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Forest Stewardship and Bird Habitat Assessment Plan DCR Working Forest Initiative

Wellesley Town Forest
Wellesley, Massachusetts



Prepared for:

Town of Wellesley
Natural Resources Commission
525 Washington Street
Wellesley, MA 02482

Prepared by:

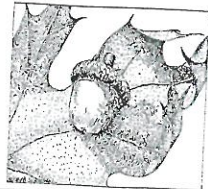
Philip B. Benjamin, CF
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Benjamin Forestry Services, Inc
South Easton, MA 02375
Spring 2018



FOREST MANAGEMENT PLAN

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

JUN 15 2018



CHECK-OFFS

CH61	CH61A	CH61B	STWSHP	C-S
cert. ☐	cert. ☐	cert. ☐	new ☒	EEA ☒
recert. ☐	recert. ☐	recert. ☐	renew ☐	Other ☐
amend ☐	amend ☐	amend ☐	FSC ☐	Birds ☒
Plan Change: _____ to _____			Conservation Restriction ☐ CR Holder _____	

Administrative Box

Case No. <u>317-11243</u>	Orig. Case No. <u>new</u>
Owner ID <u>504829</u>	Add. Case No. _____
Date Rec'd <u>6/15/18</u>	Ecoregion <u>221A1</u>
Plan Period <u>2019-2038</u>	Topo Name <u>* see below</u>
Rare Spp. Hab. <u>YES</u>	River Basin <u>Charles</u>

OWNER, PROPERTY, and PREPARER INFORMATION

Property Owner(s)	Town of Wellesley, Natural Resources Commission / <u>WATER DEPARTMENT</u>		
Mailing Address	525 Washington Street, Wellesley, MA 02482		
Email Address	bschmitt@wellesleyma.gov		
Property Location:	Town(s) <u>Wellesley</u>	Phone	<u>781-431-1019 x 2294</u>
Plan Preparer	Philip B. Benjamin, CF	Road(s)	<u>Route 9 / Oakland St / Cedar St.</u>
Mailing Address	151 Depot Street, South Easton, MA 02375	Mass. Forester License #	<u>15</u>
		Phone	<u>508-238-0422</u>

RECORDS

Assessors' Map No.	Block No.	Lot/Parcel Number	Deed Book	Deed Page	Total Acres	(non-Ch.61/61A) Excluded Acres	Ch. 61/61A Certified Acres	Stewardship Acres
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
TOTALS					_____	_____	_____	_____

Excluded Area Description (if additional space is needed, continue on separate page)

* This property is located on both the Natick, MA and Newton, MA USGS Quadrangles.

See Page 2 for the assessors' map and lot information.

HISTORY

Year Acquired began 1937 Year management began _____

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

Have forest products been cut within past 2 years? yes _____ no X

What treatments have been prescribed, but not carried out (last 10 years if plan is a recert)?
stand no. _____ treatment _____ reason _____
(if additional space is needed, continue on a separate page)

Previous Management Practices (last 10 years)

Stand(s)	Cutting Plan	Treatment	Yield	Value	Acres	Date
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

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

With the exception of extending and maintaining the trails through much of the property, very little has been done in terms of forest management.

FOREST MANAGEMENT PLAN

RECORDS

Assessors' Map No.	Block No.	Lot/Parcel Number	Deed Book	Deed Page	Total Acres	(non-Stewardship) Excluded Acres	Ch. 61/61A Certified Acres	Stewardship Acres
14		8	NA	NA	6.49	0.00	NA	6.49
22		39	2159	76	29.58	1.44	NA	28.14
23		15	2769	81	68.32	2.08	NA	66.24
25		5	NA	NA	5.13	0.00	NA	5.13
31		19	NA	NA	27.44	0.27	NA	27.17
TOTALS					136.96	3.79	NA	133.17

Excluded Area Description (if additional space is needed, continue on separate page)

Excluded areas consist of the open land associated with several water department facilities, a storage area for the power company off Cedar Street, and a parking lot off Oakland Street by Longfellow Pond.

Excluded areas denoted as per attached Assessors' Parcels Map.

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.

1. In your own words please describe your goals for your property.

MANAGE THE TOWN FOREST AS A multiuse property to ensure water protection, support public recreation & education, maintain important natural communities & habitat, protect threatened plant & animal populations & increase diversity.

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 forester, loggers, and operators as practices are implemented; and minimizing negative impacts.
5. Learning how woodlands benefit and affect the surrounding community, and cooperation with neighboring owners to accomplish mutual goals when practical.

Signature: _____

[Handwritten Signature]

Date: _____

6/12/18

Owner(s) _____

Town of Wellesley, Natural Resources Commission



Property Overview, Regional Significance, and Management Summary

Property Description

The Wellesley Town Forest is located in the north centralmost portion of the town of Wellesley in the north centralmost portion of Norfolk County. The property lies approximately 1 mile west southwest of the interchange of Routes 9 and 128, 2.2 miles northeast of the Wellesley Town Hall, and 2.3 miles north northwest of the Needham Town Hall. The property is bisected by Route 9. The area in which the Wellesley Town Forest is located has been heavily residential for many years. The commercial areas are concentrated primarily along Route 9 in this part of Wellesley.

The Wellesley Town Forest totals 136 acres of woodlands, Longfellow Pond, several shallow marshes, several water department facilities, and a parking area at the south end of Longfellow Pond with the woodlands totalling close to 80% of the property. The property offers a superb representation of what much of the Wellesley landscape was once and continues to be in a few areas. The glacial influence is clearly evident with a number of eskers winding their way through portions of the property. The well drained, gently to steeply sloped, dry, rolling upland portions of the property support a typical mix of mixed oaks and mixed hardwoods that in all likelihood, seeded in once the land that had been used as pasture and fields was abandoned more than 100 years ago. Individual and small pockets of white pine poles and sawlogs are slowly seeding in as well. The slightly lower areas tend to range from wet to seasonally wet and consist primarily of red maple poles and sawlogs. Rosemary Brook flows through this property with a number of manmade ponds, including Longfellow Pond, located along its course.

Regional Significance

Although Wellesley has been developed for many years, there are a number of protected areas present through the town including this property. Through the foresight and hard work of the Wellesley Conservation Council as well as the Wellesley Natural Resources Department, more than 400 acres of additional open space have been permanently protected throughout the town including Centennial Park, Guernsey Sanctuary, Rocky Ledges, and Boulder Brook Reservation. In addition, Wellesley College totals close to 500 acres while Babson College totals close to 200 acres and Mass Bay Community College totals close to 100 acres.

Just over 1% of the town of Wellesley, none of which includes the Wellesley Town Forest, falls within Biomap2 Critical Natural Landscape. Landscape Blocks, as defined by the Natural Heritage and Endangered Species Program are "the primary component of Critical Natural Landscapes, and are large areas of intact predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes. Pastures and power-line rights-of-way, which are less intensively altered than most developed areas, are also included since they provide habitat and connectivity for many species. Collectively, these natural cover types total 3.6 million acres across the state. An Ecological Integrity assessment was used to identify the most intact and least fragmented areas. These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity."

There is no Core Habitat present on this property as well. Core Habitat "identifies specific areas necessary to promote the long-term persistence of rare species, other Species of Conservation Concern, exemplary natural communities, and intact ecosystems".

Aquatic and Species of Conservation Concern Cores are found only along the Charles River at the southwest and northeast ends of town.

WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

Property Overview, Regional Significance, and Management Summary (Continued)

History (including disturbance)

It appears that the town of Wellesley has owned much of what is now the Wellesley Town Forest for many years. Judging from the lack of multiple stemmed hardwoods in the Town Forest, it does not appear that much harvesting, if any, has taken place on this property for many years.

With the exception of a few abutters dumping their yard waste and/or spent Christmas trees in the woods behind their homes, there is not much in the way of disturbances to the property. Due to the Town Forest's respectable size and the network of trails that lace the property, the property is heavily used by visitors who simply use the system of trails for walking, jogging, birding, and minimal bicycling.

Cultural Resources

Longfellow Pond is a man-made impoundment along Rosemary Brook that was created in the early 1800's. The dammed pond provided power for early industrial endeavors including the manufacturing of nails and later paper. Once the industrial activity at the pond ended, the pond was used for the harvesting of ice until the late 1920's when the use of electricity had become commonplace. A few remains are left at the north end of Longfellow Pond that serve as silent reminders of the industrial period of the pond. In addition, there are several sites within the Town Forest where old cellar holes are reminders that people had lived on the land. It is unclear whether much farming took place, although there are a few areas that are relatively level and could support the limited growing of crops. It is more likely that the land would have been used as pasture, although there are no observed stonewalls or fence remains.

Forest Health and Soils

The soils found on this property are in all likelihood derived from glacial origins. The excessively well drained to somewhat excessively drained soils found in the upland portions of the property include Hinckley and Merrimac. The very poorly drained soils in the lower, seasonally wet areas include Saco and Freetown. Those soils with a Site Index of 50 and greater indicate better growth productivity for the trees. The Site Index values are listed in the NRCS Soil Surveys for each county.

Forest health appears to be good, although pockets throughout the property have suffered limited storm damage over the years as well as periodic outbreaks of insect defoliations. Several years in the mid 1980's and again in the mid 2000's of repeated winter moth and gypsy moth infestations have resulted in areas of limited mortality in the oaks. The woodlands have also suffered from several droughty summers in a row, although the drought may have finally broken as of June 2017 due to the frequent rainstorms the region enjoyed that year. The very few hemlocks found on the property are suffering from both hemlock woolly adelgid and elongate hemlock scale infestations.

One of the most striking features of the Wellesley Town Forest is the lack of desirable young tree regeneration. With the exception of a few small areas of past storm damage or oak mortality, the upland woodlands have relatively modest components of young white pines, mixed oaks, and other desired tree species in areas. The relatively closed canopy has discouraged the establishment and potential survival of desired trees over the years.

Fire / Invasive Specis

In spite of the heavy visitor use of the property, fire does not appear to have been an issue for the Wellesley Town Forest. However, nonnative invasive plant species have the potential to become a significant threat to this property over the long term. Bittersweet, glossy buckthorn, honeysuckle, winged euonymus, multiflora rose, barberry, and garlic mustard have become entrenched in areas throughout the Wellesley Town Forest. Amur corktree, tree of heaven, and Norway maple are invasive tree species that are also present in portions of the property.

Property Overview, Regional Significance, and Management Summary (Continued)

Although the fruits and berries of the invasives are eaten by many species of birds, these are not important sources of food for wildlife. In addition, native insects, which are an important source of food for many species of songbirds, do not benefit from the foliage of the invasives, since the invasives are relatively recent arrivals into our ecosystem. The invasives are also extremely destructive to the existing native vegetation by literally choking out the competition and preventing the natural regeneration of the desired native species. This situation will warrant constant monitoring and potential control.

Recreation

This property is used primarily by walkers and to a much lesser degree, bicycle riders. Longfellow Pond is a popular destination for fishermen.

Wildlife

Habitat diversity on this property is excellent, primarily favoring interior-dwelling upland wildlife species as well as those species that prefer wooded wetlands. The riparian corridor along Rosemary Brook including its several impoundments, provides superb additional habitat for both migratory and resident birds and animals. Many of the hardwoods present on this property including the oaks, shagbark hickory, and beeches produce acorns and nuts that are invaluable food sources for many species of wildlife. In addition, those species that produce soft mast such as highbush and lowbush blueberry, huckleberry, holly, winterberry, beaked hazelnut, raspberry, blackberry, grapes, briars, and poison ivy are also present, although the relatively dense canopy in many areas prevents the production of the berries from reaching desirable levels.

Standing dead trees, referred to as snags, are scattered through the property. The snags are invaluable for those species of wildlife that use the dead trees for feeding, denning, nesting, and roosting. There is a moderate amount of dead and storm-damaged trees on the forest floor as well. These fallen trees and broken branches are referred to as either coarse or fine woody material. These features provide areas to hide, nest, and feed for many additional species of small animals, reptiles, amphibians, insects, and other invertebrates.

Birds

A predominantly mature woodland landscape with patches of regenerating forest will provide the diversity of age classes that will benefit a wide variety of bird species. Complex structure within the forest stands including large diameter trees, snags, a midstory component, areas with dense understory growth, and downed woody material will provide the greatest number of nesting and foraging opportunities.

Habitat strengths observed on this property include large cavity trees, trees with dead branches that have been excavated by birds, large snags, extensive mast-producing trees including oaks, shagbark hickory, and beech and stands dominated by either mixed oaks, mixed hardwoods, white pine, or a blend of conifer and deciduous trees. In addition, there are several areas that are very sparsely stocked, shallow marshes with varying densities of shrub growth and areas of open water.

Although the small field off the Oakland Street parking area provides a semblance of grassland habitat, it is much too small to be used by those species that depend on this type of habitat for breeding and feeding. It is much more likely that forest-dwelling bird species will use the small grassy area for brief feedings to take advantage of the seeds and insects that may not be found within the mature woodland.

Habitat weaknesses observed on this property include a lack of early successional forest. A flourishing herbaceous component, attracting insects not usually found within a mature forest, is often a component of young developing forests. The dense developing growth provides superb opportunities for nesting and feeding as well as cover from

WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission

Town(s) Wellesley

Property Overview, Regional Significance, and Management Summary (Continued)

predators. In addition, there are only a few areas in the Town Forest with exceptionally dense shrub layers and/or well developed midstory components. These two structural features are invaluable in terms of attracting a greater number of bird species to the property by enhancing nesting and foraging opportunities. It should be noted that the stands in which modest storm damage or tree mortality have occurred have a greater diversity of structure than those stands in which the forest canopy is relatively uninterrupted. Lastly, there is a threatening component of nonnative invasive plant species in areas of this property.

The recommended Management Practices will address and enhance these invaluable wildlife habitat features.

Natural Heritage and Rare and Endangered Species

Based on MassGIS' online mapping tool Oliver, there is no Priority Habitat on this property. Two Threatened plant species, Long's Bulrush and Britton's violet, and three species of Conservation Concern including Creeper, a freshwater mussel, Umber Shadowdragon, a dragonfly, and Blue-spotted Salamander are located within Priority Habitat that is found about 0.1 mile to the north of the northeasternmost corner of the Town Forest along the Charles River. Any potential commercial harvesting or thinning work on this property will be reviewed by and subject to the Natural Heritage Endangered Species Program before work commences. A certified vernal pool has been identified on this property.

Management Summary

The Wellesley Natural Resources Department is guided by its interest in multiple forest values including, but not limited to wildlife habitat, water quality protection, passive recreational opportunities, and enhanced forest productivity. The management of forests for many or all of these values is referred to as ecosystem management or sustainable forest management. The significance is that the harvesting of trees is not being done to generate income, rather that the management of a forest will be carried out to achieve single or multiple landowner goals and the material to be removed may happen to have commercial value at that time.

One notable difference from pure timber management is that some trees may be retained far longer than is practiced from a timber growing perspective. Trees may be allowed to decline or die in the woods, as many species of wildlife depend on trees in decline for the cavities that may have developed over time. Cavities are invaluable for many species of wildlife for denning and nesting. Larger diameter cavity trees are preferred over smaller diameter cavity trees due to the length of time they may persist before finally falling to the ground. Larger diameter cavity trees can also accommodate larger birds such as pileated woodpeckers, wood ducks, and many species of owls. Under ecosystem or sustainable forest management, trees with wildlife values will be retained even if their presence is detrimental to those trees that may have potential timber value.

Another difference to mention is the value of openings that can be created during the course of a forest improvement project. Openings can range from 0.10 acre to as much as 2.5 acres with the larger areas being much more effective in providing the structural diversity and denseness that is so crucial for so many species of birds. Trees that may have future commercial value may be removed before their market value is maximized in order to create open pockets within a greater mature forest. The young growth that begins to flourish in the openings is invaluable for the wildlife for several reasons. The herbaceous growth and insects that are drawn to these openings are important food for the many species of birds while the dense growth provides superb cover for nesting and foraging.

It should be mentioned that the openings in the forest canopy that result from the recommended improvement work are absolutely crucial for the establishment and enhancement of the next generation of desired tree species. The oak seedlings in particular are very sensitive to shade and will not survive without sufficient sunlight.

WATER DEPARTMENT

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Property Overview, Regional Significance, and Management Summary (Continued)

Aesthetics are also a major consideration as work is planned for this property. Although most public resistance to the harvesting of trees is due the looks of the logging debris that is left on the ground at the end of a project, it should be conveyed to the public and visitors to the project that there is considerable value to the material. Not only does the material eventually decay and return to the soil as organic nutrients, the coarse and fine woody material creates a “microhabitat” so to speak that is utilized by salamanders, snakes, eastern box turtles, shrews, wrens, and song sparrows. The woody material also protects young oak and white pine seedlings as they germinate and begin to grow. The oaks in particular are protected from potential grazing damage by deer.

It is the intention of the management recommendations in this plan to balance the needs of the woodlands and its wildlife with the management goals of the landowner.

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Forest Stands

For the purpose of this report, a Forest Stand is an easily defined area that is relatively uniform in composition and structure and supports a particular suite of birds.

Summary of the Forest Stands on your property

Stand (s)	Forest/Habitat Type	Approx. Size (acres)	Notes
1, 8, 24	Red Maple/Hardwood association	4.2	Relatively mature red maple stand with a mix of occasional mixed oak, sugar maple, Norway maple, tupelo, white ash, elm, black locust, and occasional white pine. Generally dry with seasonally wet lower portions. Invasive species present.
2	Mixed Oak/Hardwood association	5.6	Relatively mature mixed oak stand with diverse mix of mixed oak, red maple, hickory, white ash, black birch, and infrequent white pine. Impressively large oaks. Lack of suitable access
3	Deep Marsh	6.3	Extensive areas of both shrubs and open water along Rosemary Brook. Superb habitat for resident and migratory waterfowl.
4	White Pine	10.4	Relatively mature stand with poorly formed white pine sawlogs and better formed Norway spruce sawlogs. Very little desirable tree species in understory although strong presence of invasive trees and shrubs. Focus on establishing white pine regeneration as next generation of desirable trees.
5	Mixed Oak/Hardwood association	4	Relatively mature mixed oak stand with a mix of red maple, Norway maple, white ash, black cherry, and infrequent white pine. Generally dry. Invasive species present.
6, 7, 9	Red Maple	5.4	Red maple primary species with few associates. Good shrub layers in areas for birds. Seasonally wet stand along Rosemary Brook.
10, 22, 25, 26	Mixed Oak	68.6	Relatively mature mixed oak stand with diverse mix of red maple, sugar maple, Norway maple, hickory, white ash, black birch, black cherry and occasional

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 BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DEPARTMENT

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STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
						individual; and small pockets of white pine. Dry rolling terrain. Only few areas with established oak saplings. Modest presence of invasives. Focus on establishing and enhancing more mixed oak and white pine regeneration as next generation of desirable trees. High use by visitors to property.	
11, 12, 14, 19	Shallow Marsh		3.6			Areas of both shrubs and periodic open water. Seasonally wet. Superb habitat for resident and migratory waterfowl.	
13	Black Locust		0.5			Former disturbed site. Primarily invasive species now. Superb candidate for conversion to opening with early successional habitat. Enhance foraging opportunities for forest-dwelling birds.	
15, 17	White Pine/Mixed Oak association		3.3			Relatively mature white pine stand with varying densities of mixed oaks and other occasional mixed hardwoods. Few areas with established white pine saplings. Focus on establishing and enhancing more white pine and mixed oak regeneration as next generation of desirable trees. High use by visitors to property.	
16, 21	Water		18.8			Historical impoundments along Rosemary Brook including Longfellow Pond. Superb habitat feature of property. Occasional invasives along shoreline.	
18	Field		0.3			Periodic mowing maintains former butterfly garden as grassy area. Too small for grassland species, but ideal area to maintain to enhance both aesthetics of the property and to enhance foraging opportunities for forest-dwelling birds.	
20	Sugar Maple		0.9			Unusual forest type for this property. Dry upland with invasive species present.	
23	White Pine		1			Relatively mature white pine stand with varying densities of mixed hardwoods. Location between Brookside Road and pond along Rosemary Brook precludes any work beyond invasive species control.	
		Total	132.9				

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OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
STEW	1	RM	0.62	13.1"	143	7,125 bf & 21.1 cds	60 (WP)

Stand

Red maple is the primary species being in the sawtimber class. Occasional white pine, mixed oak, elm, sugar maple, and Norway maple saplings, poles, and sawlogs are also present in this overstocked stand as well as very infrequent quaking aspen and black locust poles and sawlogs. The understory is light to moderate and includes crabapple saplings and small poles, arrowwood, honeysuckle, winged euonymus, multiflora rose, ferns, and poison ivy, and garlic mustard. The area is flat, to very gently sloped, generally dry upland with very deep, excessively drained soils (Merrimac - Urban land complex), although the lowest portions of the stand can be seasonally wet.

Due to challenging access and the higher management priorities of other stands on this property, improvement work is not recommended at this point in time. However, the invasive species in this stand are a concern and should be monitored and possibly minimized. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The relatively undisturbed nature of this stand contributes to the excellent habitat diversity of the property.

Current Habitat Conditions

The canopy is 40 to 50 feet tall, approximately 60 to 65% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) ranges from 30 to 50% cover, is fairly uniform in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is 30 to 50% cover and consists primarily of mixed shrubs.

Honeysuckle, winged euonymus, multiflora rose, barberry, and garlic mustard are invasive plant species observed in this stand, comprising about 5% cover.

The leaf litter is adequate in this stand and is comprised primarily of deciduous leaves.

Arrowwood and crabapple are the soft mast species observed along the fringes of this stand.

Occasional standing dead trees, referred to as snags, are present as are occasional live trees with large dead branches, some of which have been excavated by birds. Modest to moderate amounts of coarse woody material consisting primarily of very old blown-over trees are present on the forest floor as are a few areas with fine woody material, consisting primarily of old branches and tops.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery Winter wren American woodcock Yellow-billed cuckoo Canada warbler

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WATER DEPARTMENT

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STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
STEW	2	OM	5.68	13.0"	195	11,375 bf & 25.5 cds	60 (WP)

Stand

Mixed oaks are the primary species being in the sawtimber class. Occasional red maple saplings, poles, and sawlogs are also present in this overstocked stand as well as infrequent sugar maple, hickory, white ash, black birch, and black cherry poles and sawlogs. Infrequent individual and small pockets of white pine, Norway spruce, and Scotch pine poles and sawlogs are also present. The understory is light to moderate and includes arrowwood, highbush blueberry, maple leaf viburnum, winged euonymus, glossy buckthorn, occasional crabapple saplings, infrequent white pine saplings, grasses, and striped wintergreen. Pachysandra and ivies have been growing into the stand from the adjoining residences. The area is gently to moderately sloped, dry rolling upland with very deep, excessively drained soils (Hinckley).

A very old borrow pit is located within this stand.

Although the stand is very ready for a light individual and group selection harvest and a light improvement thinning, suitable access is not currently available into this stand. As a result, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

The canopy is 40 to 50 feet tall, approximately 50 - 70% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 50% cover and fairly patchy in distribution. It consists primarily of mixed hardwood poles. The understory (0-5 feet) is approximately 25% cover and patchy in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings.

Winged euonymus and glossy buckthorn are invasive plant species that were observed in this stand, comprising approximately 5% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves with occasional areas with more white pine needles.

Highbush blueberry, arrowwood, and crabapple are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are a few areas with fine woody material, consisting primarily of old branches and tops.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery

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 BA = basal area VOL = volume MBF = thousand board feet cds = cords

Owner(s) Town of Wellesley, Natural Resources Commission ^{WATER DEPARTMENT} Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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						Blue-grey gnatcatcher Northern flicker	
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STEW 3 MD 6.28 - - - 50 (RM)

Stand

Varying densities of cattails, grasses, and sedges are the primary species within this virtually nonstocked deep marsh. Extensive areas of open water are also present at times during the year. The stand is ringed with occasional alder, pussy willow, and red maple saplings, poles, and sawlogs. The understory along the margins is moderate to dense and includes silky dogwood, occasional crabapple saplings, highbush blueberry, multiflora rose, briars, grapes, and bittersweet. The area is a flat to slightly sloped drainage along Rosemary Brook and tends to remain wet to seasonally wet with very deep, very poorly drained soils (Freetown).

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

The canopy is 0 - 20 feet tall, approximately 10% closed, and relatively uniform along the margins of this stand. The midstory (between 5 - 30 feet in height) is approximately 20% cover and relatively uniform in distribution. It consists primarily of mixed hardwoods and taller shrubs. The understory (0-5 feet) is approximately 15 to 25% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings. Open water is seasonally present.

Multiflora rose and bittersweet are the invasive species observed along the fringes of this stand.

The leaf litter along the margins is adequate and consists of deciduous leaves.

Crabapple, silky dogwood, highbush blueberry, and grapes are the soft mast species observed in this stand.

Coarse woody material is inadequate in this stand, however fine woody material is present in modest amounts and consists primarily of snapped tops and branches.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Red - winged blackbird Tree swallow Virginia rail Great blue heron Sora Marsh wren

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Owner(s) WATER DEPARTMENT
Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
STEW	4	WP	10.40	14.1"	206	18,825 bf & 29.3 cds	60 (WP)

Stand

White pine is the primary species being in the sawtimber class, poor to fair form. Occasional Norway spruce and Scotch pine poles and sawlogs are also present in this fully stocked stand as well as infrequent red maple saplings and poles. A strong component of Amur corktree saplings and poles is also scattered through this stand as well as very infrequent black cherry saplings and poles. The understory is light and includes glossy buckthorn, devil's walking stick, spicebush, arrowwood, hop hornbeam saplings, bittersweet, ferns, and poison ivy. The area is flat to gently sloped, dry upland with very deep, somewhat excessively drained soils (Merrimac).

Portions of this stand are ready for an individual and small group selection harvest to stimulate the natural regeneration of the white pine and to improve the growing conditions of the remaining trees although the invasive species needs to be controlled beforehand. The desired future condition of this stand is an aesthetically appealing mix of well spaced, better formed white pine poles and sawlogs with a developing component of white pine and mixed hardwood saplings and small poles, relatively invasive-free. The value of the white pine in this stand is based both on aesthetic appeal and long term commercial importance. In addition, the tall pines provide excellent nesting opportunities for owls, hawks, and crows.

Current Habitat Conditions

The canopy is 60 to 70 feet tall, approximately 95% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 35 - 50% cover and relatively uniform in distribution. It consists primarily of white pine and mixed hardwood saplings and small poles and taller shrubs. The understory (0-5 feet) is approximately 5% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood and white pine saplings.

Amur corktree, glossy buckthorn, devil's walking stick, and bittersweet are invasive plant species that were observed in this stand, comprising close to 60% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of evergreen needles with occasional areas with more deciduous leaves.

Spicebush, arrowwood, and poison ivy are the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of beaver activity and very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	Uneven aged management -Selection Harvest	Black-and-white warbler Scarlet tanager Eastern wood-pewee Blue-headed vireo Pine warbler Winter wren

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WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
Increased abundance of canopy gaps				Uneven aged management -Group Selection Harvest		Eastern towhee Eastern wood-pewee Northern flicker Ovenbird	
Increased understory and midstory density				Purpose of an uneven aged management system is to create conditions for all age and size of tree species.		Black-and-white warbler Eastern towhee Hermit thrush Wood thrush Winter wren	
Maintain softwood/hardwood component						Black-and-white warbler Scarlet tanager Eastern wood-pewee Blue-headed vireo Pine warbler Hermit thrush Wood thrush	
Increase fine woody debris presence and piles						Eastern towhee Hermit thrush Wood thrush	
Increase tree species diversity						All birds & general forest health	

STEW 5 OH 4.01 10.4" 87 3,935 bf
& 15.8 cds 60 (WP)

Stand

Mixed oaks and mixed hardwoods are the primary species being in the small sawtimber class. A strong component of red maple saplings, poles, and sawlogs is also present in this adequately stocked stand as well as infrequent white pine, black cherry, Norway maple, and white ash saplings, poles, and sawlogs. Infrequent pockets of Norway spruce and sugar maple saplings, poles, and sawlogs are also present in this stand as well as very infrequent elm saplings, poles, and sawlogs. The understory is light to moderate and includes glossy buckthorn, winged euonymus, honeysuckle, crabapple saplings, highbush and lowbush blueberry, huckleberry, bittersweet, ferns, and grasses. There is a periodically mowed gas transmission line that is present in the northeastern portion of this stand. The area is flat to gently sloped, dry upland with very deep, excessively drained soils (Hinckley).

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. However, the invasive species in this stand are a concern and should be monitored and possibly minimized. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The relatively undisturbed nature of this stand contributes to the excellent habitat diversity of the property.

Current Habitat Conditions

The canopy is 60 to 70 feet tall, approximately 90% closed, and relatively uniform in distribution. The midstory (between 5-30 feet in height) is approximately 45% cover and relatively uniform in distribution. It consists primarily of mixed hardwood and

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Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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white pine saplings and small poles and taller shrubs. The understory (0-5 feet) is approximately 20% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood and white pine saplings.

Glossy buckthorn, winged euonymus, honeysuckle, and bittersweet are invasive plant species that were observed in this stand, comprising less than 10% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves and some areas of evergreen needles.

Highbush and lowbush blueberry, huckleberry, and crabapple are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery Blue-grey gnatcatcher Northern flicker

STEW 6 RM 2.48 8.4" 60 16.0 cds 50 (RM)

Stand

Red maple is the primary species being in the pole class. Occasional crabapple saplings and poles are also present in this slightly understocked stand as well as infrequent white ash saplings, poles, and sawlogs. Very infrequent elm saplings, poles, and sawlogs are also scattered through this stand as are occasional sparser openings. The understory is light to moderate and includes honeysuckle, multiflora rose, winterberry, highbush blueberry, alder saplings, silky dogwood, skunk cabbage, ferns, grasses, poison ivy, violets, and sphagnum moss. The area is generally flat and tends to remain seasonally wet with very deep, very poorly drained soils (Swansea). This stand is drained by Rosemary Brook

Due to the very sensitive working conditions and higher priorities of other stands on the property, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

The canopy is 5 to 20 feet tall, approximately 0 to 15% closed, and patchy in distribution. The midstory (between 5-30 feet in height) is approximately 50% cover and relatively patchy in distribution. It consists primarily of mixed hardwood saplings and

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WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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small poles and taller shrubs. The understory (0-5 feet) is approximately 5 - 15% cover and relatively patchy in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings.

Honeysuckle and multiflora rose are invasive plant species that were observed in this stand, comprising less than 10% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves.

Highbush blueberry, silky dogwood, poison ivy, and winterberry are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Canada warbler American woodcock Winter wren Warbling vireo

STEW 7 RM 1.97 5.3" 60 10.1 cds 50 (RM)

Stand

Red maple is the primary species being in the pole class. Occasional elm poles and small sawlogs are also present in this just barely adequately stocked stand as well as occasional crabapple saplings and poles. Occasional sparser openings are also present, especially in the northern portion where a gas transmission line is located. The understory is moderate to dense and includes silky dogwood, alder, blackberry, multiflora rose, bittersweet, skunk cabbage, and ferns. The area is generally flat and tends to remain seasonally wet with very deep, very poorly drained soils (Saco). Rosemary Brook flows through this stand.

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

The canopy is 20 to 35 feet tall, approximately 25 to 30% closed, and fairly patchy in distribution. The midstory (between 5-30 feet in height) ranges from 35 to 30% cover, is fairly patchy in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is close to 50% cover and consists primarily of mixed shrubs.

Multiflora rose and bittersweet are invasive plant species observed in this stand, comprising about 5% cover.

The leaf litter is not adequate in this stand as it is periodically removed during periods of high water along Rosemary Brook.

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WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Silky dogwood, blackberry, and crabapple are the soft mast species observed along the fringes of this stand.

Modest amounts of coarse woody material consisting primarily of very old blown-over trees are present on the forest floor as are a few areas with fine woody material, consisting primarily of old branches and tops.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Canada warbler American woodcock Winter wren Warbling vireo

STEW	8	RM	3.19	13.1"	143	7,125 bf & 21.1 cds	60 (WP)
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Stand

Red maple is the primary species being in the sawtimber class. Occasional white pine, mixed oak, elm, black cherry, and Norway maple saplings, poles, and sawlogs are also present in this overstocked stand as well as very infrequent Scotch pine, Norway spruce, Amur corktree, and quaking aspen poles and sawlogs. Sugar maple saplings, poles, and sawlogs are also present in this stand, especially in the westernmost portion of the stand while a small pocket of black locust poles and sawlogs is present in the eastern portion of the stand. The understory is light to moderate and includes crabapple saplings and small poles, very infrequent holly saplings, arrowwood, honeysuckle, winged euonymus, multiflora rose, barberry, bittersweet, ferns, poison ivy, and garlic mustard. The area is generally flat, dry upland with soils ranging from very deep, excessively drained (Merrimac) to very deep, excessively drained (Hinckley), although the lowest portions of the stand can be seasonally wet.

Due to the higher management priorities of other stands on this property, improvement work is not recommended at this point in time. However, the invasive species in this stand are a concern and should be monitored and possibly minimized. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The relatively undisturbed nature of this stand contributes to the excellent habitat diversity of the property.

Current Habitat Conditions

The canopy is 40 to 50 feet tall, approximately 70 to 75% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) ranges from 30 to 50% cover, is fairly uniform in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is 30 to 50% cover and consists primarily of mixed shrubs. Amur corktree, honeysuckle, winged euonymus, multiflora rose, barberry, bittersweet, and garlic mustard are invasive plant species observed in this stand, comprising about 5 to 15% cover.

The leaf litter is adequate in this stand and is comprised primarily of deciduous leaves and coniferous needles.

Silky dogwood, spicebush, and crabapple are the soft mast species observed along the fringes of this stand.

Occasional standing dead trees, referred to as snags, are present as are occasional live trees with large dead branches, some of which have been excavated by birds. Modest to moderate amounts of coarse woody material consisting primarily of very old

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WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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blown-over trees are present on the forest floor as are a few areas with fine woody material, consisting primarily of old branches and tops.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery Wood thrush Winter wren American woodcock Black-billed cuckoo Yellow-billed cuckoo Canada warbler Eastern towhee Common yellowthroat

STEW	9	RM	0.98	7.3''	120	2,000 bf & 29.7 cds	50 (RM)
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Stand

Red maple is the primary species being in the pole class. Infrequent white ash and elm saplings, poles, sawlogs are also present in this overstocked stand as well as occasional pitch pine and mixed oak sawlogs, which are present primarily along the slightly higher, drier fringes. Occasional sparser openings are also present along Rosemary Brook at the north of the stand by Route 9. The understory is light to moderate and includes silky dogwood, spicebush, buttonbush, grasses, sedges, and poison ivy. Honeysuckle, barberry, bittersweet, winged euonymus, and occasional crabapple poles are also present, primarily along the fringes of the stand. The area is a generally flat to very slightly sloped, wet to seasonally wet drainage along Rosemary Brook with very deep, very poorly drained soils (Saco), although some of the fringes are slightly higher and drier.

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

The canopy is 30 to 50 feet tall, approximately 50 to 60% closed, and somewhat patchy in distribution. The midstory (between 5-30 feet in height) ranges from 40 to 50% cover, is patchy in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is 25 to 30% cover and consists primarily of mixed shrubs.

Honeysuckle, barberry, bittersweet, and winged euonymus are invasive plant species observed in this stand, comprising about 5% cover.

The leaf litter is not adequate in this stand as it is periodically removed during periods of high water along Rosemary Brook.

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Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Silky dogwood, spicebush, and crabapple are the soft mast species observed along the fringes of this stand.

Very few standing dead trees, referred to as snags, are present. Modest amounts of coarse woody material consisting primarily of very old blown-over trees are present on the forest floor as are a few areas with fine woody material, consisting primarily of old branches and tops.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Canada warbler American woodcock Winter wren Blue-gray gnatcatcher Veery Black-and-white warbler Yellow warbler Yellow-rumped warbler Philadelphia vireo Warbling vireo Phoebe Rose-breasted grosbeak Downy woodpecker American redstart

STEW	10	OM	49.33	11.2''	128	8,070 bf & 34.3 cds	60 (WP)
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Stand

Mixed oaks are the primary species being in the sawtimber class. Occasional red maple, sugar maple, Norway maple, black birch, hickory, elm, black cherry, hop hornbeam, and crabapple saplings, poles, and sawlogs are also present in this slightly overstocked stand, individually and in small pockets as are very infrequent sassafras, linden, flowering dogwood, and tupelo saplings and poles and white ash, black locust, black walnut, and paper birch poles and sawlogs, although the white ash is in definite decline. Individual and small pockets of white pine saplings, poles, and infrequent sawlogs are also present in portions of the stand as well as occasional Norway spruce saplings and poles and very infrequent eastern red cedar saplings and poles and eastern hemlock, larch, and Scotch pine poles and sawlogs. The understory is light to moderate and includes highbush and lowbush blueberry, huckleberry, arrowwood, maple leaf viburnum, beaked hazelnut, witch hazel, chestnut stump sprouts, sweet pepperbush, mountain laurel, common buckthorn, glossy buckthorn, honeysuckle, winged euonymus, barberry, garlic mustard, bittersweet, Virginia creeper, briars, ferns, grasses, poison ivy, pipsissewa, and striped wintergreen. Pachysandra, lily of the valley, ivies, and daylilies are also present, especially close to adjoining residences or near former home sites. The area is flat to steeply sloped, dry rolling, somewhat rocky upland with soils ranging from very deep, excessively drained (Merrimac) to very deep, excessively drained (Hinckley). Several areas are slightly lower and can be seasonally wet including a certified vernal pool.

Portions of this stand are ready for a light individual and small group selection harvest to both stimulate the natural regeneration of the mixed oaks and white pine and to improve the growing conditions of the remaining trees. An improvement thinning will also enhance the growing conditions of the desired trees. The desired future condition of this

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Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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stand is an aesthetically appealing mix of well spaced, better formed mixed oak and occasional white pine poles and sawlogs with a developing component of white pine and mixed oak saplings and small poles. The value of the mixed oak and white pine in this stand is based both on their aesthetic appeal and their long term commercial importance. In addition, the occasional tall pines provide excellent nesting opportunities for owls, hawks, and crows while the oaks are invaluable to the wildlife in the area due to the acorns they produce.

Current Habitat Conditions

The canopy is 40 to 50 feet tall, approximately 65 - 80% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 25 - 40% cover and relatively uniform in distribution. It consists primarily of mixed hardwood and occasional white pine poles and taller shrubs. The understory (0-5 feet) is approximately 5 - 10% cover and patchy in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings.

Winged euonymus, glossy buckthorn, honeysuckle, barberry, bittersweet, and garlic mustard are invasive plant species that were observed in this stand, comprising less than 5% cover in the understory, although their presence is stronger behind abutting residences and in several areas that were either former house sites or previously disturbed.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves with occasional areas with more white pine needles. The leaf litter is often not adequate on the steeply sloping portions of the stand.

Highbush and lowbush blueberry, huckleberry, beaked hazelnut, and crabapple are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	Uneven aged management -Selection Harvest	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery Wood thrush
Increase abundance of canopy gaps	Uneven management -Group Selection Harvest	Brown thrasher Eastern wood-pewee Eastern towhee Northern flicker Ovenbird Great crested flycatcher Blue-grey gnatcatcher
Increased understory and midstory density	Purpose of an uneven aged management system is to create conditions for all age and size of tree species.	Veery Wood thrush American redstart Black-and-white warbler Brown thrasher Eastern towhee

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WATER DEPARTMENT

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
						Eastern wood-pewee Black-billed cuckoo Yellow-billed cuckoo Common yellowthroat	
		Maintain softwood/hardwood component				Hermit thrush Pine warbler Black-throated green warbler	
		Increased fine woody debris presence and piles				Veery Eastern towhee	
		Increase tree species diversity				All birds & general forest health	

STEW 11 MS 0.37 - - - 50 (RM)

Stand

Varying densities of phragmites and sedges are the primary species within this virtually nonstocked shallow marsh. Areas of open water are also present at times during the year. The stand is ringed with glossy buckthorn, elderberry, pussy willow, poison sumac, occasional crabapple saplings, and blackberry. The area is flat and ranges from seasonally wet to wet with very deep, very poorly drained soils (Freetown).

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

There is neither an overstory nor midstory component to this stand. The understory (0-5 feet) is approximately 35 - 50% cover and patchy in distribution. It consists primarily of phragmites and sedges. Open water is seasonally present.

Glossy buckthorn is an invasive plant species observed along the fringes of this stand, comprising about 5% cover.

The leaf litter is not a component of this stand.

Blackberry, elderberry, and crabapple are the soft mast species observed along the fringes of this stand.

Neither coarse woody material nor fine woody material are present in this stand.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 3.

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Owner(s) WATER DEPT.
Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
STEW	12	MS	2.25	-	-	-	50 (RM)

Stand

Varying densities of cattails and sedges are the primary species within this virtually nonstocked shallow marsh. Areas of open water are also present at times during the year. The stand is ringed with glossy buckthorn, silky dogwood, occasional crabapple saplings, very infrequent white pine saplings, blackberry, briars, multiflora rose, and grapes. The area is flat and ranges from seasonally wet to wet with very deep, very poorly drained soils (Freetown).

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

There is neither an overstory nor midstory component to this stand. The understory (0-5 feet) is approximately 35 - 50% cover and patchy in distribution. It consists primarily of cattails and sedges. Open water is seasonally present.

Glossy buckthorn and multiflora rose are invasive plant species observed along the fringes of this stand, comprising about 5% cover.

The leaf litter is not a component of this stand.

Grapes, blackberry, silky dogwood, and crabapple are the soft mast species observed along the fringes of this stand.

Neither coarse woody material nor fine woody material are present in this stand.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 3.

STEW	13	BL	0.55	3.1"	30	4.4 cds	60 (WP)
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Stand

Black locust is the primary species being in the sapling class. Occasional crabapple saplings and poles are also present in this understocked stand as well as very infrequent tupelo poles. The understory is moderate to virtually impenetrable and includes autumn olive, multiflora rose, bittersweet, and garlic mustard. The area is a generally flat, dry, formerly disturbed upland site with deep and very deep, excessively drained to moderately well drained soils (Udorthents).

Due to the exceptionally poor quality of the trees in this stand as well as the strong component of invasive plant species, this stand is an ideal candidate for stand conversion. The desired future condition of this stand is a regenerating, early successional forest, relatively invasive-free that will add invaluable habitat diversity to this property.

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 BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DET.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Current Habitat Conditions

The canopy is 20 to 40 feet tall, approximately 10 to 20% closed, and very patchy in distribution. The midstory (between 5-30 feet in height) ranges from 40 to 50% cover, is patchy in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is 50 - 60% cover and consists primarily of hardwood saplings and mixed shrubs.

Autumn olive, multiflora rose, bittersweet, and garlic mustard are invasive plant species observed in this stand, comprising about 25 - 40% cover.

The leaf litter is not adequate in this stand.

Crabapple is the soft mast species observed in this stand.

Modest amounts of coarse woody material consisting primarily of old blown-over trees are present on the forest floor as are a few areas with fine woody material, consisting primarily of old branches and tops on top of flattened shrubs.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Brown thrasher Chestnut-sided warbler American redstart
Interior forest condition	Clearcut with retention	American woodcock Chestnut-sided warbler Black-and-white warbler Brown thrasher Eastern towhee Northern flicker Eastern wood-pewee Black-billed cuckoo

STEW 14 MS 0.60 - - - 50 (RM)

Stand

Varying densities of blackberry, grasses, and sedges are the primary species within this virtually nonstocked shallow marsh. Areas of open water are also present at times during the year. The stand is ringed with elderberry, silky dogwood, occasional crabapple saplings, and several trees-of-heaven. The area is a flat to slightly sloped, wet to seasonally wet, shallow depression with very deep, very poorly drained soils (Freetown).

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed, wet to seasonally wet nature of this stand contributes to the superb habitat diversity of the property.

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 BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Current Habitat Conditions

There is neither an overstory nor midstory component to this stand. The understory (0-5 feet) is approximately 25 - 35% cover and patchy in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings. Open water is seasonally present.

Tree-of-heaven is an invasive species observed along the fringes of this stand.

The leaf litter is inadequate in this stand.

Crabapple, elderberry, and silky dogwood are the soft mast species observed in this stand.

Several old blown-over trees have fallen into the shallow marsh from the surrounding stand creating coarse material.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 3.

STEW	15	WP	2.61	14.6"	235	27,500 bf & 13.5 cds	60 (WP)
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Stand

White pine is the primary species being in the sawtimber class, fair to excellent form. Occasional mixed oak poles and sawlogs are also present in this slightly overstocked stand as well as infrequent red maple, sugar maple, Norway spruce, and Scotch pine poles and sawlogs. Very infrequent pitch pine sawlogs are also present. The understory is light and includes glossy buckthorn, occasional red maple, hop hornbeam, and crabapple saplings, beaked hazelnut, and a few areas of fair white pine regeneration being in the sapling class, although many have died due to the lack of sunlight. The area is generally flat, dry upland with very deep, excessively drained soils (Merrimac).

This stand is ready for a light individual and small group selection harvest to both stimulate the natural regeneration of the white pine and mixed oaks and to improve the growing conditions of the remaining trees. A light improvement thinning will also enhance the growing conditions of the desired trees. The desired future condition of this stand is an aesthetically appealing mix of well spaced, better formed white pine and occasional mixed oak poles and sawlogs with a developing component of white pine and mixed oak saplings and small poles. The value of the white pine and the mixed oaks in this stand is based both on their aesthetic appeal and their long term commercial importance. In addition, the tall pines provide excellent nesting opportunities for owls, hawks, and crows while the oaks are invaluable to the wildlife in the area due to the acorns they produce.

Current Habitat Conditions

The canopy is 50 to 70 feet tall, approximately 70% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 15 - 25% cover and patchy in distribution. It consists primarily of mixed hardwood and occasional white pine poles and taller shrubs. The understory (0-5 feet) is approximately 10% cover and patchy in distribution. It consists primarily of mixed shrubs.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Glossy buckthorn is an invasive plant species observed in this stand, comprising about 5 - 10% cover.

The leaf litter is adequate in this stand due primarily to the slopes.

The leaf litter is adequate in this stand and is comprised primarily of white pine needles and deciduous leaves.

A few standing dead trees, referred to as snags, are present. Moderate amounts of coarse woody material consisting primarily of very old and more recent fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and Christmas trees dumped by abutters, as well as areas of bent-over white pine saplings.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 4.

STEW	16	WA	8.12	-	-	-	-
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Stand

This pond is known as Longfellow Pond and is predominately open water. The fringe of the pond, especially along the eastern shore, includes varying densities of silky dogwood, alder, highbush blueberry, elderberry, glossy buckthorn, honeysuckle, multiflora rose, occasional crabapple, red maple, weeping willow, paper birch, and flowering dogwood saplings and small poles, cattails, and ferns. The immediate fringe is generally flat and dry, although the lowest portions tend to be seasonally wet.

This pond provides superb open water habitat for the wildlife in the area. The desired future condition of this stand is essentially the same as it is currently.

Current Habitat Conditions

There is no overstory component in this stand. The midstory (between 5-30 feet in height) is limited to the immediate fringe of the pond and ranges from 10 to 200% cover, is fairly patchy in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is approximately 35 - 50% cover and patchy in distribution. It consists primarily of mixed shrubs.

Glossy buckthorn and multiflora rose are invasive plant species observed along the fringes of this stand, comprising about 5% cover.

The leaf litter is not a component of this stand.

Highbush blueberry, silky dogwood, and crabapple are the soft mast species observed along the fringes of this stand.

Several live trees have fallen into the pond from the surrounding stands adding fine woody material to the scattered thickets of understory shrubs as well as ideal perches for turtles to sun.

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STD = stand AC = acre MSD = mean stand diameter BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Open water	none - allow to develop	Wood duck Great blue heron Red - winged blackbird

STEW	17	WO	0.73	10.8"	190	6,195 bf & 36.3 cds	60 (WP)
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Stand

White pine, fair to excellent form, and mixed oaks are the primary species being in the sawtimber class. Infrequent black birch and paper birch saplings, poles, and sawlogs are also present in this fully stocked stand. The understory is virtually nonexistent and includes huckleberry, lowbush blueberry, very infrequent Norway spruce saplings, and grasses. The area is moderately to steeply sloped, dry upland with very deep, excessively drained soils (Hinckley).

If the workability of the slopes can be affirmed, this stand is ready for a light individual and small group selection harvest to both stimulate the natural regeneration of the white pine and mixed oaks and to improve the growing conditions of the remaining trees. A very light improvement thinning will also enhance the growing conditions of the desired trees. The desired future condition of this stand is an aesthetically appealing mix of well spaced, better formed white pine and occasional mixed oak poles and sawlogs with a developing component of white pine and mixed oak saplings and small poles. The value of the white pine and the mixed oaks in this stand is based both on their aesthetic appeal and their long term commercial importance. In addition, the tall pines provide excellent nesting opportunities for owls, hawks, and crows while the oaks are invaluable to the wildlife in the area due to the acorns they produce.

Current Habitat Conditions

The canopy is 40 to 50 feet tall, approximately 75 - 85% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is less than 5% cover and very patchy in distribution. It consists primarily of mixed hardwood poles. The understory (0-5 feet) is less than 5% cover and patchy in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings.

Invasive plant species were not observed in this stand.

The leaf litter is not adequate in this stand due primarily to the slopes.

Lowbush blueberry and huckleberry are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Minimal mounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and Christmas trees dumped by abutters.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 10.

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 STD = stand AC = acre MSD = mean stand diameter BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
STEW	18	GF	0.32	-	-	-	60 (WP)

Stand

Grasses and forbs are the primary species in this periodically mowed, former butterfly garden. Clover, goldenrod, poison ivy, violets, trillium, garlic mustard, multiflora rose, creeping dewberry, and bittersweet are also present in this virtually nonstocked stand as is glossy buckthorn, which is present along the margins of the stand. The area is generally flat, dry upland with very deep, excessively drained soils (Hinckley).

Although very small in area, this stand provides good abandoned field habitat for the wildlife in the area. The desired future condition of this stand is essentially the same as it is currently. It will be prudent to continue the periodic mowing to maintain this very valuable habitat.

Current Habitat Conditions

There is neither an overstory nor midstory component to this stand. The understory (0-5 feet) is approximately 75 - 85% cover and general uniform in distribution. It consists primarily of herbaceous species.

Glossy buckthorn, multiflora rose, and bittersweet are invasive species observed in this stand. The leaf litter is inadequate in this stand due to the periodic mowing and high use of the area.

Soft mast species were not observed in this stand.

Neither coarse woody material nor fine woody material are present in this stand due to fairly regular maintenance carried out in the stand.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Maintain current condition	Habitat enhancement -periodic mow	American woodcock Eastern bluebird Barn swallow Northern flicker

STEW	19	MS	0.38	-	-	-	50 (RM)
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Stand

This virtually nonstocked shallow marsh consists primarily of grapes, silky dogwood, sensitive fern, and sedges that are growing in varying densities. The area is a very slightly sloped, depression that tends to be seasonally wet with very deep, very poorly drained soils (Freetown).

Due to the very low management priorities of this stand, improvement work is not recommended at this point in time. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed,

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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seasonally wet and early successional nature of this stand contributes to the superb habitat diversity of the property.

Current Habitat Conditions

There is neither an overstory nor midstory component to this stand. The understory (0-5 feet) is approximately 35 - 50% cover and patchy in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings. Open water is seasonally present.

Invasive plant species were not observed in this stand.

The leaf litter is not adequate in this stand.

Grapes and silky dogwood are the soft mast species observed in this stand.

Several live trees have fallen into the shallow marsh from the surrounding stand adding fine woody material to the scattered thickets of understory shrubs.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 3.

STEW	20	SM	0.92	7.6"	130	13,000 bf & 8.4 cds	60 (WP)
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Stand

Sugar maple is the primary species being in the pole class. Very infrequent red maple, black cherry, and black locust saplings, poles, and sawlogs are also present in this overstocked stand as well as very infrequent pockets of white pine, Scotch pine, and Norway spruce saplings, poles, and sawlogs. The understory is light and includes honeysuckle, glossy buckthorn, highbush blueberry, bittersweet, ferns, and grasses. The area is flat to gently variably sloped, dry upland with a fair amount of surface stones and very deep, somewhat excessively drained soils (Merrimac), although the eastern edge is slightly lower and can be seasonally wet, depending on the water levels of Rosemary Brook.

Due to the higher management priorities of other stands on this property, improvement work is not recommended at this point in time. However, the invasive species in this stand are a concern and should be monitored and possibly minimized. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The relatively undisturbed nature of this stand contributes to the excellent habitat diversity of the property.

Current Habitat Conditions

The canopy is 60 to 70 feet tall, approximately 80 to 90% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 30 - 40% cover and relatively uniform in distribution. It consists primarily of mixed hardwood saplings and small poles and taller shrubs. The understory (0-5 feet) is approximately 10 - 20% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Honeysuckle, glossy buckthorn, and bittersweet are invasive plant species that were observed in this stand, comprising less than 30% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves with occasional areas with more evergreen needles.

Highbush blueberry is the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of beaver activity and very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery Winter wren American woodcock

STEW 21 WA 10.70 - - - -

Stand

This stand is predominately open water. The fringe of the pond, especially along the northwestern shore, includes varying densities of silky dogwood, alder, highbush blueberry, sweet pepperbush, poison sumac, glossy buckthorn, multiflora rose, occasional crabapple, red maple, weeping willow, pussy willow, elm, white ash, and grey birch saplings and small poles, cattails, ferns, grasses, and sedges. The immediate fringe is generally flat and dry, although the lowest portions tend to be seasonally wet.

This pond provides superb open water habitat for the wildlife in the area. The desired future condition of this stand is essentially the same as it is currently.

Current Habitat Conditions

There is no overstory component in this stand. The midstory (between 5-30 feet in height) is limited to the immediate fringe of the pond and ranges from 10 to 25% cover, is fairly patchy in distribution, and consists primarily of mixed hardwood saplings and poles and taller shrubs. The understory (0-5 feet) is approximately 35 - 50% cover and patchy in distribution. It consists primarily of mixed shrubs.

Glossy buckthorn and multiflora rose are invasive plant species observed along the fringes of this stand, comprising about 30% cover.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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The leaf litter along the margins is adequate and consists of deciduous leaves.

Highbush blueberry, silky dogwood, poison sumac, and crabapple are the soft mast species observed along the fringes of this stand.

Several live trees have fallen into the pond from the surrounding stands adding fine woody material to the scattered thickets of understory shrubs as well as ideal perches for turtles to sun.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 16.

STEW	22	OM	10.47	12.1"	165	15,725 bf & 7.7 cds	60 (WP)
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Stand

Mixed oaks are the primary species being in the sawtimber class. Occasional hop hornbeam saplings and poles are also present in this overstocked stand as well as occasional individual and small pockets of white pine and sugar maple saplings, poles, and sawlogs. Infrequent eastern red cedar and hickory saplings, poles, and sawlogs are also scattered through this stand as well as infrequent Norway maple and Norway spruce saplings and poles. Very infrequent eastern hemlock, black cherry, and paper birch saplings, poles, and sawlogs are also present in this stand. The understory is light and includes glossy buckthorn, winged euonymus, wild raisin, occasional beech and crabapple saplings, hazelnut, highbush and lowbush blueberry, bittersweet, ferns, grasses, princess pine, and striped wintergreen. The understory along the pond edge is slightly denser and includes sweet pepperbush and briars. The area is steeply sloped, dry rolling upland with very deep, excessively drained soils (Hinckley). There is a moderate amount of surface stones present in the southern end of this stand.

The eastern hemlocks are suffering from infestations of both hemlock wooly adelgid and hemlock elongated scale.

Portions of this stand are ready for a light individual and small group selection harvest to both stimulate the natural regeneration of the mixed oaks and white pine and to improve the growing conditions of the remaining trees. An improvement thinning will also enhance the growing conditions of the desired trees. The desired future condition of this stand is an aesthetically appealing mix of well spaced, better formed mixed oak poles and sawlogs with a developing component of white pine and mixed oak saplings and small poles. The value of the mixed oak and white pine in this stand is based on their aesthetic appeal and their long term commercial importance. In addition, the oaks are invaluable to the wildlife in the area due to the acorns they produce while the infrequent tall pines provide excellent nesting opportunities for owls, hawks, and crows.

Current Habitat Conditions

The canopy is 60 to 70 feet tall, approximately 75 to 90% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 40 - 50% cover and relatively uniform in distribution. It consists primarily of mixed hardwood and occasional white pine poles and taller shrubs. The understory (0-5 feet) is approximately 0 - 5% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood and white pine saplings.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Winged euonymus, glossy buckthorn, and bittersweet are invasive plant species that were observed in this stand, comprising less than 10 - 15% cover in the understory.

The leaf litter is often not adequate in this stand, due to the steep slopes.

Highbush and lowbush blueberry, wild raisin, and crabapple are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 10.

STEW	23	WP	1.03	12.8"	240	29,750 bf & 23.0 cds	70(WP)
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Stand

White pine is the primary species being in the sawtimber class, poor to good form. Occasional Scotch pine and Norway spruce sawlogs are also present in this overstocked stand as well as infrequent red maple saplings, poles, and sawlogs. Very infrequent mixed oak and eastern red cedar saplings, poles, and sawlogs are also scattered in the southern portion of this stand as well as very infrequent sugar maple saplings and poles. The understory is light to moderate and includes glossy buckthorn, highbush blueberry, briars, and grasses. The area is flat to gently sloped, dry upland with a fair amount of surface stones and very deep, moderately well drained soils (Sudbury), although the eastern edge is slightly lower and can be seasonally wet, depending on the water levels of Rosemary Brook.

Due to the higher management priorities of other stands on this property, improvement work is not recommended at this point in time. However, the invasive species in this stand are a concern and should be monitored and possibly minimized. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The undisturbed nature of this stand contributes to the excellent habitat diversity of the property.

Current Habitat Conditions

The canopy is 60 to 70 feet tall, approximately 85 to 90% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 15 - 20% cover and relatively uniform in distribution. It consists primarily of mixed hardwood and infrequent white pine poles and taller shrubs. The understory (0-5 feet) is approximately 15 - 20% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood and white pine saplings.

Glossy buckthorn is the invasive plant species observed in this stand, comprising less than 60% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of evergreen needles with occasional areas with more deciduous leaves.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Highbush blueberry is the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of beaver damaged trees and very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Pine warbler Scarlet tanager Eastern wood-pewee Veery Winter wren

STEW	24	RM	0.36	10.1''	150	7,500 bf & 24.8 cds	60 (WP)
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Stand

Red maple is the primary species being in the small sawtimber class. Infrequent mixed oak saplings, poles, and sawlogs are also present in this overstocked stand as well as very infrequent eastern red cedar saplings, poles, and sawlogs and white pine saplings and poles. The understory is light to moderate and includes glossy buckthorn, honeysuckle, winged euonymus, highbush blueberry, sweet pepperbush, arrowwood, honeysuckle vine, ferns, and grasses. The area is flat to gently sloped, dry upland with very deep, excessively drained soils (Hinckley), although the eastern edge is slightly lower and can be seasonally wet depending on the water levels of Rosemary Brook.

Due to the higher management priorities of other stands on this property, improvement work is not recommended at this point in time. However, the invasive species in this stand are a concern and should be monitored and possibly minimized. The desired future condition of this stand is essentially an older and larger version of what it is now. This stand will be allowed to develop naturally over the next ten year period at which point its management needs will be reassessed. The relatively undisturbed nature of this stand contributes to the excellent habitat diversity of the property.

Current Habitat Conditions

The canopy is 30 to 50 feet tall, approximately 75 to 85% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 25 - 30% cover and relatively uniform in distribution. It consists primarily of mixed hardwood and occasional white pine poles and taller shrubs. The understory (0-5 feet) is approximately 5 - 15% cover and relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood saplings.

Glossy buckthorn, honeysuckle, winged euonymus, and honeysuckle vine are invasive plant species that were observed in this stand, comprising 60% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves with occasional areas with more white pine needles.

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 BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DEPT.

Owner(s)	Town of Wellesley, Natural Resources Commission	Town(s)	Wellesley
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STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
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Highbush blueberry and arrowwood are some of the soft mast species observed in this stand.

Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition	none - allow to develop	Black-and-white warbler Scarlet tanager Eastern wood-pewee Veery Winter wren American woodcock

STEW	25	OM	3.69	9.6"	170	10,460 bf & 14.3 cds	60 (WP)
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Stand

Mixed oaks are the primary species being in the small sawtimber class. Occasional hop hornbeam saplings and poles are also present in this overstocked stand as well as occasional individual and small pockets of white pine and sugar maple saplings, poles, and sawlogs. Infrequent eastern red cedar and hickory saplings, poles, and sawlogs are also scattered through this stand as well as infrequent Norway maple and Norway spruce saplings and poles. Very infrequent eastern hemlock, Scotch pine, Norway spruce, white ash, and black cherry saplings, poles, and sawlogs are also present in this stand. The understory is light and includes glossy buckthorn, winged euonymus, honeysuckle, wild raisin, hazelnut, highbush and lowbush blueberry, occasional beech and crabapple saplings, bittersweet, Japanese knotweed, ferns, grasses, princess pine, and striped wintergreen. The understory along the pond edge is slightly denser and includes sweet pepperbush and briars. The area is gently sloped, dry rolling upland with very deep, excessively drained soils (Hinckley).

The eastern hemlocks are suffering from infestations of both hemlock wooly adelgid and hemlock elongated scale.

Portions of this stand are ready for a light individual and small group selection harvest to both stimulate the natural regeneration of the mixed oaks and white pine and to improve the growing conditions of the remaining trees. An improvement thinning will also enhance the growing conditions of the desired trees. The desired future condition of this stand is an aesthetically appealing mix of well spaced, better formed mixed oak poles and sawlogs with a developing component of white pine and mixed oak saplings and small poles. The value of the mixed oak in this stand is based on their aesthetic appeal and their long term commercial importance. In addition, the oaks are invaluable to the wildlife in the area due to the acorns they produce while the very infrequent tall pines provide excellent nesting opportunities for owls, hawks, and crows.

Current Habitat Conditions

The canopy is 60 to 70 feet tall, approximately 85 to 90% closed, and fairly uniform in distribution. The midstory (between 5-30 feet in height) is approximately 60 - 70% cover and relatively uniform in distribution. It consists primarily of mixed hardwood and occasional white pine poles and taller shrubs. The understory (0-5 feet) is approximately 5 - 15% cover and

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

STAND DESCRIPTIONS

OBJ	STAND NO	TYPE	ACRES	MSD or SIZE-CLASS	BA/AC	VOLUME/ACRE	SITE INDEX
-----	----------	------	-------	-------------------	-------	-------------	------------

relatively uniform in distribution. It consists primarily of mixed shrubs and occasional mixed hardwood and white pine saplings.

Glossy buckthorn, winged euonymus, honeysuckle, Japanese knotweed, and bittersweet are invasive plant species that were observed in this stand, comprising less than 10% cover in the understory.

The leaf litter is generally adequate in this stand and is comprised primarily of deciduous leaves with occasional areas with more white pine needles.

Highbush and lowbush blueberry, wild raisin, and crabapple are some of the soft mast species observed in this stand.

Occasional standing dead trees, referred to as snags, are present. A number of live trees have either obvious or developing cavities. Modest amounts of coarse woody material consisting primarily of very old fallen or blown-over trees are present on the forest floor as are areas with fine woody material, consisting primarily of old branches, tops, and deadfalls.

Desired Stand Conditions

See Desired Stand Conditions table - Stand 10.

STEW	26	OM	5.13	10.3"	143	5,835 bf & 22.5 cds	60 (WP)
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Stand

Mixed oaks are the primary species being in the small sawtimber class. Occasional white pine saplings, poles, and infrequent sawlogs are also present in this overstocked stand as well as infrequent hickory and red maple saplings, poles, and sawlogs. Very infrequent Scotch pine and Norway spruce poles and sawlogs are also present in the western portion of this stand. The understory is light and includes highbush and lowbush blueberry, huckleberry, arrowwood, hazelnut, sheep laurel, glossy buckthorn, common buckthorn, crabapple saplings, chestnut stump sprouts, juniper, briars, grasses, princess pine, and striped wintergreen. There is a seasonal pond located in the western portion of this stand and the understory is light to moderate along the margins with cattails, bittersweet, poison ivy, and sedges. The area is gently sloped, dry rolling upland with very deep, excessively drained soils (Hinckley), although the seasonal pond is slightly lower with very deep, very poorly drained soils (Swansea).

Portions of this stand are ready for a light individual and small group selection harvest to both stimulate the natural regeneration of the mixed oaks and white pine and to improve the growing conditions of the remaining trees. An improvement thinning will also enhance the growing conditions of the desired trees. The desired future condition of this stand is an aesthetically appealing mix of well spaced, better formed mixed oak and occasional white pine poles and sawlogs with a developing component of white pine and mixed oak saplings and small poles. The value of the mixed oak and white pine in this stand is based both on their aesthetic appeal and their long term commercial importance. In addition, the infrequent tall pines provide excellent nesting opportunities for owls, hawks, and crows while the oaks are invaluable to the wildlife in the area due to the acorns they produce.

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 STD = stand AC = acre MSD = mean stand diameter BA = basal area VOL = volume MBF = thousand board feet cds = cords

WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

MANAGEMENT PRACTICES
to be carried out within the next 10 years

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

Management Recommendations

For the purposes of this report, management practices with an Object Code of *CH61* are required to be accomplished as a commitment to the Massachusetts Current Use Program. Practices with Object Codes of *STEW* are voluntary and are provided as suggestions of activities that can help you achieve your woodland objectives.

Summary of the Management Recommendations for your property

Stand	Object Code	Recommendation	Value/Cost/ Cost Sharing opportunities	Acres	Timing
1, 5, 8, 20, 23, 24,	STEW	none - allow to develop	NA	10.13	NA
		invasive species control	possible NRCS-EQIP / DCR reimbursement	5 - 10	by fall 2028
2, 3, 6, 7, 9, 11, 12, 16, 19, 21	STEW	none - allow to develop	NA	39.21	NA
4, 10, 15, 22, 25, 26	STEW	individual / small group selection harvest variable-retention thinning	potential revenue enhancement	10 - 25	by fall 2028
		invasive species control	possible NRCS-EQIP / DCR reimbursement	5 - 40	by fall 2028
13	STEW	clearcut with retention	possible NRCS-EQIP / DCR reimbursement	0.5	by fall 2023
	STEW	invasive species control	possible NRCS-EQIP / DCR reimbursement	@ 0.5	by fall 2023
17	STEW	individual / small group selection harvest variable-retention thinning	potential revenue enhancement	0.7	by fall 2028
	STEW	none - allow to develop	NA	0.7	NA

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

MANAGEMENT PRACTICES
to be carried out within the next 10 years

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

18	STEW		habitat enhancement		NA		0.3	as needed
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STEW	1	RM	none - allow to develop	0.62	NA	NA	NA
STEW	2	OM	none - allow to develop	5.68	NA	NA	NA
STEW	3	MD	none - allow to develop	6.28	NA	NA	NA
STEW	5	OH	none - allow to develop	4.01	NA	NA	NA
STEW	6	RM	none - allow to develop	2.48	NA	NA	NA
STEW	7	RM	none - allow to develop	1.97	NA	NA	NA
STEW	8	RM	none - allow to develop	3.19	NA	NA	NA
STEW	9	RM	none - allow to develop	0.98	NA	NA	NA
STEW	11	MS	none - allow to develop	0.37	NA	NA	NA
STEW	12	MS	none - allow to develop	2.25	NA	NA	NA
STEW	14	MS	none - allow to develop	0.60	NA	NA	NA
STEW	16	WA	none - allow to develop	8.12	NA	NA	NA

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Owner(s) WATER DEPT. Town of Wellesley, Natural Resources Commission Town(s) Wellesley

MANAGEMENT PRACTICES
to be carried out within the next 10 years

OBJ	STD NO	TYPE	SILVICULTURAL PRESCRIPTION	AC	TO BE REMOVED		TIMING
					BA/AC	TOT VOL	
STEW	19	MS	none - allow to develop	0.38	NA	NA	NA
STEW	20	SM	none - allow to develop	0.92	NA	NA	NA
STEW	21	WA	none - allow to develop	10.70	NA	NA	NA
STEW	23	WP	none - allow to develop	1.03	NA	NA	NA
STEW	24	RM	none - allow to develop	0.36	NA	NA	NA

Management Options & Considerations

As was discussed in the *Stand Description* section of the plan, the management priorities are very low for the above stands. Stands 1, 2, 5, 8, 20, 23, and 24 are either difficult to access or simply do not warrant management attention at this point in time, although the stands, with the exception of Stand 2, have established invasive shrub species that should be minimized. Stands 3, 6, 7, 9, 11, 14, and 19 tend to remain seasonally wet. Stands 16 and 17 are ponds situated along Rosemary Brook.

Some Responsibility bird species that may benefit specifically from the decision to let the stands grow relatively undisturbed include: *Black and white warbler*, *Canada warbler*, *Scarlet tanager*, *Pine warbler*, *Eastern wood pewee*, *Northern flicker*, *Veery*, and *Wood thrush*.

Landowner Goals & Management Description

Based on the landowner goals of enhancing wildlife habitat on this property, maintaining the aesthetic appeal of the property for visitors, and protecting the water quality and integrity of Rosemary Brook and the ponds along it, it will be important to leave these stands relatively undisturbed.

Additional Management Considerations

It should be noted that while the shrub layers in Stands 3, 9, and 12 range from moderate to dense, improvement work that may be carried out in the adjoining upland stands could be very beneficial in further attracting Canada warblers. The prudent removal of selected trees from the upland stands could help increase the amount of sunlight in these stands, which will help to improve the growing conditions of the shrub layer and result in denser growth. Sparsely to adequately stocked shrub swamps and red maple stands with dense shrub layers are a preferred habitat for Canada warblers.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

MANAGEMENT PRACTICES

to be carried out within the next 10 years

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

Some Responsibility bird species that may benefit specifically from these treatments include: *American woodcock, Black and white warbler, Brown thrasher, Canada warbler, Chestnut-sided warbler, Eastern towhee, Eastern wood pewee, Northern flicker, Veery, and Wood thrush.*

Landowner Goals & Management Description

Based on the landowner goals of enhancing wildlife habitat, maintaining and protecting water quality, and improving the long term vigor and beauty of the woodlands, it has been decided that a combination of *Option 1B - Variable retention thinning* and *Option 2B - Small group and single tree selection* will be the best silvicultural approach for the above stands. Using *Option 3C - Clearcut with retention* will be the best silvicultural approach to address the following stand where the goal will be to increase the amount of early successional habitat on and near this property. Stand 13 is located in the portion of the property just south of Route 9 near a mowed lawn associated with the Wellesley Water Department, Longfellow Pond, Rosemary Brook and an extensive block of upland forest. Stand 13 consists of occasional black locust poles and sawlogs and a virtually impenetrable shrub layer dominated by invasive plants species including autumn olive, multiflora rose, bittersweet, and garlic mustard that became established once the formerly disturbed site was abandoned.

The individual and small group selection harvest recommended for the appropriate above stands is designed to both stimulate the natural regeneration of the mixed oak and white pine and to improve the growing conditions of the remaining trees. This management approach mimics natural, small scale disturbances where the small openings created will help to increase and enhance the vertical structure through the stands. Existing growth in the understory will respond to and thrive with the additional sunlight while the opportunities for the increased regeneration of desired tree species will be greatly enhanced. This management work will be achieved by removing selected individual and small groups of white pine and mixed oak sawlogs, thereby creating openings in the canopy and improving the spacings between the trees in the residual stand. This management recommendation will help to enhance and maintain a vigorous and productive, aesthetically appealing, all-ages stand. The harvest should be timed to coincide with a good white pine cone and/or acorn crop in order to maximize the opportunity for the natural regeneration of the desired species.

The variable retention thinning recommended for the appropriate above stands is an intermediate cut designed to improve the growing conditions of the better formed and faster growing white pine and mixed hardwood saplings, poles, and sawlogs by reducing the overall competition within the stand. At the same time, those structural elements such as snags, cavity trees, and downed logs will be favored to enhance songbird foraging, nesting, and roosting opportunities while providing crucial cover from predators. This will be achieved by removing the competing, less desirable trees. Good fuelwood potential.

The clearcut with retention recommended for Stand 13 is designed to create early successional habitat on the Wellesley Town Forest, where currently there is virtually none. The majority of tree stems 2" in diameter and greater will be cut throughout the treatment area. Trees will be retained based on their habitat value, aesthetic value, and/or seed source value. Merchantable material will be utilized while the tops and branches, referred to as coarse and fine woody material, will be left to lie as close to the ground as possible. The clearing will lead to the creation of a young developing forest that will support an increase in herbaceous, shrub, and young tree species over a period of 10 to 15 years that will provide superb foraging opportunities for those birds that breed and nest in the adjoining woodlands. The seeds and insects that are found in a young developing forest serve as invaluable foods for those birds that have fledged and are preparing to migrate south at the end of the summer.

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WATER DEPT.

Owner(s) Town of Wellesley, Natural Resources Commission Town(s) Wellesley

MANAGEMENT PRACTICES
to be carried out within the next 10 years

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

Additional Management Considerations

These improvement practices will be carried out in strict accordance with the Massachusetts Best Management Practices (BMPs) in order to protect and maintain the quality of the water resource on and near this property. Any potential forest cutting projects will be subject to the limitations described by the Natural Heritage Program following submission of a Chapter 132 Forest Cutting Plan to DCR and the Wellesley Natural Resources Department. In addition, efforts will be made to minimize the aesthetic impact of the recommended improvement work. The tree removal debris will be left to lie as close to the ground as possible. This coarse and fine woody material creates a "microhabitat" so to speak that is utilized by many species of small mammals, birds, reptiles, amphibians, insects, and other invertebrates. The creation of several brush piles per acre with some of the slash will enhance the area for wildlife. Many birds and small animals utilize brush piles for roosting, nesting, and feeding. Leaving a minimum of six dead trees, referred to as snags, per acre will also enhance the area for wildlife. At the same time, three to five percent of the remaining trees should be considered potential cavity trees and future snags. Many species of birds and animals such as wood ducks, barred owls, chickadees, titmice, nuthatches, squirrels, fishers, and raccoons utilize these trees for roosting, denning, nesting, and feeding. Forest birds in New England typically breed from May through August, which is the most critical time to avoid woodland disturbances.

The stumps that remain following the forest improvement work will take many years to break down and decay. During that time, the stumps will provide ideal cover and foraging possibilities for salamanders, snakes, shrews, voles, chipmunks, foxes, raccoons, skunks, weasels, and fishers.

It should also be noted that the creation of small openings in the forest canopy through the tree removal process will stimulate a flush of herbaceous, shrub, and young, generally shade tolerant tree growth on the forest floor. Although only temporary, these small openings serve to attract a greater variety of animals that are drawn by the insects, seeds, and soft mast such as raspberry, blackberry, huckleberry, and highbush and lowbush blueberry that result from the forest cuttings. Often times, it is forest interior birds such as the scarlet tanager, eastern wood pewee, and wood thrush that will use these small openings within the forest mosaic. The developing dense growth provides vital cover for the fledglings that will use these areas for feeding. At the same time, the next generation of desired trees will begin to flourish in the small openings and eventually grow into the saplings and poles that will provide invaluable vertical structure to the Wellesley Town Forest.

Clearing for early successional habitat will result in the same flush of new growth as found in the small openings described above, although the ability of shade intolerant species such as the aspens, cherries, birches, and eastern red cedar to become established and thrive will be greatly enhanced.

Early successional habitat and the suite of wildlife species that depend on it for feeding, breeding, and nesting has been in steady decline for many years. Where development has not taken place, the farmlands abandoned in the early 1900's have grown into mature woodlands. At the same time, extensive logging has declined over time as has the threat of large scale forest fires. Although natural disasters such as hurricanes or ice storms do occur from time to time, proactive forest management is one of the few tools available to reset the natural succession on properties as needed. The recommendation for Stand 13 will result in a small increase of open land that will primarily benefit the same forest interior birds listed above.

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Owner(s) Town of Wellesley, Natural Resources Commission ^{WATER DEPT.} Town(s) Wellesley

MANAGEMENT PRACTICES
to be carried out within the next 10 years

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

STEW	18	GF	habitat enhancement	@ 0.3	NA	NA	as needed
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Management Options & Considerations

As was discussed in the Stand Description section of the plan, this stand provides additional habitat diversity to the Wellesley Town Forest. Open grasslands have been in steady decline for many years and the suite of wildlife species that depend on these habitats have been in decline as well. Although the area involved is too small for those species that depend on grassland habitats, the open area will attract insects and increase the seed production of those plants in the opening that will further enhance the area for feeding by those birds that are usually considered forest dwellers. The management option that will be the most effective in maintaining this valuable habitat involves the periodic mowing of the former butterfly garden.

Some Responsibility bird species that may benefit specifically from these treatments include: *American woodcock, Brown thrasher, Chestnut-sided warbler, Eastern wood pewee, and Northern flicker.*

Landowner Goals & Management Description

Based on the landowner goals of enhancing both wildlife habitat on this property and its aesthetics, it has been decided that habitat enhancement will be the most effective management approach to consider.

Additional Management Considerations

If the grasses are not particularly lush in this area, the mowing can be carried out on a biennial basis. It will be important to leave a layer of shrub growth along the immediate tree line in this area. If the narrow layer of shrubs and young trees is able to reach a height of three to five feet, the area may then be able to provide suitable cover for foraging and limited nesting, thereby increasing the structural diversity and species richness of the open areas.

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Owner(s) WATER DEPT.
Town of Wellesley, Natural Resources Commission Town(s) Wellesley

MANAGEMENT PRACTICES

to be carried out within the next 10 years

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

INVASIVES: As mentioned previously, there is both a growing and well established component of invasive plant species throughout the Wellesley Town Forest including bittersweet, glossy buckthorn, honeysuckle, autumn olive, winged euonymus, barberry, multiflora rose, Japanese knotweed, garlic mustard, tree of heaven, and Amur corktree. Although it is a daunting and somewhat overwhelming task, it may be prudent to begin to address some of these species in order to slow their spread. One strategy to consider is to focus initially on the small, isolated pockets. Using various combinations of physical removal, repeated cuttings, and/or the prudent use of herbicides such as Round-Up should bear positive results, although it will be a never-ending endeavor. It should be noted that the use of goats is becoming more widely considered as a means to rein in the growth of the invasives. Several local companies now rent out their goats for this purpose. Although the goats do an excellent job minimizing the target invasives, follow-up control measures are absolutely necessary to control the invasives long term.

When nonnative invasives are present in stands that are being considered for improvement work, the work should only be timed when there is a moderate to heavy white pine cone or acorn crop evident and ready to mature. Maximizing the opportunity for the natural regeneration of the desired tree species should help to overwhelm, or at least help to minimize the impact of the invasives.

It will be important to note that a number of state and federal agencies periodically offer financial assistance towards the expense of invasive species control. Monitoring the availability of these possible programs should also be continued.

BOUNDARIES: As the above recommendations are carried out, the appropriate property boundaries will be blazed and painted as needed.

ACCESS: During the course of the ten year management period, the current trail system will be improved and maintained to facilitate the implementation of the forest management / forest stewardship program, enhance the potential for passive recreational enjoyment of the property, and provide increased accessibility for fire protection equipment.

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Owner(s) Town of Wellesley, Natural Resources Commission ^{WATER DEPT.} Town(s) Wellesley

Locus Map

Wellesley Town Forest
Wellesley, Massachusetts

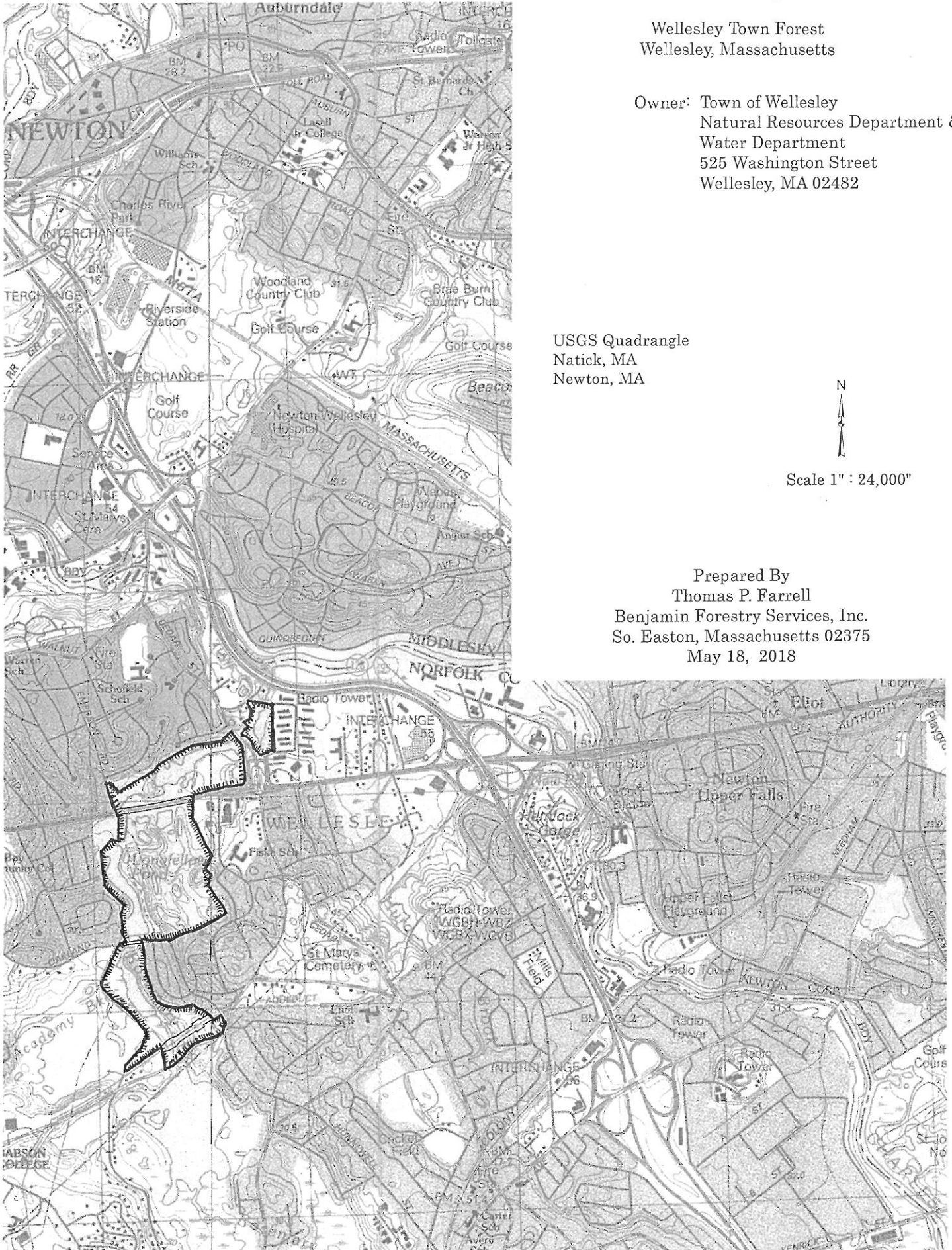
Owner: Town of Wellesley
Natural Resources Department &
Water Department
525 Washington Street
Wellesley, MA 02482

USGS Quadrangle
Natick, MA
Newton, MA



Scale 1" : 24,000"

Prepared By
Thomas P. Farrell
Benjamin Forestry Services, Inc.
So. Easton, Massachusetts 02375
May 18, 2018

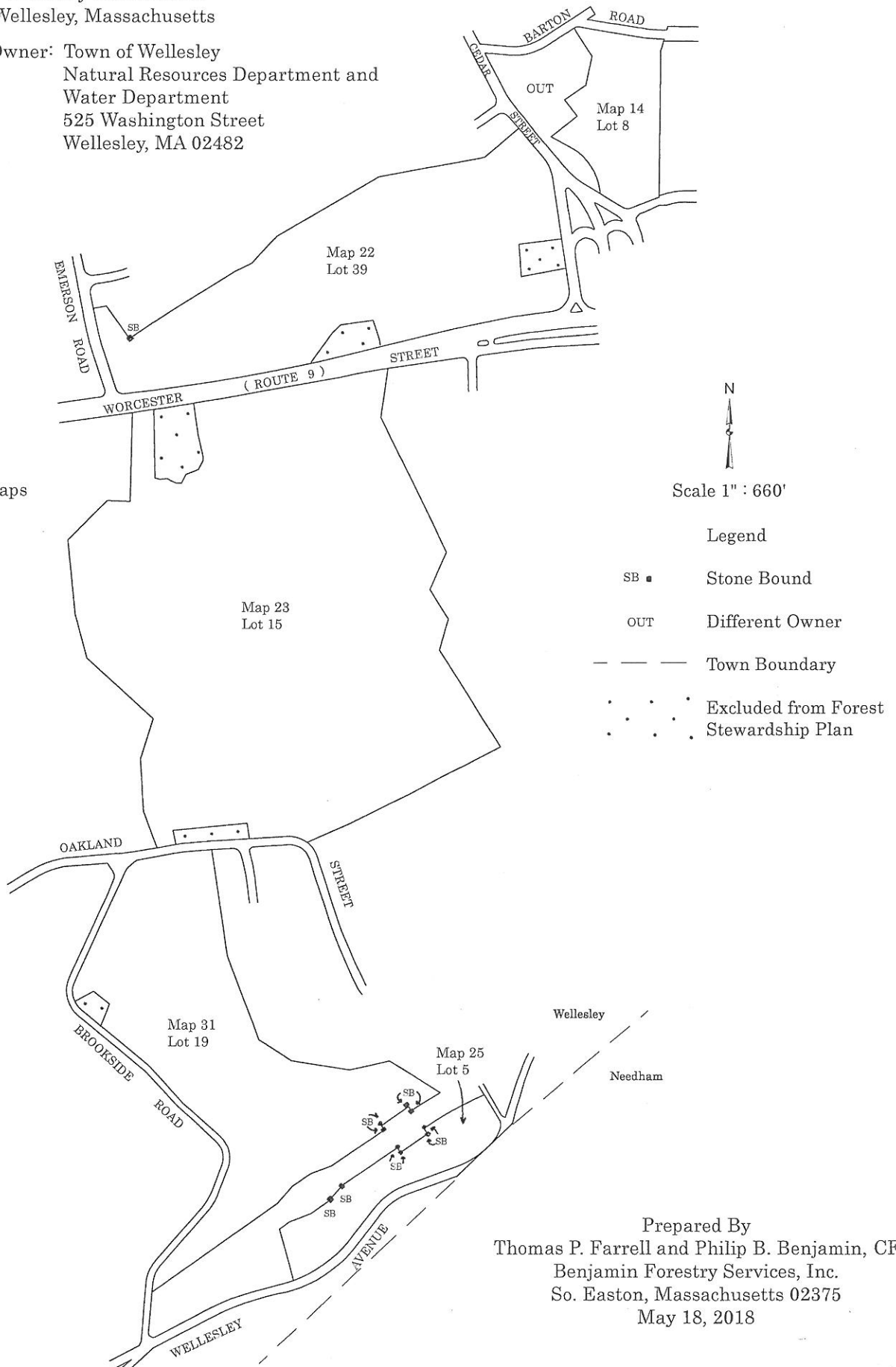


Assessors' Map

Wellesley Town Forest
Wellesley, Massachusetts

Owner: Town of Wellesley
Natural Resources Department and
Water Department
525 Washington Street
Wellesley, MA 02482

Reduced Assessors' Maps
Wellesley
Map 14, Lot 8
Map 22, Lot 39
Map 23, Lot 15
Map 25, Lot 5
Map 31, Lot 19

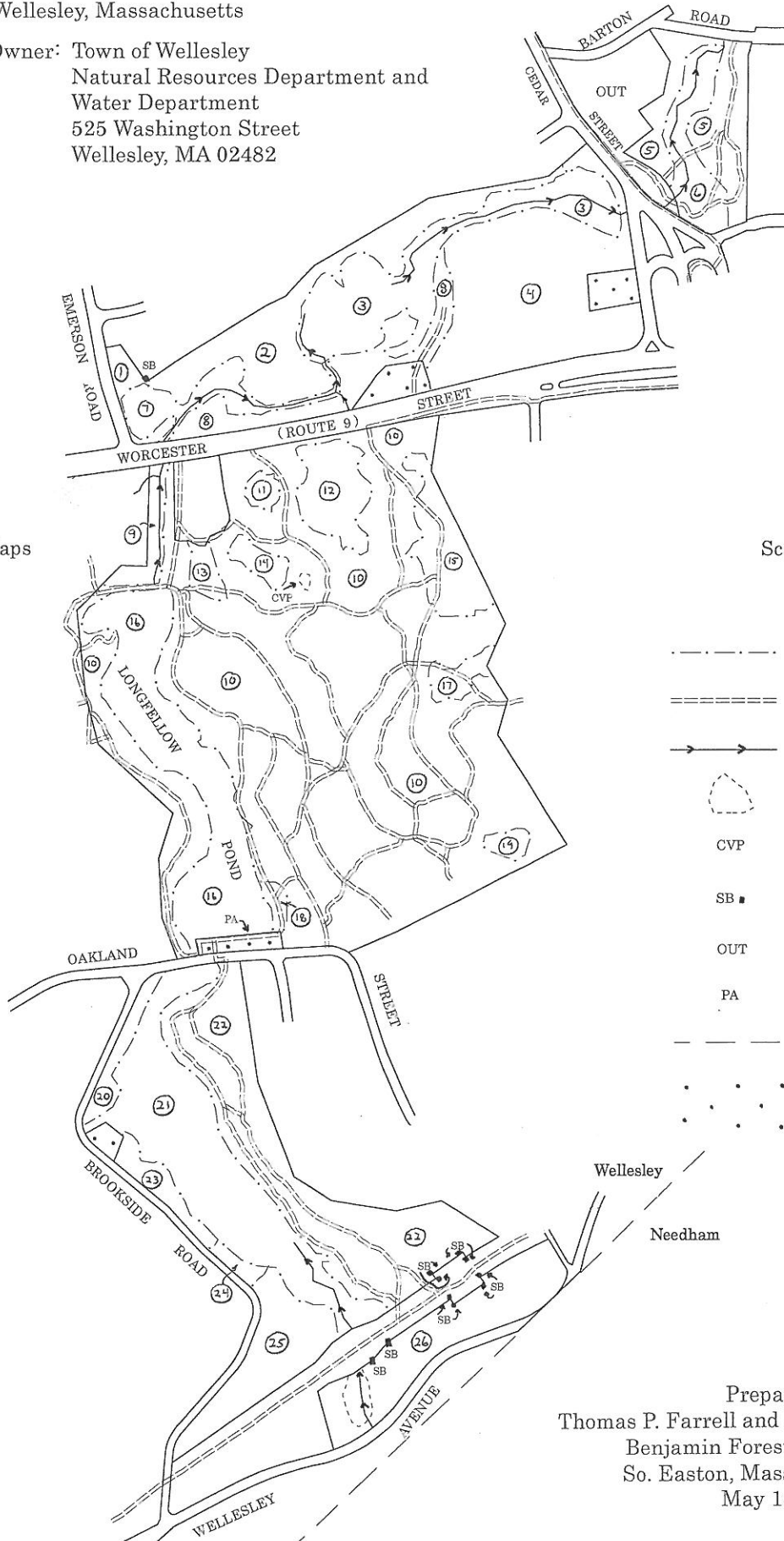


Forest Stand Map

Wellesley Town Forest
Wellesley, Massachusetts

Owner: Town of Wellesley
Natural Resources Department and
Water Department
525 Washington Street
Wellesley, MA 02482

Reduced Assessors' Maps
Wellesley
Map 14, Lot 8
Map 22, Lot 39
Map 23, Lot 15
Map 25, Lot 5
Map 31, Lot 19



N
Scale 1" : 660'

Legend

- Forest Stand Boundary
- ==== Access Road / Trail
- Rosemary Brook
- Seasonal Pond
- CVP Certified Vernal Pool
- SB Stone Bound
- OUT Different Owner
- PA Parking Area
- Town Boundary
- ... Excluded from Forest Stewardship Plan

Prepared By
Thomas P. Farrell and Philip B. Benjamin, CF
Benjamin Forestry Services, Inc.
So. Easton, Massachusetts 02375
May 18, 2018

Signature Page

Please check each box that applies.

☐ CH. 61/61A/61B 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.

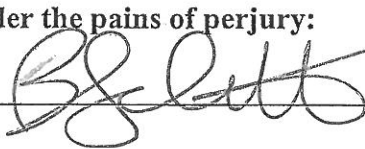
☒ Forest Stewardship Plan - I pledge to abide by the management provisions of this Stewardship Management Plan for a period of at least ten years, following approval. I understand that in the event that I convey all or a portion of the land described in this plan during the period of the plan, I will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

☐ Green Certification - I pledge to abide by the FSC-US Forest Management Standard 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 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

6/11/18

Date

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

Plan Preparer

Philip B. Benjamin

Date

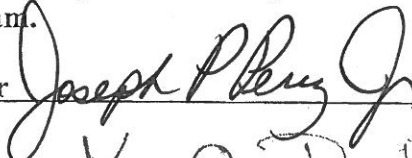
06/14/18

Philip B. Benjamin, CF, Benjamin Forestry Services, Inc.

151 Depot Street, South Easton, MA 02375

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

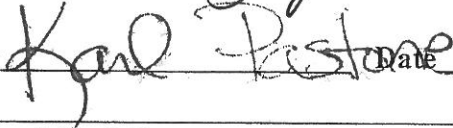
Approved, Service Forester



Date

7/11/18

Approved, Regional Supervisor



Date

7/11/18

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/61B plan within 90 days from the transfer of title to insure continuation of Ch. 61/61A/61B classification.

Owner(s)

Town of Wellesley, Natural Resources Commission

Town(s)

Wellesley