

SECTION 12-Appendix A1: Forest Management Plans

In 2011 the Town of Acton, through its Conservation Commission, initiated a forest management plan for its Wetherbee Conservation land. Located along the north side of Route 2, this 72- acre tract, with 31 acres in agricultural fields and 41 acres in woodland, is one of the fields that gives Acton its distinctive country feel. The agricultural fields are farmed by the Massachusetts Correctional Institute of Concord under a lease agreement, and in the summer of 2012 the plan was to farm 16 acres of corn, which, combined with the agricultural fields on the south side of Route 2, produced significant forage for the livestock at the prison. Meanwhile the Commonwealth has allowed the Town of Acton to use an additional 13 acres of fields on the south side of Route 2 and east of School Street Extension as soccer fields.

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

Based on the success of the Wetherbee forest management, Acton will need to identify other tracts of conservation land suitable for a forest management plan.



FOREST MANAGEMENT PLAN

Submitted to: Massachusetts Department of Conservation and Recreation
For enrollment in CH61/61A/61B and/or Forest Stewardship Program.

JUN 30 2011



CHECK-OFFS					Administrative Box		
CH61 cert. <input type="checkbox"/>	CH61A cert. <input type="checkbox"/>	CH61B cert. <input type="checkbox"/>	STWSHP new <input checked="" type="checkbox"/>	C-S EEA <input type="checkbox"/>	Case No. <u>002-9193</u>	Orig. Case No. <u>—</u>	
recert. <input type="checkbox"/>	recert. <input type="checkbox"/>	recert. <input type="checkbox"/>	renew <input type="checkbox"/>	Other <input type="checkbox"/>	Owner ID <u>502900</u>	Add. Case No. <u>—</u>	
amend <input type="checkbox"/>	amend <input type="checkbox"/>	amend <input type="checkbox"/>	Green Cert <input type="checkbox"/>		Date Rec'd <u>6-30-11</u>	Ecoregion <u>221</u>	
Plan Change: _____ to _____			Conservation Rest. <input type="checkbox"/>		Plan Period <u>2012-2021</u>	Topo Name _____	
			CR Holder _____		Rare Spp. Hab. <u>yes</u>	River Basin <u>Concord</u>	

OWNER, PROPERTY, and PREPARER INFORMATION

Property Owner(s) Town of Acton, Conservation Commission
 Mailing Address 472 Main Street; Acton, MA 01720 Phone 978-264-9631
 Email Address ttidman@acton-ma.gov

Property Location: Town(s) Acton Road(s) Wetherbee St. & Route 2

Plan Preparer Charles E. Caron Mass. Forester License # 29
 Mailing Address 247 Bragg Hill Road; Westminster, MA 01473 Phone 978-874-5469

RECORDS

Assessor's Map No.	Lot/Parcel No.	Deed Book	Deed Page	Total Acres	Ch61/61A 61B Excluded Acres	Ch61/61A 61B Certified Acres	Stewshp Excluded Acres	Stewshp Acres
<u>64</u>	<u>173</u>	<u>14534</u>	<u>117</u>	<u>72.68</u>	<u>0.0</u>	<u>0.0</u>	<u>31.68</u>	<u>41.00</u>
TOTALS				<u>72.68</u>	<u>0.0</u>	<u>0.0</u>	<u>31.68</u>	<u>41.00</u>

Excluded Area Description(s) (if additional space needed, continue on separate paper)

Beginning at the most southeastern corner of the property at the intersection of Wetherbee St. and Route 2, N85W 1200' by Route 2, thence N9E 990', thence N58W 90', thence N9E 200', thence S75E 670', thence S77E 626', thence by Wetherbee St, S10W 114' and S12W 867' to the point of beginning.

HISTORY Year acquired 1982 Year management began 1982

Are boundaries marked: Yes blazed/painted/flagged/signs posted (circle all that apply)? No Partially

What treatments have been prescribed, but not carried out (last 10 years if plan is a recert.)?

stand no. _____ treatment _____ reason _____

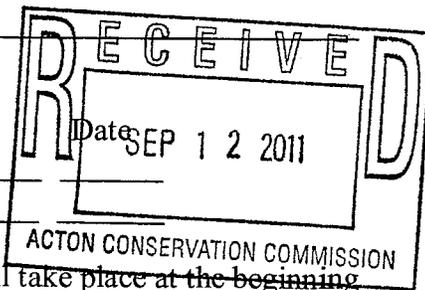
(if additional space needed, continue on separate page)

Previous Management Practices (last 10 years)

Stand #	Cutting Plan #	Treatment	Yield	Acres
_____	_____	_____	_____	_____

Remarks: (if additional space needed, continue on separate page)

Boundaries are almost entirely stone walls or roadways. Blazing and painting will take place at the beginning of the management period.



Landowner Goals

Please **check** the column that best reflects the importance of the following goals:

Goal	Importance to Me			
	High	Medium	Low	Don't Know
Enhance the Quality/Quantity of Timber Products*		X		
Generate Immediate Income			X	
Generate Long Term Income		X		
Produce Firewood			X	
Defer or Defray Taxes			X	
Promote Biological Diversity	X			
Enhance Habitat for Birds	X			
Enhance Habitat for Small Animals	X			
Enhance Habitat for Large Animals		X		
Improve Access for Walking/Skiing/Recreation	X			
Maintain or Enhance Privacy			X	
Improve Hunting or Fishing			X	
Preserve or Improve Scenic Beauty	X			
Protect Water Quality		X		
Protect Unique/Special/ Cultural Areas		X		
Attain Green Certification			X	
Other:				

*This goal must be checked "HIGH" if you are interested in classifying your land under Chapter 61/61A.

In your own words, describe your goals for the property: To improve the overall condition of the forested portions of the property, while promoting biological diversity and passive recreation.

Stewardship Purpose

By enrolling in the Forest Stewardship Program and following a Stewardship Plan, I understand that I will be joining with many other landowners across the state in a program that promotes ecologically responsible resource management through the following actions and values:

1. Managing sustainably for long-term forest health, productivity, diversity, and quality.
2. Conserving or enhancing water quality, wetlands, soil productivity, carbon sequestration, biodiversity, cultural, historical and aesthetic resources.
3. Following a strategy guided by well-founded silvicultural principles to improve timber quality and quantity when wood products are a goal.
4. Setting high standards for foresters, loggers and other operators as practices are implemented; and minimizing negative impacts.
5. Learning how woodlands benefit and affect surrounding communities, and cooperation with neighboring owners to accomplish mutual goals when practical.

Signature(s): Jerence Martland, CHAIR

Date: 6/28/2011

Owner(s) (print) Town of Acton
Acton Conservation Commission
Town of Acton Open Space & Recreation Plan
 (This page will be included with the completed plan.)



Property Overview, Regional Significance, and Management Summary

The Town of Acton's "Wetherbee Lot" is located at the intersection of Wetherbee Street and Route 2. The easterly portion of the site contains a 31 acre agricultural field, while the remaining 41 acres are forested. The primary management objectives of the Town are to improve the condition of the forest while promoting biological diversity and passive recreation, and to generate income to be used to manage its open space properties.

The most abundant tree species on the property include white pine, oaks and red maple. Saplings of the overstory species and glossy buckthorn predominate in the understory. The forests stands appear to represent a progression of agricultural abandonment, ranging from the relatively mature Stand 4 to Stand 5 which is only beginning to revert to forest. In general the quality of the timber is low and stocking is highly variable. Invasive shrub species are abundant on many portions of the property.

No unusual insect or disease problems were observed. The only cultural features that were observed are the stone walls.

The property is located within a generally suburban area, but some of the immediately surrounding area is agricultural.

The property contains a small vegetated wetland just west of the field, within which there is a certified vernal pool. There is also a certified vernal pool in the southwest portion of the site. This vernal pool is very small and may not be truly functional. The 13th Edition of the Natural Heritage Atlas indicates that the field is within a Priority Habitat Area, but the forested portions of the property are not.

The elevation of the property ranges from 145 feet to 210 feet. The site's topography is generally gently sloping. The soils on the site are are variable and glacial till and glacial outwash are both present.

The land's existing wildlife habitat will be maintained by ensuring that the site remains forested.

The long-term objective for the management of the property's forest is to maintain it as forest, while improving biodiversity, maintaining passive recreational use and improving the health and condition of the forest.

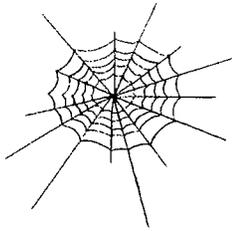
Owner(s) Town of Acton, Conservation Commission

Town(s) Acton

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Stewardship Issues

Massachusetts is a small state, but it contains a tremendous variety of ecosystems, plant and animal species, management challenges, and opportunities. This section of your plan will provide background information about the Massachusetts forest landscape as well as issues that might affect your land. **The Stand Descriptions and Management Practices sections of your plan will give more detailed property specific information** on these subjects tailored to your management goals.



Biodiversity: Biological diversity is, in part, a measure of the variety of plants and animals, the communities they form, and the ecological processes (such as water and nutrient cycling) that sustain them. With the recognition that each species has value, individually and as part of its natural community, maintaining biodiversity has become an important resource management goal.

While the biggest threat to biodiversity in Massachusetts is the loss of habitat to development, another threat is the introduction and spread of invasive non-native plants. Non-native invasives like European Buckthorn, Asiatic Bittersweet, and Japanese Honeysuckle spread quickly, crowding out or smothering native species and upsetting and dramatically altering ecosystem structure and function. Once established, invasives are difficult to control and even harder to eradicate. Therefore, vigilance and early intervention are paramount.

Another factor influencing biodiversity in Massachusetts concerns the amount and distribution of forest growth stages. Wildlife biologists have recommended that, for optimal wildlife habitat on a landscape scale, 5-15% of the forest should be in the seedling stage (less than 1" in diameter). Yet we currently have no more than 2-3% early successional stage seedling forest across the state. There is also a shortage of forest with large diameter trees (greater than 20"). See more about how you can manage your land with biodiversity in mind in the "Wildlife" section below. (Also refer to *Managing Forests to Enhance Wildlife Diversity in Massachusetts* and *A Guide to Invasive Plants in Massachusetts* in the binder pockets.)



Rare Species: Rare species include those that are **threatened** (abundant in parts of its range but declining in total numbers, those of **special concern** (any species that has suffered a decline that could threaten the species if left unchecked), and **endangered** (at immediate risk of extinction and probably cannot survive without direct human intervention). Some species are threatened or endangered globally, while others are common globally but rare in Massachusetts.

Of the 2,040 plant and animal species (not including insects) in Massachusetts, 424 are considered rare. About 100 of these rare species are known to occur in woodlands. Most of these are found in wooded wetlands, especially vernal pools. These temporary shallow pools dry up by late summer, but provide crucial breeding habitat for rare salamanders and a host of other unusual forest dwelling invertebrates. Although many species in Massachusetts are adapted to and thrive in recently disturbed forests, rare species are often very sensitive to any changes in their habitat

Indispensable to rare species protection is a set of maps maintained by the Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program (NHESP) that show current and historic locations of rare species and their habitats. The maps of your property will be compared to these rare species maps and the result indicated on the upper right corner of the front page of the plan. Prior to any

regulated timber harvest, if an occurrence does show on the map, the NHESP will recommend protective measures. Possible measures include restricting logging operations to frozen periods of the year, or keeping logging equipment out of sensitive areas. You might also use information from NHESP to consider implementing management activities to improve the habitat for these special species.



Riparian and Wetlands Areas: Riparian and wetland areas are transition areas between open water features (lakes, ponds, streams, and rivers) and the drier terrestrial ecosystems. More specifically, a **wetland** is an area that has hydric (wet) soils and a unique community of plants that are adapted to live in these wet soils. Wetlands may be adjacent to streams or ponds, or a wetland may be found isolated in an otherwise drier landscape. A **riparian area** is the transition zone between an open water feature and the uplands (see Figure 1). A riparian zone may contain wetlands, but also includes areas with somewhat better drained soils. It is easiest to think of riparian areas as the places where land and water meet.

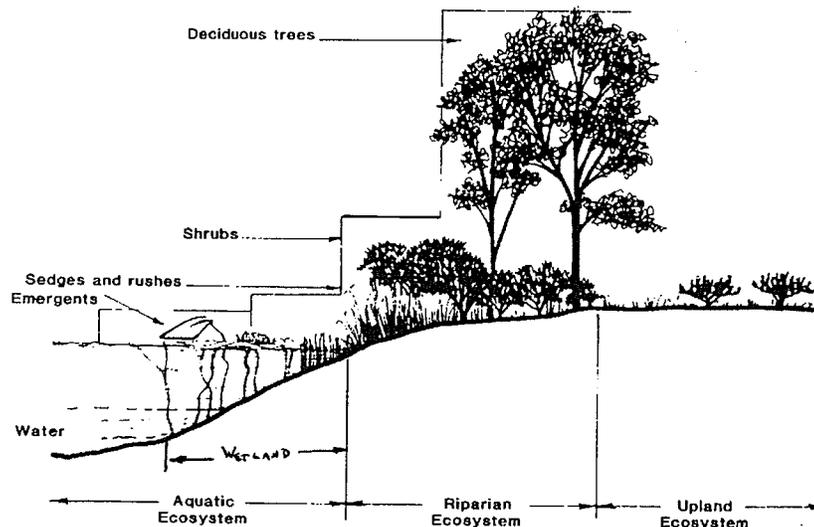


Figure 1: Example of a riparian zone.

The presence of water in riparian and wetland areas make these special places very important. Some of the functions and values that these areas provide are described below:

Filtration: Riparian zones capture and filter out sediment, chemicals and debris before they reach streams, rivers, lakes and drinking water supplies. This helps to keep our drinking water cleaner, and saves communities money by making the need for costly filtration much less likely.

Flood control: By storing water after rainstorms, these areas reduce downstream flooding. Like a sponge, wetland and riparian areas absorb stormwater, then release it slowly over time instead of in one flush.

Critical wildlife habitat: Many birds and mammals need riparian and wetland areas for all or part of their life cycles. These areas provide food and water, cover, and travel corridors. They are often the most important habitat feature in Massachusetts' forests.

Recreational opportunities: Our lakes, rivers, streams, and ponds are often focal points for recreation. We enjoy them when we boat, fish, swim, or just sit and enjoy the view.

In order to protect wetlands and riparian areas and to prevent soil erosion during timber harvesting activities, Massachusetts promotes the use of “Best Management Practices” or BMPs. Maintaining or reestablishing the protective vegetative layer and protecting critical areas are the two rules that underlie these common sense measures. DCR’s Massachusetts Forestry Best Practices Manual (included with this plan) details both the legally required and voluntary specifications for log landings, skid trails, water bars, buffer strips, filter strips, harvest timing, and much more.

The two Massachusetts laws that regulate timber harvesting in and around wetlands and riparian areas are the Massachusetts Wetlands Protection Act (CH 131), and the Forest Cutting Practices Act (CH132). Among other things, CH132 requires the filing of a cutting plan and on-site inspection of a harvest operation by a DCR Service Forester to ensure that required BMPs are being followed when a commercial harvest exceeds 25,000 board feet or 50 cords (or combination thereof).



Soil and Water Quality: Forests provide a very effective natural buffer that holds soil in place and protects the purity of our water. The trees, understory vegetation, and the organic material on the forest floor reduce the impact of falling rain, and help to insure that soil will not be carried into our streams and waterways.

To maintain a supply of clean water, forests must be kept as healthy as possible. Forests with a diverse mixture of vigorous trees of different ages and species can better cope with periodic and unpredictable stress such as insect attacks or windstorms.

Timber harvesting must be conducted with the utmost care to ensure that erosion is minimized and that sediment does not enter streams or wetlands. Sediment causes turbidity which degrades water quality and can harm fish and other aquatic life. As long as Best Management Practices (BMPs) are implemented correctly, it is possible to undertake active forest management without harming water quality.



Forest Health: Like individual organisms, forests vary in their overall health. The health of a forest is affected by many factors including weather, soil, insects, diseases, air quality, and human activity. Forest owners do not usually focus on the health of a single tree, but are concerned about catastrophic events such as insect or disease outbreaks that affect so many individual trees that the whole forest community is impacted.

Like our own health, it is easier to prevent forest health problems than to cure them. This preventative approach usually involves two steps. First, it is desirable to maintain or encourage a wide diversity of tree species and age classes within the forest. This diversity makes a forest less susceptible to a single devastating health threat. Second, by thinning out weaker and less desirable trees, well-spaced healthy individual trees are assured enough water and light to thrive. These two steps will result in a forest of vigorously growing trees that is more resistant to environmental stress.



Fire: Most forests in Massachusetts are relatively resistant to catastrophic fire. Historically, Native Americans commonly burned certain forests to improve hunting grounds. In modern times, fires most often result from careless human actions. The risk of an unintentional and damaging fire in your woods could increase as a result of logging activity if the slash (tree tops, branches, and debris) is not treated correctly.

Adherence to the Massachusetts slash law minimizes this risk. Under the law, slash is to be removed from buffer areas near roads, boundaries, and critical areas and lopped close to the ground to speed decay. Well-maintained woods roads are always desirable to provide access should a fire occur.

Depending on the type of fire and the goals of the landowner, fire can also be considered as a management tool to favor certain species of plants and animals. Today the use of prescribed burning is largely restricted to the coast and islands, where it is used to maintain unique natural communities such as sandplain grasslands and pitch pine/scrub oak barrens. However, state land managers are also attempting to bring fire back to many of the fire-adapted communities found elsewhere around the state.



Wildlife Management: Enhancing the wildlife potential of a forested property is a common and important goal for many woodland owners. Sometimes actions can be taken to benefit a particular species of interest (e.g., put up Wood Duck nest boxes). In most cases, recommended management practices can benefit many species, and fall into

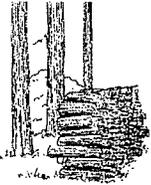
one of three broad strategies. These are **managing for diversity, protecting existing habitat, and enhancing existing habitat.**

Managing for Diversity – Many species of wildlife need a variety of plant communities to meet their lifecycle requirements. In general, a property that contains a diversity of habitats will support a more varied wildlife population. A thick area of brush and young trees might provide food and cover for grouse and cedar waxwing; a mature stand of oaks provides acorns for foraging deer and turkey; while an open field provides the right food and cover for cottontail rabbits and red fox. It is often possible to create these different habitats on your property through active management. The appropriate mix of habitat types will primarily depend on the composition of the surrounding landscape and your objectives. It may be a good idea to create a brushy area where early successional habitats are rare, but the same practice may be inappropriate in the area's last block of mature forest.

Protecting Existing Habitat – This strategy is commonly associated with managing for rare species or those species that require unique habitat features. These habitat features include vernal pools, springs and seeps, forested wetlands, rock outcrops, snags, den trees, and large blocks of unbroken forest. Some of these features are rare, and they provide the right mix of food, water, and shelter for a particular species or specialized community of wildlife. It is important to recognize their value and protect their function. This usually means not altering the feature and buffering the resource area from potential impacts.

Enhancing Existing Habitat – This strategy falls somewhere between the previous two. One way the wildlife value of a forest can be enhanced is by modifying its structure (number of canopy layers, average tree size, density). Thinning out undesirable trees from around large crowned mast (nut and fruit) trees will allow these trees to grow faster and produce more food. The faster growth will also accelerate the development of a more mature forest structure, which is important for some species. Creating small gaps or forest openings generates groups of seedlings and saplings that provide an additional layer of cover, food, and perch sites.

Each of these three strategies can be applied on a single property. For example, a landowner might want to increase the habitat diversity by reclaiming an old abandoned field. Elsewhere on the property, a stand of young hardwoods might be thinned to reduce competition, while a “no cut” buffer is set up around a vernal pool or other habitat feature. The overview, stand description and management practice sections of this plan will help you understand your woodland within the context of the surrounding landscape and the potential to diversify, protect or enhance wildlife habitat.



Wood Products: If managed wisely, forests can produce a periodic flow of wood products on a sustained basis. Stewardship encompasses finding ways to meet your current needs while protecting the forest’s ecological integrity. In this way, you can harvest timber and generate income without compromising the opportunities of future generations.

Massachusetts forests grow many highly valued species (white pine, red oak, sugar maple, white ash, and black cherry) whose lumber is sold throughout the world. Other lower valued species (hemlock, birch, beech, red maple) are marketed locally or regionally, and become products like pallets, pulpwood, firewood, and lumber. These products and their associated value-added industries contribute between 200 and 300 million dollars annually to the Massachusetts economy.

By growing and selling wood products in a responsible way you are helping to our society’s demand for these goods. Harvesting from sustainably managed woodlands – rather than from unmanaged or poorly managed forest – benefits the public in a multitude of ways. The sale of timber, pulpwood, and firewood also provides periodic income that you can reinvest in the property, increasing its value and helping you meet your long-term goals. Producing wood products helps defray the costs of owning woodland, and helps private landowners keep their forestland undeveloped.



Cultural Resources: Cultural resources are the places containing evidence of people who once lived in the area. Whether a Native American village from 1,700 years ago, or the remains of a farmstead from the 1800’s, these features all tell important and interesting stories about the landscape, and should be protected from damage or loss.

Massachusetts has a long and diverse history of human habitation and use. Native American tribes first took advantage of the natural bounty of this area over 10,000 years ago. Many of these villages were located along the coasts and rivers of the state. The interior woodlands were also used for hunting, traveling, and temporary camps. Signs of these activities are difficult to find in today’s forests. They were obscured by the dramatic landscape impacts brought by European settlers as they swept over the area in the 17th and 18th centuries.

By the middle 1800’s, more than 70% of the forests of Massachusetts had been cleared for crops and pastureland. Houses, barns, wells, fences, mills, and roads were all constructed as woodlands were converted for agricultural production. But when the Erie Canal connected the Midwest with the eastern cities, New England farms were abandoned for the more productive land in the Ohio River valley, and the landscape began to revert to forest. Many of the abandoned buildings were disassembled and moved, but the supporting stonework and other changes to the landscape can be easily seen today.

One particularly ubiquitous legacy of this period is stone walls. Most were constructed between 1810 and 1840 as stone fences (wooden fence rails had become scarce) to enclose sheep within pastures, or to exclude them from croplands and hayfields. Clues to their purpose are found in their construction. Walls that surrounded pasture areas were comprised mostly of large stones, while walls abutting former cropland accumulated many small stones as farmers cleared rocks turned up by their plows. Other cultural features to look for include cellar holes, wells, old roads and even old trash dumps.



Recreation and Aesthetic Considerations: Recreational opportunities and aesthetic quality are the most important values for many forest landowners, and represent valid goals in and of themselves. Removing interfering vegetation can open a vista or highlight a beautiful tree, for example. When a landowner's goals include timber, thoughtful forest management can be used to accomplish silvicultural objectives while also reaching recreational and/or aesthetic objectives. For example, logging trails might be designed to provide a network of cross-country ski trails that lead through a variety of habitats and reveal points of interest.

If aesthetics is a concern and you are planning a timber harvest, obtain a copy of this excellent booklet: *A Guide to Logging Aesthetics: Practical Tips for Loggers, Foresters & Landowners*, by Geoffrey T. Jones, 1993. (Available from the Northeast Regional Agricultural Engineering Service, (607) 255-7654, for \$7). Work closely with your consultant to make sure the aesthetic standards you want are included in the contract and that the logger selected to do the job executes it properly. The time you take to plan ahead of the job will reward you and your family many times over with a fuller enjoyment of your forest, now and well into the future.



Invasive Species Management: Invasive species pose immediate and long-term threats to the woodlands of MA. Defined as a non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human, animal, or plant health, invasives are well-adapted to a variety of environmental conditions, out-compete more desirable native species, and often create monocultures devoid of biological diversity. The websites of the Invasive Plant Atlas of New England, www.nbii-nin.ciesin.columbia.edu/ipane, and the New England Wildflower Society, www.newfs.org are excellent sources of information regarding the identification and management of invasive plants. Some of the common invasive plants found in MA are listed below.

- Oriental Bittersweet (*Celastrus orbiculata*)
- Glossy Buckthorn (*Frangula alnus*)
- Multiflora Rose (*Rosa multiflora*)
- Japanese Barberry (*Berberis thunbergii*)
- Japanese Knotweed (*Fallopia japonica*)
- Autumn Olive (*Eleaegnus umbellata*)

Early detection and the initiation of control methods soon after detection are critical to suppressing the spread of invasive species. Selective application of the proper herbicide is often the most effective control method. See the next section for information on the use of chemicals in forest management activities.



Pesticide Use

Pesticides such as herbicides, insecticides, fungicides, and rodenticides are used to control “pests”. A pest is any mammal, bird, invertebrate, plant, fungi, bacteria or virus deemed injurious to humans and/or other mammals, birds, plants, etc. The most common forest management use of a pesticide by woodland owners is the application of herbicide to combat invasive species. MA DCR suggests using a management system(s) that promotes the development and adoption of environmentally friendly no-chemical methods of pest management that strives to avoid the use of chemical pesticides. If chemicals are used, proper equipment and training should be utilized to minimize health and environmental risks. In Massachusetts, the application of pesticides is regulated by the MA Pesticide Control Board. For more information, contact MA Department of Agricultural Resources (MDAR), Pesticide Bureau at (617) 626-1776

On MA Private Lands Group Certification member properties, no chemicals listed in CHEMICAL PESTICIDES IN CERTIFIED FORESTS: INTERPRETATION OF THE FSC PRINCIPLES AND CRITERIA, Forest Stewardship Council, Revised and Approved, July 2002, may be used.

This is your Stewardship Plan. It is based on the goals that you have identified. The final success of your Stewardship Plan will be determined first, by how well you are able to identify and define your goals, and second, by the support you find and the resources you commit to implement each step.

It can be helpful and enjoyable to visit other properties to sample the range of management activities and see the accomplishments of others. This may help you visualize the outcome of alternative management decisions and can either stimulate new ideas or confirm your own personal philosophies. Don't hesitate to express your thoughts, concerns, and ideas. Keep asking questions! Please be involved and enjoy the fact that you are the steward of a very special place.



STAND DESCRIPTIONS

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	1	WH	21.9	12.1	137	4.7 MBF 12.3 Cords	65 (WP)

Stand 1 is a mixed-species stand dominated by white pine (43% of BA), white oak (24% of BA), scarlet oak (15% of BA) and red maple (15% of BA). The stand appears to have developed on an old-field, that was likely pasture, and contains some scattered, large, open-grown trees. The quality of the timber in the stand is low. Advance regeneration is patchy.

The stand's understory cover is 38%. It is dominated by glossy buckthorn (13%), red maple (9%) and white pine (7%). Cover in the groundcover stratum is 36%. Pennsylvania sedge and common dewberry are the predominant species.

The topography in the stand is gently sloping with varying aspects. There are no wetlands within Stand 1, other than a very small certified vernal pool near Route 2. The soil type in most of the stand is mapped as Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management. In the southwest portion of Stand 1 there is a narrow band of soil mapped as Ridgebury Fine Sandy Loam. Ridgebury soils are poorly drained soils that formed within depressions and drainage ways on compact glacial till. Due to their wetness Ridgebury soils can impose severe limitations on equipment operation, and withthrow and seedling mortality can be high. It does not appear that the Ridgebury soils on this site are as wet as typical, possible due to changes in hydrology caused by Route 2.

No unusual insect or disease problems were noted. Most of the white pine in the stand has been deformed by white pine weevil, as is typical in old field stands. Invasive shrub species are abundant, particularly glossy buckthorn. Invasive species are not abundant in the groundcover stratum. No cultural features other than stone walls were noted.

Stand 1 is in an intermediate stage of develop during which wildlife habitat quality and diversity is relatively low. The oaks in the stand do, however, provide for an abundant acorn crop. Acorns are an important food for a large number of wildlife species including deer, turkey, blue jays and most small mammals. Given the landscape position of the property it is likely to be inhabited primarily by habitat generalists that do well close to human disturbance. The stand does, however, support some forest species.

The desired future condition of Stand 1 is to maintain it as a mixed pine and hardwood stand. Cuttings may be considered that will improve habitat diversity and improve timber quality.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
 STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton. Conservation Commission

Town(s) Acton

STAND DESCRIPTIONS

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	2	WO	7.0	10.5	115	3.5 MBF 13.7 Cords	65 (RO)

Stand 2 is a mixed-species stand dominated by scarlet oak (52% of BA), white oak (22% of BA), black oak (9% of BA) and red oak (9% of BA). The stand is well-stocked with acceptable growing stock. The trees in the stand are large-pole to small-sawlog sized and are generally of good quality. Advance regeneration is fairly abundant and includes red, black and white oaks, white pine and red maple.

The stand's understory cover is 16%. It is dominated by small saplings of white pine (8% cover) and red maple (6% cover). Cover in the groundcover stratum is 34%. Huckleberry is the most abundant species providing 14% cover. Lowbush blueberry, white oak and Canada mayflower are also common.

The topography in the stand is flat to gently sloping with varying aspects. There are no wetlands within Stand 2. The soil type mapped in the stand is Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management.

No unusual insect or disease problems were noted. The stand could be susceptible to defoliation during a gypsy moth outbreak due to the predominance of oaks. Some glossy buckthorn, a non-native, invasive species, was observed in the stand, but in relatively low density. No cultural features other than stone walls were noted.

Like Stand 1, Stand 2 is in an intermediate stage of develop during which wildlife habitat quality and diversity is relatively low. The abundance and diversity of oaks in the stand should yield a consistent acorn crop. Acorns are an important food for a large number of wildlife species including deer, turkey, blue jays and most small mammals, and as a result this stand is likely an important feeding area during the fall and early winter. Given the landscape position of the property it is likely to be inhabited primarily by habitat generalists that do well close to human disturbance. The stand does, however, support some forest species.

The desired future condition of Stand 2 is to maintain it as a mixed oak stand. It does not appear that any treatment or cutting in this stand will be necessary for some time. Control of the glossy buckthorn, and any other invasive species that may occur, would be advisable to ensure that these species do not hinder future regeneration of desirable tree species.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
 STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission

Town(s) Acton

STAND DESCRIPTIONS

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	3	WH	4.2	4.6	120	0.7 MBF 9.0 Cords	65 (WP)

Stand 3 is an immature, mixed-species stand dominated by red maple (33% of BA), white oak (28% of BA), quaking aspen (23% of BA) and white pine (11% of BA). While white pine makes up a relatively small proportion of the basal area, most of the larger trees in the stand are pines. The stand appears to have developed on an old-field, that was likely pasture. The quality of the timber in the stand, especially the larger trees, is extremely low. Accordingly, stocking with acceptable growing stock is low. Invasive species are prevalent in the understory. Advance regeneration is sparse, but this is not an issue due to the stand's young age.

The stand's understory cover is 70%. It is dominated by glossy buckthorn (42% cover) and white pine (17%). Cover in the groundcover stratum is 45%. Pennsylvania sedge (20% cover) and lowbush blueberry (10% cover) are the predominant species.

The topography in the stand is flat to very gently sloping with an easterly aspect. There are no wetlands within Stand 3. The soil type mapped in all of the stand is Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management.

No unusual insect or disease problems were noted. Virtually all of the white pine in the stand has been deformed by white pine weevil, as is typical in old field stands. Invasive shrub species are extremely abundant, particularly glossy buckthorn. Invasive species are not abundant in the groundcover stratum. No cultural features other than stone walls were noted.

Stand 3 appears to provide important wildlife habitat, although its quality may be impaired by the invasive species. The stand is still immature enough to support early successional habitat for species such as towhees, catbirds, and many small mammals. In addition, there is dense cover that can be used by a wide variety of species for nesting, feeding and cover.

The desired future condition of Stand 3 is to maintain it as a patch of early successional habitat. In the immediate future the invasive species need to be controlled. Once the invasives are under control the stand should be periodically cut and/or mowed to set back succession to an early stage. Ideally about half the stand should be managed every 5 years.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
 STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission

Town(s) Acton

STAND DESCRIPTIONS

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	4	OH	7.1	12.8	116	5.2 MBF 6.4 Cords	70 (WP)

Stand 4 is the most mature forest on the property. Much of the stand is a wooded wetland, however there are significant upland areas as well. The stand contains several very large trees. The stand is well-stocked with acceptable growing stock, although some of the trees are becoming over-mature. It is dominated by red maple (45% of BA), black oak (24% of BA), white oak (10% of BA) and scarlet oak (10% of BA). Advance regeneration is present, but is not overly abundant, and red maple, black oak, sassafras and red oak are the most common species.

The stand's understory cover is 42%. It is dominated by glossy buckthorn (13% cover), red maple (9% cover), highbush blueberry (10% cover) and sassafras (7% cover). Cover in the groundcover stratum is 90%. Cinnamon fern (34% cover), Pennsylvania sedge (13% cover), skunk cabbage (12% cover), lady fern (12% cover) and swamp dewberry (10%) are the predominant species.

The topography in the stand is flat to moderately sloping with an easterly aspect. Over half of the stand is wetland, and there is a certified vernal pool near Route 2. The soil type in upland portion of the stand is mapped as Canton Fine Sandy Loam. Canton soils are deep and well-drained, and formed in glacial till, ground moraine or ice-contact outwash. Canton soils do not impose any severe limitations on forest management. The soil type in the wetland portion of the stand is Whitman Loam. Whitman soils are very poorly drained, and formed on compact glacial till in depressions and drainage ways. The water table in these soils is at or near the surface for much of the year. Whitman Loam can impose severe limitations on most aspects of forest management.

No unusual insect or disease problems were noted. Glossy buckthorn is prevalent in the understory and other invasive shrub species were observed. No cultural features other than stone walls were noted.

Stand 4 provides excellent conditions for several species of wildlife that require mature forest. Unfortunately, the stand's small size and proximity to Route 2 and areas of active agriculture likely limits the ability of these species to inhabit Stand 4. It does, however, provide good conditions for nesting and roosting owls and hawks, for the very reasons noted above. The oaks in the stand do, however, provide for an abundant acorn crop. Acorns are an important food for a large number of wildlife species including deer, turkey, blue jays and most small mammals. Given the landscape position of the property it is likely to be inhabited primarily by habitat generalists that do well close to human disturbance. The stand does, however, support some forest species.

The desired future condition of Stand 4 is to maintain it as a mixed hardwood stand. For the foreseeable future the stand should not be actively managed to maximize its aesthetics, buffering, mature forest habitat quality, and due to the wet conditions.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
 STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission

Town(s) Acton

STAND DESCRIPTIONS

OBJ	STD NO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
STEW	5	AF	0.8	N/A	0	0	65 (WP)(est.)

Stand 5 is a small abandoned field that is starting to revert to forest. It contains scattered apple trees and patches of saplings of several tree species. The remainder of the area is vegetated by grasses, predominantly fescue, goldenrods, milkweed and other herbaceous species.

The topography in the stand is gently sloping with an easterly aspect. There are no wetlands within Stand 5. The soil type mapped in all of the stand is Sudbry Fine Sandy Loam. Sudbury soils are deep and moderately well-drained. They formed in depressions on glacial outwash plains and terraces. Sudbury soils do not impose any severe limitations on forest management.

No unusual insect or disease problems were noted. Invasive species are present but not in large numbers. No cultural features other than stone walls were noted. Stand 5 provides habitat for a variety of small mammals, snakes and songbirds.

The desired future condition of Stand 5 is to maintain it as a patch of early successional habitat dominated by grasses and scattered trees. Consideration should be given to controlling invasive species on a regular basis.

OBJECTIVE CODE: CH61 = stands classified under CH61/61A/61B STEW= stands not classified under CH61/61A/61B
 STD= stand AC= acre MSD= mean stand diameter MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission

Town(s) Acton

MANAGEMENT PRACTICES
to be done within next 10 years

OBJ	STD NO	TYPE	SILVICULTURAL PRESCRIPTION	AC	TO BE REMOVED		TIMING
					BA/AC	TOT VOL	

STEW All Blaze and Paint Boundaries 2012

The boundaries of the property are to be blazed and painted during the first year of the management period. The purpose of this treatment is to ensure that the boundaries are clearly visible.

STEW All WH Invasive Species Control 41 2012-2021

A plan for the control of non-native, invasive species should be developed and implemented for the site. Invasive shrubs, especially glossy buckthorn, are abundant in many areas of the property. These species have the potential to impair biodiversity, habitat quality and forest regeneration. The control of these invasive species will require extensive cutting and the use of herbicides will likely be necessary. Invasives should be controlled in all of the stands, but the focus should first be on Stand 3 and then Stand 1.

STEW 1 WH Group Selection 21.9 27 20 MBF; 53 Cords 2012-2015

Stand 1 should receive a group selection cutting near the beginning of the management period. The primary objective of this treatment will be to begin to create a variety of age classes to increase biological diversity. This treatment will create openings that can be utilized by a wide variety of wildlife. The moderately sized openings will be large enough that regeneration of many tree species should be obtained. A secondary consideration of this treatment will be aesthetics.

Groups of trees should be cut that are between 0.2 and 0.5 acres in size that will encompass 20% of the stand's area. Most groups should be placed to remove patches of the lowest quality trees. Some groups should be located in the areas that contain aspens. Aspens vigorously resprout from their root systems and their cutting usually creates dense thickets of aspen saplings. Aspen thickets are the preferred habitat for woodcock, and young aspens are utilized by many other species for browse and cover. A few of the groups should also be placed around the large, open grown specimen tree to highlight those trees. These specimens trees are being crowded by the younger trees. Removing the competing trees and creating small openings should improve the stand's aesthetic qualities.

OBJECTIVE CODE: CH61 = Forest Products (for Ch. 61/61A/61B) STEW= Stewardship Program practices
STD= stand Type= Forest type AC= acre MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission
Town of Acton Open Space & Recreation Plan

Town(s) Acton
Page 16 of 22 Section 12-A2-16

MANAGEMENT PRACTICES
to be done within next 10 years

OBJ	STD NO	TYPE	SILVICULTURAL PRESCRIPTION	AC	TO BE REMOVED		TIMING
					BA/AC	TOT VOL	
STEW	5	AF	Maintain as Meadow	0.8			2012-2021

Stand 5 should be maintained as a meadow containing a few trees. This small stand has the potential to be an aesthetically pleasing entrance into the property. Scattered trees should be selected to be left as specimen trees, including some of the apples. The remainder of the area should be mowed every one or two years to maintain a mix of grass and herbaceous cover.

STEW All Implement Outreach Plan 2011-2012

The attached Forest Stewardship Outreach Plan should be implemented at the beginning of the management period.

STEW All Wildlife Monitoring 2012-2021

Consideration should be given to monitoring wildlife habitat usage of the property on a regular basis. One option would be to conduct a yearly inventory of breeding birds using a point sampling methodology. Monitoring of wildlife before and after management practices are implemented would document changes in wildlife usage, and could be used to guide future management decisions.

OBJECTIVE CODE: CH61 = Forest Products (for Ch. 61/61A/61B) STEW= Stewardship Program practices
STD= stand Type= Forest type AC= acre MBF= thousand board feet BA= basal area VOL= volume

Owner(s) Town of Acton, Conservation Commission

Town(s) Acton

**FOREST STEWARDSHIP OUTREACH PLAN
TOWN OF ACTON, CONSERVATION COMMISSION**

Goals: The desired goal of the Outreach Plan is to educate the public about the benefits of active management, and to gain its acceptance and support of multiple-use management of the town's open space.

Target Audience: The Outreach Plan will initially focus on the town's Land Stewards. Each of the town's open space parcels has a volunteer Steward that monitors the properties, works on trails and interacts with users of the property. This target audience should have the interest to participate in the outreach activities. In addition, if the Stewards come to understand and appreciate the benefits of management, they will be able to pass that on to the users of the town's open space, significantly leveraging the outreach effort. After conducting outreach with the Stewards the plan should be expanded to the general public.

Message: The primary message of the outreach effort will be that active forest management can be used to accomplish a wide variety of goals, including increasing biodiversity, managing for declining wildlife species and the generation of income that can be used to improve existing properties.

Activities: The initial phase of the plan will be to conduct walks with the Stewards to view forests that have been actively managed, explaining the goals of the management on those sites and discussing the outcomes. The sites to be viewed have not yet been definitely determined, but may include a site in Acton that has been managed using the shelterwood system, and a site in Westminster where large clearcuts have been used to create early successional habitat for songbirds. The second phase will be to conduct a walk on the Wetherbee lot to discuss the management measures proposed there.

The next phase of the outreach should be to expand it to the general public, hopefully with the participation of the Stewards. It is anticipated that the outreach will consist of "walks in the woods" on town-owned lands or possibly on other nearby managed woodlands. Ideally the walks would be held on a regular basis, possibly once or twice per year. Other outreach efforts may be considered based upon experience with the outreach program and input from participants.

In addition, information on the benefits of management will be added to the Conservation Commission's website by adding documents and/or providing links to other websites.

Advertising: The Stewards will be contacted by the Conservation Commission administrator by email and/or telephone. The best means to advertise the walks with the general public still needs to be determined.

Implementation: The initial walks with the Land Stewards should take place during 2011. The recommended schedule to accomplish this will be to determine the sites to be viewed and gain permission from the owners by August 15. The initial walk should be scheduled to take place in September 2011. The discussion at the Wetherbee lot should be scheduled for two to four weeks after the initial walk, likely taking place in October 2011. The work on the Commission's website should take place during the winter of 2011/2012. The outreach walks with the general public should begin in 2012, and continue regularly thereafter.

Owner(s): Town of Acton; Conservation Commission

Town: Acton

Page: 18 of 22

**FOREST STEWARDSHIP OUTREACH PLAN
TOWN OF ACTON, CONSERVATION COMMISSION**

Outreach Plan Summary:

GOAL	TARGET AUDIENCE	MESSAGE	ACTIVITIES	ADVERTISING	IMPLEMENTATION
To gain the public's appreciation of the benefits of forest management.	The town's Land Stewards and the general public.	Active forest management can be used to accomplish a wide variety of beneficial goals.	Walks and discussions with the Land Stewards, followed by walks with the general public. In addition, information on forest management will be added to the Conservation Commission's web page.	The Land Stewards will be contacted by email or telephone. The best means to reach the general public needs to be determined.	The walks with the Land Stewards should take place in the late-summer to early-fall of 2011, walks with the public should begin in 2012 and work on the website should occur during the winter of 2011/2012.

Owner(s): Town of Acton; Conservation Commission

Town: Acton

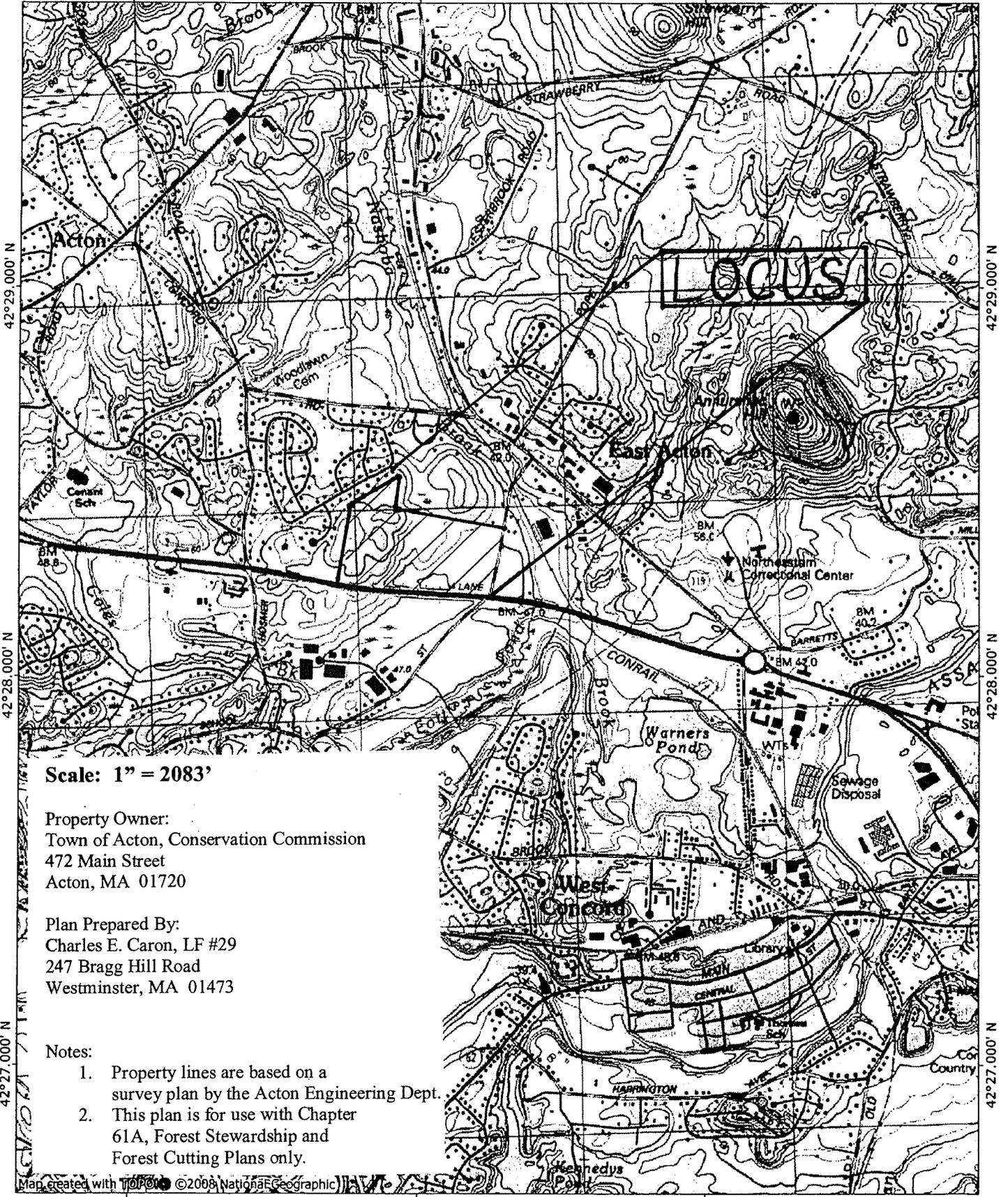
Page: 19 of 22

LOCUS MAP: ACTON CONSERVATION COMMISSION- WETHERBEE LOT

71°26.000' W

71°25.000' W

WGS84 71°24.000' W



Scale: 1" = 2083'

Property Owner:
 Town of Acton, Conservation Commission
 472 Main Street
 Acton, MA 01720

Plan Prepared By:
 Charles E. Caron, LF #29
 247 Bragg Hill Road
 Westminster, MA 01473

Notes:

1. Property lines are based on a survey plan by the Acton Engineering Dept.
2. This plan is for use with Chapter 61A, Forest Stewardship and Forest Cutting Plans only.

Map created with TopoTools ©2008 National Geographic

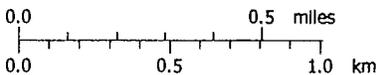
71°26.000' W

71°25.000' W

WGS84 71°24.000' W

NATIONAL GEOGRAPHIC

Town of Acton Open Space & Recreation Plan



Signature Page Please check each box that applies.

CH. 61/61A Management Plan I attest that I am familiar with and will be bound by all applicable Federal, State, and Local environmental laws and /or rules and regulations of the Department of Conservation and Recreation. I further understand that in the event that I convey all or any portion of this land during the period of classification, I am under obligation to notify the grantee(s) of all obligations of this plan which become his/hers to perform and will notify the Department of Conservation and Recreation of said change of ownership.

Forest Stewardship Plan. When undertaking management activities, I pledge to abide by the management provisions of this Stewardship Management Plan during the ten year period following approval. I understand that in the event that I convey all or a portion of the land described in this plan during the period of the plan, I will notify the Department of Conservation and Recreation of this change in ownership.

Green Certification. I pledge to abide by the FSC Northeast Regional Standards and MA private lands group certification for a period of five years. To be eligible for Green Certification you must also check the box below.

Tax considerations. I attest that I am the registered owner of this property and have paid any and all applicable taxes, including outstanding balances, on this property.

Signed under the pains of perjury: Town of Acton

Owner(s) Acton Conservation Commission Date 6/28/2011

Owner(s) Terrence Maitland, CARR Date 6/28/2011

I attest that I have prepared this plan in good faith to reflect the landowner's interest.

Plan Preparer Clark & Co Date 6/15/11

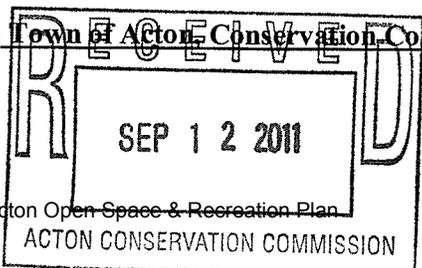
I attest that the plan satisfactorily meets the requirements of CH61/61A and/or the Forest Stewardship Program.

Approved, Service Forester Laura Dorley Date 7/27/11

Approved, Regional Supervisor _____ Date _____

In the event of a change of ownership of all or part of the property, the new owner must file an amended Ch. 61/61A plan within 90 days from the transfer of title to insure continuation of Ch. 61/61A classification.

Owner(s) Town of Acton Conservation Commission Town(s) Acton





OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Grassy Pond Conservation Land Meadow Management Recommendations Acton, MA



Prepared for:

**Town of Acton Natural Resources Department
472 Main Street
Acton, MA 01720**

Prepared by:

**Oxbow Associates, Inc.
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January 24, 2013

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Town of Acton Open Space & Recreation Plan

Section 12 B1-1

GRASSY POND CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow on the Grassy Pond Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Grassy Pond Conservation Land.

Grassy Pond Conservation Land Meadow Habitat Goals

- 1) Maximize diversity of native flora associated with the early successional community
- 2) Minimize or eradicate invasive flora

Meadow Management Suggestions

- Mow the full extent of meadow management area at least once annually

This will reduce growth of woody species and promote growth of grasses and forbs.

Oriental bittersweet and multiflora rose are present within portions of the meadow (particularly, a large patch in the center, with lesser amounts in the northwestern corner). These invasive shrubby areas can be easily differentiated from the grassy/forb-covered areas by the grayish-brown, woody stems rather than green herbaceous areas. Multiple annual close-cropped mowings within the shrubby patches within the meadow will control and help eliminate these invasive plants and promote the desired herbaceous vegetation cover.

Conversely, if possible, selectively avoid mowing areas containing milkweed (a larval moth host plant) until it has developed mature seed pods. Mowing of milkweed individuals or patches between November 1st and May 1st will help promote the spread of this perennial herb.

- Selectively remove woody invasive plant species along meadow margins

The northern and western margins of the meadow contain mostly native plant species, however, the southern and eastern margins of the meadow are laden with oriental bittersweet, multiflora rose, honeysuckle, barberry, winged euonymus, Norway maple, and glossy buckthorn (with denser patches to the west and in the southeastern corner). The bordering specimens provide a regular source of seeds that can spread into the meadow. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) can also be a very effective method of controlling these invasive plants.

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the typical May-June flowering period, prior to fruiting.

Cut or pulled invasive plants should be piled for burning during winter.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Grassy Pond Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

GRASSY POND CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

- Guidelines for Mowing and Cutting Crews
- Guidelines for Flagging of Cutting and Preservation Areas

Grassy Pond Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Mowing and Cutting

- Mow all vegetation growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs along the margins.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

Grassy Pond Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morowii*), Barberries (*Berberis vulgaris* and *B. thunbergii*), winged euonymus (*Euonymus alatus*), Norway maple (*Acer platanoides*), and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Target patches of milkweed (*Asclepias syriaca*) for preservation.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled “Cut” or “Mow”.
YELLOW = MOW or CUT
- Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”
ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: <http://www.forestry-suppliers.com/> or <http://www.benmeadows.com/>)

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OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Heath Hen Meadow Conservation Land Meadow Management Recommendations Acton, MA



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**Town of Acton Natural Resources Department
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Acton, MA 01720**

Prepared by:

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January 4, 2013

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Town of Acton Open Space & Recreation Plan

Section 12-B2-1

HEATH HEN MEADOW CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the 2 meadows on the Heath Hen Meadow Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Heath Hen Meadow Conservation Land.

Heath Hen Meadow Conservation Land Meadow Habitat Goals

- 1) Maximize diversity of native flora associated with the early successional community
- 2) Minimize or eradicate invasive flora

Southern Meadow Management Suggestions

- Mow the full extent of meadow management area at least twice annually

This will prevent further establishment of woody species and promote growth of grasses and forbs. Oriental bittersweet vines are prevalent along the margins of the southern (larger) meadow and also within the northern portion of the meadow itself. Multiple annual mowings will eliminate this invasive vine and promote herbaceous vegetation cover.

- Selectively remove woody invasive plant species along meadow margins

The periphery of the meadow contains oriental bittersweet and glossy buckthorn (with denser patches to the west and in the southeastern corner). The bordering specimens provide a regular source of seeds that can spread into the meadow. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) can also be a very effective method of controlling glossy buckthorn and oriental bittersweet.

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

Cut or pulled invasive plants should be piled for burning during winter.

- Consider removal of the black plastic on the western meadow margin

The black plastic along the western edge of the meadow, presumably used to prevent growth of invasive plants, has deteriorated and is no longer serving its intended purpose. The proposed mowing regime will eliminate the need for the plastic, which in its current condition, is prone to littering the landscape.

Northern Meadow Management Suggestions

- Mow the full extent of meadow management area as frequently as possible

Glossy buckthorn is rampant within the northern (smaller) meadow. Monthly (or similar) mowing will help stifle further establishment of this invasive shrub and promote growth of grasses and forbs. If resources allow, more frequent mowing will expedite the shift toward dominant herbaceous vegetation cover.

- Remove woody invasive plant species along meadow margins

Glossy buckthorn is also prevalent along the margins of the northern meadow and within the adjacent woodlands. OA recommends removal via pulling or cutting. Herbicide treatments are also a powerful method of controlling glossy buckthorn.



OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Jenks Conservation Land Meadow Management Recommendations Acton, MA



Prepared for:

**Town of Acton Natural Resources Department
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Acton, MA 01720**

Prepared by:

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November 29, 2012

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Town of Acton Open Space & Recreation Plan

Section 12 B3-1

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow habitat on the Jenks Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Jenks Conservation Land. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

Jenks Conservation Land Meadow Habitat Goals

- 1) Maximize diversity of native flora and fauna associated with early successional communities
- 2) Minimize or eradicate of invasive flora

Short-term Management Suggestions

- Mow current maximum extents of herbaceous and low shrub growth.
- Retain all apple trees and dogwood and alder patches that have been flagged for preservation.
- Follow-up to identify areas containing invasive plants to be mowed, cut, or pulled.
- Burn piles of pulled and cut invasive plants during winter.

Long-term Management Suggestions

Establish a mosaic of micro-habitats including open areas, native shrubby thickets, and solitary fruit trees. The mosaic will necessarily change throughout time in response to colonization by invasive plants, many seeds of which are spread by birds.

- Identify and allow dense patches of native vegetation to grow to maturity, such as raspberries/blackberries, dogwoods, alder, and sumac (i.e., do not mow or cut for multiple years). This will allow native fruit and stock to be available for seed dispersion and offer mast for wildlife as well as provide protective cover from predators.
- Selectively remove invasive plants within preserved patches and on meadow margins. This will help reduce invasive seed dispersion on the property and surrounding areas.
- Cut/Mow patches of dense vegetation as necessary if overgrown by invasive plants.
- Burn piles of pulled and cut invasive plants during winter.

Timing of Management Efforts

- Mow once annually between October 15th and March 15th. This should minimize negative impacts to fauna such as birds and reptiles. Optimal field conditions for access will most likely exist between October 15th and December 1st (i.e., prior to snow cover).
- Cut or pull invasive plants at any time. For greatest reduction of plants and seed stock, the optimal time for cutting is during the May-June flowering period, prior to fruiting. Most of the invasive plants on the Jenks Conservation Land, Oriental Bittersweet, Multiflora Rose, Honeysuckle, Autumn Olive, and Glossy and Common Buckthorns, tend to flower starting during May and June.

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Monitoring of Management

When those managing the Jenks Conservation Land lack plant identification skills, accompaniment or prior flagging by a person knowledgeable with plant identification (i.e., Land Stewards, Conservation Commissioners, or NRC staff) is recommended. This will ensure that invasive plant species are being managed against and that areas of native vegetation are periodically preserved. OA is happy to assist with plant identification via trainings, email, etc. Also, several valuable botanical references are listed within the enclosed Guidelines for Flagging of Cutting and Preservation Areas.

If resources exist in the future, generation a map or sketch that identifies both cutting and avoidance areas may be helpful for management crews to use in the field.

Enclosed herewith, we present specific guidelines for mowing and cutting crews and separate guidelines for those that may be flagging vegetation for mowing and cutting crews. We suggest that these sets of guidelines be readily available so that vegetation management efforts by others, such as volunteering individuals or groups, adhere to these guidelines.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of the Jenks Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property and it is our belief that this general management plan can be expanded to include other management techniques and goals such as attracting specific species to the meadow on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Jenks Conservation Land Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

JENKS CONSERVATION LAND

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morrowii*), Autumn Olive (*Elaeagnus umbellata*), Glossy Buckthorn (*Frangula alnus*), and Common Buckthorn (*Rhamnus cathartica*) for mowing or cutting.
- Target large patches of native vegetation including raspberries/blackberries (*Rubus* spp.), dogwoods (*Swida* spp.), alder (*Alnus* spp.), and sumac (*Rhus* spp.) for preservation. Flag obstacles such as sink holes, rock outcrops, etc. for avoidance.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled “Cut” or “Mow”.
YELLOW = MOW or CUT
- Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”
ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: <http://www.forestry-suppliers.com/> or <http://www.benmeadows.com/>)

Botanical References

- Cullina, M.D., B. Connolly, B. Sorrie, and P. Somers. 2011. The Vascular Plants of Massachusetts: A County Checklist, First Revision. Massachusetts Natural Heritage and Endangered Species Program, Westborough, MA.
- Fernald, M.L. 1950, reprinted 1987. Gray's Manual of Botany. Dioscorides Press, Portland, OR.
- Gleason, H.A. and A. Cronquist. 1991. Manual of vascular plants of Northeastern United States and adjacent Canada. New York Botanical Garden, Bronx, NY.
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- Somers, P., R. Kramer, K. Lombard, and B. Brumback. 2008. A Guide to Invasive Plants in Massachusetts, Second Edition. Massachusetts Division of Fisheries and Wildlife.

HEATH HEN MEADOW CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

Cut or pulled invasive plants should be piled for burning during winter. Leaving windrows of invasive plants along the meadow margins to rot is not preferred as this creates thickets that harbor growth of the invasives.

Long term Recommendations

If buckthorn and bittersweet are successfully eradicated from within the meadows, it is likely that a single annual mowing will effectively maintain the early successional meadow habitat. At that point, the addition of native wildflowers will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area.

If resources allow in the future, reclamation of additional meadow habitat by removal of trees, particularly on the west and south flanks of the fields, should be considered. Long shadows cast by these maturing trees reduce the daily insolation of the meadows and encourages the advancement of woody species into the meadows.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Heath Hen Meadow Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

Guidelines for Mowing and Cutting

- Mow all vegetation growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs along the margins.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

Heath Hen Meadow Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*) and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled “Cut” or “Mow”.
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Botanical References

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OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Jenks Conservation Land Meadow Management Recommendations Acton, MA



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November 29, 2012

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Town of Acton Open Space & Recreation Plan

Section 12 B3-1

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow habitat on the Jenks Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Jenks Conservation Land. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

Jenks Conservation Land Meadow Habitat Goals

- 1) Maximize diversity of native flora and fauna associated with early successional communities
- 2) Minimize or eradicate of invasive flora

Short-term Management Suggestions

- Mow current maximum extents of herbaceous and low shrub growth.
- Retain all apple trees and dogwood and alder patches that have been flagged for preservation.
- Follow-up to identify areas containing invasive plants to be mowed, cut, or pulled.
- Burn piles of pulled and cut invasive plants during winter.

Long-term Management Suggestions

Establish a mosaic of micro-habitats including open areas, native shrubby thickets, and solitary fruit trees. The mosaic will necessarily change throughout time in response to colonization by invasive plants, many seeds of which are spread by birds.

- Identify and allow dense patches of native vegetation to grow to maturity, such as raspberries/blackberries, dogwoods, alder, and sumac (i.e., do not mow or cut for multiple years). This will allow native fruit and stock to be available for seed dispersion and offer mast for wildlife as well as provide protective cover from predators.
- Selectively remove invasive plants within preserved patches and on meadow margins. This will help reduce invasive seed dispersion on the property and surrounding areas.
- Cut/Mow patches of dense vegetation as necessary if overgrown by invasive plants.
- Burn piles of pulled and cut invasive plants during winter.

Timing of Management Efforts

- Mow once annually between October 15th and March 15th. This should minimize negative impacts to fauna such as birds and reptiles. Optimal field conditions for access will most likely exist between October 15th and December 1st (i.e., prior to snow cover).
- Cut or pull invasive plants at any time. For greatest reduction of plants and seed stock, the optimal time for cutting is during the May-June flowering period, prior to fruiting. Most of the invasive plants on the Jenks Conservation Land, Oriental Bittersweet, Multiflora Rose, Honeysuckle, Autumn Olive, and Glossy and Common Buckthorns, tend to flower starting during May and June.

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Monitoring of Management

When those managing the Jenks Conservation Land lack plant identification skills, accompaniment or prior flagging by a person knowledgeable with plant identification (i.e., Land Stewards, Conservation Commissioners, or NRC staff) is recommended. This will ensure that invasive plant species are being managed against and that areas of native vegetation are periodically preserved. OA is happy to assist with plant identification via trainings, email, etc. Also, several valuable botanical references are listed within the enclosed Guidelines for Flagging of Cutting and Preservation Areas.

If resources exist in the future, generation a map or sketch that identifies both cutting and avoidance areas may be helpful for management crews to use in the field.

Enclosed herewith, we present specific guidelines for mowing and cutting crews and separate guidelines for those that may be flagging vegetation for mowing and cutting crews. We suggest that these sets of guidelines be readily available so that vegetation management efforts by others, such as volunteering individuals or groups, adhere to these guidelines.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of the Jenks Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property and it is our belief that this general management plan can be expanded to include other management techniques and goals such as attracting specific species to the meadow on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

JENKS CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Jenks Conservation Land Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

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Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

JENKS CONSERVATION LAND

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morrowii*), Autumn Olive (*Elaeagnus umbellata*), Glossy Buckthorn (*Frangula alnus*), and Common Buckthorn (*Rhamnus cathartica*) for mowing or cutting.
- Target large patches of native vegetation including raspberries/blackberries (*Rubus* spp.), dogwoods (*Swida* spp.), alder (*Alnus* spp.), and sumac (*Rhus* spp.) for preservation. Flag obstacles such as sink holes, rock outcrops, etc. for avoidance.
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- Magee, D.W. and H.E. Ahles. 1999. Flora of the Northeast: A Manual of the Vascular Flora of New England and Adjacent New York. The University of Massachusetts Press, Amherst, MA.
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OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Morrison Farm Meadow Management Recommendations Acton, MA



Prepared for:

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March 20, 2013

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Town of Acton Open Space & Recreation Plan

Section 12 B4-1

MORRISON FARM

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the various meadow habitats at Morrison Farm during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadows on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat at Morrison Farm. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

The overall management goals for the meadow habitat on the Morrison Farm property include:

- 1) Maximizing the diversity of native flora and fauna associated with early successional communities
- 2) Minimizing or eradicating invasive flora
- 3) Establishing a mosaic of different types of meadow habitat
- 4) Provide areas for recreational and agricultural activities

Whereas the property contains extensive (at least 12 acres of) early successional vegetation cover, specifically in the south along Concord Road, it is possible to establish a variety of microhabitats by conducting different management activities in different sub areas. A historic anthropogenic drainage ditch partitions the early successional habitat on the property into 3 distinct regions (see enclosed orthophotograph). By managing the vegetation within each of these regions (the upper meadow, back meadow, and front meadow) differently, we hope to diversify the native plant species composition and enrich the wildlife habitat on the property while providing opportunities for human recreational and agricultural activities.

Upper Meadow Habitat Objectives

- Maintain existing open upland forb and grassland
- Remove invasive shrubs and vines
- Establish areas of native wildflowers and shrubs as wildlife attractants

Upper Meadow Management Suggestions

- Mow maximum extents of herbaceous and low shrub growth once annually between October 15th and March 15th.

This will prevent colonization of woody species and promote growth of grasses and forbs, while minimizing negative impacts to fauna such as birds and reptiles. Optimal field conditions for access will most likely exist between October 15th and December 1st (i.e., prior to snow cover).

- Selectively remove woody invasive plant species along meadow margins

Currently a few shrubby copses, dominated by glossy buckthorn, exist within the northern portions of the Upper Meadow. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) can also be a very effective method of controlling glossy buckthorn and oriental bittersweet; repetitive applications may be required.

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

MORRISON FARM
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Cut or pulled invasive plants should be piled and burned during winter.

- Consider planting native shrubs and wildflowers

Whereas the vast majority of the shrub species within and bordering the meadow are non-native invasives that are targeted for removal, it would be desirable to plant native, seed-bearing shrubs as an alternative food source for wildlife such as birds. This would enhance the meadow habitat by increasing local biodiversity and zonation. Many reports indicate that native seeds have higher nutritive value than those of non-native plants.

Given the rolling topography and both moist and dry soil conditions, OA recommends considering the following native small tree or shrub species fire-cherry (*Prunus pensylvanica*), winterberry (*Ilex verticillata*), hazelnut (*Corylus americana* or *cornuta*), chokeberry (*Aronia* spp.), shadbush (*Amelanchier* spp.), gooseberries (*Ribes americanum* or *hirtellum*), dogwoods (*Swida* spp.), sumacs (*Rhus* spp.), and highbush blueberry (*Vaccinium corymbosum*), although there are many other native options.

Whereas town garden plots exist on the site, immediately to the south of the upper meadow, it may also be feasible to designate a portion of the upper meadow for cultivation native shrubs to be transplanted to other areas of the site (see back meadow suggestions below) or to transplant on other town-owned property (i.e., Stoneymeade Conservation Area). In this way, a portion of the vast open-canopy upper meadow, which is already set up for irrigation, can temporarily be used as a center for cultivation of native shrubs to be used for other town conservation and habitat enhancement activities.

The addition of native wildflowers within the upper meadow will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias*, *Geranium*, *Scutellaria*, and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

Back Meadow Habitat Objectives

- Maintain existing open forb and grassland
- Increase mowing frequency to provide playing surface for athletic activities
- Remove invasive shrubs and vines along margins
- Establish native shrubs along margins as alternative wildlife food sources

Back Meadow Management Suggestions

- Mow maximum extents of herbaceous growth as needed to maintain playable field surface conditions.

This will prevent colonization of woody species and promote growth of low grasses and forbs. Optimal conditions for mowing access will most likely exist during summer and fall months when ground water levels are lowest. The close-cropped ground cover will permit athletic uses and will maintain valuable edge habitat for a variety of different species including invertebrates, reptiles, mammals, and birds.

- Selectively remove woody invasive plant species along meadow margins

Currently the margins of the back meadow are dominated by glossy buckthorn and oriental bittersweet. OA recommends removal via pulling or cutting and potentially, implementation of an herbicide treatment targeting glossy buckthorn and oriental bittersweet.

MORRISON FARM

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting.

Cut or pulled invasive plants should be piled and burned during winter.

- Consider planting native shrubs along the meadow margins

To re-vegetate areas managed against invasives, planting of native hydrophilic shrubs such as winterberry, chokeberry, highbush blueberry, or dogwoods will provide alternative food sources for wildlife. The planting of small caliper shrubs is not recommended along the margins of the back meadow given the solar aspect of the area (somewhat shaded by large white pines in the east) and abundance of invasive species cover. However, purchasing large shrub specimens can be cost prohibitive, therefore OA suggests acquiring smaller shrubs to be cultivated within the upper meadow, then transplanted along the margins of the back meadow. Cultivation within the upper meadow will provide adequate sunlight and water without competition from invasives, thereby favoring growth. When the shrubs are substantially developed and less susceptible to crowding out by more aggressive species they can be transplanted.

Front Meadow Habitat Objectives

- Re-establish open habitat
- Remove invasive species
- Promote native vegetation
- Establish access for wildlife viewing

Front Meadow Management Suggestions

- Selectively cut woody vegetation to re-establish previous extents of open habitat

Woody species, including the invasive glossy buckthorn, have spread throughout most of the front meadow. OA recommends converting the current tall scrub-shrub growth to an open wet meadow with patches of native shrub cover. To do this significant thinning of vegetation within the front meadow will be required. OA suggests cutting of the invasive shrubs and vines, as well as potential herbicide application. Small patches of native shrubs should be avoided to create a smattering of shrubby vegetation for foraging and refuge. Together with the moist soil conditions, the re-defined woodland edges of the front meadow will promote a more diverse assemblage of wildlife.

Vegetation spoils should be piled and burned during winter.

- Maintain the re-established meadow margins via mowing 1 to 2 times annually

This will help prevent re-colonization of woody species and promote growth of grasses and forbs. Based on the high ground water within the front meadow, mowing may be recommended during ground frost conditions.

- Consider establishing wildlife viewing access

The current extents of woody vegetation preclude reasonable access for wildlife viewing. The increased openness resulting from the vegetation management activities suggested for the front meadow will simultaneously promote use by numerous wildlife species and allow for pedestrian passage for viewing. Establishment of footpaths would facilitate access of wildlife enthusiasts. Given the high ground water conditions, boardwalks may be more appropriate.

MORRISON FARM

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Monitoring of Management

When Morrison Farm land managers lack plant identification skills, accompaniment or prior flagging by a person knowledgeable with plant identification (i.e., Land Stewards, Conservation Commissioners, or NRC staff) is recommended. This will ensure that invasive plant species are being managed against and that desirable patches of native vegetation are preserved. OA is happy to assist with plant identification via trainings, email, etc. Also, several valuable botanical references are listed within the enclosed Guidelines for Flagging of Cutting and Preservation Areas.

Enclosed herewith, we provide an orthophotograph to be used as a reference with this document. We also present specific guidelines for mowing and cutting crews and separate guidelines for those that may be flagging vegetation for mowing and cutting crews. We suggest that these sets of guidelines be readily available so that vegetation management efforts by others, such as volunteering individuals or groups, adhere to these guidelines.

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of the Morrison Farm meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property and it is our belief that this general management plan can be expanded to include other management techniques and goals such as attracting specific species to the meadow on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

2008 Orthophotograph
Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas



ACTON



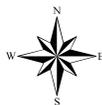
Legend

-  Morrison Farm Cons. Area
- Meadow Habitats**
-  Back Meadow
-  Front Meadow
-  Upper Meadow

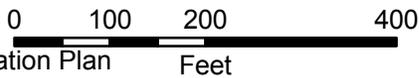
Data Credits:
 Office of Geographic and Environmental Information (MassGIS),
 Commonwealth of Massachusetts Executive Office of
 Environmental Affairs (2001)

**2008 Orthophotograph
 Morrison Farm
 Conservation Land
 Acton, MA**

Town of Acton Open Space & Recreation Plan
 February 13, 2013



1 inch = 200 feet



OXBOW ASSOCIATES, Inc.
 Wetlands Delineation and Permitting
 Wildlife Studies * Herpetology
 Vernal Pool Ecology
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 MASSACHUSETTS 01720-0971
 PHONE: 978/929-9059
 FAX: 978/929-9052
 WEB: WWW.OXBOWASSOCIATES.COM

Morrison Farm
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.

MORRISON FARM

Meadow Management Recommendations

Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting and Preservation Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*) and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Target patches of native vegetation such as dogwoods (*Swida* spp.), alder (*Alnus* spp.), and highbush blueberry (*Vaccinium corymbosum*) for preservation. Flag obstacles such as sink holes, rock outcrops, etc. for avoidance.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled “Cut” or “Mow”.

YELLOW = MOW or CUT

- Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Please consider use of bio/photodegradable flagging tape (available at: <http://www.forestry-suppliers.com/> or <http://www.benmeadows.com/>)

Botanical References

Cullina, M.D., B. Connolly, B. Sorrie, and P. Somers. 2011. The Vascular Plants of Massachusetts: A County Checklist, First Revision. Massachusetts Natural Heritage and Endangered Species Program, Westborough, MA.

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Haines, Arthur. 2011. New England Wildflower Society's Flora Novae Angliae, Yale University Press, New Haven, CT.

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Holmgren, N.H. 1998. Illustrated Companion to Gleason and Cronquist's Manual, Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. New York Botanical Garden, Bronx, NY.

IPANE. Invasive Plant Atlas of New England: <http://www.eddmaps.org/ipane/>.

Magee, D.W. and H.E. Ahles. 1999. Flora of the Northeast: A Manual of the Vascular Flora of New England and Adjacent New York. The University of Massachusetts Press, Amherst, MA.

Somers, P., R. Kramer, K. Lombard, and B. Brumback. 2008. A Guide to Invasive Plants in Massachusetts, Second Edition. Massachusetts Division of Fisheries and Wildlife.



OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

NARA Park Meadow Management Recommendations Acton, MA

Prepared for:

**Town of Acton Natural Resources Department
472 Main Street
Acton, MA 01720**

Prepared by:

**Oxbow Associates, Inc.
P.O. Box 971
Acton, MA 01720-0971
Phone: 978 929-9058 Fax: 978 635-1892
www.oxbowassociates.com**

January 3, 2013

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Telephone: 978.929.9058 • Facsimile: 978.635.1892 • E-mail: oxbow@oxbowassociates.com

NARA Park
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow area along the northern margin of the swimming pond at NARA Park during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat.

NARA Park Meadow Habitat Goals

- 1) Maximize diversity of native flora associated with the early successional community
- 2) Minimize or eradicate invasive flora
- 3) Establish and maintain aesthetic appeal of the management area

Management Suggestions

- Mow the meadow management area once annually in the fall

This will prevent colonization by large woody tree and shrub species and maintain the grass and forb species composition.
- Selectively remove woody invasive plant species

Specifically target the copse of black locust located between the walking path and the south facing hill along the northwestern margin of the pond. Although, significantly less represented, oriental bittersweet, glossy buckthorn, honeysuckle, multiflora rose, and olive should be cut or pulled as well. The use of herbicide treatment (i.e., cut and dab application) may be necessary to successfully remove the black locust.
- Selectively remove upland herbaceous invasive plants

Specifically, the spotted knapweed and mugwort (primarily occurring on the south facing hillside slope) should be removed. Mowing/ weed-whacking prior to flowering can diminish seed dispersal, however, full removal is recommended. Manual removal of basal leaves and roots via shovel or fork can be very effective. Similarly, spot herbicide treatment of basal leaves can be effective. Ideally, removal efforts should precede flowering (July-October for both species) so as to interrupt the seed cycle, however, removal efforts can occur year round as conditions and resources allow.
- Work toward removal of wetland herbaceous invasive plants

Yellow iris is present within the pond (along the boardwalk) and purple loosestrife is somewhat well established in the lower area of the meadow along the pond margin.

While arguably very attractive, yellow iris is listed as an invasive species, which has a tendency to spread and can be difficult to remove once established. At the very least, OA recommends monitoring the vigor of this species so as to determine if it is out-competing native species and reducing diversity of native flora. If possible, we suggest manual removal of some or all of the yellow iris clumps.

It is our understanding that the NRC may have the opportunity to conduct *Galerucella* beetle management of the purple loosestrife within the swimming pond. Given the extent of the purple loosestrife on the site and because it is extremely difficult to eradicate manually, OA strongly recommends pursuing inoculation of the NARA Park plants with the beetle. Beetle introduction has been shown to be an effective means of control and can be initiated with a single introduction in many cases. Beetles are seasonally available through the USDA at moderate cost.

NARA Park
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

- Establish a physical barrier delineating the meadow habitat so as to assist mowing crews
Installation of posts, a row of native trees or shrubs, or other physical barrier will remove any ambiguity between lawn and meadow areas. The barrier will help guide mowing crews, thereby ensuring that the extents of the meadow habitat are maintained.

- Consider planting native wildflowers
The addition of native wildflowers will increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias* and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

- Native tree cutting and pruning
Cutting or pruning of the native “pioneer tree species” such as poplars and birches may be desirable to maintain the desired openness of the meadow habitat, establish and preserve vistas, and maintain access for seasonal mowing. Poplars spread clonally and both birches and poplars are prone to form copses or thickets, therefore it may be prudent to remove these species outright or selectively to achieve the habitat and aesthetic goals set forth above.

Closing

The management efforts put forth by the NRC and grounds keeper, Bruce Carley have successfully established a meadow at NARA Park that provides a scenic landscape and creates valuable habitat for wildlife. OA hopes that the above recommendations support and add to the current beauty and wildlife diversity on the site.

The recommendations and guidelines contained within this document are OA's professional opinions for management of NARA Park meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist



OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Stonemyeade Conservation Land Meadow Management Recommendations Acton, MA



Prepared for:

**Town of Acton Natural Resources Department
472 Main Street
Acton, MA 01720**

Prepared by:

**Oxbow Associates, Inc.
P.O. Box 971
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January 4, 2013

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Town of Acton Open Space & Recreation Plan

Section 12-B6-1

STONEYMEADE CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow on Stoneymeade Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Stoneymeade Conservation Land. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

Stoneymeade Conservation Land Meadow Habitat Goals

- 1) Maximize diversity of native flora associated with the early successional community
- 2) Minimize or eradicate invasive flora

Management Suggestions

- Mow the meadow management area once annually in the fall

This will prevent colonization by large woody tree and shrub species and maintain the grass and forb species composition.

- Selectively remove woody invasive plant species

Virtually all the large shrub specimens scattered within the meadow are listed as invasive plant species (multiflora rose, glossy buckthorn, honeysuckle, olive, and oriental bittersweet). The margins of the meadow and the area surrounding the large white oak tree also include many of these invasive shrub species. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) may be a more effective method of controlling glossy buckthorn and oriental bittersweet.

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting. Most of the invasive plants on the Stoneymeade Conservation Land (oriental bittersweet, multiflora rose, honeysuckle, olive, and glossy buckthorn) tend to flower starting during May and June with seed drop later in the season.

Cut or pulled invasive plants should be piled for burning during winter.

- Consider planting native shrubs and wildflowers

Whereas the vast majority of the shrub species within and bordering the meadow are non-native invasives that are targeted for removal, it would be desirable to plant native seed bearing shrubs as an alternative food source for birds. This would enhance the meadow habitat in that the biodiversity would be increased and many reports indicate that native seeds have higher nutritive value than those of non-native plants. Given the rolling topography and proximity to a small pond, OA recommends considering the following native small tree or shrub species fire-cherry (*Prunus pensylvanica*), chokeberry (*Aronia* spp.), shadbush (*Amelanchier* spp.), dogwoods (*Swida* spp.), sumacs (*Rhus* spp.), and highbush blueberry (*Vaccinium corymbosum*), although there are many other native options.

The addition of native wildflowers will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias* and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

STONEYMEADE CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Stoneymeade Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

STONEYMEADE CONSERVATION LAND
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.
- Alternatively, pulling via tractor and chain may be effective at removing as much plant material as possible.

Stoneymeade Conservation Land
Meadow Management Recommendations
Prepared for: The Town of Acton Natural Resources Department

Guidelines for Flagging of Cutting Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morrowii*), Autumn Olive (*Elaeagnus umbellata*), and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled “Cut” or “Mow”.
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- Orange flagging tape will be used to indicate individual native specimens or areas that should be avoided. These flags will be labeled “Avoid”
ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: <http://www.forestry-suppliers.com/> or <http://www.benmeadows.com/>)

Botanical References

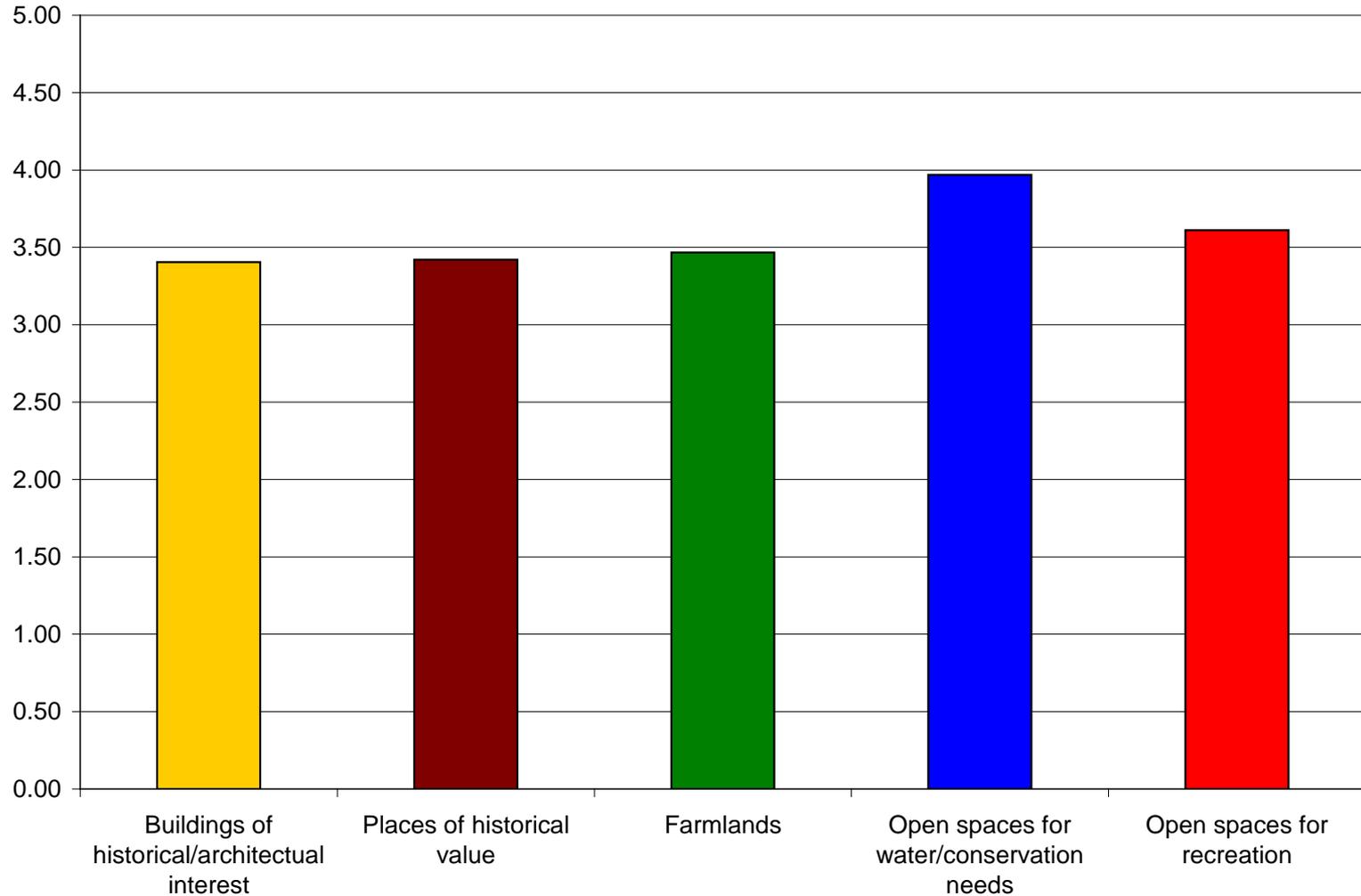
- Cullina, M.D., B. Connolly, B. Sorrie, and P. Somers. 2011. The Vascular Plants of Massachusetts: A County Checklist, First Revision. Massachusetts Natural Heritage and Endangered Species Program, Westborough, MA.
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- Somers, P., R. Kramer, K. Lombard, and B. Brumback. 2008. A Guide to Invasive Plants in Massachusetts, Second Edition. Massachusetts Division of Fisheries and Wildlife.

- ▶ Results of survey have been tabulated and reviewed
 - 16 questions - provide input into the update to the Open Space and Recreation Plan
- ▶ Survey very similar to prior one for comparative purposes
 - No cost to the town
- ▶ Draft by May-June
- ▶ Approximately 1200 responded - about 15% of Acton households

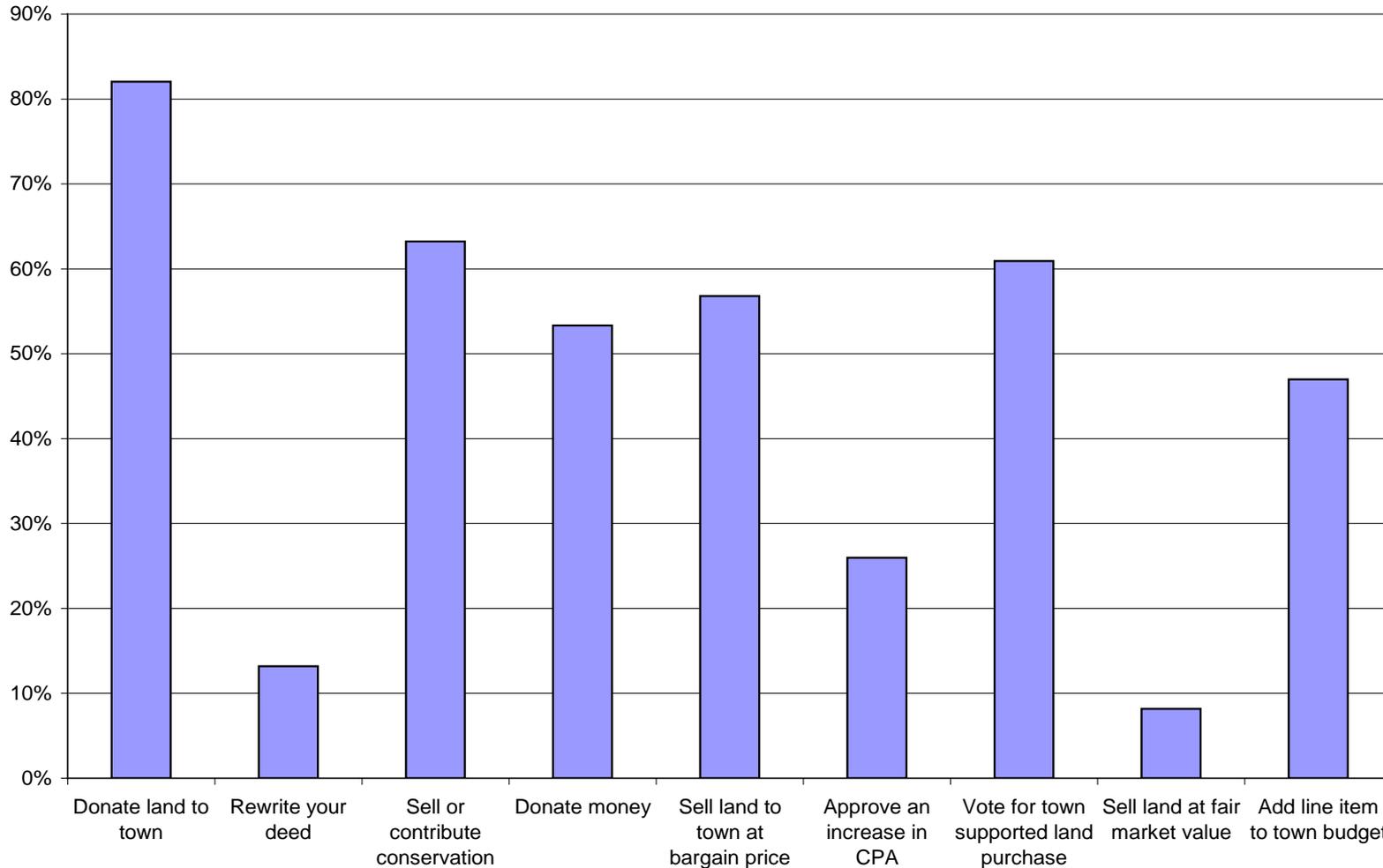
▲ **General conclusions:**

- Results are remarkably similar to results of survey performed seven years ago
- Concerns about residential growth, protection of open space, recreation space, preserve character of town
- Emphasis on conservation restrictions; bike trails; willingness to support purchases of land

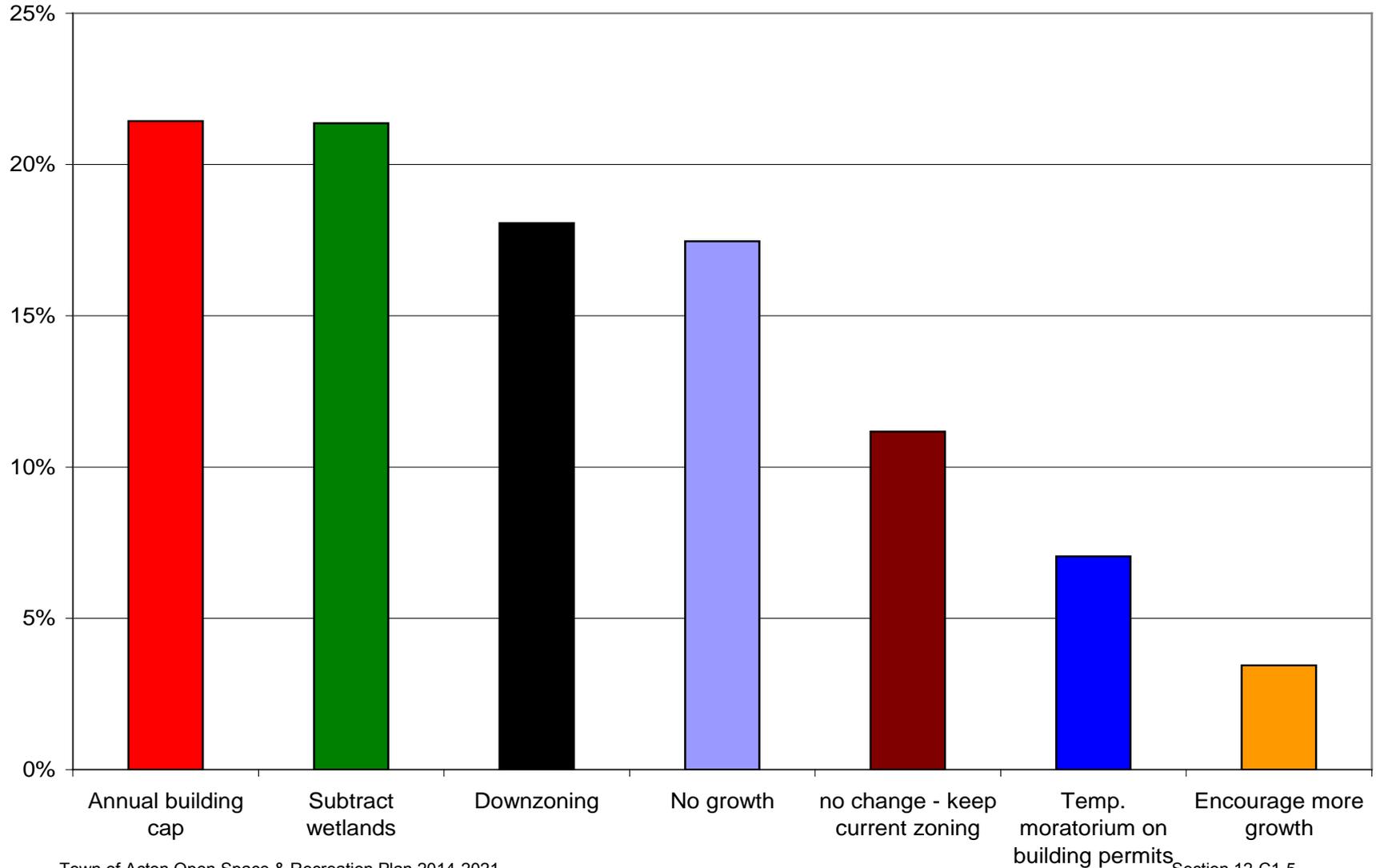
Ranking of how important is it to preserve (on scale of 1-5):



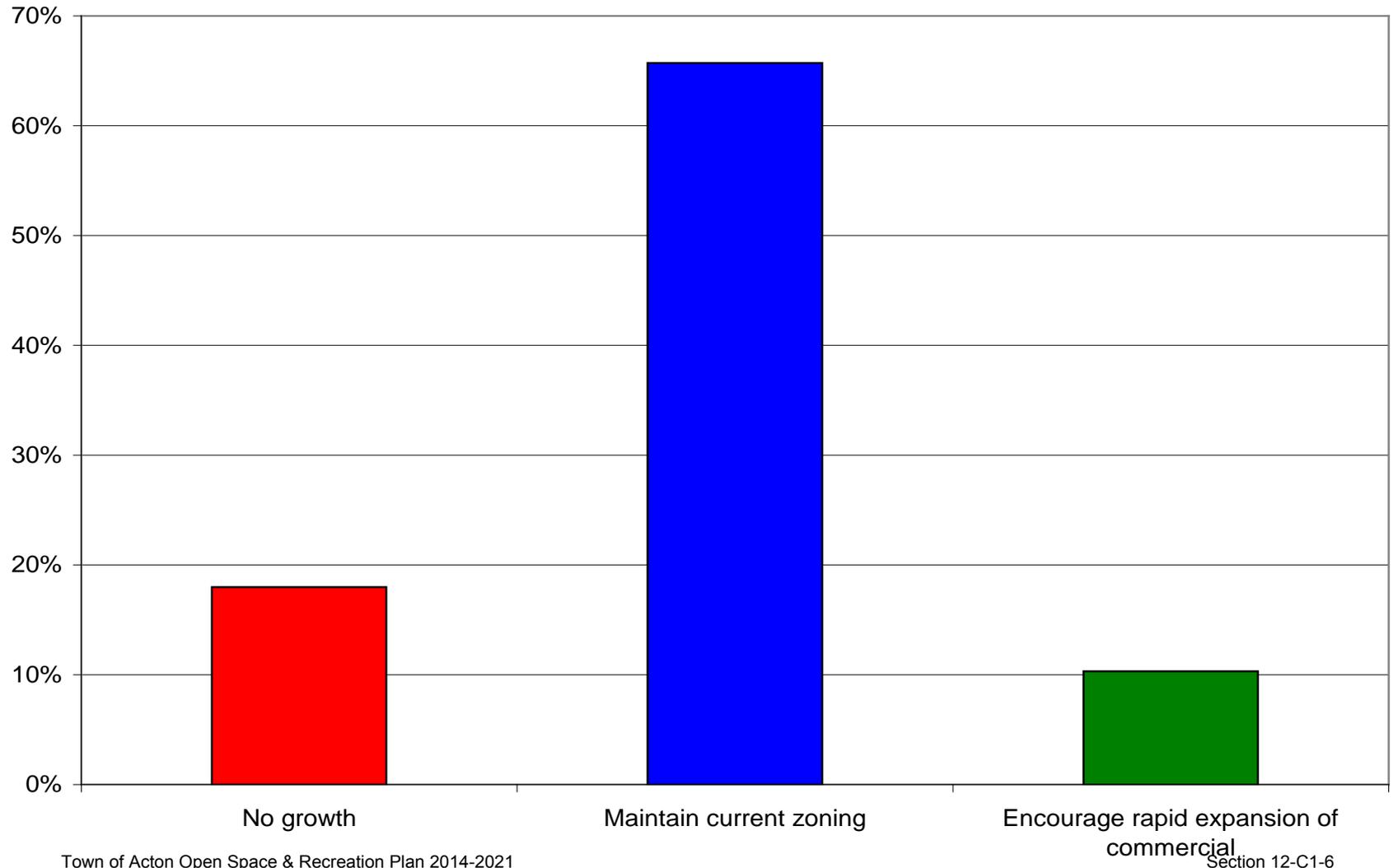
To preserve open space in Acton what actions would you like to see people do:



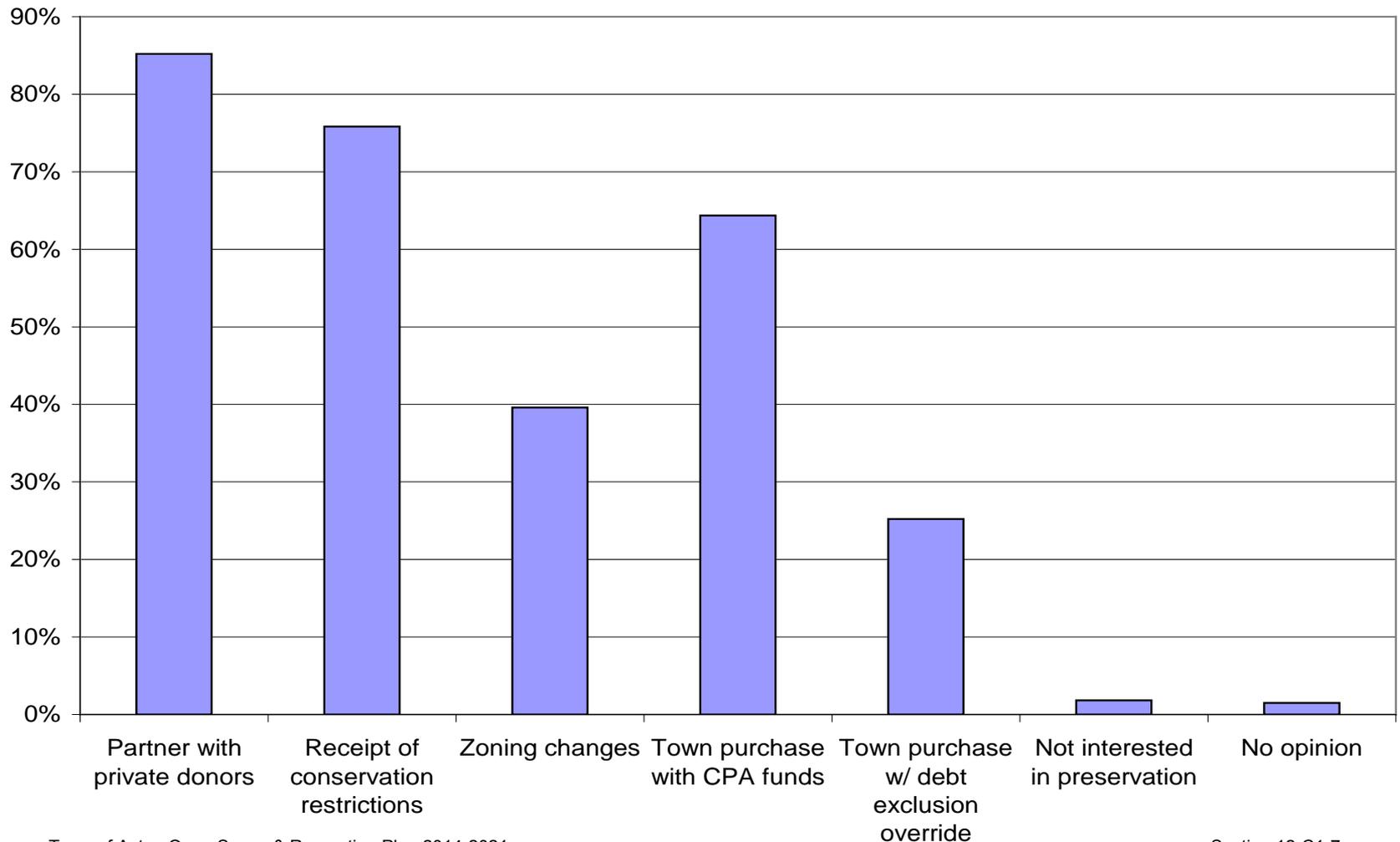
What residential growth policy do you favor in the future:



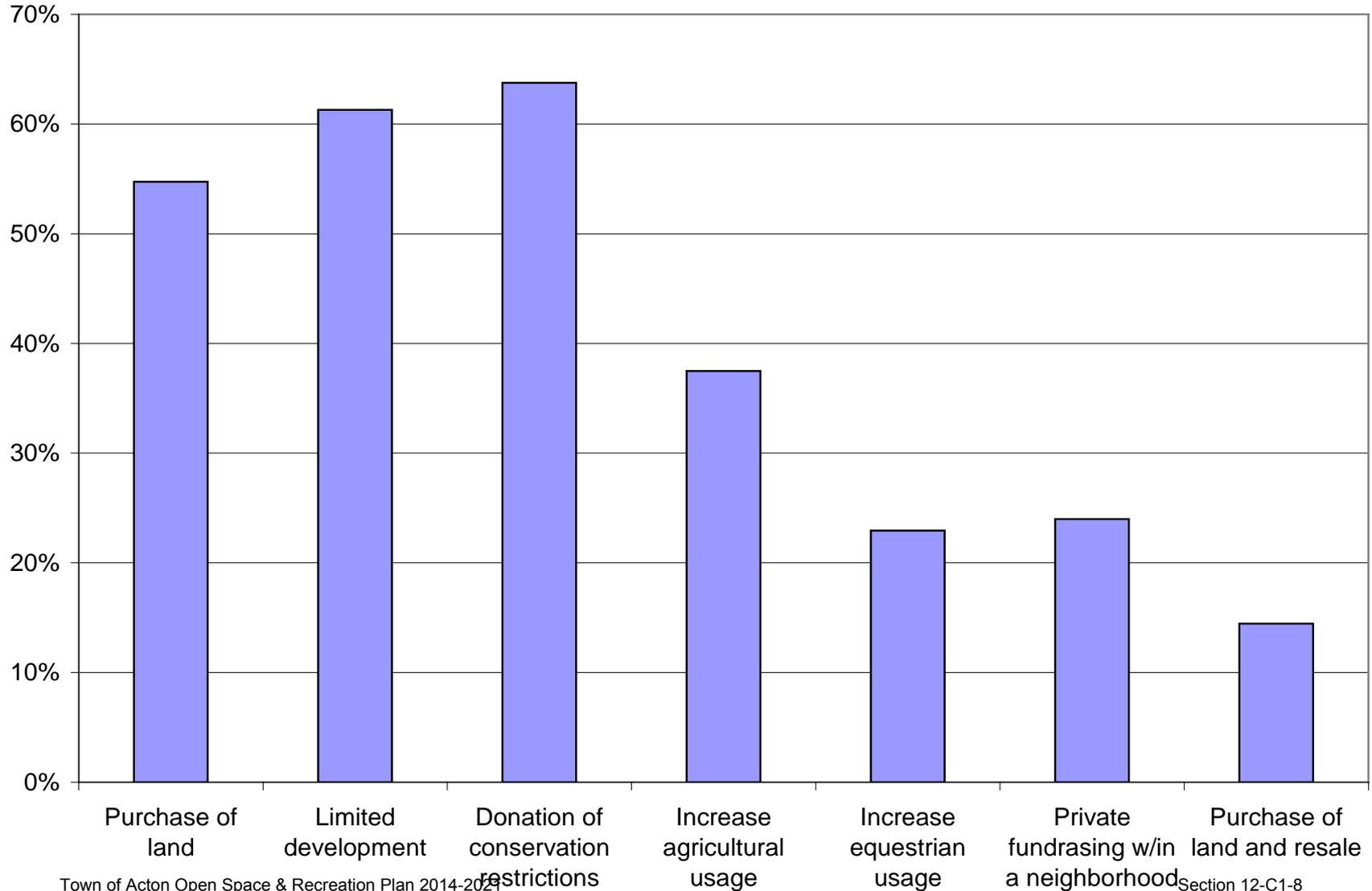
What commercial/industrial policy do you favor in the future:



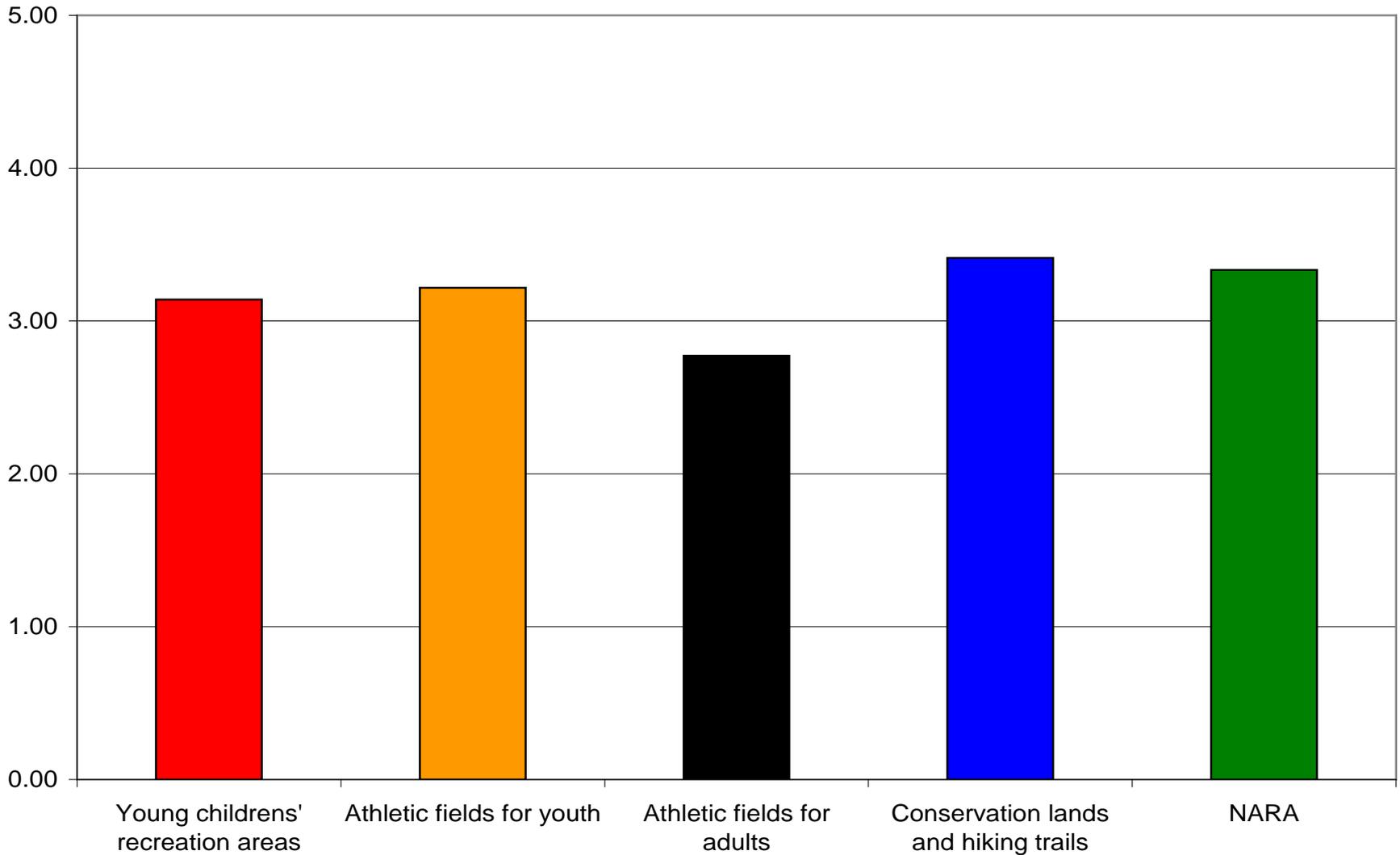
What town government actions do you favor to preserve open space?



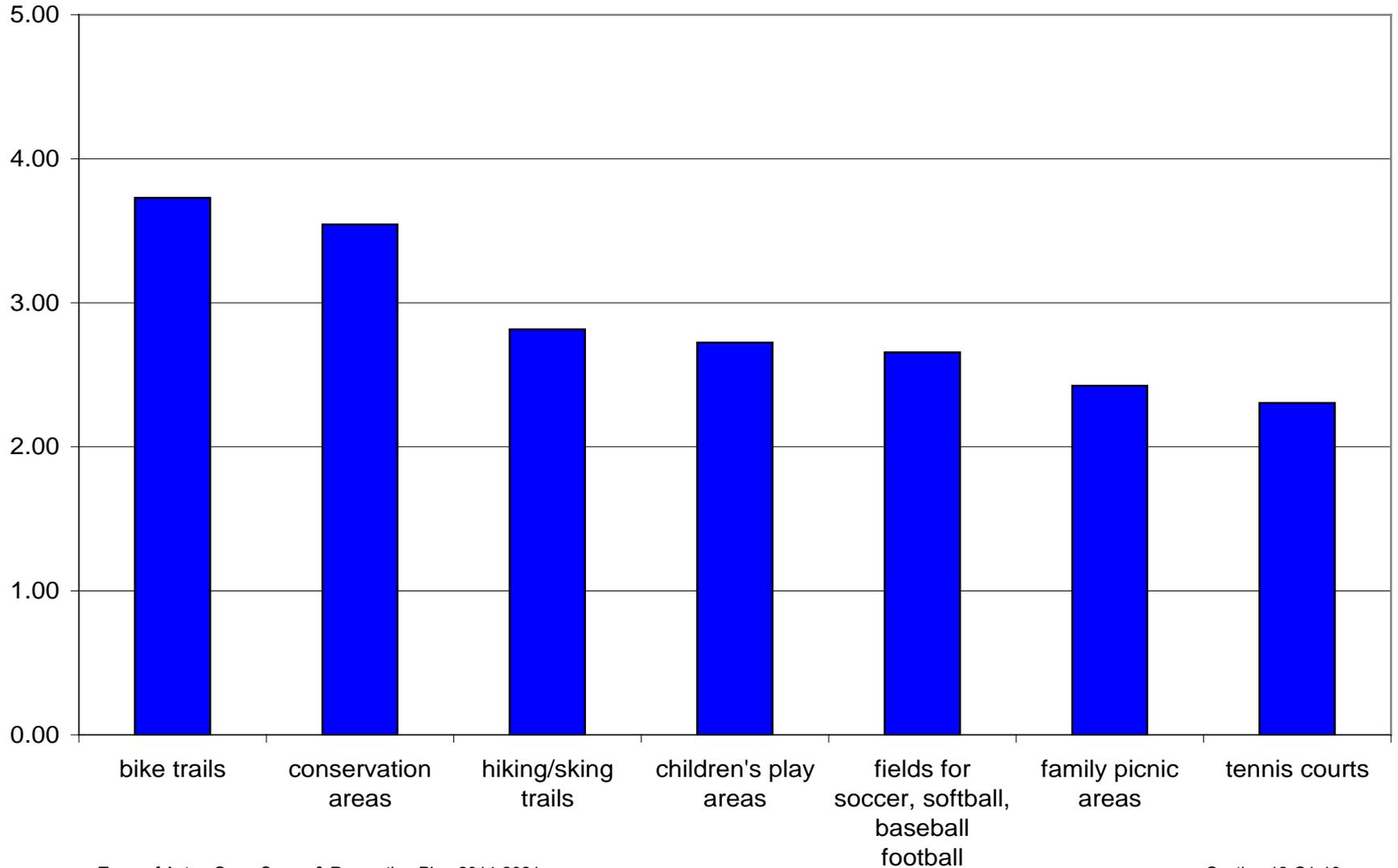
What private actions do you favor to preserve land:



Rank on scale of 1-5 your satisfaction with recreation areas?



Top seven recreational facilities needed in town:



What is it about Acton that you like the best?

- ★ Community
- ★ Open space and conservation land
- ★ Diversity of population
- ★ School system
- ★ Rural/town character
- ★ Location
- ★ Youth sports and other recreation opportunities

What is it about Acton that you like the least?

- ▲ **Traffic/congestion/need for sidewalks**
- ▲ **Too much residential development**
- ▲ **Taxes too high**

- ▲ *Exactly the same three as last time*
- ▲ *Overwhelming majority of views expressed*

Question 11 asked whether you believed our conservation lands are protected and free from threat of development or conversion:

- 35% said yes; 20% were unsure, and 45% said no

Question 14 asked whether you owned your own home:

- 92% of respondents were homeowners (much higher than before)

Question 15 asked whether you owned 5 acres of land or more

- Only 2% of respondents owned 5 acres or more

Questions 12, 13 and 16 requested how long you've lived in town, demographic data, and location

- ▶ Ensure coverage in terms of responses
- ▶ Very even distribution geographically and demographically
 - 17% of respondents are seniors
 - 33% are families with young children
- ▶ About 60% of respondents have lived in town 10 years or more
 - Up from last time

OPEN SPACE AND RECREATION PLAN

PUBLIC FORUM

MINUTES

February 27, 2014

7:30 PM

TOWN HALL - 472 MAIN STREET
ROOM 204

Attendees: Matthew Mostoller, Andrew Magee, Roswithe Retzlaff-Pinto, James Colman, Mary Donald, Edward Ellis, Adria Osborne, Susan Whitcomb; Jack Culhane, John Sonner, Terra Friedrichs, John Watlington, Phyllis Novick, Bill Froberg, Joan Yatteau, Chris Culhane, M.W. Schuler, Theresa Portante-Lyle, Andrew Brockway, Catherine Hatfield

Facilitators and recorders: Terry Maitland, Tom Tidman, Jim Snyder-Grant, Cathy Fochtman, Bettina Abe, Melissa Rier, Fran Portante

Presentation: The meeting was convened promptly at 7:30 by Terry Maitland, Conservation Commission Chairperson. He presented a slide show, included as an attachment to this document, which provided explanation of the reason for having an Open Space and Recreation Plan, the background of the development of the current OSRP to date, a synopsis of progress made since the last OSRP was approved by the Commonwealth, and the purpose of the public forum. The breakout session followed immediately at 8:00 PM.

Goals and Objectives:

The proposed goals and objectives in the draft OSRP were the focus of the breakout sections. The handouts outlining these were given to each attendee as they signed in. After review and discussion of the proposed G&O, participants were asked for their opinions, agreements, and additional concerns. Output was to be compiled, posted on the Town's website and, where possible, sent directly to participants.

Process: Three discussion stations were set up conforming to the three high level goals: 1. Preserving Acton's Rural Character, facilitated by Tom Tidman, 2. Protecting the Environment, facilitated by Jim Snyder-Grant, and 3. Improving Recreational Opportunities, facilitated by Catherine Fochtman. Attendees were divided into three groups, and each was assigned to one of the three goal stations for a 20 minute discussion. At the end of the 20 minute discussion session, groups were asked to move to another goal station for the second discussion and so on to the third for the final 20 minute breakout period. This ensured each participant was able to contribute to each of the three high level goals. During each session, output was recorded on charts. Melissa Rier, Bettina Abe and Fran Portante recorded output for each of the stations.

Breakout Session Output: Recorded output was digitally scanned and stored on the Town's website. The consolidated and compiled version follows:

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

Community Gardens: General consensus on desirability of expanding number of gardens
Need to find suitable locations in South Acton and West Acton
Parking and general access issues must be considered in selecting appropriate sites.
Caouette land as potential S. Acton site needs to consider impact of Assabet River Rail Trail.

Forest Management:

- Pro: Promotes floral diversity, healthy and more prolific understory growth, quality of habitat; promotes diverse wildlife habitat, would include Invasives Management!
- Con: Objection to possible financial motivation to harvest timber
- Approach in past may not have been politically or objectively handled. Suggestion to look at the issue as "land" management or "parcel" management, or other generic term that would not focus just on forestry.
- Is it time to reach out to re-involve Land Stewards and others in the community and start a new dialogue?

Wildlife Management, particularly DEER management:

- General consensus was a concern over lack of some control of deer population in particular, but also concern for the welfare of the animals, not wanting to harm or destroy them. An area requiring further discussion and consideration.

Agriculture and support for local farms and farmers:

- Explore possibility of the town purchasing Agricultural Restrictions on some of the existing farm properties to ease burden of owners.
- Farmers' Market popular: desire for longer hours but lack volunteers to support expansion

Restoration Projects:

- Barkers Pond area mentioned as a potential inviting open space but encroachment by abutters and lack of management of the area inhibits its use.

Accessibility for people with disabilities or limited physical capacity

- Need to consider making changes to accommodate their need for accessibility
- Micro parks and/or trail systems close to access points, pocket parks in or near the villages
- Raised garden beds/tables at NARA

8.B.GOAL #2: PROTECT CRITICAL ENVIRONMENTAL RESOURCES

Forest Management Plans for Conservation Parcels

- Expand the term "Forest Management" to encompass more than just "forest" management
- Use terms such as "Parcel Management" or "Land Mangement" to include the entire ecosystem.

Stream restoration,

- Include dam removal, which allows for the free flow of water for fish, and for recreational boaters. Might also help with cleaning up invasive aquatic species that require still water.
- Revive Acton Stream Teams
- Revive water quality monitoring, especially on streams.
- Revive cleanup of streams

Open Space Protection:

- Place Conservation Restrictions (CRs) on all of our unprotected conservation lands.

- Change zoning to protect parcels not directly under the control of ConsCom, and/or aren't zoned ARC
- Change some access corridor parcels from "municipal" to "conservation" (some parcels are general municipal that are treated as if they are conservation parcels. The changes could be formally done via deed updates or other mechanisms
- Establish Industrial truck exclusions to protect environmental resources and dense residential neighborhoods.
- Survey for tax lien properties for acquisition, especially properties that meet the OSRP prioritized parcel goals, such as next to water resources, special habitats, adjacent to conservation land, etc.
- Identify, prioritize, and resolve conservation land encroachments.
- Establish hammerhead lot ratios as in other towns (our zoning allows crazy-shaped lots that other towns would not allow).

Wildlife Management and Protection:

- Consider where NOT to put trails on conservation lands, for wildlife protection.
- Focus Open Space protection on wildlife corridor protection and creation
- Overpopulation of deer
 - Bow hunting by permit [
 - *Discussion: how to keep walkers safe? Limit hunt to certain times & days & post really well. Why Bow hunting & not other ways? Bow hunters typically shoot down at an angle, and thus it's safer. Has this worked in other towns? Yes, but we have challenges here because our parcels are small and isolated: deer can just go elsewhere.*
 - Concern about Lyme Disease:
 - *Other action plans for Lyme disease prevention: removal of selected Japanese Barberry stands; research has shown reduced infected Lyme tick populations in areas where J barberry has been removed*

Open Space Connections:

- Protect 46 Wood Lane access corridor to Arboretum.
- Prioritize the selection of sidewalk segments to build that connect conservation land entrances. Example: 180 Newtown Road to Grassy Pond.
- Develop "micro trails" for connectivity of neighborhoods. This could depend on donations of private land to make these corridors available
- Develop trails, sidewalks and safe road crossings between schools and conservation parcels In conjunction with "school programs that get kids into the woods." This has become more difficult because the need and the expense to use school buses now that mid-day parent/kid carpooling for field trips is no longer practical for both logistical and legal reasons)

Education and outreach:

- More public education and signage on invasive plant identification.
- More ongoing educational outreach on ALL these topics.
- Newspaper local weekly column "conservation idea of the week."
- Technical assistance for private land owners on developing management plans.
 - Example: how to increase the biodiversity on your property
 - (1) butterfly gardens.

- (2) Audubon has info on how to attract a mix of birds to your backyard.
- Educate public about private land donations: how easy and welcome it is for particular types of land.
- Communicate to and educate public on open space land purchases, i.e. parcels potentially available, and their reason for importance.
- Encourage school programs that get kids in the woods
- Provide irrigation via a well or wells at the Arboretum.

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

NARA Park:

- Expand Parking facilities
- Add more vegetation around the pond to intercept storm runoff

Morrison Farm

- Leave as is
- Introduce signage to indicate its location on Concord Rd.

Playgrounds and parks

- Publicize the playgrounds more
- Create maps diagramming where the playgrounds are located
- Separate “dog park” areas from Recreational Fields
- Kelly’s Corner: Old McDonald’s parking lot could be turned into a small park/green area

General Accessibility

- Plow NARA and Arboretum trails in the winter!
- Create a walkway from Tables to Teapots to the Acton Pharmacy
- Work with the Commission on Disabilities to advertise universal access and demonstrate where it exists
- Work with Emerson Hospital, Acton Nursing Services, and other service providers to promote use of NARA for rehabilitation

**ACTON CONSERVATION COMMISSION
OPEN SPACE AND RECREATION PLAN PUBLIC MEETING**

AGENDA

FEBRUARY 27, 2014

7:30 PM

TOWN HALL - 472 MAIN STREET

ROOM 204

7:30 Introduction and Presentation

Terry Maitland, chairperson of the Acton Conservation Commission, will provide an overview of the Open Space and Recreation Plan, its significance to the town, and the process leading up to this meeting.

8:00 Breakout Session

Participants will be asked to provide feedback and give input to three high level goals, 1) preserving Acton's rural character, 2) protecting the environment, 3) improving recreational opportunities.

9:15 Reconvene and Summary

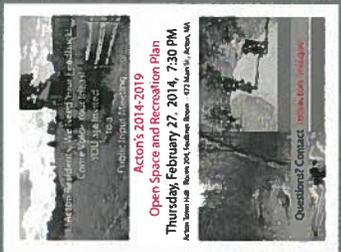
There will be a brief summary of output from the breakout session. A detailed summation will be compiled and sent to participants as well as posted on the town website.

Acton 2014-2019
Open Space and Recreation Plan
Public Input Meeting
 February 27, 2014

Acton Conservation Commission

Acton Natural Resources Department

Acton Recreation Department



Acton: 2014-2019
 Open Space and Recreation Plan
 Thursday, February 27, 2014, 7:30 PM
 Acton Natural Resources Department - 107 Main St., Acton, MA
 Questions? Contact: acton@actonma.gov



Tonight's Meeting

- Introduction
- What is the OSRP and Why Are We Doing It?
- Plan Process
- OSRP Goals
- Accomplishments Since Last Plan
- Break-out Session – 3 tables, 3 goals
- Reconvene and Summary



What is the OSRP?

We are now updating our "Draft" to reflect

2014-2019





Who Wrote It?

These contributors...and YOU

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 Jim Snyder-Grant
 Tom Tulman
 Martine Wong





The Previous OSRP

Why do we need one?

- It's a Good Planning Guide.
- Towns with current OSRP's are eligible for grants to buy open space.
- We become eligible to apply for annual "PARC" grants to improve Rec. facilities like the skatepark, fields and playgrounds.



2002 vs. 2014 Goals

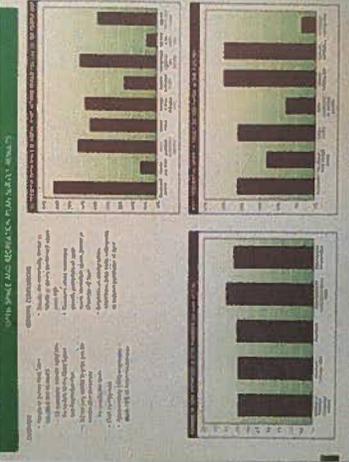
1. Preserve the remaining elements of Acton's rural character.
2. Protect the environment.
3. Improve recreational opportunities.

1. Preserve Acton's rural character.
2. Protect the environment.
3. Improve recreational opportunities for everyone.




Plan Process

- 2008 Public Survey
- Years of Monthly Public Committee Meetings (Rec., LSC, OSC, Concom)
- Acton 2020
- Tonight's Public Input Meeting




Acton 2020

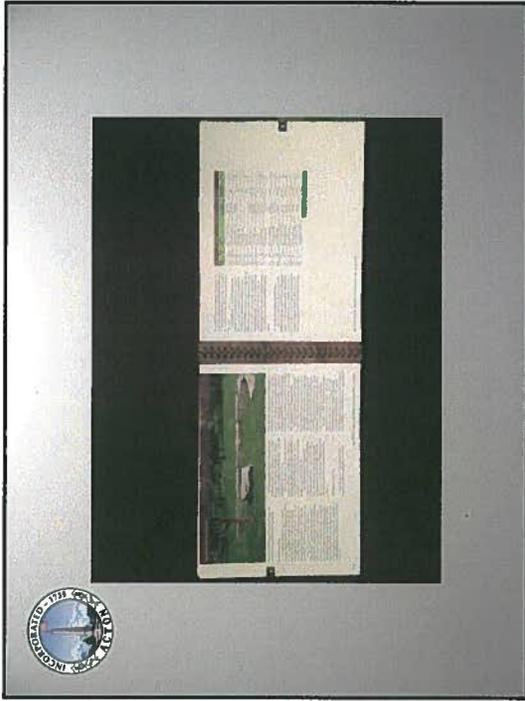
7 High-Level Priorities

1. Preserve and Enhance Town Character
2. Ensure Environmental Sustainability
3. Improve Connections
4. Provide More Opportunities for Community Gathering and Recreation
5. Support Inclusion and Diversity
6. Preserve and Enhance Town-owned Assets
7. Maintain and Improve Financial Well-being of the Town

Open Space and Recreation Plan 2014-2021

Table of Contents

1	Introduction
2	Community Vision
3	Community Objectives
4	Community Strategy
5	Community Action Plan
6	Community Vision
7	Community Strategy
8	Community Action Plan
9	Community Vision
10	Community Strategy
11	Community Action Plan
12	Community Vision
13	Community Strategy



Accomplishments Since 2002





Accomplishments Since 2002

- Open Space Committee Created 2001





Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee




Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act



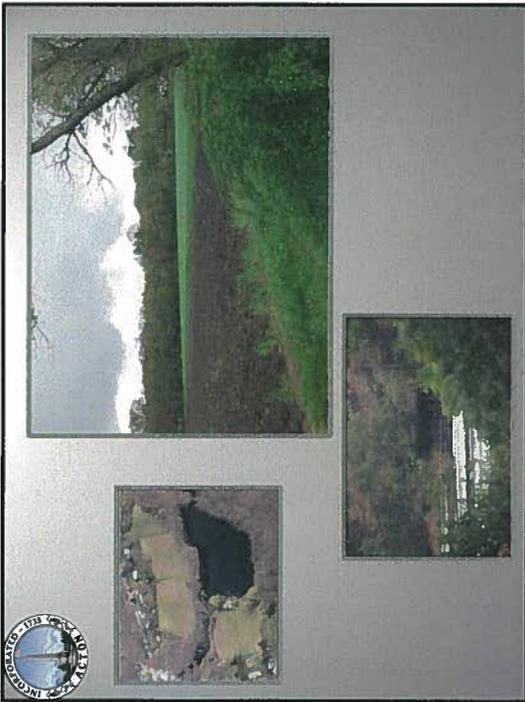
Community Preservation Act Annual Allocations for Open Space Acquisition

2004	\$200,000.00
2005	\$300,000.00
2006	\$424,000.00
2007	\$450,000.00
2008	\$515,000.00
2009	\$425,000.00
2010	\$525,000.00
2011	\$450,000.00
2012	\$500,000.00
2013	\$324,000.00
Avg.	\$411,300.00



Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone
Property Acquired 2010



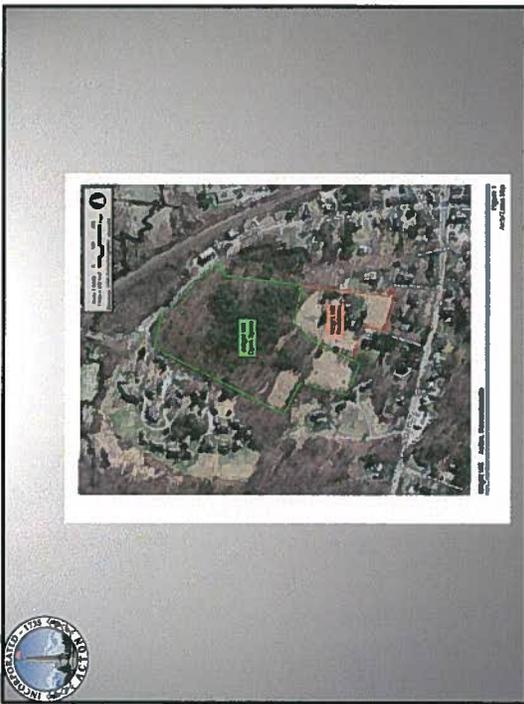

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- **Anderson Property Acquired 2013**



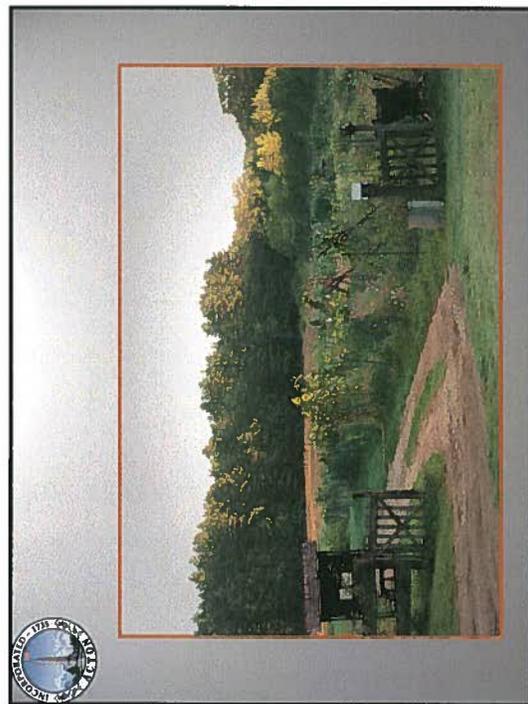

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- **Wright Parcel - TM April 2014**



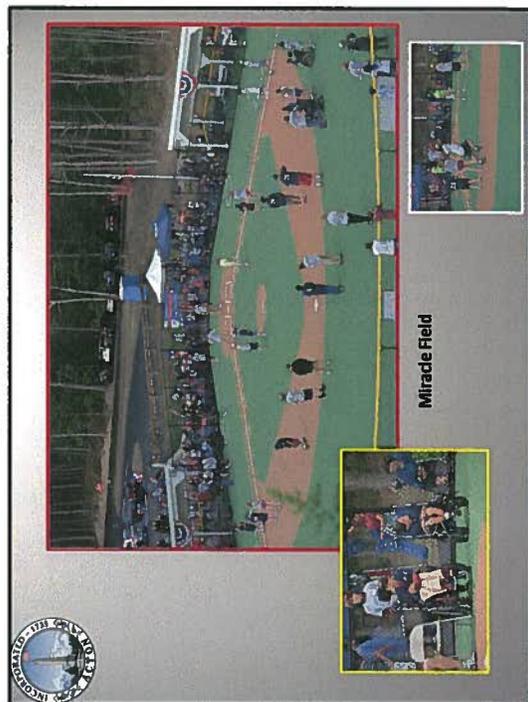
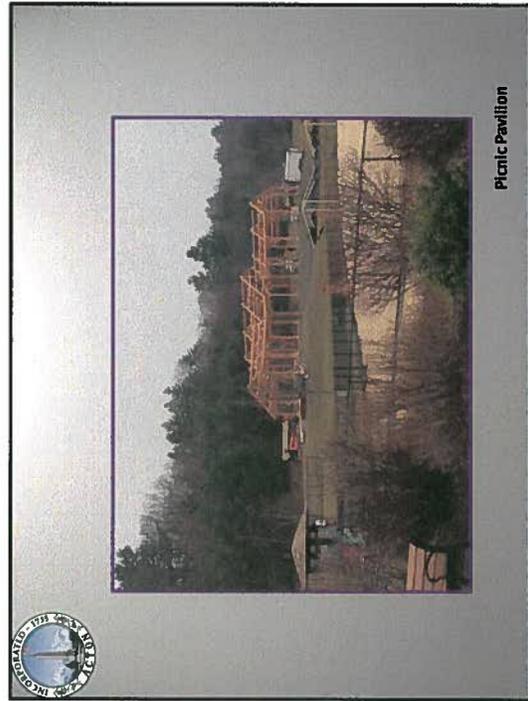
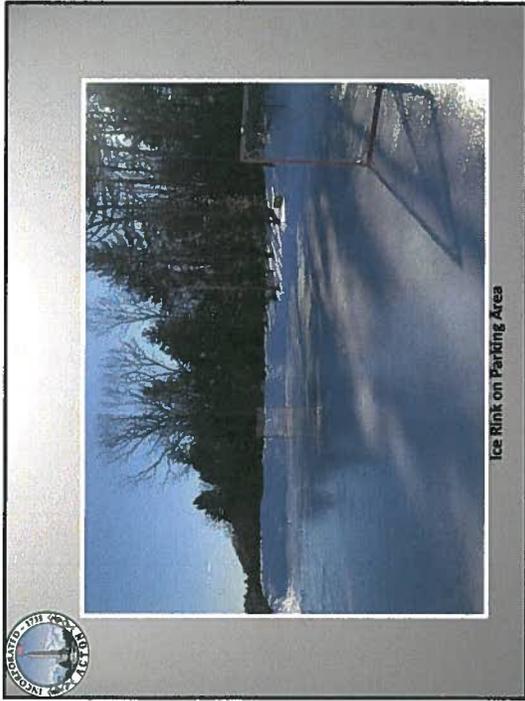

Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- **Morrison Farm Community Gardens**




Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- **Continued improvements at NARA**





Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Morrison Farm Community Gardens
- Continued Improvements at NARA

- Assabet River and
- Bruce Freeman Rail Trails






Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- Continued Improvements at NARA
- ARRT and BFRT

- T.J. O’Grady Skate Park



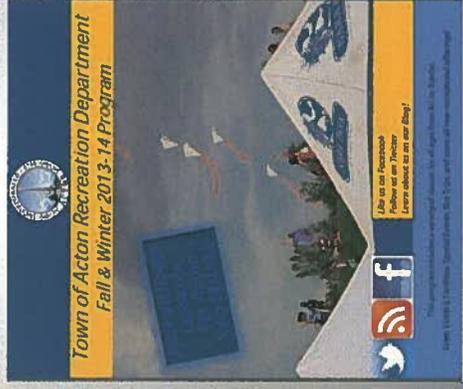




Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- Continued Improvements at NARA
- ARRT and BFRT
- T.J. O'Grady Skate Park

Expanding Recreation Program

*Town of Acton Recreation Department
Fall & Winter 2013-14 Program*

Join us on Facebook!
Follow us on Twitter!
Learn about us on our Blog!

Thank you to our sponsors: Springfield Armory, The Acton High School, and the Acton Recreation Department.



Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Caouette-Simeone Property
- Anderson Property
- Wright Parcel – TM 2014
- Morrison Farm Community Gardens
- Continued Improvements at NARA
- ARRT and BFRT
- T.J. O'Grady Skate Park
- Expanding Recreation Program

Upgrading Playgrounds





Jones Field Playground

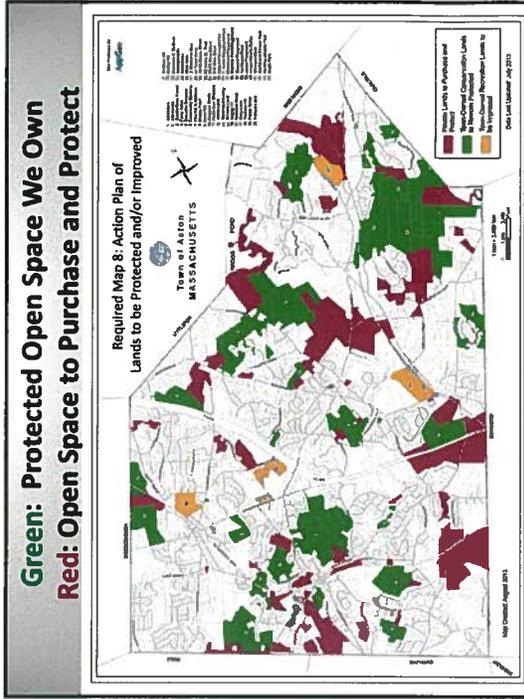
Gardner Playground



Accomplishments Since 2002

- Open Space Committee
- Land Stewardship Committee
- Community Preservation Act
- Anderson Property
- Wright Parcel
- Morrison Farm Community Gardens
- Continued Improvements at NARA
 - Summer Concerts
 - Ice Rink
 - Miracle Field
 - Picnic Pavilion
- Assabet River and Bruce Freeman Rail Trails
- T.J. O’Grady Skate Park
- Expanding Recreation Program
- Upgrading Playgrounds

This list is not comprehensive!




Not Completely

“Misses” ...

- Lost Robbins Mill
- Lost Quail Ridge Country Club
- Morrison – Re-use Plan not yet implemented

- Gained open space for trails and recreation
- Gained CR on Golf Course, parking, trail access, new boardwalk
- Successful Community Gardens, scenic open space



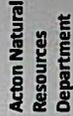
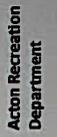
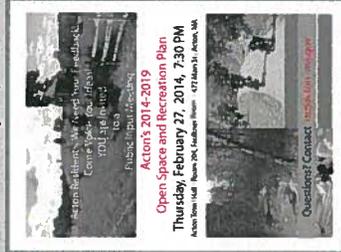


Your Turn

- Break-out Session
- 3 tables, each 3 main goals.
 - maps of recreation opportunities
 - section 8 Goals
- Rotate 15 minutes per table.
- Add your thoughts and input to the lists
- Reconvene and Summarize in 45 mins.

**Acton 2014-2019
Open Space and Recreation Plan
Public Input Meeting
February 27, 2014**

Acton Conservation Commission

Acton Natural Resources Department

Acton Recreation Department



The information gathered at this meeting will be compiled and incorporated into the updated OSRP.

THANK YOU FOR YOUR PARTICIPATION!

Appendix E1

Ranking of Open Space Parcels

Town Atlas Plate	Parcel	Structures	Address	Notes	Rec.	Open Space	Enviro. Signif.	Score
C-4	14		339 Nagog Hill Road	Concord Water District- Nagog Shoreline	10	10	10	30
E-4	9	Yes	554 Main Street	Conant Brook, mixed forest, wetlands and meadows	10	10	10	30
E-4	47		549 Main Street	Open Meadow/Forest: Brook Street	10	10	10	30
C-4	24		524 Main Street	Abuts Nagog Hill Conservation Area	8	10	10	28
H-2	128		99 Martin Street	Stonefield Farm	8	10	9	27
H-2	101	Yes	91 Martin Street	Stonefield Farm	8	10	9	27
H-2	100		34 Liberty Street	Stonefield Farm	8	10	9	27
H-3A	47	Yes	55 River Street	Fort Pond Brook; possible pocket park	9	9	9	27
B-4	16	Yes	5 Breezy Point	On Nagog Pond	10	8	8	26
B-4	10-1	Yes	532 Great Road	On Nagog Pond	10	8	8	26
C-5	97		Wheeler Lane End	Boy Scouts: Abutting Robbins Mill Open Space Parcels	8	9	9	26
D-4	20		566 Main Street Rear	Abutts Nagog Hill Conservation Area	7	10	9	26
G-2	109	Yes	88 Prospect Street	Farm on Prospect Street	9	10	7	26
D-3	11	Yes	161 Newtown Road	Abuts Grassy Pond Brook & Grassy Pond Conservation Area	7	8	10	25
E-2	143		356 Central Street	Idylwilde	9	9	7	25
E-4	11		585 Main Street	Abuts Nashoba Brook, Corner of Brook and Main	7	10	8	25
G-4	174		19 Wetherbee Street	Forested parcel abutting Wetherbee Conservation Area	7	9	9	25
H-2	94		79 Martin Street	Stonefield Farm	7	10	8	25
H-2	61		10 Liberty Street	Stonefield Farm	7	10	8	25
H-3A	2	Yes	64 School Street	School St/Piper Lane	7	10	8	25
H-3A	3		4 Piper Lane Rear	School St/Piper Lane	7	10	8	25
H-3A	6	Yes	76 School Street	School St/Piper Lane	7	10	8	25
B-5	30		Quarry Road Rear	Parcel abutting NARA; Water District Wellfield Protection	10	8	6	24
B-5	16		Quarry Road End	Spur Trail to Westford: potential Rail Trail	10	8	6	24
C-5	38		9 Ledge Rock Way	Potential rail trail to Westford/Powers Road	10	8	6	24
E-4	60		210 Great Road	Abuts BFRT and Nashoba Brook	6	9	9	24
F-2A	1	Yes	18 Wright Terrace	18 Wright Terrace, warrant article for purchase:Town Meeting 2014	7	10	7	24
E-5	36	Yes	85 Esterbrook Road	85 Estabrook Rd	7	10	7	24
F-3	78	Yes	46 Taylor Road	Abuts Arboretum	7	9	8	24
G-4	197		70 Hosmer Street	Commonwealth parcel adjoining School St. fields	9	8	7	24
H-2A	74	Yes	86 Martin Street	Part of Stonefield Farm	9	10	5	24
H-4	6		323 School Street	Commonwealth owned	9	10	5	24
C-5	46-1	Yes	9 Granite Road	Fitness Club	10	7	6	23
E-5	15	Yes	108 Strawberry Hill Road	Open meadow/forest, abutting Spring Hill Conservation Area	7	9	7	23
H-2A	66		36 Stow Street	Part of Stonefield Farm	8	10	5	23
E-4	8--6		126 Nagog Hill Road	Conant Brook	6	8	8	22
G-4	198		96 Mass Ave	Commonwealth owned	7	8	7	22
H-4	5		316 School Street	Commonwealth owned	7	10	5	22
B-5	31		Quarry Road Rear	Wellfield protection	6	8	7	21
C-3	22		215 Newtown Road	Open Orchard/Hardwood Forest	6	8	7	21
D-6	3--4		20 Triangle Farm Lane	Triangle Farm Lane	7	7	7	21
D-6	3--2		21 Triangle Farm Lane	Triangle Farm Lane	7	7	7	21
G-4	209		58 Wetherbee Street	State Police Barn	10	7	4	21
B-5	35	Yes	924 Main Street	Rifle Club: Wellfield protection	7	7	6	20
B-5	15		Quarry Road End	Wellfield protection, abuts NARA Park	5	8	7	20
I-3	64-3		119 Parker Street Rear	Connection to Pratts Brook, Tenney Pond	5	7	8	20

Appendix E1

Ranking of Open Space Parcels

Town Atlas Plate	Parcel	Structures	Address	Notes	Rec.	Open Space	Enviro. Signif.	Score
I-3	1--1		112 Hight Street Behind	Abutts Pratts Brook & Pratts Brook Conservation Area	5	7	8	20
I-3	1--2		108 Parker St. Rear (Pratts Brook)	Abutts Pratts Brook & Pratts Brook Conservation Area	5	7	8	20
E-3	102		59 Newtown Road	Conant Brook Flood Plain	4	7	8	19
E-6	9--1		1 Duston Lane	Pope Road - Dustin Lane	7	8	4	19
G-5	95		66 Wetherbee St. Rear	Commonwealth owned	4	7	8	19
G-5	96		25 Keefe Rd Behind	Commonwealth owned	4	7	8	19
H-1	1		Willow Street Rear	Stow Border- Abutts Heath Hen Conservation Area	5	6	8	19
H-1	2		133 Stow St. Behind	Stow Border- Abutts Heath Hen Conservation Area	5	6	8	19
H-1	4		129 Stow St. Rear	Stow Border- Abutts Heath Hen Conservation Area	5	6	8	19
H-1	5		182 Willow St. Behind	Stow Border- Abutts Heath Hen Conservation Area	5	6	8	19
H-3A	38		5 River St	Parcel abut Fort Pond Brook	2	9	8	19
H-3A	38-1		5 River St. Rear	Parcel abut Fort Pond Brook	2	9	8	19
H-4	109	Yes	271 School Street	Fort Pond Brook floodplain; rear of house's lot abutts Fort Pond Brook	4	7	8	19
B-5	25-4		108 Nonset Path	Back of Nonset- Abutts Wills Hole	3	7	8	18
D-2	15	Yes	6 Wampanoag Dr.	Rear Lots, Wetlands	3	7	8	18
D-2	15-1		48 Nashoba Road	Rear Lots, Wetlands	3	7	8	18
D-3	26		111 Newtown Road	Wetlands	2	8	8	18
E-2	151		86 Arlington St.	Wetlands- Grassypond Brook	3	7	8	18
E-5	51		74 Strawberry Hill Road	Open Meadow	5	6	7	18
E-5	51-50		Strawberry Hill Behind	Davis Road Rear	5	6	7	18
E-5	51-51		Strawberry Hill Behind	Davis Road Rear	5	6	7	18
E-5	51-1		74 Strawberry Hill Road Behind	Open Meadow	5	6	7	18
E-5	6, 10		98 Strawberry Hill Road,	Abutts Spring Hill Conservation Area	5	6	7	18
F-2B	106	Yes	12 Summer Street	Rear of Lot, abutts Mt. Hope Cemetery	4	6	8	18
G-4	143		13 Wetherbee Street	Rail Trail Parking Lot	7	3	8	18
G-4	176		99 Mass Ave.	Abutts Wetherbee	2	9	7	18
D-3	7--3	Yes	171 Newtown Rd. Rear	Abutts Grassy Pond/ Bog habitat	2	5	10	17
E-5	14-10		1 Lady Slipper Lane	Forested Open Space	5	6	6	17
H-2	58		84 Stow Street	Wetlands- Floodplain	3	7	7	17
H-2	132		75 Stow Street Rear	Wetlands- Floodplain	3	7	7	17
H-4	128-4		5 Lawsbrook Road	Fort Pond Brook floodplain; rear of house's lot abutts Fort Pond Brook	2	7	8	17
C-5	38-1	Yes	9 Ledge Rock Way	REX Lumber- Rear Lot abutting BFRT and NARA Park	10	3	3	16
E-6	6--1		12 Spring Hill Road	Forested wetland abutting Spring Hill Conservation Area	2	6	8	16
G-4	49-4		14 Horseshoe Drive	Across from Ice House Pond - Forested	1	8	7	16
G-4	49-6		123 Concord Road	Across from Ice House Pond - Forested	1	8	7	16
H-2A	8		12 Martin Street (Town Property)	Abutting commuter lot- all wetlands	0	8	8	16
H-3	226-1		105 River Street	Wetlands; on Fort Pond Brook	0	8	8	16
E-2	143-1		352 Central Street	Farm field abutting Idylwilde	2	6	7	15
E-5	46		Davis Road Behind	Detention pond	5	5	5	15
G-4	187		Mass. Ave. (State Property)	Farm field abutting Wetherbee	2	8	5	15
H-2A	41		17 Stow Street	Wetlands- Floodplain on Fort Pond Brook	0	7	8	15
H-2	25	Yes	45 Martin Street	Wetlands- Floodplain on Fort Pond Brook	0	7	8	15
D-6	3--3		10 Triangle Farm Lane	Triangle Farm Lane- Wet	0	7	7	14
E-3	102-2		17 Patriots Road	Patriot's Road - potential pocket park: gifted to town in 2014	6	4	4	14
E-4	13-5		8 Meadowbrook Road	Patriot's Road - potential pocket park: gifted to town in 2014	6	4	4	14
F-3A	89-1		49 Nagog Hill Road	Open Meadow	2	7	5	14
F-4	41-1		81 Wood Lane Rear	Back 1/2 of lot	3	6	5	14

Appendix E1

Ranking of Open Space Parcels

Town Atlas Plate	Parcel	Structures	Address	Notes	Rec.	Open Space	Enviro. Signif.	Score
G-4	184		60 Hosmer St.	Owned by Commonwealth	2	7	5	14
G-4	185		135 Mass Ave.	Owned by Commonwealth	2	7	5	14
E-3	101		75 Hayward Road	Haartz: CR	4	4	5	13
E-5	14-11		11 Lady Slipper Lane	End of Ladyslipper Lane	5	3	5	13
H-3	5		6 Arborwood Road	Off Brucewood- Wetlands; on Fort Pond Brook	5	4	4	13
I-2	20		15 Main Street Behind	Abutting Stonefield Farm	7	3	3	13
H-2A	41-1		70 Maple Street Behind	Wetlands- Floodplain on Fort Pond Brook	0	6	6	12
I-2	1	Yes	2 Apple Valley Drive	Abutting Stonefield Farm	2	5	5	12
I-2	3		30 Liberty St. Rear	Abutting Stonefield Farm	2	5	5	12
H-3	5		6 Arborwood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	6		4 Arborwood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	7		37 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	8		39 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	9		41 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
H-3	10		43 Brucewood Rd. (Framingham)	Off Brucewood- Wetlands; undeveloped parcels	3	4	4	11
G-2	137-3	Yes	97 Central Street	Lowell, Acton, and Maynard Railway Co.	7	1	1	9
I-2	22		31 Conant Street	Large Parcel- Open Space	1	3	5	9
I-2	31		99 Martin Street Behind	Abutting Stonefield Farm	0	3	5	8
H-2	103	Yes	85 Liberty Street	Hammerhead off of Liberty	0	1	5	6
H-2	63		124 Stow Street	Forested wetlands	0	1	5	6
H-3A	5		60 School St. Rear (TOA)	School St	2	2	2	6
H-1	6		127 Stow Street	Stow Border, possible old dumpsite	0	0	0	0
H-2	62		129 Stow Street	Stow Border, possible old dumpsite	0	0	0	0
H-2	80		133 Stow Street	Stow Border, possible old dumpsite	0	0	0	0
H-3A	3-1		6 Piper Lane (TOA)	Easement: access to Great Hill from Piper Road	0	0	0	0
H-3A	39		11 River Street	Abutts Great Hill; Piper Lane purchase	0	0	0	0
I-4	1		42 Independence Rd Rear	W.R. Grace	0	0	0	0
I-4	2		50 Independence Road	W.R. Grace	0	0	0	0
I-4	5		50 Independence Road	W.R. Grace	0	0	0	0
I-4	6		47 Independence Road	W.R. Grace	0	0	0	0
I-4	7		47 Independence Road	W.R. Grace	0	0	0	0

Appendix F1

Plants of Acton Center 1986

The Plants of Acton Center - 1986

*Compiled by Dr. Richard Howard
Additions from Pam Resor's List*

Gymnospermae - The Conifers

Juniperus communis	Common juniper
Juniperus virginiana	Upright juniper
Larix laricina	American larch; tamarack
Picea abies	Norway spruce
Picea mariana	Black spruce
Pinus rigida	Pitch pine
Pinus strobus	White pine
Taxus canadensis	Canadian yew
Tsuga canadensis	Hemlock

Lichens

Map lichen
Pale shield lichen

Lycopodiaceae - Clubmoss family

Lycopodium clavatum	Ground pine; Wolf's claw clubmoss
Lycopodium complanatum	Running ground cedar
Lycopodium obscurum	Princess pine

Mosses

Dicranum spp.	
Leucobryum spp.	Cushion mosses
Polytrichum spp.	Haircap mosses
Sphagnum spp.	Sphagnum mosses
Thuidium spp.	Fern mosses

Osmundaceae - Osmunda family

Osumnda cinnamonea	Cinnamon fern
Osumnda claytoniana	Interrupted fern
Osumnda regalis	Regal fern

Polypodiaceae - Polypody family

Athyrium filix-femina	Lady fern
Botrychium multifidum	Leathery grape fern
Dennstaedtia punctiloba	Hay-scented fern
Dryopteris intermedia	Evergreen woodfern
Dryopteris marginalis	Marginal woodfern
Dryopteris thelypteris	Marsh fern
Onoclea sensibilis	Sensitive fern
Polystichum acrostilchoides	Christmas fern
Pteridium aquilinum	Bracken fern
Thelypteris noveborascensis	New York fern
Thelypteris palustris	Marsh fern

Flowering Plants - MonocotyledoneaeAmaryllidaceae - Amaryllis family

Hypoxis hirsuta	Stargrass
Narcissus poeticus	Poet's narcissus
Narcissus pseudonarcissus	Daffodil

Araceae - Arum family

Arisaema atrorubens	Jack-in-the-pulpit
Symplocarpus foetidus	Skunk cabbage

Commelinaceae - Dayflower family

Commelina communis	Dayflower
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Cyperaceae - Sedge family

Carex bullata	
Carex crinita	Tussock sedge
Carex lurica	
Carex pennsylvanica	
Carex stricta	
Carex swainii	
Carex sp.	
Cyperus strigosus	
Scirpus atrocinctus	

Gramineae - Grass family

Agropyron repens	Witch grass
Agrostis alba	
Agrostis scabra	Hair grass
Brachelytrum erectum	
Calamogrostis canadensis	Blue-joint grass
Dactylis glomerata	Orchard grass
Echinochloa crus-galli	Barnyard grass
Eragrostis spectabilis	Tumble grass
Glyceria canadensis	Rattlesnake grass
Phlem pratense	Timothy
Poa pratense	June grass
Poa trivialis	Rough-stalked meadow grass
Setaria glauca	
Setaria faberii	

Iridaceae - Iris family

Iris versicolor	Blue flag
Sisyrinchium montanum	Blue-eyed grass

Juncaceae - Juncus family

Appendix F1**Plants of Acton Center 1986**

Juncus effusus	Rush
Juncus pelocarpus	Swamp rush
Juncus tenuis	Bog rush
Luzula multiflora	Wood rush

Lemnaceae - Duckweed family

Lemna minor	Duckweed
Wolffia columbiana	Water meal

Lilicaceae - Lily family

Asparagus officinalis	Asparagus
Lilium canadense	Canada lily
Maianthemum canadense	Wild lily-of-the-valley; Canada mayflower
Polygonatum pubescens	Solomon's seal
Smilacina racemosa	False solomon's seal
Streptopus amplexifolius	Twisted stalk
Uvularia perfoliata	Sessile bellwort; Wild oats
Uvularia sessilifolia	Bellwort
Smilax glauca	Cat briar
Smilax herbacea	Carrion flower
Veratrum viride	False hellebore

Orchidaceae - Orchid family

Cyperopodium acaule	Pink Ladyslipper; moccasin flower
Epipactis helleborine	Helleborine
Goodyera pubescens	Downy rattlesnake plantain

Typhaceae - Cattail family

Typha latifolia	Cattail
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Flowering Plants - DicotyledoneaeAceraceae - Maple family

Acer Palmatum	Japanese maple
Acer platanoides	Norway maple
Acer rubrum	Red maple
Acer saccharum	Sugar maple

Aizoaceae - Carpetweed family

Mollugo verticillata	Carpetweed
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Anacardiaceae - Cashew family

Rhus glabra	Sumac
Rhus radicans	Poison ivy

Appendix F1**Plants of Acton Center 1986**

Rhus tuphina	Staghorn sumac
<u>Apocynaceae</u> - Dogbane family	
Apocynum androsaemfolium	Dogbane
<u>Aquifoliaceae</u> - Holly family	
Ilex verticillata	Black Alder
<u>Araliaceae</u> - Ginseng family	
Aralia nudicaulis	Wild sarsaparilla
<u>Asclepiadaceae</u> - Milkweed family	
Asclepias incarnata	Swamp milkweed
Asclepias syriaca	Milkweed
<u>Balsaminaceae</u> - Impatiens family	
Impatiens capensis	Touch-me-not; jewel weed
<u>Berberidaceae</u> - Barberry family	
Berberis thunbergii	Japanese barberry
Berberis vulgaris	Common barberry
Podophyllum pubescens	Mayapple
<u>Betulaceae</u> - Birch family	
Alnus rugosa	Speckled alder
Alnus serrulata	Common alder
Betula lenta	Black birch
Betula papyrifera	Paper birch
Betula populifolia	Gray birch
Corylus americana	American filbert; hazelnut
<u>Campanulaceae</u> - Bluebell family	
Lobelia inflata	Indian tobacco
Specularia perfoliata	Venus' looking glass
<u>Caprifoliaceae</u> - Honeysuckle family	
Lonicera canadensis	American fly-honeysuckle
Lonicera morrowii	Bush honeysuckle
Lonicera tatarica	Tartarian honeysuckle
Sambucus canadensis	Elderberry
Viburnum acesifolium	Mapleleaf viburnum
Viburnum cassinoides	Northern wild raisin; Witherod
Viburnum dentatum	Southern arrowwood

Appendix F1

Plants of Acton Center 1986

Viburnum lentago	Nannyberry
Viburnum opulus	Guelder-rose
Viburnum recognitum	Northern arrowwood
Viburnum trilobum	American highbush cranberry

Caryophyllaceae - Pink family

Arenaria laterflora	Field Chickweed
Cerastium arvense	Mouse-eared chickweed
Cerastium vulgatum	Bouncing bet
Saponaria officinalis	Common chickweed
Stellaria media	

Celastraceae - Bittersweet family

Celastrus scandens	Bittersweet
Euonymus alatus	Burning bush

Chenopodiaceae - Goosefoot family

Chenopodium album	Goosefoot
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Clethraceae - White alder family

Clethra alnifolia	White alder; sweet pepperbush
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Compositae - Daisy family

Achilla millefolium	Yarrow
Ambrosia artemisiifolia	Common ragweed
Antennaria sp.	Pussytoes
Arctium lappa	Burdock
Aster acuminatus	Whorled wood aster
Aster cordifolius	Heart-leaved aster
Aster novae-anglicae	New England aster
Aster novi belgii	New York aster
Aster vimineus	Wood aster
Bidens frondosa	Beggar ticks
Chrysanthemum leucanthum	Ox-eye daisy
Cirsium vulgare	Bull thistle
Conyza canadense	Field daisy
taraxacum officinale	Pilewort; fireweed
Erigeron annuus	Daisy fleabane
Eupatorium dubium	Joe-pye weed
Eupatorium perfoliatum	Boneset
Hieracium florentinum	Hawkweed
Hieracium pratense	King devil; yellow hawkweed
Lactuca canadensis	Wild lettuce
Leontodon autumnalis	Fall dandelion
Prenanthes alba	White lettuce; Rattlesnake-root
Prenanthes trifoliata	Gall-of-the-earth
Rudbeckia serotina	Brown-eyed susan

Appendix F1

Plants of Acton Center 1986

Solidago bicolor	White goldenrod
Solidago caesia	Blue-stem goldenrod
Solidago canadensis	Canadian goldenrod
Solidago graminifolia	Narrow-leaf goldenrod
Solidago rugosa	Rough-leaf goldenrod
Solidago uliginosa	Grass-leaved goldenrod
Taraxacum officinale	Dandelion

Convolvulaceae - Morning Glory family

Convolvulus sepium	Bindweed
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Cornaceae - Dogwood family

Cornus amomum	Blue-fruited osier; silky dogwood
Cornus florida	Eastern flowering dogwood
Cornus racemosa	White-fruited osier; gray-stemmed dogwood
Cornus stolonifera	Red-stemmed dogwood

Crassulaceae - Stonewort family

Sedum purpureum	Frogs' bellies
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Cruciferae - Mustard family

Arabis drummondii	Drummond's rock-cress
Armoracia lapathifolia	Horse-radish
Barbarea vulgaris	Yellow mustard
Brassica sp.	Wild mustards
Hesperis matronalis	Dame's violet
Lepidium virginicum	Pepper grass
Nasturtium officinale	Water cress
Thlaspi arvense	Stinkweed

Cucurbitaceae - Heath family

Chamaedaphne calyculata	Leatherleaf
Gaultheria procumbens	Teaberry; Checkerberry
Gaylussacia baccata	Black huckleberry
Kalmia angustiflora	Sheep laurel
Lyonia ligustrina	Maleberry
Rhododendron canadense	Rhodora
Rhododendron viscosum	Swamp honeysuckle; clammy azalea
Vaccinium angustifolium	Late low blueberry
Vaccinium atrococcum	Highbush black blueberry
Vaccinium corymbosum	Highbush blueberry
Vaccinium macrocarpon	Large cranberry
Vaccinium oxycoccus	Small cranberry
Vaccinium vacillans	Early lowbush blueberry

Euphorbiaceae - Spurge family

Appendix F1**Plants of Acton Center 1986**

Acalypha rhomoidea Three-seeded mercury

Fagaceae - Beech family

Castanea dentata	American chestnut
Quercus albo	White oak
Quercus bicolor	Swamp white oak
Quercus coccines	Scarlet oak
Quercus ilicifolia	Scrub oak
Quercus rubra	Northern red oak
Quercus velutina	Black oak

Geraniaceae - Geranium family

Geranium maculatum Wild geranium

Guttiferae - Saint-John's-Wort family

Hypericum perforatum	Common Saint-John's-Wort
Hypericum virginianum	Swamp Saint-John's-Wort

Hamamelidaceae - Witch-hazel family

Hamamelis virginiana Common witch hazel

Juglandaceae - Black walnut family

Carya glabra	Pignut hickory
Juglans cinerea	Butternut
Juglans nigra	Black walnut

Labiatae - Mint family

Glechoma hederacea	Gill-over-the-ground
Prunella vulgaris	Selfheal

Lauraceae - Laurel family

Sassafras albidum Sassafras

Leguminosae - Pea family

Amphicarpa bracteata	Hog-peanut
Coronilla varia	Crown vetch
Desmodium sp.	Tick-trefoil
Trifolium hybridum	Alsike clover
Trifolium pratense	Red clover
Trifolium repens	White clover
Vicia cracca	Vetch

Lythraceae - Loosestrife family

Appendix F1**Plants of Acton Center 1986**

Lythrum salicaria	Swamp loosestrife
<u>Monotropaceae</u> - Indian pipe family	
Monotropa hypopithus	Pinesap
Monotropa uniflora	Indian pipe
<u>Myricaceae</u> - Bayberry family	
Comptonia peregrina	Sweetfern
<u>Nymphaeaceae</u> - Water lily family	
Nuphar variegatum	Yellow pond lily
<u>Nyssaceae</u> - Red gum family	
Nyssa sylvatica	Black tupulo
<u>Oleaceae</u> - Olive family	
Forsythia sp.	Forsythia
Fraxinus americana	White ash
<u>Onagraceae</u> - Evening primrose family	
Circaea quadrisulcata	Enchanter's nightshade
Epilobium coloratum	Purple-leaved willow-herb
Oenothera biennis	Evening primrose
<u>Oxalidaceae</u> - Sorrel family	
Oxalis europaea	Wood sorrel
Oxalis stricta	Yellow wood sorrel
<u>Papaveraceae</u> - Poppy family	
Chelidonium majus	Celandine
<u>Phytolaccaceae</u> - Pokeweed family	
Phytolacca americans	Pokeweed
<u>Plantaginaceae</u> - Plantain family	
Plantago lanceolata	English plantain
Plantago major	Broadleaf plantain
<u>Polemoniaceae</u> - Phlox family	
Phlox paniculata	Garden phlox

Appendix F1

Plants of Acton Center 1986

Polygalaceae - Milkwort family

Polygala paucifolia Fringed ploygala; Gaywings

Polygonaceae - Buckwheat family

Polygonum cuspidatum Boston bamboo
Polygonum hydropiper Smartweed
Polygonum persicaria Lady's thumb
Polygonum pensylvanicum Pink weed
Polygonum sagittatum Arrow-leafed tearthumb
Polygonum scandens Climbing false buckwheat
Rumex acetosella Sheep sorrel
Rumex crispus Yellow dock
Rumex obtusifolius Black dock

Primulaceae - Primrose family

Lysimachia nummularia Pennywort
Lysimachia quadrifolia Whorled loosestrife
Trientalis borealis Star flower

Pyrolaceae - Shinleaf or WIntergreen family

Chimaphila maculata Striped pipsissewa or Spotted Wintergreen
Chimaphila umbellata Pipsissewa
Pyrola elliptica Shinleaf
Pyrola rotundifolia Shinleaf; Round-leaved pyrola

Ranunculaceae - Buttercup family

Anemone quinquefolia Wood anemone
Anemonella thalictroides Rue anemone
Aquilegia canadensis Columbine
Caltha palustris Marsh marigold
Coptis groenlandica Goldthread
Ranunculus bulbosa Swamp buttercup
Thalictrum polygamum Meadow rue

Rhamnaceae - Buckthorn family

Rhamnus catharica European buckthorn; common buckthorn
Rhamnus frangula Buckthorn

Roseceae - Rose family

Amelanchier canadensis Shadbush
Crataegus macrosperma Thorn apple
Fragaria virginiana Wild strawberry
Geum laciniata Avens
Malus sylvestrus Apple
Malus spp. Crab apple

Appendix F1**Plants of Acton Center 1986**

Potentilla argentea	Silvery cinquefoil
Potentilla recta	Field cinquefoil
Potentilla simplex	Common cinquefoil
Prunus pensylvanica	Pin cherry
Prunus serotina	Wild black cherry
Prunus virginiana	Choke cherry
Pyrus melonocarpa	Black choke cherry
Rosa carolina	Pasture rose
Rosa multiflora	Multiflora rose
Rosa rugosa	Rugosa rose
Rosa virginiana	
Rubus allegheniensis	Blackberry
Rubus enslenii	Brambles
Rubus idaeus	Red raspberry
Rubus occidentalis	Blackcap raspberry
Spiraea latifolia	Meadowsweet
Spiraea tomentosa	Steeplebrush

Rubiaceae - Madder family

Galium aparine	Rough bedstraw
Galium obtusum	Swamp bedstraw
Houstonia caerulea	Bluets
Mitchella repens	Partridge berry

Salicaceae - Willow family

Populus grandidentata	Big-toothed aspen
Populus tremuloides	Quaking aspen
Salix alba v. vitellana	White willow
Salix babylonica	Weeping willow
Salix humilis	Bush willow

Saxifragaceae - Saxifrage family

Ribes satium	Current
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Sarraceniaceae - Pitcher Plant family

Sarracenia purpurea	Pitcher plant
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Scrophulariaceae - Figwort family

Chelone glabra	Turtle-head
Linaria vulgaris	Toadflax
Verbascum thapsus	Mullein
Veronica officinalis	Speedwell
Veronica serpyllifolia	Thyme-leaved speedwell

Solanaceae - Potato family

Solanum americanum	Nightshade
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Appendix F1

Plants of Acton Center 1986

Solanum dulcamara	Deadly nightshade
<u>Ulmaceae</u> - Elm family	
Ulmus americana	American elm
<u>Umbelliferae</u> - Dill family	
Daucus carota	Queen Anne's lace
Hydrocotyle americana	Water pennywort
<u>Verbenaceae</u> - Vervain family	
Verbena hastata	Blue vervain
Verbena urticifolia	Swamp white vervain
<u>Violaceae</u> - Violet family	
Viola blanda	Sweet white violet
Viola conspersa	Dog violet
Viola fimbriata	Northern downy violet
Viola lanceolata	Lance-leafed violet
Viola pallens	Blue violet
Viola papilionacea	Common blue violet
Viola soraria	Wood violet
<u>Vitaceae</u> - Grape family	
Parthenocissus quinquefolia	Virginia creeper
Vitis labrusca	Fox grape

SECTION 12- APPENDIX F2 Arboretum Master Plan

I. TOWN OF ACTON GOALS (from the last OSRP 2002-2007)

1. Preserve the rural character and history.
2. Protect the environment.
3. Improve recreational possibilities.

II. ACTON ARBORETUM'S MASTER PLAN MISSION AND GOALS

1. The Arboretum will provide an educational and aesthetically pleasing experience in and of the landscape. It will concentrate attention on the educational value of the following areas:
 - Succession stages (ex. open field to scrub to bog and forest)
 - Wildlife habitats
 - Geological landforms (ex. esker, bog, streams, ponds, quarry)
 - Historic site features
 - Natural systems
 - Effective gardening practices using the Arboretum as a learning tool
2. Native and introduced species hardy to the Acton area will be utilized and planted in a naturalized fashion within the framework of existing microclimates and soils ("right plant, right place.")

III. CORRELATING TOWN OBJECTIVES AS REFLECTED IN THE OSRP WITH *ACTON ARBORETUM'S MASTER PLAN*

Preserving the rural character:

The Acton Arboretum embodies both natural and manmade features that contribute to Acton's character such as apple orchards, open fields, woodlands, ponds, country roads, scenic vistas and stone walls.

Protecting the environment:

The utilization of the Acton Arboretum as a town natural resource include gardening, planting trees and shrubs, applying conservation land regulations, preserving ecosystems, promoting habitat diversity, protecting wetlands. Wildlife corridors are protected through land acquisition and public education.

Improving recreational opportunities:

Town Staff and volunteers regularly maintain, upgrade and expand the possibilities for hiking the Arboretum's trails by removing obstacles, blazing, mapping, building/maintaining bridges and boardwalks over and through wetlands. Recent initiatives to better inform the public about accessibility are the expanded kiosk, website, ACAT Video and paved trail. Unlimited passive recreation is available to picnickers, painters, photographers, readers, poets, philosophers, musicians, etc.

IV. Current Description of the Acton Arboretum (2014)

Location of Acton Arboretum and Current General Description

Located in the town's center, the Acton Arboretum consists of 65 acres of gardens, lawn with picnic tables, woods, meadows, swamps, ponds, old apple orchards, a glacial esker, and a bog.

The Arboretum has approximately 3,000 feet of handicap accessible trail finished primarily in compressed stone dust, including 500 feet that is paved asphalt. The trails are not plowed in winter, therefore are not considered assessable in snowy or icy conditions.

Current Parking Availability

SECTION 12- APPENDIX F2 Arboretum Master Plan

Parking is available at the Arboretum's main entrance, off Taylor Road. Other entrances are on Concord Road on the Billings Trail and from Wood Lane and Minot Avenue. Much of the area adjacent to the parking lot is handicapped-accessible, and is open with graveled and paved paths, gardens, bridges, and picnic tables. Trails and paths crisscross the entire area. An information kiosk stands at the main entrance. Please see Section V. "The Future Five Year Improvements" for parking lot improvement plan.

History in Brief

The land, successively owned and improved by the Craigins, the Reeds, the Tuttlés, and the Bridges, was acquired by the town in 1976 and 1977. It was formalized as an Arboretum in 1986 when Town Meeting funded the purchase of plant materials and site improvements, and the original warrant article was amended by John Whittier and Brewster Conant to specify use of the property for an arboretum.

Since then, the Arboretum has been developed through the efforts of the Friends of the Acton Arboretum, Inc., Tom Tidman, Acton Natural Resources Director and town staff, assisted by many volunteers and donors. The Acton Garden Club members maintain the Herb, Hosta, and Butterfly Gardens. Boy Scouts and Girl Scouts completing large projects have worked on plantings, paths and boardwalks. Junior High and High School students perform service day clean-ups. Local businesses and landscaping firms have donated services and materials. The Friends of the Acton Arboretum, Inc. have been awarded various grants over the years to make maps, design and print educational materials and create gardens: 1992 George E. Stone Award from the Massachusetts Association of Tree Wardens and Foresters; 1997 Urban Forest Planning and Education Grant from the Massachusetts Department of Environmental Protection; William P. Wharton Trust 1992 and 1997 and in 2004; Community Preservation Act award in 2006 for \$20,000 and another in 2013 to rebuild the Wildflower Boardwalk.

The Friends of the Acton Arboretum, Inc.

The Friends of the Acton Arboretum, Inc. was incorporated in 1991 as a non-profit organization and is a group of citizens who care about the natural world and share a vision of preserving and enhancing our natural resources for educational purposes. Friends contribute time, money, plants, and other gifts and talents in support of the Acton Arboretum to achieve these goals.

Trail Descriptions

There are three major trails at the Acton Arboretum: the Orchard Loop, the Wildflower Loop, and the Highland/Bog Loop (along with a number of interconnecting paths). An access trail on the property which connects the Arboretum to the sidewalk on Main Street is actually the right of way for a future sidewalk on Taylor Road. Along this access trail are the Swale Garden, the Daylily Collection, and a grouping of crab apple trees and native shrubs. In the next few years, part of this trail will be paved (asphalt), becoming a sidewalk extending from Main Street, along Taylor Road, connecting to Minot Avenue and Conant Elementary School.

The **Orchard Loop Trail** is a perimeter loop of the upper, most open, area of the Arboretum together with the old orchard grid to its south. This 1,200-foot trail begins at the Taylor Road parking lot and is handicapped accessible with gentle grades, primarily made of crushed stone base with a number of benches along its length. It takes the walker through unique garden areas and past labeled specimen trees, as well as beside a small pond constructed in 1992. All are situated around the open grassy area along with old, granite, watering trough, dated 1878. Picnic tables and a stone reading circle add to the utility of the open area.

Plantings along this trail include:

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An Herb Garden, designed as a replica of a typical 1700's herb garden with medicinal, culinary, and strewing herbs, situated within and around an old foundation.

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The Butterfly Garden, designed to provide plants to feed butterflies and their larval caterpillars.

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Hosta Garden, created in 1991 in honor of Judy Dempsey's mother, Emily A. Paul.

SECTION 12- APPENDIX F2 Arboretum Master Plan

These 3 gardens are maintained by the Acton Garden Club volunteers. Situated along the more southerly reaches of the **Orchard Trail** are the Rhododendron Garden, groups of Japanese larches with an arbor, and areas of wetlands.

The **Wildflower Loop Trail** leaves and rejoins the Orchard Loop Trail on the eastern and southern sides of the Arboretum property. On the northern edge is a handicap accessible **Lilac and Fragrance garden (built with CPC funding)** with benches. Features along this route are two ponds (one on private property), an extensive Wildflower Garden and boardwalk, a Fern Garden with a boardwalk and small brook crossing and several benches. The Wildflower loop was created in 1992 with the aid of a William P. Wharton Grant. The trail was designed as an interior loop, 2,280 feet in length, and is handicapped accessible. Its location was chosen to take advantage of more than 780 feet of uplands hardwood forest, ideal for establishing a wildflower collection. The Wildflower Loop also features a fern collection along the Mary's Brook boardwalk.

New Paved Section:

A 500-foot section of this trail was paved in asphalt in July 2010 (paid for jointly by the Town of Acton and the Friends of the Acton Arboretum) because severe seasonal erosion had made it inaccessible. Scouts and volunteers have planted grass and wildflowers along the edges to enhance and protect the path during heavy rains.

The **Wildflower Garden** along this trail loop was created in the 1990's by Acton volunteers and Acton Director of Natural Resources, Tom Tidman. A naturalistic garden with labels was created next to a boardwalk and pond with additional naturalized plantings along the trail. Volunteers continuously donate plants on a large scale. Please see www.elmpost.org/trail.htm for an illustrated tour of this garden. Acton resident Bruce Carley has dedicated himself to this wildflower garden for approximately 20 years.

Most of the species along this trail were manually planted with native wildflowers that have been re-introduced. Only a few species of wildflowers, such as Jack-in-the-pulpit, wood anemone, and some of the ferns, were growing here naturally before the work on the gardens began.

There are roughly a hundred native species including a few types of uncommon ferns, totaling over 3,000 plants. Exclusively native wildflowers have been deliberately planted by volunteers who have worked tirelessly to build the collection.

The **Highland-Bog Loop Trail** is a 3,500 foot journey from the highest area in the Arboretum to the lowest. The 30 acres traversed by this trail, in the most southerly portion of the Arboretum, comprise a wide variety of forest types, succession growth and geological features. It is based on old farm roads, cow paths, and food trails, and is not handicapped-accessible.

Along the southwestern portion, the trail follows a narrow, long hill or esker. After descending the esker, the trail crosses a quaking bog, with its specific plant community, along a winding boardwalk. In a short distance, the trail leads back toward the main Arboretum and completes the **Highland-Bog Loop**.

V. The Future

The Friends of the Acton Arboretum, Inc. will continue to work to support the Arboretum according to its mission statement (Section II above) on projects within the scope of the organization.

Two Year Improvements (2014, 2015)

- Rebuild the Bog Boardwalk to be accessible with a paved ramp from Minot Avenue sidewalk, including educational maps and kiosk depicting a "glacial loop trail" and with one or two street-side accessible parking spaces
- Replace the kiosk by the main parking lot
- Enhance the website to provide more information about accessibility and the collections

SECTION 12- APPENDIX F2 Arboretum Master Plan

- Create an accessibility guide documenting trail characteristics and use the data collected to post signs at trailheads describing the trail conditions
- Expand and pave the Taylor Rd parking lot and install a rain garden to catch and filter parking lot storm water runoff and to replenish the water supply

Five Year Improvements (2014-2018)

- Recover the use of the Arboretum access at 46 Wood Lane
- Replace the boardwalk over Mary's Brook
- Add electricity to the Arboretum
- Install a well as an alternative for irrigation to the Acton town water supply, replacing pipes to hose hook-up points while continuing to provide one or two drinking fountains supplied by Acton town water
- Construct a formal entrance to the Arboretum funded by grant money or CPA
- Hire a full or part-time caretaker for the Acton Arboretum (See appendix F3 for the job description)

Ten Year Improvements (by end 2023)

- Build a "green" visitor's center that uses renewable energy and building materials and with composting toilets

I. DUTIES

1. Upper grounds

- cut grass

- maintain picnic tables

- kill poison ivy

- stone dust trails maintenance

 - keep trails level, fill washout gullies

 - keep cobbles prominent

 - spray grass/weeds growing in stone dust

- plant trees and shrubs

- apple raking, seasonal (winter, spring, fall) cleanups

- meadow work

 - plant seeds, plants, flowers

- mulch gardens, weed and prune in coordination with garden club

- ranger on site

- apply fertilizer, compost, lime, etc.

2. Buildings management:

 - a) indoor meeting/function space (solar panels, composting toilets, small office fieldstone fireplace) booking of the function space for scouts, events, etc.

 - b) storage space for maintenance equipment

3. Volunteer coordinator (students, FAA, LSC, Acton Garden Club)

4. Parking lot and kiosk maintenance

5. Back 40

- trail maintenance, mulching, hardening/corduoying wet areas

- boardwalk repair

- blow-down removal

II. SKILLS REQUIRED

- people skills: working with the public (friendly, flexible, good communication)

- carpentry

- moderately heavy equipment: mower, weed-whacker, bobcat, chainsaw)

- gardening skills

- laptop computer and cell phone with GPS

III. SUPERVISED BY/REPORTS TO:

- Director of Natural Resources and Conservation Commission



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

Michael J. Gowing
Chairman, Board of Selectmen

April 29, 2014

RE: Designation of ADA Coordinator

To Whom it May Concern:

This letter shall serve as notice that Town Manager Steven Ledoux has been duly designated and appointed as the Town ADA Coordinator for the purpose of compliance with the Americans with Disabilities Act.

Please feel free to contact this office with any questions.

Respectfully,

Michael J. Gowing
Chairman, Board of Selectmen



Americans with Disabilities Act Grievance Procedure for Employees

G3-1. *Policy.* The Town of Acton does not discriminate on the basis of disability in the admission or access to, or treatment or employment in, its programs or activities. The Town's ADA Coordinator has been designated to monitor compliance with the non-discrimination requirements in the Section 504 regulations and the Americans with Disabilities Act regulations as implemented by the Equal Employment Opportunity Commission and the Department of Justice.

G3-2. *Grievance Procedure.* The following grievance procedure is established to meet the requirements of the Americans with Disabilities Act. It may be used by any employee who wishes to file a complaint alleging discrimination on the basis of disability in employment practices and policies or the provision of services, activities, programs, and benefits by the Town of Acton.

- a) The complaint should be in writing and contain information about the alleged discrimination such as name, address, telephone number of complainant and location, date and description of the problem. Reasonable accommodations, such as personal interviews or a tape recording of the complainant, will be made available for persons with disabilities who are unable to submit a written complaint.
- b) The complaint should be submitted by the grievant and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to the Acton Board of Selectmen and the ADA Coordinator.
- c) Within fifteen calendar days after receipt of the complaint, the ADA Coordinator will meet with the complainant to discuss the grievance and possible resolutions. The ADA Coordinator will inform the complainant about the existence of and the contact information for the *Acton Commission on Disabilities*, should the complainant wish to discuss their grievance with that Commission.
- d) Within 15 calendar days after the meeting, the ADA Coordinator will respond in writing, and where appropriate in a format accessible to the complainant such as audiotape. The response will explain the position of the Town of Acton and offer options for substantive resolution of the complaint.
- e) If the response of the ADA Coordinator does not satisfactorily resolve the issue, the complainant and/or his/her designee may appeal the decision of the ADA Coordinator within 15 days after receipt of the response to the Board of Selectmen or their designee.
- f) Within 15 calendar days after the receipt of the appeal, the Acton Board of Selectmen or their designee will meet with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after this meeting, the Board of Selectmen or their designee will respond in writing, and where appropriate in a format acceptable to the complainant, such as audiotape, with a final resolution of the complaint.
- g) All complaints received by the ADA Coordinator, appeals to the Acton Board of Selectmen or their designee, and responses from the ADA Coordinator and the Acton Board of Selectmen or their designee will be kept by the Town of Acton for at least three years.



TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6431
Fax (978) 929-6340

Office of the Board of Selectmen

May 1, 2014

To Whom It May Concern:

As Town Manager/ADA Coordinator for the Town of Acton, I hereby attest to the fact that the Town's employment practices are in compliance with the Americans with Disabilities Act with respect to the following: Recruitment, Personnel Actions, Leave Administration, training, testing, needed exams/questionnaires, social and recreational programs, fringe benefits, collective bargaining agreements and wage and salary administration.

Additionally, I have attached to this statement a copy of the Town's Personnel Policy regarding Equal Employment Opportunity.

Sincerely,

Steven L. Ledoux
Town Manager



Appendix G5. **Equal Employment Opportunity**

G5-1 Policy. The Town of Acton commits itself to the principles and practices of equal employment opportunity, in compliance with Titles VI and VII of the Civil Rights Act of 1964; Executive order No. 227 as amended; MGL Chapter 151B; and all other applicable Federal and State laws and regulations.



TOWN OF ACTON

472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6431
Fax (978) 929-6340

Office of the Board of Selectmen

MEMORANDUM

TO: File

FROM: Steven L. Ledoux, Town Manager

RE: Equal Employment Opportunity

DATE: March 14, 2014

Attached please find examples of notices advertising positions available within the past three years and the notations that the Town of Acton is an Equal Employment Opportunity/Affirmative Action employer.

The Town of Acton does not discriminate in its employment practices on the basis of disability. Public Notices and other information is made available in accessible format upon request.

APPENDIX G7

G-7 Examples of Job Notices

Internal Job Posting
Town of Acton
Seasonal Groundskeeper
April 07, 2014

The Town of Acton is seeking applicants for the position of Seasonal Groundskeeper, reporting to the Cemetery Department Crew Chief.

Duties: Duties include: Assisting staff in day to day grounds maintenance tasks. Operating and maintaining various powered and manual landscaping equipment. Candidates must have valid driver's license and be able to stand, walk, bend, lift heavy objects & work in inclement weather for extended periods of time as necessary.

Pay Rate: Starting at \$11.00/hour

Deadline: Internal applications must be received not later than April 17, 2014

To Apply: Submit resume and cover letter to Human Resources Department, Town Hall, 472 Main Street, Acton MA 01720. Or e-mail to hr@acton-ma.gov. Acton is an EOE.

APPENDIX G7

Town of Acton
Highway Department
Truck Driver/Laborer

Seeking a Truck Driver/Laborer position with the Highway Department. Full-time benefited union position.

Duties: Operating vehicles and equipment and performing tasks associated with the construction and maintenance of town ways. Must be available for snow removal and other emergency work. A valid driver's license, CDL Class B endorsement or greater with an airbrake license is required at hire. Massachusetts Hoisting License, Class 2 B or greater within 12 months of hire or by next available testing period, whichever is sooner. NIMS within 1 year and State Ethics Certification within 30 days are required.

Salary: starting at \$19.82/hour.

Submit cover letter and resume to: Human Resources Department, Town Hall, 472 Main St. Acton, MA 01720. Or, e-mail hr@acton-ma.gov.

Acton is an Equal Opportunity Employer.

Deadline: April 25, 2014

**Internal Job Posting
Town of Acton**

Full-Time Dispatcher

January 24, 2014

The Town of Acton is seeking a full time benefitted Dispatcher reporting to the Police Chief and the Fire Chief.

Duties: Responsible for the dispatching and clerical work in monitoring the communications area in the Police and Fire Departments including: responding to emergency 911 and other telephone calls, handling radio communications and performing computer entry tasks.

Minimum Entrance Requirements: Position requires medical examination including a hearing test. Applicants must have high school degree or equivalency and two years of work experience. Training in Emergency Management Systems is required upon hire. Applicant must be available for night and weekend hours.

Preferred Qualifications: Excellent verbal communication skills. Good computer skills. The ability to multi-task and respond quickly to emergency situations.

Pay Rate: Step 1, \$18.8797/hour

To Apply: Submit resume and cover letter to Human Resources Department, Town Hall, 472

Main Street, Acton MA 01720. Or e-mail to hr@acton-ma.gov. Acton is an EOE.

Deadline: Internal applications must be received no later than February 3, 2014

APPENDIX G8 Employee Non-Harassment Cover Letter



TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6611
Fax (978) 929-6342

Town Manager's Office

January 18, 2012

TO: Employees of the Town of Acton

Our modern high tech society has significantly changed the way people communicate with each other. Face to face or written communication is all that was available not too long ago. A wide variety of media is available today and this vastly increases the chances that something we do could be the source of harassment to our employees. This means that we need to be very careful in what we do or say to avoid offending others. They could be offended by messages left on voice-mail, sites on the Internet, facsimile messages or E-mail as well as older forms of communication.

Regardless of the source, all employees of the Town should work in an environment free from any form of illegal harassment. All of you should have a safe and positive environment in which to be productive. Any harassment, including sexual harassment, is a behavior that is unacceptable in the work place and will not be tolerated.

If you think that you have been a victim of harassment, please inform us immediately and action will be taken. The Anti-Harassment Policy that is attached provides additional information in regards to sexual harassment.

If you need further assistance on this policy, please stop by the Human Resources Department.

Best Regards,



Steven L. Ledoux
Town Manager

TOWN OF ACTON PERSONNEL ADMINISTRATION PLAN

ANTI-HARASSMENT POLICY (11/6/96)

I. PURPOSE AND SCOPE

The purpose of this policy is to communicate the Town's intolerance of harassment. This policy applies to all Town employees.

II. GENERAL POLICY REGARDING HARASSMENT OR SEXUAL HARASSMENT IN THE WORKPLACE

It is the policy of the Town of Acton to maintain a work place that is free of all forms of harassment, and/or including sexual harassment. Sexual harassment, and retaliation against employees who file or cooperate with a sexual harassment complaint is unlawful. Sexual harassment refers to behavior that is personally offensive, lowers morale and interferes with work effectiveness. It also undermines the integrity of the employment relationship and will not be tolerated, and may be subject to corrective action up to and including discharge. Moreover, as a part of the overall nondiscrimination policy, the Town of Acton prohibits all forms of harassment of others because of race, color, religion, sex, age, national origin, ancestry, sexual orientation, physical or mental handicap, veteran, or other protected status.

III. DEFINITION OF SEXUAL HARASSMENT

For purposes of this policy, sexual harassment is defined as any type of sexually-oriented conduct, whether intentional or not, that is unwelcome and has the purpose or effect of creating a work environment that is hostile, offensive or coercive to a reasonable woman or man, as the case may be. The following are examples of conduct that, depending upon the circumstances, may constitute sexual harassment: (a) unwelcome and unwanted sexual jokes, language, epithets, advances or propositions; (b) written or oral abuse of a sexual nature, sexually degrading or vulgar words to describe an individual; (c) the display of sexually suggestive objects, pictures, posters or cartoons; (d) unwelcome and unwanted comments about an individual's body, sexual prowess or sexual deficiencies; (e) asking questions about sexual conduct; (f) unwelcome touching, leering, whistling, brushing against the body, or suggestive, insulting or obscene comments or gestures; and (g) demanding sexual favors in exchange for favorable reviews, assignments, promotions or continued employment, or promises of the same.

IV. REPORTING HARASSMENT

Anyone who believes that s/he has been the subject of harassment or sexual harassment is strongly encouraged to immediately notify the Director of Human Resources. An investigation of all complaints will be undertaken immediately, and corrective action will be taken when warranted. No person will be subject to any form of retaliation for filing a

complaint or cooperating in its investigation. Information will be handled with the highest degree of confidentiality possible under the circumstances and with due regard for the rights and wishes of all parties.

V. RESULTS OF HARASSMENT

After an investigation, any employee who is found by the Town of Acton, depending upon the circumstances of the situation, to have harassed another in the workplace will be subject to appropriate discipline up to and including termination.

Employees may also contact:

Massachusetts Commission Against Discrimination
One Ashburton Place, 6th Floor, Room 601
Boston, MA 02108
(617) 727-3990

Equal Employment Opportunity Commission
John F. Kennedy Federal Building
475 Government Center
Boston, MA 02203
1-800-669-4000

VI. ACKNOWLEDGMENT

Massachusetts Fair Employment Practices Act, Chapter 151B requires employers to provide all employees an individual written copy of the policy against sexual harassment annually. It also requires that new employees be provided with a copy at the time of their employment. The attached acknowledgment sheet is provided to ensure compliance.

TOWN OF ACTON PERSONNEL ADMINISTRATION PLAN

ACKNOWLEDGMENT FORM

(Please complete and return to Human Resources)

This is to certify that I have been provided an individual copy of the Town of Acton's Anti-Harassment Policy.

Employee Name

Signature

Date



HUMAN RESOURCES

Town of Acton
472 Main Street
Acton, Massachusetts, 01720
Phone: 978-929-6613
Fax: 978-929-6342
Email: HR@acton-ma.gov

**TOWN OF ACTON
APPLICATION FOR EMPLOYMENT**

(Please Print)

AN EQUAL OPPORTUNITY EMPLOYER

We are an equal opportunity employer, dedicated to a policy of non-discrimination in employment on any basis, including age, sex, sexual orientation, color, race, creed, national origin, religious persuasion, marital status, political belief, disability or any other class protected by federal or state law.

Position(s) Applied for: _____ Date: _____

I. Personal Information

Legal Name: Last _____ First _____ Middle _____

Present Address: Street _____ City _____ State _____ Zip Code _____

Telephone _____ Cell _____

Date Available: _____ Type of employment desired: ___ F/T ___ P/T ___ Seasonal ___ Temp

Federal law prohibits the employment of unauthorized aliens. All persons hired must submit satisfactory proof of employment authorization and identity (valid driver's license, birth certificate, green card, etc.) within three days of being hired. Failure to submit such proof within the required time shall result in immediate employment termination.

Are you legally eligible for employment in this country? ___ Yes ___ No

If you are under 18, and it is required, can you furnish a work permit? ___ Yes ___ No

Please specify if you are using aliases or nicknames : _____

Do you have any relatives who are presently (or have formerly been) employed by the Town of Acton? ___ Yes ___ No

Name(s): Last _____ First _____ Middle _____

How were you referred to the Town? _____

II. Educational History

	School Name/Location	Years Complete	Degree/Diploma
Elem/Jr. High			
High School			
College			
Tech. Training			
Other			

II. Employment Record *Please include all employment for the last five years starting with your current or most recent employer. You may include any verified work performed on a voluntary basis in your work history.*

1. _____
 Company Name Position _____

_____ Dates Employed (From – To) _____
 Address

_____ Phone _____ Wage/Salary _____
 Manager/Supervisor

Reason for Leaving _____
 May we contact your current employer? Yes No If not, explain: _____

2. _____
 Company Name Position _____

_____ Dates Employed (From – To) _____
 Address

_____ Phone _____ Wage/Salary _____
 Manager/Supervisor

Reason for Leaving _____

3. _____
 Company Name Position _____

_____ Dates Employed (From – To) _____
 Address

_____ Phone _____ Wage/Salary _____
 Manager/Supervisor

Reason for Leaving _____

NOTE: *List additional employers, if necessary, on page 4. We may contact all of the employers listed on this application unless you specifically exclude them below. Please list any employers you do not want us to contact and your reason for exclusion:*

_____ Reason _____
 Name of Employer

_____ Reason _____
 Name of Employer

III. References *Please do not include relatives or former employers.*

1. _____
 Name _____ Years Known _____

 Address _____ Telephone _____

 Occupation _____

2. _____
 Name _____ Years Known _____

 Address _____ Telephone _____

 Occupation _____

3. _____
 Name _____ Years Known _____

 Address _____ Telephone _____

 Occupation _____

IV. Work Availability

- 1. Do you have any objections to working overtime? Yes No
- 2. Can you work overtime without prior notice? Yes No
- 3. Can you work on Saturday? Yes No. Respond only if the position requires it
- 4. Can you work on Sunday? Yes No. Respond only if the position requires it
- 5. Can you travel, if required? Yes No

V. Salary/Hourly Rate Requirements

If your application receives favorable consideration, what salary/hourly rate would you require?

Yearly _____ Hourly _____

I understand that if I am employed, any misrepresentations or material omission made by me on this application will be sufficient cause for cancellation of this application or immediate discharge from the employer's service, whenever it is discovered.

I give the employer the right to contact and obtain information from all references, employers and educational institutions and to otherwise verify the accuracy of the information contained in this application. I hereby release from liability the employer and its representatives for seeking, gathering and using such information and all other persons, corporations or organizations that furnish such information.

It is unlawful in Massachusetts to administer a lie detector test as a condition of employment. An employer who violates this law shall be subject to criminal prosecution or civil liability.

The Town of Acton does not discriminate and no question on this application is used for the purpose of limiting or excusing any applicant from consideration for employment on a basis prohibited by local, state or federal law.

This application is current for only one year. At the conclusion of this time, if I have not heard from the employer and I still wish to be considered for employment, it will be necessary to complete a new application.

If I am hired, I understand that I am free to resign at any time, with or without cause and without prior notice. The employer reserves the same right to terminate my employment at any time, with or without cause and without prior notice, except as required by law. This application does not constitute an agreement or contract of employment for any specified period or definite duration. I understand that no representative of the employer, other than an authorized officer, has the authority to make any assurances to the contrary. I further understand that any such assurances must be in writing and signed by an authorized officer.

I understand that it is the Town's policy not to refuse to hire a qualified individual with a disability because of that person's need for a reasonable accommodation as required by the ADA or the state fair employment practices law.



APPENDIX G11: Recreation Commission: Grievance Policy: Equal Access

ACTON RECREATION COMMISSION **GRIEVANCE POLICY FOR THE GENERAL PUBLIC**

1. The Recreation Commission is committed to providing maximum opportunity to receive citizen comments, complaints and to resolve grievances or inquiries.
2. The Recreation Director will be available during office hours to meet with citizens and employees to discuss complaints.
3. When a complaint, grievance or request for program policy interpretation or clarification is received, every effort will be made to create a record regarding contact information, nature of the complaint, program policy interpretation, clarification and resolution.
4. All complaints, grievances or request for program policy interpretation will be responded to by telephone or in writing within ten working days.
5. If the issue is not resolved at this level, complaint can be forwarded to the Recreation Commission in writing or in person at the next scheduled monthly Commission meeting. The Recreation Commission will deliberate the matter during their meeting and respond to the complaint within ten working days.
6. If the grievance is not satisfactorily resolved, citizens will be informed of the opportunity to bring their complaint before the Board of Selectmen.
7. A copy of the complaint and its disposition will be provided to the Town ADA Coordinator so that a complete record of the ADA grievances will be compiled in one central location.

Appendix G12: ADA Access Inventory Self-Evaluation Matrix

Recreation Facility or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibility	Abuts	Transition Plan	Comments
	<i>If more than one</i>	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accommodations	Focused on needs of some disability community	Recreation Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibility Features or Issues
Arboretum	Concord Road Sidewalk	O	B/U/S				Wet areas with and without boardwalks; Boardwalk over bog; Drinking fountain		Conservation		ADA parking and ADA access to and over new bog boardwalk	
	Minot Avenue	O	B/U/S			20 ft, 1					ADA parking boardwalk upgrade	
	Taylor Road	U	ADA	Yes, ADA	7, 1 ADA	75 feet E, 10+						
	Wood Lane	O	U			600 feet S, 1						
	Main Street	O	U	Yes		300 feet E, 10+					Paved sidewalk	
Bulette/Town Forest		O	B/U/S			Wetlands Crossing		Conservation				
Camp Acton		U	B/U/S	Yes	8			Conservation	Spring Hill			
Caouette/Simeone		O						Other Municipal				
Canoe Launch		U	U/S				Canoe Launch	Conservation				
Conant School: Hart Field		ADA	ADA	ADA in school		Bleachers only		Recreation				in the woods
Conant School: MacPherson Field			B/U/S					Recreation				sidewalk to field
Concord Rd Field		ADA	U	Yes				Recreation	Morrison Farm			
Douglas School Field		ADA	P	ADA in school		20 ft, 4	Marsh Boardwalk	Schools	Elm St. facilities			
Elm St: Fields, Playground, Basketball and Tennis Courts		ADA P/U	B,U,P,ADA	ADA in school		100 ft, 7	Marsh Boardwalk, Drinking Fountain	Recreation	Douglas School Field, Gates School Field		playground ADA upgrade 2014	ADA boardwalk to Gates School
Gardner Field and Playground		O/P/U/ADA	B/U			10 ft, 4	Drinking Fountain	Recreation				
Gates School Field		ADA	P	ADA in school	2		Marsh Boardwalk	Schools	Douglas School Field, Elm Street facilities			School playgrounds
Goward Playground		ADA	P	ADA, in library	ADA	10 ft, 5		Recreation	Library		Playground ADA, upgrade 2014	
Grassy Pond	Nagog Hill Road	U	U			0.5 miles S, 1	Dock for viewing or fishing, bridge over wetlands, wetlands crossing		Conservation	Nagog Hill		
	Newtown Road	U	B/U/S			0.7 miles N, 1						
Great Hill	Kelley Road	O	B/U/S				Ponds, streams, bridge over stream		Recreation/Conservation			
	Main Street	U	B/U/S						Conservation			
	Piper Road North	O	U						Conservation			
	Piper Road South	O	U/S						Conservation			

Appendix G12: ADA Access Inventory Self-Evaluation Matrix

Recreation Facility or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibility	Abuts	Transition Plan	Comments
	<i>If more than one</i>	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accommodations	Focused on needs of some disability community	Recreation Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibility Features or Issues
	School Street (Recreation Entrance)	ADA	ADA	Yes	2,0				Recreation			
Guggins Brook	Central Street	U	B/U				Stream, Wetlands crossing		Conservation	Jenks		
	Mass Ave	O	U									
	Billings Street	O	B/U									
Heath Hen Meadow	Mt Hope Cemetery	U	U				Boardwalks over wetlands		Conservation			
	Robbins Street	O	B/U									
	Prescott Road	O	B/U/S									
High School Baseball Fields (2)		P, ADA	U, B			10ft, 1			Schools			
High School Lower Fields		P, ADA	P, ADA	Yes, ADA	6		ADA Drinking Fountain		Schools	Skate Park		ADA artificial turf
High School Tennis Courts		P, ADA	P, U	In school ADA		10 ft, bleachers			Schools			
High School Leary Field (and track)		P, ADA	P, U, B, ADA	Yes, ADA		50 ft, 2		ADA turf	Schools	Junior High	new track under constr. 2014	ADA artificial turf
High School Pool (Indoor)		P, ADA	ADA in school	In school	n/a	n/a	Public swimming hours	ADA lift	Schools			
Ice House Pond		U,B	U,B			10 ft, 1	Pond, canoe launch		Recreation	Morrison Farm	ADA parking, boardwalks	
Jenks Land		U	B/U/S				Stream crossing		Conservation	Guggins		
Jones Field and Playground						100 ft, 1			Recreation			
Junior High School Front Field		ADA	ADA	ADA in school		200 ft, 2			Schools			
Miracle Field		ADA	ADA	Nearby at NARA (ADA)		1 ft, 4	ADA drinking fountain, NARA Pond	Yes	Recreation	NARA, Will's Hole	New comfort station with ADA toilets	
Morrison Farm				Yes			Irrigation facility for gardens	Yes	Recreation	Ice House Pond, Concord Rd Field		
									Conservation			
	Hazelnut Street	O	P then U/S									
Nagog Hill	Nagog Hill Road South (next to Hybrid Farm)	U	B/U				Bridges over streams, bridges over wetlands, stream crossings					
	Nagog Hill Road North (Grassy Pond Parking)	U	B/U/S							Grassy Pond		

Appendix G12: ADA Access Inventory Self-Evaluation Matrix

Recreation Facility or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibility	Abuts	Transition Plan	Comments
	<i>If more than one</i>	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep->10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accommodations	Focused on needs of some disability community	Recreation Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibility Features or Issues
NARA	Ledge Rock Way, including playground	P, ADA	P, ADA	ADA	2 ADA, 17 total	25 ft, 3	ADA dock, ADA showers, ADA drinking fountains, trail around pond	yes	Recreation	Miracle Field, Will's Hole	New picnic pavilion 2014, 20 tables, 2 ADA	Beach wheelchair available
	Quarry Road (near Amphitheater)	ADA	P, ADA	ADA (portable)				yes				
	Davis Road	U	U			0.2 Miles N	Bridges over brooks, boardwalks over wetlands, crossings over wetlands					
Nashoba Brook	Northbriar Road	O	B/U			0.2 Miles N			Conservation	Spring Hill		
	Wheeler Lane	U	ADA		Yes	30 Yards E						
North Acton Community Gardens		U	B, U	1					Recreation			
Pacy Land	Central Street	O	U				Crossing over wetland		Conservation			
Parker Damon Field	Tupelo Way	U	U					yes	Schools			school playground
Pratt's Brook	Brewster Lane	U	B/U/S			2						
	Parker Street	U	B/U/S						Conservation			
	Valley Road	O	B/U/S									
Robbins Mill Conservation Land		ADA	B/U				Wetlands crossings		Conservation	Spring Hill, Robbins Mill Rec Area		The rec area is the entrance to the Conservation land
Robbins Mill Rec Area and Playground		ADA	ADA	Yes	2.0	100 ft, 2			Recreation	Robbins Mill Conservation Land		
School St Fields		O, U	B, U						Recreation			
Spring Hill	Jay Lane	U	B/U/S				Boardwalk over wetlands		Conservation	Camp Acton, Nashoba Brook, Robbins Mill		
	Spring Hill Road	O	B/U/S									
Stoneymeade		P	B/U				Bridge over stream		Conservation	Annursnac Conservation (Concord)		
TJ O'Grady Skate Park		ADA	P	ADA	1.0	100ft, 2	ADA drinking fountain		Recreation	HS Lower Flds		Adding features 2014-15
Veteran's Field and Playground		ADA	P	yes	2, 0	150ft, bleachers			Recreation			Very old playground
Wetherbee Land		O	U						Conservation			Access is on edge of agricultural fields
	Captain Handley Road	U	B/U									
	Sachem Way	ADA, residents only	B/U/S									

Appendix G12: ADA Access Inventory Self-Evaluation Matrix

Recreation Facility or Conservation Land	Entrance	Parking	Entry Path	Toilets	Tables	Benches	Water Features	Alternative Programs	Responsibility	Abuts	Transition Plan	Comments
	<i>If more than one</i>	On street (O), Unpaved (U), Paved (P), ADA	Bumpy (B), Unpaved (U), Paved (P), Steep-> 10% (S), ADA	Yes, ADA	Total number; Number ADA compliant	Distance to nearest; Total number	Obstacles to access or Special accommodations	Focused on needs of some disability community	Recreation Conservation, Other Municipal, Schools		Planned Accessibility Upgrades	Other Accessibility Features or Issues
Wills Hole/Town Forest	Nagog Park Drive	O	U			800 ft, 3	Boatwalk to Bog, Crossing over Wetlands		Conservation			Parking and facilities at Miracle Field
	Quarry Road North	U	U							Miracle Field		
	Quarry Road	P	U	ADA						NARA		Parking and facilities at NARA

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Appendix G13 Acton Arboretum Accessibility

Assessment Performed 4/2014

SITE/ACCESS/ENTRANCES – Existing Conditions

- a.  The main entrance from the Taylor Road parking lot is level, hard stone dust and/or asphalt.
- b. The entrance from Wood Lane is relatively level, natural ground, without large roots or rocks.
- c. The entrance from Main Street is relatively level, grassy and can be muddy.
- d. There is an entrance from Concord Place, called the “Billings Trail.”
- e. There are steep wooden steps down to the Highland Bog trail from Minot Ave. near the bog boardwalk and the intersection of Forest Road. There is public parking at Conant School with a paved walkway and crosswalk to the Minot Ave. sidewalk.

PARKING – Existing Conditions

The Arboretum has 3 main entrances and two have parking*.

1.  Taylor Road Main Entrance has a parking lot with space for approximately 14 cars, with one **ADA** parking space 30 feet from the trailhead. The parking lot surface is packed stone dust with many potholes, which is plowed, but can be icy in winter and seasonally muddy.
2. Wood Lane entrance is not universally accessible. Visitors park at the end of a dead-end street. The entrance is relatively level, natural ground. There is an informational kiosk.
3. Main Street/Taylor Road entrance is for pedestrians. It is next to a sidewalk and a wooden carved sign. The trail is wide and grassy. This entrance is not yet universally accessible.

*Remote parking may be found behind the fire station on Concord Road, the Acton Memorial Library and the Acton Town Hall.

TRAILS – Existing Conditions

There are 3 main trails at the Arboretum. Two are **universally accessible with minor obstacles**. They are not passable, not maintained in winter, nor after heavy seasonal rains. Stone dust has occasional weeds growing in it.

 1. **The Orchard Loop** is approximately 0.2 mile long, turning left from the main entrance trailhead on Taylor Road. It does not include the paved trail. It is mostly level and consists of either packed stone dust with granite cobble edges, or asphalt edged with grass. A 224’ portion is rough, packed gravel and would be bumpy in a wheelchair. There are 3 mini-trails of 100’ or less within this loop through a hosta garden and grape arbor on packed stone dust. There are no roots or rocks. Not passable in winter or early spring due to mud, ice and snow.

 a. **Orchard Loop trail to Fragrance Garden and back** (from main entrance) is 0.6 mile. Trail is mostly level with packed stone dust surface; some granite, and some grass edging. Trail is not passable or maintained in winter or after heavy seasonal rain.

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 b. **Rhododendron trail** : From the main entrance trailhead turn right, head 300' down the paved trail. This portion of trail has between **5%** and **10%** slope. A stone dust trail on the left after the pond leads 440'8 around a rhododendron garden and through a wooden arbor; emerging back onto the main trail. The trail is narrow and has 5%-8% slope.

 2. **The Wildflower Loop** is approximately 0.5 mile in length and contains the Orchard Loop within it. The surface is packed stone dust or asphalt. For 20' of the paved trail, the pitch is **15%**. There are 2 universally accessible wooden boardwalks. The Fern boardwalk measures 200' with a maximum slope of **10%** and a maximum pitch of **5%**. Assessed in 2014, the Fern Boardwalk is aging and some parts are in disrepair. Visitors should use caution. Funding will be sought in 2015 to replace it and bring it into ADA compliance. The Wildflower Boardwalk was newly rebuilt in 2013, measures 150' with **<5%** slope and 0% pitch. Approximately 225' of this trail has a maximum slope of 10% with two avoidable, embedded rocks and two 2" high roots. There is a 265' Fragrance Loop trail spur off the Wildflower Loop with a packed stone dust surface.

3. **Highland Bog Loop** is approximately 1.5 mile long when starting at the main entrance trailhead at Taylor Road. [One can also reach this trail directly via portions of other trails, or directly via other entrances to the Arboretum.] The trail surface is stone dust, paved asphalt, and natural ground. One mile of this trail is rocky, has many large roots and is steep in several sections. There is a narrow, winding 300' wooden boardwalk through a bog and numerous other wooden walkways through wetlands. These structures all lack railings. *

***(PLEASE SEE SITE ACCESS PLANNED IMPROVEMENTS)**

SIGNS – Existing Conditions

Trails are blazed yellow, blue or red according to the Town of Acton Land Stewardship Committee trail standards. Yellow denotes the main loop; red the access from parking; and blue is interconnecting trails. Blazes are painted, dollar-bill sized rectangles on trees. There are wooden carved, painted blocks with arrows directing hikers along the trail. The signs do not give distances. A large map at the main entrance kiosk shows points of interest, trail colors and scale.

Plans for Improvement- A new kiosk will be installed at the main entrance when the parking lot is reconstructed. Detailed universal access trail brochures with maps are being developed and will be available at the kiosk.

SERVICES/TECHNICAL ASSISTANCE/ PROGRAMMING

There is a large map on a kiosk at the main entrance parking area. There is a QR code that can be scanned to download the trail map. There are no current programs specifically for persons with disabilities. However, we regularly provide customizable, guided tours to groups of citizens. Topics can be birds, plants, habitats, environmental protection, gardening, trees, etc. Please contact nr@acton-ma.gov to request a custom tour or program.

Plans for Improvement: Create self-guided audio tours that can be downloaded onto smart phones, and/or may be borrowed from the library on mp3 players.

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RESTROOMS

There is a  ADA portable toilet at the Taylor Road parking lot trailhead on site from May – November.

BENCHES

There are wooden benches installed at least every 200' around the Wildflower Loop trail. They are adjacent to packed stone dust surface.

PICNICKING

There are a total of 8 picnic tables, randomly dispersed around the upper lawn area. This area is generally level. There is 1  ADA picnic table on the lawn, approximately 15 feet from the edge of the paved trail.

Plans for improvement: Plans are in place to build an **ADA** trailhead with all ADA components including an information kiosk, portable toilet and picnic table, all connected via paved trail.

PLAY AREAS

The upper grounds of the Orchard Loop are grassy and mostly level. The trail abuts the lawn area. A stone reading circle is located 20' from the paved trail. A pond may be viewed from the paved trail 10' from the edge.

RAMPS

The Wildflower Loop trail passes over two wooden boardwalks. There is a 20' long wooden bridge near the hosta garden; and a 10' long wooden bridge near the sun pond. All have railings at 18" and 36" high and <5% slope.

FRAGRANCE GARDEN

Fragrant plant species for this garden were specifically selected for the enjoyment of visitors who are sight impaired.

DRINKING FOUNTAIN

There is a drinking fountain approximately 450' from the main entrance. It is not handicap accessible.

Plans for Improvement: Plans are in place to install a universally accessible drinking fountain.

*SITE ACCESS PLANNED IMPROVEMENTS

a) Taylor Road Parking Lot: CPA funds were granted in 2014 for a complete re-design and construction of a 30-car, paved parking lot with  ADA spaces.

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- b) Sidewalk entrance from Main Street: (Summer of 2014), the existing stone dust surface will be replaced with a 5' wide paved, standard sidewalk/universal surface.
- c) Replace existing Minot Ave. entrance stairs with an **ADA** sidewalk ramp. The new ramp will allow access to a new **ADA** bog boardwalk. CPA funds were granted in 2014 and private donations acquired for the new boardwalk.
- d) Redesign and replacement of the fern boardwalk will happen in 2015/2015. CPA funds will be requested for this improvement.
- e) The wildflower boardwalk was replaced in 2013 utilizing volunteer efforts, private funding and CPA grant money.

SECTION 12 Appendix G15



Appendix G15 Transition Plan for Improving Access to Acton's Conservation Lands May 2014

Anderson

- Universal trail head at Newtown Road with h/a parking spot, kiosk and bench.

Arboretum

- Pave driveway and parking lot.
- Create universal trailhead: locate information kiosk on solid surface; install ADA portable toilet and picnic table all within access from parking area and appropriate number/proportion of handicap parking spaces.
- Rebuild *Mary's Brook* bridge through fern collection so it is ADA compliant.
- Rebuild bog boardwalk and build ADA compliant sidewalk ramp to boardwalk from Minot Ave. Build two handicap parking spaces near the Minot Ave. crosswalk.
- Design a universal loop trail around the bog.
- Purchase Donald property, construct universal parking area and trail through marsh to bog boardwalk and/or to Minot Ave.
- Wood Lane: design universal trailhead with bench, ADA parking spot and trail around meadow.

Bulette Land / Town Forest

No plans for accessibility.

Camp Acton

- Install ADA portable [or composting] toilet in parking area
- Create universal trail to campsite #1, or create modified new campsite near site #1.
- Level campsite #1 so that a wheelchair may maneuver around campfire and picnic table.
- Install universally accessible picnic table at campsite#1.

Grassy Pond

- Create an ADA parking space at the parking area at Nagog Hill Road.
- Create a solid surface trail from parking area to grassy meadow.
- Install ADA picnic table in proximity to trail.
- Install a bench part way along the trail between parking area and kiosk for viewing the meadow.

Great Hill

- Install ADA portable toilet at School Street parking lot.
- Pave a universal trail along western edge of playing field to the pond.
- Create a universal platform area with h/a picnic table on it, near pond.
- h/a fishing access
- bench near pond

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Guggins Brook

- Mass. Ave. parking area: create a scenic overlook (over the marsh) next to the parking lot with bench and ADA parking spot.

Heath Hen Meadow

- Improving trail with stone dust or paving from Robbins Mill cul-de-sac to the first meadow, and/or to the bridge.

Jenks Land

- ADA parking space at Central Street parking lot.
- Paved trail from parking area to scenic overlook site over Ft. Pond Brook, with bench. Steep grade could be minimized by adding a railing on one side of the trail and several level landings per ADA guidelines.

Nagog Hill

- ADA parking space at Nagog Hill Rd. parking lot closest to trail head
- Universal trail either by boardwalk or pavement from Nagog Hill parking lot to meadow.
- ADA picnic table at edge of meadow.
- Bench at edge of meadow for resting and viewing horses and meadow.

Nashoba Brook

- Wheeler Lane currently has several universal features as part of TTT, such as benches and trails.

Pratt's Brook

- Brewster Lane entrance: create universal pathway to grassy lawn area.
- Install ADA picnic table.
- Install bench for resting.

Robbins Mill

- Construct universal Nashoba Brook observation platform at Carlisle Road entrance.

Spring Hill

No plans for accessibility.

Stoneymeade

No plans for accessibility.

Wetherbee Land

No plans for accessibility.

Wills Hole/Town Forest

- Pave access road from Quarry Road entrance to Nagog Park.

SECTION 12 Appendix G16



Town of Acton, Massachusetts Playground Assessment April 2014

Questions	Elm Street Playground	Gardener Playground	Goward Playground	Jones Playground	Nara Playground	Robbins Mill Playground	Veterans Playground
How many accessible entrance routes to playground area (44" wide)?	TBD	One entrance but no path. It's all grass.	TBD	1	Entire playground is open. No main entrance.	1	Entire playground is open. No main entrance.
How many accessible routes connecting ground play with elevated play components (44" wide)?	TBD	One, 36" wide	TBD	One, 42" wide	One, 36" wide	One, 36" wide	One, 36" wide
How many ground play components are at this playground (swings, rockers, diggers, standalone slide, spinning)?	TBD	6 Swings, 1 tire swing, 2 spring rockers, 2 play houses, 1 bouncer.	TBD	8 Swings	6 Swings, 1 tire swing, 1 see-saw.	4 spring horses, 1 tunnel, 1 see-saw	6 Swings, 1 tire swing, 1 see-saw.
Is there an accessible route to at least one of each type of ground play component?	TBD	No due to the grass and not accessible surfacing or paths.	TBD	Yes	Yes, to all.	Yes	Yes, to all.
Is there a "soft contained play area" where a person enters fully, that's enclosed and uses pliable materials such as plastic, soft padding, fabric?	TBD	No	TBD	No	No	No	No
Is the grade in the playground <5%?	TBD	Yes, except for the entrance to the playground itself.	TBD	Yes	Yes	Yes	Yes
How many elevated structures are there?	TBD	4: one main structure, fire engine climber, 2 vertical climbers.	TBD	Two main climbing structures.	1	2	1

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What type of handrails are on elevated structures and are they on both sides?	TBD	Metal/round and yes on both sides.	TBD	Metal/round and yes on both sides.	Handrails are plastic and part of the side panels. Yes, the handrails are on both sides.	Handrails are plastic and part of the side panels. Yes, the handrails are on both sides.
How many of the elevated structure components have accessible entries?	TBD	0 (according to 44")	TBD	Both, except they're not 44" wide.	1	1
How many elevated components are connected by ramps of transfer systems?	TBD	1	TBD	Both structures.	0	0
Are elevated ramps at least 36" wide?	TBD	Yes	TBD	Yes	N/A	N/A
Is there turnaround space (60" square) for a wheelchair between play components?	TBD	Yes	TBD	Yes	Yes	Yes
Is there a play table and is it accessible with knee space underneath?	TBD	No	TBD	No	No	No
What is/are the ground surface(s) at each playground?	TBD	Pea Stone and Engineered Playground Mulch.	TBD	Pea Stone with rubber surfacing at entrances to structures and at the ends of slides.	Pea Stone	Pea Stone
					Engineered Playground Mulch	

SECTION 12-APPENDIX H1

MAGIC Agricultural Survey-Acton

(RESPONSES COMPILED FROM: ACTON PLANNING DEPARTMENT, COMMUNITY PRESERVATION COMMITTEE, ACTON CONSERVATION TRUST AND ACTON RESIDENTS)

LAND USE

Question 1: Geography

A) Is there a pattern as to where the farms in your community are located? (e.g., near the town center, near residential neighborhoods etc.).

According to Assessors' Codes for Agricultural/Ch. 61 and 61A , most land is located in Residential Zoning Districts, adjacent to Agricultural Recreation Conservation (ARC) Zoning Districts*. 264.35 acres are located in North Acton. Approximately 37.53 acres of farm land is located within a one mile radius of South Acton Village and approximately 34.48 acres of farm land is located within a one mile radius of West Acton Village. Most lots are oversized.

Additionally, there is significant farm land acreage in East Acton along Route 2 owned by the Commonwealth and the Town (former Concord prison farm). The Town owns 72 acres of conservation land, some of which are leased back to the State for farm use. The Commonwealth owns 133.6 acres of agricultural land. All the land is located in the ARC Zoning District. Most lots are oversized.

B) To the best of your knowledge, what is the total number of acres of agricultural land within your town?

According to Assessors' codes:

Land Codes 712, 713, 714 (Agricultural/Horticultural) and 601 (All land designated under Chapter 61) = 354.31 acres

Land Codes 712, 713 and 714 alone (Agricultural/Horticultural) = 81.71 acres

[No land was classified under Code 210 or 27]

[Does not include State or Town owned farm land]

According to the Open Space and Recreation Plan: 447 acres total

C) What data sources did you use to arrive at this number (e.g., assessors' land use codes)?

Assessors' Land Use Data/Codes

Open Space and Recreation Plan 2002-2007

Question 2

What are the types of agricultural production in your town (e.g., vegetable, dairy, fruit, livestock, equine, etc.)?

Code 712-Truck Crops/Vegetables, Code 713 -Field Crops, Code 714- Orchards (Assessors' land use codes)

164 acres in equestrian farms; 18 horse farms; 11 agricultural farms (Open Space and Recreation Plan)

REGULATION

Question 1

Does your town have an Agricultural Commission?

No

Question 2

Does your town have a Right-to-Farm Bylaw?

No

Question 3: Zoning

A) How does your town define agriculture? Do you have more than one definition, depending on the regulation?

The Town of Acton recently amended the definition of Agriculture at the April 2012 Town Meeting. The definition now mirrors that of MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

B) What provisions do your town zoning bylaws include regarding agriculture (e.g., Ag Use districts, prohibitions, special Open Space & Recreation Plan 2014-2021

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MAGIC Agricultural Survey-Acton

permit allowances)?

Acton allows agricultural uses (as defined above) by-right in all zoning districts. See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

C) What are the use categories or prohibitions (e.g., on-farm processing, special provisions for agro-tourism, recreation)?

See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

Question 4

What permissions and prohibitions do your zoning bylaws have for animal agriculture (e.g., piggeries, poultry, bees)?

See Acton Zoning Bylaw which mirrors MGL Ch. 128, s.1A and MGL Ch. 40A, s. 3

Question 5: Master Plan

A) Does your town have a Master Plan or Open Space Plan?

Acton has a Master Plan (2012) and Open Space and Recreation Plan (2002-2007). Acton also has a Freedom's Way Heritage Landscape Inventory document which lists and prioritizes farmlands.

B) If yes, does your plan identify agricultural lands of conservation interest (i.e., any agricultural land that the community finds valuable — permanently protected or not)?

Yes.

C) If yes, does your plan prioritize agricultural lands of conservation interest?

Yes. The Open Space and Recreation Plan contains a prioritized list for non-Chapter 61 properties.



APPENDIX H2

Town of Acton Recreation Department

472 Main Street
Acton, MA 01720
Phone: 978-264-9608
Fax: 978-264-9630

Email: recreation@acton-ma.gov

Website: www.acton-ma.gov

Cathy Fochtman, Recreation Director

October 17, 2013

Dear Xianghai Liu,

Since 2009, I've had the pleasure of participating in many ACLS events that Acton Recreation has supported.

Here are highlights I'd like to share from my files:



Acton Town Hall, 472 Main Street, Acton, MA

APPENDIX H2



2009 Acton Chinese Music Night

*2010 Acton Chinese Culture Day,
NARA*

*2011 Acton Chinese New Year &
Town 275th Anniversary*

2012 Acton Chinese Music Night



"2010 Acton Chinese Culture Day" Photo by Helen Wang June 5th

APPENDIX H2



As the photos demonstrate, Acton Chinese Language School is actively taking part in Acton's present and future.

I appreciate the effort and volunteerism that it takes to administer your organization, but I am most impressed by your willingness to mobilize and enthusiastically support Town events. We are planning our 2014 events at this time and will be contacting you about the possibility of collaborating on a Chinese Dance event at the NARA amphitheater.

In addition, your organization has been willing to participate in surveys and opportunities to provide input about the Town's future. My department administers NARA, Nathaniel Allen Recreation Area, and we would appreciate ACLS providing input about the future of NARA, as we update a Master Plan for this unique property, pictured in the 2010 Chinese Culture Day photos above.

Please accept my appreciation of your support of Town of Acton, with congratulations for your achievements of the past ten years. I look forward to continuing a mutually beneficial relationship in the future.

Best Regards,

Cathy Fochtman
Recreation Director