	39		11 River Street	Abutts Great Hill; Piper Lane purchase	0	0	0	0
I-4	1		42 Independence Rd Rear	W.R. Grace	0	0	0	0
I-4	2		50 Independence Road	W.R. Grace	0	0	0	0
I-4	5		50 Independence Road	W.R. Grace	0	0	0	0
I-4	6		47 Independence Road	W.R. Grace	0	0	0	0
I-4	7		47 Independence Road	W.R. Grace	0	0	0	0

Compiled by Dr. Richard Howard
Additions from Pam Resor's List

Gymnospermae – The Conifers

Juniperus communis	Common juniper
Juniperus virginiana	Upright juniper
Larix laricina	American larch; tamarack
Picea abies	Norway spruce
Picea mariana	Black spruce
Pinus rigida	Pitch pine
Pinus strobus	White pine
Taxus canadensis	Canadian yew
Tsuga canadensis	Hemlock

Lichens

	Map lichen
	Pale shield lichen

Lycopodiaceae – Clubmoss family

Lycopodium clavatum	Ground pine; Wolf's claw clubmoss
Lycopodium complanatum	Running ground cedar
Lycopodium obscurum	Princess pine

Mosses

Dicranum spp.	
Leucobryum spp.	Cushion mosses
Polytrichum spp.	Haircap mosses
Sphagnum spp.	Sphagnum mosses
Thuidium spp.	Fern mosses

Osmundaceae – Osmunda family

Osumnda cinnamonea	Cinnamon fern
Osumnda claytoniana	Interrupted fern
Osumnda regalis	Regal fern

Polypodiaceae – Polypody family

Athyrium feilix-femina	Lady fern
Botrychium multifidum	Leathery grape fern
Dennstaedtia punctiloba	Hay-scented fern
Dryopteris intermedia	Evergreen woodfern
Dryopteris marginalis	Marginal woodfern
Dryopteris thelypteris	Marsh fern
Onoclea sensibilis	Sensitive fern
Polystichum acrostilchoides	Christmas fern
Pteridium aquilunum	Bracken fern
Thelypteris noveborascensis	New York fern
Thelypteris palustris	Marsh fern

FLOWERING PLANTS – *MONOCOTYLEDONEAE*

Amaryllidadeae – Amaryllis family

Hypoxis hirsuta	Stargrass
Narcissus poeticus	Poet's narcissus
Narcissus pseudinarcissus	Daffodil

Araceae – Arum family

Arisaema atrorubens	Jack-in-the-pulpit
Symplocarpus foetidus	Skunk cabbage

Commelinaceae – Dayflower family

Commelina communis	Dayflower

Cyperaceae – Sedge family

Carex bullata	
Carex crinita	Tussock sedge
Carex lurica	
Carex pensylvanica	
Carex stricta	
Carex swainii	
Carex sp.	
Cyperus strigosus	
Scirpus atrocinctus	

Gramineae – Grass family

Agropyron repens	Witch grass
Agrostis alba	
Agrostis scabra	Hair grass
Brachelytrum erectum	
Calamogrostis canadensis	Blue-joint grass
Dactylis glomerata	Orchard grass
Echinochloa crus-galli	Barnyard grass
Eragrostis spectabilis	Tumble grass
Glyceria canandensis	Rattlesnake grass
Phlem pratense	Timothy
Poa pratense	June grass
Poa trivialis	Rough-stalked meadow grass
Setaria glauca	
Seteria faberii	

Iridaceae – Iris family

Iris versicolor	Blue flag
Sisyrinchium montanum	Blue-eyed grass

Juncaceae – Juncus family

Juncus effusus	Rush
Juncus pelocarpus	Swamp rush
Juncus tenuis	Bog rush
Luzula multiflora	Wood rush

Lemnaceae – Duckweed family

Lemma minor	Duckweed
Wolffia columbiana	Water meal

Lilicacea – Lily family

Asparagus officinalis	Asparagus
Lilium canadense	Canada lily
Maianthemum cansdense	Wild lily-of-the-valley; Canada mayflower
Polygonatum pubascens	Solomon's seal
Smilacina racemosa	False solomon's seal
Streptopus amplexifolius	Twisted stalk
Uvularia perfoliata	Sessile bellwort; Wild oats
Uvularia sessilifolia	Bellwort
Smilax glauca	Cat briar
Smilax herbacea	Carrion flower
Veratrum viride	False hellebore

Orchidaceae – Orchid family

Cyperopedium acaule	Pink Ladyslipper; moccasin flower
Epipactis helleboprine	Helleborine
Goodyera pubescens	Downy rattlesnake plantain

Typhaceae – Cattail family

Typha latifolia	Cattail

FLOWERING PLANTS – *DICOTYLEDONECAE*

Aceraceae – Maple family

Acer Palmatum	Japanese maple
Acer platanoides	Norway maple
Acer rubrum	Red maple
Acer saccharum	Sugar maple

Aisoaceae – Carpetweed family

Mollugo verticillata	Carpetweed

Anacardiaceae – Cashew family

Rhus glabra	Sumac
Rhus radicans	Poison ivy
Rhus tuphina	Staghorn sumac

Apocynaceae – Dogbane family

Apocynum androsaemfolium	Dogbane

Aquilfoliaceae – Holly family

Ilex verticillata	Black Alder

***Araliaceae* – Ginseng family**

Aralia nudicaulis	Wild sarsaparilla

***Asclepiadceae* – Milkweed family**

Asclepias incarnata	Swamp milkweed
Asclepias syriaca	Milkweed

***Balsaminaceae* – Impatiens family**

Impatiens capensis	Touch-me-not; jewel weed

***Berberidaceae* – Barberry family**

Berberis thunbergii	Japanese barberry
Berberis vulgaris	Common barberry
Podphyllum pubescens	Mayapple

***Betulaceae* – Birch family**

Alnus rugosa	Speckled alder
Alnus serrulata	Common alder
Betula lenta	Black birch
Betula papyrifera	Paper birch
Betula populifolia	Gray birch
Corylus americana	American filbert; hazelnut

***Campanulaceae* – Bluebell family**

Lobelia inflata	Indian tobacco
Specularia perfoliata	Venus' looking glass

***Caprifoliaceae* – Honeysuckle family**

Lonicera canadensis	American fly-honeysuckle
Lonicera morrowii	Bush honeysuckle
Lonicera tatarica	Tartarian honeysuckle
Sambucus canadensis	Elderberry
Viburnum acesifolium	Mapleleaf viburnum
Viburnum cassinoides	Northern wild raisin; Witherod
Viburnum dentatum	Southern arrowwood
Viburnum lentago	Nannyberry
Viburnum opulus	Guelder-rose
Viburnum recognitum	Northern arrowwood
Viburnum trilobum	American highbush cranberry

***Caryophyllaceae* – Pink family**

Arenaria laterflora	
Cerastium arvense	Field Chickweed
Cerastium vulgatum	Mouse-eared chickweed
Saponaria officinalis	Bouncing bet
Stellaria media	Common chickweed

***Celastraceae* – Bittersweet family**

Celastrus scandens	Bittersweet
Euonymus alatus	Burning bush

***Chenopodiaceae* – Goosefoot family**

Chenopodium album	Goosefoot

***Clethraceae* – White alder family**

Clethra alnifolia	White alder; sweet pepperbush

***Compositae* – Daisy family**

Achilla millefolium	Yarrow
Ambrosia artemisiifolia	Common ragweed
Antennaria sp.	Pussytoes
Arctium lappa	Burdock
Aster acuminatus	Whorled wood aster
Aster cordifolius	Heart-leaved aster
Aster novae-anglicae	New England aster
Aster novi belgii	New York aster
Aster vimineus	Wood aster
Bidens frondosa	Beggar ticks
Chrysanthemum levcanthum	Ox-eye daisy
Cirsium vulgare	Bull thistle
Conyza canadense	Field daisy
taraxacum officinale	Pilewort; fireweed
Erigeron annuus	Daisy fleabane
Eupatorium dubium	Joe-pye weed
Eupatorium perfoliatum	Boneset
Hieracium florentinum	Hawkweed
Hieracium pratense	King devil; yellow hawkweed
Lactuca canadensis	Wild lettuce
Leontodon autumnalis	Fall dandelion
Prenanthes alba	White lettuce; Rattlesnake-root
Prenanthes trifoliata	Gall-of-the-earth
Rudbeckia serotina	Brown-eyed susan
Solidago bicolor	White goldenrod
Solidago caesia	Blue-stem goldenrod
Solidago canadensis	Canadian goldenrod
Solidago graminifolia	Narrow-leaf goldenrod
Solidago rugosa	Rough-leaf goldenrod
Solidago uliginosa	Grass-leaved goldenrod
Taraxacum officinale	Dandelion

***Convolvulaceae* – Morning Glory family**

Convolvulus sepium	Bindweed

***Cornaceae* – Dogwood family**

Cornus amomum	Blue-fruited osier; silky dogwood
Cornus florida	Eastern flowering dogwood
Cornus racemosa	White-fruited osier; gray-stemmed dogwood
Cornus stolonifera	Red-stemmed dogwood

***Crassulaceae* – Stonewort family**

Sedum purpureum	Frogs' bellies

***Cruciferae* – Mustard family**

Arabis drummondii	Drummond's rock-cress
Armoracia lapathifolia	Horse-radish
Barbarea vulgaris	Yellow mustard
Brassica sp.	Wild mustards
Hesperis matrionalis	Dame's violet
Lepidium virginicum	Pepper grass
Nasturtium officinale	Water cress
Thlaspi arvense	Stinkweed

***Cucucbitaceae* – Heath family**

Chamardaphne calyculata	Leatherleaf
Gaultheria procumbens	Teaberry; Checkerberry
Gaylussacia baccata	Black huckleberry
Kalmia angustifloia	Sheep laurel
Lyonia ligustrina	Maleberry
Rhododendron canadense	Rhodora
Rhododendron viscosum	Swamp honeysuckle; clammy azalea
Vaccinium angustifolium	Late low blueberry
Vaccinium atrococcum	Highbush black blueberry
Vaccinium corymbosum	Highbush blueberry
Vaccinium macrocarpon	Large cranberry
Vaccinium oxycoccus	Small cranberry
Vaccinium vacillans	Early lowbush blueberry

***Euphorbiaceae* – Spurge family**

Acalypha rhomoidea	Three-seeded mercury

***Fagacea* – Beech family**

Castenea dentata	American chestnut
Quercus albo	White oak
Quercus bicolor	Swamp white oak
Quercus coccines	Scarlet oak
Quercus ilicifolia	Scrub oak
Quercus rubra	Northern red oak
Quercus velutina	Black oak

***Geraniaceae* – Geranium family**

Geranium maculatum	Wild geranium

***Guttiferae* – Saint-John's-Wort family**

Hypericum perforatum	Common Saint-John's-Wort
Hypericum virginianum	Swamp Saint-John's-Wort

***Hamamelidaceae* - Witch-hazel family**

Hamamelis virginiana	Common witch hazel

***Juglandaceae* – Black walnut family**

Carya glabra	Pignut hickory
Juglans cinerea	Butternut
Juglans nigra	Black walnut

***Labiatae* – Mint family**

Glechoma hederacea	Gill-over-the-ground
Prunella vulgaris	Selfheal

***Lauraceae* – Laurel family**

Sassafras albidum	Sassafras

***Leguminosae* – Pea family**

Amphicarpa bracteata	Hog-peanut
Coronilla varia	Crown vetch
Desmodium sp.	Tick-trefoil
Trifolium hybridum	Alsike clover
Trifolium pratense	Red clover
Trifolium repens	White clover
Viccia cracca	Vetch

***Lythraceae* – Loosestrife family**

Lythrum salicareia	Swamp loosestrife

***Monotropaceae* – Indian pipe family**

Monotropa hypopithus	Pinesap
Monotropa uniflora	Indian pipe

***Myricaceae* – Bayberry family**

Comptonia peregrina	Sweetfern

***Nymphaeaceae* – Water lily family**

Nuphar variegatum	Yellow pond lily

***Nyssaceae* – Red gum family**

Nyssa sylvatica	Black tupulo

***Oleaceae* – Olive family**

Forsythia sp.	Forsythia
Fraxinus americana	White ash

***Onagraceae* – Evening primrose family**

Circaea quadrisulcata	Enchanter's nightshade
Epilobium coloratum	Purple-leaved willow-herb
Oenothera biennis	Evening primrose

***Oxalidaceae* – Sorrel family**

Oxalis europaea	Wood sorrel
Oxalis stricta	Yellow wood sorrel

***Papaveraceae* – Poppy family**

Chelidonium majus	Celandine

***Phytolaccaceae* – Pokeweed family**

Phytolacca americans	Pokeweed

***Plantaginaceae* – Plantain family**

Plantago lanceolata	English plantain
Plantago major	Broadleaf plantain

***Polemoniaceae* – Phlox family**

Phlox paniculata	Garden phlox

***Polygalaceae* – Milkwort family**

Polygala paucifolia	Fringed ploygala; Gaywings

***Polygonaceae* – Buckwheat family**

Polygonum cuspidatum	Boston bamboo
Polygonum hydropiper	Smartweed
Polygonum persicaria	Lady's thumb
Polygonum pensylvanicum	Pink weed
Polygonum sagittatum	Arrow-leafed tearthumb
Polygonum scandens	Climbing false buckwheat
Rumex acetosella	Sheep sorrel
Rumex crispus	Yellow dock
Rumex obtusifolius	Black dock

***Primulaceae* – Primrose family**

Lysimachia nummularia	Pennywort
Lysimachia quadrifolia	Whorled loosestrife
Trientalis borealis	Star flower

***Pyrolaceae* – Shinleaf or WIntergreen family**

Chimaphila maculata	Striped pipsissewa or Spotted Wintergreen
Chimaphila umbellata	Pipsissewa
Pyrola elliptica	Shinleaf
Pyrola rotundifolia	Shinleaf; Round-leaved pyrola

***Ranunculaceae* – Buttercup family**

Anemone quinquefolia	Wood anemone
Anemonella thalictroides	Rue anemone
Aquilegia canadensis	Columbine
Caltha palustris	Marsh marigold
Coptis groenlandica	Goldthread
Ranunculus bulbosa	Swamp buttercup
Thalictrum polygamum	Meadow rue

***Rhamnaceae* – Buckthorn family**

Rhamnus catharica	European buckthorn; common buckthorn
Rhamnus frangula	Buckthorn

***Roseceae* – Rose family**

Amelanchier canadensis	Shadbush
Crataegus macrosperma	Thorn apple
Fragaria virginiana	Wild strawberry
Geum laciniata	Avens
Malus sylvestrus	Apple
Malus spp.	Crab apple
Potentilla argentea	Silvery cinquefoil
Potentilla recta	Field cinquefoil
Potentilla simplex	Common cinquefoil
Prunus pensylvanica	Pin cherry
Prunus serotina	Wild black cherry
Prunus virginiana	Choke cherry
Pyrus melonocarpa	Black choke cherry
Rosa carolina	Pasture rose
Rosa multiflora	Multiflora rose
Rosa rugosa	Rugosa rose
Rosa virginiana	
Rubus allegheniensis	Blackberry
Rubus enslenii	Brambles
Rubus idaeus	Red raspberry
Rubus occidentalis	Blackcap raspberry
Spiraea latifolia	Meadowsweet

Spiraea tomentosa	Steeplebrush

***Rubiaceae* – Madder family**

Galium aparine	Rough bedstraw
Galium obtusum	Swamp bedstraw
Houstonia caerulea	Bluets
Mitchella repens	Partridge berry

***Salicaceae* – Willow family**

Populus grandidentata	Big-toothed aspen
Populus tremuloides	Quaking aspen
Salix alba v. vitellana	White willow
Salix babylonia	Weeping willow
Salix humilis	Bush willow

***Saxifragaceae* – Saxifrage family**

Ribes satium	Current

***Sarraceniaceae* – Pitcher Plant family**

Sarracenia purpura	Pitcher plant

***Scrophulariaceae* – Figwort family**

Chelone glabra	Turtle-head
Linaria vulgaris	Toadflax
Verbascum thapsus	Mullein
Veronica officinalis	Speedwell
Veronica serphyllifolia	Thyme-leaved speedwell

***Solanaceae* – Potato family**

Solanum americanum	Nightshade
Solanum dulcamara	Deadly nightshade

***Ulmaceae* – Elm family**

Ulmus americana	American elm

***Umbelliferae* – Dill family**

Daucus carota	Queen Anne's lace
Hydrocotyle americana	Water pennywort

***Verbenaceae* – Vervain family**

Verbena hastata	Blue vervain
Verbena urticifolia	Swamp white vervain

***Violaceae* – Violet family**

Viola blanda	Sweet white violet
Viola conspera	Dog violet
Viola fimbriata	Northern downy violet
Viola lanceolata	Lance-leafed violet
Viola pallens	Blue violet
Viola papilionacea	Common blue violet
Viola soraria	Wood violet

***Vitaceae* – Grape family**

Parthenocissus quinquefolia	Virginia creeper
Vitis labrusca	Fox grape

I. TOWN OF ACTON GOALS (from the last OSRP 2002-2007)

1. **Preserve the rural character and history.**
2. **Protect the environment.**
3. **Improve recreational possibilities.**

II. ACTON ARBORETUM'S MASTER PLAN MISSION AND GOALS

1. The Arboretum will provide an educational and aesthetically pleasing experience in and of the landscape. It will concentrate attention on the educational value of the following areas:
   - Succession stages (ex. open field to scrub to bog and forest)
   - Wildlife habitats
   - Geological landforms (ex. esker, bog, streams, ponds, quarry)
   - Historic site features
   - Natural systems
   - Effective gardening practices using the Arboretum as a learning tool
2. Native and introduced species hardy to the Acton area will be utilized and planted in a naturalized fashion within the framework of existing microclimates and soils ("right plant, right place.")

III. CORRELATING TOWN OBJECTIVES AS REFLECTED IN THE OSRP WITH *ACTON ARBORETUM'S MASTER PLAN*

- **Preserving the rural character:** The Acton Arboretum embodies both natural and man-made features that contribute to Acton's character such as apple orchards, open fields, woodlands, ponds, country roads, scenic vistas and stonewalls.
- **Protecting the environment** The utilization of the Acton Arboretum as a town natural resource include gardening, planting trees and shrubs, applying conservation land regulations, preserving ecosystems, promoting habitat diversity, protecting wetlands. Wildlife corridors are protected through land acquisition and public education.
- **Improving recreational opportunities** Town Staff and volunteers regularly maintain, upgrade and expand the possibilities for hiking the Arboretum's trails by removing obstacles, blazing, mapping, building/maintaining bridges and boardwalks over and through wetlands. Recent initiatives to better inform the public about accessibility are the expanded kiosk, website, ACAT Video and paved trail. Unlimited passive recreation is available to picnickers, painters, photographers, readers, poets, philosophers, musicians, etc.

IV. Current Description of the Acton Arboretum (May 2014)

Location of Acton Arboretum and Current General Description

Located in the town's center, the Acton Arboretum consists of 65 acres of gardens, lawn with picnic tables, woods, meadows, swamps, ponds, old apple orchards, a glacial esker, and a bog.

The Arboretum has approximately 3,000 feet of handicap accessible trail finished primarily in compressed stone dust; including 500 feet that is paved asphalt. The trails are not plowed in winter, therefore are not considered assessable in snowy or icy conditions.

Current Parking Availability

Parking is available at the Arboretum's main entrance, off Taylor Road. Other entrances are on Concord Road on the Billings Trail and from Wood Lane and Minot Avenue. Much of the area adjacent to the parking lot is handicapped-accessible, and is open with graveled and paved paths, gardens, bridges, and picnic tables. Trails and paths crisscross the entire area. An information kiosk stands at the main entrance. Please see Section V. "The Future Five Year Improvements" for parking lot improvement plan.

History in Brief

The land, successively owned and improved by the Craigins, the Reeds, the Tuttles, and the Bridges, was acquired by the town in 1976 and 1977. It was formalized as an Arboretum in 1986 when Town Meeting funded the purchase of plant materials and site improvements, and the original warrant article was amended by John Whittier and Brewster Conant to specify use of the property for an arboretum.

Since then, the Arboretum has been developed through the efforts of the Friends of the Acton Arboretum, Inc., Tom Tidman, Acton Natural Resources Director and town staff, assisted by many volunteers and donors. The Acton Garden Club members maintain the Herb, Hosta, and Butterfly Gardens. Boy Scouts and Girl Scouts completing large projects have worked on plantings, paths and boardwalks. Junior High and High School students perform service day clean-ups. Local businesses and landscaping firms have donated services and materials. The Friends of the Acton Arboretum, Inc. have been awarded various grants over the years to make maps, design and print educational materials and create gardens: 1992 George E. Stone Award from the Massachusetts Association of Tree Wardens and Foresters;1997 Urban Forest Planning and Education Grant from the Massachusetts Department of Environmental Protection; William P. Wharton Trust 1992 and 1997 and in 2004; Community Preservation Act award in 2006 for $20,000 and another in 2013 to rebuild the Wildflower Boardwalk.

The Friends of the Acton Arboretum, Inc.

The Friends of the Acton Arboretum,

Inc. was incorporated in 1991 as a non-profit organization and is a group of citizens who care about the natural world and share a vision of preserving and enhancing our natural resources for educational purposes. Friends contribute time, money, plants, and other gifts and talents in support of the Acton Arboretum to achieve these goals.

Trail Descriptions

There are three major trails at the Acton Arboretum: the Orchard Loop, the Wildflower Loop, and the Highland/ Bog Loop (along with a number of interconnecting paths). An access trail on the property which connects the Arboretum to the sidewalk on Main Street is actually the right of way for a future sidewalk on Taylor Road. Along this access trail are the Swale Garden, the Daylily Collection, and a grouping of crab apple trees and native shrubs. In the next few years, part of this trail will be paved (asphalt), becoming a sidewalk extending from Main Street, along Taylor Road, connecting to Minot Avenue and Conant Elementary School.

The Orchard Loop Trail is a perimeter loop of the upper, most open, area of the Arboretum together with the old orchard grid to its south. This 1,200-foot trail begins at the Taylor Road parking lot and is handicapped accessible with gentle grades, primarily made of crushed stone base with a number of benches along its length. It takes the walker through unique garden areas and past labeled specimen trees, as well as beside a small pond constructed in 1992. All are situated around the open grassy area along with old, granite, watering trough, dated 1878. Picnic tables and a stone reading circle add to the utility of the open area.

Plantings along this trail include:

- **An Herb Garden**, designed as a replica of a typical 1700's herb garden with medicinal, culinary, and strewing herbs, situated within and around an old foundation.
- **The Butterfly Garden**, designed to provide plants to feed butterflies and their larval caterpillars.
- **Hosta Garden**, created in 1991 in honor of Judy Dempsey's mother, Emily A. Paul.

These 3 gardens are maintained by the Acton Garden Club volunteers. Situated along the more southerly reaches of the Orchard Trail are the Rhododendron Garden, groups of Japanese larches with an arbor, and areas of wetlands.

The **Wildflower Loop Trail** leaves and rejoins the Orchard Loop Trail on the eastern and southern sides of the Arboretum property. On the northern edge is a handicap accessible **Lilac and Fragrance garden (built with CPC funding)** with benches. Features along this route are two ponds (one on private property), an extensive Wildflower Garden and boardwalk, a Fern Garden with a boardwalk and small brook crossing and several benches. The Wildflower loop was created in 1992 with the aid of a William P. Wharton Grant. The trail was designed as an interior loop, 2,280 feet in length, and is handicapped accessible. Its location was chosen to take advantage of more than 780 feet of uplands hardwood forest, ideal for establishing a wildflower collection. The Wildflower Loop also features a fern collection along the **Mary's Brook boardwalk**.

New Paved Section:

A 500-foot section of this trail was paved in asphalt in July 2010 (paid for jointly by the Town of Acton and the Friends of the Acton Arboretum) because severe seasonal erosion had made it inaccessible. Scouts and volunteers have planted grass and wildflowers along the edges to enhance and protect the path during heavy rains.

The **Wildflower Garden** along this trail loop was created in the 1990's by Acton volunteers and Acton Director of Natural Resources, Tom Tidman. A naturalistic garden with labels was created next to a boardwalk and pond with additional naturalized plantings along the trail. Volunteers continuously donate plants on a large scale. Please see www.elmpost.org/trail.htm for an illustrated tour of this garden. Acton resident Bruce Carley has dedicated himself to this wildflower garden for approximately 20 years.

Most of the species along this trail were manually planted with native wildflowers that have been re-introduced. Only a few species of wildflowers, such as Jack-in-the-pulpit, wood anemone, and some of the ferns, were growing here naturally before the work on the gardens began.

There are roughly a hundred native species Including a few types of uncommon ferns, totaling over 3,000 plants Exclusively native wildflowers have been deliberately planted by volunteers who have worked tirelessly to build the collection.

The **Highland-Bog Loop Trail** is a 3,500 foot journey from the highest area In the Arboretum to the lowest. The 30 acres traversed by this trail, in the most southerly portion of the Arboretum, comprise a wide variety of forest types, succession growth and geological features. It is based on old farm roads, cow paths, and food trails, and is not handicapped-accessible

Along the southwestern portion, the trail follows a narrow, long hill or esker. After descending the esker, the trail crosses a quaking bog, with its specific plant community, along a winding boardwalk. In a sort distance, the trail leads back toward the main Arboretum and completes the Highland-Bog Loop.

V. THE FUTURE

The Friends of the Acton Arboretum, Inc. will continue to work to support the Arboretum according to its mission statement (Section II above) on projects within the scope of the organization.

Two Year Improvements (2014, 2015)

- Rebuild the Bog Boardwalk to be accessible with a paved ramp from Minot Avenue sidewalk, including educational maps and kiosk depicting a "glacial loop trail" and with one or two street-side accessible parking spaces
- Replace the kiosk by the main parking lot
- Enhance the website to provide more information about accessibility and the collections
- Create an accessibility guide documenting trail characteristics and use the data collected to post signs at trailheads describing the trail conditions
- Expand and pave the Taylor Road parking lot and install a rain garden to catch and filter parking lot storm water runoff and to replenish the water supply

Five Year Improvements (2014–2018)

- Recover the use of the Arboretum access at 46 Wood Lane
- Replace the boardwalk over Mary's Brook
- Add electricity to the Arboretum
- Install a well as an alternative for irrigation to the Acton town water supply, replacing pipes to hose hook-up points while continuing to provide one or two drinking fountains supplied by Acton town water
- Construct a formal entrance to the Arboretum funded by grant money or CPA
- Hire a full or part-time caretaker for the Acton Arboretum (See appendix F3 for the job description)

Ten Year Improvements (by end 2023)

- Build a "green" visitor's center that uses renewable energy and building materials and with composting toilets

I. DUTIES

1. Upper grounds
   - cut grass
   - maintain picnic tables
   - kill poison ivy
   - stone dust trails maintenance
     - keep trails level, fill washout gullies
     - keep cobbles prominent
     - spray grass/weeds growing in stone dust
   - plant trees and shrubs
   - apple raking, seasonal (winter, spring, fall) cleanups
   - meadow work
     - plant seeds, plants, flowers
   - mulch gardens, weed and prune in coordination with garden club
   - ranger on site
   - apply fertilizer, compost, lime, etc.

2. Buildings management:
   a) indoor meeting/function space (solar panels, composting toilets, small office fieldstone fireplace) booking of the function space for scouts, events, etc.
   b) storage space for maintenance equipment

3. Volunteer coordinator (students, FAA, LSC, Acton Garden Club)

4. Parking lot and kiosk maintenance

5. Back 40
   - trail maintenance, mulching, hardening/corduroying wet areas
   - boardwalk repair
   - blow-down removal

II. SKILLS REQUIRED

- people skills: working with the public (friendly, flexible, good communication)
- carpentry
- moderately heavy equipment: mower, weed-whacker, bobcat, chainsaw)
- gardening skills
- laptop computer and cell phone with GPS

III. SUPERVISED BY/REPORTS TO:

Tom Tidman and ConsCom

SUMMARY

The accessibility of Town conservation and recreational facilities was determined through a self-evaluation process for the OSRP by members of the Natural Resources Department, the Recreation Department, the Land Stewardship Committee, the Commission on Disabilities and the Recreation Commission. The two members of the Recreation Department who surveyed the playgrounds are Playground Safety Instructors certified by the National Recreation and Playground Association. The Board of Directors of the Friends of the Acton Arboretum, Inc. assisted in compiling the Arboretum inventory. Two members of the Commission on Disabilities (COD) have visited the Acton Arboretum and assessed the improved trails and boardwalks. The COD and Land Stewardship Committee were consulted on the transition plans for improvement to conservation lands, the "ADA Self Evaluation Inventory Matrix," and the ADA Grievance policy. Three members of the Acton Building Department are certified building officials and are consulted for review of new trail boardwalk plans. All documents for this Appendix G are kept on file in the town offices of the Conservation Commission and the Town Administrator.

CURRENT ACCESSIBILITY IN ACTON

Acton has made many improvements to its open space and recreation facilities to make them more universally accessible. The town is in the process of creating a State-sponsored "Complete Streets" policy, which will make connecting conservation land trails, future rail trails and safe, on-street amenities a priority. The goal of Complete Streets is to design and operate streets to provide safety, comfort and access for users of all ages and abilities for users of the roads, trails and transit systems, including pedestrians, bicyclists, Other Power-Driven Mobility Devices (OPDMDs) and wheelchairs. Trails at the Acton Arboretum have been paved in recent years for a universal, more enjoyable experience to visitors. Old boardwalks at the Arboretum are being upgraded. From the outset when NARA Park was created in 1999, a paved trail circumnavigating the park was installed for maximum usability by park patrons.

The crowning universal access achievement in Acton, as well as for the entire State of Massachusetts, was the building and opening of the first Miracle Field, which is annexed to NARA Park. This field is universally accessible to children and adults with disabilities, and has the Miracle League of Massachusetts running regular baseball games each season. (See http://www.miracleleagueofma.com/) The Miracle League of Massachusetts is ***"...an all volunteer, non-profit organization that gives children with disabilities a chance to play baseball as part of a team in an organized league at no cost to their family...It's hundreds of dedicated players, parents, coaches, buddies, fans and volunteers who come together...to support, encourage and inspire each other. It's what happens when everyone is included and diversity is embraced."*** The Conceptual plan has been designed for a universal, "comfort station" at NARA, in close proximity to the Miracle Field, with restrooms and a snack bar. Improvements continue to be made at NARA, such as an universal picnic pavilion under construction and scheduled for 2014 completion, for sheltered gatherings. The Friends of the Acton Arboretum, Inc. and the Recreation Department are always thinking of ways to include persons of all ability levels in Arboretum and other recreational programming. All buildings used for programs are ADA accessible. Public meetings for the Recreation Commission, Land Stewardship Committee, Open Space Committee and Conservation Commission are all held in ADA accessible buildings such as the Acton Town Hall and the Acton Memorial Library.

POTENTIAL FOR WATER ACCESS

NARA Park has a paved, universal, ½ mile trail around the pond, and a one mile, paved, loop trail around the perimeter of the park. There is a universally accessible wooden boardwalk with railings where persons in wheelchairs can fish. The beach is accessible via paved trail and the facility lends a beach wheelchair, which is free for use by patrons. There is also an ADA compliant boat ramp with railings and a dock for enjoyment of the water views and/or for fishing. The dock has toe bumpers to prevent wheelchairs from rolling off the edge.

The Town has a public swimming pool at the high school. It is ADA compliant with an automated lift to accommodate persons with limited mobility. It is available to citizens through publicly noticed hours (http://comed.ab.mec.edu/openswims.shtml) and a nominal fee. The Community Education program offers a full Red Cross Swim Program at this pool throughout the year. Parking lots at NARA, the Miracle Field, and the Acton Arboretum have the appropriate number of handicap accessible parking spaces in proportion to the total number of spaces. Information kiosks and signage at NARA, the Miracle Field and the Acton Arboretum are also accessible.

There is much room for improvement at our conservation lands. Of the 18 individual parcels with marked, maintained trail systems, only one has marked and designated handicap accessible parking. We have created a plan for improvement that will provide a better level of enjoyment of these open space parcels than there is today, either by increasing the parking and providing a handicap parking space; adding a bench for resting; or paving a section of trail from the parking lot to a scenic vista. These types of projects require the work of several town departments (Engineering, Conservation, Natural Resources and Highway) to design and build, and can be costly. We strive to complete one improvement project per year. Sites selected were determined by the slope, drainage, surface condition and practicality of building a universal trail. All conservation land kiosks are equipped with QR ("Quick Response") codes, downloadable maps when scanned by a smart phone and map boxes stocked

with paper maps. A subcommittee of the Land Stewards and the Friends of the Acton Arboretum are currently working to create an improved trail map prototype that provides detailed trail information for the comfort, safety and convenience of all visitors.

SIGNAGE

Conservation land trail systems utilize rectangular "blazing" on trees along the trail. Kiosks at trail heads explain the color-coded system with colored maps and notices. Trails are generally well-marked and cleared of large obstructions. A few of the more complex trails have "You Are Here" notice boards at confusing trail junctions. Some trail systems have large wooden signs that indicate the distance to a parking lot or a major road. Most trails have painted arrows indicating the direction the trail may take a sharp turn. A committee comprised of Natural Resources Staff, Land Stewards and Friends of the Acton Arboretum, Inc. board members are designing better maps and experimenting with the creation of interactive web pages that can give more detailed trail information to visitors. Once that prototype is created, town staff and Land Stewards will complete similar maps for the other 17 maintained parcels.

INTERPRETIVE PROGRAMS AND ALTERNATIVE EXPERIENCES

The Natural Resources Department, the Recreation Department and the Community Education programs in Acton all provide interpretive programs, hikes, outings and events. Every effort is made to be sensitive and inclusive of interested participants of all abilities. Programs can be adapted as needed for universal access. The Natural Resources Director goes into the public schools to teach about birds, construct bird houses, and show the students how to draw owls. This program is universally accessible. The Acton Conservation Trust and the Friends of the Acton Arboretum provide events, speakers and meetings at the Acton Town Hall, a fully ADA compliant building. The Town should also make an effort to make all programs more accessible for individuals with a range of disabilities through trained interpreters, technologies, or devices as necessary and appropriate.

OTHER POWER-DRIVEN MOBILITY DEVICES

Acton does not yet have an OPDMD policy. Trails are in the process of being assessed for width, slope and cross slope. We foresee the time is coming when we will be ready to create an OPDMD policy in the near future. Trails at the Acton Arboretum and NARA are certainly able to accommodate OPDMD's now. Visitors to the Miracle Field can access the trail around the entire NARA park using an OPDMD.

COMMUNICATION

Town officials and volunteer committees are looking forward to publicizing the designation of our new ADA Coordinator, notices, policies and procedures for future use by all citizens and employees. Town staff and volunteers will look into implementing regular outreach to and inclusion of the disabled community. Staff and volunteers are looking into possible website links (i.e. Town, Friends of the Acton Arboretum, Land Stewardship Committee) to provide opportunities for questions to be asked and answered and other feedback to be provided.

INDIVIDUALS INVOLVED IN THE SELF-EVALUATION PROCESS

The following people have assisted in the self-evaluation process: Tom Tidman, Jim Snyder-Grant, Joe Will, Cathy Hatfield, Cathy Fochtman, Maura Haberman, Melissa Rier, Frances Portante, Bettina Abe, Frank Ramsbottom, Mark Barbadoro, Steve Ledoux, Janet Adachi, Maryjane Kenney, Marianne Fleckner, Bernice Baran, Steve Baran, Cindy Patton, Daniel Factor, Lisa Franklin, Leslie Johnson, Madeleine Harvey, Wen Li.

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6611
Fax (978) 929-6350

Michael J. Gowing
Chairman, Board of Selectmen

April 29, 2014

RE: Designation of ADA Coordinator

To Whom it May Concern:

This letter shall serve as notice that Town Manager Steven Ledoux has been duly designated and appointed as the Town ADA Coordinator for the purpose of compliance with the Americans with Disabilities Act.

Please feel free to contact this office with any questions.

Respectfully,

Michael J. Gowing
Chairman, Board of Selectmen

G3-1. POLICY

The Town of Acton does not discriminate on the basis of disability in the admission or access to, or treatment or employment in, its programs or activities. The Town's ADA Coordinator has been designated to monitor compliance with the non-discrimination requirements in the Section 504 regulations and the Americans with Disabilities Act regulations as implemented by the Equal Employment Opportunity Commission and the Department of Justice.

G3-2. GRIEVANCE PROCEDURE

The following grievance procedure is established to meet the requirements of the Americans with Disabilities Act. It may be used by any employee who wishes to file a complaint alleging discrimination on the basis of disability in employment practices and policies or the provision of services, activities, programs, and benefits by the Town of Acton.

a) The complaint should be in writing and contain information about the alleged discrimination such as name, address, telephone number of complainant and location, date and description of the problem. Reasonable accommodations, such as personal interviews or a tape recording of the complainant, will be made available for persons with disabilities who are unable to submit a written complaint.

b) The complaint should be submitted by the grievant and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to the Acton Board of Selectmen and the ADA Coordinator.

c) Within fifteen calendar days after receipt of the complaint, the ADA Coordinator will meet with the complainant to discuss the grievance and possible resolutions. The ADA Coordinator will inform the complainant about the existence of and the contact information for the Acton Commission on Disabilities, should the complainant wish to discuss their grievance with that Commission.

d) Within 15 calendar days after the meeting, the ADA Coordinator will respond in writing, and where appropriate in a format accessible to the complainant such as audiotape. The response will explain the position of the Town of Acton and offer options for substantive resolution of the complaint.

e) If the response of the ADA Coordinator does not satisfactorily resolve the issue, the complainant and/or his/her designee may appeal the decision of the ADA Coordinator within 15 days after receipt of the response to the Board of Selectmen or their designee.

f) Within 15 calendar days after the receipt of the appeal, the Acton Board of Selectmen or their designee will meet with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after this meeting, the Board of Selectmen or their designee will respond in writing, and where appropriate in a format acceptable to the complainant, such as audiotape, with a final resolution of the complaint.

g) All complaints received by the ADA Coordinator, appeals to the Acton Board of Selectmen or their designee, and responses from the ADA Coordinator and the Acton Board of Selectmen or their designee will be kept by the Town of Acton for at least three years.

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6431
Fax (978) 929-6340

Office of the Board of Selectmen

May 1, 2014

To Whom It May Concern:

As Town Manager/ADA Coordinator for the Town of Acton, I hereby attest to the fact that the Town's employment practices are in compliance with the Americans with Disabilities Act with respect to the following: Recruitment, Personnel Actions, Leave Administration, training, testing, needed exams/questionnaires, social and recreational programs, fringe benefits, collective bargaining agreements and wage and salary administration.

Additionally, I have attached to this statement a copy of the Town's Personnel Policy regarding Equal Employment Opportunity.

Sincerely,

Steven L. Ledoux
Town Manager

G5-1 POLICY

The Town of Acton commits itself to the principles and practices of equal employment opportunity, in compliance with Titles VI and VII of the Civil Rights Acton of 1964; Executive order No. 227 as amended; MGL Chapter 151B; and all other applicable Federal and State laws and regulations.

TOWN OF ACTON

472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6431
Fax (978) 929-6340

Office of the Board of Selectmen

MEMORANDUM

TO: **File**

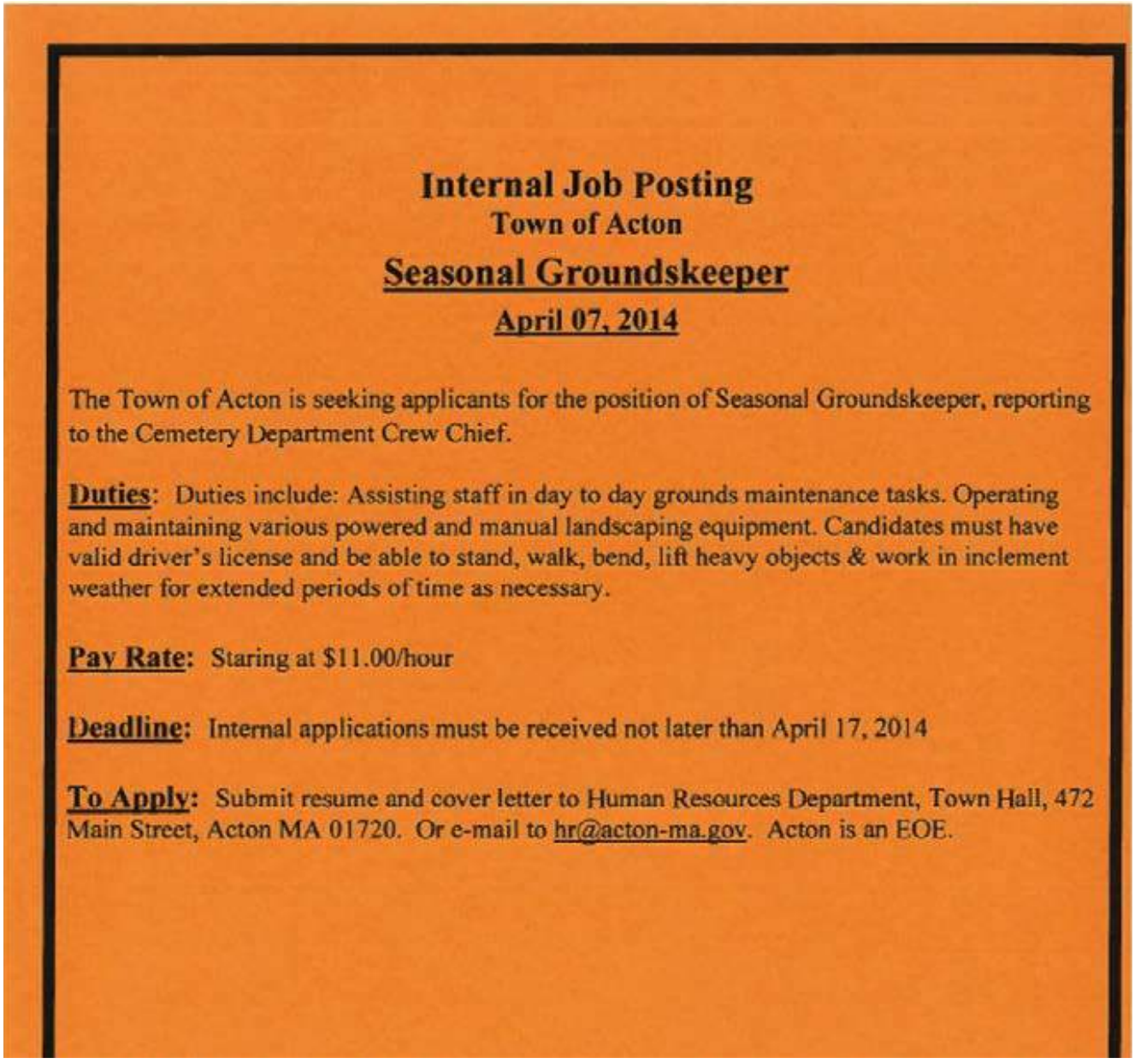
FROM: **Steven L. Ledoux, Town Manager**

RE: **Equal Employment Opportunity**

DATE: **March 14, 2014**

Attached please find examples of notices advertising positions available within the past three years and the notations that the Town of Acton is an Equal Employment Opportunity/Affirmative Action employer.

The Town of Acton does not discriminate in its employment practices on the basis of disability. Public Notices and other information is made available in accessible format upon request.



Internal Job Posting
Town of Acton
Seasonal Groundskeeper
April 07, 2014

The Town of Acton is seeking applicants for the position of Seasonal Groundskeeper, reporting to the Cemetery Department Crew Chief.

Duties: Duties include: Assisting staff in day to day grounds maintenance tasks. Operating and maintaining various powered and manual landscaping equipment. Candidates must have valid driver's license and be able to stand, walk, bend, lift heavy objects & work in inclement weather for extended periods of time as necessary.

Pay Rate: Staring at $11.00/hour

Deadline: Internal applications must be received not later than April 17, 2014

To Apply: Submit resume and cover letter to Human Resources Department, Town Hall, 472 Main Street, Acton MA 01720. Or e-mail to hr@acton-ma.gov. Acton is an EOE.

Town of Acton

Highway Department

Truck Driver/Laborer

Seeking a Truck Driver/Laborer position with the Highway Department. Full-time benefited union position.

Duties: Operating vehicles and equipment and performing tasks associated with the construction and maintenance of town ways. Must be available for snow removal and other emergency work. A valid driver's license, CDL Class B endorsement or greater with an airbrake license is required at hire. Massachusetts Hoisting License, Class 2 B or greater within 12 months of hire or by next available testing period, whichever is sooner. NIMS within 1 year and State Ethics Certification within 30 days are required.

Salary: starting at $19.82/hour.

Submit cover letter and resume to: Human Resources Department, Town Hall, 472 Main St. Acton, MA 01720. Or, e-mail hr@acton-ma.gov.

Acton is an Equal Opportunity Employer.

Deadline: April 25, 2014

January 24, 2014

The Town of Acton is seeking a full time benefitted Dispatcher reporting to the Police Chief and the Fire Chief.

Duties: Responsible for the dispatching and clerical work in monitoring the communications area in the Police and Fire Departments including: responding to emergency 911 and other telephone calls, handling radio communications and performing computer entry tasks.

Minimum Entrance Requirements: Position requires medical examination including a hearing test. Applicants must have high school degree or equivalency and two years of work experience. Training in Emergency Management Systems is required upon hire. Applicant must be available for night and weekend hours.

Preferred Qualifications: Excellent verbal communication skills. Good computer skills. The ability to multi-task and respond quickly to emergency situations.

Pay Rate: Step 1, $18.8797/hour

To Apply: Submit resume and cover letter to Human Resources Department, Town Hall, 472 Main Street, Acton MA 01720. Or e-mail to hr@acton-ma.gov. Acton is an EOE.

Deadline: **Internal applications must be received no later than February 3, 2014**

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6611
Fax (978) 929-6342

Town Manager's Office

January 18, 2012

TO: Employees of the Town of Acton

Our modern high tech society has significantly changed the way people communicate with each other. Face to face or written communication is all that was available not too long ago. A wide variety of media is available today and this vastly increases the chances that something we do could be the source of harassment to our employees. This means that we need to be very careful in what we do or say to avoid offending others. They could be offended by messages left on voice-mail, sites on the Internet, facsimile messages or E-mail as well as older forms of communication.

Regardless of the source, all employees of the Town should work in an environment free from any form of illegal harassment. All of you should have a safe and positive environment in which to be productive. Any harassment, including sexual harassment, is a behavior that is unacceptable in the work place and will not be tolerated.

If you think that you have been a victim of harassment, please inform us immediately and action will be taken. The Anti-Harassment Policy that is attached provides additional information in regards to sexual harassment.

If you need further assistance on this policy, please stop by the Human Resources Department.

Best Regards,

Steven L. Ledoux
Town Manager

TOWN OF ACTON PERSONNEL ADMINISTRATION PLAN

ANTI-HARASSMENT POLICY (11/6/96)

I. PURPOSE AND SCOPE

The purpose of this policy is to communicate the Town's intolerance of harassment. This policy applies to all Town employees.

II. GENERAL POLICY REGARDING HARASSMENT OR SEXUAL HARASSMENT IN THE WORKPLACE

It is the policy of the Town of Acton to maintain a work place that is free of all forms of harassment, and/or including sexual harassment. Sexual harassment, and retaliation against employees who file or cooperate with a sexual harassment complaint is unlawful. Sexual harassment refers to behavior that is personally offensive, lowers morale and interferes with work effectiveness. It also undermines the integrity of the employment relationship and will not be tolerated, and may be subject to corrective action up to and including discharge. Moreover, as a part of the overall nondiscrimination policy, the Town of Acton prohibits all forms of harassment of others because of race, color, religion, sex, age, national origin, ancestry, sexual orientation, physical or mental handicap, veteran, or other protected status.

III. DEFINITION OF SEXUAL HARASSMENT

For purposes of this policy, sexual harassment is defined as any type of sexually-oriented conduct, whether intentional or not, that is unwelcome and has the purpose or effect of creating a work environment that is hostile, offensive or coercive to a reasonable woman or man, as the case may be. The following are examples of conduct that, depending upon the circumstances, may constitute sexual harassment: (a) unwelcome and unwanted sexual jokes, language, epithets, advances or propositions; (b) written or oral abuse of a sexual nature, sexually degrading or vulgar words to describe an individual; (c) the display of sexually suggestive objects, pictures, posters or cartoons; (d) unwelcome and unwanted comments about an individual's body, sexual prowess or sexual deficiencies; (e) asking questions about sexual conduct; (f) unwelcome touching, leering, whistling, brushing against the body, or suggestive, insulting or obscene comments or gestures; and (g) demanding sexual favors in exchange for favorable reviews, assignments, promotions or continued employment, or promises of the same.

IV. REPORTING HARASSMENT

Anyone who believes that s/he has been the subject of harassment or sexual harassment is strongly encouraged to immediately notify the Director of Human Resources. An investigation of all complaints will be undertaken immediately, and corrective action will be taken when warranted. No person will be subject to any form of retaliation for filing a

complaint or cooperating in its investigation. Information will be handled with the highest degree of confidentiality possible under the circumstances and with due regard for the rights and wishes of all parties.

V. RESULTS OF HARASSMENT

After an investigation, any employee who is found by the Town of Acton, depending upon the circumstances of the situation, to have harassed another in the workplace will be subject to appropriate discipline up to and including termination.

Employees may also contact:

Massachusetts Commission Against Discrimination
One Ashburton Place, 6th Floor, Room 601
Boston, MA 02108
(617) 727-3990

Equal Employment Opportunity Commission
John F. Kennedy Federal Building
475 Government Center
Boston, MA 02203
1-800-669-4000

VI. ACKNOWLEDGMENT

Massachusetts Fair Employment Practices Act, Chapter 151B requires employers to provide all employees an individual written copy of the policy against sexual harassment annually. It also requires that new employees be provided with a copy at the time of their employment. The attached acknowledgment sheet is provided to ensure compliance.

TOWN OF ACTON PERSONNEL ADMINISTRATION PLAN

ACKNOWLEDGMENT FORM

(Please complete and return to Human Resources)

This is to certify that I have been provided an individual copy of the Town of Acton's Anti-Harassment Policy.

_____
Employee Name

_____
Signature

_____
Date

QDrive/Anti-Harrassment 2011

HUMAN RESOURCES
Town of Acton
472 Main Street
Acton, Massachusetts, 01720
Phone: 978-929-6613
Fax: 978-929-6342
Email: HR@acton-ma.gov

TOWN OF ACTON
APPLICATION FOR EMPLOYMENT

(*Please Print*)

AN EQUAL OPPORTUNITY EMPLOYER

We are an equal opportunity employer, dedicated to a policy of non-discrimination in employment on any basis, including age, sex, sexual orientation, color, race, creed, national origin, religious persuasion, marital status, political belief, disability or any other class protected by federal or state law.

Position(s) Applied for: _____ Date: _____

I. I. Personal Information

_____
Legal Name: Last First Middle

_____
Present Address: Street City State Zip Code

_____ _____
Telephone Cell

Date Available: _____ Type of employment desired: ____ F/T ____ P/T ____ Seasonal ____ Temp

Federal law prohibits the employment of unauthorized aliens. All persons hired must submit satisfactory proof of employment authorization and identity (valid driver's license, birth certificate, green card, etc.) within three days of being hired. Failure to submit such proof within the required time shall result in immediate employment termination.

Are you legally eligible for employment in this country? ____ Yes ____ No

If you are under 18, and it is required, can you furnish a work permit? ____ Yes ____ No

Please specify if you are using aliases or nicknames : _____

Do you have any relatives who are presently (or have formerly been) employed by the Town of Acton? ____ Yes ____ No

_____
Name(s): Last First Middle

How were you referred to the Town? _____

II. Educational History

	School Name/Location	Years Complete	Degree/Diploma
Elem/Jr. High			
High School			
College			
Tech. Training			
Other			

II. Employment Record

Please include all employment for the last five years starting with your current or most recent employer. You may include any verified work performed on a voluntary basis in your work history.

1. _____ _____
Company Name Position

_____ _____
Address Dates Employed (From – To)

_____ _____
Manager/Supervisor Phone Wage/Salary

_____
Reason for Leaving
May we contact your current employer? ___ Yes ___ No If not, explain: _____

2. _____ _____
Company Name Position

_____ _____
Address Dates Employed (From – To)

_____ _____
Manager/Supervisor Phone Wage/Salary

_____
Reason for Leaving

3. _____ _____
Company Name Position

_____ _____
Address Dates Employed (From – To)

_____ _____
Manager/Supervisor Phone Wage/Salary

_____
Reason for Leaving

NOTE: *List additional employers, if necessary, on page 4. We may contact all of the employers listed on this application unless you specifically exclude them below. Please list any employers you do not want us to contact and your reason for exclusion:*

_____ _____
Name of Employer Reason

_____ _____
Name of Employer Reason

III. References *Please do not include relatives or former employers.*

1. _____ _____
Name Years Known

_____ _____
Address Telephone

_____
Occupation

2. _____ _____
Name Years Known

_____ _____
Address Telephone

_____
Occupation

3. _____ _____
Name Years Known

_____ _____
Address Telephone

_____
Occupation

IV. Work Availability

1. Do you have any objections to working overtime? ____ Yes ____ No
2. Can you work overtime without prior notice? ____ Yes ____ No
3. Can you work on Saturday? ____ Yes ____ No. Respond only if the position requires it
4. Can you work on Sunday? ____ Yes ____ No. Respond only if the position requires it
5. Can you travel, if required? ____ Yes ____ No

V. Salary/Hourly Rate Requirements

If your application receives favorable consideration, what salary/hourly rate would you require?

Yearly _____ Hourly _____

I understand that if I am employed, any misrepresentations or material omission made by me on this application will be sufficient cause for cancellation of this application or immediate discharge from the employer's service, whenever it is discovered.

I give the employer the right to contact and obtain information from all references, employers and educational institutions and to otherwise verify the accuracy of the information contained in this application. I hereby release from liability the employer and its representatives for seeking, gathering and using such information and all other persons, corporations or organizations that furnish such information.

It is unlawful in Massachusetts to administer a lie detector test as a condition of employment. An employer who violates this law shall be subject to criminal prosecution or civil liability.

The Town of Acton does not discriminate and no question on this application is used for the purpose of limiting or excusing any applicant from consideration for employment on a basis prohibited by local, state or federal law.

This application is current for only one year. At the conclusion of this time, if I have not heard from the employer and I still wish to be considered for employment, it will be necessary to complete a new application.

If I am hired, I understand that I am free to resign at any time, with or without cause and without prior notice. The employer reserves the same right to terminate my employment at any time, with our without cause and without prior notice, except as required by law. This application does not constitute an agreement or contract of employment for any specified period or definite duration. I understand that no representative of the employer, other than an authorized officer, has the authority to make any assurances to the contrary. I further understand that any such assurances must be in writing and signed by an authorized officer.

I understand that it is the Town's policy not to refuse to hire a qualified individual with a disability because of that person's need for a reasonable accommodation as required by the ADA or the state fair employment practices law.

I understand that the Town of Acton is a "drug free" workplace and that substance abuse screening will be part of my physical exam if hired, and could also be administered at any time due to reasonable suspicion. Positive results will result in termination of employment.

I also understand that if I am hired, I will be required to provide prove of identity and legal work authorization.

I REPRESENT AND WARRANT THAT I HAVE READ AND FULLY UNDERSTAND THE FOREGOING AND SEEK EMPLOYMENT UNDER THESE CONDITIONS.

_____ _____

Signature of Applicant Date

Additional Employment Information/Continuation

1. The Recreation Commission is committed to providing maximum opportunity to receive citizen comments, complaints and to resolve grievances or inquiries.

2. The Recreation Director will be available during office hours to meet with citizens and employees to discuss complaints.

3. When a complaint, grievance or request for program policy interpretation or clarification is received, every effort will be made to create a record regarding contact information, nature of the complaint, program policy interpretation, clarification and resolution.

4. All complaints, grievances or request for program policy interpretation will be responded to by telephone or in writing within ten working days.

5. If the issue is not resolved at this level, complaint can be forwarded to the Recreation Commission in writing or in person at the next scheduled monthly Commission meeting. The Recreation Commission will deliberate the matter during their meeting and respond to the complaint within ten working days.

6. If the grievance is not satisfactorily resolved, citizens will be informed of the opportunity to bring their complaint before the Board of Selectmen.

7. A copy of the complaint and its disposition will be provided to the Town ADA Coordinator so that a complete record of the ADA grievances will be compiled in one central location.

Recreation Faciity or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibilty	Abuts	Transition Plan	Comments
	If more than one	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accomodations	Focused on needs of some disability community	Recreation, Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibiity Features or Issues
Arboretum	Concord Road Sidewalk	O	B/U/S				Wet areas with and without boardwalks; Boardwalk over bog; Drinking fountain		Conservation			
	Minot Avenue	O	B/U/S			20 ft,1					ADA parking and ADA access to and over new bog boardwalk	
	Taylor Road	U	ADA	Yes, ADA	7, 1 ADA	75 feet E, 10+,					ADA parking upgrade	
	Wood Lane	O	U			600 feet S,1						
	Main Street	O	U	Yes		300 feet E, 10+					Paved sidewalk	
Bulette/Town Forest		O	B/U/S				Wetlands Crossing		Conservation			
Camp Acton		U	B/U/S	Yes	8				Conservation	Spring Hill		
Caouette/Simeone		O							Other Municipal			
Canoe Launch		U	U/S				Canoe Launch		Conservation			
Conant School: Hart Field		ADA	ADA	ADA in school		Bleachers only			Recreation			
Conant School: MacPherson Field			B/U/S						Recreation			in the woods
Concord Rd Field		ADA	U	Yes					Recreation	Morrison Farm		sidewalk to field
Douglas School Field		ADA	P	ADA in school		20 ft, 4	Marsh Boardwalk		Schools	Elm St. facilities		
Elm St: Fields, Playground, Basketball and Tennis Courts		ADA P/U	B,U,P,ADA	ADA in school		100 ft, 7	Marsh Boardwalk, Drinking Fountain		Recreation	Douglas School Field, Gates School Field	playground ADA upgrade 2014	ADA boardwalk to Gates School
Gardner Field and Playground		O/P/U/ADA	B/U			10 ft, 4	Drinking Fountain		Recreation			
Gates School Field		ADA	P	ADA in school	2	2	Marsh Boardwalk	Yes	Schools	Douglas School Field, Elm Street facilities		School playgrounds
Goward Playground		ADA	P	ADA, in library	ADA	10 ft, 5			Recreation	LIbrary	Playground ADA, upgrade 2014	
Grassy Pond	Nagog Hill Road	U	U			0.5miles S, 1	Dock for viewing or fishing,bridge over wetlands, wetlands crossing		Conservation	Nagog Hill		
	Newtown Road	U	B/U/S			0.7 miles N, 1						

Recreation Faciity or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibilty	Abuts	Transition Plan	Comments
	If more than one	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accomodations	Focused on needs of some disability community	Recreation, Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibiity Features or Issues
Great Hill	Kelley Road	O	B/U/S				Ponds, streams, bridge over stream		Conservation			
	Main Street	U	B/U/S						Conservation			
	Piper Road North	O	U						Conservation			
	Piper Road South	O	U/S						Conservation			
	School Street (Recreation Entrance)	ADA	ADA	Yes	2,0				Recreation			
Guggins Brook	Central Street	U	B/U				Stream, Wetlands crossing		Conservation	Jenks		
	Mass Ave	O	U									
Heath Hen Meadow	Billings Street	O	B/U				Boardwalks over wetlands		Conservation			
	Mt Hope Cemetery	U	U									
	Robbins Street	O	B/U									
	Prescott Road	O	B/U/S									
High School Baseball Fields (2)		P, ADA	U, B			10ft, 1			Schools			
High School Lower Fields		P, ADA	P, ADA	Yes, ADA	6		ADA Drinking Fountain		Schools	Skate Park		ADA artificial turf
High School Tennis Courts		P, ADA	P, U	In school ADA		10 ft, bleachers			Schools			
High School Leary Field (and track)		P, ADA	P, U, B, ADA	Yes, ADA		50 ft, 2		ADA turf	Schools	Junior High	new track under constr. 2014	ADA artificial turf
High School Pool (Indoor)		P, ADA	ADA in school	In school	n/a	n/a	Public swimming hours	ADA lift	Schools			
Ice House Pond		U,B	U,B			10 ft, 1	Pond, canoe launch		Recreation	Morrison Farm	ADA parking, boardwalks	
Jenks Land		U	B/U/S				Stream crossing		Conservation	Guggins		
Jones Field and Playground						100 ft, 1			Recreation			
Junior High School Front Field		ADA	ADA	ADA in school		200 ft, 2			Schools			
Miracle Field		ADA	ADA	Nearby at NARA (ADA)		1 ft, 4	ADA drinking fountain, NARA Pond	Yes	Recreation	NARA,Will's Hole	New comfort station with ADA toilets	
Morrison Farm				Yes			Irrigation facility for gardens	Yes	Recreation	Ice House Pond, Concord Rd Field		

Recreation Faciity or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibilty	Abuts	Transition Plan	Comments
	If more than one	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accomodations	Focused on needs of some disability community	Recreation, Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibiity Features or Issues
Nagog Hill	Hazelnut Street	O	P then U/S				Bridges over streams, bridges over wetlands, stream crossings		Conservation			
	Nagog Hill Road South (next to Hybid Farm)	U	B/U									
	Nagog Hill Road North (Grassy Pond Parking)	U	B/U/S							Grassy Pond		
NARA	Ledge Rock Way, including playground	P, ADA	P, ADA	ADA	2 ADA, 17 total	25 ft, 3	ADA dock, ADA showers, ADA drinking fountains, trail around pond	Yes	Recreation	Miracle Field, Will's Hole	New picnic pavilion 2014, 20 tables, 2 ADA	Beach wheelchair available
	Quarry Road (near Ampitheater)	ADA	P, ADA	ADA (portable)				Yes				
Nashoba Brook	Davis Road	U	U			0.2 Miles N	Bridges over brooks, boardwalks over wetlands, crossings over wetlands		Conservation	Spring Hill		
	Northbriar Road	O	B/U			0.2 Miles N						
	Wheeler Lane	U	ADA		Yes	30 Yards E						
North Acton Community Gardens		U	B, U		1				Recreation			
Pacy Land	Central Street	O	U				Crossing over wetland		Conservation			
	Tupelo Way	U	U									
Parker Damon Field		ADA	P	ADA in school	2	2		Yes	Schools			school playground
Pratt's Brook	Brewster Lane	U	B/U/S						Conservation			
	Parker Street	U	B/U/S									
	Valley Road	O	B/U/S									
Robbins Mill Conservation Land		ADA	B/U				Wetlands crossings		Conservation	Spring Hill, Robbins Mill Rec Area		The rec area is the entrance to the Conservation land
Robbins Mill Rec Area and Playground		ADA	ADA	Yes	2,0	100 ft, 2			Recreation	Robbins Mill Conservation Land		
School St Fields		O, U	B, U						Recreation			
Spring Hill	Jay Lane	U	B/U/S				Boardwalk over wetlands		Conservation	Camp Acton, Nashoba Brook, Robbins Mill		
	Spring Hill Road	O	B/U/S									

Recreation Faciity or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibilty	Abuts	Transition Plan	Comments
	If more than one	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accomodations	Focused on needs of some disability community	Recreation, Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibiity Features or Issues
Stoneymeade		P	B/U				Bridge over stream		Conservation	Annursnac Conservation (Concord)		
TJ O'Grady Skate Park		ADA	P	ADA	1,0	100ft, 2	ADA drinking fountain		Recreation	HS Lower Flds		Adding features 2014-15
Veteran's Field and Playground		ADA	P	Yes	2, 0	150ft, bleachers			Recreation			Very old playground
Wetherbee Land		O	U						Conservation			Access is on edge of agricultural fields
Wills Hole/Town Forest	Captain Handley Road	U	B/U				Boardwalk to bog, crossing over wetlands		Conservation			
	Sachem Way	ADA, residents only	B/U/S									
	Nagog Park Drive	O	U			800 ft, 3						
	Quarry Road North	U	U							Miracle Field		Parking and facilities at Miracle Field
	Quarry Road	P	U	ADA						NARA		Parking and facilities at NARA

Assessment Performed 4/2014

SITE/ACCESS/ENTRANCES – EXISTING CONDITIONS

a. ♿ The main entrance from the Taylor Road parking lot is level, hard stone dust and/or asphalt.

b. The entrance from Wood Lane is relatively level, natural ground, without large roots or rocks.

c. The entrance from Main Street is relatively level, grassy and can be muddy.

d. There is an entrance from Concord Place, called the "Billings Trail."

e. There are steep wooden steps down to the Highland Bog trail from Minot Ave. near the bog boardwalk and the intersection of Forest Road. There is public parking at Conant School with a paved walkway and crosswalk to the Minot Ave. sidewalk.

PARKING – EXISTING CONDITIONS

The Arboretum has 3 main entrances and two have parking*.

1. ♿ Taylor Road Main Entrance has a parking lot with space for approximately 14 cars, with one **ADA** parking space 30 feet from the trailhead. The parking lot surface is packed stone dust with many potholes, which is plowed, but can be icy in winter and seasonally muddy.

2. Wood Lane entrance is not universally accessible. Visitors park at the end of a dead-end street. The entrance is relatively level, natural ground. There is an informational kiosk.

3. Main Street/Taylor Road entrance is for pedestrians. It is next to a sidewalk and a wooden carved sign. The trail is wide and grassy. This entrance is not yet universally accessible.

*Remote parking may be found behind the fire station on Concord Road, the Acton Memorial Library and the Acton Town Hall.

TRAILS – EXISTING CONDITIONS

There are 3 main trails at the Arboretum. Two are **universally accessible with minor obstacles**. They are not passable, not maintained in winter, nor after heavy seasonal rains. Stone dust has occasional weeds growing in it.

1. ♿ ***The Orchard Loop*** is approximately 0.2 mile long, turning left from the main entrance trailhead on Taylor Road. It does not include the paved trail. It is mostly level and consists of either packed stone dust with granite cobble edges, or asphalt edged with grass. A 224' portion is rough, packed gravel and would be bumpy in a wheelchair. There are 3 mini-trails of 100' or less within this loop through a hosta garden and grape arbor on packed stone dust. There are no roots or rocks. Not passable in winter or early spring due to mud, ice and snow.

   a. ♿ ***Orchard Loop trail to Fragrance Garden and back*** (from main entrance) is 0.6 mile. Trail is mostly level with packed stone dust surface; some granite, and some grass edging. Trail is not passable or maintained in winter or after heavy seasonal rain.

   b. ♿ ***Rhododendron trail:*** From the main entrance trailhead turn right, head 300 feet down the paved trail. This portion of trail has between **5%** and **10%** slope. A stone dust trail on the left after the pond leads 440 feet around a rhododendron garden and through a wooden arbor; emerging back onto the main trail. The trail is narrow and has 5%-8% slope.

2. ♿ ***The Wildflower Loop*** is approximately 0.5 mile in length and contains the Orchard Loop within it. The surface is packed stone dust or asphalt. For 20 feet of the paved trail, the pitch is **15%**. There are 2 universally accessible wooden boardwalks. The Fern boardwalk measures 200 feet with a maximum slope of **10%** and a maximum pitch of **5%**. Assessed in 2014, the Fern Boardwalk is aging and some parts are in disrepair. Visitors should use caution. Funding will be sought in 2015 to replace it and bring it into ADA compliance. The Wildflower Boardwalk was newly rebuilt in 2013, measures 150 feet with **<5%** slope and 0% pitch. Approximately 225 feet of this trail has a maximum slope of 10% with two avoidable, embedded rocks and two 2 inch high roots. There is a 265 foot Fragrance Loop trail spur off the Wildflower Loop with a packed stone dust surface.

3. **Highland Bog Loop** is approximately 1.5 mile long when starting at the main entrance trailhead at Taylor Road. [One can also reach this trail directly via portions of other trails, or directly via other entrances to the Arboretum.] The trail surface is stone dust, paved asphalt, and natural ground. One mile of this trail is rocky, has many large roots and is steep in several sections. There is a narrow, winding 300 foot wooden boardwalk through a bog and numerous other wooden walkways through wetlands. These structures all lack railings.*

***(PLEASE SEE SITE ACCESS PLANNED IMPROVEMENTS)**

SIGNS – EXISTING CONDITIONS

Trails are blazed yellow, blue or red according to the Town of Acton Land Stewardship Committee trail standards. Yellow denotes the main loop; red the access from parking; and blue is interconnecting trails. Blazes are painted, dollar-bill sized rectangles on trees. There are wooden carved, painted blocks with arrows directing hikers along the trail. The signs do not give distances. A large map at the main entrance kiosk shows points of interest, trail colors and scale.

Plans for Improvement: A new kiosk will be installed at the main entrance when the parking lot is reconstructed. Detailed universal access trail brochures with maps are being developed and will be available at the kiosk.

SERVICES/TECHNICAL ASSISTANCE/ PROGRAMMING

There is a large map on a kiosk at the main entrance parking area. There is a QR code that can be scanned to down load the trail map. There are no current programs specifically for persons with disabilities. However, we regularly provide customizable, guided tours to groups of citizens. Topics can be birds, plants, habitats, environmental protection, gardening, trees, etc. Please contact nr@ acton-ma.gov to request a custom tour or program.

Plans for Improvement: Create self-guided audio tours that can be downloaded onto smart phones, and/or may be borrowed from the library on mp3 players.

RESTROOMS

There is a **ADA** portable toilet at the Taylor Road parking lot trailhead on site from May – November.

BENCHES

There are wooden benches installed at least every 200 feet around the Wildflower Loop trail. They are adjacent to packed stone dust surface.

PICNICKING

There are a total of 8 picnic tables, randomly dispersed around the upper lawn area. This area is generally level. There is 1 **ADA** picnic table on the lawn, approximately 15 feet from the edge of the paved trail.

Plans for improvement: Plans are in place to build an **ADA** trailhead with all ADA components including an information kiosk, portable toilet and picnic table, all connected via paved trail.

PLAY AREAS

The upper grounds of the Orchard Loop are grassy and mostly level. The trail abuts the lawn area. A stone reading circle is located 20 feet from the paved trail. A pond may be viewed from the paved trail 10 feet from the edge.

RAMPS

The Wildflower Loop trail passes over two wooden boardwalks. There is a 20 feet long wooden bridge near the hosta garden; and a 10 foot long wooden bridge near the sun pond. All have railings at 18 and 36 inches high and <5% slope.

FRAGRANCE GARDEN

Fragrant plant species for this garden were specifically selected for the enjoyment of visitors who are sight impaired.

DRINKING FOUNTAIN

There is a drinking fountain approximately 450 feet from the main entrance. It is not handicap accessible.

Plans for Improvement: Plans are in place to install a universally accessible drinking fountain.

***SITE ACCESS PLANNED IMPROVEMENTS**

a) Taylor Road Parking Lot: CPA funds were granted in 2014 for a complete re-design and construction of a 30-car, paved parking lot with **ADA** spaces.

b) Sidewalk entrance from Main Street: (Summer of 2014), the existing stone dust surface will be replaced with a 5 foot wide paved, standard sidewalk/ universal surface.

c) Replace existing Minot Avenue entrance stairs with an **ADA** sidewalk ramp. The new ramp will allow access to a new **ADA** bog boardwalk. CPA funds were granted in 2014 and private donations acquired for the new boardwalk.

d) Redesign and replacement of the fern boardwalk will happen in 2015/2015. CPA funds will be requested for this improvement.

e) The wildflower boardwalk was replaced in 2013 utilizing volunteer efforts, private funding and CPA grant money.

Assessments Performed 4/2014

SITE/ACCESS/ENTRANCES – Existing Conditions

NARA's main entrance, the lower parking lot, with ADA parking is at 25 Ledge Rock Way off Main Street, and has paved, level sidewalks and walkways. Universal entrance to a paved trail around the pond is from two points in this parking lot.

NARA has a second paved entrance, the upper parking lot, with ADA parking. It is 0.3 mi north on Quarry Road off Main Street.

There is a 0.1 mile bituminous sidewalk on a steep hill (10% slope) connecting Ledge Rock Way to Quarry Road. There is no sidewalk on Quarry Road.

The Miracle Field entrance is just past the upper parking lot, heading north on Quarry Road. This facility may also be entered via paved trail from adjacent NARA Park.

There is a wide, paved trail from the upper parking lot down to the amphitheater. The amphitheater is abutted by level lawn area. It is approximately 75' from the nearest ADA parking spaces to the amphitheater. The slope is 5%.

PARKING – Existing Conditions

NARA has two main parking areas. **The Miracle Field** has one.

NARA's main entrance, the lower parking lot at 25 Ledge Rock Way has approximately 100 spaces with 5 **ADA** parking spaces.

NARA's upper parking lot is located 0.3 mi up Quarry Road from Main Street. It is paved and level with 2 **ADA** parking spaces.

The Miracle Field is adjacent to NARA Park. Its paved driveway and parking lot are at the end of Quarry Road. It has 8 **ADA** parking spaces. There is a 260' paved perimeter trail surrounding the baseball diamond, primarily <5% slope connecting to the **NARA Park** loop trail.

TRAILS – Existing Conditions

NARA Pond Perimeter Loop – paved, 0.5 mile with a 280' level wooden boardwalk with railings and 2 benches on bridge. There are many more benches along trail installed at least ever 200'.

NARA Park Perimeter Loop – 1 mile, mostly 5% slope. There are 3 sections of this trail where slope is 10%-15% for 50'-130.

Miracle Field Perimeter Loop – 700' long.

NARA Amphitheater trail – paved, 200' from Quarry Road parking lot to Amphitheater, which is surrounded by lawn. There is a rustic, stone amphitheater 200' away. The surface terrain is mostly level, grass or packed stone dust. There are two stone bridges 100' apart over a stream and beside two storm water treatment-created impoundments, with viewing areas and informational panels.

PLANS FOR IMPROVEMENT TO TRAILS

- 2014 **The Bruce Freeman Rail Trail (BFRT)** is a multi-use recreational trail that will run along the former Lowell Secondary railroad line owned by the Commonwealth of Massachusetts. 600' of this trail will be shared with the **NARA Pond** Loop. Phase 2A is a 4.88-mile long segment of land that will extend from the Phase I completed trail, beginning at the intersection of Route 225 and Route 27 in Westford, heading south for about 800 feet through Carlisle and then into Acton. It continues in a southerly direction through Acton for about 4.5 miles.
- Create a trail and parks map for park kiosks, **Miracle Field** and Recreation Department websites.
- Post QR codes on kiosks for downloading onto smart phones.
- Incorporate the **BFRT** rail trail into recreation programming, i.e. inline skating, biking.
- Have surrey bikes available at **NARA** Park for rentals.

SIGNS – Existing Conditions

ADA Parking signs at all 3 parking lots. Braille Men's and Women's on bath-house bathroom doors.

SERVICES/TECHNICAL ASSISTANCE/ PROGRAMMING – Existing Conditions

- There is an **ADA** beach wheelchair at **NARA** on loan to beach guests. Staff install interlocking plastic ramp panels for easier beach and water access via wheelchair.
- Staff can provide guided tours to groups of citizens. Topics can be birds, plants, habitats, environmental protection, etc.
- Please contact nr@acton-ma.gov to request a custom tour or program.

Plans for Improvement: Create self-guided audio tours of **NARA** Park and the **Miracle Field** that can be downloaded onto smart phones, and/or may be borrowed from the library on mp3 players.

WATER ACCESS – Existing Conditions

NARA Beach – there are paved **ADA** walkways connecting the parking and trails to the beach. There is a beach wheelchair, for free use by beach patrons. Staff install interlocking plastic panels for wheelchair access to beach or water. The beach is 200' from the **ADA** parking spaces at 25 Ledge Rock Way lower parking lot.

NARA Pond Dock – **ADA** ramp and 30'x8' dock with toe bumpers for fishing and water viewing. Dock surface is 1' above water line.

NARA Pond Boardwalk – 280' **ADA** zig-zag design wooden boardwalk with wood railings is part of the 0.5 mile pond loop trail. There are 2 benches installed near the center of the boardwalk.

NARA Wildlife Pond – Access is from perimeter park loop trail. Surface is 5% grade or less, packed stone dust or grass. The ground is slightly uneven with small lumps and bumps across a stone bridge. There are two educational info panels

and a wildlife sculpture in the center of the pond. The associated wetlands were developed with grant funding, designed to treat storm water and to provide wildlife habitat.

RESTROOMS - Existing Conditions

An **ADA** portable toilet at the edge of the upper Quarry Road parking lot is on site from May – November.

The **NARA** bath house is adjacent to and 20' away from the Ledge Rock Way parking lot. It has **ADA** men's and women's restrooms. Open May-November. Signs on doors are also in Braille.

There are two accessible outdoor showers at the bath house.

BENCHES – Existing Conditions

There are wooden benches installed at least every 200' around the **NARA** Pond perimeter Loop trail. They are installed on grass, adjacent to the paved trail. There is some erosion and uneven terrain in front of some of the benches, especially those in close proximity to the water's edge.

Plans for improvement
Some benches along the pond edge will be relocated and re-installed by the Massachusetts Department of Transportation while constructing the Bruce Freeman Rail Trail. This will improve access to the benches along this 600' section of trail.

PICNICKING – Existing Conditions

Five out of 17 picnic tables located at the bath house patio area are **ADA**.

A total of 20 new picnic tables will be located at the new picnic pavilion. 2 are **ADA**.

Plans for improvement
2014 **ADA** Picnic Pavilion shelter, stone fireplace, grills are under construction.

NARA PLAYGROUND – Existing Conditions

There is a playground at **NARA** accessible via paved trail from the25 Ledge Rock Way lower parking lot. The playground has engineered wood chips as ground cover. Please see playground inventory for details in **Appendix G-16**.

RAMPS – Existing Conditions

There is an **ADA** ramp behind the **NARA** Amphitheater for access to the stage.

There is an **ADA** ramp at the Miracle Field from the parking lot to the field and bleachers.

At **NARA** Pond there is a 30' **ADA** ramp connecting the walkway to the dock.

NARA PERENNIAL GARDEN – Existing Conditions

There is a 45' level trail, with packed stone dust surface, through a perennial garden adjacent to the bath house patio.

DRINKING FOUNTAINS – Existing Conditions

All water fountains are seasonally operational from May-November.

One **ADA** water fountain at the Miracle Field.

One **ADA** water fountain adjacent to the upper Quarry Road parking lot.

One **ADA** water fountain adjacent to the **NARA** playground.

One **ADA** water fountain attached to the snackbar building at the **NARA** bath house lower parking lot.

PLAYING FIELDS

The Miracle Field is a Little League-sized baseball field designed to accommodate all levels of ability. **The Joseph Lalli Miracle Field** opened in September 2012 and is located at 75 Quarry Road adjacent to **NARA** Park in Acton, MA. It has a completely rubberized surface that allows for safe and easy mobility for all. There are no raised surfaces to interfere with wheelchairs, walkers or crutches. In addition, the field is completely enclosed by a fence which provides a safe environment for those players who tend to wander or have no sense of danger. Please see http://www.miracleleagueofma.com/ for more information.

There is one regulation size softball field at **NARA**.

There is a large, level playing field at **NARA** that can accommodate X# games simultaneously. It is run by the Acton Recreation Department in cooperation with several local nonprofit sports organizations.

AMPHITHEATER

The performing stage at **NARA** is surrounded by lawn. It sits on a level surface between the paved park loop trail and a large, grassy, elevated amphitheater bowl. It is wheelchair accessible by paved walkway. There is universal access to the snackbar. The lawn area in front of the stage is level, compact grass.

SNACKBARS

There are two snack bars at **NARA**. One is at the bathhouse and the other is at the amphitheater.

Plans for improvements
An **ADA** comfort station, located between the Miracle Field and playing fields adjacent to the upper parking lot, is in the early planning stages. Plans include **ADA** bathrooms, snack bar and indoor meeting area.

VOLLEYBALL COURTS

At **NARA** there are two "beach" volleyball courts with sandy surfaces, located 50' from the Ledge Rock Way parking lot.

Anderson

- Universal trail head at Newtown Road with h/a parking spot, kiosk and bench.

Arboretum

- Pave driveway and parking lot.
- Create universal trailhead: locate information kiosk on solid surface; install ADA portable toilet and picnic table all within access from parking area and appropriate number/proportion of handicap parking spaces.
- Rebuild Mary's Brook bridge through fern collection so it is ADA compliant.
- Rebuild bog boardwalk and build ADA compliant sidewalk ramp to boardwalk from Minot Ave. Build two handicap parking spaces near the Minot Ave. crosswalk.
- Design a universal loop trail around the bog.
- Purchase Donald property, construct universal parking area and trail through marsh to bog boardwalk and/or to Minot Ave.
- Wood Lane: design universal trailhead with bench, ADA parking spot and trail around meadow.

Bulette Land / Town Forest

No plans for accessibility.

Camp Acton

- Install ADA portable [or composting] toilet in parking area
- Create universal trail to campsite #1, or create modified new campsite near site #1.
- Level campsite #1 so that a wheelchair may maneuver around campfire and picnic table.
- Install universally accessible picnic table at campsite #1.

Grassy Pond

- Create an ADA parking space at the parking area at Nagog Hill Road.
- Create a solid surface trail from parking area to grassy meadow.
- Install ADA picnic table in proximity to trail.
- Install a bench part way along the trail between parking area and kiosk for viewing the meadow.

Great Hill

- Install ADA portable toilet at School Street parking lot.
- Pave a universal trail along western edge of playing field to the pond.
- Create a universal platform area with h/a picnic table on it, near pond.
- h/a fishing access
- bench near pond

Guggins Brook

- Mass. Ave. parking area: create a scenic overlook (over the marsh) next to the parking lot with bench and ADA parking spot.

Heath Hen Meadow

- Improving trail with stone dust or paving from Robbins Mill cul-de-sac to the first meadow, and/or to the bridge.

Jenks Land

- ADA parking space at Central Street parking lot.
- Paved trail from parking area to scenic overlook site over Ft. Pond Brook, with bench. Steep grade could be minimized by adding a railing on one side of the trail and several level landings per ADA guidelines.

Nagog Hill

- ADA parking space at Nagog Hill Rd. parking lot closest to trail head
- Universal trail either by boardwalk or pavement from Nagog Hill parking lot to meadow.
- ADA picnic table at edge of meadow.
- Bench at edge of meadow for resting and viewing horses and meadow.

Nashoba Brook

- Wheeler Lane currently has several universal features as part of TTT, such as benches and trails.

Pratt's Brook

- Brewster Lane entrance: create universal pathway to grassy lawn area.
- Install ADA picnic table.
- Install bench for resting.

Robbins Mill

- Construct universal Nashoba Brook observation platform at Carlisle Road entrance.

Spring Hill

No plans for accessibility.

Stoneymeade

No plans for accessibility.

Wetherbee Land

No plans for accessibility.

Wills Hole/Town Forest

- Pave access road from Quarry Road entrance to Nagog Park.

QUESTIONS	ELM STREET PLAYGROUND	GARDENER PLAYGROUND	GOWARD PLAYGROUND	JONES PLAYGROUND	NARA PLAYGROUND	ROBBINS MILL PLAYGROUND	VETERANS PLAYGROUND
How many accessible entrance routes to playground area (44" wide)?	TBD	One entrance but no path. It's all grass.	TBD	1	Entire playground is open. No main entrance.	1	Entire playground is open. No main entrance.
How many accessible routes connecting ground play with elevated play components (44" wide)?	TBD	One, 36" wide	TBD	One, 42"wide	One, 36"wide	One, 36"wide	One, 36"wide
How many ground play components are at this playground (swings, rockers, diggers, standalone slide, spinning)?	TBD	6 Swings, 1 tire swing, 2 spring rockers, 2 play houses, 1 bouncer.	TBD	8 Swings	6 Swings, 1 tire swing, 1 see-saw.	4 spring horses, 1 tunnel, 1 see-saw	6 Swings, 1 tire swing, 1 see-saw.
Is there an accessible route to at least one of each type of ground play component?	TBD	No due to the grass and not accessible surfacing or paths.	TBD	Yes	Yes, to all.	Yes	Yes, to all.
Is there a "soft contained play area" where a person enters fully, that's enclosed and uses pliable materials such as plastic, soft padding, fabric?	TBD	No	TBD	No	No	No	No
Is the grade in the playground <5%?	TBD	Yes, except for the entrance to the playground itself.	TBD	Yes	Yes	Yes	Yes
How many elevated structures are there?	TBD	4: one main structure, fire engine climber, 2 vertical climbers.	TBD	Two main climbing structures.	1	2	1
What type of handrails are on elevated structures and are they on both sides?	TBD	Metal/round and yes on both sides.	TBD	Metal/round and yes on both sides.	Handrails are plastic and part of the side panels. Yes, the handrails are on both sides.	Metal/round and yes on both sides.	Handrails are plastic and part of the side panels. Yes, the handrails are on both sides.
How many of the elevated structure components have accessible entries?	TBD	0 (according to 44")	TBD	Both, except they're not 44" wide.	1	1, except they're not 44" wide	1
How many elevated components are connected by ramps of transfer systems?	TBD	1	TBD	Both structures	0	1	0
Are elevated ramps at least 36" wide?	TBD	Yes	TBD	Yes	N/A	Yes	N/A
Is there turnaround space (60" square) for a wheelchair between play components?	TBD	Yes	TBD	Yes	Yes	Yes	Yes
Is there a play table and is it accessible with knee space underneath?	TBD	No	TBD	No	No	No	No
What is/are the ground surface(s) at each playground?	TBD	Pea Stone and Engineered Playground Mulch	TBD	Pea Stone with rubber surfacing at entrances to structures and at the ends of slides	Pea Stone	Engineered Playground Mulch	Pea Stone

(RESPONSES COMPILED FROM: ACTON PLANNING DEPARTMENT, COMMUNITY PRESERVATION COMMITTEE, ACTON CONSERVATION TRUST AND ACTON RESIDENTS)

LAND USE

Question 1: Geography

A) Is there a pattern as to where the farms in your community are located? (e.g., near the town center, near residential neighborhoods etc.).

According to Assessors' Codes for Agricultural/Ch. 61 and 61A , most land is located in Residential Zoning Districts, adjacent to Agricultural Recreation Conservation (ARC) Zoning Districts*. 264.35 acres are located in North Acton. Approximately 37.53 acres of farm land is located within a one mile radius of South Acton Village and approximately 34.48 acres of farm land is located within a one mile radius of West Acton Village. Most lots are oversized.

Additionally, there is significant farm land acreage in East Acton along Route 2 owned by the Commonwealth and the Town (former Concord prison farm). The Town owns 72 acres of conservation land, some of which are leased back to the State for farm use. The Commonwealth owns 133.6 acres of agricultural land. All the land is located in the ARC Zoning District. Most lots are oversized.

B) To the best of your knowledge, what is the total number of acres of agricultural land within your town?

According to Assessors' codes:

- Land Codes 712, 713, 714 (Agricultural/Horticultural) and 601 (All land designated under Chapter 61) = 354.31 acres
- Land Codes 712, 713 and 714 alone (Agricultural/Horticultural) = 81.71 acres
- [No land was classified under Code 210 or 27]
- [Does not include State or Town owned farm land]
- According to the Open Space and Recreation Plan: 447 acres total

C) What data sources did you use to arrive at this number (e.g., assessors' land use codes)?

- Assessors' Land Use Data/Codes
- Open Space and Recreation Plan 2002-2007

Question 2

What are the types of agricultural production in your town (e.g., vegetable, dairy, fruit, livestock, equine, etc.)?

- Code 712-Truck Crops/Vegetables, Code 713 -Field Crops, Code 714- Orchards (Assessors' land use codes)
- 164 acres in equestrian farms; 18 horse farms; 11 agricultural farms (Open Space and Recreation Plan)

*(The ARC Zoning District is comprised of Town owned land, it does not include any privately owned land.)

REGULATION

Question 1

Does your town have an Agricultural Commission?

No

Question 2

Does your town have a Right-to-Farm Bylaw?

No

Question 3: Zoning

A) How does your town define agriculture? Do you have more than one definition, depending on the regulation?

The Town of Acton recently amended the definition of Agriculture at the April 2012 Town Meeting. The definition now mirrors that of MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

B) What provisions do your town zoning bylaws include regarding agriculture (e.g.,Ag Use districts, prohibitions, special permit allowances)?

Acton allows agricultural uses (as defined above) by-right in all zoning districts. See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

C) What are the use categories or prohibitions (e.g., on-farm processing, special provisions for agro-tourism, recreation)?

See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

Question 4

What permissions and prohibitions do your zoning bylaws have for animal agriculture (e.g., piggeries, poultry, bees)?

See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

Question 5: Master Plan

A) Does your town have a Master Plan or Open Space Plan?

Acton has a Master Plan (2012) and Open Space and Recreation Plan (2002-2007). Acton also has a Freedom's Way Heritage Landscape Inventory document which lists and prioritizes farmlands.

B) If yes, does your plan identify agricultural lands of conservation interest (i.e., any agricultural land that the community finds valuable — permanently protected or not)?

Yes.

C) If yes, does your plan prioritize agricultural lands of conservation interest?

Yes. The Open Space and Recreation Plan contains a prioritized list for non-Chapter 61 properties.

Question 6

Does your town have any regulations, other than zoning bylaws, which address agriculture (e.g. wetlands, board of health, wellhead protection)?

No

Question 7

To your knowledge, what are some of your town's regulatory impediments to fostering agriculture (e.g., excise tax on farm machinery)?

See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3. Excise tax abatements for farm plate vehicles are available. Other farm machinery is subject to personal property tax.

CONSERVATION

Question 1

Does your municipality lease or license any of its conservation land for agricultural uses?

Yes

Question 2

Does the town currently hold any agricultural conservation restrictions?

No. The Town of Acton does not hold any Agricultural Preservation Restrictions as specified by Mass. Dept. of Agricultural Resources. The Town does hold Conservation Restrictions as specified by EOEEA on lands which have some agricultural use aspects to them.

Question 3: Land Trusts

A) Does your community have a land trust that deals with agriculture or addresses farming?

The Acton Conservation Trust focuses on the preservation of open space. They are trying to reach out to farms, and are scheduled to cohold land with crop use and equestrian use but agricultural preservation is not their main purpose.

B) Does your community work with a regional land trust that deals with agriculture or addresses farming?

The Town of Acton works with the Sudbury Valley Trustees which is a regional land trust that focuses on land conservation. They do some work with farms but agricultural preservation is not their main purpose.

Question 4

What is the number of acres of land in your community protected under M.G.L. Chapter 61, 61A and 61B, respectively?

- Ch. 61 = 272.6 Acres
- Ch. 61A = 81.71 Acres
- Ch. 61B = 9.79 Acres

Question 5

Does the municipality have a split tax rate (e.g., residential/commercial)?

No.

Question 6

How is agricultural land classified for property tax purposes (e.g., open space or commercial)?

As Agriculture/Horticulture (Tax codes 7**)

Question 7: Land Acquisitions

A) How much has the town spent on acquiring agricultural lands in the last five years?

$1,000,000

B) How much has the town spent on purchasing or otherwise contributing to an agricultural easement, either on its own or with other partners?

The above included both acquisition and easement. (The Town has budgeted $22,600 to cover costs associated with placing a CR on the agricultural property purchased in 2010 including baseline documentation and stewardship costs.)

C) Where did these funds come from?

Community Preservation Act funds, Town General funds and two donations: one from the Steinberg-Lali Foundation and one from the Acton Conservation Trust.

PRODUCTION

Question 1

Does the public school district have a program to purchase local foods?

Yes. They purchase food from Bolton Orchards, Lanni Orchards, and Costa Fruit and Produce Company. They also participate in Mass Farm to School Week, each year they bring in corn on the cob for all of the elementary schools and the children shuck the corn. (Kirsten Nelson, Director of Food Services Acton Schools)

Question 2

Does your town have any community gardens? If so, who owns the land?

Yes. The Town owns and manages two Community Gardens. (Morrison Farm and Robbins Mill)

Question 3

Are there any farming operations in town that operate as Community Supported Agriculture?

No.

Question 4

Does your community have a farmer's market?

Yes.

Question 5

Does your community have any farming support organizations (e.g., 4H, Grange)?

Boxborough Grange #131 includes the Town of Acton. Acton also has a 4H club C.R.A.F.T. & Zingers COMPACT

PLANT LIST

Symbol/Botanical Name	Common Name	No.	Size	Remarks
Trees (Deciduous)				
ARO/Acer rubrum 'October Glory'	October Glory Red Maple	7	2-2.5 "C	
ARS/Acer rubrum 'Red Sunset'	Red Sunset Red Maple	8	2-2.5"C	
ASB/Acer saccharum 'Bonfire'	Bonfire Sugar Maple	1	2-2.5"C	
AS/Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	3	2-2.5"C	
BN/Betula nigra 'Heritage'	Single stem Heritage River Birch	3	8-10'Ht	May sub. 'Dura Heat'
CL/Cladrastrus lutea	Yellowwood	3	2-2.5"C	
CLP/Cladrastrus lutea 'Perkin's Pink'	Perkin's Pink Yellowwood	1	2-2.5"C	
LS/Liquidamber styraciflua	Sweetgum	1	2 – 2.5"C	
NS/Nyssa sylvatica	Tupelo	3	5-6'HT	
Shrubs				
AL/Amelanchier 'Autumn Brilliance'	Autumn Brilliance Serviceberry	10	6-7'Ht	Multi-stem/ white fls early May; fruit/birds; native
FS/Forsythia 'Lynnwood Gold'	Lynnwood Gold Forsythia	21	4-5'Ht	Matching
HA/Hamamalis vernalis (or int.'Arnold Promise')	Vernal Witchhazel	10	4-5'Ht	Matching, heavy; Yellow fls-Feb-March
IG/Ilex glabra 'Shamrock'	Shamrock Ink	13	5gal	Evergreen native
IV/Ilex verticillata 'Sparkleberry'	Sparkleberry Winterberry	15	5gal	Improved native
VI/Viburnum cassinoides	Witherrod Viburnum	5	5gal	
VIB/Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	15	5gal	Improved native
Groundcover and Bulbs				
VC/Vaccinium angustifolium	Lowbush Blueberry	160	1 or 2 gal	Random spacing
Daf/Narcissis naturalizing mix	Daffodils	200	bulbs	Random spacing
Lawn seed	Sun and/or shade mixes as needed			
Rain Gardens – Locate plants on site with landscape architect				
Rain Garden "A"				
AL/Amelanchier 'Autumn Brilliance'	Autumn Brilliance Serviceberry	6	4-5'Ht	Multi-stem/ white fls early May; fruit/birds; native
CS/Cornus stolonifera	Redosier Dogwood	7	2-3'Ht	
LC/Lotus corniculatus	Birdsfoot Trefoil	30		4"pot or as available
Rain Garden "B"				
AL/Amelanchier 'Autumn Brilliance'	Autumn Brilliance Serviceberry	5	4-5'Ht	Multi-stem/ white fls early May; fruit/birds; native
JV/Juniperous virginiana	Eastern Redcedar	3	4-5'Ht	
PH/Physocarpus opulifolius 'Summer Wine'	Summer Wine Ninebark	5	3gal	
LB/Lindera benzoin	Spicebush	7	3gal	
P/Panicum vergatum	Switchgrass	30		4"pot or as available

Miracle Field - Site & Planting Plan
Acton, Massachusetts

Prepared For: **The Miracle League Field of Massachusetts** and **The Town of Acton, MA**

Civil Engineers: **Stamski & McNary, Acton, MA** 978.263.8585

Landscape Architect: **Kim Ahern Landscape Architects** 978.486.0040

Date: **11/17/2011**

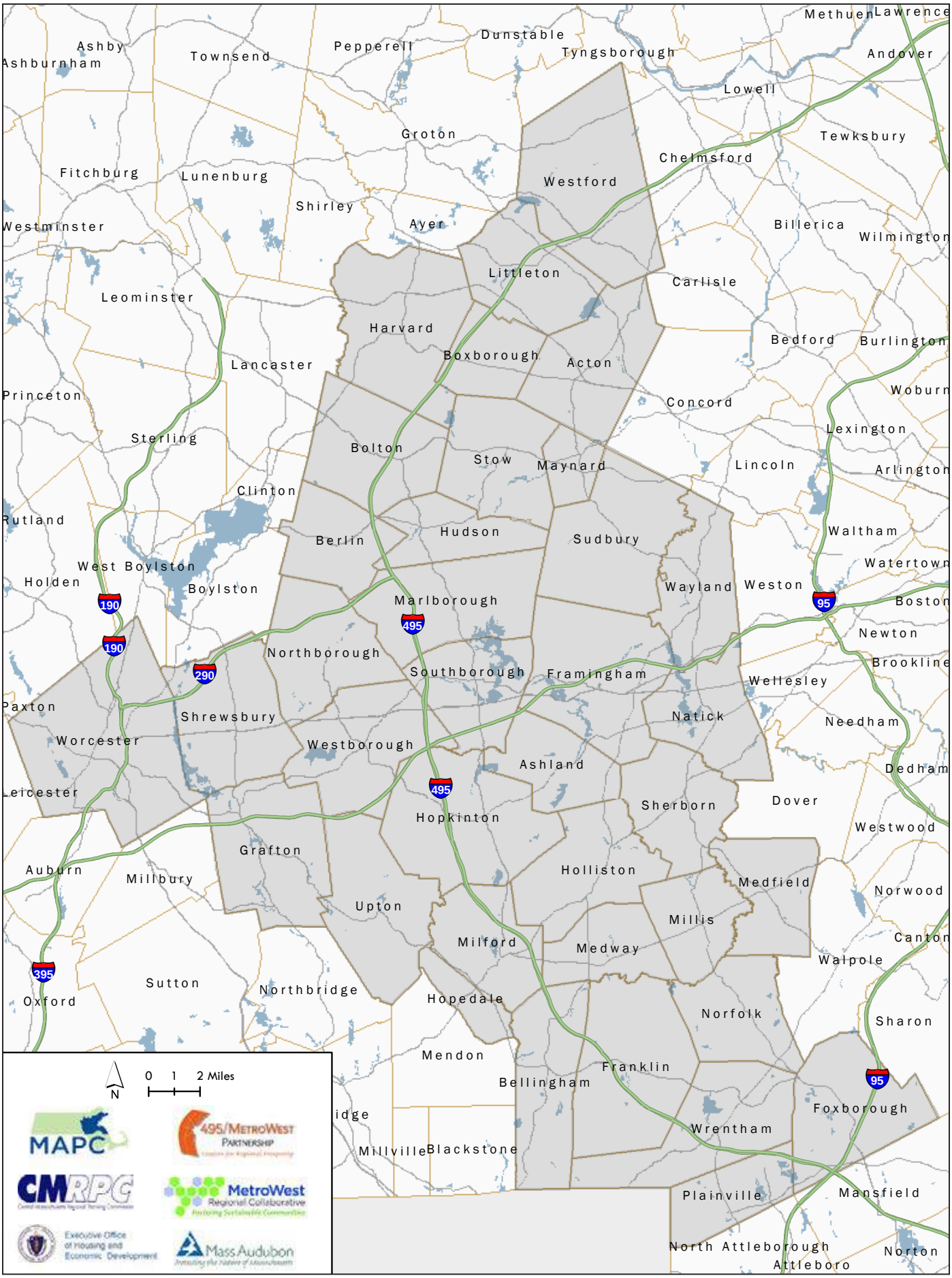
Scale: **1" = 20'**

0' 20' 40' 80'

L-1
Sheet:


CENTRAL
ACTON
STOW
MAPLE
R. R. AVE.
SCHOOL
MAINARD
HIGH

CONTENTS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Littleton
Carlisle
Leominster
Harvard
Bedford
Burlington
Boxborough
Acton
Lancaster
Princeton
Concord
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Sterling
Bolton
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Maynard
Lincoln
Arlington
Clinton
Rutland
Berlin
Hudson
Sudbury
Waltham
West Boylston
Watertown
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Marlborough
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Northborough
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Framingham
Brookline
Wellesley
Paxton
Shrewsbury
Natick
Needham
Worcester
Westborough
Ashland
Dedham
Leicester
Sherborn
Dover
Hopkinton
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Grafton
Auburn
Millbury
Holliston
Medfield
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CMRPC
MetroWest Regional Collaborative
Executive Office of Housing and Economic Development
Mass Audubon


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CARLISLE
BOXBOROUGH
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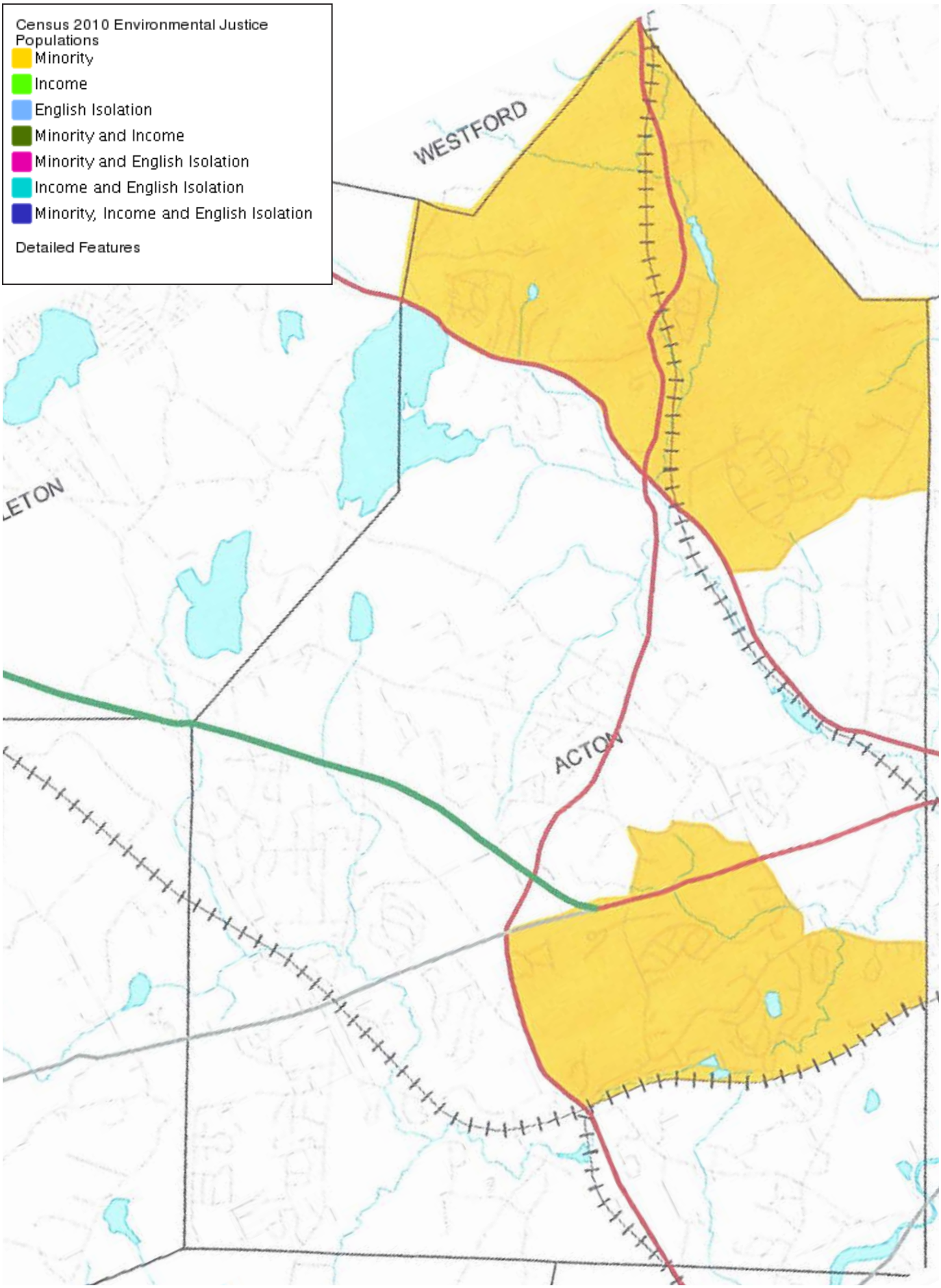
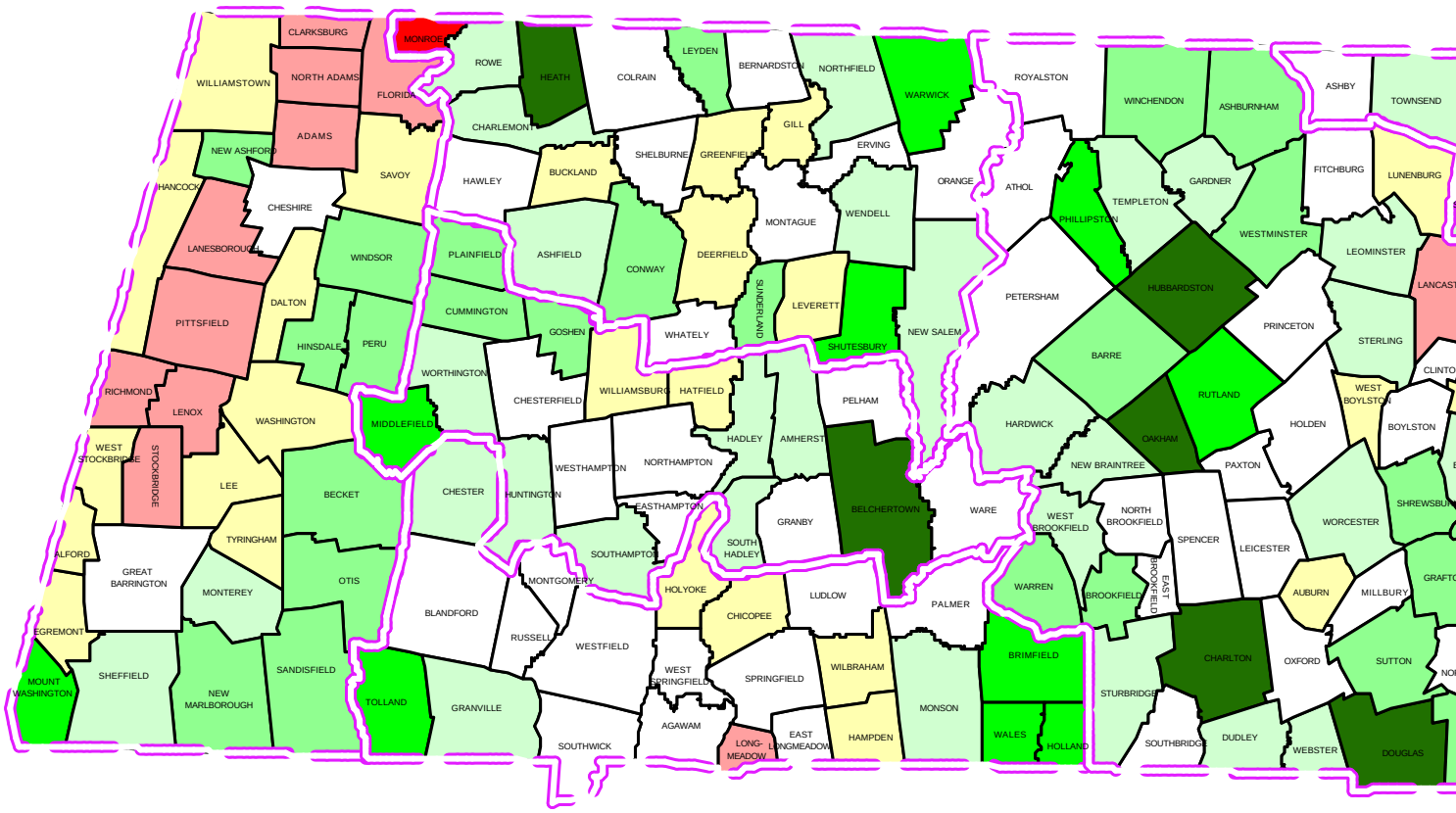
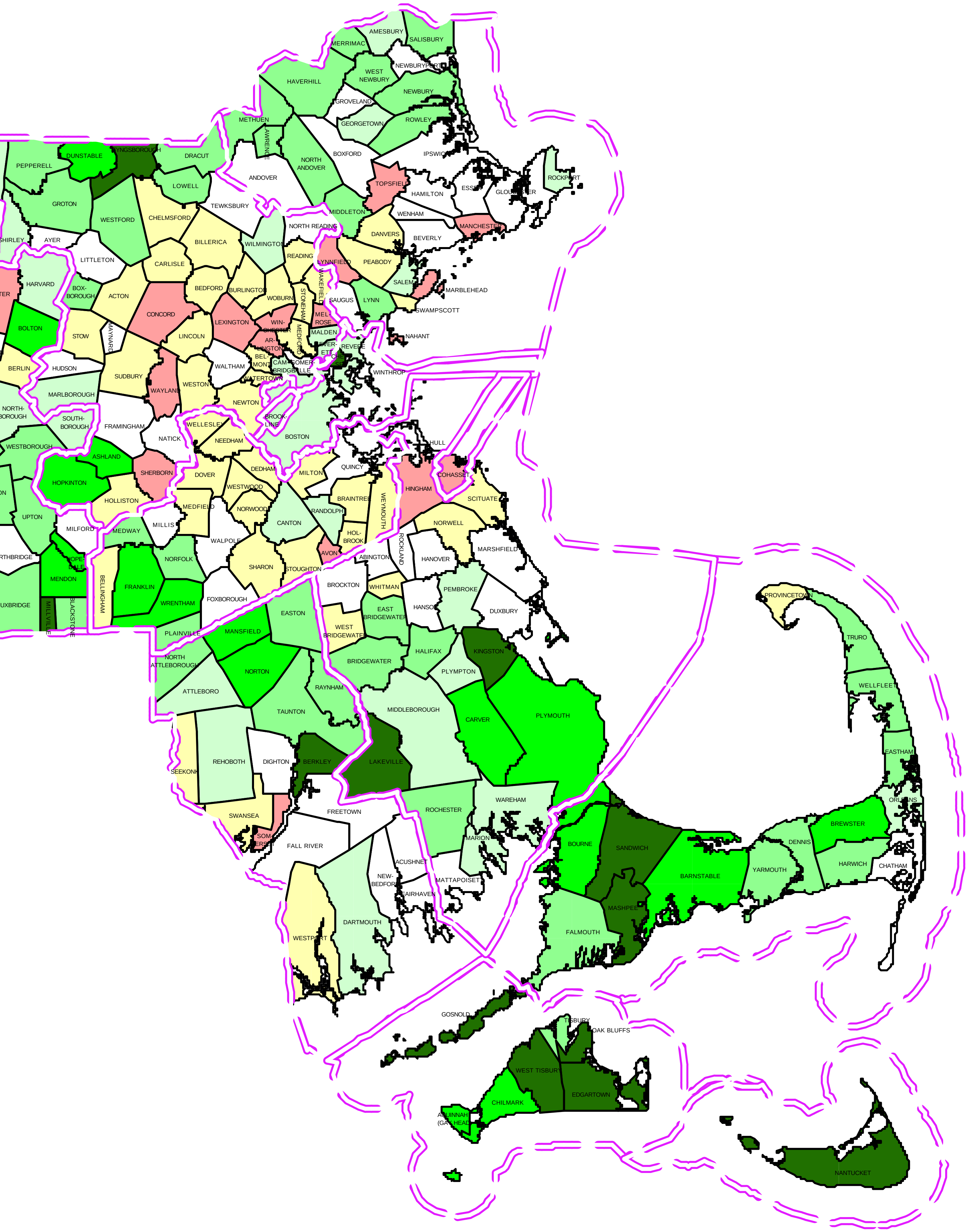

Census 2010 Environmental Justice Populations
Minority
Income
English Isolation
Minority and Income
Minority and English Isolation
Income and English Isolation
Minority, Income and English Isolation
Detailed Features
WESTFORD
ACTON

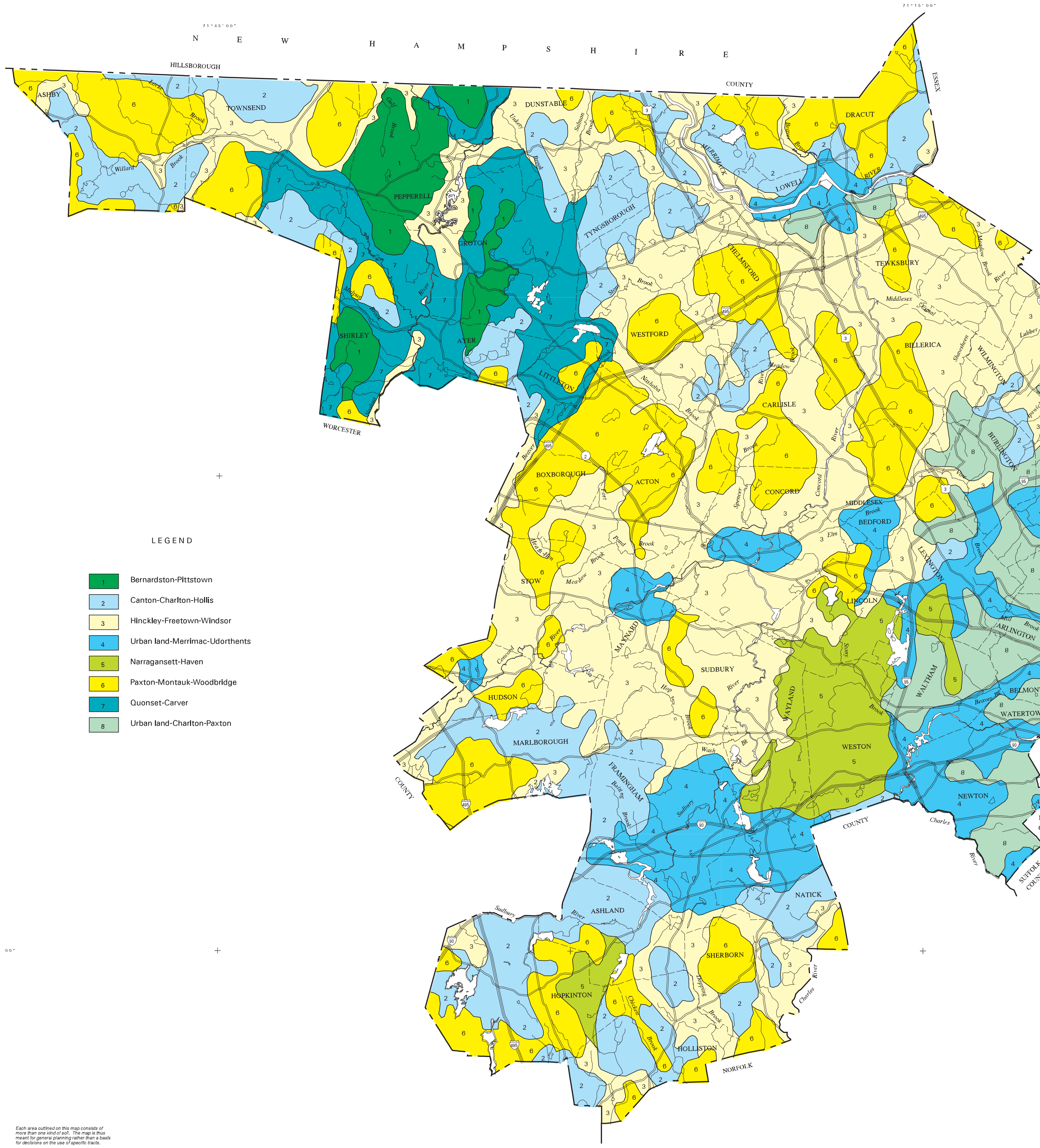


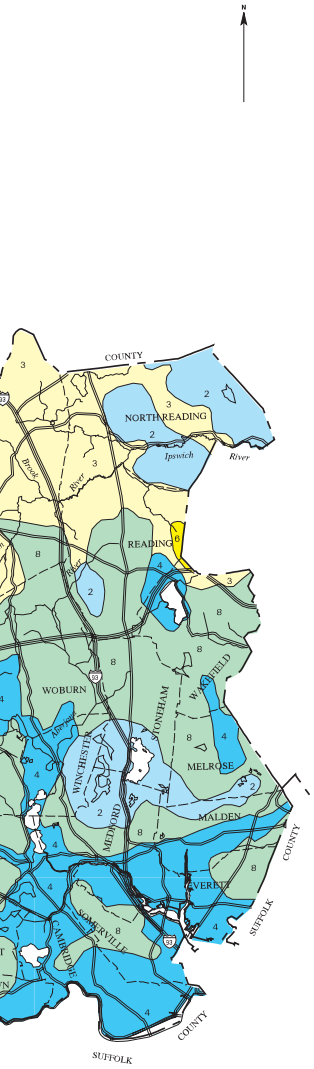
Percent change
Massachusetts: 6.6%

45% to 85%	(19)
30% to 44.9%	(27)
15% to 29.9%	(63)
5% to 14.9%	(56)
-5% to 4.9%	(89)
-15% to -5.1%	(69)
-30% to -15.1%	(27)
-45% to -30.1%	(1)


AMESBURY
SALISBURY
MERRIMAC
WEST NEWBURY
NEWBURYPORT
HAVERHILL
NEWBURY
GROVELAND
GEORGETOWN
ROWLEY
METHUEN
LAWRENCE
NORTH ANDOVER
BOXFORD
IPSWICH
DUNSTABLE
TYNGSBOROUGH
DRACUT
PEPPERELL
ANDOVER
TOPSFIELD
ROCKPORT
LOWELL
ESSEX
HAMILTON
GLOUCESTER
GROTON
TEWKSBURY
MIDDLETON
WENHAM
WESTFORD
CHELMSFORD
MANCHESTER
NORTH READING
DANVERS
BEVERLY
SHIRLEY
AYER
BILLERICA
WILMINGTON
READING
LYNNFIELD
PEABODY
LITTLETON
CARLISLE
HARVARD
BOX-BOROUGH
ACTON
BEDFORD
BURLINGTON
WOBURN
STONEHAM
WAKEFIELD
SALEM
MARBLEHEAD
SAUGUS
LYNN
SWAMPSCOTT
CONCORD
LEXINGTON
WIN-CHESTER
MEL-ROSE
BOLTON
STOW
MAYNARD
LINCOLN
AR-LINGTON
MEDFORD
MALDEN
NAHANT
EVER-ETT
REVERE
BEL-MONT
CAM-BRIDGE
SOMER-VILLE
CHELSEA
BERLIN
HUDSON
SUDBURY
WALTHAM
WINTHROP
WAYLAND
WESTON
WATERTOWN
MARLBOROUGH
NEWTON
NORTH-BOROUGH
SOUTH-BOROUGH
FRAMINGHAM
WELLESLEY
BROOK-LINE
BOSTON
NATICK
NEEDHAM
HULL
WESTBOROUGH
ASHLAND
QUINCY
DEDHAM
SHERBORN
DOVER
MILTON
COHASSET
HOPKINTON
HINGHAM
WESTWOOD
BRAINTREE
SCITUATE
HOLLISTON
WEYMOUTH
MEDFIELD
NORWOOD
RANDOLPH
CANTON
NORWELL
UPTON
MILLIS
MILFORD
MEDWAY
HOL-BROOK
ROCKLAND
WALPOLE
MARSHFIELD
AVON
ABINGTON
HANOVER
NORTHBRIDGE
HOPEDALE
NORFOLK
SHARON
STOUGHTON
MENDON
BROCKTON
WHITMAN
PEMBROKE
BELLINGHAM
FRANKLIN
FOXBOROUGH
UXBRIDGE
MILLVILLE
BLACKSTONE
WRENTHAM
EASTON
EAST BRIDGEWATER
HANSON
DUXBURY
PROVINCETOWN
WEST BRIDGEWATER
PLAINVILLE
MANSFIELD
KINGSTON
HALIFAX
TRURO
NORTH ATTLEBOROUGH
BRIDGEWATER
NORTON
PLYMPTON
WELLFLEET
ATTLEBORO
RAYNHAM
TAUNTON
MIDDLEBOROUGH
CARVER
PLYMOUTH
EASTHAM
REHOBOTH
DIGHTON
BERKLEY
LAKEVILLE
SEEKONK
ORLEANS
WAREHAM
ROCHESTER
FREETOWN
BREWSTER
SWANSEA
MARION
DENNIS
BOURNE
SANDWICH
SOMERSET
FALL RIVER
YARMOUTH
ACUSHNET
HARWICH
CHATHAM
BARNSTABLE
NEW-BEDFORD
MATTAPOISETT
FAIRHAVEN
MASHPEE
DARTMOUTH
FALMOUTH
WESTPORT
GOSNOLD
TISBURY
OAK BLUFFS
WEST TISBURY
EDGARTOWN
CHILMARK
AQUINNAH (GAY HEAD)
NANTUCKET

MIDDLESEX SOIL MAP





UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP
MIDDLESEX COUNTY, MASSACHUSETTS

MILES
KILOMETERS
SCALE = 1:135000

SOIL LEGEND

YMBOL	NAME
	Water
A	Pootatuck fine sandy loam, 0 to 3 percent slopes
A	Rippowam fine sandy loam, 0 to 3 percent slopes
A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes
A	Limerick silt loam, 0 to 3 percent slopes
0B	Raynham silt loam, 0 to 5 percent slopes
2B	Wareham loamy fine sand, 0 to 5 percent slopes
3B	Raypol silt loam, 0 to 5 percent slopes
6A	Saco mucky silt loam, 0 to 1 percent slopes
4A	Birdsall mucky silt loam, 0 to 1 percent slopes
1A	Swansea muck, 0 to 1 percent slopes
2A	Freetown muck, 0 to 1 percent slopes
3A	Freetown muck, ponded, 0 to 1 percent slopes
1B	Ridgebury fine sandy loam, 3 to 8 percent slopes, extremely stony
3B	Whitman fine sandy loam, 0 to 5 percent slopes, extremely stony
7A	Suncook loamy sand, 0 to 3 percent slopes
8A	Winooski very fine sandy loam, 0 to 3 percent slopes
9A	Occum very fine sandy loam, 0 to 3 percent slopes
03B	Charlton-Hollis-Rock outcrop complex, 3 to 8 percent slopes
03C	Charlton-Hollis-Rock outcrop complex, 8 to 15 percent slopes
03D	Charlton-Hollis-Rock outcrop complex, 15 to 25 percent slopes
04C	Hollis-Rock outcrop-Charlton complex, 3 to 15 percent slopes
04D	Hollis-Rock outcrop-Charlton complex, 15 to 25 percent slopes
05E	Rock outcrop-Hollis complex, 3 to 35 percent slopes
06C	Narragansett-Hollis-Rock outcrop complex, 3 to 15 percent slopes
06D	Narragansett-Hollis-Rock outcrop complex, 15 to 25 percent slopes
23A	Scio very fine sandy loam, 0 to 3 percent slopes
23B	Scio very fine sandy loam, 3 to 8 percent slopes
51A	Haven silt loam, 0 to 3 percent slopes
51B	Haven silt loam, 3 to 8 percent slopes
53A	Hinckley loamy sand, 0 to 3 percent slopes
53B	Hinckley loamy sand, 3 to 8 percent slopes
53C	Hinckley loamy sand, 8 to 15 percent slopes
53D	Hinckley loamy sand, 15 to 25 percent slopes
53E	Hinckley loamy sand, 25 to 35 percent slopes
54A	Merrimac fine sandy loam, 0 to 3 percent slopes
54B	Merrimac fine sandy loam, 3 to 8 percent slopes
54C	Merrimac fine sandy loam, 8 to 15 percent slopes
55A	Windsor loamy sand, 0 to 3 percent slopes
55B	Windsor loamy sand, 3 to 8 percent slopes
55C	Windsor loamy sand, 8 to 15 percent slopes
56A	Deerfield loamy sand, 0 to 3 percent slopes
56B	Deerfield loamy sand, 3 to 8 percent slopes
59A	Carver loamy coarse sand, 0 to 3 percent slopes
59B	Carver loamy coarse sand, 3 to 8 percent slopes
59C	Carver loamy coarse sand, 8 to 15 percent slopes
60B	Sudbury fine sandy loam, 3 to 8 percent slopes
61A	Tisbury silt loam, 0 to 3 percent slopes
61B	Tisbury silt loam, 3 to 8 percent slopes
62B	Quonset sandy loam, 3 to 8 percent slopes
62C	Quonset sandy loam, 8 to 15 percent slopes
62D	Quonset sandy loam, 15 to 25 percent slopes
62E	Quonset sandy loam, 25 to 35 percent slopes
00B	Montauk fine sandy loam, 3 to 8 percent slopes
00C	Montauk fine sandy loam, 8 to 15 percent slopes
00D	Montauk fine sandy loam, 15 to 25 percent slopes
02B	Montauk fine sandy loam, 3 to 8 percent slopes, extremely stony
02C	Montauk fine sandy loam, 8 to 15 percent slopes, extremely stony
02D	Montauk fine sandy loam, 15 to 25 percent slopes, extremely stony
05B	Paxton fine sandy loam, 3 to 8 percent slopes
05C	Paxton fine sandy loam, 8 to 15 percent slopes
05D	Paxton fine sandy loam, 15 to 25 percent slopes
05E	Paxton fine sandy loam, 25 to 35 percent slopes
07B	Paxton fine sandy loam, 3 to 8 percent slopes, extremely stony
07C	Paxton fine sandy loam, 8 to 15 percent slopes, extremely stony

YMBOL	NAME
307D	Paxton fine sandy loam, 15 to 25 percent slopes, extremely stony
307E	Paxton fine sandy loam, 25 to 35 percent slopes, extremely stony
310A	Woodbridge fine sandy loam, 0 to 3 percent slopes
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes
310C	Woodbridge fine sandy loam, 8 to 15 percent slopes
311B	Woodbridge fine sandy loam, 3 to 8 percent slopes, very stony
311C	Woodbridge fine sandy loam, 8 to 15 percent slopes, very stony
312B	Woodbridge fine sandy loam, 3 to 8 percent slopes, extremely stony
312C	Woodbridge fine sandy loam, 8 to 15 percent slopes, extremely stony
315B	Scituate fine sandy loam, 3 to 8 percent slopes
315C	Scituate fine sandy loam, 8 to 15 percent slopes
317B	Scituate fine sandy loam, 3 to 8 percent slopes, extremely stony
317C	Scituate fine sandy loam, 8 to 15 percent slopes, extremely stony
320B	Birchwood fine sandy loam, 3 to 8 percent slopes
325D	Newport channery fine sandy loam, 8 to 25 percent slopes
330B	Bernardston very fine sandy loam, 3 to 8 percent slopes
330C	Bernardston very fine sandy loam, 8 to 15 percent slopes
330D	Bernardston very fine sandy loam, 15 to 25 percent slopes
330E	Bernardston very fine sandy loam, 25 to 35 percent slopes
335B	Rainbow silt loam, 3 to 8 percent slopes
336B	Rainbow silt loam, 3 to 8 percent slopes, very stony
340B	Broadbrook very fine sandy loam, 3 to 8 percent slopes
340D	Broadbrook very fine sandy loam, 8 to 25 percent slopes
341B	Broadbrook very fine sandy loam, 3 to 8 percent slopes, very stony
341C	Broadbrook very fine sandy loam, 8 to 15 percent slopes, very stony
341D	Broadbrook very fine sandy loam, 15 to 25 percent slopes, very stony
345A	Pittstown silt loam, 0 to 3 percent slopes
345B	Pittstown silt loam, 3 to 8 percent slopes
405B	Charlton fine sandy loam, 3 to 8 percent slopes
405C	Charlton fine sandy loam, 8 to 15 percent slopes
407B	Charlton fine sandy loam, 3 to 8 percent slopes, extremely stony
407C	Charlton fine sandy loam, 8 to 15 percent slopes, extremely stony
407D	Charlton fine sandy loam, 15 to 25 percent slopes, extremely stony
415B	Narragansett silt loam, 3 to 8 percent slopes
415C	Narragansett silt loam, 8 to 15 percent slopes
415D	Narragansett silt loam, 15 to 25 percent slopes
416B	Narragansett silt loam, 3 to 8 percent slopes, very stony
416C	Narragansett silt loam, 8 to 15 percent slopes, very stony
416D	Narragansett silt loam, 15 to 25 percent slopes, very stony
420B	Canton fine sandy loam, 3 to 8 percent slopes
420C	Canton fine sandy loam, 8 to 15 percent slopes
420D	Canton fine sandy loam, 15 to 25 percent slopes
422B	Canton fine sandy loam, 3 to 8 percent slopes, extremely stony
422C	Canton fine sandy loam, 8 to 15 percent slopes, extremely stony
422D	Canton fine sandy loam, 15 to 25 percent slopes, extremely stony
424B	Canton fine sandy loam, 3 to 8 percent slopes, extremely bouldery
424C	Canton fine sandy loam, 8 to 15 percent slopes, extremely bouldery
424D	Canton fine sandy loam, 15 to 25 percent slopes, extremely bouldery
600	Pits, gravel
601	Pits, quarry
602	Urban land
603	Urban land, wet substratum
621B	Scio-Urban land complex, 0 to 8 percent slopes
622C	Paxton-Urban land complex, 3 to 15 percent slopes
623C	Woodbridge-Urban land complex, 3 to 15 percent slopes
624B	Haven-Urban land complex, 0 to 8 percent slopes
626B	Merrimac-Urban land complex, 0 to 8 percent slopes
627C	Newport-Urban land complex, 3 to 15 percent slopes
629C	Canton-Charlton-Urban land complex, 3 to 15 percent slopes
631C	Charlton-Urban land-Hollis complex, 3 to 15 percent slopes, rocky
652	Udorthents, refuse substratum
653	Udorthents, sandy
654	Udorthents, loamy
655	Udorthents, wet substratum
656	Udorthents-Urban land complex

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

CULTURAL FEATURES

BOUNDARIES

- National, state, or province
- County or parish
- Minor civil division
- Reservation (national forest or park, state forest or park)
- Limit of soil survey (label) and/or denied access area
- Field sheet matchline and neatline
- Cemetery

STATE COORDINATE TICK
1 890 000 FEET

GEOGRAPHIC COORDINATE TICK

ROAD EMBLEMS AND DESIGNATIONS

- Interstate (173)
- Federal (287)
- State (52)

SPECIAL SYMBOLS FOR SOIL SURVEY AND SSURGO

SOIL DELINEATIONS AND SYMBOLS (2A, 53A)

- Bedrock escarpment
- Other than bedrock escarpment
- Short steep slope
- Gravel pit
- Mine or quarry

MISCELLANEOUS SURFACE FEATURES

- Gravelly spot
- Marsh or swamp
- Rock outcrop
- Sandy spot
- Spoil area
- Stony spot
- Very stony spot
- Wet spot

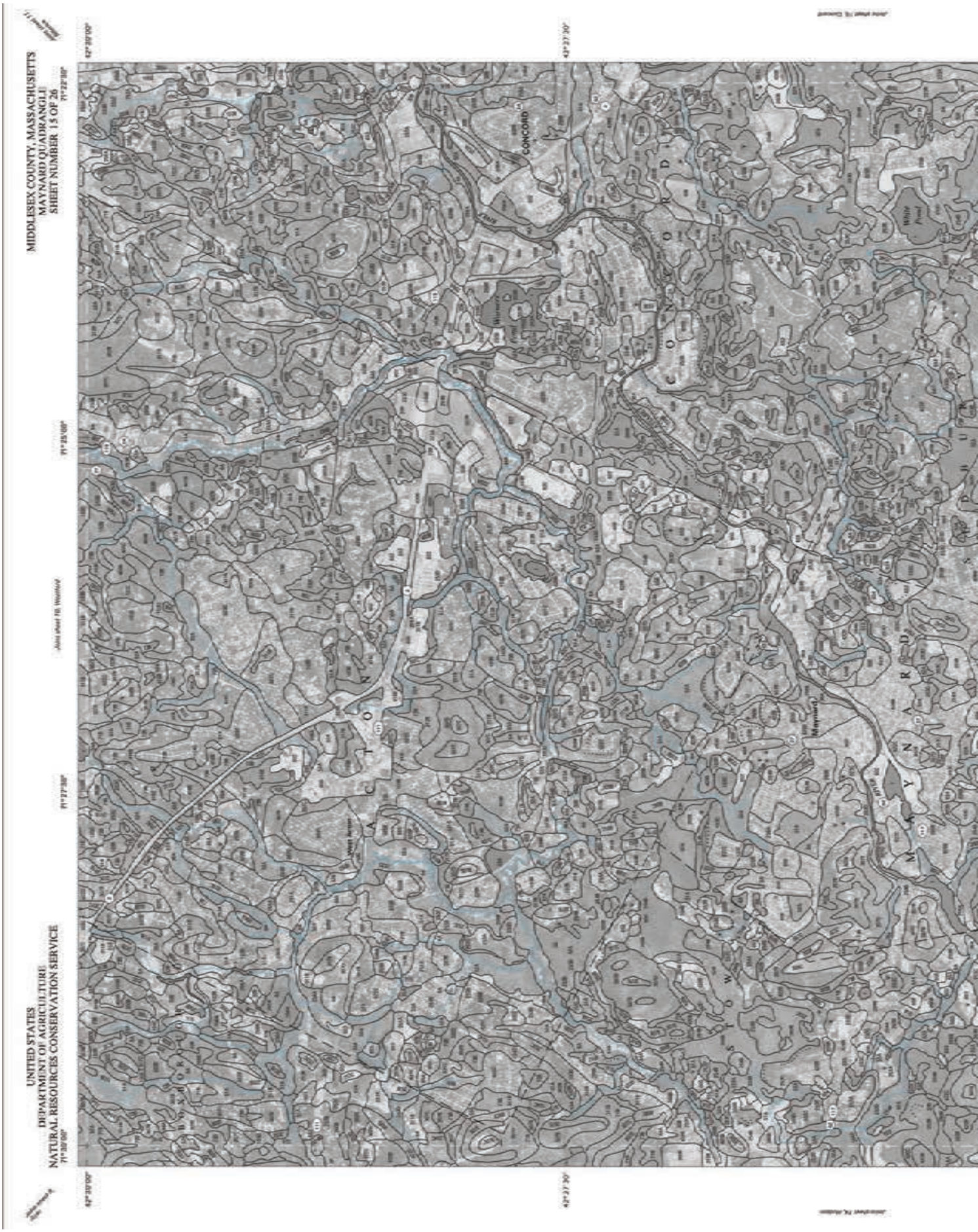
AD HOC FEATURES

- Bouldery spot
- Dry spot

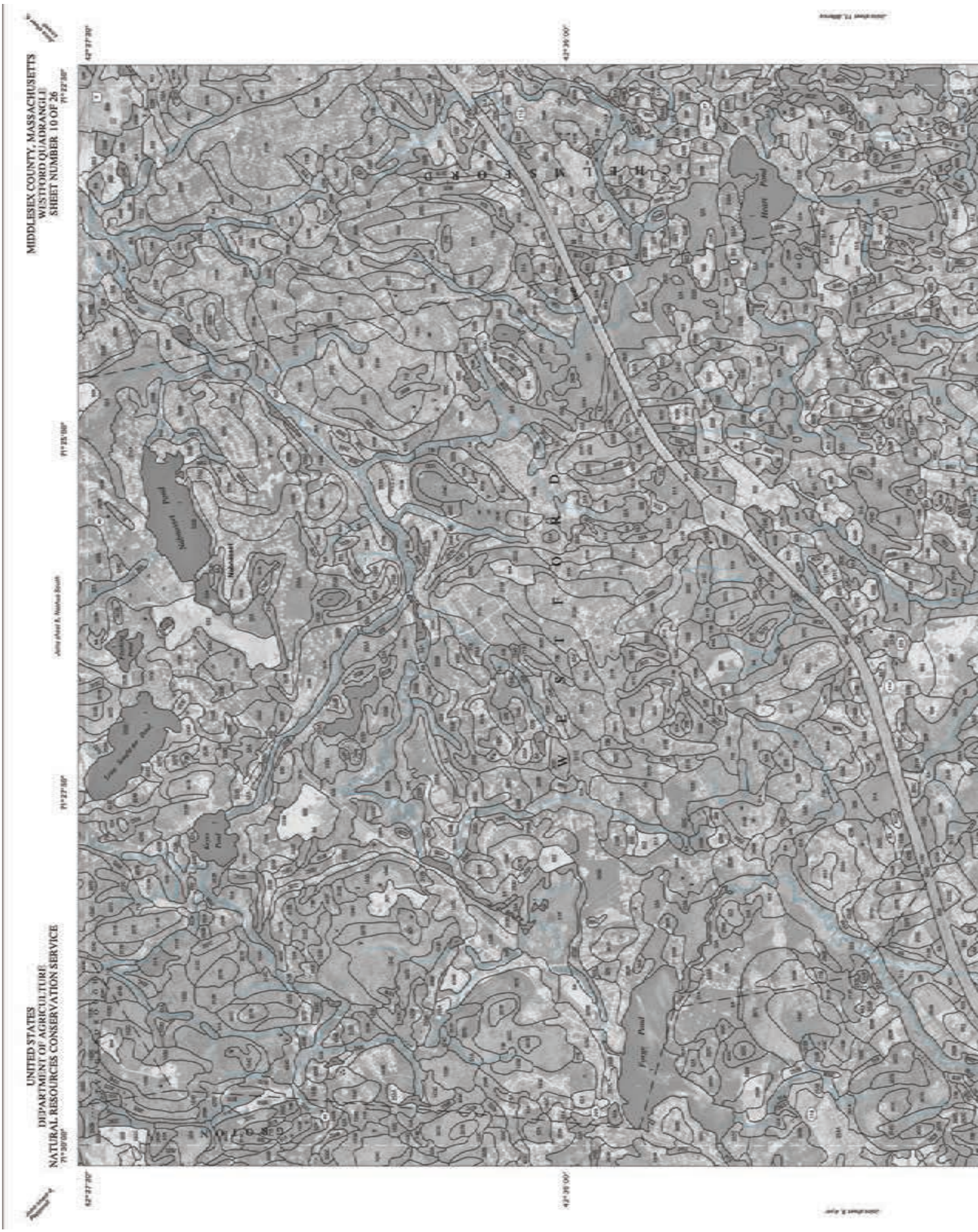
HYDROGRAPHIC FEATURES

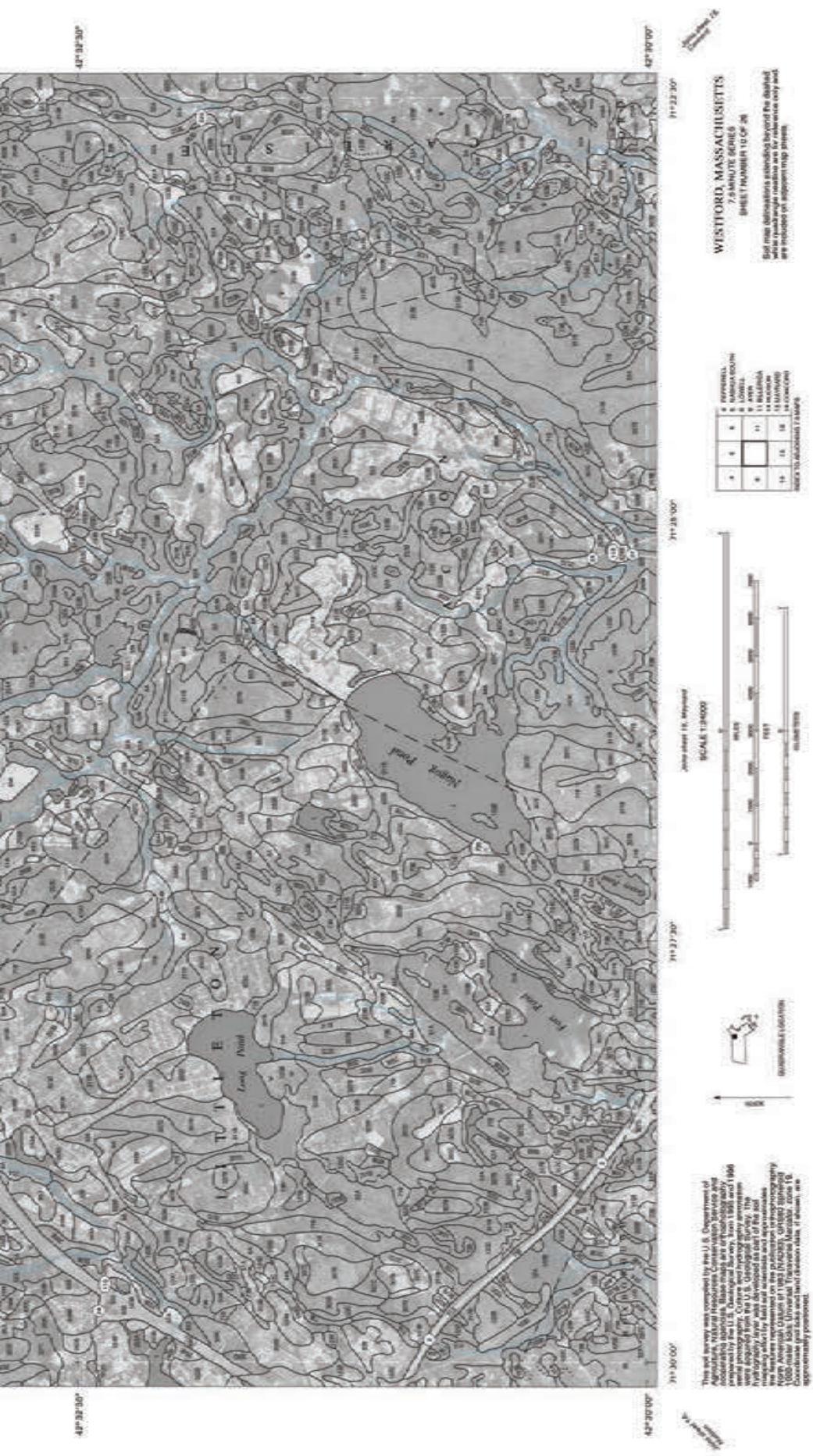
STREAMS

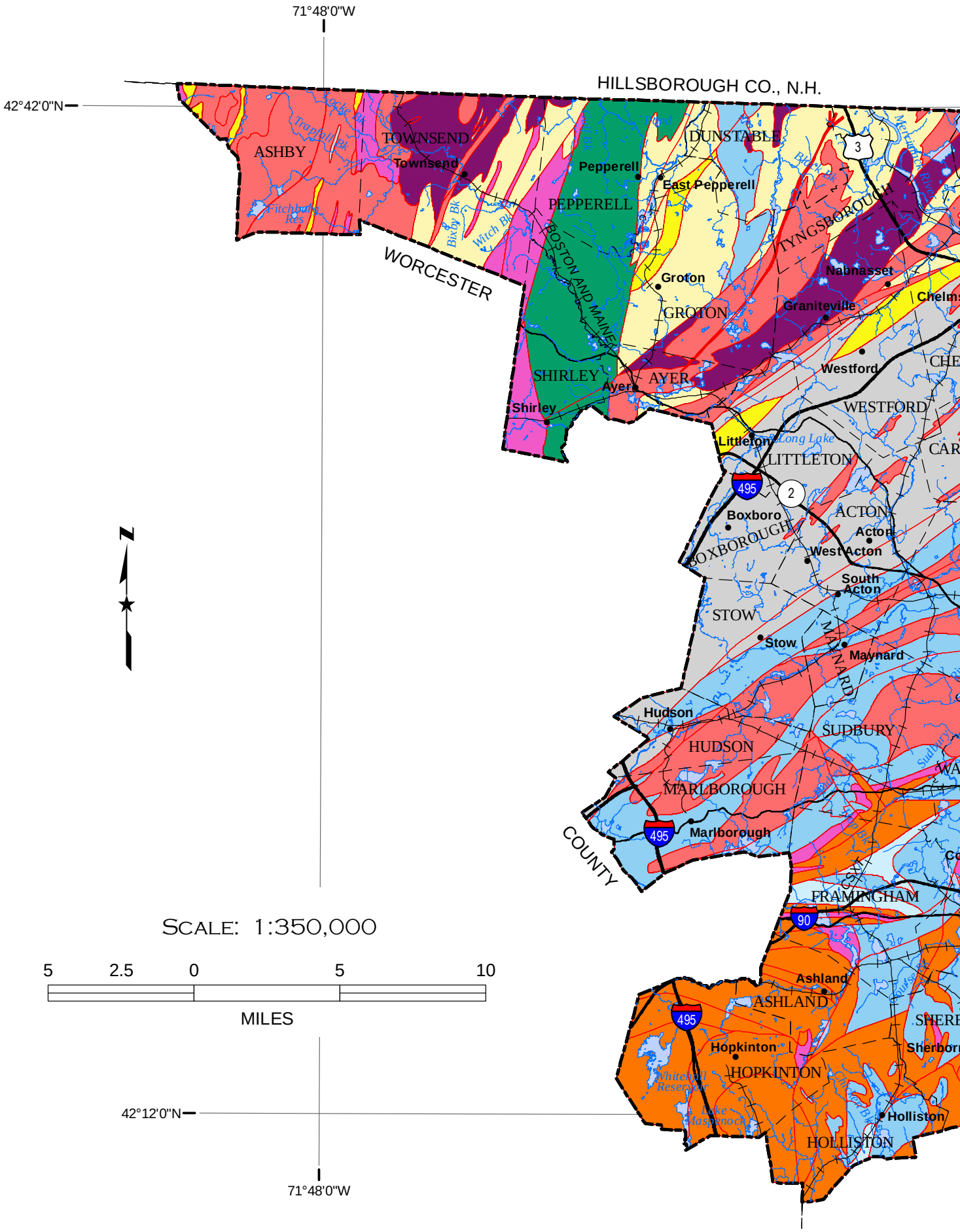
- Perennial stream, double line
- Perennial stream, single line
- Intermittent stream
- Drainage end

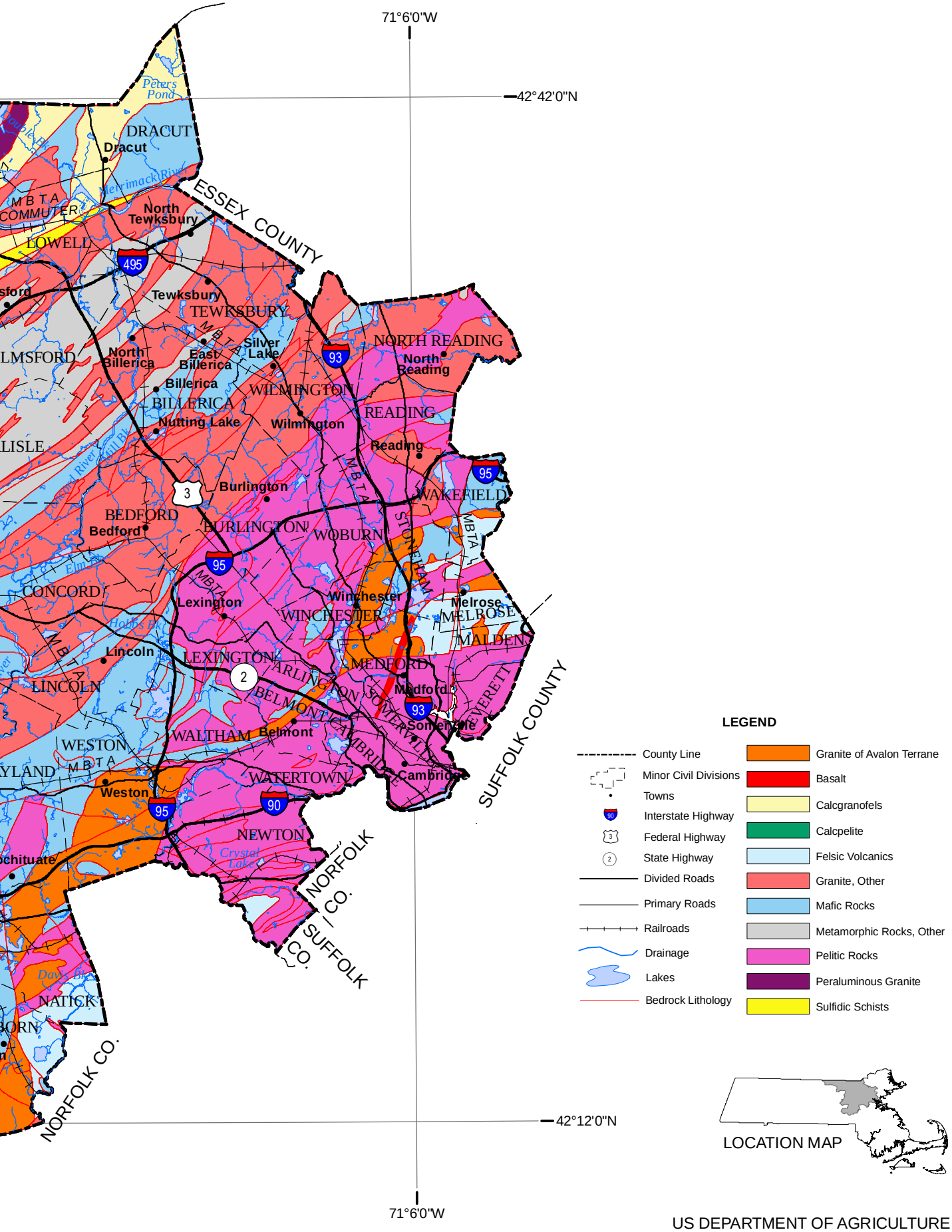

MIDDLESEX COUNTY, MASSACHUSETTS
MAYNARD QUADRANGLE
SHEET NUMBER 15 OF 26
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
CONCORD
MAYNARD
ACTON
WESTFORD

MAYNARD, MASSACHUSETTS
7.5 MINUTE SERIES
SHEET NUMBER 19 OF 25
SCALE 1:24000
Pond
Willis
Fuller
Pond
Mill
Pond
SUDBURY RIVER
MAYNARD
MARLBOROUGH

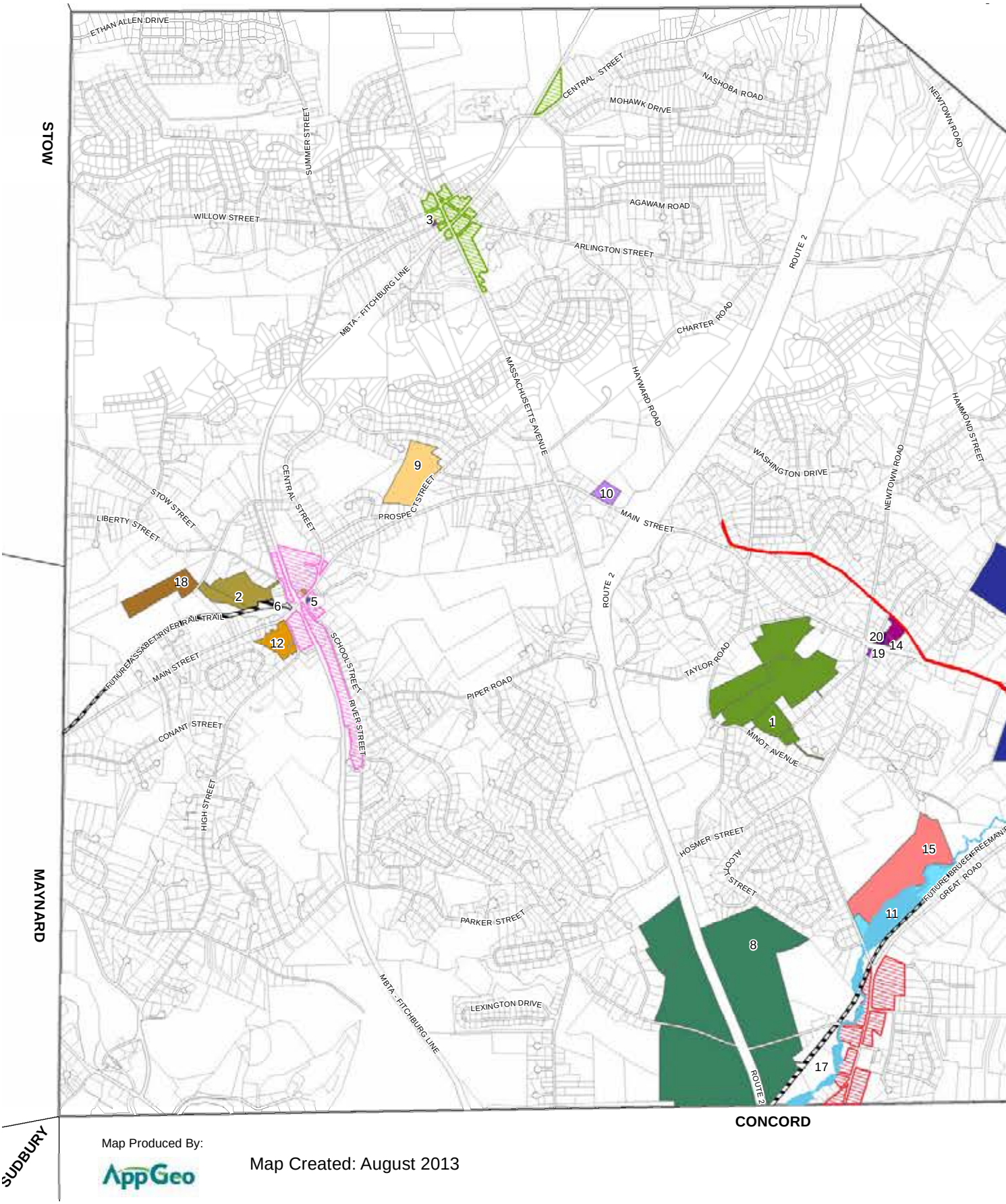

MIDDLESEX COUNTY, MASSACHUSETTS
WESTFORD QUADRANGLE
SHEET NUMBER 10 OF 26
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
CHELMSFORD
WESTFORD
Nabnasset Pond
Forge Pond


WESTFORD, MASSACHUSETTS
7.5-MINUTE SERIES
SHEET NUMBER 19 OF 26
SCALE 1:24000
Nashoba Pond
Long Pond
Forge Pond
Lower Pond
ACTON


71°48'0"W
42°42'0"N
HILLSBOROUGH CO., N.H.
ASHBY
TOWNSEND
Townsend
Pepperell
East Pepperell
PEPPERELL
DUNSTABLE
TYNGSBOROUGH
Nabnasset
Groton
GROTON
Graniteville
WORCESTER
BOSTON AND MAINE
SHIRLEY
Shirley
AYER
Ayer
Westford
WESTFORD
Littleton
Long Lake
LITTLETON
495
2
3
Boxboro
BOXBOROUGH
ACTON
Acton
West Acton
South Acton
STOW
Stow
Maynard
MAYNARD
Hudson
HUDSON
SUDBURY
MARLBOROUGH
Marlborough
COUNTY
FRAMINGHAM
90
Ashland
ASHLAND
Hopkinton
HOPKINTON
Holliston
HOLLISTON
N
SCALE: 1:350,000
5 2.5 0 5 10
MILES
42°12'0"N
71°48'0"W



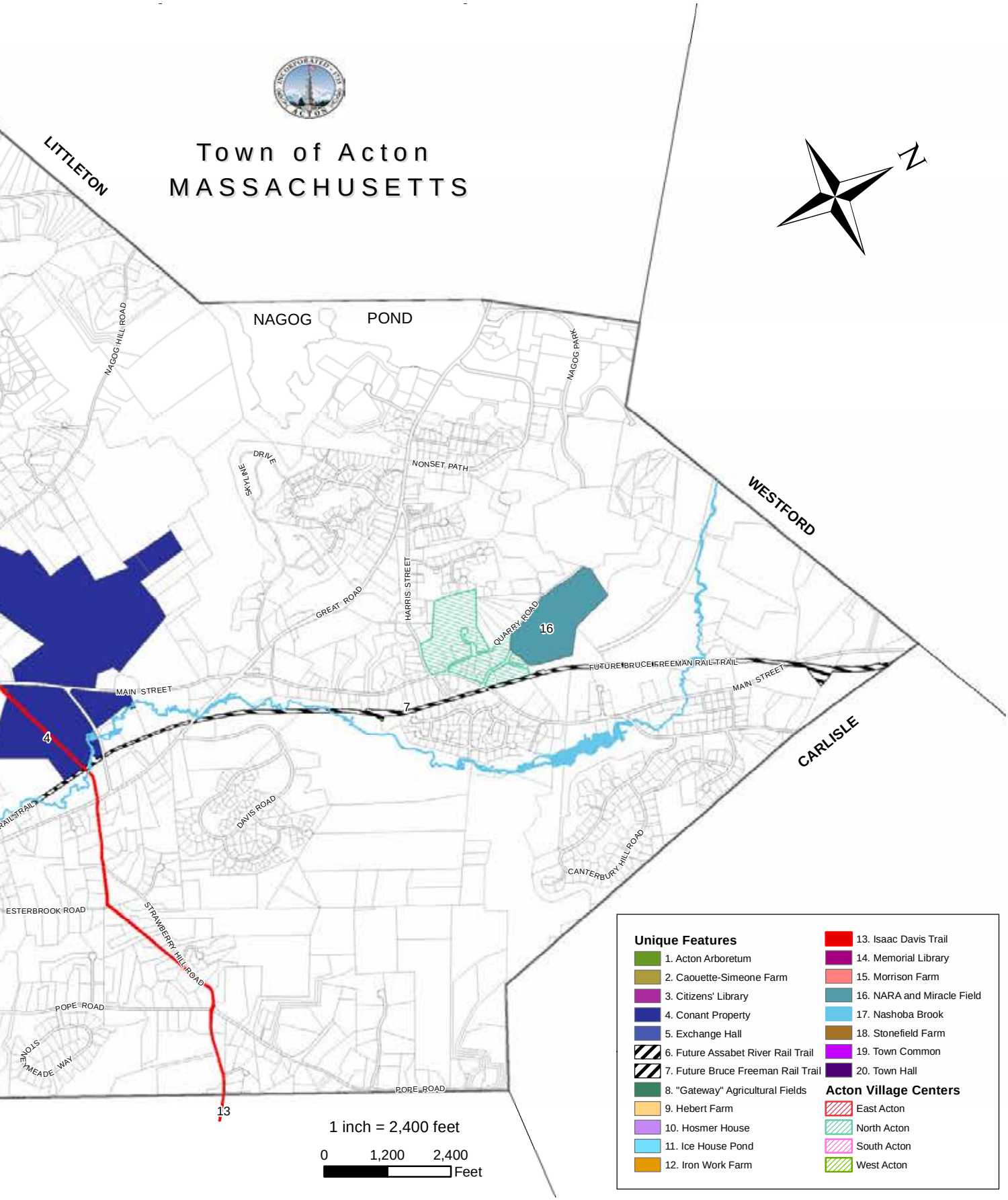
US DEPARTMENT OF AGRICULTURE



Map Produced By:

AppGeo

Map Created: August 2013


Town of Acton
MASSACHUSETTS
LITTLETON
NAGOG POND
WESTFORD
CARLISLE
N
NAGOG HILL ROAD
NAGOG PARK
NONSET PATH
SKYLINE DRIVE
HARRIS STREET
GREAT ROAD
QUARRY ROAD
16
FUTURE BRUCE FREEMAN RAIL TRAIL
MAIN STREET
7
4
DAVIS ROAD
CANTERBURY HILL ROAD
ESTERBROOK ROAD
STRAWBERRY HILL ROAD
POPE ROAD
STONEMEADE WAY
13
1 inch = 2,400 feet
0 1,200 2,400
Feet
Unique Features
1. Acton Arboretum
2. Caouette-Simeone Farm
3. Citizens' Library
4. Conant Property
5. Exchange Hall
6. Future Assabet River Rail Trail
7. Future Bruce Freeman Rail Trail
8. "Gateway" Agricultural Fields
9. Hebert Farm
10. Hosmer House
11. Ice House Pond
12. Iron Work Farm
13. Isaac Davis Trail
14. Memorial Library
15. Morrison Farm
16. NARA and Miracle Field
17. Nashoba Brook
18. Stonefield Farm
19. Town Common
20. Town Hall
Acton Village Centers
East Acton
North Acton
South Acton
West Acton

ZONING

AFFORDABLE HOUSING OVERLAY DISTRICT

A

B

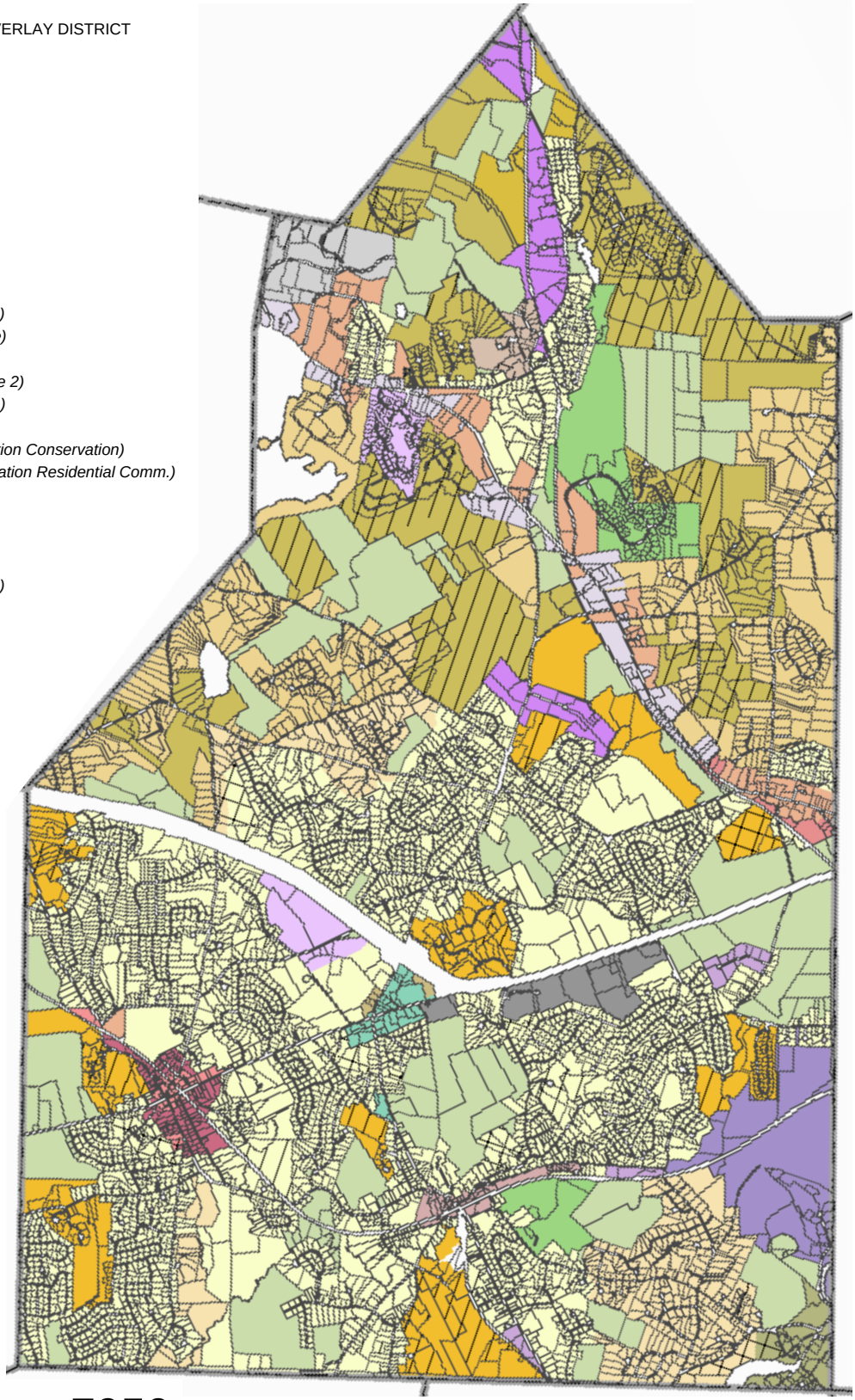
ZONING DISTRICTS

R-2 (Residence 2)
R-4 (Residence 4)
R-8 (Residence 8)
R8/4 (Residence 8/4)
R-10 (Residence 10)
R-A (Residence A)
R-AA (Residence AA)
R-10/8 (Residence 10/8)
NAV (North Acton Village)
SAV (South Acton Village)
EAV (East Acton Village)
EAV-2 (East Acton Village 2)
WAV (West Acton Village)
VR (Village Residential)
ARC (Agriculture Recreation Conservation)
PCRC (Planned Conservation Residential Comm.)
LB (Limited Business)
GI (General Industrial)
LI (Light Industrial)
LI-1 (Light Industrial 1)
SM (Small Manufacturing)
TD (Technology District)
KC (Kelley's Corner)
OP-1 (Office Park 1)
OP-2 (Office Park 2)
PM (Powder Mill)

TOWN DATA

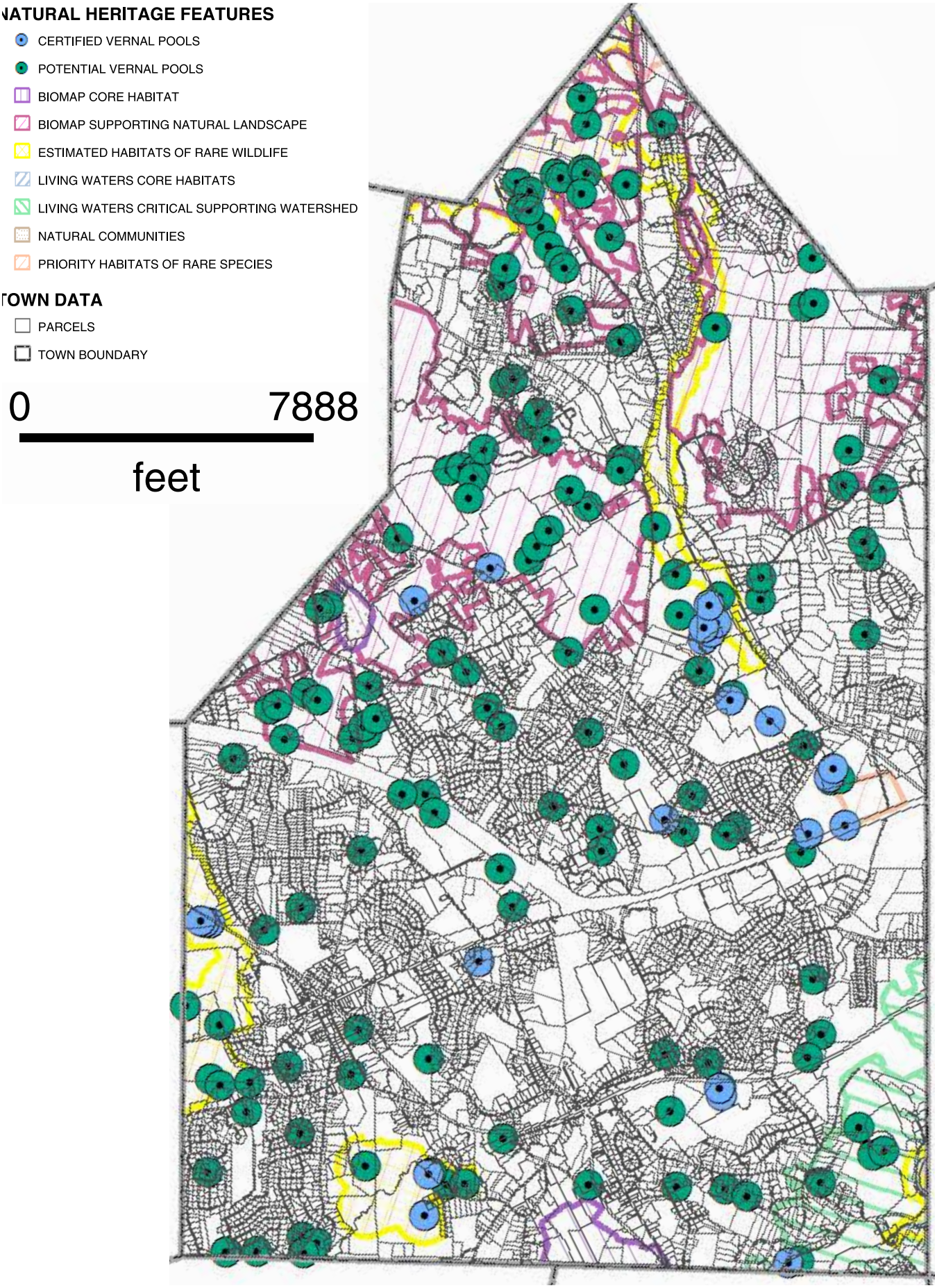
PARCELS

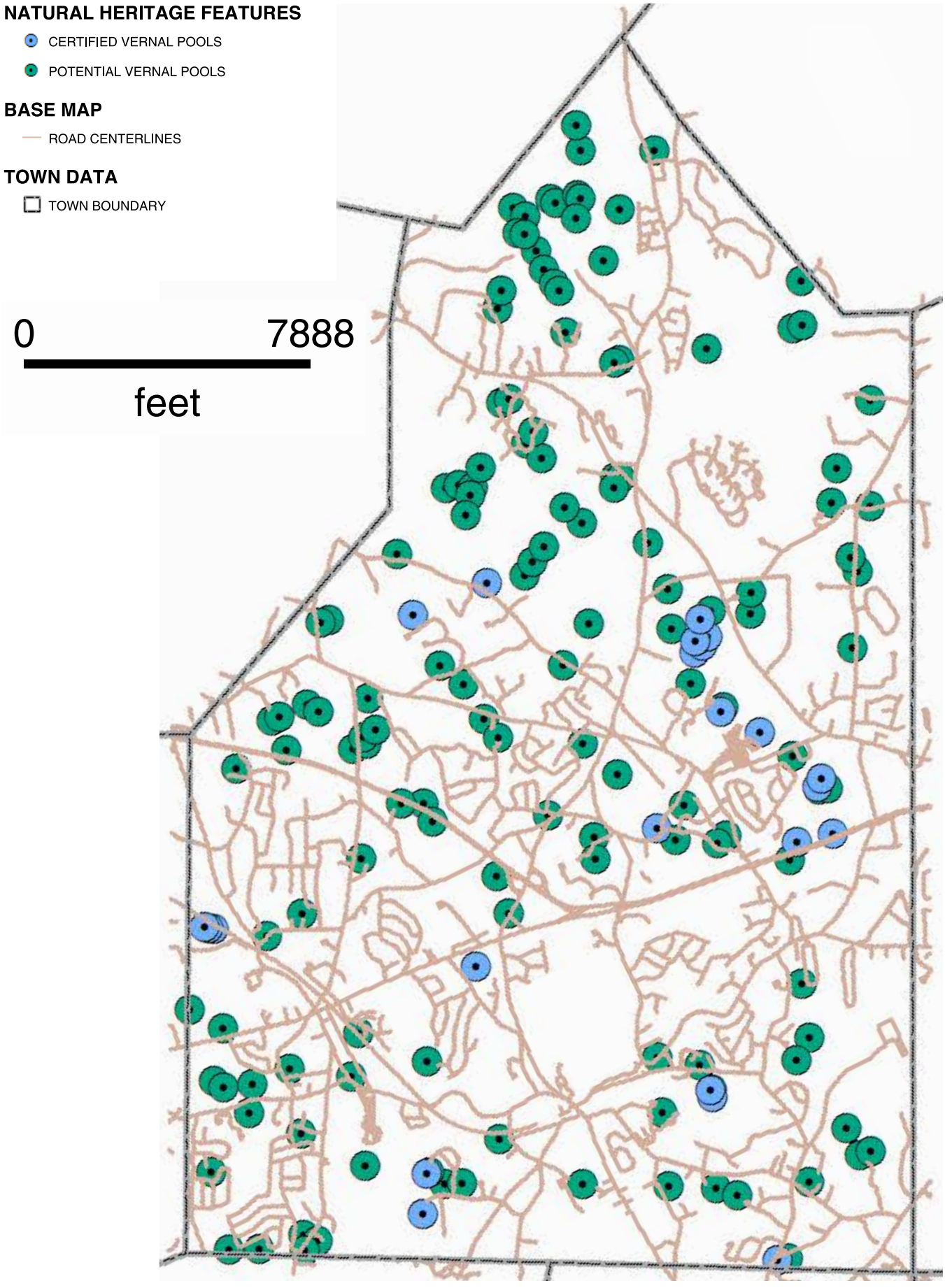
TOWN BOUNDARY

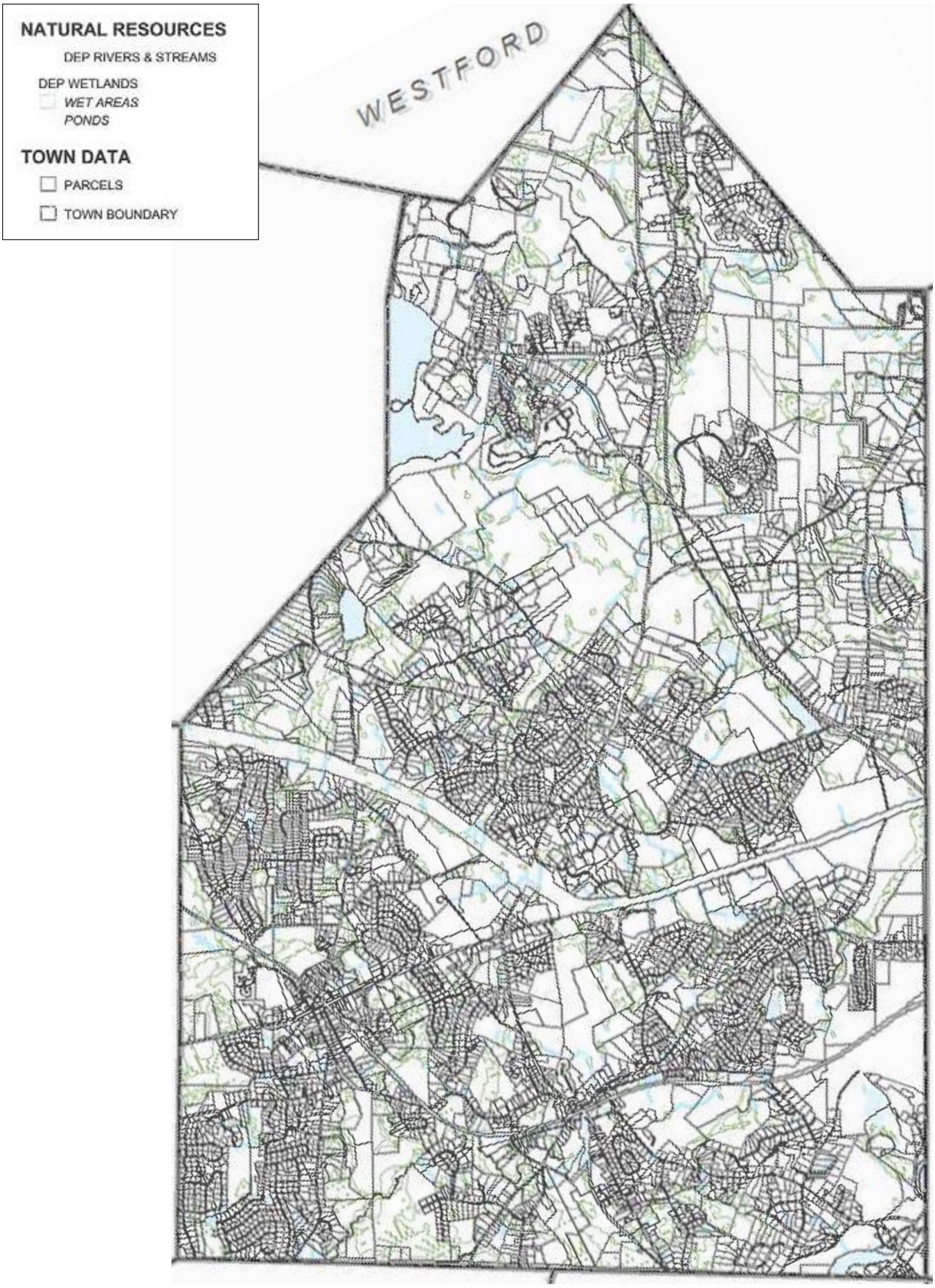


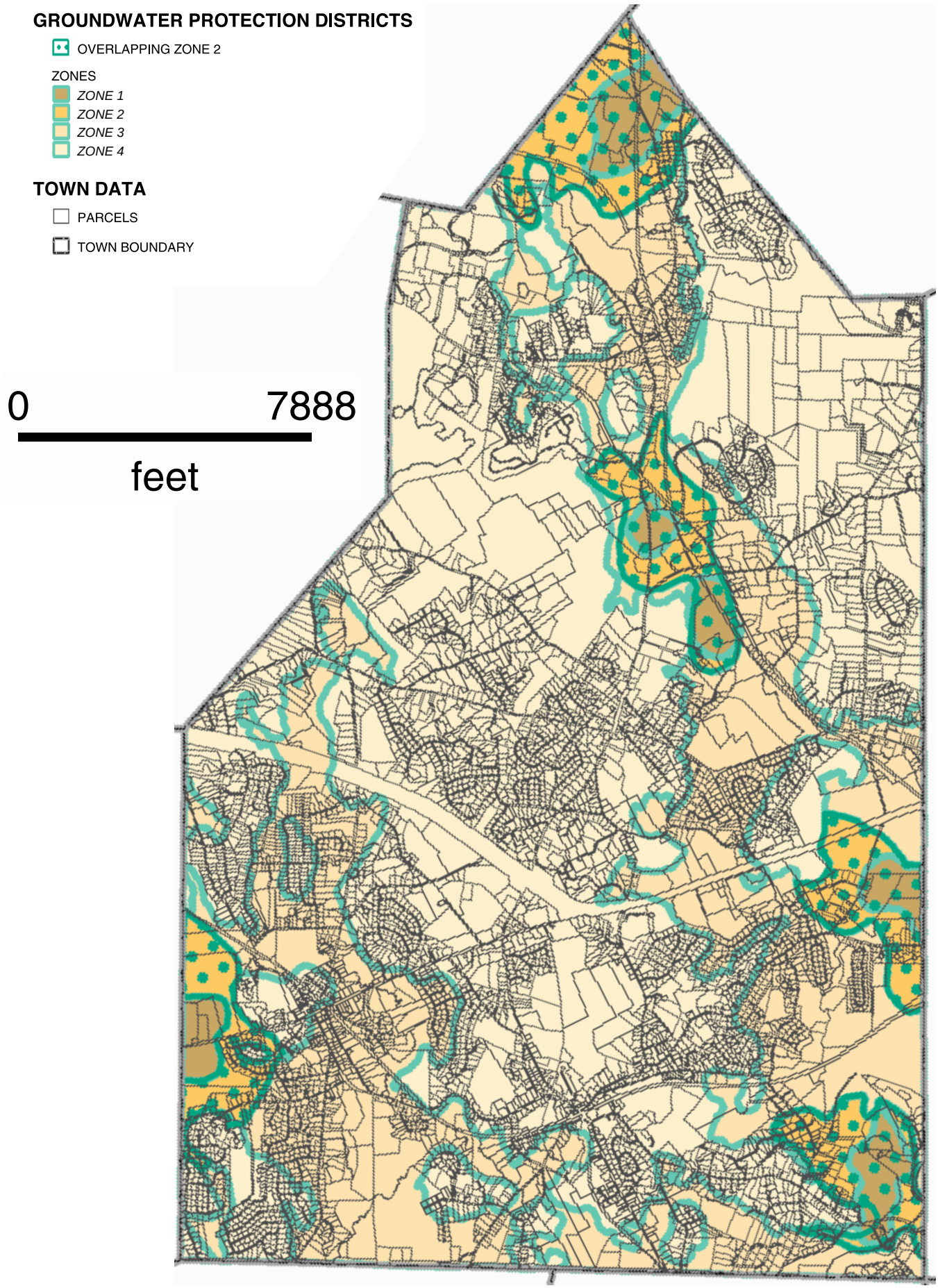
0 7950

feet


NATURAL HERITAGE FEATURES
CERTIFIED VERNAL POOLS
POTENTIAL VERNAL POOLS
BIOMAP CORE HABITAT
BIOMAP SUPPORTING NATURAL LANDSCAPE
ESTIMATED HABITATS OF RARE WILDLIFE
LIVING WATERS CORE HABITATS
LIVING WATERS CRITICAL SUPPORTING WATERSHED
NATURAL COMMUNITIES
PRIORITY HABITATS OF RARE SPECIES
TOWN DATA
PARCELS
TOWN BOUNDARY
0
7888
feet

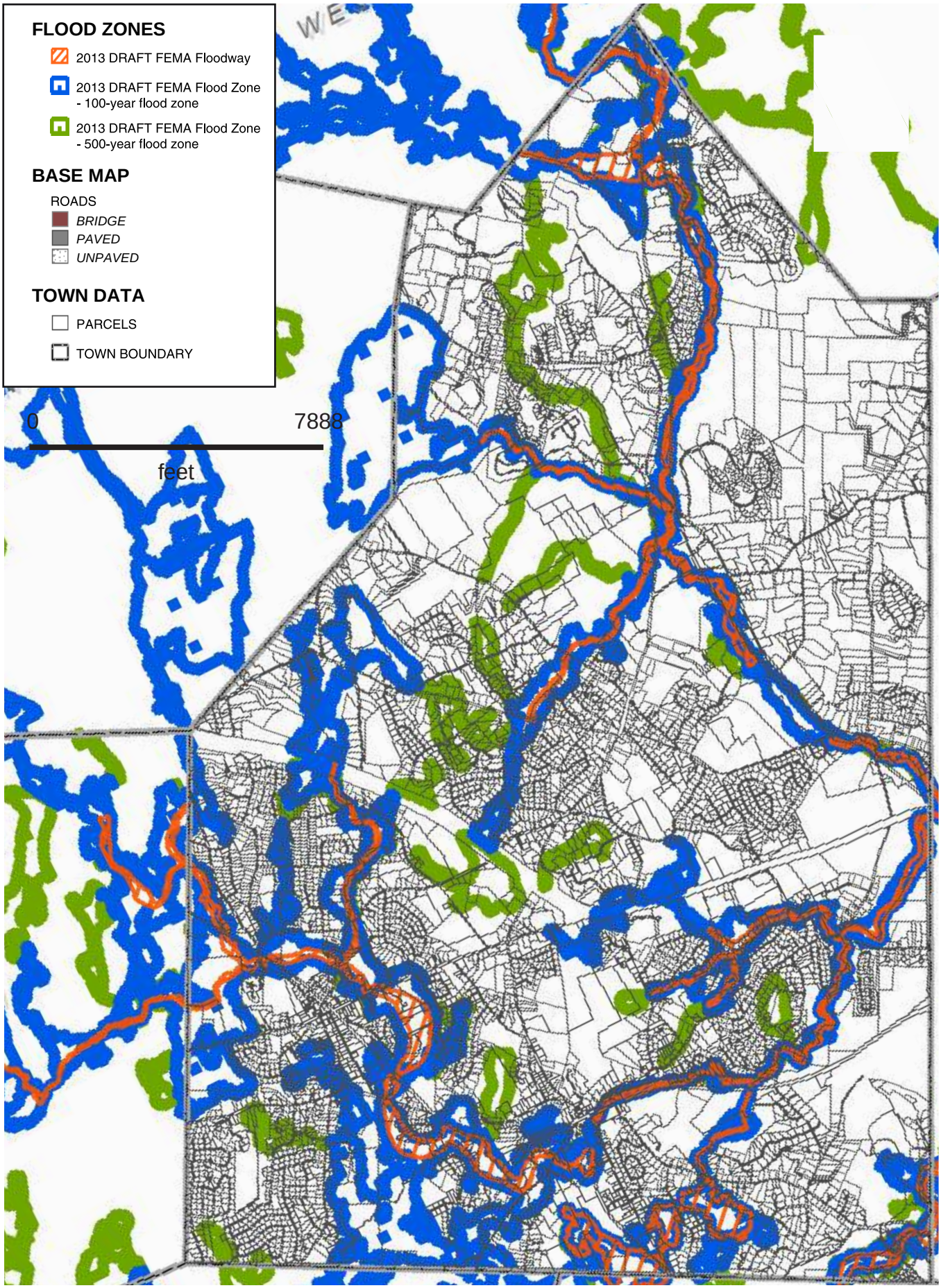

NATURAL HERITAGE FEATURES
CERTIFIED VERNAL POOLS
POTENTIAL VERNAL POOLS
BASE MAP
ROAD CENTERLINES
TOWN DATA
TOWN BOUNDARY
0
7888
feet

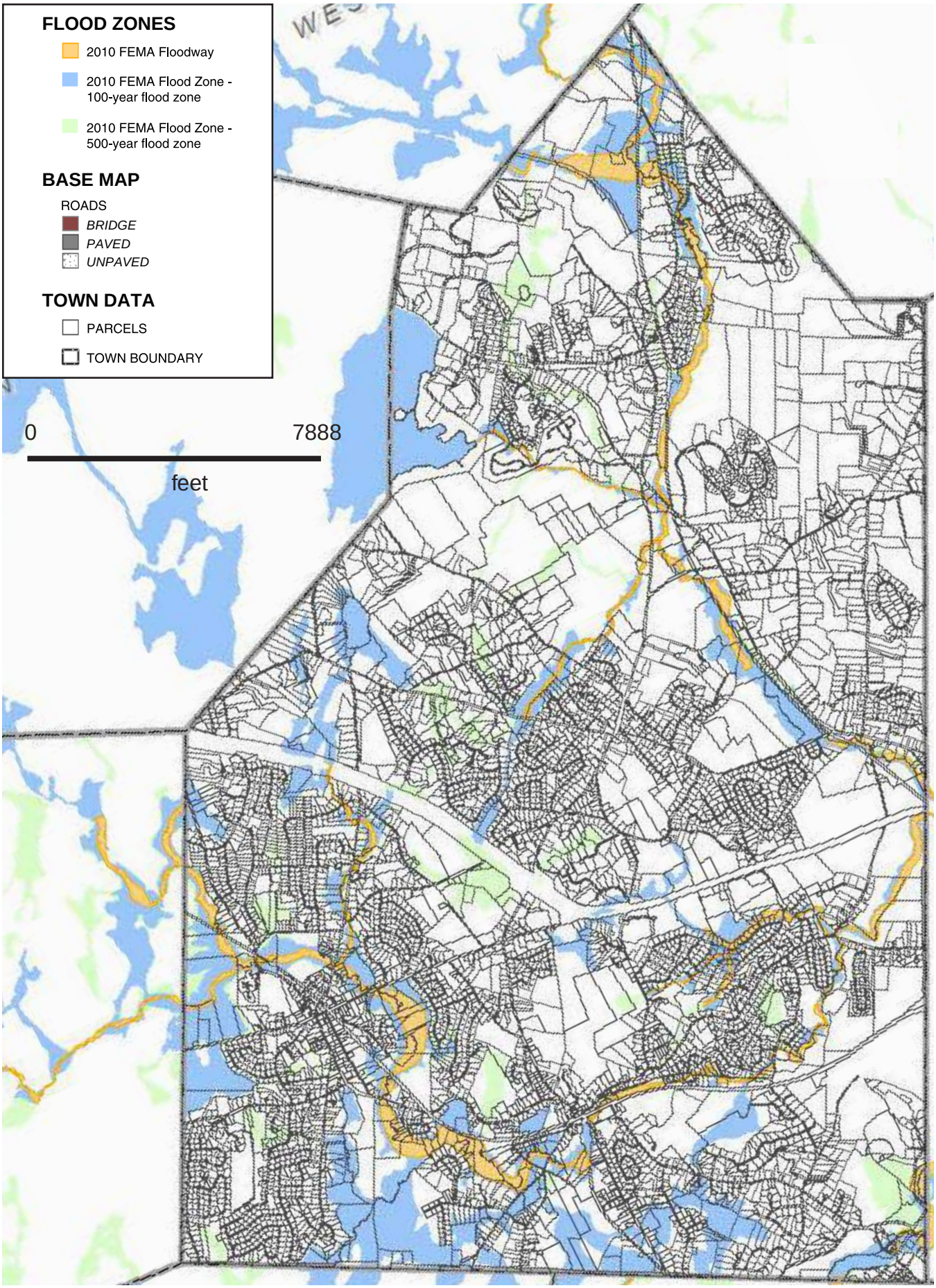

NATURAL RESOURCES
DEP RIVERS & STREAMS
DEP WETLANDS
WET AREAS
PONDS
TOWN DATA
PARCELS
TOWN BOUNDARY
WESTFORD

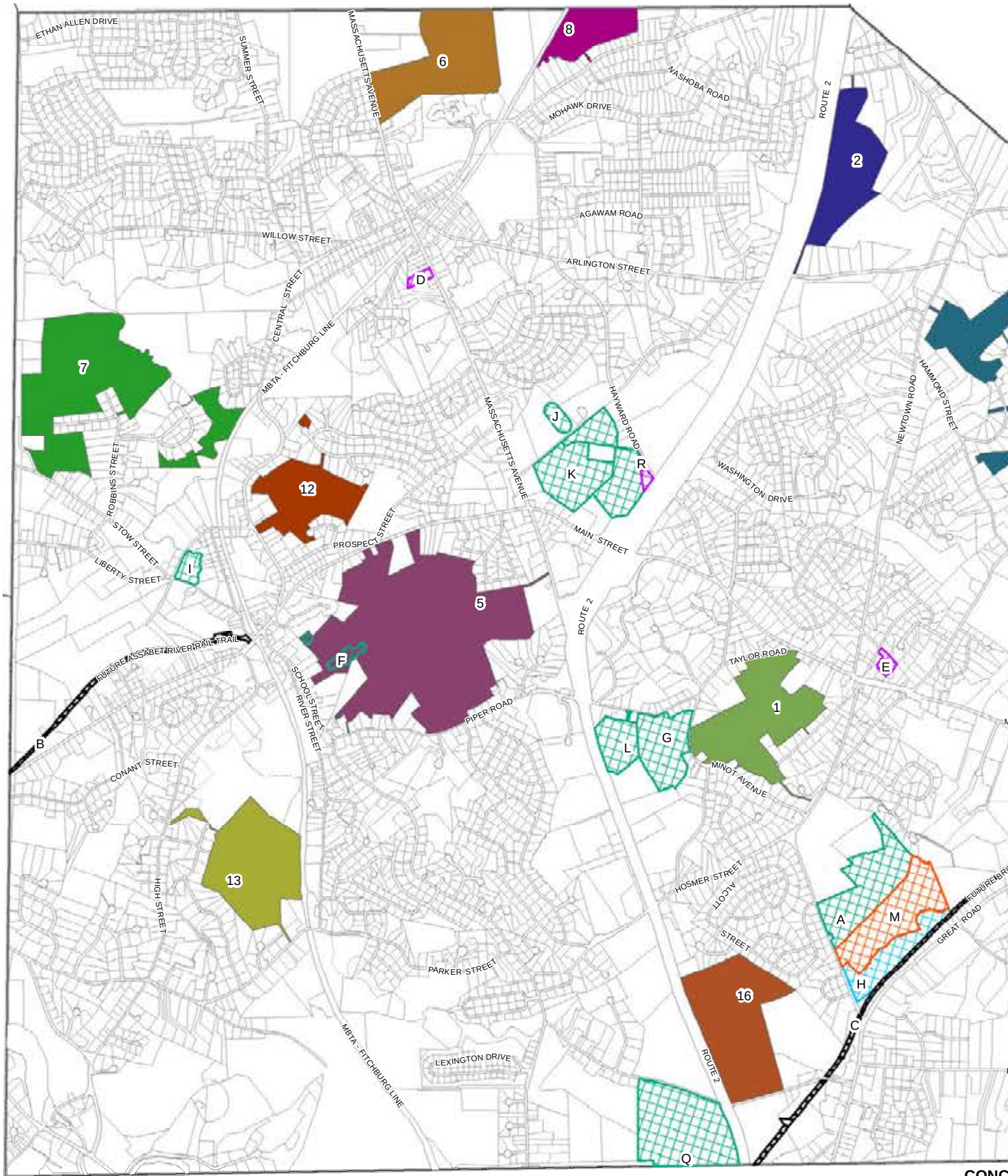

GROUNDWATER PROTECTION DISTRICTS
OVERLAPPING ZONE 2
ZONES
ZONE 1
ZONE 2
ZONE 3
ZONE 4
TOWN DATA
PARCELS
TOWN BOUNDARY
0
7888
feet


Lowell
Chelmsford
Billerica
Westford
Carlisle
Littleton
Boxborough
Acton
Harvard
Concord
Stow
Bolton
Maynard
Lincoln
Sudbury
Berlin
Hudson
Marlborough
Wayland
Northborough
Framingham
Shrews-
bury
Southborough
Natick
Westborough
Ashland
Hopkinton
N
Legend
Assabet
Sudbury
Concord
0 1.25 2.5 5 7.5 10
Miles

2013 FEMA FLOOD ZONES



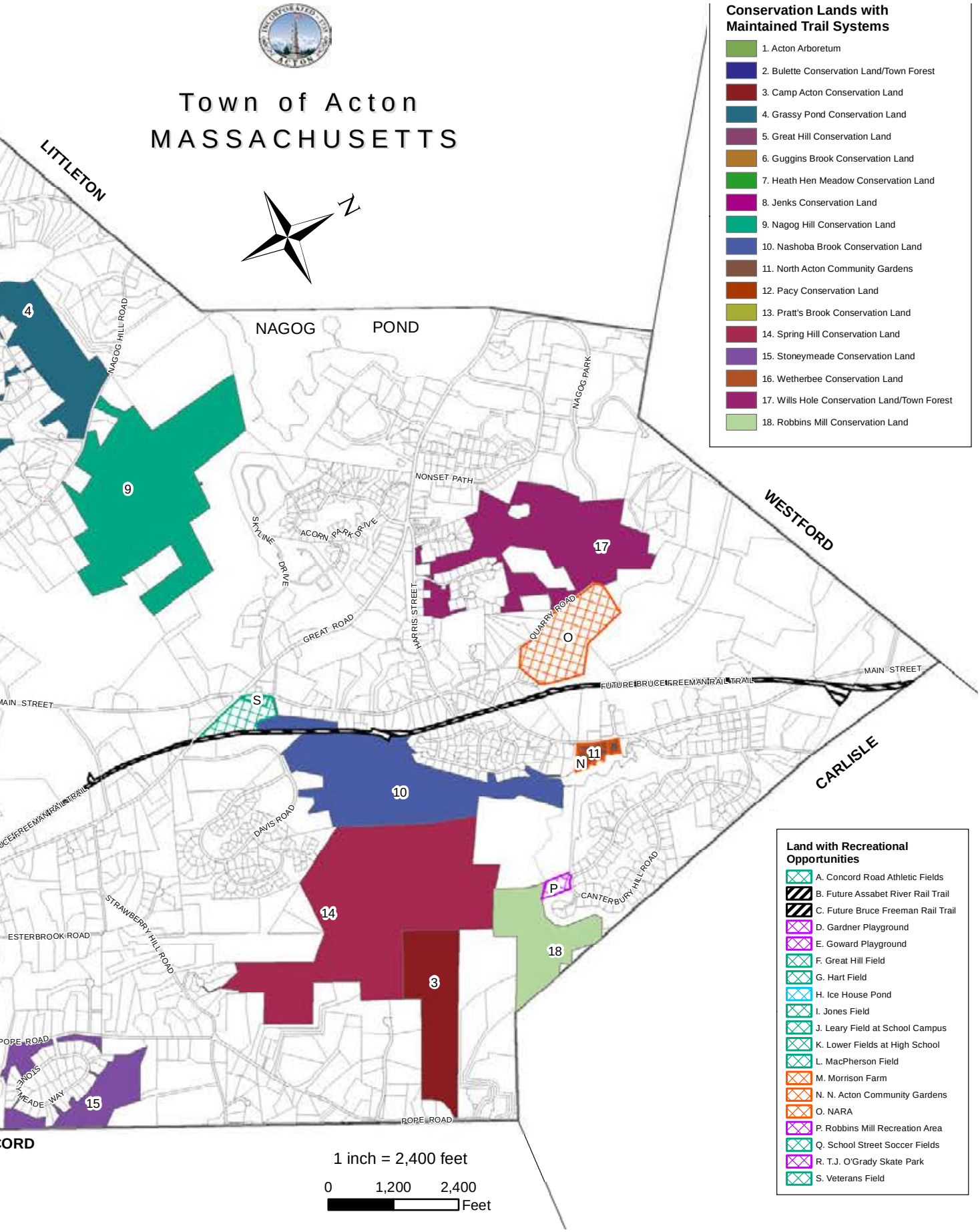

FLOOD ZONES
2010 FEMA Floodway
2010 FEMA Flood Zone - 100-year flood zone
2010 FEMA Flood Zone - 500-year flood zone
BASE MAP
ROADS
BRIDGE
PAVED
UNPAVED
TOWN DATA
PARCELS
TOWN BOUNDARY
0
7888
feet

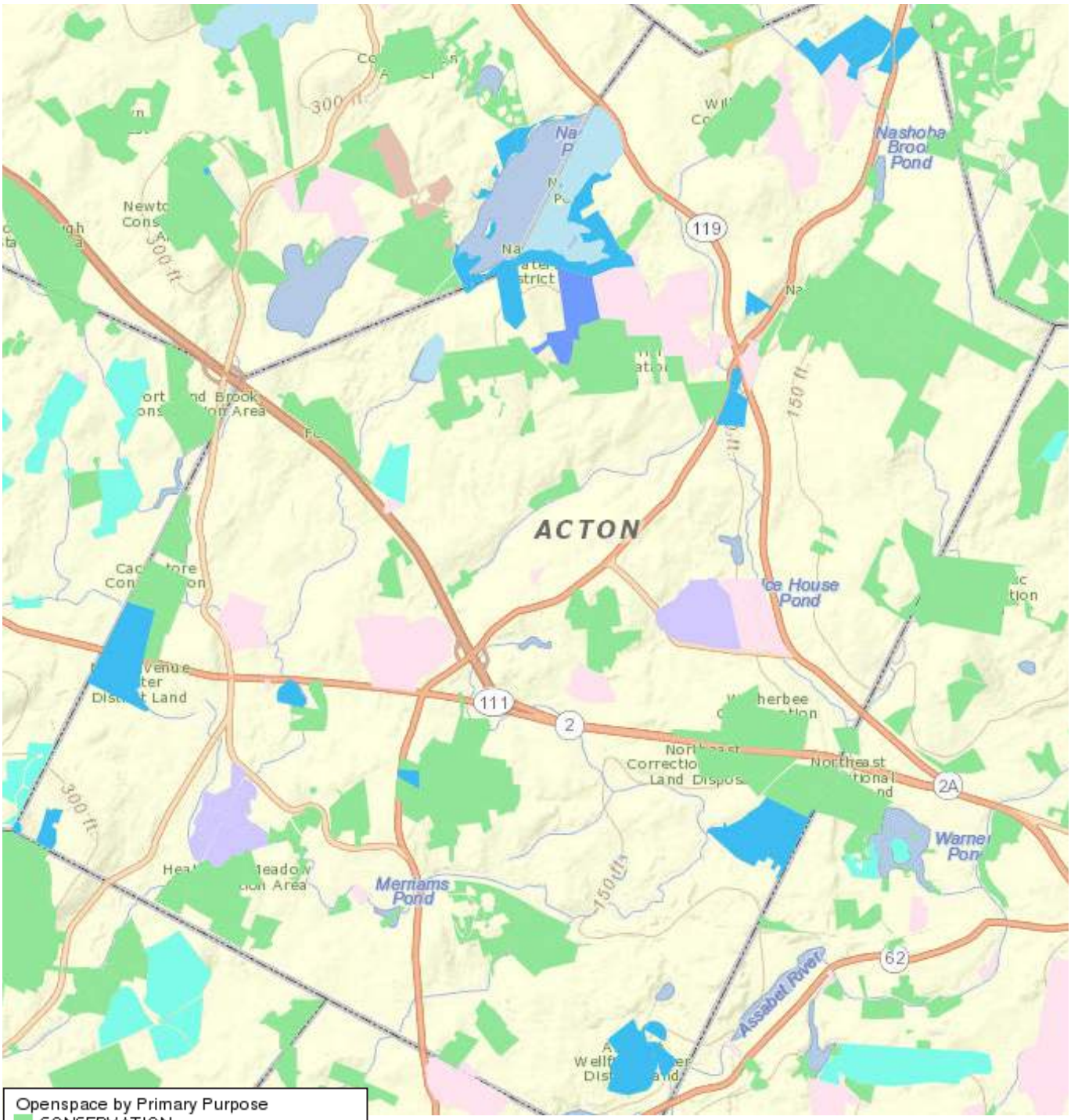


Map Produced By:

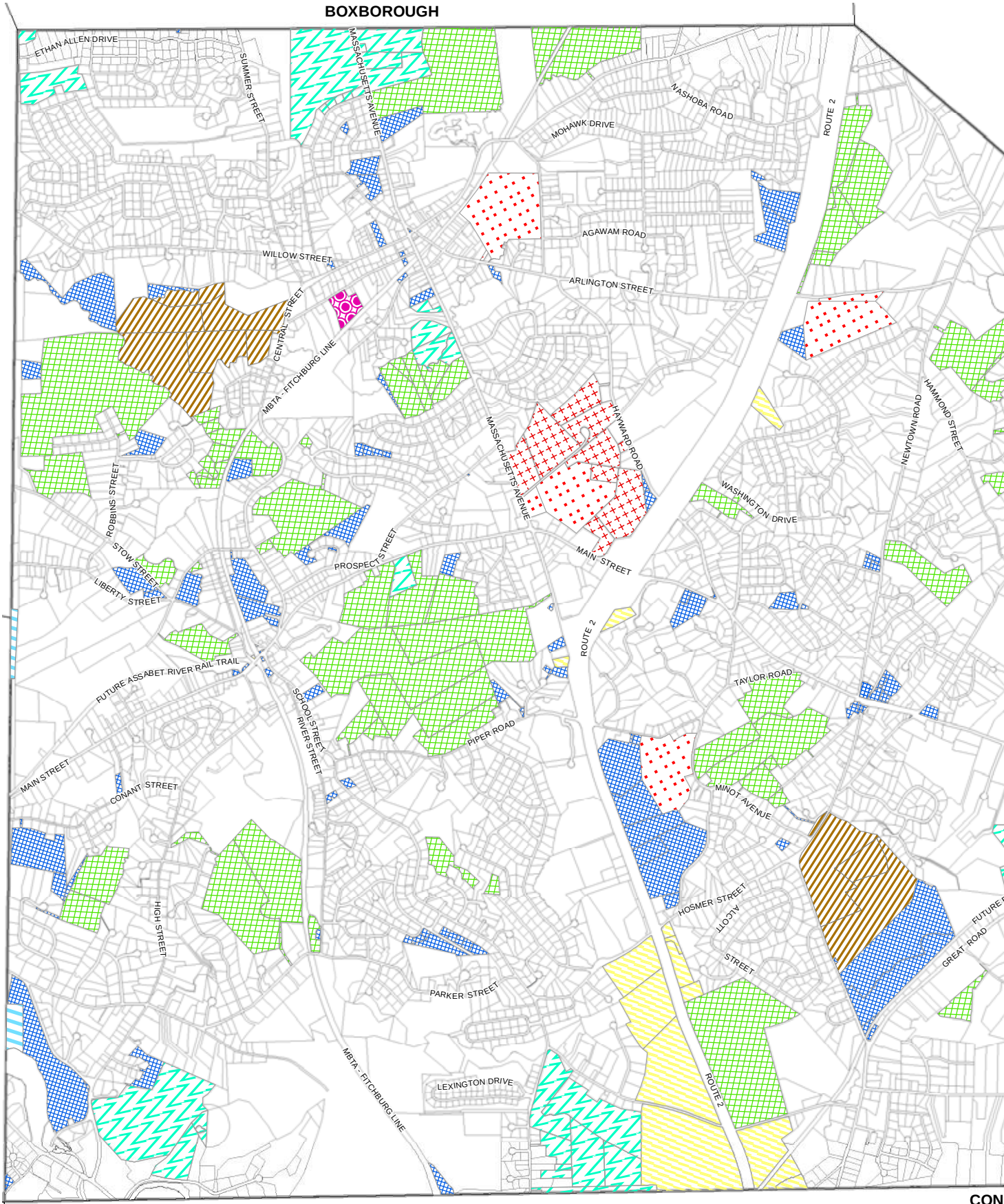
AppGeo

Map Created: September 2014

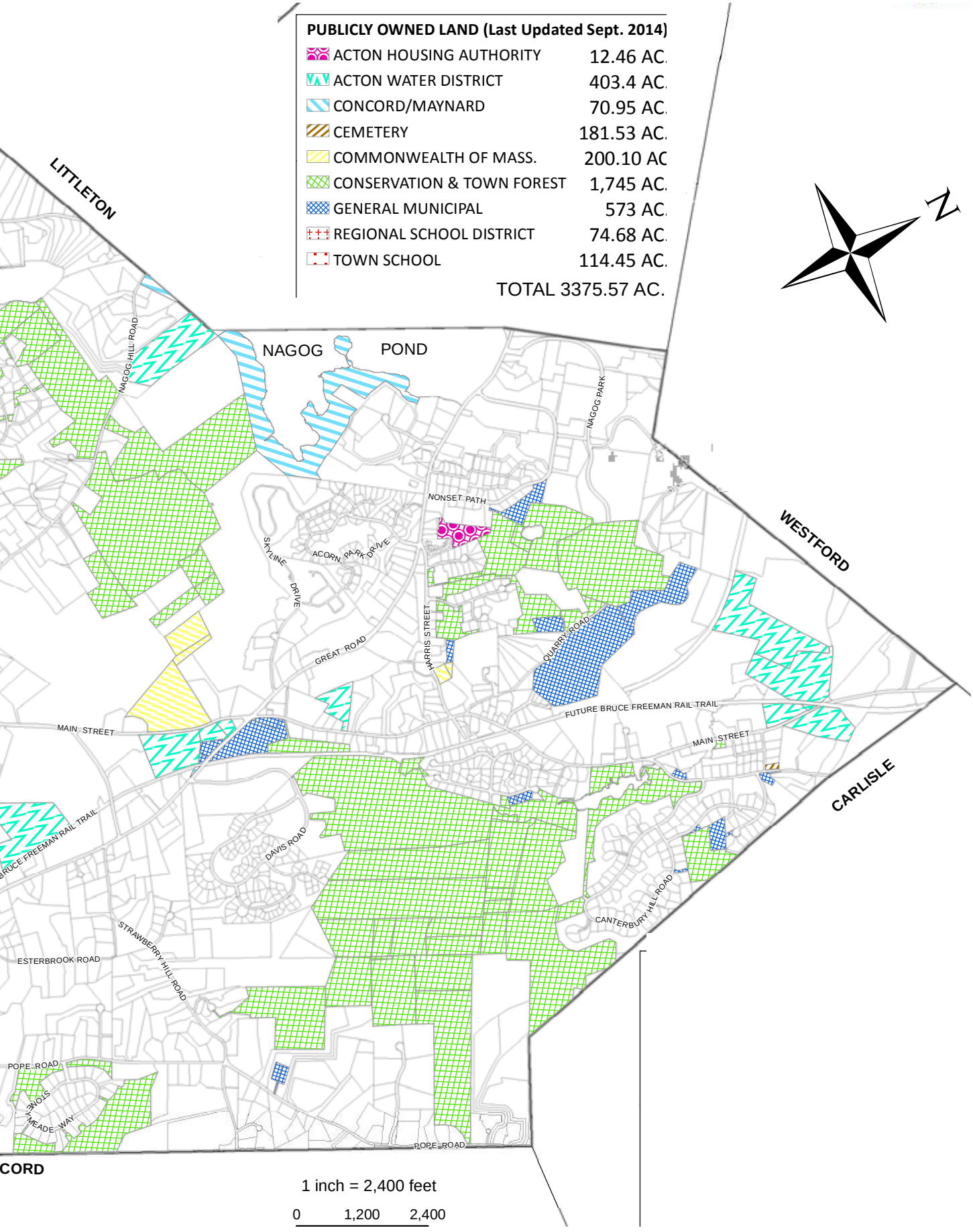

Town of Acton
MASSACHUSETTS
LITTLETON
NAGOG POND
WESTFORD
CARLISLE
NAGOG HILL ROAD
NAGOG PARK
NONSET PATH
SKYLINE DRIVE
ACORN PARK DRIVE
HARRIS STREET
GREAT ROAD
QUARRY ROAD
MAIN STREET
FUTURE BRUCE FREEMAN RAIL TRAIL
DAVIS ROAD
CANTERBURY HILL ROAD
STRAWBERRY HILL ROAD
ESTERBROOK ROAD
ROPE ROAD
STONE MEADE WAY
4
9
17
O
S
10
N
11
P
14
18
3
15
Conservation Lands with Maintained Trail Systems
1. Acton Arboretum
2. Bulette Conservation Land/Town Forest
3. Camp Acton Conservation Land
4. Grassy Pond Conservation Land
5. Great Hill Conservation Land
6. Guggins Brook Conservation Land
7. Heath Hen Meadow Conservation Land
8. Jenks Conservation Land
9. Nagog Hill Conservation Land
10. Nashoba Brook Conservation Land
11. North Acton Community Gardens
12. Pacy Conservation Land
13. Pratt's Brook Conservation Land
14. Spring Hill Conservation Land
15. Stoneymeade Conservation Land
16. Wetherbee Conservation Land
17. Wills Hole Conservation Land/Town Forest
18. Robbins Mill Conservation Land
Land with Recreational Opportunities
A. Concord Road Athletic Fields
B. Future Assabet River Rail Trail
C. Future Bruce Freeman Rail Trail
D. Gardner Playground
E. Goward Playground
F. Great Hill Field
G. Hart Field
H. Ice House Pond
I. Jones Field
J. Leary Field at School Campus
K. Lower Fields at High School
L. MacPherson Field
M. Morrison Farm
N. N. Acton Community Gardens
O. NARA
P. Robbins Mill Recreation Area
Q. School Street Soccer Fields
R. T.J. O'Grady Skate Park
S. Veterans Field
1 inch = 2,400 feet
0 1,200 2,400
Feet

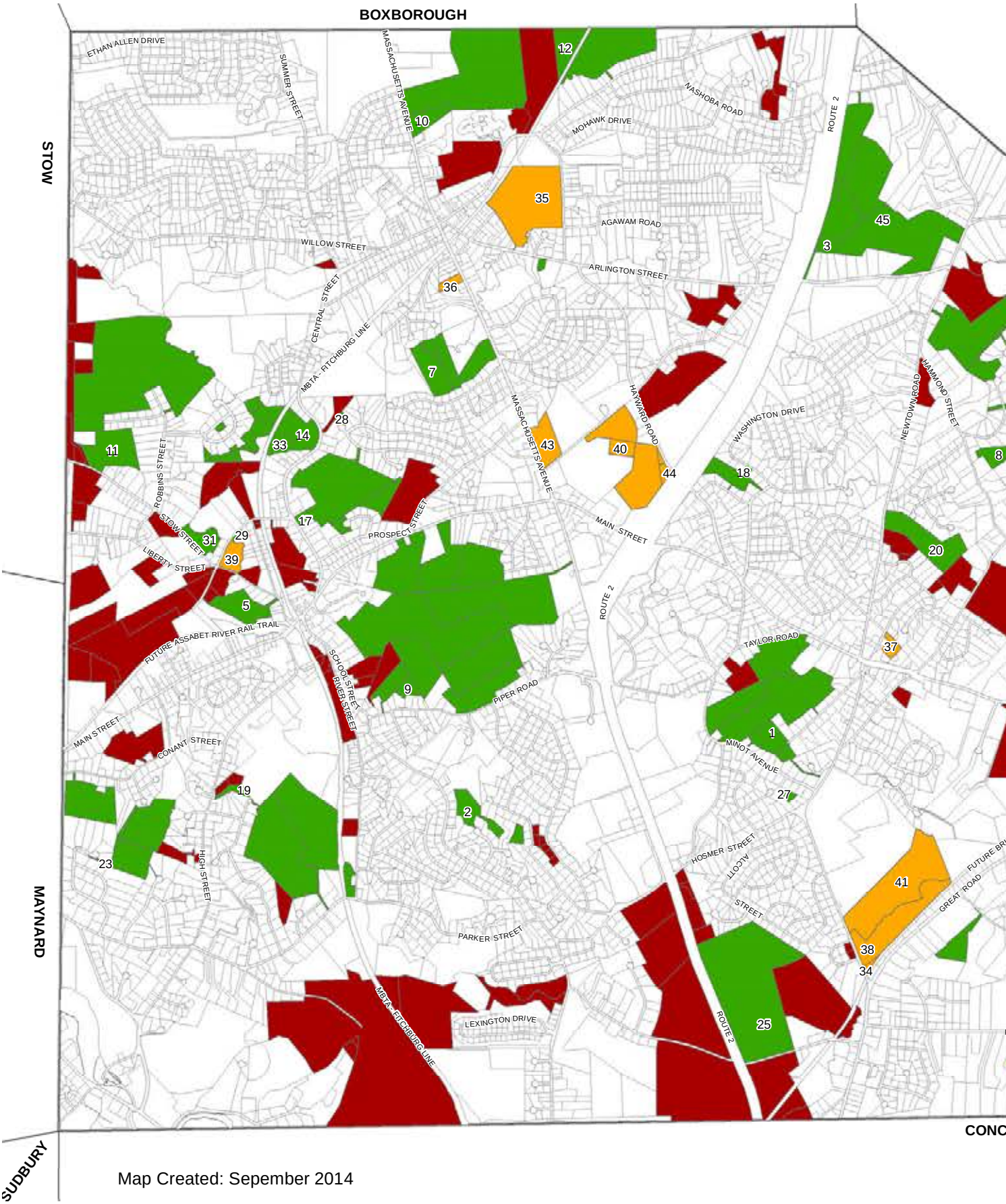

ACTON
Nashoba Brook Pond
Ice House Pond
Warner Pond
Merriams Pond
Assabet River
119
111
2
2A
62
300 ft
150 ft
Openspace by Primary Purpose
CONSERVATION
RECREATION
CONSERVATION AND RECREATION
AGRICULTURE
HABITAT
HISTORICAL/CULTURAL
SCENIC (OFFICIAL DESIGNATION ONLY)
WATER SUPPLY
FLOOD CONTROL
UNDERWATER
OTHER
UNKNOWN


Pond
Long Lake
Yapp Conservation Area Cr
300 ft
Town Forest
Nagog Pond
Nagog Pond
Willis Hole Conservation Area
Nashoba Brook Pond
Newtown Hill Conservation Area
300 ft
300 ft
Nagog Pond Watershed District Land
119
Nashoba Brook Conservation Area
Nagog Hill Conservation Area
150 ft
150 ft
Fort Pond Brook Conservation Area
Town Forest
ACTON
Cacciatore Conservation Area
Ice House Pond
Annursnac Conservation Land
Mass Avenue Water District Land
111
2
Wetherbee Conservation Area
Northeast Correctional Center Land Disposal
Northeast Correctional Center Land
2A
Great Hill Conservation Area
300 ft
Water District Land
Warners Pond
Heath Hen Meadow Conservation Area
Merrams Pond
150 ft
62
Assabet River
Assabet Wellfield Water District Land
Tracks and Trails MHD
Track
Trail
Long Distance Trails
Appalachian Trail
Bay Circuit
Mahican
Metacomet-Monadnock
Midstate
Skyline
Taconic
Warner
Bicycle Trails
EXISTING
EXISTING UNIMPROVED
ON-ROAD CONNECTION
UNDERWAY
CONSIDERED
POTENTIAL

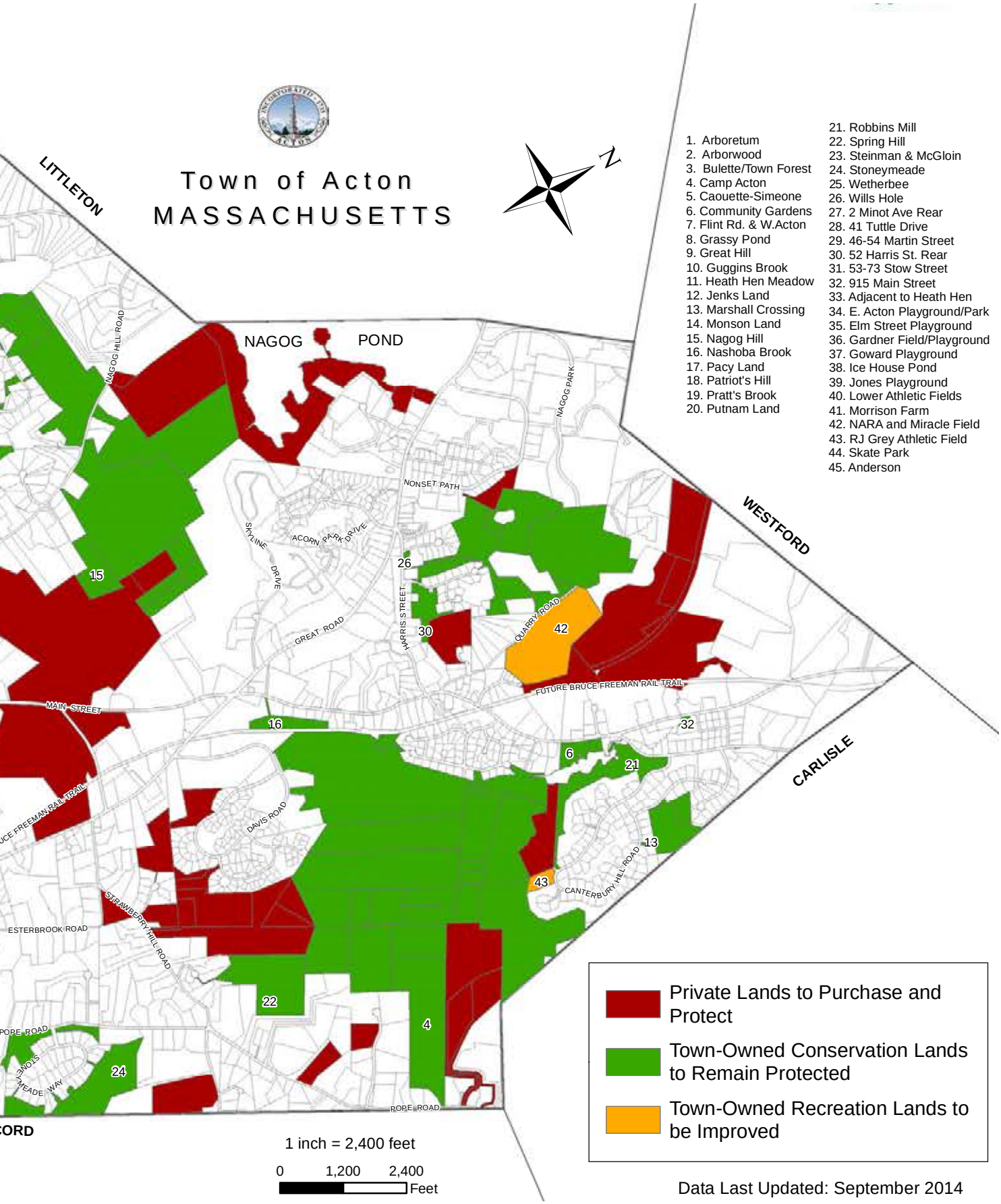


Map Created September 2014

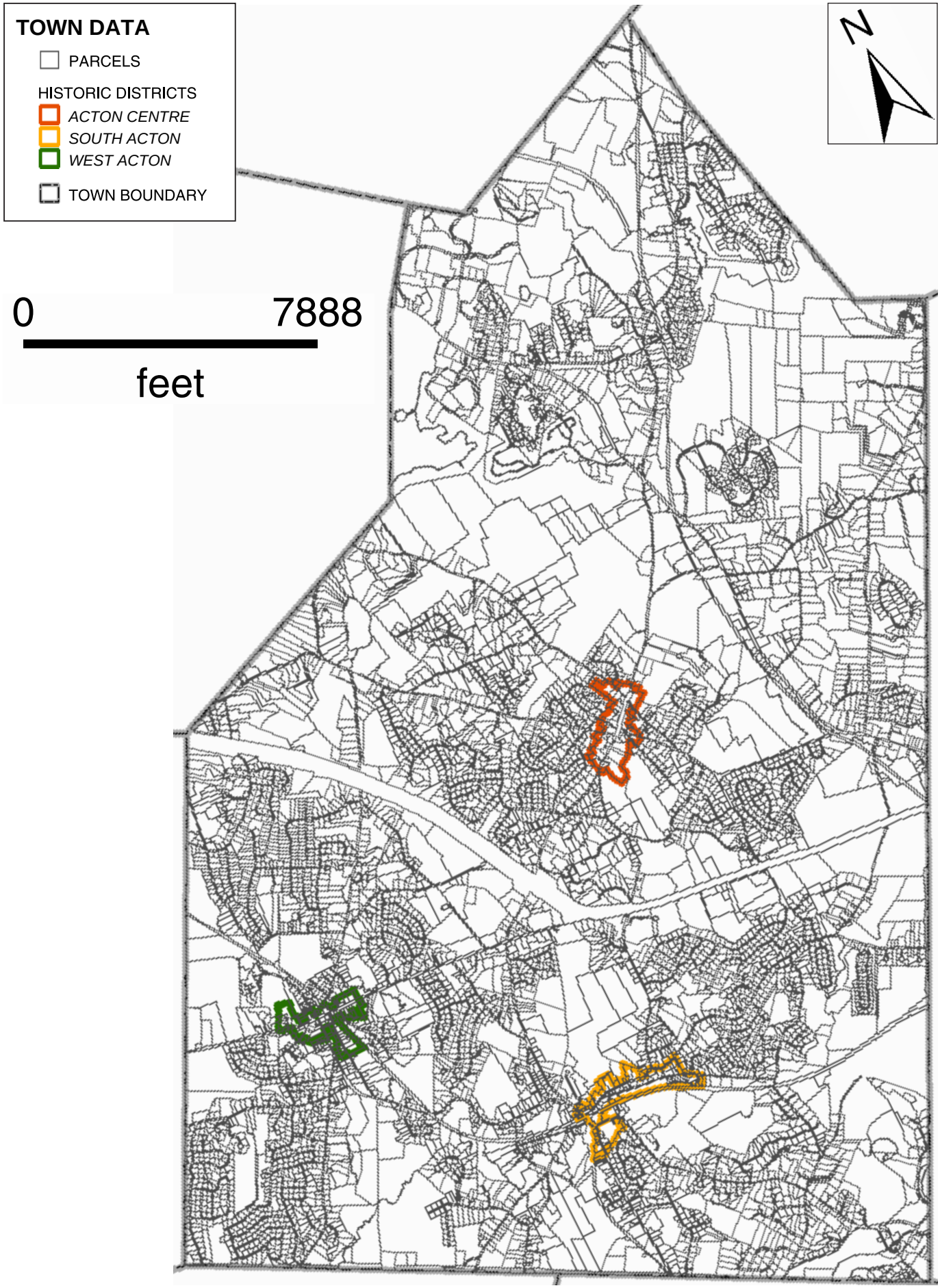

PUBLICLY OWNED LAND (Last Updated Sept. 2014)
ACTON HOUSING AUTHORITY 12.46 AC.
ACTON WATER DISTRICT 403.4 AC.
CONCORD/MAYNARD 70.95 AC.
CEMETERY 181.53 AC.
COMMONWEALTH OF MASS. 200.10 AC
CONSERVATION & TOWN FOREST 1,745 AC.
GENERAL MUNICIPAL 573 AC.
REGIONAL SCHOOL DISTRICT 74.68 AC.
TOWN SCHOOL 114.45 AC.
TOTAL 3375.57 AC.
N
LITTLETON
NAGOG POND
NAGOG HILL ROAD
NAGOG PARK
NONSET PATH
SKYLINE DRIVE
ACORN PARK DRIVE
GREAT ROAD
HARRIS STREET
QUARRY ROAD
WESTFORD
FUTURE BRUCE FREEMAN RAIL TRAIL
MAIN STREET
MAIN STREET
CARLISLE
BRUCE FREEMAN RAIL TRAIL
DAVIS ROAD
CANTERBURY HILL ROAD
STRAWBERRY HILL ROAD
ESTERBROOK ROAD
POPE ROAD
STONE MEADE WAY
POPE ROAD
CORD
1 inch = 2,400 feet
0 1,200 2,400

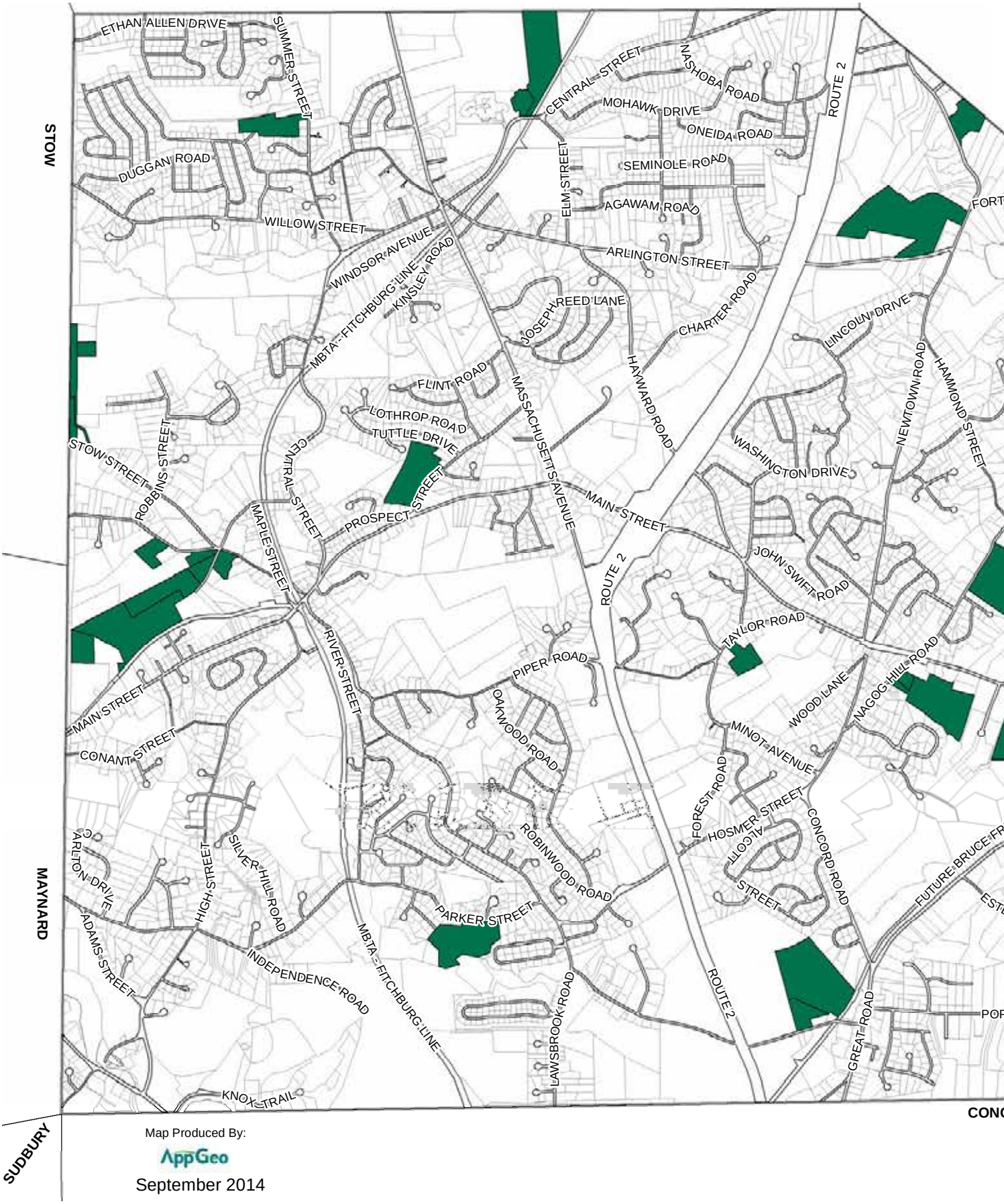


Map Created: Sepember 2014


Town of Acton
MASSACHUSETTS
N
LITTLETON
NAGOG POND
NAGOG HILL ROAD
NAGOG PARK
NONSET PATH
SKYLINE DRIVE
ACORN PARK DRIVE
GREAT ROAD
HARRIS STREET
QUARRY ROAD
WESTFORD
FUTURE BRUCE FREEMAN RAIL TRAIL
MAIN STREET
DAVIS ROAD
CANTERBURY HILL ROAD
CARLISLE
STRAWBERRY HILL ROAD
ESTERBROOK ROAD
POPE ROAD
STONEMEADE WAY
ROPE ROAD
CORD
15
16
26
30
42
32
6
21
13
43
22
4
24
1. Arboretum
2. Arborwood
3. Bulette/Town Forest
4. Camp Acton
5. Caouette-Simeone
6. Community Gardens
7. Flint Rd. & W.Acton
8. Grassy Pond
9. Great Hill
10. Guggins Brook
11. Heath Hen Meadow
12. Jenks Land
13. Marshall Crossing
14. Monson Land
15. Nagog Hill
16. Nashoba Brook
17. Pacy Land
18. Patriot's Hill
19. Pratt's Brook
20. Putnam Land
21. Robbins Mill
22. Spring Hill
23. Steinman & McGloin
24. Stoneymeade
25. Wetherbee
26. Wills Hole
27. 2 Minot Ave Rear
28. 41 Tuttle Drive
29. 46-54 Martin Street
30. 52 Harris St. Rear
31. 53-73 Stow Street
32. 915 Main Street
33. Adjacent to Heath Hen
34. E. Acton Playground/Park
35. Elm Street Playground
36. Gardner Field/Playground
37. Goward Playground
38. Ice House Pond
39. Jones Playground
40. Lower Athletic Fields
41. Morrison Farm
42. NARA and Miracle Field
43. RJ Grey Athletic Field
44. Skate Park
45. Anderson
Private Lands to Purchase and Protect
Town-Owned Conservation Lands to Remain Protected
Town-Owned Recreation Lands to be Improved
1 inch = 2,400 feet
0 1,200 2,400
Feet
Data Last Updated: September 2014


ISAAC DAVIS WAY
MINUTEMAN RD.
HUCKLEBERRY LANE
JOHN SWIFT ROAD
COUGHLIN ST
BARKER RD.
TAYLOR
MAIN
WOODBURY LANE
HILL
NEWTOWN
EVERGREEN RD
WOOD LANE
CONCORD RD
MINOT AVE
ROUTE 27
HAGGO
SANITARY LANDFILL
FOREST RD
WHITTIER
LONGFELLOW PARK
Woodlawn Cemetery
GRASSHOPPER LA
ALCOTT
THOREAU RD
HAWTHORNE
EMERSON RD
MASSACHUSETTS AVE
Hosmer
WETHERBEE ST
Brook
N.Y. N.H. & H.R.R.
ESTABROOK RD
STRAWBERRY HILL
POPE RD
MYRTLE
ROSE
MAGNOLIA
Water Pumping Station
1
2
3
4
5
7

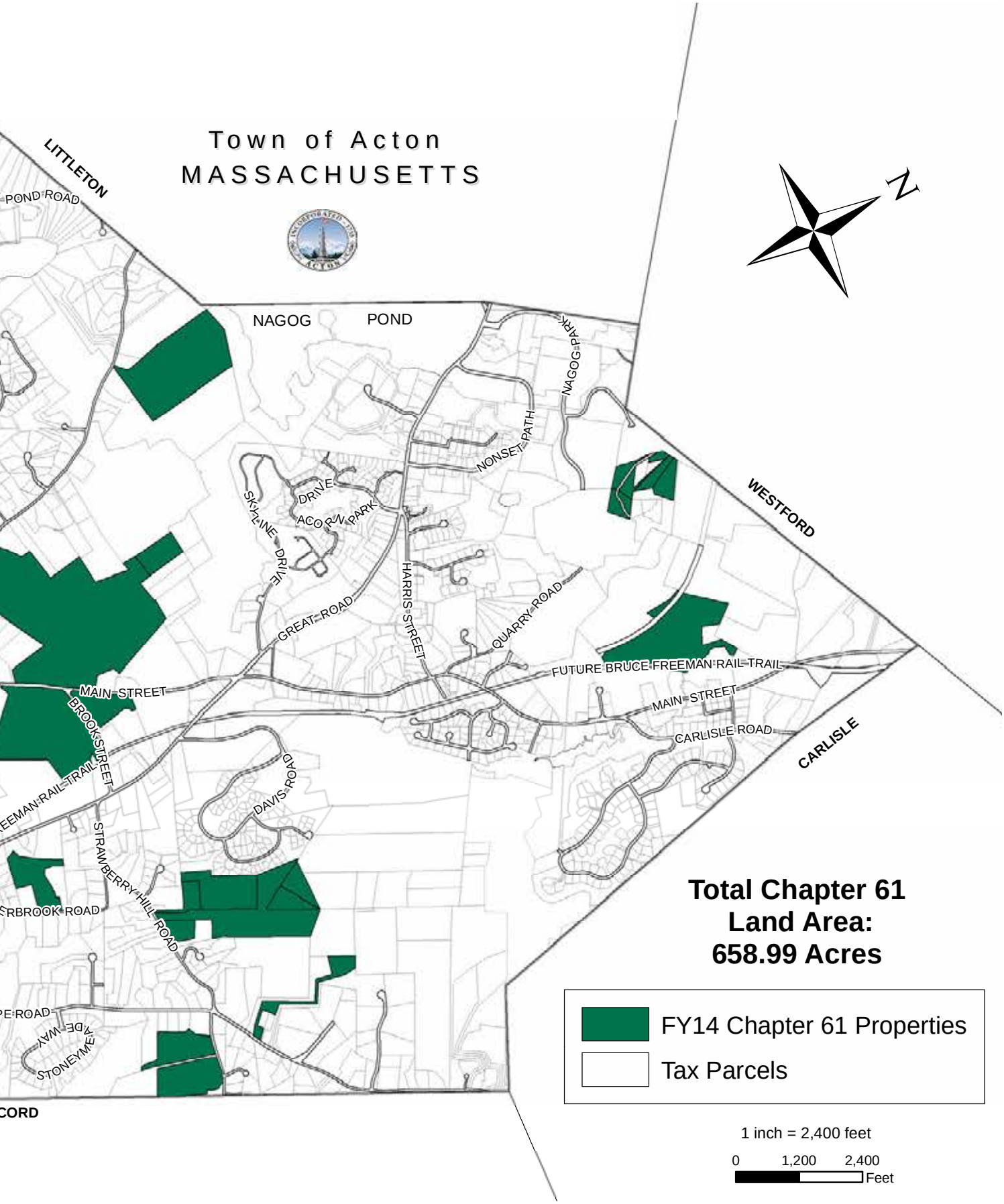

TOWN DATA
PARCELS
HISTORIC DISTRICTS
ACTON CENTRE
SOUTH ACTON
WEST ACTON
TOWN BOUNDARY
N
0
7888
feet

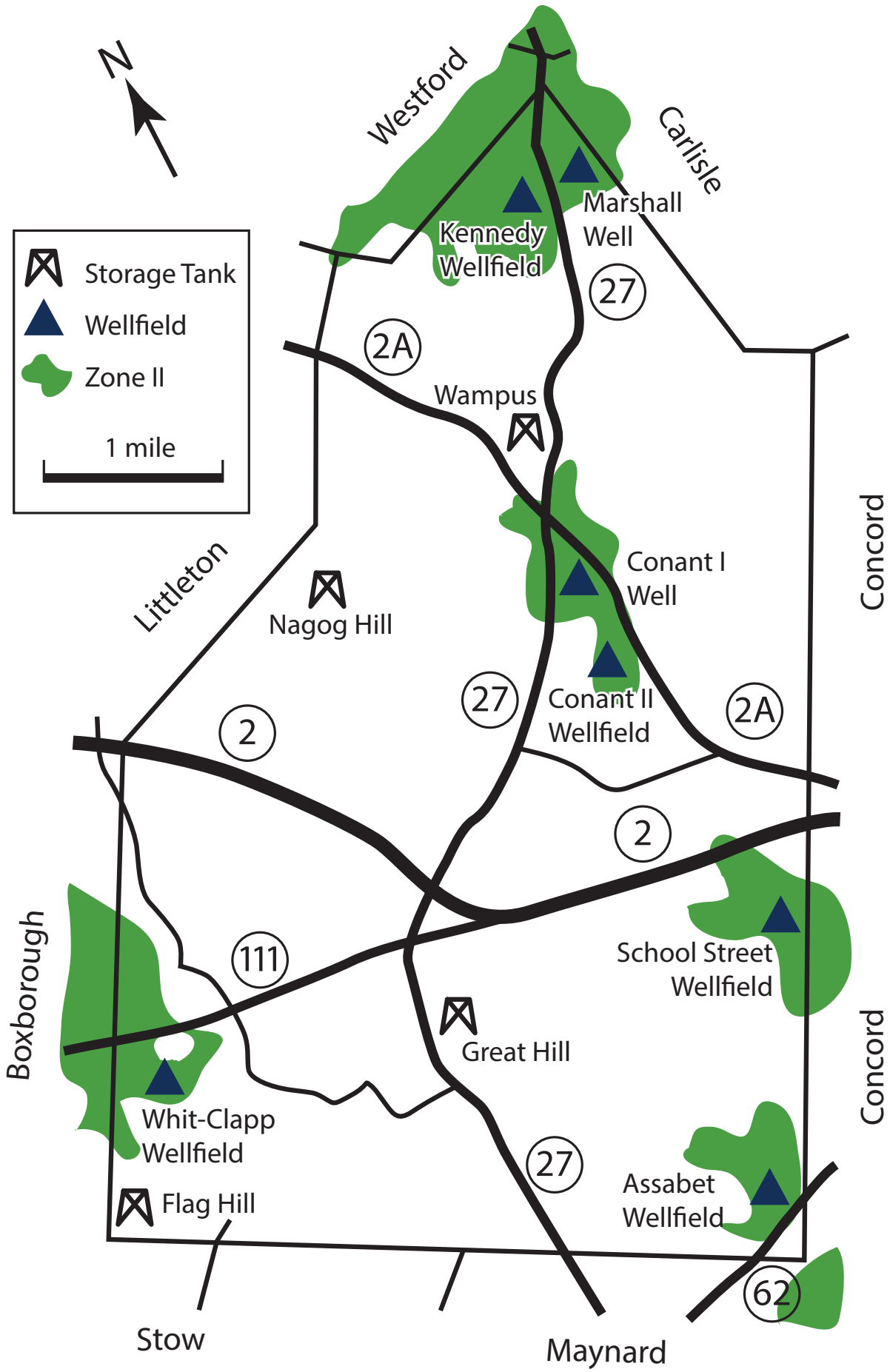


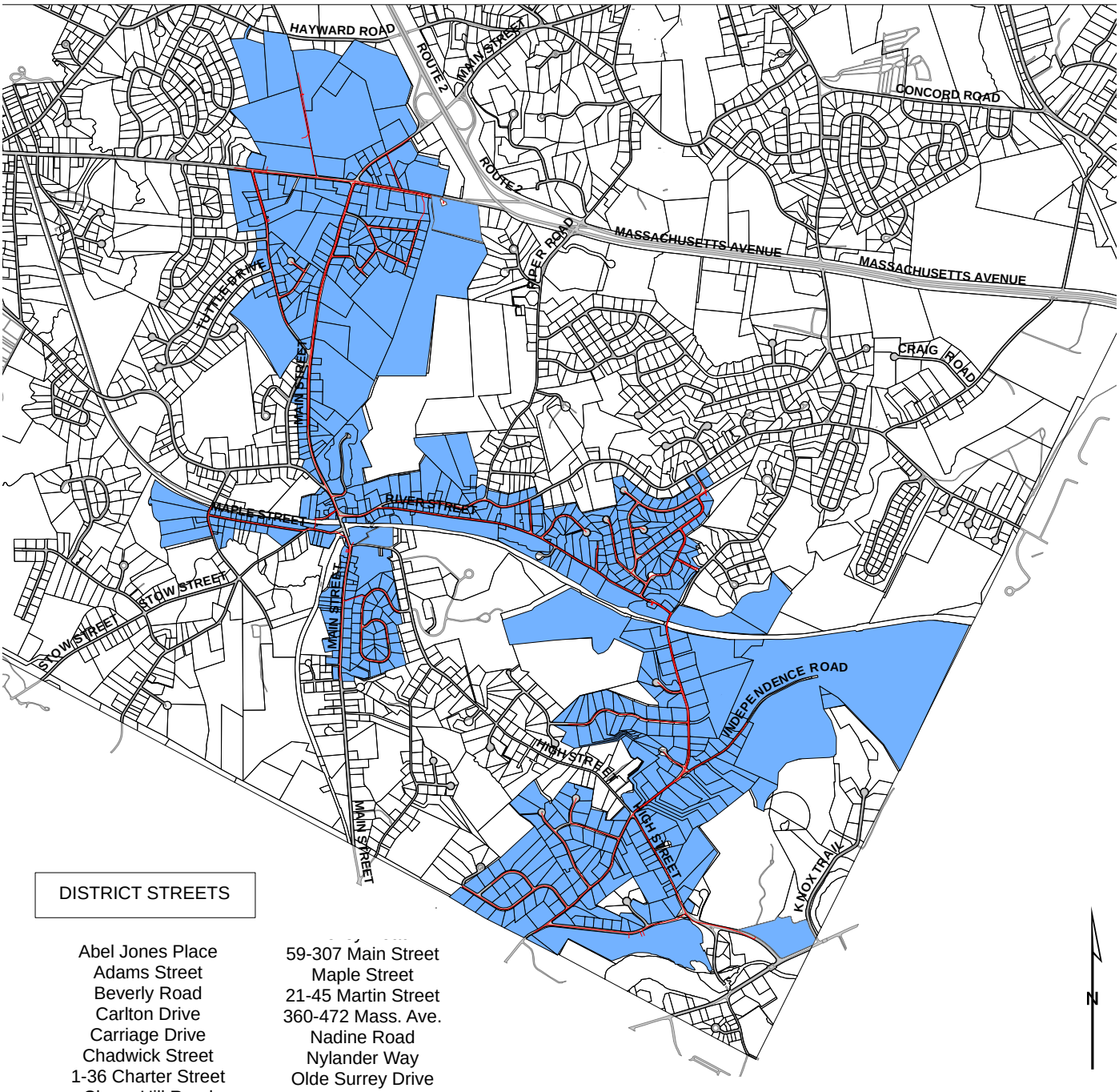
Map Produced By:

AppGeo

September 2014

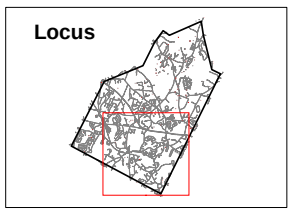

Town of Acton
MASSACHUSETTS
LITTLETON
POND ROAD
NAGOG POND
NAGOG PARK
NONSET PATH
WESTFORD
SKYLINE DRIVE
ACORN PARK
GREAT ROAD
HARRIS STREET
QUARRY ROAD
FUTURE BRUCE FREEMAN RAIL TRAIL
MAIN STREET
BROOK STREET
DAVIS ROAD
CARLISLE ROAD
CARLISLE
STRAWBERRY HILL ROAD
STONEYMEAD
Total Chapter 61
Land Area:
658.99 Acres
FY14 Chapter 61 Properties
Tax Parcels
1 inch = 2,400 feet
0 1,200 2,400
Feet

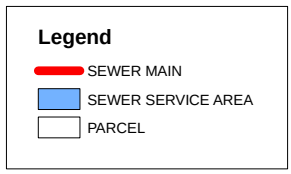

N
Storage Tank
Wellfield
Zone II
1 mile
Westford
Carlisle
Kennedy Wellfield
Marshall Well
27
2A
Wampus
Littleton
Nagog Hill
Conant I Well
Concord
Conant II Wellfield
27
2A
2
2
Boxborough
111
School Street Wellfield
Great Hill
Concord
Whit-Clapp Wellfield
27
Assabet Wellfield
Flag Hill
62
Stow
Maynard

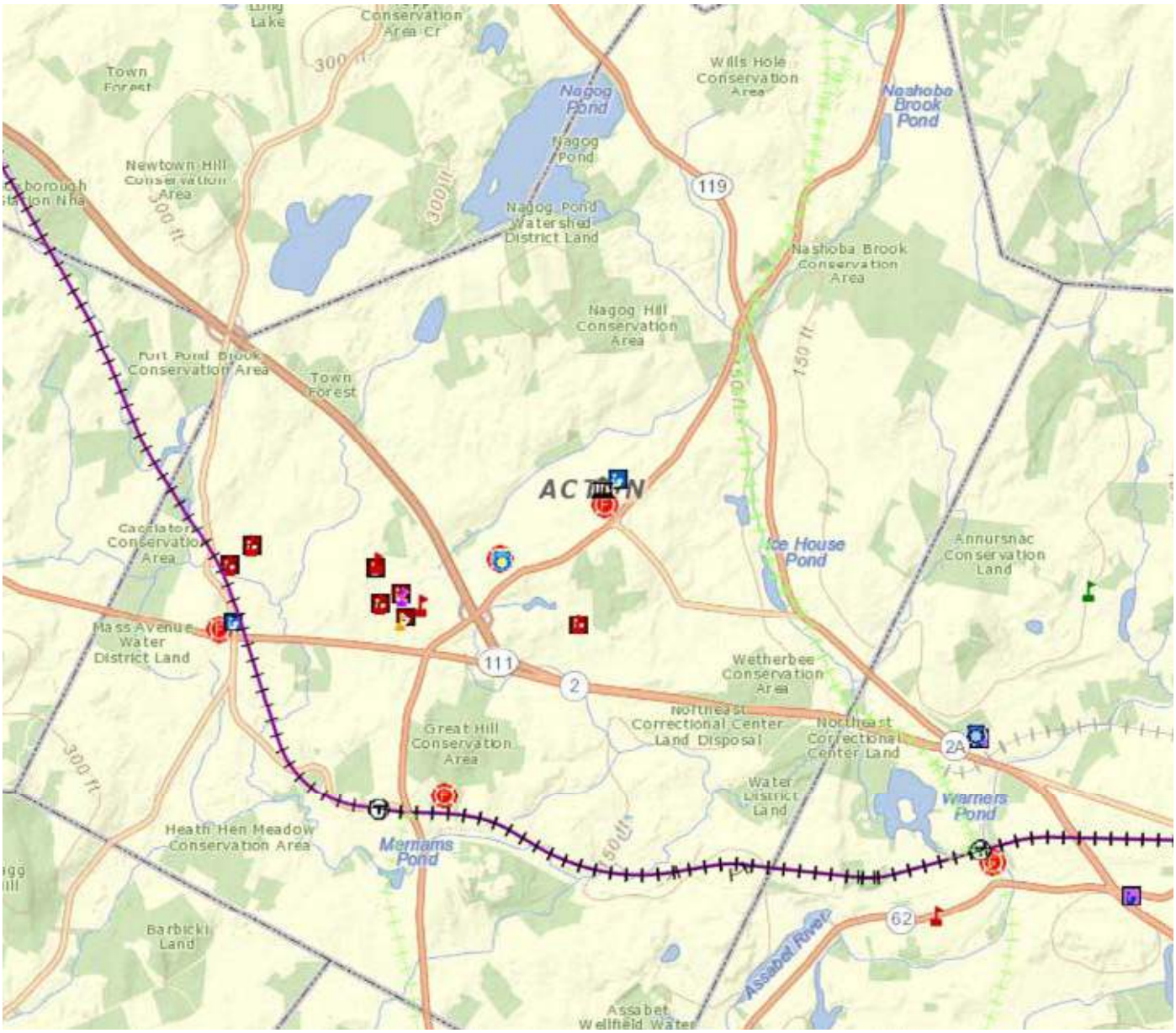


DISTRICT STREETS

Abel Jones Place
Adams Street
Beverly Road
Carlton Drive
Carriage Drive
Chadwick Street
1-36 Charter Street
Clover Hill Road
Concetta Circle
Doris Road
Dunham Lane
Faulkner Hill Road
Fox Hill Road
Francine Road
Gerald Circle
Giaconda Avenue
Hennessey Road
213-276 High Street
Hillcrest Drive
Independence Road
Kelley Road
59-307 Main Street
Maple Street
21-45 Martin Street
360-472 Mass. Ave.
Nadine Road
Nylander Way
Olde Surrey Drive
81-257 Parker Street
Pond View Drive
Powdermill Plaza
Putter Drive
Puritan Road
60-159 Prospect Street
Railroad Street
River Street
Robert Road
1-125 School Street
Silver Hill Road
St. James Circle
Tenney Circle
Vanderbelt Road







Railroads by Type of Service
- Active Rail Service
- Right-Of-Way Used for Hiking or Biking
- Abandoned Service ROW in Public Interest
- Abandoned or Out of Service
- Unknown

Commuter Rail Stations

Commuter Rail Lines

Town Halls

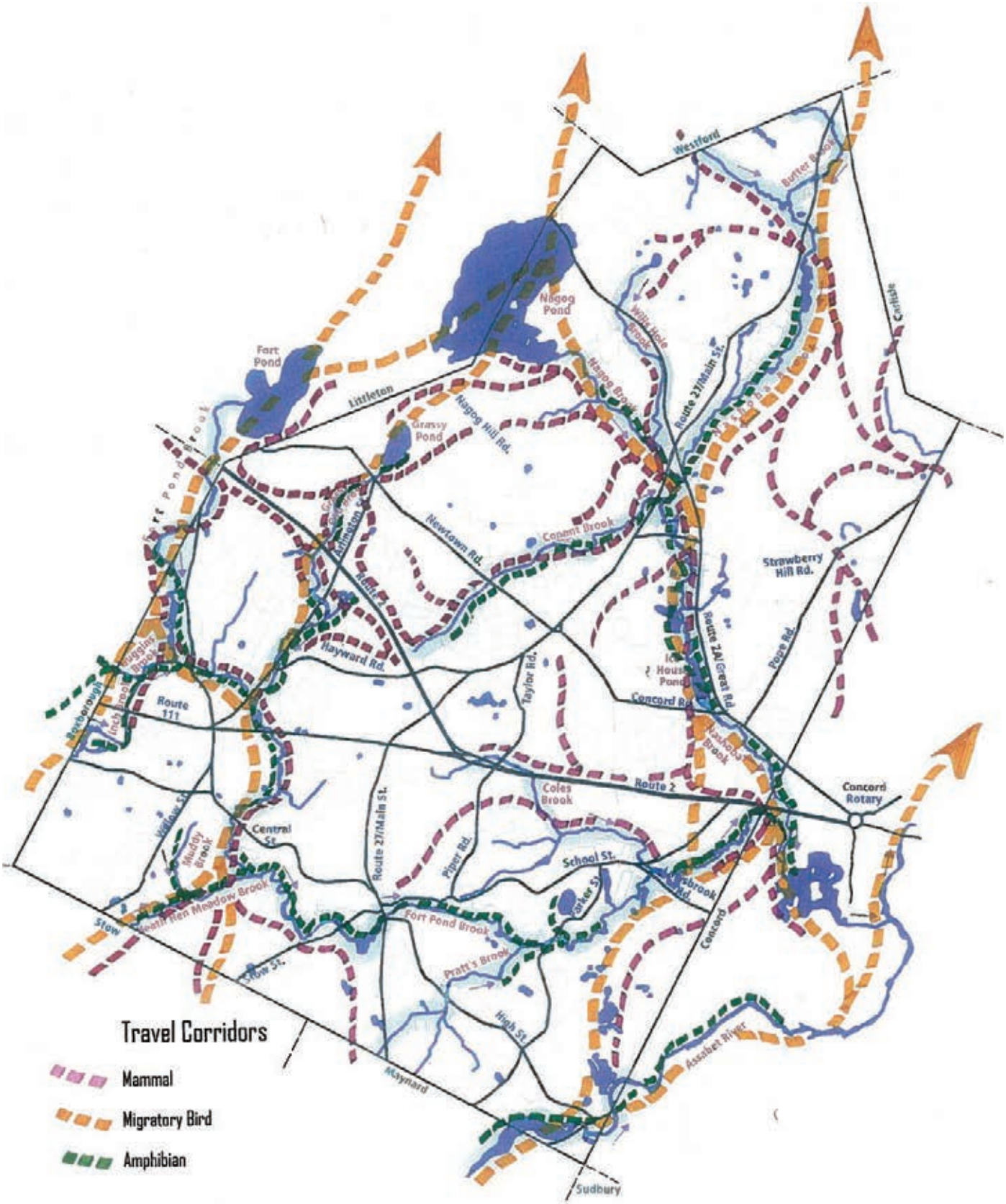
Pre-kindergarten to High School Buildings
- Public
- Private
- Charter
- Collaborative Program
- Special

Police Stations
- Local Police
- State Police
- County Sheriff

Libraries Buildings
- Public
- Academic
- School
- Special-Corporate
- Special-Institutional
- Special-Law
- Special-Medical
- Special

Fire Stations

Detailed Features


Travel Corridors
Mammal
Migratory Bird
Amphibian
Westford
Nagog Pond
Fort Pond
Littleton
Gravsy Pond
Nagog Hill Rd.
Nagog Brook
White Hole Brook
Route 27/Main St.
Carlisle
Buttrick Rd.
Fort Pond Brook
Gardner
Arlington
Newtown Rd.
Comm Brook
Strawberry Hill Rd.
Pope Rd.
Hayward Rd.
Taylor Rd.
Route 2A/ Great Rd
Concord Rd
Ice House Pond
Route 111
Acton
Boxborough
Douglas Brook
Willow St.
Central St.
Muddy Brook
Meadow Brook
Coles Brook
Route 2
Concord Rotary
Piper Rd.
School St.
Baker St.
Pratt's Brook
High St.
Stow
Stow St.
Maynard
Sudbury
Concord
Assabet River


PLAN of the TOWN OF
ACTON
in the County of
MIDDLESEX.
SCALE.
2008
WESTFORD
CONCORD
BOXBOROUGH
STOW
BOLTON
HARVARD
Nashoba Pond
Ford Pond
GRASSY POND
Grassy Pond
Fort Pond Brook
Nashoba

The Town of Acton Open Space and Recreation Plan 2014-2021