

Forest Stewardship Plan

(10-Year Planning Period)

The Town of Pelham
Moeckel Road
Pelham, NH
77.8 Acres
January 30, 2019



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Property Owners: The Town of Pelham
6 Village Green
Pelham, NH 03076

Phone Number: (603) 635-8233

Location: Moeckel Road, Pelham, NH

Total Acreage: 60.2 acres

Map/Lot Numbers: M 9 Lot 2, Map 9 Lot 9-9-5

Date Prepared: January 30, 2019

General Description of the Property

The Moeckel Road property is located in the northern part of the town of Pelham on the Windham/Pelham town line. The property is heavily forested and there is also a large wetland complex that occupies the entire eastern part of the property. Like most of southern New England this property was most likely cleared and used as pasture land in the past and then allowed to revert back into forest. Many of the property boundaries are comprised of stone walls which would provide evidence of the property being utilized as agricultural land at some point in time most likely in the mid to late 1800's. The forest can be characterized as being in the late successional stage of development and is primarily made up of white pine. The forest can generally be described as in good health however the cruise data shows that the forest is somewhat overstocked. The property is surrounded by single family developments which fragments the usable forest. Having a larger contiguous tract of forest land provides much needed open space for wildlife habitat. Conserving the large wetland complex located in the eastern part of the property is also crucial for protecting habitat for birds, amphibians and reptiles. The town of Pelham has been very proactive in acquiring and protecting these forested parcels for the purpose of conserving areas for wildlife habitat, soil and water protection and for passive recreational opportunities for its citizens.

Boundaries

As stated above the boundaries are primarily made up of stone walls especially on the western side of the property. The northern part of the property is bounded by Moeckel Road. The boundaries in the eastern part of the property are more difficult to locate because many of the lines run through the middle of wetlands. The eastern side of the property is inaccessible to forestry equipment due to the wet soil conditions so not too much time was spent on trying to locate these lines. The lines in the northern and western part of the property are made up of stone walls and these lines are very discernable.

Access

Access into the property is primarily from Moeckel Road in the northern part of the property. The northern section of the property is very accessible to forestry equipment however the eastern and southern sections of the property are comprised of wetland areas and are not accessible to forestry equipment. Since the property has not been harvested in the past there is no landing or staging areas for forestry equipment or trucks so these would have to be constructed if a forestry operation would be able to take place.

Forest Types & Harvest History

Forests with varying composition in terms of species, age, and density are able to respond with more resiliency to catastrophic events than monocultures. Most trees in unmanaged, overgrown forests are chronically short of much-needed nutrients, sunlight, and water, and are therefore constantly living in a stressed environment. Pre-stressed trees are much more susceptible to disease than their healthy counterparts growing in a well-spaced, healthy forest. Forests are broken down into management units called stands, which are areas of trees with similar species composition, size, and frequency of occurrence.

This forest is primarily comprised of white pine and a mix of oaks occupying the overstory although white pine is still the dominant species in the overstory as can be seen in the inventory data. The understory is primarily occupied by a mix of hardwood species such as white, red and black oak as well as red maple. Regeneration is made up of primarily of scattered white pine seedlings and saplings. The forest can generally be described as being in good health however many of the trees in the understory as well as regeneration is somewhat suppressed due to high stocking levels. Because much of this forest has not been harvested or managed in the recent past it can be considered to be over-stocked and therefore tree growth within the various stands is not as vigorous as it could be if stocking were lower. There have also been several weather events over the past 10-15 years, in particular ice storms and heavy snow events that have caused limb breakage and crown damage. This damage will affect individual tree growth of the damaged trees however there was little to no mortality observed from these weather events.

Soils, Terrain, & Hydrology

Forests are essential for preventing erosion of existing soil and maintaining clean water. Riparian and wetland areas are the places that open water and upland sites meet. A riparian zone is the general term for the area where water and land meet, whereas a wetland is an area in a riparian zone that specifically has hydric, or wet, soils as well as vegetation that grows on that type of soil. Riparian areas are important for a number of reasons. They offer critical habitat for many wildlife species, providing shelter, food, water, and travel corridors. They are also very useful for flood control by acting as a sponge during times of high water volume, and then releasing that water slowly and consistently over time. Without wetlands, streams would fluctuate greatly between

periods of high flow and dry streambeds. Finally, riparian areas are key for filtering water as it travels from upland sites to the open water, keeping out many chemical impurities and keeping water silt-free.

The soils found within the property can be described as be moderately well drained to well drained. There is a small wetland or vernal pool fund in the northern part of the property which provides crucial habitat for amphibians and reptiles. A large wetland complex is located in the eastern part of the property also providing excellent habitat for amphibians, reptiles and birds. As would be expected the soils in and around these wetland areas tend to be more poorly drained.

Wildlife

Biological diversity can be described as the variety of plants and animals located in a given tract of land or landscape and the communities that are formed by that variety of species. Two of the biggest threats to biological diversity today are loss of habitat to non-forest uses and invasive species. This forest can generally be described as being mature or in the late stage of succession. It is essentially one habitat type, however the wetland area found in the eastern part of the property as well as the vernal pool found in the northern part of the property provide more diversity in terms of habitat type.

Forest Trees and shrubs found on the property important to wildlife

1. **Red & White Oak** – Acorns are a highly important food source for mammals and many bird species, including turkey, grouse and ducks. White-tailed deer prefer white oak acorns.

The red oak and white oak found in the overstory produce a hard mast known as acorns. These acorns provide a source of food for many mammals and birds. They are high in protein and are an essential food source for winter preparation for many wildlife species. Managing for oak leads to increases in acorn production.

Invasive Species

Fortunately there is very little occurrence of invasive plants that have been observed during the timber cruise on this property. This is especially impressive given the location of the property to major population areas where many of these invasive plants tend to originate. It would be important to continue to monitor the property over time for invasive plants especially if any upcoming management activity were to occur. Many of these invasive plants tend to aggressively occupy areas that have been recently disturbed by some sort of activity such as logging. Invasive plants are much easier to control when they are detected early.

Timber Cruise

A detailed timber cruise was completed on the property using a 300' by 300' spacing, which yielded 17 plots of tree data. This data was used to tabulate the current tree species and volumes yielded per species on the property. A cruise is a statistical sample that is used to determine the volumes of various forest products growing on the property. This cruise generates volumes in terms of cords (for all trees 6-11" in diameter, or trees larger than 11" that are not suitable for sawtimber) and board feet (for trees 12" and greater in diameter that could be sold and sawn into boards). The diameter of a tree is measured at 4.5' above the ground, which is an industry standard referred to as diameter at breast height (DBH). From this intensive cruise, a total of seven stands are shown for this property. Stands are areas of trees with similar species composition, size, and frequency of occurrence. These stands will be the basis for the methodical analysis of the forest management plan, and are depicted on the following Stand Map.

Landowner Goals & Objectives

The town recognizes the importance of acquiring land and maintaining it as open space for passive recreation as well as maintaining and managing forest land for wildlife habitat. Many of these town parcels are associated with wetland areas that benefit greatly from the forested buffer they have instead of having pavement and lawns located in or close to the riparian zones. Forests protect water quality by providing a type of filter that keeps non-point source pollution such as sediment from entering wetlands, ponds or lakes directly.

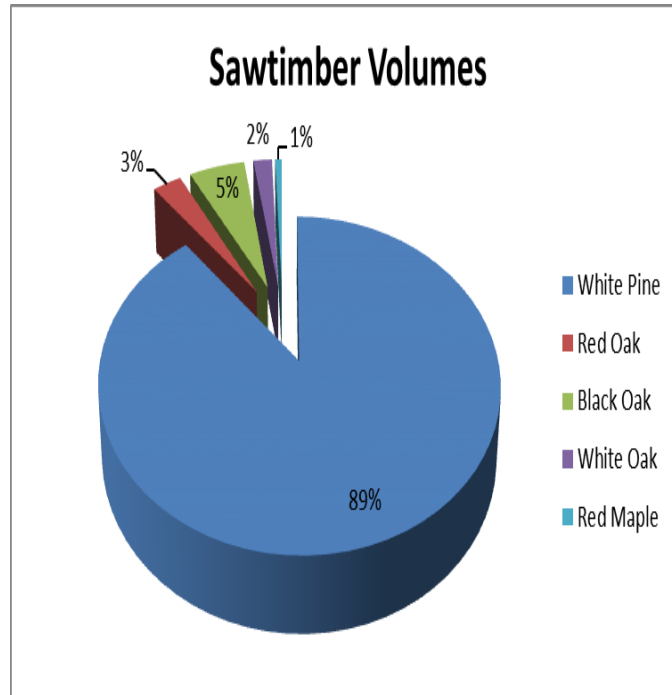
The general goals of the town can best be summed up with the key words of the New Hampshire Tree Farm System, of which the town is a member: wood, water, wildlife, and recreation, meaning the town is interested in a multiple use concept for its forested properties. One of the many benefits that can be derived from long-term sustained yield forestry is the generation of periodic revenue from timber harvests. The benefits from a timber harvest are not only income production, but also the encouragement of quality wood growth on residual trees as well as the encouragement of regeneration of new trees; in order to grow tomorrow's forest beneath the forest of today. In short the main goal of long term forestry is to continually improve the overall health of the forest with each harvest entry, by removing low quality and mature trees.

The town owns many of its properties in order to protect sensitive wetland sites and waterways by maintaining a forested buffer between the open water and built-up areas. Because Pelham is a town with a growing population, the municipal officials recognize that the citizens of the town benefit from having wooded areas for walking and nature watching. The town hopes to keep these areas open to responsible recreation without compromising the other three goals.

Finally, the town recognizes that the native wildlife species of New Hampshire need areas for food, water, shelter, and raising young. To that end, diversity is encouraged by utilizing proper forest management practices.

Forest Products Summary Table for Accessible Stands
Town of Pelham – Moeckel Road—Pelham, NH
Total Acreage: 77.8 +/- acres

Species	Board Feet
White Pine	541,820
Red Oak	17,070
Black Oak	33,096
White Oak	11,110
Red Maple	3,957
Total	607,053¹



Hardwood Cordwood	135
Softwood Pulpwood	193
Total Cordwood	328²



A basal area factor 10 prism was used to conduct the inventory sample. A total of 17 plots distributed across each forested stand were taken to arrive at this cruise summary.

¹ This sawtimber total represents all the trees of sawtimber quality 12 inches and greater in diameter found in this management unit. In order to capture this total volume, all trees of this specification would have to be harvested.

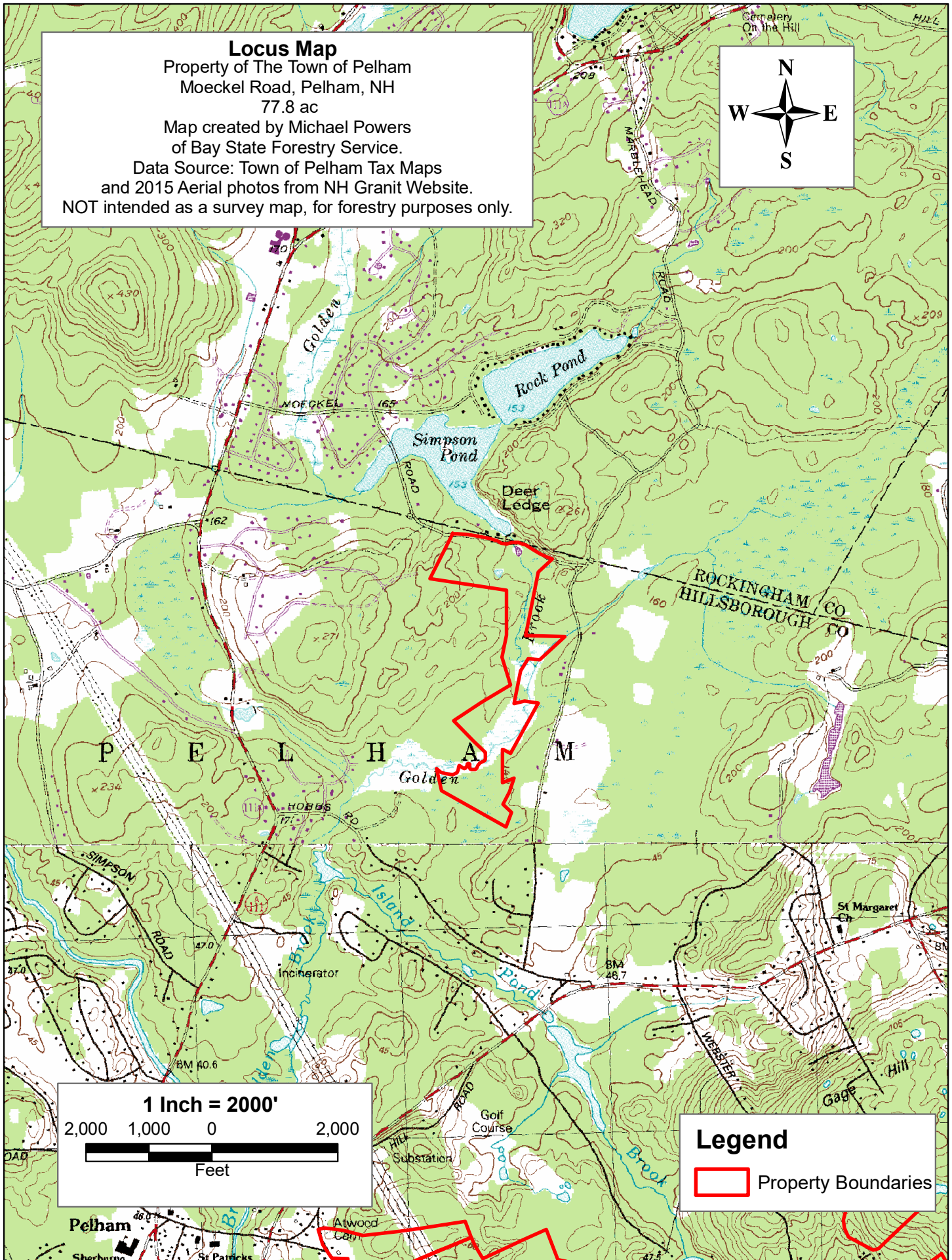
² These cordwood totals, both softwood and hardwood, represent all the standing trees with diameters of 6-11 inches found in this block, as well as trees of larger diameters that do not meet sawtimber quality specifications. In order to capture this total volume, all trees of this specification would have to be harvested.

Locus Map

Property of The Town of Pelham
Moeckel Road, Pelham, NH
77.8 ac

Map created by Michael Powers
of Bay State Forestry Service.

Data Source: Town of Pelham Tax Maps
and 2015 Aerial photos from NH Granit Website.
NOT intended as a survey map, for forestry purposes only.



1 Inch = 2000'

2,000 1,000 0 2,000
Feet

Legend

 Property Boundaries

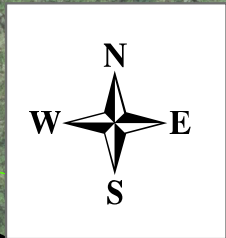


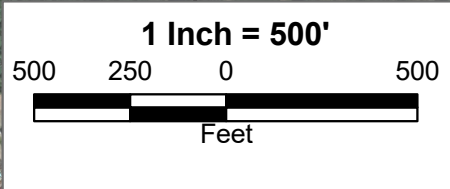


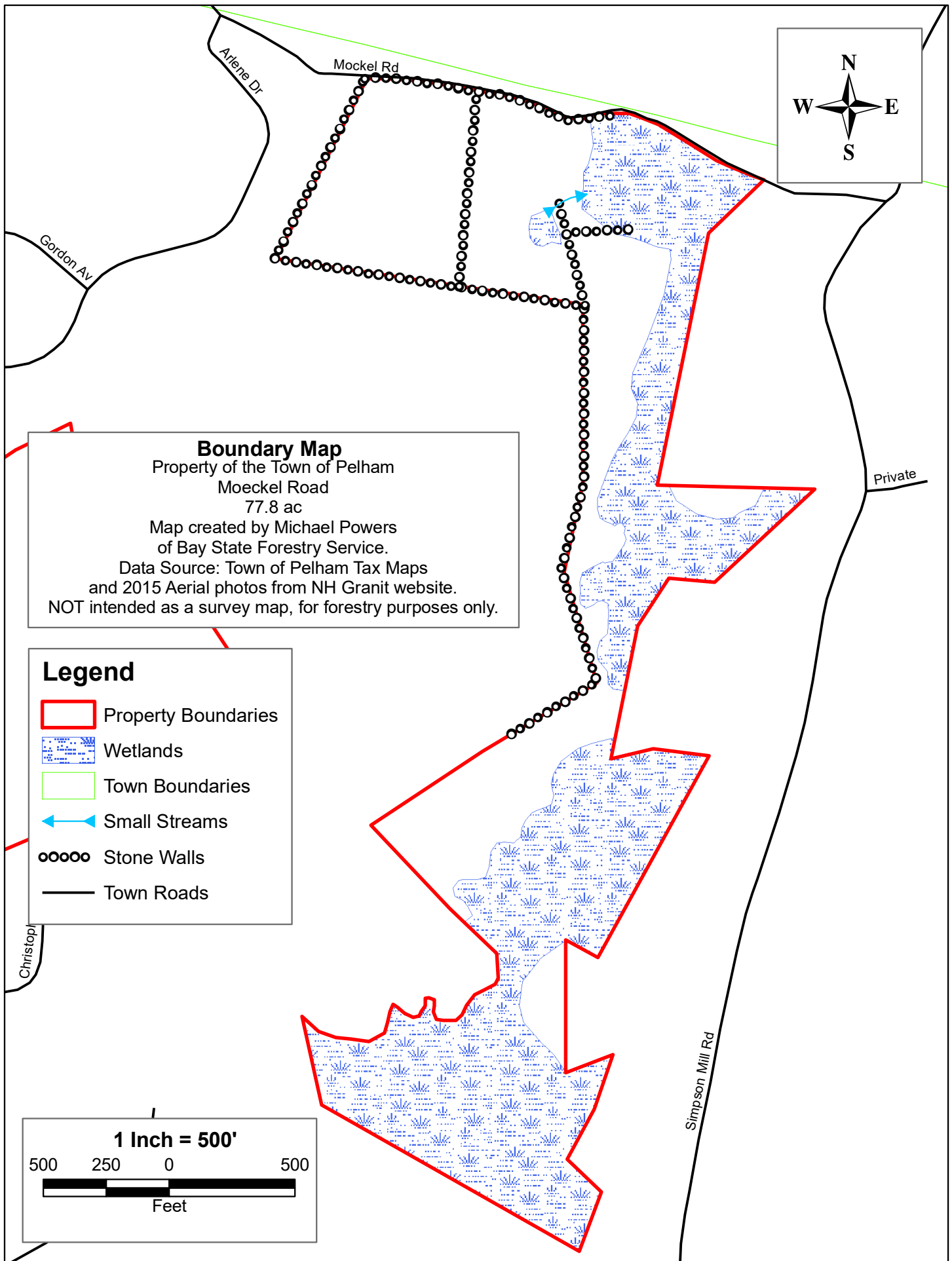
Photo Map
Property of The Town of Pelham
Moeckel Road
77.8 ac
Map created by Michael Powers
of Bay State Forestry Service.
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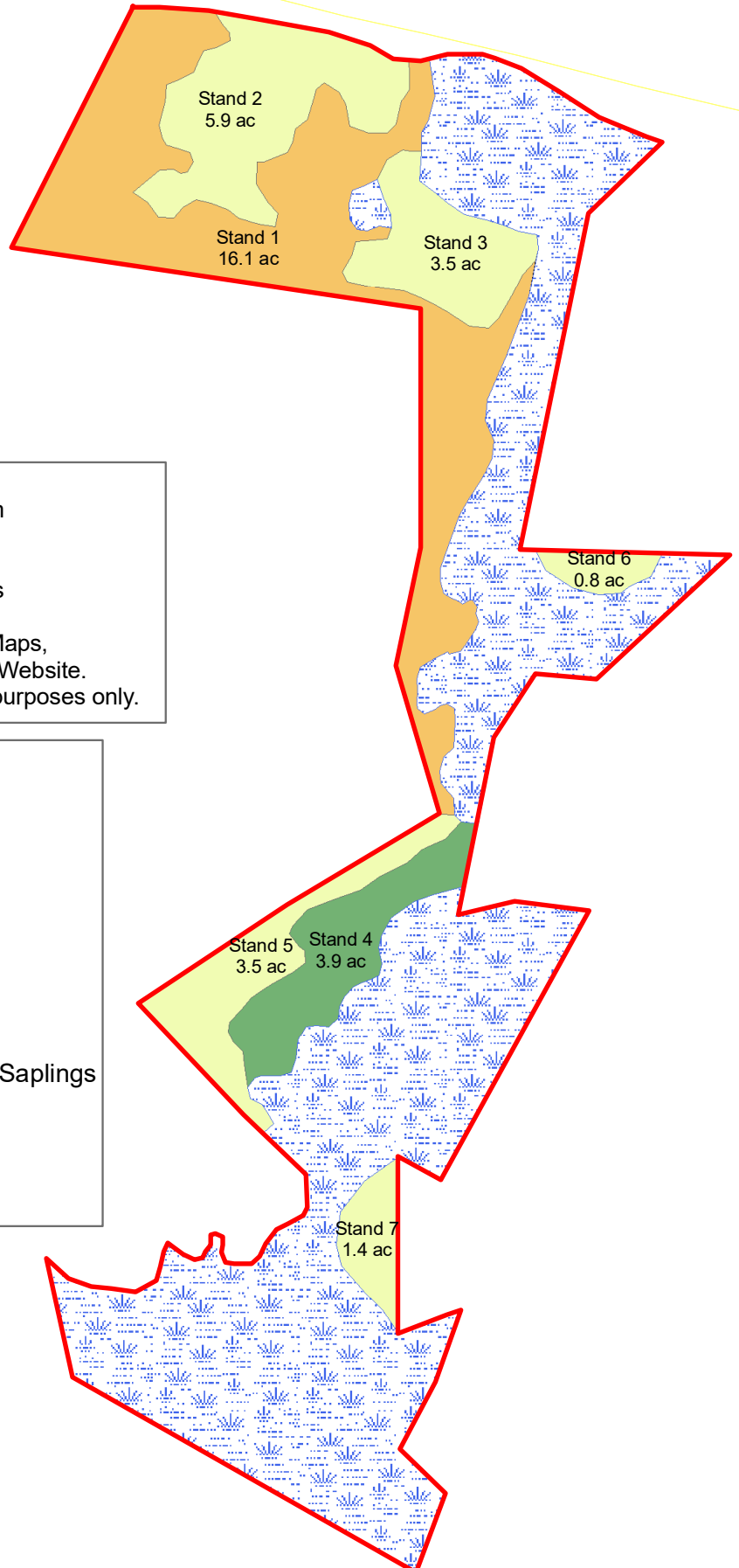
Legend

 Property Boundaries

 Town Boundaries







Stand Map

Property of The Town of Pelham
Moeckel Road
77.8 ac


Map created by Michael Powers
of Bay State Forestry Service.

Data Source: Town of Pelham Tax Maps,
and 2015 Aerial photos from NH Granit Website.
NOT intended as a survey map, for forestry purposes only.

Legend


 Property Boundaries

 Wetlands

 Town Boundaries

Stands

Type

 Scattered WP Sawtimber over WP Saplings

 White Pine

 White Pine/Oak

1 Inch = 500'



General Management Strategies

Timber – One of the main goals for this property is sound timber management to maintain forest health and to produce periodic income. A list of management strategies on a stand-by-stand basis is discussed later in this plan.

Fish/Wildlife Habitat – Although some activities can manage for a specific plant or animal (species specialists), most forest management activity focuses on habitat generalists by managing for a diversity of species, protecting existing critical habitat, and enhancing existing habitat. After any timber harvest there will be some areas that are opened up to sunlight to encourage young growth on the forest floor. This new growth provides cover as well as browsing opportunities for a variety of wildlife. Care will be taken retain dead snag trees which provide shelter and areas to forage for a variety of wildlife. Oak trees will be retained which will provide hard mast for squirrels, turkey and deer.

Soil – Care will be taken to not harvest during wet times of the year, when the ground is too soft, or on excessive slopes, to minimize rutting and erosion during harvest operations. Landings will be seeded with a conservation mix and limed at the conclusion of the job to stabilize the soil. Waterbars will be installed on skid trails where necessary.

Water Quality – In accordance to NH best management practices, buffers will be left along streams and the edges of wetlands. This will provide soil stabilization along waterways and adequate shade. This shade will decrease water temperature and therefore increase the water's oxygen-holding capacity. The wetlands and streams will be left intact to keep the water clean and silt-free. Poled fords, bridges or culverts will be used when crossing smaller streams to further prevent siltation. Fueling of machines will not take place near the water's edge to prevent pollution.

Wetlands – In order to preserve the integrity of more sensitive areas of this woodlot, *forested* wetlands will only be harvested under dry or frozen conditions if at all.

Recreational Resources – Skid roads can provide a nice network of trails for recreational opportunities, both for walking and wildlife viewing. To this end, trails will be kept free of slash where possible.

Aesthetic Values – To maintain aesthetics, logging operations will minimize rutting and soil disturbance and will chip or cut up the tops of trees so they lay close to the ground for rapid decay.

Cultural Features – Care will be taken to avoid breaching or breaking the stone walls during timber harvests unless no openings exist to allow the trees to be skidded to the landing. To accomplish this, loggers will use existing barways for skidding.

Forest Protection – The diversity of tree species does well to protect this property from a forest pest looking for a monoculture of timber. By keeping logging slash low to the ground, decay is speeded up; this prevents too much of a buildup of fuels as a fire hazard.

Threatened/Endangered Species and Unique Natural Communities – During all the walks through this forestland, no species were identified as either threatened or endangered. If at some time any flora or fauna are identified on this property as such, appropriate measures will be taken to prevent disturbing that species.

Forest Management Plan

Stand 1 –

Stand 1	White Pine/Oak	16.1	Acres
Species	Average BA/acre (sq. ft./ac.)	Volume per acre (bd. ft./ac.)	Total Volume (bd. ft.)
White Pine	101	12,121	195,148
Black Oak	25	1,482	23,860
White Oak	16	604	9,724
Red Oak	10	248	3,993
Red Maple	5	129	2,077
Sawtimber Total:	157	14,584	234,802
		Cords/ac.	Total Cords
Cordwood		6.6	106
Softwood Pulp		4.9	79
Total Cordwood		11.5	185
Total BA/acre	157		

Overstory Species Composition and Size Class: White pine, black oak, white oak. Large pole to large sawlog.

Mid-Story Species Composition and Size Class: Suppressed white oak, white pine, black oak. Large sapling to medium pole size.

Regeneration: Scattered suppressed white pine, seedling to small sapling size. Low bush and high bush blueberry found throughout the stand.

Forest Health Concerns: Overstocking, ice damage to the crowns of the oaks.

Slope/Aspect: The western part of the stand slopes moderately to the east. The eastern part of the stand is fairly flat but does still slope gently to the east.

Soil Drainage: Some surface boulders and rock outcrops in the western part of the stand. The soils within the stand are moderately well drained to well drained.

Recommendations:

The cruise data shows that this stand is overstocked, it is recommended that a commercial timber harvest take place within this stand to reduce the overall stocking which will increase growth rates on the residual trees by creating additional growing space. Poor quality white pine with suppressed tops should be targeted for removal from the understory and the overstory. Low quality black oak can also be targeted for removal. High quality white pine, red oak and white oak can be retained. White oak is especially

important to retain because the acorns produced by these oaks are an important food source for wildlife such as deer and turkey. Reducing the stocking within this stand will provide additional sunlight to seedlings and saplings growing in the understory which will be beneficial to these small trees.

Stand 2 –

Stand 2	White Pine	5.9	Acres
Species	Average BA/acre (sq. ft./ac.)	Volume per acre (bd. ft./ac.)	Total Volume (bd. ft.)
White Pine	193	23,680.0	139,712
Black Oak	23	1,238.0	7,304
Red Oak	7	275.0	1,623
Sawtimber Total:	223	25,193	148,639
		Cords/ac.	Total Cords
Cordwood		2.8	17
Softwood Pulp		7.4	44
Total Cordwood		10.2	60
Total BA/acre	223		

Overstory Species Composition and Size Class: White pine, black oak and red oak. Medium to large sawlog.

Mid-Story Species Composition and Size Class: White pine, mixed hardwood, suppressed, large sapling to large pole size.

Regeneration: Scattered white pine, seedling to small sapling size.

Forest Health Concerns: Overstocking.

Slope/Aspect: Flat, somewhat rolling terrain.

Soil Drainage: Soils are well drained.

Recommendations:

This stand contains some good quality white pine with some scattered mixed oak also growing in the overstory. The stand is overstocked and it is recommended that a harvest takes place within this stand reducing the stocking and improving the growth rates on the residual trees. Low quality white pine with suppressed crowns or trees showing rot or other defects should be targeted for removal. Low quality pine and mixed hardwoods growing in the understory should also be targeted for removal. Because the stand is so overstocked these smaller trees are being outcompeted for sunlight and are dying and falling out of the stand. If the basal area can be kept at an acceptable some of the larger mature white pine can also be harvested from the stand for sawtimber. The better quality

red and white oak can also be retained for future growth. These trees will also provide a hard mast food source for wildlife.

Stand 3 –

Stand 3	White Pine	3.5	Acres
Species	Average BA/acre (sq. ft./ac.)	Volume per acre (bd. ft./ac.)	Total Volume (bd. ft.)
White Pine	165	22,464.0	78,624
Red Oak	25	2,048.0	7,168
Red Maple	10	537.0	1,880
White Oak	5	396.0	1,386
Pitch Pine	5		
Sawtimber Total:	210	25,445	89,058
		Cords/ac.	Total Cords
Cordwood		1.4	5
Softwood Pulp		5.4	19
Total Cordwood		6.8	24
Total BA/acre	210		

Overstory Species Composition and Size Class: White pine, small to large swlog.

Mid-Story Species Composition and Size Class: Red and black oak, medium density. Large sapling to medium pole size.

Regeneration: Scattered white pine and mixed oak. Seedling to small sapling.

Forest Health Concerns: Overstocking, some blow down trees.

Slope/Aspect: Flat, rolling terrain.

Soil Drainage: Moderately well drained soils, more poorly drained in the eastern part of the stand closer to the wetland.

Recommendations:

This stand is very similar to Stand 2. The same recommendations that were made for Stand 2 would apply to this stand as well. This stand is overstocked and in need of being thinned out to reduce stocking and increase growth rates on the residual trees. Low grade pine with suppressed crowns should be targeted for removal from the understory. Some of the larger mature white pine can also be targeted for removal if the basal area can be kept at an acceptable level. High quality white pine and red oak should be retained for future growth within this stand. There are also groups of larger, poor quality white pine that can be removed from the stand. Creating these openings will provide sunlight to

seedlings and saplings growing in the understory and will also help to regenerate new white pine seedlings on the forest floor.

Stand 4 –

Stand 4	White Pine/White Pine Saps 3.9		Acres
Species	Average BA/acre (sq. ft./ac.)	Volume per acre (bd. ft./ac.)	Total Volume (bd. ft.)
White Pine	105	10,792.0	42,089
Red Oak	10	1,099.0	4,286
Black Oak	5		
Sawtimber Total:	120	11,891	46,375
		Cords/ac.	Total Cords
Cordwood		1.0	4
Softwood Pulp		6.1	24
Total Cordwood		7.1	28
Total BA/acre	120		

Overstory Species Composition and Size Class: White pine, red oak. Small to large sawlog.

Mid-Story Species Composition and Size Class: Medium to high density white pine. Medium sapling to small sawlog.

Regeneration: Scattered, suppressed white pine seedlings. Scattered high bush blueberry.

Forest Health Concerns: Some minor snow and ice damage to the crowns of trees.

Slope/Aspect: Gently slopes to the east towards the wetland area.

Soil Drainage: Moderately well drained to well drained.

Recommendations:

This stand is somewhat different than the rest of the stands because it was cut about 25-30 years ago so there is more advance regeneration growing in the understory and the basal area is not nearly as high as the other stands that have not been harvested. Access into this stand is difficult because the stand is cut off from the rest of the property by the large wetland area located in the eastern part of the property. Access can be gained through the neighboring property to the west if permission is given by this landowner. If management were to take place in this stand, a light thinning could be carried out targeting low grade white pine for removal. Care should be taken when harvesting within this stand as to limit the damage to the understory pine growing within this stand.

Harvesting within this stand will benefit these smaller understory trees by providing much needed sunlight which will help to improve growth rates on these smaller trees.

Stand 5 –

Stand 5	White Pine	3.5	Acres
Species	Average BA/acre (sq. ft./ac.)	Volume per acre (bd. ft./ac.)	Total Volume (bd. ft.)
White Pine	205	24,642.0	86,247
Black Oak	10	552.0	1,932
Sawtimber Total:	215	25,194	88,179
		Cords/ac.	Total Cords
Cordwood		1.0	4
Softwood Pulp		7.8	27
Total Cordwood			
Total BA/acre	215		

Overstory Species Composition and Size Class: White pine, small to large sawlog.

Mid-Story Species Composition and Size Class: Mixed oak, medium density. Medium to large sapling size.

Regeneration: Suppressed white pine seedlings, low to medium density.

Forest Health Concerns: Overstocking.

Slope/Aspect: Relatively flat, slopes very gently to the east towards the large wetland complex to the east.

Soil Drainage: Very well drained.

Recommendations:

Like Stand 4 this stand is very difficult to access because it is cut off by the large wetland complex located in the eastern part of the property. The cruise data shows that the stand is overstocked with white pine. If this stand can be accessed, it should be harvested to reduce stocking levels, which will increase growth rates on the residual trees. The goal would be to not only improve growth rates on these trees but to also improve the overall quality of the trees growing within this stand and to also potentially establish tree regeneration by creating some openings in the forest canopy which will allow sunlight to reach the forest floor which will in turn stimulate seedling germination.

Stand 6 and 7 – White Pine

Recommendations:

Because these stands are isolated from the rest of the property by the large wetland complex located in the eastern part of the property, these stands is considered to be inoperable. There was no inventory data collected within these stands because no management activity within these small stands, however these stands will serve as open space and habitat for wildlife in perpetuity.

Management Schedule

2019

- Prepare the forest management plan.
- Blaze and paint identifiable boundary lines.
- Conduct a timber harvest in operable areas.
- Seed and lime the landing at the conclusion of the timber harvest.
- Address recreational issues (hunting, hiking, etc.).

2020-2029

- Monitor the woodlot for wind damage, ice damage, fire, or disease and take appropriate corrective actions as needed to ensure the continued health of this forested property.
- Re-assess the property in 10 years and write a new 10-year management plan, specifically looking at improving the health and quality of trees growing on the property.

Concluding Remarks

The recommendations proposed in this 10-year management plan should be implemented within the next 10 years, although timing will depend on landowner priorities, market conditions, and environmental conditions such as pest outbreaks and weather. Through sound silvicultural practices and using best management practices (BMP's), mature, diseased, and defective trees will be harvested, allowing healthier more vigorous trees more space to grow. This forest should be monitored for pest outbreaks and destructive weather events; corrective action should be taken as needed over the next 10 years in response to any such events. These recommendations are silviculturally and operationally sound and should result in meeting the landowners' objectives for their woodlot. Implementing these recommendations will help ensure that this forestland is being managed with long-term sustainability in mind.

Respectfully Submitted,

Michael Powers, Consulting Forester
N.H. License #379

Glossary of Forestry Terms

Basal Area - Cross sectional area of a tree stem at a height of 4.5 feet (diameter at breast height) expressed in square feet per acre.

Browse - The twigs and leaves of woody plants, that are edible to wildlife.

Butt - The base of a tree; the lower end of a log.

Canopy - The upper layer of branches and foliage, or tree crowns, in a forest.

Crop Tree - A tree identified to be grown to maturity and not removed from the forest before the final harvest cut. Usually selected on the basis of its quality and location with respect to other trees.

Cull - A tree or log of merchantable size but with little or no market value.

DBH - The diameter of a tree as measured at breast height which is taken at 4.5 feet from the ground surface.

Dominant - Trees with crowns able to receive full sunlight from above and partially from the side.

Form - The shape of a tree or log.

Habitat - The local environment in which a plant or animal lives.

Harvesting - In general use, removing all or portions of trees on an area.

Mast - Acorns or other fruits or nuts edible to wildlife.

Maturity - For a given species or stand, the approximate age beyond which growth falls off or decay begins to increase at a rate likely to reduce economic importance.

Merchantable - pertains to a log or tree with qualities that would permit an economically profitable harvest

Mean Stand Diameter - The mean diameter of all trees within a stand or compartment.

Merchantable Mean Stand Diameter - The mean diameter of all trees considered as sawlog stocking within a compartment or stand.

Pole - A tree whose diameter at DBH ranges from 5.1 through 11 inches.

Pulpwood - Roundwood converted into specific lengths or chips for commercial use as in paper making or as a fuel.

Regeneration - New forest growth by artificial reproduction, by means of seeding or planting; or natural reproduction, from natural seeding or sprouting.

Sapling - A small tree, usually defined as being between 2 and 4 inches at DBH.

Sawtimber - Trees that will yield logs suitable in size and quality for the production of lumber; generally having a minimum diameter at DBH of 11.1 inches.

Sawlog - That part of a tree which has economic value as sawed lumber.

Site - An area evaluated as to its capacity to produce a particular forest or other vegetation based on the combination of biological, climatic, and soil factors present.

Site Index - A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and co-dominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75 feet.

Silviculture - The science of producing and caring for a forest by applying the principals of forest management within a sound economic framework.

Snag - A standing dead tree; a portion of tree remaining standing.

Stand - A grouping of trees occupying a site and sufficiently uniform in composition, age, and condition so as to be distinguishable from the forest on adjoining areas.

Stand Density - An expression referring to the total stocking of a stand of trees, usually expressed in square feet of basal per area.

Stocking - The degree of occupancy of trees on land, by measurement and/or the number of trees in a stand.

Thinning - The reduction in density of stocking by harvesting trees to prevent overcrowding and stagnation of a stand of trees.