



Woodland Enhancement Plan

DCR Working Forest Initiative

BRADFORD-TORREY BIRD SANCTUARY



For property belonging to:

Town of Weymouth
Conservation Commission
75 Middle Street, 3rd Floor, Weymouth, MA 02189

Prepared by:
Kevin Scherer, LF#362
44 Fiske Hill Rd, Sturbridge, MA

How to use this report

When your consulting forester visited your property they were documenting many things: (1) the current health and timber quality of the trees in your woods, (2) cultural resources such as stone walls and cellar holes, (3) presence/absence of exotic invasive species, (4) wetlands and terrain features, (5) current forest bird habitat conditions, (6) identifying specific opportunities for protecting and/or enhancing timber quality, tree regeneration and bird habitat, (7) suggesting options for improving habitat over a 10-year period. After reading this report you might consider some of the following steps:

Learn more about the habitat and birds on your property. Whether you're a seasoned birder or just beginning, we hope that this report will show you something new about your property and encourage you to learn more. You can begin by learning to identify the *Focal Birds* by sight and sound, if you don't know them already. Start taking notes on when and where you see birds in your woods. To learn more about the birds that breed in Massachusetts, check out the Breeding Bird Atlas 2 (www.massaudubon.org/birdatlas/bba2) and State of the Birds reports (www.massaudubon.org/sotb). **Share this report with neighbors, friends, and family.** Help us spread the word about the importance of breeding habitat for forest birds found here in New England. Teach your neighbors how to identify the priority species, and let others know about the services being offered by Mass Audubon and the DCR Working Forest Initiative. By involving your neighbors in management planning you can maximize the impacts of your efforts by crossing property boundaries and increasing the amount of land you enhance. The benefits for birds and forest health will be worth the coordination effort.

Contact Mass Audubon or your DCR Service Forester with any questions when you're planning management activities. We would be happy to follow up with you, answer questions, and assist with any implementation of our recommendations.

- Mass Audubon—jrittersen@massaudubon.org
- DCR — DCR.Forestry@state.ma.us

Or *google*: MA DCR Service Forestry Program



FOREST MANAGEMENT PLAN

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



CHECK-OFFS					Administrative Box		
CH61	CH61A	CH61B	STWSHP	C-S	Case No.	Orig. Case No.	
cert. <input type="checkbox"/>	cert. <input type="checkbox"/>	cert. <input type="checkbox"/>	new <input checked="" type="checkbox"/>	EEA <input checked="" type="checkbox"/>	Owner ID	Add. Case No.	
recert. <input type="checkbox"/>	recert. <input type="checkbox"/>	recert. <input type="checkbox"/>	renew <input type="checkbox"/>	Other <input type="checkbox"/>	Date Rec'd	Ecoregion	
amend <input type="checkbox"/>	amend <input type="checkbox"/>	amend <input type="checkbox"/>	FSC <input type="checkbox"/>	Birds <input checked="" type="checkbox"/>	Plan Period	Topo Name	Weymouth
Plan Change: _____ to _____			Conservation Rest. <input type="checkbox"/>		Rare Spp. Hab.	River Basin	B. Harbor
			CR Holder				

OWNER, PROPERTY, and PREPARER INFORMATION

Property Owner(s) Town of Weymouth, Conservation Commission
Mailing Address 75 Middle Street, 3rd Floor, Weymouth, MA 02189 Phone 781-340-5007
Email Address AHultin@weymouth.ma.us

Property Location: Town(s) Weymouth Road(s) Main Street

Plan Preparer Kevin Scherer Mass. Forester License # 362
Mailing Address 44 Fiske Hill Road, Sturbridge, MA 01566 Phone 774-285-3304

RECORDS

Assessor's Map No.	Lot/Parcel No.	Deed Book	Deed Page	Total Acres	Ch61/61A 61B Excluded Acres	Ch61/61A 61B Certified Acres	Stewshp Excluded Acres	Stewshp Acres
37	1	6066	363	4.3				4.3
37	2	5423	396	4.3				4.3
38	1	1312	182	8.6				8.6
38	2	35615	381	12.7				12.7
TOTALS				Cont.				Cont.

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

No Exclusion area(s) for this Stewardship Plan.

HISTORY Year acquired 1937 Year management began 2022

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

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

stand no. _____ treatment _____ reason _____

(if additional space needed, continue on separate page)

Previous Management Practices (last 10 years)

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

Remarks:

RECORDS (continued)

Assessor's Map No.	Lot/Parcel No.	Deed Book	Deed Page	Total Acres	Ch. 61/61A 61B <i>Excluded</i> Acres	Ch61/61A 61B Certified Acres	Stewshp <i>Excluded</i> Acres	Stewshp Acres
41	6	8148	604	5.8				5.8
41	12	6066	363	19.2				19.2
41	462/14	6066	363	2.4				2.4
41	490/14	6066	363	22				22
41	17	6066	363	10.4				10.4
41	28	3472	505	4.3				4.3
42	1	2973	278	4				4
42	2	3998	513	11.3				11.3
42	3	2148	581	5.2				5.2
TOTALS				114.5				114.5

Survey Plans:

HISTORY (continued):

Owner(s) TOWN OF WEYMOUTH Town(s) WEYMOUTH

Landowner Goals

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

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

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

In your own words, describe your goals for the property:

To be maintained in a way that promotes a healthy native ecosystem, promotes diverse habitat for birds and provides opportunities for passive recreation for the public.

Stewardship Purpose

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

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

Signature(s): Mary Ellen Schless
Conservation Administrator

Date: 12/29/2021

Owner(s) (print) Town of Weymouth
(This page will be included with the completed plan.)



Property Overview, Regional Significance, and Management Summary

General Property Information: The Town of Weymouth's, Bradford Torrey Bird Sanctuary is 114-acre property located in South Weymouth, Massachusetts. The sanctuary has pedestrian access on Main Street, Mediterranean Drive, Tall Oaks Drive and Burkill Street. The main trailhead is behind Weymouth High School. The sanctuary is named after ornithologist and outdoor author Bradford Torrey (1843-1912). The property was acquired by the town through a series of land donations dating back to 1937, when John W. Seabury donated a parcel of land previously owned by Bradford Torrey. Bradford Torrey authored several essays reflecting on his land, including *My Real Estate*. With over 2.5 miles of trails, the sanctuary offers opportunities for passive recreation including hiking, biking and wildlife viewing. The purpose of this plan is to document the current condition of the property and offer suggestions on how to improve the forest for songbird habitat.

Regional Significance: Refer to the Openspace and Natural Heritage Endangered Species Map in this plan for details. Within this 2,500 acre block a vast majority of the land cover has been urbanized. The only remaining forested areas are undevelopable wetlands and urban forest. These wetland areas are dominated by red maple. Fragmentation is extensive. This property is the largest area of protected land within the block, and its permanent protection will help ensure the persistence of bird species that need large areas of forest, such as Wood Thrush. There are a few other municipally owned forested parcels. Approximately 5% of the block is protected openspace.

Watershed: The property is within the Weymouth Back River Watershed which terminates in Hingham Bay approximately 6-miles to the northeast. Surface water flows off the sanctuary via a perennial stream named Old Swamp River. Old Swamp River flows into Whitman's Pond. The Weymouth Back River begins at the outfall of Whitman's Pond. The Back River flows northerly into an estuary and then Hingham Bay. Riparian and wetland protection will be an important part of any planned management activity. Best Management Practices (BMPs) will be implemented to effectively manage the forest without harming water quality.

Soils: Refer to the soils map for details. The primary soil type found on this property is referred to as the Hollis-Rock Outcrop-Charlton Complex. It consists of gently sloping and strongly sloping soils and areas of exposed bedrock on hills and ridges where the relief is affected by the underlying bedrock. The shallow, somewhat excessively drained Hollis soil is on the tops of ridges or is near rock outcrops. Although rock outcrops are common on this soil type, they are not large enough in area to mimic early successional habitat. The forest canopy is still relatively closed. The very deep, well drained Charlton soil is in low pockets and saddles. Stones and boulders 10 inches to 10 feet in diameter cover up to 15 percent of the surface. This soil type has low to moderate water capacity, high acidity and a deep water table. Red oak will have low to moderate productivity on this type of soil. The wetland soils found along drainage ways consist of Swansea Muck and Whitman Loam. These soils are very deep, nearly level to gently sloping and very poorly drained. This soil type is also strongly acidic with a seasonal high water table above the soil surface (ponding). Red maple, black gum and elm are typically found on this soil type.

Access & Operability: Access to the property for commercial forest management is possible. There is adequate frontage on Main Street and Mediterranean Drive for a landing area and heavy equipment. Operability is poor. Operating heavy equipment on this site would be very difficult because of the numerous rock features, extensive recreational use, six vernal pools and other wetland features.

Owner(s) TOWN OF WEYMOUTH Town(s) WEYMOUTH

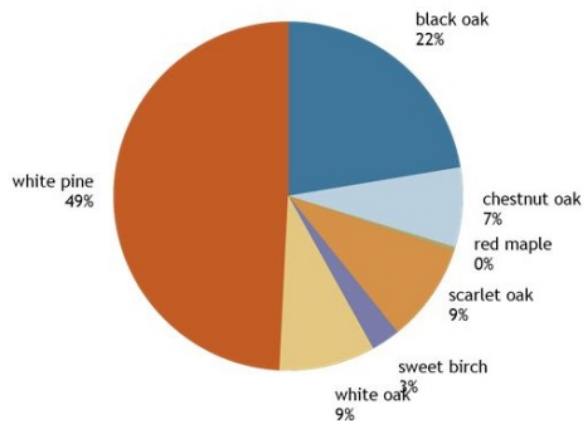
Boundary Lines: The boundary lines are not marked. Blazes, wire fence remnants and signage were not found. Stonewalls appear to mark the boundary in at least one location. The property has not been surveyed but one would be beneficial to enforce the rules of the sanctuary and determine if encroachment is an issue.

Landuse History: The property’s early land use and forest development history are common to the region. The entire property was cleared for pastureland before agricultural abandonment in the late 1800s and early 1900s. Stonewalls are evidence of this past land use. Around the turn of the century (1900-1920) the then pasture was abandoned and the land reverted back to white pine dominated forest and eventually, through various natural and man-made disturbances, became a mixed species forest with a high percentage of oak. Some specific examples of disturbances include the hurricane of 1938, World War 2 boxboard demands, periodic gypsy moth infestations, drought, ice storms, and numerous windstorms.

Natural Heritage Endangered Species Habitat: According to the latest NHESP MASS GIS data layer there is no priority habitat or estimated habitat of concern on the property. However, there are six vernal pools that require preservation. The formal review process with NHESP begins with the submittal of a forest cutting plan to DCR. DCR staff forward the forest cutting plan to NHESP for review. NHESP will submit comments and modifications necessary to avoid harming rare species and their habitat. The plan is then modified to incorporate the recommendations before the plan is approved. These recommendations are likely to include establishing a buffer around the pools and time restrictions.

Moose and Deer Impacts: During the inventory work for this management plan heavy deer and/or moose browse was not noted. Deer were seen during the fieldwork for this plan. Future forest management would need to consider how to deal with deer populations if it became an issue. The concern being their impact on establishing advanced regeneration growth. Often hunting manages populations but on this parcel hunting is extremely limited by the surrounding urban area.

Forest Overview: The most abundant tree species are white pine and black oak. Associated species include white oak, chestnut oak, scarlet oak, red maple, and sweet birch. Although not captured in the inventory other species present in low numbers are beech, black gum, black cherry and sassafras. The average tree diameter is 9”-10” inches. The average basal area is 113 feet/squared. On average there are 206 trees/acre. Most of the sawtimber volume is white pine. Timber quality is poor to fair. There is no indication that forest management has occurred in the last 60 years or more. Advanced regeneration or an otherwise dense understory is lacking. The most common tree species in the understory are beech, white pine and mixed oak. Overall forest health is currently fair. Oak tree decline and mortality is abundant. The beech does not appear to have scale-nectria complex. Invasive plant species were noted during the fieldwork for this plan but it is not currently posing a major threat to biodiversity. Other forest health issues that currently threaten our forests such as, white ash dieback, long horned beetle infestations, sudden oak death disease, and emerald ash borer will be monitored and may affect future forest management decisions.



TRACT INFO

4 STANDS

ACRES 110.4

13 PTS

SPECIES COMPOSITION

	BA		TPA	AVG DBH	AVG MHT	VOLUME PER ACRE			TOTAL TRACT VOLUME		
						MBF	TONS	CORDS	MBF	TONS	CORDS
	113.8		206.7	10.0		5.16	11.83	6.57	569.60	1,306.02	724.79
white pine	43.8	38.5%	64.7	11.1	41.3	4.02	9.55		444.26	1,054.15	
black oak	28.5	25.0%	45.4	10.7	20.8	0.89	0.33	2.51	98.02	35.98	277.38
scarlet oak	13.8	12.2%	37.3	8.3	17.3	0.14	0.98	1.13	15.05	107.94	125.01
chestnut oak	13.1	11.5%	30.7	8.8	16.0		0.49	1.33		53.97	146.93
white oak	10.8	9.5%	20.9	9.7	18.9	0.11	0.49	1.05	12.27	53.97	116.34
sweet birch	3.1	2.7%	6.3	9.5	22.0			0.45			49.41
red maple	0.8	0.7%	1.4	10.0	16.0			0.09			9.73

Wildlife Habitat Observations: The abandoned power line, that is approximately 60 feet wide, is now dominated by sapling size white pine and mixed hardwood is providing ground and understory nesting sites for songbirds. Right-of-Ways greater than 150 feet wide have been shown to be ideal for edge sensitive birds. Any future management that builds off of or otherwise widens the opening would enhance this resource. It is also a good browsing and concealment resource for deer. The property has an abundance of mixed oak species that provide acorns. Acorns are the most important food resource for many important wildlife species such as turkey, deer, black bear, squirrels and mice. The numerous vernal pools serve as essential breeding habitat for salamanders, turtles and frogs. Juvenile and adult amphibians associated with vernal pools provide an important food source for small carnivores. In addition, birds such as ducks and hawks use vernal pools as a seasonal source of food and water. The numerous rock outcropping and boulders provide cavities for snakes and den animals such as foxes. The perennial stream is excellent macroinvertebrate habitat and likely supports beneficial species such as dragonflies and dobsonflies.

Bird Habitat Characteristics: This forest has a dense canopy of oak and pine and not a well-established midstory or understory. There is minimal soft mast available. Also lacking are large cavity trees, coarse woody material and fine woody material. Thick leaf litter is abundant because of the mostly mixed oak overstory and slow decomposition rate. The surrounding landscape lacks large areas of mature forest, early successional forest and grassland habitat. The abandoned powerline bisecting the property has regenerated to sapling sized mix hardwood and white pine providing songbird breeding habitat.

Documented Birds: The following birds have been documented by observers throughout the seasons, including periods of migration. It is unlikely many of these species are breeding on the property. This plan will focus on the birds that, with management, are likely to breed on this property. The following have been documented: American Crow, Baltimore Oriole, Black and White Warbler, Black Capped Chickadee, Black Throated Blue Warbler, Blackpoll Warbler, Blue Headed Vireo, Blue Jay, Brown Creeper, Brown Headed Cow Bird, Cardinal, Carolina Wren, Cedar Waxwing, Chimney Swift, Chipping Sparrow, Common Yellow Throat, Coopers Hawk, Dark Eyed Junco, Downy Woodpecker, Eastern Phoebe, Eastern Towhee, **Eastern Wood Pewee**, Golden Crown Kinglet, Goldfinch, Grackle, Great Crested Flycatcher, Grey Catbird, Hermit Thrush, Mallard, Mourning Dove, **Northern Flicker**, Palm Warbler, Pine Warbler, Raven, Red Bellied Woodpecker, Red Breasted Nuthatch, Red Eyed Vireo, Red Tailed Hawk, Red Wing Black Bird, Robbin, Ruby Throated

Owner(s) TOWN OF WEYMOUTH Town(s) WEYMOUTH

Hummingbird, Savannah Sparrow, Scarlet Tanager, Song Sparrow, Tufted Titmouse, Tree Swallow, Turkey, **Veery**, White Breasted Nuthatch, **White Throated Sparrow**, **Yellow Bellied Sap Sucker**, Yellow Rumped Warbler

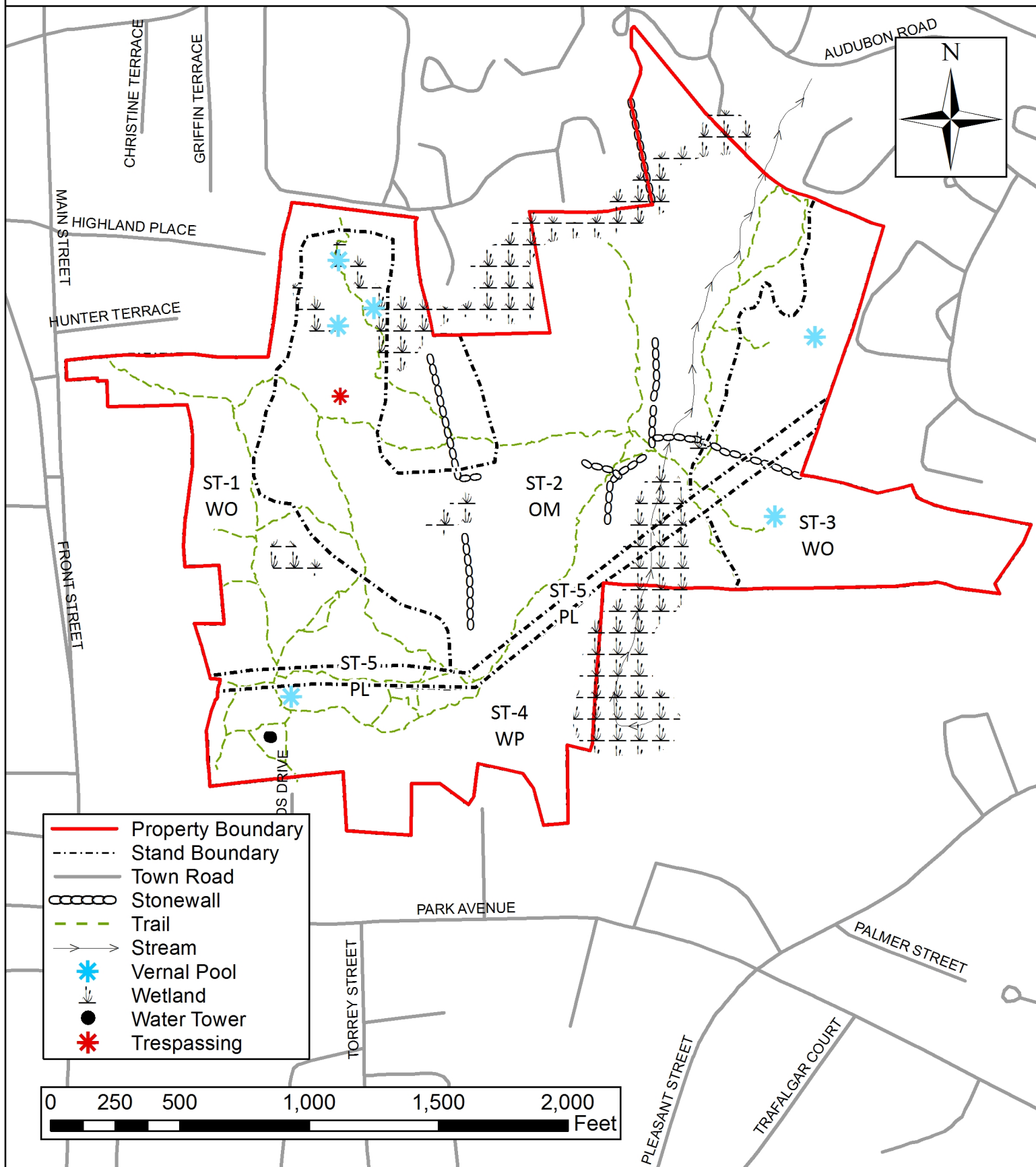
Other Management Considerations (Cultural resources, fire danger, etc.): The potential for a devastating fire on the property is moderate due to the dry nature of this site (slow decomposition) coupled with a deep leaf litter layer. To reduce the risk of any fire danger from timber harvesting BMPs (Best Management Practices) will be strictly enforced. The eighteenth century stonewalls found on the site are an important historical landmarks of New England and will be protected as such.

Forest Management Objective: The Town of Weymouth's Conservation Commission would like to maintain the sanctuary in a way that promotes a healthy native ecosystem, promotes diverse habitat for songbirds and provides opportunities for passive recreation for the public. This plan will recommend that a non-commercial operation that implements small group and single-tree selection methods in conjunction with girdling and creating brush piles will be the best way to reach the town's goals.

Owner(s) TOWN OF WEYMOUTH Town(s) WEYMOUTH

Bradford Torrey Bird Sanctuary Forest Stands

Town of Weymouth

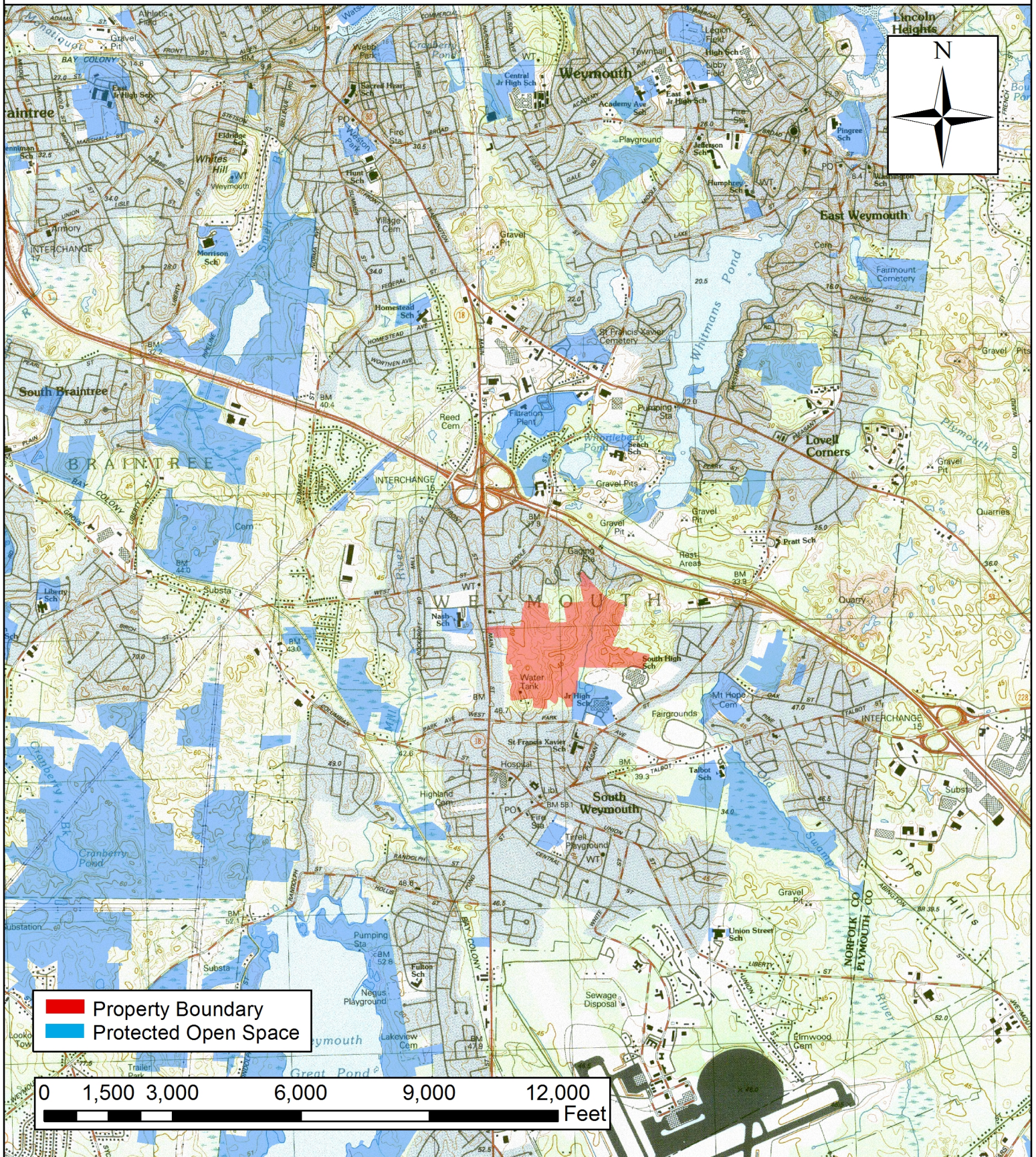


Data Sources: Field Observations; Corner Marker data taken from GPS coordinates; Equipment: Garmin 76CSX; Datum: WGS84, WAAS Enabled; Accuracy +/- 10'; Averaging enabled 60 positions collected for each point. Topo data from MassGIS 2018. Made for forest management purposes only.

Prepared by:
Eric Brown
January 2022

Bradford Torrey Bird Sanctuary Locus

Town of Weymouth

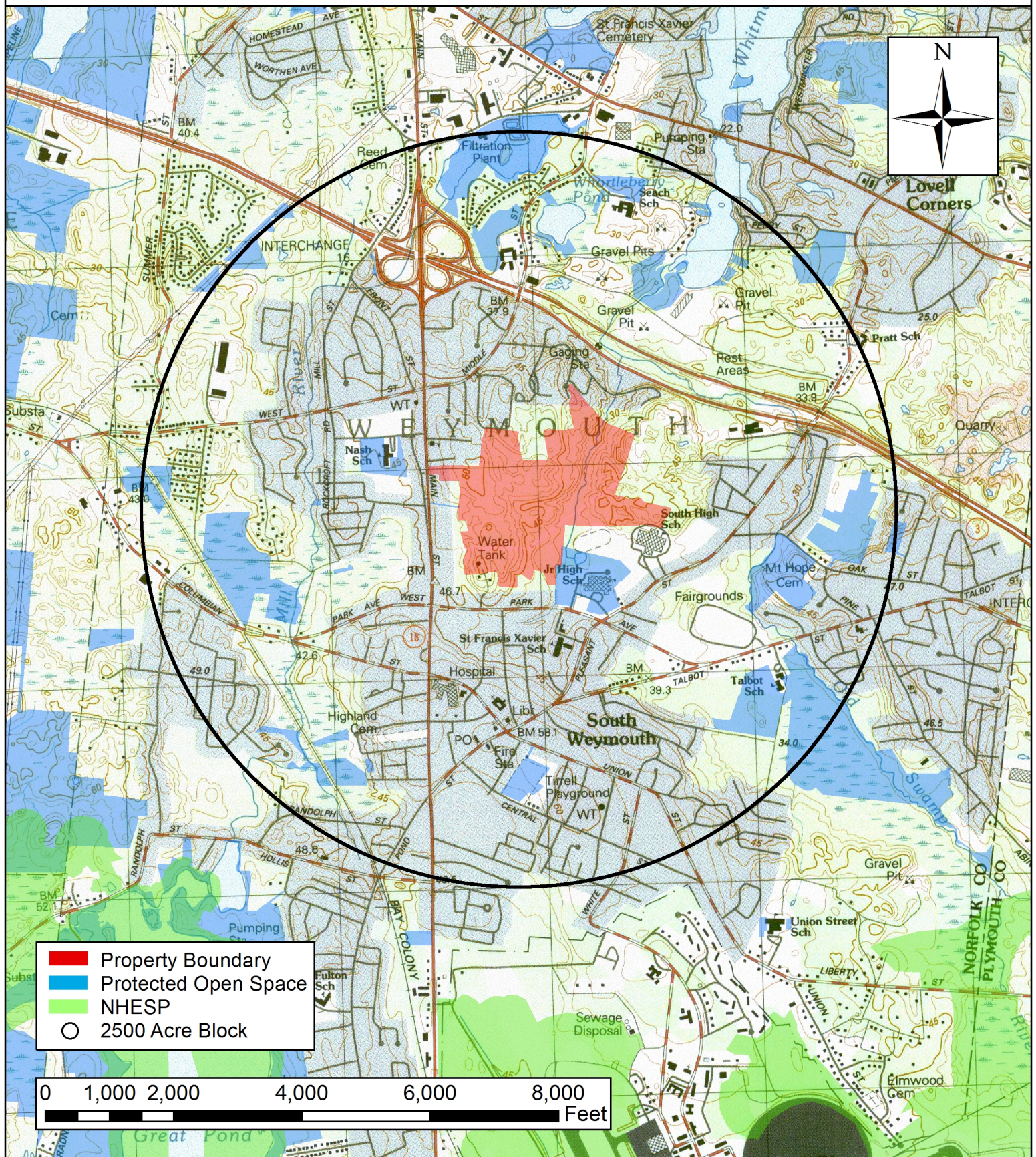


Data Sources: Field Observations; Corner Marker data taken from GPS coordinates; Equipment: Garmin 76CSX; Datum: WGS84, WAAS Enabled; Accuracy +/- 10'; Averaging enabled 60 positions collected for each point. USGS Topo and OpenSpace from MassGIS 2018. Made for forest management purposes only.

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Eric Brown
January 2022

Bradford Torrey Bird Protected Habitat and NHESP

Town of Weymouth

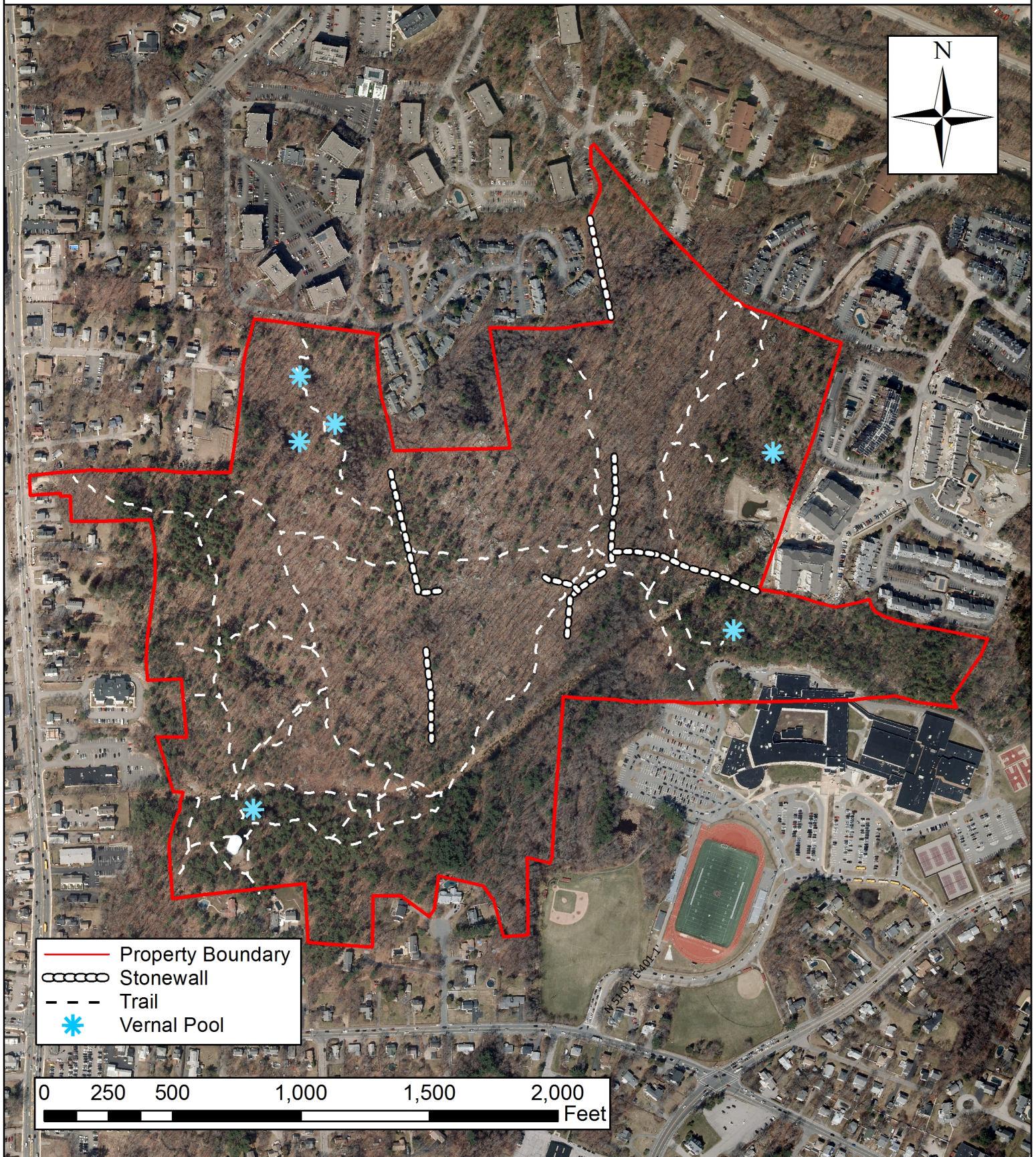


Data Sources: Field Observations; Corner Marker data taken from GPS coordinates; Equipment: Garmin 76CSX; Datum: WGS84, WAAS Enabled; Accuracy +/- 10'; Averaging enabled 60 positions collected for each point. USGS Topo and OpenSpace from MassGIS 2018. Made for forest management purposes only.

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Bradford Torrey Bird Sanctuary Ortho

Town of Weymouth

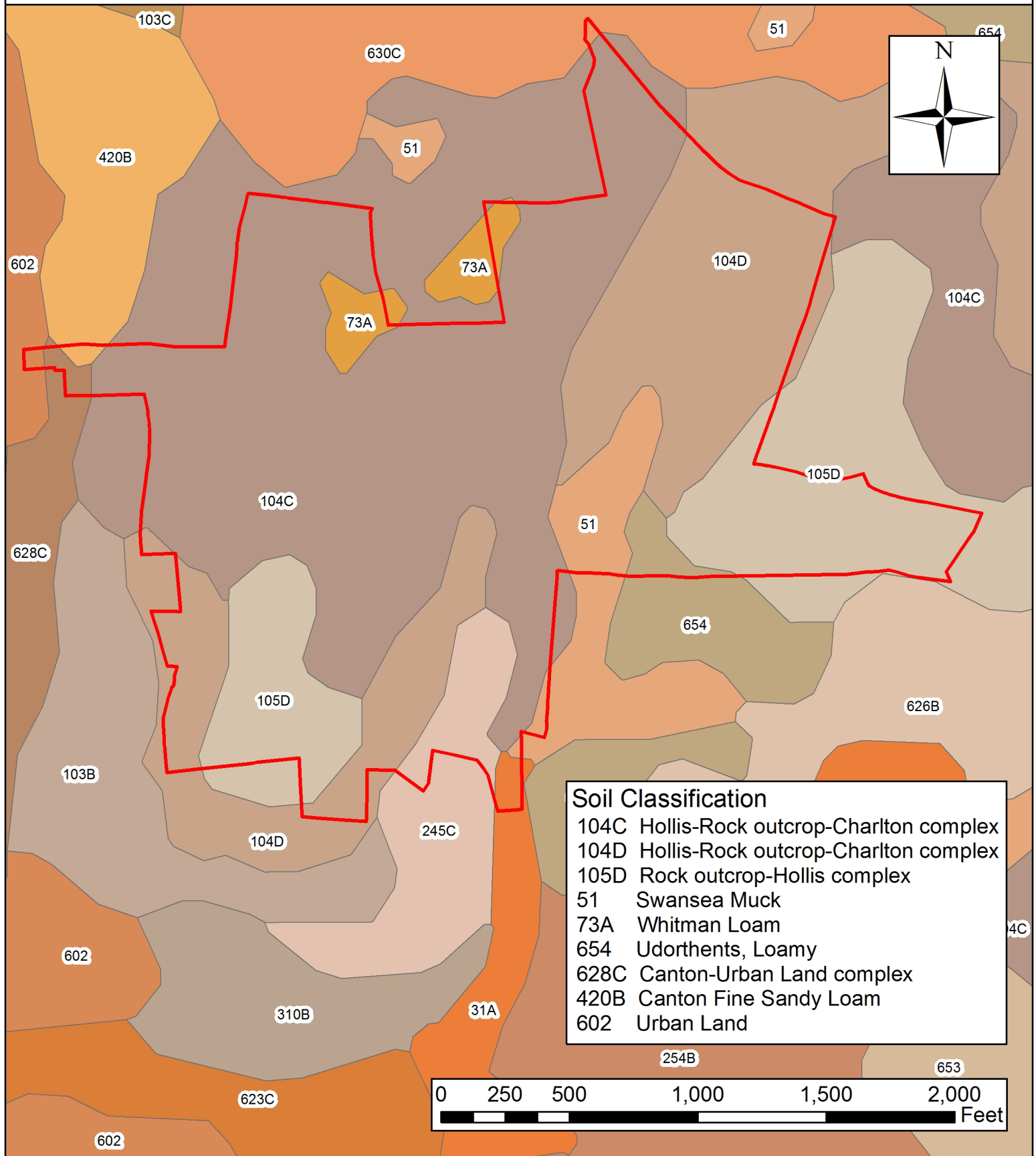


Data Sources: Field Observations; Corner Marker data taken from GPS coordinates; Equipment: Garmin 76CSX; Datum: WGS84, WAAS Enabled; Accuracy +/- 10'; Averaging enabled 60 positions collected for each point. Ortho Photo from MassGIS 2019. Made for forest management purposes only.

Prepared by:
Eric Brown
January 2022

Bradford Torrey Bird Sanctuary Soil

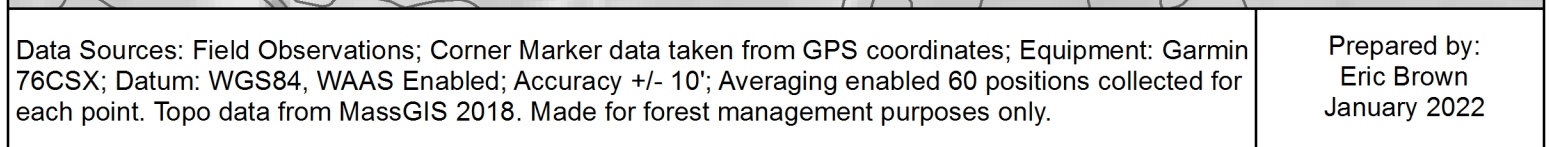
Property Location:



Data Sources: Field Observations; Corner Marker data taken from GPS coordinates; Equipment: Garmin 76CSX; Datum: WGS84, WAAS Enabled; Accuracy +/- 10'; Averaging enabled 60 positions collected for each point. Soil data from MassGIS 2018. Made for forest management purposes only.

Prepared by:
Eric Brown
January 2022

Town of Weymouth



Forest Stands

For the purposes 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	Forest/Habitat Type	Size (acres)	Notes
1	White Pine - Oak	23.1	80-90% canopy closure. Sawtimber sized. Understory and midstory not well established. Tree quality and vigor is fair to poor. Overstory is predominantly White Pine (53%) and Chestnut Oak (24%). Sawtimber is strictly white pine. No evidence of past timber harvesting. No invasive plants noted. Low-bush blueberry abundant. Soil is excessively-well drained with an abundance of surface boulders. Vernal pools present.
2	Mixed Oak	54.2	80% canopy closure. Sawtimber sized. Understory (25%) and midstory (40%) not well established. Tree quality and vigor is fair. Overstory is a mix of black oak (34%), white oak (23%), scarlet oak, chestnut oak and white pine. Sweet birch is present in the midstory. Sawtimber is mostly black oak. Better quality sawtimber is located near the brook. No evidence of past timber harvesting. Small area of invasive plant growth found consisting of Japanese knotweed, Soil is excessively-well drained with an abundance of surface boulders and rock outcroppings.
3	White Pine - Oak	17.4	80% canopy closure. Sawtimber sized. Understory and midstory not well established. Tree quality and vigor is fair to poor. Overstory is predominantly black oak (49%), white pine and scarlet oak. Chestnut oak and red maple also associated. Sawtimber is strictly white pine. No evidence of past timber harvesting. No invasive plants noted. Low-bush blueberry is abundant. Green briar is some areas. Soil is excessively-well drained with an abundance of surface boulders and rock outcroppings. Vernal
4	Abandoned Field	4.1	Abandoned power line. Open canopy. Regeneration becoming established. Primarily white pine, black oak, scarlet oak and beech. Rubus, green briar, witch hazel and vaccinium as well. Many rock outcroppings and large boulders.
5	White Pine	15.7	80-90% canopy closure. Sawtimber sized. Understory and midstory not established. Tree quality and vigor is fair. Overstory is predominantly White Pine (83%). Sawtimber is strictly white pine. No evidence of past timber harvesting. No invasive plants noted. Soil is excessively-well drained with an abundance of surface

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

Owner(s) Town of Weymouth Towns(s) Weymouth

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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17 of 30

STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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Current Bird Habitat Conditions: The canopy is greater than 60 feet tall, uniform, and 80-90% closed. The midstory is patchy and mostly comprised of mixed hardwood species, covering 25% of the area. The understory is patchy in distribution and not well developed, covering approximately 25% of the area. Low-bush blueberry constitutes all of the soft mast. There is insufficient coarse and fine woody debris. Leaf litter is adequate. Very few snags or cavity trees were noted.



Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition with small canopy gaps ranging from single tree to a ¼ acre in size to encourage dense understory growth.	Single-Tree Method & Group Selection Method	Wood Thrush Eastern Wood Pewee Northern Flicker
Large snags at the edge of patches.	Girdle large diameter low quality trees on the edge of a cutting area.	Northern Flicker
Increase small and large woody debris and brush piles.	Leave felled trees on site and pile brush.	All Species

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Owner(s) TOWN OF WEYMOUTH

Towns(s) WEYMOUTH

STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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STEW 2 OM 54 10.3" 96 3 MBF RO:55-60
8 cds. (f)/3 tons (p)

Forest Type: Mixed Oak

Stand Age: 80-110 years old

Trees/Acre: 166

Regeneration: inadequate – mixed oak, white pine, beech, sweet birch, hickory, sassafras, black cherry

Invasive Species: glossy buckthorn, knot weed

Shrub growth: low-bush blueberry, witch-hazel

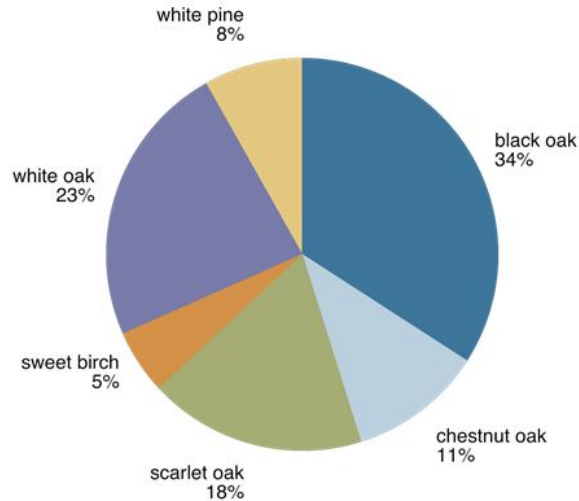
Aspect: southeasterly

Size Class: Small Sawtimber

Soil Type: Hollis-Rock Outcrop-Charlton Complex

Past Harvesting: No

Other Notes: numerous rock outcroppings, noticeable oak mortality



General Description: This is the largest stand on the property. The overstory is dominated by black oak and mixed oak species. The primary associated species are white pine and sweet birch. No evidence was found of past timber harvesting or other forest management. The current stand has a fairly uniform overstory, except where natural oak mortality has occurred creating small openings in the canopy. The Hollis-Rock Outcrop-Charlton Complex soil found on this site is not a productive soil for timber management. Typically, with or without management this type of soil will favor oak and pine growth. A majority of the sawtimber volume is black oak with an average DBH of 14-inches. The quality is fair to poor. Many appear to be mature for the site and have begun to decline. Vigor is low. Mortality is common. Perhaps the latest gypsy moth infestation played a role. Some better quality, vigorous growth can be found along the perennial stream. Several vernal pools are providing essential breeding habitat that will be protected during any future forest management practices. Rock outcroppings and large boulders are common. They add a lot of aesthetic value to the stand but also create access and operability issues. The primary goal of management in this stand is to create small canopy gaps to create favorable conditions for the establishment of dense



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Owner(s) TOWN OF WEYMOUTH

Towns(s) WEYMOUTH

STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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regeneration, which is important song bird nesting habitat. The picture to the right is an example of natural mortality creating a canopy gap in the stand.

Current Habitat Conditions: The canopy is greater than 60 feet tall, uniform, and 80% closed. The midstory is patchy and mostly comprised of mixed hardwood species, covering 10-20% of the area. The understory is uniform in distribution and not well developed throughout covering approximately 15-20% of the area. Low-bush blueberry constitutes all of the soft mast. There is insufficient coarse and fine woody debris. Leaf litter is adequate.

Very few cavity trees were noted but some are likely to be present. A small patch of Japanese knotweed and glossy buckthorn were found near the high school where some soil was likely dumped at some point. It is not currently harming biodiversity or spreading rapidly through the forest. However, it should be removed to stop any future issues with forest management activities.



Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition with small canopy gaps ranging from single tree to a ¼ acre in size to encourage dense understory growth.	Single-Tree Method & Group Selection Method	Wood Thrush Eastern Wood Pewee Northern Flicker
Large snags at the edge of patches.	Girdle large diameter low quality trees on the edge of a cutting area.	Northern Flicker
Increase small and large woody debris and brush piles.	Leave felled trees on site and pile brush.	All Species

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

Owner(s) TOWN OF WEYMOUTH

Towns(s) WEYMOUTH

STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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STEW 3 WO 17.4 8.8" 123 3 MBF RO:55
8 cds. (f)/10 tons (p)

Forest Type: Mixed Oak

Stand Age: 80-110 years old

Trees/Acre: 292

Regeneration: inadequate – mixed oak, white pine, beech

Invasive Species: none noted

Shrub growth: low-bush blueberry

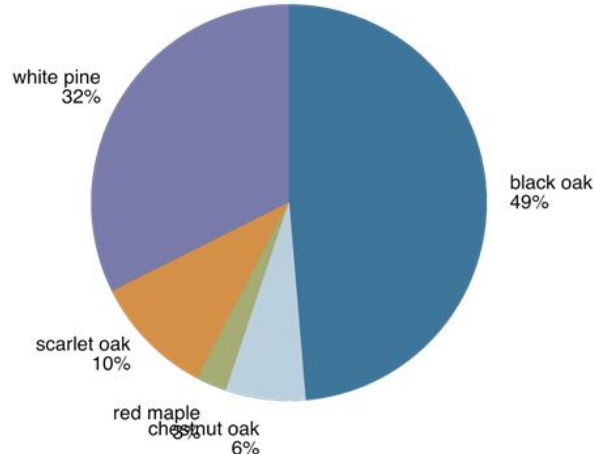
Aspect: west, southwest

Size Class: cordwood

Soil Type: Hollis-Rock Outcrop-Charlton Complex

Past Harvesting: No

Other Notes: numerous rock outcroppings, noticeable oak mortality, vernal pools



General Description: This stand is located in the easterly part of the property. The overstory is dominated by black oak and white pine. Associated species include scarlet oak, chestnut oak and red maple. No evidence of past timber harvesting or other forest management was found. The current stand has a fairly uniform overstory. The exception being where natural oak mortality has occurred creating a small opening in the canopy. The Hollis-Rock Outcrop-Charlton Complex soil found on this site is not a productive soil for timber management. Major limiting factors include depth to bedrock, slope and excessive drainage causing drought conditions. With or without management this type of soil will favor oak and pine growth. Most of the sawtimber volume is white pine with an average DBH of twelve inches. The quality of the pine is fair. Many of the oak trees appear to be mature for the site and are declining. Vigor is low. Mortality is common. Perhaps the latest gypsy moth infestation played a role. Two probable vernal pools are essential breeding habitat that will be preserved. Rock outcroppings and large boulders are common. They add a lot of aesthetic value to the stand but also create access and operability issues. The primary goal of future management is to create conditions favorable for the establishment of dense regeneration for song bird nesting habitat.



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STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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Current Habitat Conditions: The canopy is greater than 60 feet tall, uniform, and 70-80% closed. The midstory is patchy and mostly comprised of mixed hardwood and softwood covering 25% of the area. The understory is patchy in distribution and not well developed throughout covering approximately 25% of the area. Low-bush blueberry constitutes all of the soft mast. There is insufficient coarse and fine woody debris. Leaf litter is adequate. Very few snags or cavity trees were noted.



Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition with small canopy gaps ranging from single tree to a ¼ acre in size to encourage dense understory growth.	Single-Tree Method & Group Selection Method	Wood Thrush Eastern Wood Pewee Northern Flicker
Large snags at the edge of patches.	Girdle large diameter low quality trees on the edge of a cutting area.	Northern Flicker
Increase small and large woody debris and brush piles.	Leave felled trees on site and pile brush.	All Species

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Owner(s) TOWN OF WEYMOUTH

Towns(s) WEYMOUTH

STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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STEW 4 WP 15.7 11.3" 140 11 MBF RO:55
 2.5 cds. (f)/32 tons (p)

Forest Type: White Pine

Stand Age: 80-110 years old

Trees/Acre: 201

Regeneration: inadequate – mixed oak, white pine

Invasive Species: none noted

Shrub growth: none noted

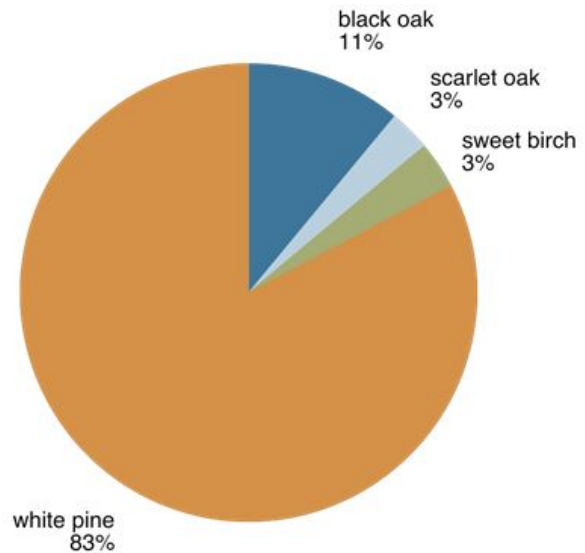
Aspect: easterly

Size Class: sawtimber

Soil Type: Hollis-Rock Outcrop-Charlton Complex

Past Harvesting: No

Other Notes: numerous rock outcroppings, very little understory, water tank, eastern side excavated



General Description: This stand is located

at the most southern part of the property. The overstory is dominated by white pine. Associated species include black oak, scarlet oak and sweet birch. No evidence of past timber harvesting or other forest management was found. The current stand has a uniform overstory with very little midstory or understory growth. The Hollis-

Rock Outcrop-Charlton soil found on this site is not productive for timber management. Major limiting factors include depth to bedrock, slope and excessive drainage causing regular drought conditions. With or without management this type of soil will favor oak and pine. All of the sawtimber volume is white pine with an average DBH of 14 inches. The quality of the pine is fair to good. Many of the oak trees appear to be mature for the site and have begun to decline. Vigor is low. Perhaps the latest gypsy moth infestation played a role. Rock outcroppings and large boulders are common. They add a lot of aesthetic value to the stand but also



create access and operability issues. The primary goal of management in this stand is to create conditions favorable for the establishment of dense regeneration for song bird nesting habitat, although, management is greatly restricted by numerous hiking trails, steep slopes and a water tower. It appears the eastern portions of the stand may have been excavated many years ago. The reason is unknown.

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STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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Current Habitat Conditions: The canopy is greater than 60 feet tall, uniform, and 90% closed. Midstory growth is mostly lacking. Understory growth is mostly lacking. Soft mast is lacking. There is insufficient coarse and fine woody debris. Thick leaf litter is lacking. Very few snags or cavity trees were noted.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Interior forest condition with small canopy gaps ranging from single tree to a ¼ acre in size to encourage dense understory growth.	Single-Tree Method & Group Selection Method	Wood Thrush Eastern Wood Pewee Northern Flicker
Large snags at the edge of patches.	Girdle large diameter low quality trees on the edge of a cutting area.	Northern Flicker
Increase small and large woody debris and brush piles.	Leave felled trees on site and pile brush.	All Species

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Owner(s) TOWN OF WEYMOUTH Towns(s) WEYMOUTH

STAND DESCRIPTIONS

OBJ	STDNO	TYPE	AC	MSD OR SIZE-CLASS	BA/AC	VOL/AC	SITE INDEX
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STEW 5 PL 4.1

WP: 60

Forest Type: Abandoned Power Line

Species Composition:

Regeneration: adequate – mixed oak, white pine, beech, birch

Invasive Species: Glossy buckthorn

Shrub growth: witch hazel, winter berry

Aspect: northeasterly, southwesterly

Size Class: sapling

Soil Type: Hollis-Rock Outcrop-Charlton Complex

Past Harvesting: No

Other Notes: abandoned power line, numerous rock outcroppings

General Description: This stand is an abandoned power line easement. It bisects the southern part of the property running east and west. It is approximately fifty feet in width. Sapling sized oak, pine, and beech have begun to reclaim the site. Some areas still remain relatively open with a groundcover of low-bush blueberry. In other areas a dense layer of tree growth has become established. Boulders and rock outcroppings are common. Several of the established trails cross or run through parts of the stand.

White pine and mixed oak will dominate this soil type. White pine will grow the best, and therefore, will be more resilient. The primary goal of management in this stand will be to maintain a dense understory of mixed tree species for song bird nesting habitat. The numerous boulders and outcroppings hinder access and operability with heavy equipment. The wetland area that crosses the stand has some glossy buckthorn, but it doesn't appear to be extensive or a major threat to biodiversity at the moment.

Current Habitat Conditions: No



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overstory or midstory growth. The understory is approximately 10-15 feet tall and dense in some areas, especially to the west. Low-bush blueberry and winterberry constitute a bulk of the soft mast that is present. There is insufficient coarse and fine woody debris. Leaf litter is inadequate. No snags or cavities trees were noted.

Desired Stand Conditions

Condition	Action	Responsibility birds that may benefit
Dense sapling sized mixed hardwood and softwood with little to no overstory.	Periodically mow sections of the current sapling size trees to maintain dense young tree growth. Consider widening the opening to reduce edge and improve habitat characteristics. Greater than 150 feet wide is ideal.	Chestnut-Sided Warbler Eastern Towhee Brown Thrasher

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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	STEW	Small Group (1/4-acre) and Single Tree Selection. Increase coarse and fine woody debris. Increase standing dead snags through girdling.	No monetary value. NRCS-EQIP funding is an option.	Small Group-2 acres Single Tree-5 acres	2022-2032
2	STEW	Small Group (1/4-acre) and Single Tree Selection. Increase coarse and fine woody debris. Increase standing dead snags through girdling.	No monetary value. NRCS-EQIP funding is an option.	Small Group-2 acres Single Tree-5 acres	2022-2032
2	STEW	Invasive Species Control	NRCS-EQIP funding is an option.	1/4-acre	2022-2032

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MANAGEMENT PRACTICES
to be done within next 10 years

OBJ	STD NO	TYPE	SILVICULTURAL PRESCRIPTION	AC	TO BE REMOVED		TIMING
					BA/AC	TOT VOL	
STEW	1&2	WO	Small Group Selection	4	25	20 cords	2022-2032
			Single Tree Selection	10	10	5 cords	

The following prescription will have a cost associated with it and cannot be completed as a revenue generating operation. Several factors such as the long distance from timber markets, lack of local timber harvesters, abundance of low-value timber products, difficult operability conditions and high recreational use hinder commercial forest management. The best method for implementing this prescription will be to hire a feller to girdle and fell trees. Leaving the trees onsite to naturally decay and provide coarse and fine woody debris habitat benefits.

This silvicultural prescription is being recommended to create beneficial habitat conditions for the Eastern Wood Pewee, Wood Thrush, and Northern Flicker. These birds are all focal birds in Massachusetts and have been documented on the property. Although the following suggested practices are specifically geared towards these focal birds many of the documented bird species on the property will benefit.

The small group selection and single-tree selection methods will be utilized to create canopy openings equivalent to the crown spread of a single mature tree to as large as a quarter acre. The imbedded picture shows a naturally disturbed area on the property. This is a good example of the described method of creating canopy gaps in the overstory to encourage regeneration growth. The goal is to create growing conditions suitable for establishing patches of dense sapling-sized tree growth. The suggested gap sizes tend to regenerate tree species that are mid-level to shade tolerant (pine, birch, oak, red maple, beech). Patches should be round in shape to reduce the amount of edge. Soft edges will be created by felling or girdling trees around a small group opening to reduce hard edges and create snags. These snags will provide cavities for nesting, roosting and insects for food. Locating some of the patches near the abandoned powerline will enhance this existing resource of young forest growth. Locating some of the patches adjacent to



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MANAGEMENT PRACTICES
to be done within next 10 years

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

riparian resources will improve habitat for Veery. Maintaining and improving tree species diversity will also be an important component of this silvicultural prescription. Less common tree species such as red maple, beech, sweet birch, black cherry, black gum and sassafras will not be cut to maximize biodiversity. Piling fine woody debris is beneficial for Veery. Girdled trees should be sited away from hiking trails to minimize hazard tree risk to hikers.

GENERAL MANAGEMENT ACTIVITIES

Forest Health: The property should be continuously monitored for invasive species, damaging insects and disease-causing organisms, natural disturbances, and any other issues detrimental to the properties ecosystem health. Continued monitoring is important and may affect future management activities.

Invasive Species: It is important that the invasive species growth in stand 3 be controlled to maintain forest health, songbird habitat and to stop their spread to other areas. This work needs to be completed before any other forest prescriptions are considered. Funding can be applied for through NRCS's EQIP program to assist in the cost.

Vernal Pools: There are a handful of vernal pools on the property. Refer to the maps in this plan for details. Vernal pools are sensitive areas with threatened species that depend on this type of habitat for their lifecycle. Protecting these areas will be a priority. The best way to protect these areas is by maintaining a 50-foot buffer and operating during the winter months. The formal regulatory review process begins with the submittal of a forest cutting plan to DCR. DCR staff forward the forest cutting plan to NHESP for review. NHESP will submit comments and modifications necessary to avoid harming rare species or their habitat. The forest cutting plan is then modified to incorporate the recommendations before the plan is approved.

Trails: The existing trails provide excellent access to the property for recreation and are heavily used by the residents of Weymouth. The trail network was mapped utilizing a GPS as part of the preparation of this plan. The trails are in good condition and there is no need to add to the network at this time.

Brush Piles: Creating brush piles from the fine woody material cut during the prescribed treatment will improve ground conditions for Veery.

Tree Girdling: Girdling one or two trees on the perimeter of each patch-cut will enhance the habitat benefits of the patch by providing roosting sites, tree cavity and food resources for songbirds such as Northern Flicker. Girdling large diameter trees would be best.

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Signature Page Please check each box that applies.

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

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

☐ **Green Certification.** I pledge to abide by the FSC-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 the registered owner of this property and have paid any and all applicable taxes, including outstanding balances, on this property.

Signed under the pains of perjury:

Owner(s) _____ Date _____

Owner(s) _____ Date _____

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

Plan Preparer _____ Date _____

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

Approved, Service Forester _____ Date _____

Approved, Regional Supervisor _____ Date _____

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

Owner(s) _____ Town of Weymouth _____ Town(s) _____ Weymouth _____