

OSRP
Approved Draft
Text only
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Town of Acton Open Space & Recreation Plan

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Draft

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SECTION 1: PLAN SUMMARY

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 2014-2019, 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

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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 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 (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 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.

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 the meadows by Land Steward volunteers and by Natural Resources grounds crews.

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

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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.

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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 pursuant to M.G.L. Ch. 41, § 81D.

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

Protecting water resources quantity and quality.

Protecting wildlife habitat and corridors.

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

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.

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.

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 and Public Participation

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.

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

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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.

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:

Preserve and Enhance Town Character

Ensure Environmental Sustainability

Improve Connections

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Provide More Opportunities for Community Gathering and Recreation

Support Inclusion and Diversity

Preserve and Enhance Town-Owned Assets

Maintain and Improve Financial Well-being of the Town

The 2014-2021 OSRP was completed in conjunction with Acton's 2020. 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 led 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 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. The Minutes of the meeting may be found in Appendix

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

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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 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 Nathaniel 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

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

In 2005, the TJ 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.

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.

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	Stonemeade 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	

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,

SECTION 3 COMMUNITY SETTING

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.

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-1-B.)

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

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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

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.

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

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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 semiprivate 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 house 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 abandons or declares 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 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.

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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 affordable 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. MAPC has been involved in a variety of activities that affect communities within the region. MAPC revised the current Traffic Analysis Zones (TAZs) structure, used in the regional transportation model, to improve future analysis of the effects of alternative zoning, open space, and development policies on the local transportation system. MAPC growth projections for Acton are discussed in Section 3.C.

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 sub-regional mapping of open space and green space and comprehensive agricultural planning,

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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.

“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>

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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 percent or an annual growth rate of less than 1 percent. The town's population has generally leveled off in recent years after considerable growth during the 1990s when total population grew 14 percent. 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 percent of Acton's total population was Caucasian, 8.6 percent Asian, 1.8 percent Hispanic, and 0.7 percent African-American. The 2010 Census indicates a significant change in ethnicity. 77.3 percent of Acton's population is estimated to be Caucasian, 18.6 percent Asian, 3.0 percent Hispanic, and 1.1 percent 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.

Acton's population growth has slowed in recent years as Table 3.2 indicates. Acton's population is growing about 0.50 percent 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.

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

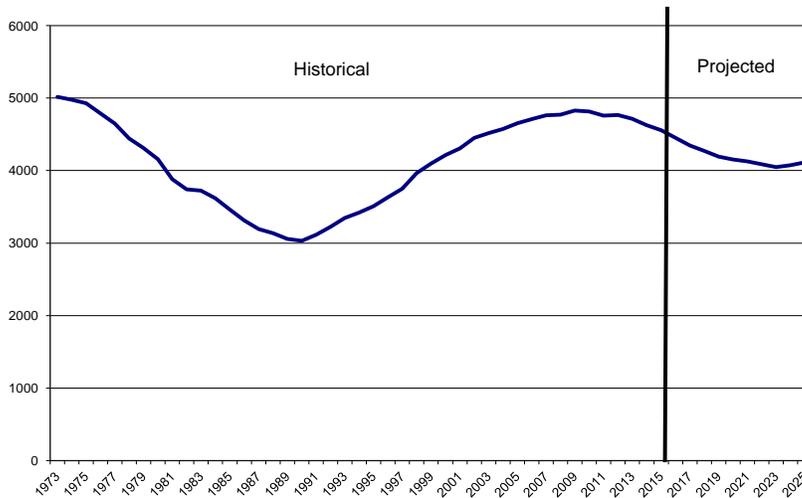
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2030*	23,278	1166
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* MAPC Forecasts

School-age population and school enrollment increased markedly during the 1900'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 percent over the next ten years. This enrollment trend is shown below in Figure 1.

**Acton Public School Enrollment: K thru 12
1973 - 2025**



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 percent 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

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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 percent, whereas during the same period the average single family home has increased in value at an annual rate of about 5 percent 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 percent 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 numbers 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 2008, the Haartz Corporation placed a conservation restriction on 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

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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 percent use sewers or package treatment to dispose of wastewater.

The following is from the I-495/Metro-West 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 one percent per year, with an accompanying growth in employment population of one-half of one percent. 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 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.

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

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 developers that provides innovative flexible incentives for highest marketability,

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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.

See 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/Metro-West 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/Metro-West 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

Chapter 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

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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 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).

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 percent. 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

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approximately 83% capacity, leaving 17% unused capacity for future use. The Board of Selectmen is 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.

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/Metro-West 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>)

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

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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 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 www.home-water-works.org to identify water used and water wasted based on individual actions in the home. (See Section 13, Map O-DA, Acton Water District Map.)

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 at <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 layouts – typically about 15% of total land - are accounted for).

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“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.”

Table 3.3: Acton Zoning

Residential Districts		Total Acres¹	Percent of Town	Developable Acres Remaining²	Percent of Total Acres
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					

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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.					

SECTION 4 ENVIRONMENTAL INVENTORY AND ANALYSIS

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 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 Scarborough 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.

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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 percent, 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 percent 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 percent 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 percent 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.

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,

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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. 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

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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.

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.

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Acton's center corridor, running east to west from Acton Center to the Littleton town line, is particularly woody, 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 4.D.8 for early successional habitat preservation/meadow management information. (See Section 13, Maps, page 14.)

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, page 20 for a map of the Sudbury, Assabet and Concord Rivers 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 problems 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 Fort Pond Brook and Nashoba Brook with rainbow, brown, brook and tiger trout each spring. See Massachusetts Department of Fish and Game official website (www.mass.gov/dfwele/dfw/) for more information. (Also see Section 13-Map R-6E)

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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 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 percent 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

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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 Corp 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.

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 a 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

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- 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 percent was undeveloped land and 32 percent was developed land in 1971. In 1999, that had changed to 54 percent undeveloped and 46 percent 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 wooly 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

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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 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 percent 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.

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:

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

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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 H*.

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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 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

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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 percent 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. 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. The entire plan may be read in the appendix (see Appendix A2).

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 percent 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.

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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 sixty percent 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

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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 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.

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.

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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 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 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.

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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 at <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; 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 Nathaniel 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

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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.

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

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depot lot (H2A-49) and the lot just west (H2A-48), which was the site of at least two buildings of the Tuttle, 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 Will's Hole.

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

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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.

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

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resilience.

BioMap2 identifies five areas in Acton. These include:

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

Grassy Pond: includes a small area of Critical Natural Landscapes, NHESP Natural Community, Scenic Landscape

Heath Hen Meadow: medium-yield aquifer, Zone II Wellhead Protection Area, Priority Habitat of Rare Species, Estimated Habitat of Rare Wildlife

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

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.

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.

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.

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.

Grassy Pond: This forest of black birch and hop hornbeam is home to species of special concern identified by the Natural Heritage Program.

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.

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.

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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)

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 subsurface. 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

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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.

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

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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 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 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.

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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 issues, 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 conducted 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.

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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.

(<http://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 with organizations such as the 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 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

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- 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 Appendix H2.

Acton's conservation areas are pretty evenly distributed throughout the town, allowing access to open space opportunities where ever 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 G for the ADA assessment.)

4.G.11 Wildlife management

4G.11.a 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 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.b 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

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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

SECTION 5: INVENTORY OF LANDS

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

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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.

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 percent, 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
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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

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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.

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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
1979	Breezy Point	Harold & Devena Buxton	Town of Acton	13.9	P	12/12/1978	12/27/1978	13615	339	C4-15 & C4-17	484-486 Great Road	Adjacent to Water Dept. land; CR extended in 2007 to ensure perpetuity
1990	Audubon Hill	R.Smith Associates, Inc.	Restricted	49.77	P	10/2/1989	2/2/1990	20065	415	H2A-51-101; H3B-1910	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.
1998	Haartz Property	The Haartz Corp.	Town of Acton	14.5	P	10/15/1996	9/9/1997	27757	537	E3-101	Charter Road & 87 Hayward Rd	Industrial District Buffer
2002	James & Mary Donald	Gifted to Town: 2001	SVT & ACT	11.2	P	3/15/2000	12/13/2001	11456	403	F3-7B-1	33 Minot Ave	Mary's Brook, 600 foot tributary to Fort Pond Brook; abuts Acton Arboretum
2005	Canoe Landing	Leo F. Bertolami	Conservation Commission	4.56	P	4/15/2004	10/27/2004	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
2005	Wagner Land/Lawsbrook	Paul & Alan Wagner, Lexington Sand & Gravel	Acton Water Supply	0.13	P	7/21/2004	5/25/2005	11822	511	H4-126-1	66 Lawsbrook Rd., Acton	Groundwater protection/ 3.8 acre portion at 49B Lawsbrook Rd., belongs to Concord
2006	Haartz Property	The Haartz Corp.	Town of Acton	6.3	P	3/27/2006	5/3/2006	50696	555	E3-85 & F3-1	Charter Road & 87 Hayward Rd	Industrial District Buffer; added 6.3 acres to restricted area
2010	Woodlands at Laurel Hills	Aria @ Laurel Hills	Town of Acton	6.67	P	10/5/2006	8/27/2010	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	10/30/2006	12/7/2006	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	10/29/2008	12/29/2008	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 granted to the Town of Carlisle
2010	W.R.Grace	W. R. Grace & Co. - Conn	Town of Acton	15.3	P	6/21/2010				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	5/18/2007	1/10/2014	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	4/13/2011				H3A-4	6 Piper Road Rear	Deeded to town 2/20/2009
2011	Caouette/Simeone Land	Town of Acton	Sudbury Vally Trustees	10.22	P	7/25/2011	6/10/2013	56002	381	H2A-62	2 Stow Street, Acton, MA	Caouette/Simeone Irrevocable Trust
2012	90 Martin Street	Israel & Christine Ross	Town of Acton	3.68	P	1/11/212	1/19/2012	58324	328	H2-95	90 Martin Street	Lot 2, including house and garage
2012	6 Piper Road	James Cullen	Acton Cons. Trust	0.2	P	3/12/2012	4/20/2012	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	7/29/2013	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								

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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	18 unique areas
Division Two	Conservation areas not yet being actively managed by LSCoM	119.56	8 areas
Division Three	Isolated parcels with limited public access	16.67	7 parcels
Total		1781.83	

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Conservation Land Owned by the Town of Acton															
Managed Conservation Areas				Component Parcels											
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
Total Conservation Areas, Acres: 1645.6				B=Biking C=Camping E=Education F=Fishing G=Gardening H=Horseback W=Walking T=Trails P=Parking K=Kioeks A: Accessible								Gift to town; Gift w/CR; Town purchase; CPA funds; Self-help funds; Em. Domain	0. None 1. By Use 2. Zoning 3. Article 97 4. CPA 5. CR	Municipal ConsCom Land Trust: ACT SVT	
Acton Arboretum Total Acres: 65.86				T, P, K, A	E, W, G										Pedestrian access from Town Center Donald Land; CR held by SVT and ACT Bridges Land; taken for conservation purposes - \$80K Easement between 41 & 49 Wood Ln Purchased by Town from ACT Bean Land; held by ConCom Wheeler Land, deeded to ConCom
	Passive				F3-78-1	33 Minot Ave	11.20	R-2	6/5/2002	35623	499	GIFT/CR	5	ConCom/SVT and ACT	
		Main Entry			F3A-76	2 Taylor Rd	14.81	ARC	12/27/1977	13361	526	SH 31	3	ConCom	
		Corridor			F4-28	47 Wood Ln	30.00	ARC	11/1/1976	13085	558	SH 30	3	ConCom	
					F4-41-1	81 Wood Ln	1.03	R-2	9/13/2013	62628	89	Town	3	ConCom	
					F4-44	17 Minot Av	6.42	ARC	12/16/1976	13112	231	SH 30	3	ConCom	
		Wood Lane Entry			F4-45	88 Wood Ln	2.01	ARC	9/28/1976	13085	198	GIFT	3	ConCom	
		Corridor/ Access from Concord Rd.			F4-40-4	7 Concord Pl Beside	0.39	ARC	12/2/1998	29480	425	GIFT	2	ConCom	
Bulette Conservation Land - Town Forest Total Acres: 47.35				T, K	W, H, B										First conservation parcel! to ConCom; ATM 1971 64 picnic tables; Pacy Land 3/8/25: TM approved \$200 for land purchase for purpose of a town forest; Durkee Lot 3/8/25: TM approved \$200 for land purchase for purpose of a town forest; Durkee Lot Gifted to Town with early CR; McGloins
	Passive				D2-10	20 Bulette Rd Rear	13.33	ARC	8/13/1965	10900	136	SH 1	3	ConCom	
		main entry			D3-12	20 Bulette Rd Rear	18.80	ARC	3/23/1926	04950	435	Town	2	ConCom	
		Town Forest/Veteran's Memorial Rec. Area			D3-16	20 Bulette Rd Rear	12.00	ARC	3/23/1926	04950	435	Town	2	ConCom	
		Town Forest			D3-22-4	53 Arlington St	3.22	ARC	12/21/1979	13863	336	Gift/CR	5	ConCom	
Camp Acton Conservation Land Total Acres: 56				T, P, K	B, C, H, W										Only Public Camping Ground in Acton; permit required
	Passive/ Camping				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 Total Acres: 5.38				P, K	G										Taylor Land ConCom and Rec. ConCom and Rec.
	Agriculture	Directly off of 27			C5-41	861 Main St	0.88	ARC	12/23/1975	12913	6	SH 23	3	Rec/ConCom	
					C5-51	845 Main St	4.50	ARC	12/23/1975	12913	6	SH 23	3	Rec/ConCom	
Grassy Pond Conservation Land				T, P, K	B, H, W										Viewing platform constructed in 2013

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Managed Conservation Areas				Component Parcels											
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
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	12246	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	
					G3-79	18 Stoney St	13.52	ARC	12/29/1972	12355	195	SH 20	3	ConCom	Conservation purposes 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	53.82	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											
Total Acres: 61		Main Entry			F1-5	667 Mass Av	55.50	ARC	12/24/1975	LC870	90	SH 28	3	ConCom	Pedestrian access from W. Acton Conservation & outdoor rec purposes; Cacciatore Land Considered part of Conservation Area though Municipal Property
		Wetland			F1-2	659 Mass Av	5.50	ARC	1/25/1978	13381	6	Town	2	Municipal	
Heath Hen Meadow Conservation Land	Passive		T, K	W, B											
Total Acres: 113.37					G2-184	19 Overlook Dr. Behind	1.99	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Pedestrian access from S. Acton and also W. Acton via Mt. Hope Cemetery Gifted to town for Conservation Purposes

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Managed Conservation Areas				Component Parcels											
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
	Corridor	Corridor			G2-184-1	17 Overlook Dr Behind	1.39	ARC	10/25/1995	25759	239	GIFT	3	ConCom	Gifted to town for Conservation Purposes
					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
	Main Entry	G2-194-1			13 Overlook Dr Behind	2.84	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	0.81	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	
		H2-1			Robbins St End	84.00	ARC	7/19/1974	12870	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	12830	111	SH 16	3	ConCom	Gifted to town for Conservation Purposes					
Jenks Conservation Land Total Acres: 28	Passive	Main Entry	T, P, K	B, W											Meadowland, great birding area
			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 Total Acres: 176.54	Passive	Main Entry	T, P, K	B, H, W											Young Land; for Cons. And Rec.; ConCom listed as Grantee
			D4-1-3	257 Nagog Hill Rd	53.89	ARC	12/2/1975	12902	197	SH 29	3	ConCom	ConCom Grantee		
			D4-6	221 Nagog Hill Rd	88.14	ARC	1/2/1980	13871	233	SH 33	3	ConCom	ConCom Grantee		
			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	ConCom Grantee		
		D4-37-6	193 Nagog Hill Rd	12.51	R-8	10/19/2007	50251	161	CPA	4	ACT	ACT	ConCom Grantee		
Nashoba Brook Conservation Land Total Acres: 123.29	Passive	Main Entry	T, P, K, A	B, W											Trail Through Time runs through this area
			D5-6	Wheeler Ln Rear	1.80	PCRC	11/22/1971	12114	415	Town	3	ConCom	ConCom Grantee		
			D5-11-18	21 Milldam Rd	0.53	R-2	10/27/1989	20163	11	GIFT	3	ConCom	ConCom Grantee		
			D5-11-33	17 Sawmill Rd Rear	2.26	R-2	9/26/1988	19361	363	GIFT	3	ConCom	ConCom Grantee		
			D5-22	1-17 Blue Heron Way	112.00	PCRC	11/10/1987	18882	0183	GIFT	3	ConCom	ConCom Grantee		
		D5-25	Davis Rd Rear	6.70	PCRC	11/10/1987	18882	0183	GIFT	3	ConCom	ConCom Grantee			

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Managed Conservation Areas				Component Parcels											
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
Pacy Conservation Land Total Acres: 38.32	Passive	Corridor	T, K	B, W	G2-123-37	39 Tuttle Drive Behind	0.25	ARC	1/23/1979	13631	143	GIFT	3	ConCom	Pedestrian access from S. Acton ConCom; Moulton Gift 39,850 sq ft ConCom Grantee ConCom; Arnold Levitt dba Eastern Mortgage Co. Land Municipal Property considered part of conservation area
					G2A-17	55 Central Street Rear	30.30	ARC	12/23/1975	12913	178	TM	3	ConCom	
					G2A-17-1	43 Central Street 30 Prospect St./Tupelo Way End	1.13	ARC	12/23/1975	12913	178	TM	3	ConCom	
					G2A-18		6.64	R8/4	5/3/2001	32802	136	GIFT	1	Municipal	
Pratt's Brook Conservation Land Total Acres: 59.39	Passive	Main Entry	T, P, K	B, W	H3-237	95 Parker St	26.54	ARC	4/18/1980	13948	187	SH 32	3	ConCom	Blueberry Barrens Averett Land; ConCom Grantee Averett Land; ConCom Grantee J&E Co., ConCom grantee J&E Co., ConCom grantee
					I3-2	108 Parker St Rear	31.00	ARC	4/18/1980	13948	187	SH 32	3	ConCom	
					I3-5	16 Broadview St	1.75	ARC	10/20/1970	LC797	165	GIFT	3	ConCom	
					I3-20	15 Broadview St	0.10	R-2	10/20/1970	LC797	165	GIFT	3	ConCom	
Robbins Mill Conservation Land Total Acres: 132.59	Passive	Main Entry	T, P, A	B, W	B6-20-5	2 Marshall Path	0.97	R108	5/15/1997	27294	343	GIFT	1	Municipal	Newest area, viewing platform planned Municipal Property considered part of conservation area Deeded as permanent conservation land Municipal Property considered part of conservation area corrected page no. Deeded for Recreation Deeded for Recreation Municipal Property considered part of conservation area Deeded as permanent conservation land
					C5-115	9-17 Carlisle Rd.	19.73	ARC	8/18/2011	57315	205	GIFT	5	ConCom	
					C6-9	13 Carlisle Rd.Rear	2.99	R108	10/6/1947	7197	290	TAKEN	1	Municipal	
					C6-9	3-19 Carlisle Rd Behind	12.86	R108	5/15/1997	27294	350	GIFT	1	ConCom	
					C6-11	Canterbury Hill Rd.	0.30	R108	8/18/2011	57315	205	GIFT	5	Rec/ConCom	
					C6-14-14	22 Blueberry Path	0.31	R108	8/18/2011	57315	205	GIFT	5	Rec/ConCom	
					C6-19	27 Marshall Path Canterbury Hill Rd. Behind	0.17	R108	5/15/1997	27294	343	GIFT	1	Municipal	
D6-2		95.26	ARC	8/18/2011	57315	205	GIFT	5	ConCom						
Spring Hill Conservation Land Total Acres: 213.2	Passive	Main Entry	T, K	B, H, W	D5-23	Wheeler Ln End	2.43	ARC	8/19/1971	12058	587	SH 10	3	ConCom	Native Artifacts on site ConCom grantee; Martin Land ConCom; Hollowell Land Conservation Land, applied for grant Richardson Land for conservation Deeded for Conservation Conservation Land Grantee: ConCom; transferred from BOS
					D5-24	Wheeler Ln	7.99	ARC	6/10/1971	12012	564	SH 11	3	ConCom	
					D5-29	Spring Hill Rd End	36.20	ARC	11/22/1971	12114	415	Town	3	ConCom	
					D5-30	Spring Hill Rd	9.67	ARC	5/31/1967	11331	359	SH 3	3	ConCom	
					D5-30-1	320 Pope Rd	0.45	ARC	5/31/1967	11331	359	SH 3	3	ConCom	
					D5-35	Spring Hill Rd End	49.81	ARC	11/22/1971	12114	415	Town	3	ConCom	
					D5-36	308 Pope Rd Rear	5.82	ARC	12/23/1966	11270	552	Town	3	ConCom	

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Managed Conservation Areas				Component Parcels											
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
					D5-37	Spring Hill Rd	7.94	ARC	11/1/1971	12101	888	SH 13	3	ConCom	Deeded for Conservation deeded for conservation purposes to be controlled by ConsComm; Hollowell Land Taken for conservation purposes 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 deeded for conservation purposes deeded for conservation purposes with easements
					D5-37-1	Spring Hill Rd Rear	7.92	ARC	11/1/1971	12101	888	SH 13	3	ConCom	
					D5-38	Wheeler Ln	2.34	ARC	6/10/1971	12012	564	SH 11	3	ConCom	
					E5-4	Spring Hill Rd	12.13	ARC	11/22/1971	12114	415	SH 3	3	ConCom	
					E5-16-2	10 Jay Lane 21 Spring Hill Rd	31.70	R108	12/4/1998	29450	341	GIFT	1	ConCom	
					E5-45	Behind	22.76	ARC	9/19/1966	11214	347	SH 2	3	ConCom	
					E5-7	Spring Hill Rd Rear	16.04	ARC	5/31/1967	11331	359	SH 3	3	ConCom	
Stonemeade 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
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 "Texas lot" Town Forest purchased about 1940
		Town Forest Main Entry			B5-34	Off Quarry Rd	49.00	ARC	12/31/1943	06734	596	TM	2	ConCom	
					CS-3	70 Quarry Road	5.03	ARC	2/27/1976	12940	132	GIFT	2	Municipal	ConCom; Plamondon Land Municipal Property considered part of conservation area Municipal Property considered part of conservation area Deeded for conservation, recreation, agriculture (ARC) Deeded for conservation, recreation, agriculture (ARC)
					C5-10-1	12 Harris St Rear	3.25	ARC	8/03/1971	12047	586	SH 8	3	ConCom	
					CS-10	12 Harris St	15.07	R108	5/5/1999	30137	563	GIFT	1	Municipal	
		corridor			CS-10-18	1 Capt Handley Rd	2.03	R108	5/5/1999	30137	563	GIFT	1	Municipal	
					C5-24	22 Alexandra Way	19.61	R108	9/21/2004	43751	66	GIFT	3	ConCom	
					C5-45	3 Alexandra Way	6.62	R108	9/21/2004	43751	66	GIFT	3	ConCom	
							1645.60								
Miscellaneous Parcels															Areas currently not actively managed
Total Acres: 140.25															
Anderson Conservation Land				B, W											Purchased in 2013. CR to be held by SVT and ACT
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	

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Managed Conservation Areas				Component Parcels											
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
Arborwood Conservation Land	Passive			W											Separate, non-contiguous parcels
Total Acres: 8.78					H3-38	Robinwood Road (end)	1.57	R2	12/6/1985	18819	585	GIFT	3	ConCom	Upland pine stand
					H3-80-6	11 Sandy Drive	7.21	R2	12/6/1985	18819	585	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	492-498R Mass. Avenue	4.50	R2	6/8/1993	23276	0559	GIFT	3	ConCom	Deeded for Conservation
					F2-128	488-492R Mass. Avenue	8.00	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
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	0238	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 refers to maint. under Mass Gen'l Law Ch 40 Sec 8C
Total Acres: 15.3					E3-80	65-67 Newtown Road	15.30	ARC	1/21/1976	12824	0635	Town	3	ConCom	
Steinman and McGloin Conservation Land	Wetland														Borders Maynard
Total Acres: 40.44					I2-71	88 Conant Street	17.76	ARC	12/27/1978	13814	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	8.83	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	

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Managed Conservation Areas				Component Parcels												
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment	
					IS-150	30 Carlton Dr. Behind	2.20	R-4	5/11/2000	31392	195	GIFT	1	Municipal	Municipal Property considered conservation land	
		Corridor			IS-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 buildings 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 11/7/1977	15594 13327	551 605	Town	1	Municipal	Municipal Property considered conservation land taken for taxes	
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															

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Managed Conservation Areas			Component Parcels												
	Current use	Public Access	Facilities	Recreation Potential	GIS ID	Address	Parcel Acres	Zone	Acq. Date	Deed Book	Deed Page	Source of Funding	Level of land protection	Managing Agency	Comment
Total Managed Conservation Areas	1645.60														
Total all conservation property	1781.83					Total Municipal parcels	50.05	50.05	Require more protection						

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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 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.

Areas listed in the matrix as Miscellaneous Parcels have not been actively taken under LSCom's responsibility. The Acton Arboretum is supported by Friends of the Acton Arboretum Inc., a private non-profit organization, with help from town staff. Town staff manage the Community Gardens as open agricultural space. It is expected that the town rezones all conservation lands after purchase as ARC

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(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 Craigs, the Reeds, the Tuttle, 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 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 11 acre 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 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. A small plaque was placed on the Fern Boardwalk in the Arboretum over the brook. A commemoration ceremony dedicating "Mary's Brook" took place in October, 2012. Mary Michelman passed away in 2010 and was an esteemed citizen who created the Acton Stream Teams and who worked assiduously to keep Acton's drinking water safe and clean. Mary's Brook is part of Acton's watershed that eventually flows into the Assabet and Concord Rivers. A complete report highlighting future goals, prepared by the Friends of the Acton Arboretum, may be found in Section 12, Appendix 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 March 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.

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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 woody 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 twenty percent 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 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

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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. Both Nagog Hill and Newtown Road entrances have designated parking facilities, while the entrance from Willis Holden Drive has 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-quicken 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

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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.

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

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

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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.

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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.

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 the only actively-farmed agricultural field that belongs 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,

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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.

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 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

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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 Samuel Parlin Drive Rear and 2 Minot Avenue Rear are surrounded by residences and have no public access. The parcel at 915 Main St 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 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

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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 Rt. 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.

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Athletic fields, and their associated picnic and playground areas, are also intensively used by families and groups of children.

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TABLE 5.C.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			

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 prevent balls to protect children using the play structures. Infield improvements have been made by the Acton-Boxborough Youth Baseball organization.

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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 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 multifold 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

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(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.

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 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 will be completed in time for a 2014 spring opening.

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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.

5.C.2.3.12 Nathaniel 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.

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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-ponto teeter-totter 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.

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.

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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,

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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 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 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

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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. A detailed listing of all properties that includes estimated acreage, location and associated school can be found on page 5-27 in Table C.5.E

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	Charter Rd.	9.09	3.96	0	0	0	5.13

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	Rd rear	Campus						
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)								

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.

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5.C.5 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-Boxborough 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.4.2 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.

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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.

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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.

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 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:

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Bay Circuit Trail
Robbins Park
NARA Park
Nashoba Brook Conservation Area
Veterans Memorial Field (Route 2A/27 Little League complex)
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.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 The Town of Acton Open Space and Recreation Plan 2014-2021

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to the west of Rex Lumber¹, 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.

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.

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 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.

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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.

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	23.21
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

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Plate	Parcel	Location	Deed (Book/Page)	Acquisition Date	Acres
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	37Squirrel 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	82R Powder Mill Rd.	LC831/084	1973	9.6

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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

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 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,

SECTION 5: INVENTORY OF LANDS

management and conservation, agriculture, forests, and limited public access for passive and specified active recreation and enjoyment.”

Currently, the Town 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.

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TABLE 5.C89 LANDS OWNED BY THE COMMONWEALTH OF MASSACHUSETTS					
Plat e	Parcel	Location	Deed (Book/Page)	Acquisitio n 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

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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.

SECTION 6: COMMUNITY VISION

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 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 are now guiding the development of the Phase II action plan. Phase III, the implementation phase, addresses the fiscal and planning realities.

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 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 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, 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 minutes in Appendix, Section 12, D1.)

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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, Recreation Department, 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 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. Protecting Acton's rural character as well as its environmental resources are both essential to preservation of characteristics 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 listed below.

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

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

SECTION 6: COMMUNITY VISION

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

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 five years, is presented in subsequent sections of this report.

SECTION 7: ANALYSIS OF NEEDS

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 resources. 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 already 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

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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 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.

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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. 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 Rt. 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.

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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)
- Improve ADA accessibility 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 Appendix G)

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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

Nathaniel 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.

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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 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.

Identifying and communicating which of the 18 conservation areas are conducive to specific recreational activities -- hiking, birding, cross-country skiing, horseback riding, boating and fishing -- 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, would encourage and promote their use.

Improve communication with residents regarding facilities available, events and procedures (e.g., for reserving fields and facilities at NARA); Improve communication and coordination with neighboring towns, such as information-sharing regarding procedures and coordination of similar events; establish easier access to internet-based resources regarding Acton's passive and active recreational opportunities

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7.B.7 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.8 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.9 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. 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 of the town website. Currently, town maps are accessible on-line, the Conservation Guide is accessible and down-loadable, 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,

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by maintaining an awareness of land purchasing opportunities as they arise. This requires continued coordination of their efforts with organizations such as Acton Conservation 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.

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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 & 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.

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.

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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 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 5C2, 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.

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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.

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.

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 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.

SECTION 8: GOALS AND OBJECTIVES

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 Nathaniel 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 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 ethnic 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.

SECTION 8: GOALS AND OBJECTIVES

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 (due in 2 years), Gardner Playground (due in 3 years) and Veterans Field Playground (due in 4 years). 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 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.

SECTION 9: SEVEN 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
BFRT	Friends of the Bruce Freeman Rail Trail
BoS	Board of Selectmen
CPA	Community Preservation Act (funding only)
CWD	Concord Water District
FoAA	Friends of Acton Arboretum
LSC	Land Steward Committee
LU	Land Use Department
MFIC	Morrison Farm Implementation Committee
MP	Municipal Properties Department
NR	Natural Resources Department
OARS	Organization for the Assabet, Sudbury and Concord Rivers
OSC	Open Space Committee
REC	Recreation Department
ToA	Town of Acton
ToC	Town of Concord
TL	Town Leagues
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

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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/LU	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
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

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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 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

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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
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

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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-going
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
Add sidewalk extensions to popular recreation sites, particularly from north of Route 2A on Route 27 (Main Street),	1	ToA	ToA	2016

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
linking Veterans Field to NARA Park				
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 Nathaniel 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

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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 begin 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				
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

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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 soccer	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				

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ACTION	PRIORITY	FUNDING	RESPONSIBLE	DATE
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
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/ Private	NR	2015
Move the Department of Recreation office to the Harris St. facility	1	General Fund/ Private	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/ Pri- vate	NR/REC	2015-2016
Remove existing garage and resurface the parking lot	1	Private	NR	2015-2016

Section 10: Public Comments

This section reserved for local review and DCS approval

SECTION 11: REFERENCES

GENERAL:

The Open Space Planner's Workbook: www.mass.gov/envir/dcs

Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP): www.mass.gov/envir/dcs

SECTION 1:

Acton 2020 Comprehensive Community Plan: www.doc.acton-ma.gov/dsweb/View/Collection-4819

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.artinc.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

Smart Growth Tool Kit: 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

Zoning By-law <http://www.acton-ma.gov/DocumentCenter/Home/View/659>

Acton Minivan: <http://www.minutevan.net>

Acton Water Department: www.home-water-works.org

Acton Superfund sites: 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

SECTION 11: REFERENCES

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

Invasive Plant Management: [HTTP://WWW.ACTONINVASIVES.ORG/PLANS](http://WWW.ACTONINVASIVES.ORG/PLANS)

SECTION 5:

Bruce Freeman Rail Trail: www.acton-ma.gov search on *BFRT*

Bruce Freeman Rail Trail: www.brucefreemanrailtrail.org

Solar Facts: <http://www.acton-ma.gov/DocumentCenter/View/2867>