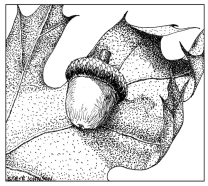
FOREST MANAGEMENT PLAN

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



CHECK-OFFS					Administrative Box			
CH61	CH61A	CH61B	STWSHP	C-S	Case No.		Orig. Case No.	
cert. ☐	cert. ☐	cert. ☐	new ☒	EEA ☐	Owner ID		Add. Case No.	
recert. ☐	recert. ☐	recert. ☐	renew ☐	Other ☐	Date Rec'd		Ecoregion	
amend ☐	amend ☐	amend ☐	Green Cert ☐		Plan Period		Topo Name	
			Conservation Rest. ☐		Rare Spp. Hab.		River Basin	
Plan Change: ____ to ____			CR Holder ____					

OWNER, PROPERTY, and PREPARER INFORMATION

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

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

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

RECORDS

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

Excluded Area Description(s) **(if additional space needed, continue on separate paper)**
Beginning at the most southeastern corner of the property at the intersection of Wetherbee St. and Route 2, N85W 1200' by Route 2, thence N9E 990', thence N58W 90', thence N9E 200', thence S75E 670', thence S77E 626', thence by Wetherbee St, S10W 114' and S12W 867' to the point of beginning.

HISTORY

Year acquired 1982 Year management began 1982

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

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

stand no. ____ treatment ____ reason ____
(if additional space needed, continue on separate page)

Previous Management Practices (last 10 years)

Stand #	Cutting Plan #	Treatment	Yield	Acres	Date

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 Other:			X	

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

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

Stewardship Purpose

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

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

Signature(s): _____ Date: _____

Property Overview, Regional Significance, and Management Summary

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

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

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

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 field is within a Priority Habitat Area, but the forested portions of the property are not.

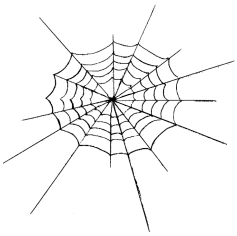
The elevation of the property ranges from 145 feet to 210 feet. The site's topography is generally gently sloping. The soils on the site are are variable and glacial till and glacial outwash are both present.

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

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

Stewardship Issues

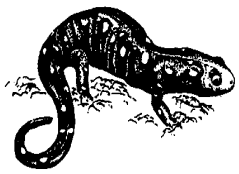
Massachusetts is a small state, but it contains a tremendous variety of ecosystems, plant and animal species, management challenges, and opportunities. This section of your plan will provide background information about the Massachusetts forest landscape as well as issues that might affect your land.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



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

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

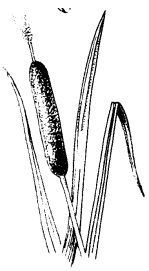
Another factor influencing biodiversity in Massachusetts concerns the amount and distribution of forest growth stages. Wildlife biologists have recommended that, for optimal wildlife habitat on a landscape scale, 5-15% of the forest should be in the seedling stage (less than 1" in diameter). Yet we currently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



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

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

Indispensable to rare species protection is a set of maps maintained by the Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program (NHESP) that show current and historic locations of rare species and their habitats. The maps of your property will be compared to these rare species maps and the result indicated on the upper right corner of the front page of the plan. Prior to any regulated timber harvest, if an occurrence does show on the map, the NHESP will recommend protective measures. Possible measures include restricting logging operations to frozen periods of the year, or keeping logging equipment out of sensitive areas. You might also use information from NHESP to consider implementing management activities to improve the habitat for these special species.



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

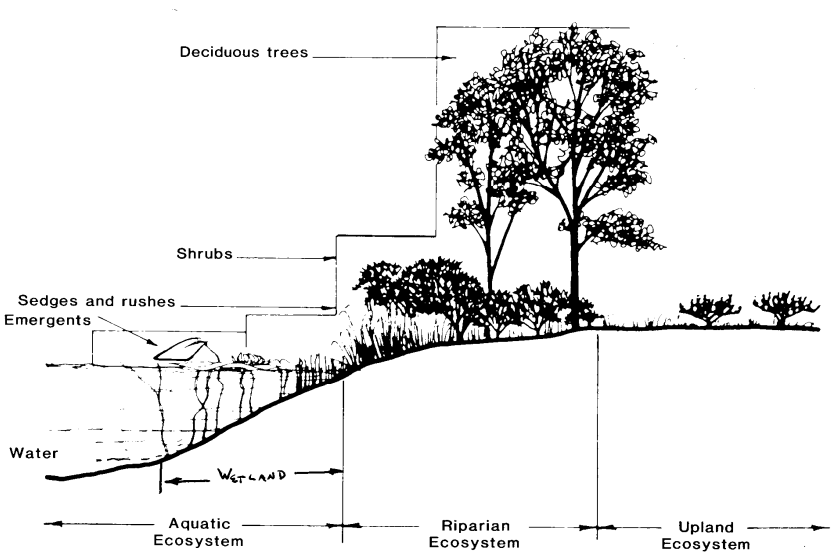


Figure 1: Example of a riparian zone.

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

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

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

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

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

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

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

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

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

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

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

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

Fire: Most forests in Massachusetts are relatively resistant to catastrophic fire. Historically, Native Americans commonly burned certain forests to improve hunting grounds. In modern times, fires most often result from careless human actions.
The risk of an unintentional and damaging fire in your woods could increase as a result of logging activity if the slash (tree tops, branches, and debris) is not treated correctly. Adherence to the Massachusetts slash law minimizes this risk. Under the law, slash is to be removed from buffer areas near roads, boundaries, and critical areas and lopped close to the ground to speed decay. Well-maintained woods roads are always desirable to provide access should a fire occur.

Depending on the type of fire and the goals of the landowner, fire can also be considered as a management tool to favor certain species of plants and animals. Today the use of prescribed burning is largely restricted to the coast and islands, where it is used to maintain unique natural communities such as sandplain grasslands and pitch

pine/scrub oak barrens. However, state land managers are also attempting to bring fire back to many of the fire-adapted communities found elsewhere around the state.

Wildlife Management: Enhancing the wildlife potential of a forested property is a common and important goal for many woodland owners. Sometimes actions can be taken to benefit a particular species of interest (e.g., put up Wood Duck nest boxes). In most cases, recommended management practices can benefit many species, and fall into one of three broad strategies. These are **managing for diversity, protecting existing habitat, and enhancing existing habitat**.

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

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

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

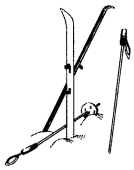
forest – benefits the public in a multitude of ways. The sale of timber, pulpwood, and firewood also provides periodic income that you can reinvest in the property, increasing its value and helping you meet your long-term goals. Producing wood products helps defray the costs of owning woodland, and helps 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 (Berbis thunbergii)
- Japanese Knotweed (Fallopia japonica)
- Autumn Olive (Eleaeagnus umbellata)

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

Pesticide Use

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

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

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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 certifed 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 gourndcover stratum. No cultural features other than stone walls were noted.

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

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

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

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

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 intermdiatee 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 gourndcover stratum. No cultural features other than stone walls were noted.

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

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

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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 1 is to maintain it as a mixed hardwood stand. For the foreseable future the stand should not be actively managed to maximize its aesthetics, buffering, mature forest habitat quality, and due to the wet conditions.

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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.

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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 varierty of wildlife. The moderately sized openings will be large enough that regeneration of many tree species should be obtained. A secondary considreation of this treatment will be aesthetics.

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

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

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

MANAGEMENT PRACTICES

to be done within next 10 years

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

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

STEW All Implement Outreach Plan 2011-2012

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

STEW All Wildlife Monitoring 2012-2021

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

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

FOREST STEWARDSHIP OUTREACH PLAN
TOWN OF ACTON, CONSERVATION COMMISSION

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

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

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. 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.

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.

Owner(s): Town of Acton; Conservation Commission

Town: Acton

FOREST STEWARDSHIP OUTREACH PLAN
TOWN OF ACTON, CONSERVATION COMMISSION

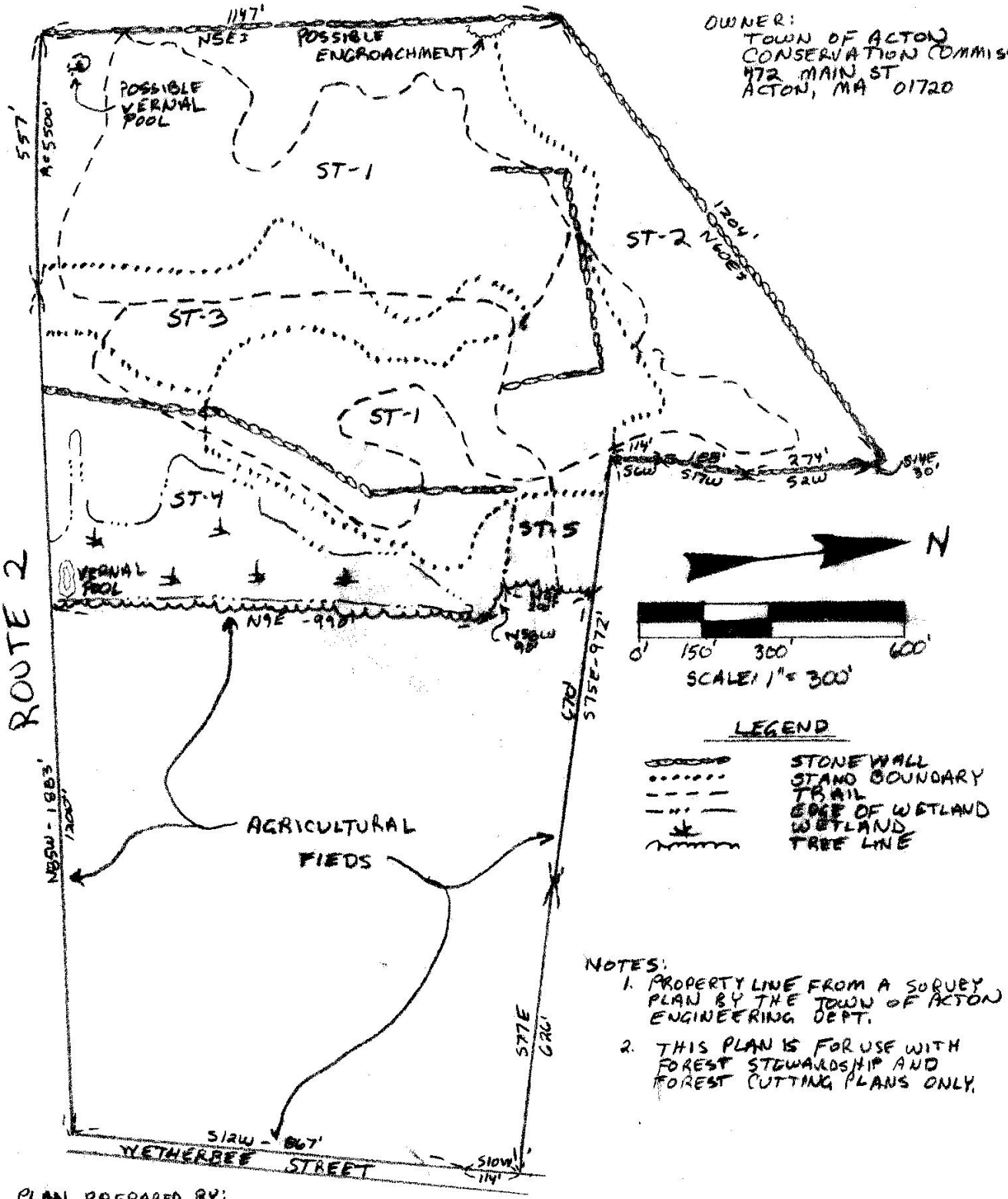
Outreach Plan Summary:

GOAL	TARGET AUDIENCE	MESSAGE	ACTIVITIES	ADVERTISING	IMPLEMENTATION
To gain the public's appreciation of the benefits of forest management.	The town's Land Stewards.	Active forest management can be used to accomplish a wide variety of beneficial goals.	Walks and discussions with the Land Stewards, and the addition of information on forest management to the Conservation Commission's web page.	The Land Stewards will be contacted by email or telephone.	The walks with the Land Stewards should take place in the late-summer to early-fall of 2011, and work on the website should occur during the winter of 2001/2012.

Owner(s): Town of Acton; Conservation Commission

Town: Acton

ACTON CONSERVATION COMMISSION
WETHERBEE LAND



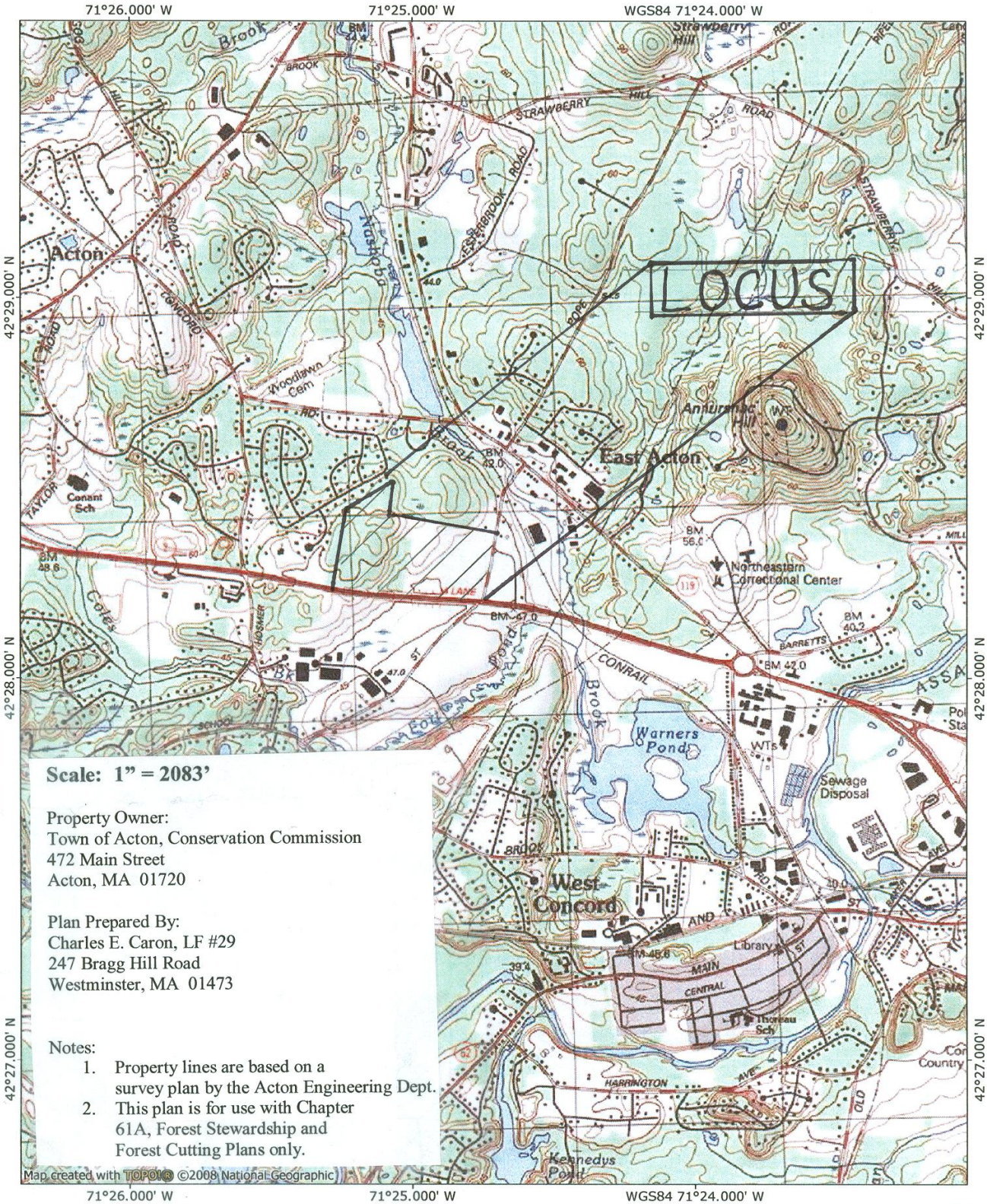
OWNER:
TOWN OF ACTON
CONSERVATION COMMISSION
472 MAIN ST
ACTON, MA 01720

NOTES:
1. PROPERTY LINE FROM A SURVEY PLAN BY THE TOWN OF ACTON ENGINEERING DEPT.
2. THIS PLAN IS FOR USE WITH FOREST STEWARDSHIP AND FOREST CUTTING PLANS ONLY.

PLAN PREPARED BY:
CHARLES E. CARON, LF # 29
247 BRAGG HILL RD
WESTMINSTER MA 01473

JUNE 2011

LOCUS MAP: ACTON CONSERVATION COMMISSION- WETHERBEE LOT



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:

Owner(s)_____ Date_____

Owner(s)_____ Date_____

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

Plan Preparer_____ Date_____

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

Approved, Service Forester_____ Date_____

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