



## **FOREST MANAGEMENT PLAN TUCKER BROOK TOWN FOREST**

Property of

**TOWN OF MILFORD**

Located in

Milford, New Hampshire

Tax Map 10 Lots: 53, 55, 56, 58, & 64

Tax Map 38 Lot 29

Tax Map 40 Lots: 11, 14, 15, 16, 61, & 62

194+- Acres

**PREPARED FOR:**

Town of Milford  
Conservation Commission

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## INTRODUCTION

Town of Milford's, Tucker Brook Town Forest totaling 288 acres±; 240 forested acres and 48 non-forested acres was cruised in May and June of 2008, by Daniel D. Reed, NH Licensed Forester #66, to review the general health and condition of the woodland; to inventory the timber volume by species and estimate its value; to determine the advisability of cordwood and sawtimber harvests; to evaluate the recreational and wildlife resources, and to prepare a Forest Type Map, Forest Management Plan, and Wildlife Action Plan which will assist the owners in the decision making for the management of their forest and property.

The Tucker Brook Town Forest is made up of several lots: Sullivan Lot - Tax Map 38; Lot 29; Burns Lot - Tax Map 10 Lots 56 and 58; Gibbons Lot; Tax Map 10 Lot 55; Curtis Lot - Tax Map 10 Lot 53; Millimet Lot - Tax Map 10 Lot 64, Tax Map 40 Lots 11, 14, 15, 16; and the Goodridge Lot - Tax Map 40 Lot 61, and 62.

Compass lines were systematically spaced 250 feet apart throughout the property and



one-tenth-acre measurement plots were taken at intervals of 500 feet along the lines to gather data for the calculation of the timber volume. An orange or yellow flag was hung at each plot center to allow for verification.

All merchantable trees within each plot are tallied by recording their species, diameter (DBH), and merchantable height. Notes are also taken as to regeneration, past and recommended timber harvesting, soils, wildlife, timber stocking, quality, soil drainage, slope, insect and disease damage.

Timber volumes are based on the International 1/4" Log Rule with deductions for visible defects. Merchantability standards used were: minimum diameter at breast height (DBH) 4.5 feet above the ground of 12 inches for sawtimber; minimum merchantable height of 12 feet; at least 50 percent sound; and minimum top diameter of 10 inches for hardwood and 8 inches for softwood (unless limited by visible defect or form). Pulp and hardwood cordwood include all trees 6 inches DBH or larger of suitable form and not meeting sawtimber criteria. A 3.3 percent cruise, 33.3 sample plots per 100 acres, was used to generate tract volumes.

The stumpage values given in Table I are based on recent sales of sawtimber and cordwood comparable in size, quality and accessibility in southern New Hampshire.

## FOREST STEWARDSHIP MANAGEMENT OBJECTIVES

1. Maintain the property as multiple use open space for wildlife, recreation, forestry, and education for the benefit of wildlife and the citizens of Milford.
2. Implement environmentally sound, long-term, multiple-use forest management and practices which, over time, will upgrade the quality and health of the timber resource;

improve access for forest management operations and appropriate recreation; and protect, enhance, and improve the habitat for game and non-game birds and animals.

3. Conduct forestry operations to promote the reproduction and improved growth of commercially valuable hardwood and softwood species with a particular emphasis on white pine and red oak along with other high quality softwoods and northern hardwoods as appropriate to the site.

4. Assist the Town of Milford Conservation Commission with decisions regarding the management of the property for access, timber productivity, recreation, aesthetics, and wildlife.

## **LOCATION AND ACCESSIBILITY**

This property is located in the western part of Milford and can be accessed by Savage Road, Whitten Road, Mason Road and Boulder Drive. These are all town maintained paved roads suitable for passenger car and truck access most times of the year.

GPS Coordinates to the property are: 042° 49.2'N 071° 42.8'W NAD 27.

Extensive hiking trails through the property are accessed from by Savage Road, Whitten Road, and Boulder Drive. An off road parking area is located at the power line on Savage Road. During past timber harvesting the property has been accessed from Mason Road and a private road off of Whitten Road.

Tucker Brook and associated wetlands block access the much of the east side of the property for timber harvesting. The only Town owned access to the east part of the property is from Boulder Drive which is currently used as a hiking trail entrance point and would require considerable fill to construct a truck entrance and would still be limited to the southern end of the property.



Elevations range from a high of about 545 feet above sea level at the corner of the Burns, Gibbons, and Curtis Lot to a low of about 290 feet along Tucker Brook at the north west end on the Sullivan Tract north of Whitten Road. The property is shown on the USGS map entitled Milford, N.H. Quadrangle, 1968 (Topographic) 42071-G6-TF-024. Photorevised 1985.

Tucker Brook drains northeast joining the Souhegan River west of the center of Milford.

## **BOUNDARIES**

The Forest Type Map shows the boundary lines and found corner monuments. This information was developed from the fieldwork necessary to complete this plan. However, the Forest Type Map is not a boundary survey nor should it be construed as such. Boundaries following stone walls are easily accurately identified on the ground. The boundaries on the Lots





covered in the 1987 management plan not bounded by stone walls were blazed and painted in 1989. The boundaries of the Burns Lot were blazed and painted in 1990, and the boundaries of the Sullivan Lot were blazed and painted in 1997. The blazes are still visible but the paint is somewhat faded.

The boundaries west of Savage Road on the Millimet Lot Tax Map 40 Lot 11 and Tax Map 10 Lot 64 have not been blazed and painted. Most boundaries on Tax Map 40 Lot 11 were located during the field work. Some of the boundaries of Tax Map 10 Lot 64 were located during the field work but many did not match with the survey plan. The lines on this lot as shown on the Forest Type Map are as they were found. Further research should be done to locate all the boundary corners and lines and those in forested areas blazed and painted.

The south west boundary lines on the Curtis Lot, Tax Map 10 Lot 53, have not been located blazed and painted. Further research and field work is needed to locate these corners.

The boundary lines previously blazed and painted should be repainted. Blazing and painting boundaries bounded by stone walls would also help to clearly identify that the stone wall is the boundary line. Signs at the points of entrance to the Tucker Brook Town Forest where roads or trails enter the property would help the public to identify the boundary line, and gain a better understanding and appreciation of the Tucker Brook Town Forest.

Blazing and painting is done by first determining the exact location of the boundary line. The trees along the line are then blazed by cutting through the bark on the tree with an axe at about 4.5 feet above the ground leaving approximately a 4" by 6" patch of bare wood. This creates a permanent mark or scar on the tree called a blaze that will be observable for years into the future. The blazes are then painted to make them more visible.

Trees along the side of the boundary line are blazed facing the line. Where the boundary line passes through a tree the tree is blazed on both sides. Trees near corner markers are triple blazed facing the marker and are known as witness trees. Blazing and painting boundary lines clarifies the location of the boundary and helps to guard against timber trespass, boundary disputes and other unauthorized activity. Well-maintained boundary lines enable not only the owner, but also adjoining owners to easily locate and identify the common boundary. This is especially important where the lines are not marked by stone walls or fences.

The acreage as shown on the Forest Type Map was determined from tax records and the field work to do this plan.

## **WEATHER DAMAGE**

No significant weather damage was observed.

## **INSECTS AND DISEASE**

A few Gypsy Moths were observed on the property and the property shows evidence of past gypsy moth damage. Gypsy moths go through four development stages, egg, caterpillar (larva), pupa, and moth (adult). The caterpillar (larva) stage is when damage occurs to the forest. The caterpillars (larvae) hatch in the spring from the eggs laid by the moths the previous fall.



The caterpillars feed on the leaves of trees leaves for about seven weeks before entering the pupa stage. The adult moths emerge from the pupa stage in 10 to 14 days. In the fall the female moths will lay a tan colored egg mass of 500 to 1000 eggs to over winter and hatch in the spring.

During infestations of gypsy moth the caterpillars consume as much as one square feet of leaves per caterpillar per day. Oak is one of the more preferred tree species of the feeding caterpillars. Hardwood trees completely defoliated become more susceptible to disease and other insects. Mortality often results is trees that are already stressed from drought or disease, or are repeatedly defoliated is consecutive years.



Damage from the white pine weevil is visible on some stems. This insect lays its eggs in the topmost shoot of the tree. The larvae then burrow through the stem and emerge as adults to continue the life cycle. The larvae kill the stem, and the limbs below turn upward to become the new top. This creates the "dog leg" character visible in many pines. The severity of the defect depends on the frequency of the attack, the intensity of competition from surrounding stems, and the age of the tree. Dense stands force the new tops to quickly turn upward and limit damage, and small young stems show less defect as they increase in size. Stems subject to frequent attacks, called "cabbage pines" by foresters and lumbermen, often have multiple tops and can be so crooked as to be unmerchantable for anything except wood chips.

No other serious or significant amount of insect or disease damage was observed during the field work.

## **WILDLIFE**



The variety of the timber types, Tucker Brook, beaver pond, regeneration, cover, swamps, and drainages create desirable habitat for game and non-game wildlife. Evidence and sightings of deer, coyotes, porcupines, hawks, beavers, woodcocks, turkeys, grouse and snowshoe hare were observed during fieldwork. Signs and sightings of animals such as bears, moose, fisher and bobcat can also be expected.

Maintaining a dynamic diversity of timber types and age classes on varied soils will provide good habitat for a large variety of wildlife.

## **WETLANDS**

Wetland and water features are shown on the Forest Type Map. Tucker Brook flows north through the property entering and exiting a large open beaver meadow. The beaver pond is fed by smaller brooks flowing east from the west side of Savage Road. Several intermittent brooks also occasionally flow into Tucker brook from the east.

Any brook or wet soils crossings during timber harvesting require proper crossing structures such as pole fords, skidder bridges or brush corduroy. This minimizes the impact to the wet soil or water body, and requires a permit from the NH Wetlands Bureau. Water bars should be installed on any steep skid roads following timber harvesting to prevent erosion.

## **Wildlife Action Plan**

This section of the plan briefly explains the portions of the NH Wildlife Action Plan (NH WAP) that are applicable to the Milford Town Forests and indicates how management can be applied to accomplish the stated strategy goals of the plan. The plan was required for federal money to be distributed to the states for wildlife conservation and management. The plan addresses 8 specific elements required by the National Advisory Acceptance Team (NAAT) in order for the plan to qualify for federal aid. This section of the forest management plan will discuss portions of Chapters 2, 3 and 5 which address what habitat elements are present, what species of concern are potentially present and how to manage the land to maintain or enhance current and future habitat elements. This section contains extensive information and quotes from both the NH Wildlife Action Plan by New Hampshire Fish and Game and Natural Communities of New Hampshire by The New Hampshire Natural Heritage Bureau and The Nature Conservancy. These elements may or may not be specifically cited in the text.

### ***Wildlife Action Plan Tiers***

This map coverage provided by the WAP indicates areas of high value based on two main attributes: quality of the habitat risk of degradation. For example, a shrub swamp bordering a river, with surrounding forestland that is on public land is ranked more highly than a common upland hardwood forest located just outside of Manchester. The ranking takes into account the needs of species of special concern and the likelihood that these features would continue to exist in the future. The Tiers are broken up into four categories: Highest Ranked habitat in NH, Highest Ranked habitat in biological region, Supporting Landscapes and Habitat not top-ranked. An important thing to note is that most of these rankings are based on remote sensing data and what data is available about species and habitats on the property. This data is limited to what the framers of the model had available. Thus these rankings are general and require verification to locate specific types not readily observed.

The Tucker Brook Forest is ranked very low and is not even considered a supporting landscape. This is likely due to the fact that the forest types are fairly common and the grassland areas are continually pastured thus reducing their value. While the Tucker Brook is not likely to be developed, it does not have any significant rare natural features that can be detected by remote sensing data. While not highly ranked either statewide or locally, this property does contain limited and value habitat in the grasslands (hayfields) and wet meadow/shrub wetland areas.



## **Forest Types**

In order to accomplish Element 1 of the NAAT Guidelines requiring, “information on the distribution and abundance of species of wildlife.”, an inventory of the current habitat types present throughout the state was needed. This can be used to predict the potential for populations of wildlife species by knowing where their habitat exists.

In order to get an idea of the distribution of the important habitats present in the state, New Hampshire Fish and Game identified 19 different critical habitat types that could be mapped throughout the state. These habitat types are based on the needs of all species and species of greatest conservation need and were established by the Project’s Scientific Advisory Group and modified by the Project’s Wildlife Working Group. Included within each of these habitat types are several natural communities which may occur that are thought to “contain a unique set of environmental conditions that support certain species adapted to those conditions.”Sperduto and Nichols, 2004. The plan indicates that by mapping and managing these communities the species depending on them can be managed and conserved. GIS modeling was used to create a map of the predicted locations of these habitat types throughout the state. Inputs into the models included information about soils, topology, and hydrology. It is important to understand that models are only as good as the information and assumptions used to develop them. Specific details of the needs of many species whether considered endangered or threatened can be limited. Thus the models give us a starting point and help to indicate where future work should be focused. Often they indicate potentials but, must be augmented by specific information from a given site. Managing for a diversity of forest structure and composition can help to provide habitat for the greatest number of species.



## **Tucker Brook Forest Critical Habitat Types**

Using the WAP Forest Types data layer and data from the forest inventory conducted by NEFCo foresters, a map of the predicted habitats and forest types can be created. These two classifications are unique in their focus: habitat types for wildlife management or conservation purposes and forest types for timber management purposes. Using these two systems a forest management planning system can be created which allows the forestry activities to enhance the habitat elements on the property.

The WAP Habitat Types layer indicates that the Tucker Brook Forest contains four main categories: Hemlock-Hardwood-Pine, Appalachian Oak-Pine, Grassland and Wet meadow. The presence of significant grassland and the wet meadow types makes this forest unique from the other two town forests which contain mostly dry upland types. The combination of mature forest, grassland, wetland and open water make for a higher diversity of potential wildlife species.

## **Appalachian Oak-Pine/Hemlock-Hardwood-Pine**

The majority of the area not occupied by the field is classified as either Appalachian Oak-Pine or Hemlock-Hardwood-Pine according to the Wildlife Action Plan Type maps. This property contains a transition forest containing elements of both the Hemlock-Hardwood-Pine type and the Appalachian-Oak-Pine habitat type making it hard to draw a hard line between each type. The Tucker Brook forest contains forest types associated with less well drained soils and thus is mostly classified as Hemlock-Hardwood-Pine with the remainder of the upland forest classified as Appalachian-Oak-Pine forest. While the forest is dominated by white pine and red oak there is a significant component of Appalachian Oaks such as chestnut oak, white oak, and black oak. Many of these Appalachian tree species are at the northern limits of their range and are more common in drier, warmer, climates with well drained soils. Thus the habitat type Appalachian-Oak-Pine is mapped on the southern facing slopes.

According to the forest inventory the majority of the area contains a component of both Appalachian oaks and northern hardwood species adapted to cooler moister climates with deeper, richer soils. This evidence suggests that any of the natural communities associated with each of the habitat types could be located on the property.

The majority of the upland forested area is dominated by Hemlock-Hardwood-Pine forest according to the NHWAP Habitat Type Maps. Of this area the natural community most commonly represented is hemlock-beech-oak-pine forest. This type is a transitional type between the northern hemlock-beech-northern hardwood type and southern oak-hickory forest. Another possible natural community is the dry red oak- white pine forest. This type exists in dry conditions where red oak and white pine are likely to persist in the future.

## Species

The following species of special concern are found to depend on natural communities found in the Appalachian-Oak-Pine and Hemlock-Hardwood-Pine habitat types. These species have the potential to be present based on the variety of possible natural communities present on the property. This list does not include all of the species listed for each type but, a subset taking into account that certain species are very unlikely to occur in the area.

### Amphibians:

- Blue-spottend Salamander
- Fowler's Toad
- Jefferson Salamander
- Marbled Salamander
- Leopard Frog
- Ribbon Snake
- Smooth Green Snake
- Spotted Turtle
- Wood Turtle

Of the amphibians listed as occurring in either Appalachian-Oak-Pine or Hemlock-Hardwood-Pine habitat types these four have had either current or historic populations in the Milford area. The likelihood of them occurring on the property is limited by the fact that most of the property is upland with well drained soils. No vernal pools or other significant wetlands have been noted. This list includes specie not included in the lists for these forests on the Hitchiner and Mayflower Hill forests. These species were included here because they need grassland, wetland or river habitats in addition to the upland types Appalachian-Oak-Pine and Hemlock-Hardwood-Pine. These features are provided by Tucker Brook and the associated wetlands and beaver ponds. These habitats are limited were haying of grassland areas may disturb wildlife using these areas.

### Reptiles:

- Black Racer
- Eastern Box Turtle
- Eastern Hognosed Snake
- Timber Rattlesnake

The black racer seems to be able to use a large variety of forest types and is likely to be present on the property. The other snake species could be present in ledgy areas that provide basking areas and den areas. The eastern box turtle is mainly an upland species but uses wet areas and could be found using the seeps and springs located on the property.

### Birds:

- American Woodcock
- Canada Warbler
- Cerulean Warbler

Cooper's Hawk  
Northern Goshawk  
Veery  
Wood Thrush

These bird types use various forest types and often need a combination of different forest structures which is common in a managed forest.

**Mammals:**

Bobcat

Bobcats are widely distributed throughout the state and can use the dense stands created by regenerated forest for hunting small mammals that use these areas and the rocky ledgy areas for den sites.

Deer, turkey and other common game animals are likely present on the property. Moose are probably also present on the property with numbers comparable to regional averages. Periodic entries for timber harvesting will maintain some level of browse for these species.

These species lists indicate potential habitat for species of concern. In order to determine the actual presence of such animals a field survey done by knowledgeable people would be necessary. DES and NH Fish and Game staff are available to take field visits with no cost to the landowner. The Natural Heritage Bureau staff is always looking for sites to do surveys but, may have to charge for their visits. Another good resource is local amateur enthusiast groups. While the members may have varying degrees of knowledge they often have a certain number of very experienced members who can help to locate and identify rare or interesting wildlife on the property as part of their regular club activities.

## **Grasslands**

Maintained fields such as the hayfields and pasture function as grasslands. This area along with adjacent fields are beneficial in that many species that use these areas would prefer 25 acres or more. The model predicted this area well. The only thing that limits these areas for wildlife is the cutting of the hayfields and grazing of cattle that may disturb species using these areas. When combined with the mature eastern forest, various types of wetlands and beaver ponds this area represents a matrix of varied land types that could provide habitat for a large variety of species.

## **Species**

**Reptiles:**

Black Racer  
Eastern Hognosed Snake  
Blandings Turtle

The black racer seems to be able to use a large variety of forest types and is likely to be present on the property. The Blandings turtle and eastern hognosed snake believed to use open forest and grasslands.

**Birds:**

American Woodcock

The fields and pastures that make up this type likely serve as breeding grounds for American woodcock in the early spring.







## **Marsh and Shrub Wetlands**

Along the western edge of the property are several marsh and shrub wetlands associated with Tucker Brook. These areas have been created by the action of beavers that have dammed up Tucker Brook. Where the water is deeper this area resembles a shallow or deep marsh. Where water is shallower or where there is not always standing water, the area resembles a shrub swamp. Several species considered endangered or threatened animals are associated with either or both of these habitat types. During the inventory a Great Blue Heron was observed in this area. Other species may be observed with long-term monitoring.

## **Species**

### Reptiles:

- Ribbon Snake
- Blandings Turtle
- Spotted Turtle
- Fowler's Toad

The ribbon snake is a semi-aquatic species which will often live along old beaver dams and feeds on both terrestrial and aquatic animals. The Blandings turtle, spotted turtle and Fowler's toad all use a combination of wetland and upland areas and may be present in and around these wetland features.

### Birds:

- American Woodcock
- Great Blue Heron
- American Bittern
- Least Bittern
- Sedge Wren

American woodcock can often be found feeding in the soft ground in and around shrub wetlands with thick cover to hide them from predators. Herons and bitterns both use these mixed wetland types for feeding which are often associated with beaver activity. The sedge wren uses semi open wetland and pond edges with shrub cover.

## ***Conservation Strategies***

Chapter Five of the WAP identifies some general strategies for conserving certain habitat types considered limited in scope in New Hampshire. Section 500 concerns Habitat Management and contains several objectives that can be accomplished through the forest management program. Many of the objectives are general in that they focus on the maintenance of certain stand conditions and do not require certain species compositions or locations. Through the forest management program a greater diversity of habitats can be maintained for the greatest diversity of species.

## **Objective 501 Reclaim or maintain grassland and shrubland habitats**

Continuing the management of the pasture and hayfields would preserve this limiting habitat. If the current manager ever decides to discontinue his use, the fields should be mowed at least every three years to prevent the area from reverting to forest.



### **Objective 502 Generate early successional and young forest habitats**

During management early successional and young forest are created when a stand is regenerated. In an even aged system this is most effectively done through clearcuts of varying sizes. This creates large openings in the forest followed by a flush of dense young forest which maintains its effectiveness for some species needing these thick habitats for 12 to 15 years. After this time most native forests become significantly less dense and the value of the young forest is diminished.

### **Objective 503 Restore and maintain late-successional forests**

Late successional forests are thought to provide unique habitat elements for some species of wildlife. The WAP suggests that these stands are mainly important for mosses, lichens, and some invertebrates. These stands often contain a larger number of cavity trees and coarse woody debris than managed stands where dying and rotten trees are often removed to maintain the growth of the healthiest and best quality trees. Maintaining reserves of unmanaged forest can lead to an overall diversity of forest structure while providing areas for recreation that are unique from the managed forest. Areas adjacent to the beaver ponds are ideal for this since these areas contain forest characteristic of the surrounding forest that has poor access for timber management.

### **Objective 504 Develop and implement an urban wildlife management plan**

This objective applies mainly to adjacent land as the vast majority of town forestland is undeveloped with the exception of picnicking areas and parking lots. This objective could be used to get adjacent landowners involved and interested in the habitat management program through the planting of species valuable to wildlife. On a regional or townwide basis cultivated or garden plants that provide significant habitat elements can supplement habitat management efforts within the property.

### **Objective 505 Restore rare habitats and natural communities**

This objective is very specific and requires certain rare natural features to be present on the property. None were noted during the inventory. If rare natural communities are noted on the property in the future, steps can be taken to enhance these areas if sufficient evidence is available to suggest that unique management techniques will be effective.

### **Objective 506 Develop and implement a terrestrial invasive species control program.**

Invasive species are often but not always non-native species which are prolific enough to outcompete sensitive or more slow growing species in their natural habitat. These species were often originally selected for propagation for their heartiness as well as their specific aesthetic or utilitarian qualities. In order to protect susceptible species, it is often desirable to prevent the unchecked growth of these species.

### **Objective 507 Restore or maintain natural flow regimes**

This objective is not applicable to Tucker Brook Forest since it applies to dams and other water control structures.

### **Objective 508 Restore and maintain watershed continuity**

This objective could be applied to any work done to bridge Tucker Brook and associated watercourses either for hiking trails or timber harvesting. Any crossings whether temporary or permanent should keep in mind their effect on the interconnectedness of bridge water bodies. Following BMP's for Timber Harvesting in New Hampshire can limit any disturbance to the small watercourses during timber harvests.

## Conclusions

Inventory data and data available from the WAP and Natural Diversity Data Base indicate that the Tucker Brook Forest does not contain habitat features considered highly ranked on a statewide or regional basis. The property does contain habitats considered limited and valuable to many species of wildlife. More specific information on the reason for the low ranking could be gained by contacting the DES and NH Fish and Game. It is possible that species or habitats are present which were not detectable by the methods used to determine the rankings. This data could be gathered by more extensive on the ground examinations.

Getting hard data on the presence of animals takes long-term monitoring efforts since they are mobile and may not be present at the time of any one visit. Maintaining a data base of sightings or evidence of species in a trail kiosk or through local wildlife clubs can help to gather information on what species may use the property. Coordinating with state agencies can also help to identify rare species and provide advice and resources for maintenance of significant habitats. Forests under long-term forest management commonly contain a range of forest characteristics that are valuable to many game and non-game species common to New Hampshire. Continuing the forest management program will help to provide a diversity of habitat for the greatest number of species.

## RECREATION

The Tucker Brook Town Forest has a well established trail system and is used extensively for walking, jogging and recreation. There is trail head parking and a kiosk on Savage Road at the power line, and on Boulder Drive.

There are approximately 4.8 miles of maintained and marked trails on the Tucker Brook Town Forest. Maintained trails run from the north side of the Sullivan lot south to Whitten Road, and from Whitten Road to Savage Road and south to Boulder Drive. Additional privately maintained unmarked trails tie into the Tucker Brook Town Forest from abutting properties.



The Forest Type Map shows the location of official and unofficial trails, ponds, open swamps, quarries, ledges, open land, brooks, and boundaries, and may be used for locating features on the ground and expanding the trail net work.

Suggested trails that may enhance hiking and wild life viewing are:

1. A parking area on Savage Road on the Millimet and Curtis Lots and a trail crossing Tucker Brook and connecting with the Lower Path and Ridge Trail. Bridges would be

needed over Tucker Brook and the open swamp.

2. A loop trail on the Sullivan Lot, linking the ledge and the old quarry with the existing trail.

3. A trail on the Burns Lot linking the ledges with Falls Loop and the parking area.

See the work map for these suggested routes.

All layout and construction of new hiking trails and parking areas should take into consideration future timber harvesting operations to prevent conflicts of use when timber is next

harvested. All harvesting activities should also be conducted not only to improve the productivity of the forest, but also to enhance opportunities for recreation and minimize the negative impact to existing recreational improvements.

Threats to the recreational and aesthetics values on this property are mainly abuse by the public using the property. Limiting access of off road vehicles, a clear understanding by the public of activities not permitted on the property, and a willingness of the public to pick up after the careless few will prevent most problems.

## **TRACT HISTORY**

The property has a long history of land use since the time of the American Revolution. Stone walls found on the property were built as a permanent replacement to the temporary brush fence during in the mid to late 1700's and early 1800's when land throughout Milford and the surrounding towns were used for pasture and agriculture. Most of this property was probably pastured in the mid 1800's. Areas that are now beaver ponds and swamps were probable farmed as meadow land; a productive source of hay and pasture. The existing fields have been cultivated.

The remnants of four dams are found along Tucker Brook. Two were mill sites. The others would have been used to store water during times of the year when flowage was low and released to power the mill as needed. The 1858 Map shows the dam just downstream of Mason Road as being a saw mill.

The only evidence found of a dwelling having existed on the property is on the road frontage of the Curtis Lot. No cellar hole exists but there is a well and plants typically found near houses. The 1858 Map shows a J. Rideout living at this location.

When the West was opened in the 1860's and 1870's, much of New Hampshire's farmland was abandoned, particularly the less productive and/or more remote areas, and trees reclaimed the land. Barbed wire was developed in the second half of the 1800's which replaced the brush fence and ended the construction of stone walls.



White pine easily seeds into grassy or exposed fields and is often the first species to reclaim abandoned farmland. The quality of the pine can be quite variable, depending on the number of stems per acre, the attack of the white pine weevil, soil type, and the number of years a tree grew without competition from nearby stems. As the white pine reaches merchantable size, and is harvested, a variety of hardwood trees usually become dominant on the more fertile loamy soils by sprouting from existing root systems, or from the advanced growth of existing saplings. Loamy soils are generally more

suited to hardwood than white pine.

Based on poor soils, timber types and lack of barbed wire and other evidence found on the ground, it is estimated that most of this tract was never cultivated and has been out of any

agricultural production since the 1860's. The areas of better soils, and more conducive for agriculture, are still being farmed.

Evidence of quarrying of granite can be observed on the Sullivan and Burns Tracts. The larger site being on the Sullivan Tract These locations are shown on the Forest Type Map.

The 1938 hurricane probably damaged much of the larger white pines on the property and salvage operations in the following few years cleaned up much of the severely damaged timber. Little evidence of this storm can be seen today. Hurricanes on the magnitude and damage of the 1938 hurricane occur in New England on average once every hundred years.



The most recent harvesting was done on the west part of the Goodridge Lot in 1997 harvesting 49.595 MBF and 56 cords; and the Burns Gibbons and Curtis Lots in 1988 harvesting 110.860 MBF. Four acres of timber stand improvement was done on the north central part of the Millimet lot on 1988. Timber stand improvement is a pre-commercial thinning of overcrowded immature high quality trees and cull removal of trees that will not develop into quality saw timber. This was done by girdling

the trees to be eliminated with a chain saw.

Tucker Brook Town Forest was acquired by the Town of Milford in several parcels, some of which were remnants of residential subdivisions.

Millimet Lot, 106.4 acres, HCRD Volume 2366 Page 413 – 1974, (Reserves rights of use for farm purposes) and HCRD Volume 2842 Page 604 – 1981 Plan #7,678

Burns Lot, 15.8 acres, HCRD Volume 2788 Page 223 – 1978, Plan #11,437.

Goodridge Lot, HCRD Volume 2768 Page 697 – 1980, Plan #13,106.

Curtis Lot, HCRD Volume 3151 Page 767 – 1984.

Gibbons Lot, 26 acres, HCRD Volume 3148 Page 855 – 1984, Plan #16,566.

Sullivan Lot, 26 acres  $\pm$ , HCRD Volume 3372 Page 739 – 1985, Plan #16,908.

Trombly Lot, HCRD Volume 5515 Page 670 – 1994, Plan #6,478

Burns Lot, 45.12 acres, HCRD Volume 5200 Page 705 – 2006, Plan #24,571  
(Reserves timber rights)

In the fall of 1987 the Town of Milford had a forest management plan prepared by the New England Forestry Foundation. The parcels included in the report were the Millimet Lots east of Savage Road, Burns Lot, Goodridge Lot, Curtis Lot, and Gibbons Lot. The boundaries not bounded by stone walls of the lots included in the report were blazed and painted in 1989.



The most recent harvesting was done on the west part of the Goodridge Lot in 1997 harvesting 49.595 MBF and 56 cords. The landing was on the Trombly lot on Mason Road. In 1988 a harvest was conducted on the Burns Gibbons and Curtis Lots harvesting 110.860 MBF. The landing was on abutting Tax Map 10 Lot 52 and access was from Whitten and Tucker Brook Roads. These two timber harvests produced enough timber to build 9 new homes; then heat them with firewood for 1 winter.

Four acres of timber stand improvement was done on the north central part of the Millimet lot on 1988. Timber stand improvement is a pre-commercial thinning of overcrowded immature high quality trees and cull removal of trees that will not develop into quality saw timber. This was done by girdling the trees to be eliminated with a chain saw.

The boundaries of the northern Burns lot were blazed and painted in 1990, and the boundaries of the Sullivan Lot were blazed and painted in 1997

Forestry activities since 1988 have focused on the removal of nonproductive, slow growing, low quality, low value trees, plus trees that have reached maturity, and thinning over crowded stands. Immature high quality trees were retained to continue growing. The result of these carefully constructed timber sales is a more valuable, healthier, and more productive forest.

#### **INVENTORY OF TOTAL FOREST VOLUME AND GROWTH 1987 to 2008**

This table shows the volume of the timber on Milford's Tucker Brook Town Forest when the inventory was done in 1987 and current inventory listed in this report, , and the volumes harvested in 1988 and in 1997. The lots not included in the 1987 report are excluded. The Minor tree species are grouped to allow for ease in comparison. Pulp and whole tree chips were not computed in 1987 and are therefore not shown.

	Volume <u>1987</u>	Harvest <u>1988</u>	Harvest <u>1997</u>	Volume <u>2008</u>	Total <u>Growth</u>
White Pine	220.900	31.825	39.795	462.400	313.120
Hemlock	121.600	42.440		64.800	-14.360
Total Softwood	342.500	74.265	39.795	527.200	298.760
Red Oak	238.200	28.135	7.050	308.900	105.885
Red Maple	31.500		1.405	23.000	-7.095
Birch	48.400	1.470	0.480	12.100	-34.350
Other Oak	11.100	2.635	0.820	21.200	13.555
Other Hardwood	47.600	4.355	0.045	10.600	-32.600
Total Hardwood	376.800	36.595	9.800	375.800	45.395
Total	719.300	110.860	49.595	903.000	344.155
Cordwood	529		56	1,380	907

Total timber growth between 1987 and 2008 was 344,155 board feet. Trees species that are shorter lived, less productive, or less suitable to this site show a loss of volume. White pine and red oak are the most productive species on this site and management should focus on growing and reproducing those trees. White pine growth was 313.120 MBF (thousand board feet) Red oak growth was 105.885 MBF (thousand board feet).

White pine grew 14.910 MBF per year, or 62 board feet per acre per year.

Red oak grew 5.040 MBF per year, or 21 board feet per acre per year.

Based on the 1988 volumes the annual growth rates from 1987 to 2008 were:

White Pine 6.7%

Red Oak, 2.1%.

## **ENDANGERED SPECIES**

No evidence of rare or endangered plants or animals was noted during fieldwork. Evidence of rare or endangered plants and animals can be determined by consulting the New Hampshire Natural Heritage Inventory, the New Hampshire Fish and Game Department and the New Hampshire Audubon Society. These groups maintain information about the location of threatened, rare or endangered species. A review of the Natural Diversity Data Base did not locate any rare or endangered plants or animals on the Mayflower Hill Town Forest.

## **FOREST PROTECTION**

The property is not subject to a Conservation Easements which would restrict the Town's potential use or development of the property. The Millimet Lot is subject to rights of use for farm purposes. The Burns lot is subject to reserved timber rights.

No unusual forest fire, insect, or disease risks were noted during fieldwork.

## **SOILS AND PRODUCTIVITY**

The soil types shown on the Soil Type Maps, and the following soils information is based on: The 1981 USDA Soils Survey of Hillsborough County Eastern Part. Information given on forest productivity is based primarily on this book and should not replace the actual examination, working knowledge and experience. Soils in some areas vary distinctly from what is shown in the USDA Soils Survey. Observed variances are described in the individual Stand Descriptions.

### **FOREST PRODUCTIVITY**

Forest soils are rated in five category groups: Loamy (IA), sandy loam (IB), outwash sand and gravel (IC), Soils with physical limitations (IIA), and poorly drained soils (IIB). Most all of the forest land on this property is (IB), sandy loam, with a small amount of (IA) loamy soil around the open fields and (IIB) poorly drained in the drainage south east of the fields.

A description of these forest soils found on this property is as follows:

#### **Group IA**

This group consists of the deeper, loamy textured, moderately well, and well-drained soils. Generally, these soils are more fertile and have the most favorable soil moisture relationships.

The successional trends on these soils are toward stands of shade tolerant hardwoods, i.e.,



beech and sugar maple. Successional stands frequently contain a variety of hardwoods such as beech, sugar maple, red maple, white birch, yellow birch, aspen, white ash, and northern red oak in varying combinations with red and white spruce, balsam fir, hemlock, and occasionally white pine.

Hardwood competition is severe on these soils. Softwood regeneration is usually dependent upon persistent hardwood control efforts.

<u>Map Symbol</u>	<u>Soil Name</u>
-------------------	------------------

SsA – Scituate fine sandy loam, 0 to 3 % slope
------------------------------------------------

SsB – Scituate fine sandy loam, 3 to 8 % slope.
-------------------------------------------------

These soils are found on the Millimet Lot west of Savage Road Tax Map 10 Lot 64.

### **Group IB**

The soils in this group are generally sandy or loamy over sandy textures and slightly less fertile than those in Group IA. These soils are moderately well and well drained. Soil moisture is adequate for good tree growth, but may not be quite as abundant as in Group IA soils.

Soils in this group have successional trends toward a climax of tolerant hardwoods, predominately beech. Successional stands, especially those which are heavily cut over, are composed of a variety of hardwood species such as red maple, aspen, paper birch, yellow birch, sugar maple, and beech, in combinations with red spruce, balsam fir, and hemlock.

Hardwood competition is moderate to severe on these soils. Successful softwood regeneration is dependent upon hardwood control.

<u>Map Symbol</u>	<u>Soil Name</u>
-------------------	------------------

CaB – Canton fine sandy loam, 0 to 8 % slope.
-----------------------------------------------

CaC – Canton fine sandy loam, 8 to 15 % slope.
------------------------------------------------

CaD – Canton fine sandy loam, 15 to 35 % slope.
-------------------------------------------------

CmB – Canton stony fine sandy loam, 3 to 8 % slope
----------------------------------------------------

CmC – Canton stony fine sandy loam, 8 to 15 % slope.
------------------------------------------------------

CmD – Canton stony fine sandy loam, 15 to 25 % slope.
-------------------------------------------------------

CnC - Canton very stony fine sandy loam, 8 to 15 % slope.
-----------------------------------------------------------

CnD - Canton very stony fine sandy loam, 15 to 35 % slope.
------------------------------------------------------------

CpC – Chatfield – Hollis – Canton complex, 8 to 15 % slope.
-------------------------------------------------------------

These soils are common throughout the property.

### **Group IC**

The soils in this group are outwash sands and gravels. Soil drainage is somewhat excessively drained and moderately well drained. Soil moisture is adequate for good softwood growth, but is limited for hardwoods.

Productivity of these poorly drained soils is generally less than soils in other groups.

Successional trends on these coarse textured, somewhat droughty and less fertile soils are



toward stands of shade tolerant softwoods, i.e. red spruce and hemlock. Balsam fir is a persistent component in many stands but is shorter lived than red spruce and hemlock. White Pine, red maple, aspen, and paper birch are common in early and mid-successional stands.

Hardwood competition is moderate to slight on these soils. Due to less hardwood competition, these soils are ideally suited for softwood production. With modest levels of management, white pine can be maintained and reproduced on these soils.

Because these soils are highly responsive to softwood production, especially white pine, they are ideally suited for forest management.

<u>Map Symbol</u>	<u>Soil Name</u>
-------------------	------------------

HsA – Hinckley loamy sand, 0 to 3 % slope.	
--------------------------------------------	--

HsD – Hinckley loamy sand, 15 to 35 % slope.	
----------------------------------------------	--

These soils are on the west and south ends of the Sullivan Lot Tax Map 38 Lot 29.

### **Group IIA**

This diverse group includes many of the same soils as in Groups IA and IB. However, these mapping units have been separated because of physical limitations which make forest management more difficult and costly, i.e., steep slopes, bedrock outcrops, erosive textures, surface boulders, and extreme rockiness.

Usually, productivity of these soils is not greatly affected by their physical limitations. However, management activities such as tree planting, thinning and harvesting are more difficult and costly.

Due to the diverse nature of this group, it is not possible to generalize about successional trends or to identify special management opportunities.

<u>Map Symbol</u>	<u>Soil Name</u>
-------------------	------------------

CtD – Chatfield – Hollis – Rock outcrop complex, 15 to 35 % slope.	
--------------------------------------------------------------------	--

These soils are on the east and west sides of the Burns Lot, Tax Map 10 Lot 58; and the east side of the Sullivan Lot Tax Map 38 Lot 29.



### **Group IIB**

The soils in this group are poorly drained. The seasonal high water table is generally within 12 inches of the surface.

Productivity of these poorly drained soils is generally less than soils in other groups.

Successional trends are toward climax stands of shade tolerant softwoods, i.e., spruce in the north and hemlock further south. Balsam fir is a persistent component in stands in northern New Hampshire and red maple is common on these soils further south.



Due to abundant natural reproduction in northern New Hampshire, these soils are generally desirable for production of spruce and balsam fir, especially pulpwood. Red maple cordwood stands or slow-growing hemlock sawtimber are common in more southerly areas. However, due to poor soil drainage, forest management is somewhat limited. Severe wind throw hazard limits partial cutting, frost action threatens survival of planted seedlings, and harvesting is generally restricted to periods when the ground is frozen.

<u>Map Symbol</u>	<u>Soil Name</u>
-------------------	------------------

LtA – Leicester – Walpole complex , 0 to 3 % slope.	
-----------------------------------------------------	--

LvB – Leicester – Walpole complex stony, 3 to 8 % slope	
---------------------------------------------------------	--

These soils are on west side of the Millimet Lot, Tax Map 40 Lot 14, in the lower part of the open fields; and on the west part of the Burns Lot, Tax Map 10 Lot 56 on Tucker Brook.

### **Soils Not Considered for Forest Management**

The soils in this group are considered unsuitable for forest management at this time because of the lack of soil, land use or water level. .

<u>Map Symbol</u>	<u>Soil Name</u>
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BoA – Borohemists, nearly level.	
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Sr – Scarboro stony mucky loamy sand	
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Cu – Chocorua mucky peat.	
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These soils are on west side of the Millimet Lot, Tax Map 40 Lot 14, in beaver pond and open swamps; and in the red maple black gum pole timber stand on the Curtis Lot, Tax Map 10 Lot 53.



## **THE FOREST RESOURCE**

### **DISCUSSION OF TABLE I**

This table, developed from the cruise data with the aid of a computer spreadsheet program, shows the volume and value of sawtimber by species and diameter group as well as the volumes of pulp and cordwood. While the stumpage prices shown are based on sales of comparable timber, they also reflect the value of both immature and mature timber, its quality and volume per acre, market conditions, and logging chance. As such, they should not be used as the basis for any specific sale of timber on this or any other property. The timber liquidation value is given to show the gross stumpage value in the Spring of 2008. The value available for harvest under proper forestry practices at any time is usually considerably less than the timber liquidation value since this value includes many stems which are economically immature and their harvest would not be in the long-term interest of the owner. The final silvicultural decision, though, rests with the landowner and must balance forest health, ownership objectives, aesthetic impact, recreation, and a host of other factors.

### **SAWTIMBER DIAMETER GROUPS**

The majority of the 12 to 14-inch DBH group should be considered immature sawtimber and growing stock. This timber is the forest capital necessary to yield sawtimber two, three or more decades into the future. Only the lower valued species and the unhealthy, poorly formed, or salvageable dead trees in this group are ready for harvest. An uncontrolled or diameter limit harvest of this immature timber is shortsighted and would have significant, detrimental impact on the long-term management objectives. A minor amount of the sawtimber timber recommended for harvest would come from this group during the coming decade.

The next group, 16 to 20 inches DBH, contains both mature and immature sawtimber depending on tree species, stem quality, and vigor. Certain species in this group, such as hemlock, white birch, beech, and red maple, can be considered mature. Above average quality and healthy white pine, red oak, and other species should be reserved for additional rapid growth in both volume and value. Some volume recommended for harvest would come from this group, but many individuals should be reserved for subsequent harvests in the decades ahead.

The timber in the last group, 22 inches and up DBH, can be considered economically mature. Much of the volume typically recommended for harvest would come from this group.

These groups illustrate diameter distribution by species. Many other factors, other than diameter, contribute to the decision to harvest or grow a particular tree. Some of these are: landowner objectives, aesthetics, wildlife requirements, the presence or absence of desirable regeneration, evidence of poor health, quality or overcrowding, and the potential for improvement with additional growth. Careful selective marking takes all these factors as well as market and logging considerations into account.

**TABLE I: ESTIMATE OF VOLUME AND VALUE BY SPECIES AND SIZE GROUP**

OWNERSHIP: Town of Milford

**TOTAL ACRES: 288**

TOWN OF: Milford

TAX MAP: 10

LOT: 53, 55, 56, 58, &amp; 64

**FOREST ACRES: 240**

TAX MAP: 38

LOT: 29

TAX MAP: 40

LOT: 11, 14, 15, 16, 61, &amp; 62

SPECIES	VOLUME	VOLUME	VOLUME	AVERAGE			CORD	VALUE	CORD	TOTAL
	MBF	MBF	MBF	MBF**	VALUE	MBF**				
	12"-14"	16"-20"	22" & UP	TOTAL	PER	TOTAL				
GROUP	GROUP	GROUP	VOLUME	MBF	VALUE	VOLUME	CORD	VALUE	VALUE	
WHITE PINE	233.800	507.300	302.300	1,043.400	\$165	\$172,161	1,145	\$2.5	\$2,863	\$175,024
HEMLOCK	18.700	43.200		61.900	\$35	\$2,167	495	\$15	\$7,425	\$9,592
TOTAL SOFTWOOD	252.500	550.500		1,105.300		\$174,328	1,640		\$10,288	\$184,615
RED OAK	122.700	221.900	87.300	431.900	\$300	\$129,570	1,040	\$10	\$10,400	\$139,970
RED MAPLE	26.100	5.900		32.000	\$100	\$3,200	280	\$10	\$2,800	\$6,000
CHESTNUT OAK	7.100	10.500		17.600	\$100	\$1,760	140	\$10	\$1,400	\$3,160
WHITE OAK	9.100			9.100	\$100	\$910	110	\$10	\$1,100	\$2,010
BEECH	4.100	7.100		11.200	\$50	\$560	200	\$10	\$2,000	\$2,560
BLACK BIRCH	13.000	3.200		16.200	\$100	\$1,620	110	\$10	\$1,100	\$2,720
WHITE BIRCH	1.800			1.800		\$0	20	\$10	\$200	\$200
YELLOW BIRCH				0.000	\$100	\$0	5	\$10	\$50	\$50
OTHER				0.000	\$50	\$0	35	\$10	\$350	\$350
TOTAL HARDWOOD	183.900	248.600	87.300	519.800		\$137,620	1,940		\$19,400	\$157,020
TOTAL SAWTIMBER	436.400	799.100	87.300	1,625.100		\$311,948	3,580		\$29,688	\$341,635

**TOTAL TIMBER LIQUIDATION VALUE: \$341,635 \*\*\***

\*\*MBF = THOUSAND BOARD FEET

PER FOREST ACRE

MBF: 6.771

CORDS: 14.9

VALUE: \$1,423

\*\*\*THE VALUE AVAILABLE UNDER SOUND FORESTRY PRINCIPLES IS LESS  
THAN THE TIMBER LIQUIDATION VALUE.

ALL VOLUMES BASED ON INTERNATIONAL 1/4" LOG RULE AND STANDARD CORDS.

STUMPAGE PRICES BASED ON RECENT SALES OF TIMBER COMPARABLE IN SIZE AND QUALITY.

## **TIMBER TYPE STAND DEFINITION**

Distinct timber types have been identified within each management area. They vary in species composition, size class, and stocking levels. Because of these differences, the recommended treatments will vary between types.

Descriptions of the timber types are listed under each management area, with a Table II Stocking and Volume by forest type.

The timber types are coded using a letter and number system. The first letters indicate the species composition: (MH) mixed hardwood, (HM) hemlock, (WP) white pine, (RO) Red Oak, (RM) Red Maple, etc. The number indicates size class: (3) saplings 0-4 inches DBH, (2) poletimber 5-10 inches DBH, (1) sawtimber 11 inches and up DBH.

### ***DISCUSSION OF TABLE II: Stocking and Volume***

This table, developed with the aid of a computer program from the data collected in the field, shows the number of trees and volume per acre by species and diameter size group, and the average diameter for pulpwood. The average height of merchantable timber for each species and size group is also shown. Height is shown in number of 16' lengths. These numbers are expanded to show overall number of trees and volume per acre, average height of the timber, and basal area by species. Basal area is the per acre sum of the cross-sectional area of all stems at DBH. i.e., The square feet of stem per acre at 4.5 feet above the ground. The final 3 columns show the total number of trees and board feet volume in the entire stand.

## **MANAGEMENT RECOMMENDATIONS BY AREA and FOREST TYPE**

Specific data and recommendations for each forest type in each area are given below. This data, together with field notes, observations made within each type, accepted silvicultural practices for the species and conditions involved, and the owner's management objectives, form the basis for the recommendations.



**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**FOREST ACRES +/-: 240**

**Lot: Milford, Tax Map 10 Lot 53, 55, 56, 58, & 64; Map 38 Lot 29; Map 40 Lot 11, 14, 15, 16, 61, & 62**

**Number of plots: 80**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	9.3	1.8	974	7.7	2.8	2,114	2.1	3.2	1,260	8.6	13.9	1.6	30.2	12.8	33.0	4,347	4.8	7,932	1,043,368	1,143
HEMLOCK	1.1	1.2	78	1.1	1.6	180				9.8	15.9	1.4	10.7	10.4	18.0	258	2.1	4,330	61,936	496
TOTAL SOFTWOOD	10.4	1.8	1,052	8.8	2.7	2,294	2.1	3.2	1,260	9.3	29.8	1.5	40.9	11.9	51.1	4,605	6.83	12,262	1,105,304	1,640
RED OAK	7.2	1.1	511	6.0	1.4	924	1.2	1.5	364	9.1	19.6	1.4	25.8	11.7	34.0	1,799	4.3	8,149	431,873	1,038
RED MAPLE	1.5	1.1	109	0.2	1.0	24				8.9	11.8	1.5	6.6	9.4	13.5	133	1.2	3,245	31,900	282
CHESTNUT OAK	0.4	1.0	30	0.4	1.2	44				10.9	4.0	1.4	3.5	11.5	4.8	73	0.6	1,148	17,607	140
WHITE OAK	0.6	1.0	38							9.2	4.7	1.5	2.7	9.6	5.4	38	0.5	1,285	9,212	112
BEECH	0.2	1.2	17	0.2	1.0	30				10.3	6.7	1.4	4.5	10.6	7.2	47	0.8	1,721	11,283	201
BLACK BIRCH	0.7	1.1	54	0.1	1.5	14				8.5	4.9	1.3	2.7	9.2	5.7	67	0.5	1,374	16,176	109
WHITE BIRCH	0.1	1.0	7							8.9	1.1	1.2	0.6	9.3	1.2	7	0.1	296	1,773	19
YELLOW BIRCH										7.1	0.6	1.1	0.2	7.1	0.6	0	0.0	138		5
OTHER										9.9	1.4	1.5	0.8	9.9	1.4	0	0.1	328		35
TOTAL HARDWOOD	10.8	1.1	767	6.9	1.4	1,036	1.2	1.5	364	9.3	54.8	1.4	47.3	10.7	73.7	2,166	8.09	17,685	519,823	1,941
TOTAL SAWTIMBER	21.2	1.4	1,818	15.6	2.1	3,329	3.4	2.6	1,624	9.3	84.6	1.4	88.2	11.2	124.8	6,771	14.92	29,947	1,625,127	3,581

HGT. = Number of 16 foot lengths

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.



## **STAND DESCRIPTION**

**TIMBER TYPE:** MH 2, 1

WP 1,2

Acres: 42

### **COMPOSITION AND SIZE CLASS:**

A varied stand of white pine sawtimber and poletimber with mixed hardwood pole timber and sawtimber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Mountain laurel with mixed hardwood and white pine.

### **LOCATION:**

On the Millimet tract. Part of Tax Map 40 Lot 14, 15, & 16.

### **STAND HISTORY:**

Parts of this stand probably have always have been forested and other parts were pasture land. In the late 1800's the pastures were no longer maintained then abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and the mixture of white pine and hardwood regenerated.

Timber from this stand was a likely source of cordwood and lumber for use on the farm. The most recent timber harvest was in the 1970's in the central part of the lot. Timber Stand Improvement was done in the north east part of the stand in 1988 to girdle the less desirable trees and allow the better straighter trees improved growth.

### **TIMBER QUALITY:**

Varied, moderate to good quality white pine and moderate to low quality hardwoods.

### **INSECT AND DISEASE DAMAGE:**

Evidence of past Gypsy moth damage.

### **WILDLIFE HABITAT VALUE:**

Dead snags and cavity trees are present, acorn mast from mature oak trees, beech nuts from mature beech trees.

### **SOIL TYPE:**

CaB – Canton fine sandy loam, 0 to 8 % slope.

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CmD – Canton stony fine sandy loam, 15 to 25 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

Harvest mature and low quality white pines, red oaks and hardwoods for sawtimber and cordwood within the next 10 years. Areas of all mature or low quality timber should be clear-cut to encourage white pine regeneration. Clearcutting is necessary for the establishment of white

pine regeneration in areas of existing mountain laurel ground cover. Areas of good quality immature timber should be thinned by removing the lower quality trees allowing the good quality trees improved growth. Stands west of Savage Road may also be treated but are limited by being a small area and difficult access. Because of limited truck access and recreational trails access to the sale area is difficult. Inquire if temporary access can be gained through abutting property, Tax Map 40 Lot 21.

**WILDLIFE:**

Reserve trees with wildlife value such as cavity trees, mast producing beech trees. Create wildlife openings. .

**RECREATION:**

Leave buffers on existing trails as appropriate and take the creation or relocation of trails into consideration before and during timber harvesting.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: MH 2,1; WP 1,2**

**ACRES +/-: 42**

**Lot: Millimet, Milford, Tax Map 40 Lot 11, 14, 15 & 16**

**Plots: 13**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES	AVG.	BF	TREES	AVG.	BF	TREES	AVG.	BF	AVG.	TREES	AVG.	BASAL	AVG.	TREES	BF	CORDS	#	BF	CORDS
	ACRE	HGT.	ACRE	ACRE	HGT.	ACRE	ACRE	HGT.	ACRE	DBH	ACRE	HGT.	AREA	DIA.	ACRE	ACRE	ACRE	TREES	BF	CORDS
WHITE PINE	4.6	1.8	465	2.3	2.8	637	2.3	3.3	1,487	8.7	17.7	1.4	19.2	11.4	26.9	2,589	3.66	1,131	108,748	154
HEMLOCK				0.8	1.0	82				10.0	0.8	1.5	1.4	13.0	1.5	82	0.13	65	3,425	6
TOTAL SOFTWOOD	4.6	1.8	465	3.1	2.4	718	2.3	3.3	1,487	8.8	18.5	1.4	20.6	11.5	28.5	2,671	3.80	1,195	112,172	160
RED OAK	10.8	1.1	760	7.7	1.5	1,215	2.3	1.3	652	9.2	29.2	1.6	38.1	11.8	50.0	2,626	6.70	2,100	110,298	282
RED MAPLE	2.3	1.0	129							8.8	14.6	1.5	7.9	9.3	16.9	129	1.34	711	5,428	56
CHESTNUT OAK				1.5	1.3	192				8.7	4.6	1.3	3.7	10.5	6.2	192	0.63	258	8,045	27
WHITE OAK										8.0	3.1	1.0	1.1	8.0	3.1	0	0.12	129	0	5
BEECH				0.8	1.0	105				10.7	11.5	1.4	8.3	11.1	12.3	105	1.71	517	4,394	72
BLACK BIRCH										7.1	5.4	1.1	1.5	7.1	5.4	0	0.24	226	0	10
WHITE BIRCH										10.0	1.5	1.0	0.8	10.0	1.5	0	0.08	65	0	3
YELLOW BIRCH																				
OTHER										11.0	1.5	1.8	1.0	11.0	1.5		0.21	65		9
TOTAL HARDWOOD	13.1	1.1	889	10.0	1.4	1,511	2.3	1.3	652	9.2	71.5	1.5	62.4	10.8	96.9	3,052	11.04	4,071	128,165	463
TOTAL SAWTIMBER	17.7	1.3	1,355	13.1	1.6	2,229	4.6	2.3	2,138	9.1	90.0	1.4	83.0	10.9	125.4	5,722	14.83	5,266	240,337	623

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## **STAND DESCRIPTION**

TIMBER TYPE: MH 1,2  
WP 1

Acres: 39

### **COMPOSITION AND SIZE CLASS:**

Mixed hardwood sawtimber and pole timber with scattered white pine sawtimber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Mountain laurel with areas of mixed hardwood and pockets of white pine. Thick regeneration in some areas resulting from the harvest in 1988.

### **LOCATION:**

In the Burns, Gibbons, and Curtis tracts. Part of Tax Map 10 Lot 53, 55, & 56.

### **STAND HISTORY:**

This stand was at one time pasture land, and the site of mills along Tucker Brook. In the mid to late 1800's the pastures and mills were abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and a mixture of hardwoods with white pine regenerated.

The most recent timber harvest was in 1988 and was a conventional cable skidder and chain saw harvest. Volume harvested was 110.860 MBF.

### **TIMBER QUALITY:**

Much of the lower quality timber was harvested in 1988 leaving mostly good quality white pine and hardwood.

### **INSECT AND DISEASE DAMAGE:**

None noted.

### **WILDLIFE HABITAT VALUE:**

Evidence of deer, beaver and raccoon was observed during the field work. Dead snags, cavity trees, and acorn mast from mature oak trees are present,.

### **SOIL TYPE:**

CmB – Canton stony fine sandy loam, 3 to 8 % slope

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CmD – Canton stony fine sandy loam, 15 to 25 % slope.

CnD - Canton very stony fine sandy loam, 15 to 35 % slope.

LvB – Leicester – Walpole complex stony, 3 to 8 % slope. (Poorly drained)

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

Allow continued growth for 10 to 15 years before reviewing for potential for next timber harvest.

#### **WILDLIFE:**

Reserve cavity and mast producing trees.

RECREATION:  
Maintain trails.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: MH 1,2; WP 1**

**ACRES +/-: 39**

**Lot: Burns, Gibbons, & Curtis, Milford, Tax Map 10 Lot 53, 55, 56, & 58**

**Plots: 15**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	5.3	1.8	559	8.0	2.9	2,157	4.0	3.1	2,329	8.0	5.3	1.6	28.0	15.1	22.7	5,045	4.44	884	196,768	173
HEMLOCK	2.0	1.0	112	2.0	1.5	313				11.8	8.7	1.6	11.0	12.6	12.7	425	1.97	494	16,588	77
TOTAL SOFTWOOD	7.3	1.6	671	10.0	2.6	2,471	4.0	3.1	2,329	10.4	14.0	1.6	39.1	14.2	35.3	5,471	6.41	1,378	213,356	250
RED OAK	6.0	1.1	454	6.0	1.8	1,083	1.3	2.3	583	9.6	12.0	1.5	22.8	12.8	25.3	2,120	4.25	988	82,680	166
RED MAPLE	0.7	1.0	52	0.7	1.0	71				8.8	20.0	1.5	9.8	9.2	21.3	123	1.90	832	4,784	74
CHESTNUT OAK																				
WHITE OAK	1.3	1.0	75							8.0	4.7	1.5	2.6	8.9	6.0	75	0.46	234	2,912	18
BEECH				0.7	1.0	71				12.7	2.0	1.8	2.7	13.5	2.7	71	0.51	104	2,756	20
BLACK BIRCH										10.0	4.7	1.4	2.5	10.0	4.7	0	0.41	182	0	16
WHITE BIRCH										10.0	1.3	1.3	0.7	10.0	1.3	0	0.09	52	0	4
YELLOW BIRCH										7.3	2.0	1.0	0.6	7.3	2.0	0	0.07	78	0	3
OTHER										12.0	0.7	1.5	0.5	12.0	0.7		0.09	26		3
TOTAL HARDWOOD	8.0	1.1	581	7.3	1.6	1,224	1.3	2.3	583	9.2	47.3	1.5	42.2	10.8	64.0	2,388	7.80	2,496	93,132	304
TOTAL SAWTIMBER	15.3	1.3	1,251	17.3	2.2	3,695	5.3	2.9	2,913	9.5	61.3	1.5	81.3	12.0	99.3	7,859	14.20	3,874	306,488	554

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## **STAND DESCRIPTION**

TIMBER TYPE: MH 2,1

WP 1

HM 2,1

Acres: 35

### **COMPOSITION AND SIZE CLASS:**

Mixed hardwood pole timber and sawtimber with scattered white pine sawtimber, and patches of hemlock pole timber and sawtimber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Patches of mountain laurel, with scattered hemlock with hardwood and some white pine.

### **LOCATION:**

In the east side of the Goodridge Lot. Tax Map 40 Lot 61.

### **STAND HISTORY:**

This stand was at one time pasture land. The pastures were over time abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and the mixture of white pine and hardwood regenerated.

Prior harvesting last occurred more than 50 years ago.

### **TIMBER QUALITY:**

Moderate to low quality hardwoods and hemlocks with generally good quality white pine.

### **INSECT AND DISEASE DAMAGE:**

None noted.

### **WILDLIFE HABITAT VALUE:**

Cavity trees and acorn mast from mature oak trees present. There are several ledge outcrops intermittent brooks and a vernal pool. A beaver pond is located just off of Mason Road (See Type Map)

### **SOIL TYPE:**

CaC – Canton fine sandy loam, 8 to 15 % slope.

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CmD – Canton stony fine sandy loam, 15 to 25 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

A harvest was prescribed for this stand in the 1988 management plan. Access limitations and potential negative impacts to the hiking trails have postponed that harvest. Access may be possible through an abutting property in combination with the WP 1,2; MH 2,1 stand. If feasible harvest mature and low quality white pines, red oaks and hardwoods for sawtimber and cordwood within the next 10 years. Areas of all mature or low quality timber should be clear-cut to encourage white pine regeneration. Clear-cutting is necessary for the establishment of white

pine regeneration in areas of existing mountain laurel ground cover.

**WILDLIFE:**

Reserve trees with wildlife value such as cavity trees, mast producing red oak, white oak and beech trees. Create wildlife openings.

**RECREATION:**

Leave buffers on existing trails as appropriate and take the creation or relocation of trails into consideration before and during timber harvesting.



**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: MH 2,1; WP 1; HM 2,1**

**ACRES +/-: 35**

**Lot: Goodridge, Milford, Tax Map 40 Lot 61**

**Plots: 13**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	6.2	1.6	583	3.1	3.0	853	0.8	3.0	385	9.3	6.2	1.8	14.3	12.8	16.2	1,821	2.16	565	63,727	76
HEMLOCK	3.1	1.3	248	2.3	1.7	390				10.1	28.5	1.4	21.6	10.8	33.8	638	3.64	1,185	22,319	127
TOTAL SOFTWOOD	9.2	1.5	831	5.4	2.4	1,243	0.8	3.0	385	10.0	34.6	1.4	36.0	11.4	50.0	2,458	5.80	1,750	86,046	203
RED OAK	4.6	1.1	330	6.2	1.4	972	0.8	1.5	266	9.6	17.7	1.5	23.0	12.0	29.2	1,568	4.03	1,023	54,896	141
RED MAPLE										9.3	10.8	1.5	5.1	9.3	10.8	0	0.99	377		35
CHESTNUT OAK	1.5	1.0	103							11.8	13.1	1.5	11.3	11.9	14.6	103	2.00	512	3,608	70
WHITE OAK	0.8	1.0	60							10.7	2.3	1.8	2.2	11.5	3.1	60	0.41	108	2,100	14
BEECH	0.8	1.0	43							9.9	20.8	1.4	11.6	9.9	21.5	43	2.03	754	1,508	71
BLACK BIRCH	2.3	1.0	146							8.8	9.2	1.5	5.8	9.6	11.5	146	1.02	404	5,115	36
WHITE BIRCH										6.0	0.8	1.0	0.2	6.0	0.8	0	0.02	27		1
YELLOW BIRCH																				
OTHER										14.0	0.8	2.5	0.8	14.0	0.8		0.22	27		8
TOTAL HARDWOOD	10.0	1.0	682	6.2	1.4	972	0.8	1.5	266	9.9	75.4	1.5	59.9	10.8	92.3	1,921	10.72	3,231	67,227	375
TOTAL SAWTIMBER	19.2	1.2	1,513	11.5	1.9	2,215	1.5	2.3	651	9.9	110.0	1.5	95.8	11.0	142.3	4,379	16.52	4,981	153,273	578

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## **STAND DESCRIPTION**

TIMBER TYPE: WP 1  
                  MH 2,1

Acres: 30

### **COMPOSITION AND SIZE CLASS:**

White Pine sawtimber and mixed hardwood pole timber and sawtimber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Patches of mountain laurel with a low stocking of a variety of mixed hardwood, hemlock, and white pine.

### **LOCATION:**

On the Burns Lot. Tax Map 10 Lot 58.

### **STAND HISTORY:**

This stand was at one time pasture land, and the site of mills along Tucker Brook. In the mid to late 1800's the pastures and mills were abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and a mixture of hardwoods with white pine regenerated.

No harvesting has occurred in this stand in the last 40 years.

### **TIMBER QUALITY:**

Generally good quality white pine with moderate to low quality hardwoods.

### **INSECT AND DISEASE DAMAGE:**

None significant damage noted.

### **WILDLIFE HABITAT VALUE:**

Scattered cavity trees and a hawk nest were observed. Bat boxes have been placed near the bridge over Tucker Brook.

### **SOIL TYPE:**

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CnD - Canton very stony fine sandy loam, 15 to 35 % slope.

CpC – Chatfield – Hollis – Canton complex, 8 to 15 % slope.

CtD – Chatfield – Hollis – Rock outcrop complex, 15 to 35 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

Actual soils are sand and gravel with springs seeping water out of the base of the slopes.

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

Improvement harvest within the next 10 years. Harvest low quality hardwood as cordwood and sawtimber and mature and low quality white pine sawtimber. Clear-cuts in some areas would allow regeneration to become established.

#### **WILDLIFE:**

Reserving trees and areas that have significant wildlife value

#### **RECREATION:**

Leave buffers on existing trails as appropriate, and take the creation or relocation of trails into consideration before and during timber harvesting.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: WP 1; MH 2,1**

**ACRES +/-: 30**

**Lot: Burns, Milford, Tax Map 10 Lot 58**

**Number of plots: 8**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	25.0	2.1	2,954	12.5	3.5	4,335	3.8	3.5	2,210	8.7	27.5	1.6	61.1	12.8	68.8	9,499	10.29	2,063	284,963	309
HEMLOCK										8.9	20.0	1.2	8.6	8.9	20.0	0	1.43	600	0	43
TOTAL SOFTWOOD	25.0	2.1	2,954	12.5	3.5	4,335	3.8	3.5	2,210	8.8	47.5	1.4	69.7	11.9	88.8	9,499	11.72	2,663	284,963	352
RED OAK	8.8	1.0	545	6.3	1.2	881	1.3	1.0	264	10.2	11.3	1.6	25.7	13.1	27.5	1,690	3.74	825	50,700	112
RED MAPLE	3.8	1.2	271							8.9	8.8	1.3	6.8	10.0	12.5	271	1.08	375	8,138	32
CHESTNUT OAK										12.4	6.3	1.5	5.2	12.4	6.3	0	0.94	188	0	28
WHITE OAK	2.5	1.0	140							9.4	17.5	1.6	10.4	9.8	20.0	140	1.87	600	4,200	56
BEECH																				
BLACK BIRCH	1.3	1.0	70										1.0	12.0	1.3	70	0.11	38	2,100	3
WHITE BIRCH										9.0	2.5	1.3	1.1	9.0	2.5	0	0.16	75	0	5
YELLOW BIRCH										6.0	1.3	1.0	0.2	6.0	1.3	0	0.03	38	0	1
OTHER										6.0	2.5	1.0	0.5	6.0	2.5		0.06	75		2
TOTAL HARDWOOD	16.3	1.0	1,026	6.3	1.2	881	1.3	1.0	264	9.6	50.0	1.5	51.0	11.1	73.8	2,171	7.99	2,213	65,138	240
TOTAL SAWTIMBER	41.3	1.7	3,980	18.8	2.7	5,216	5.0	2.9	2,474	9.2	97.5	1.4	120.6	11.5	162.5	11,670	19.71	4,875	350,100	591

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## STAND DESCRIPTION

TIMBER TYPE: HM 2,1  
WP 1  
MH 2,1

Acres: 25

### COMPOSITION AND SIZE CLASS:

Hemlock poletimber and sawtimber, white pine sawtimber and mixed hardwood pole timber and saw-timber.

### UNDERSTORY VEGETATION AND REGENERATION:

Scattered hemlock, with patches of mountain laurel. The dense shade prevents productive growth of regeneration and in the under story from lack of sun light. .

### LOCATION:

On the Burns, and Gibbons Lots. Tax Map 10 Lot 55, 56, & 58.

### STAND HISTORY:

This stand was at one time pasture land, and the site of mills along Tucker Brook. In the mid to late 1800's the pastures and mills were abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and a mixture of hardwoods with white pine regenerated. Hemlock slowly became established by its ability to regenerate in the shade of other trees. Once established the dense shade from the hemlock trees makes regeneration of other tree species difficult.

No harvesting has occurred in this stand in the last 40 years.

### TIMBER QUALITY:

Much of the hemlock is low quality. The white pine is good quality, and the hardwood quality is varied.

### INSECT AND DISEASE DAMAGE:

None noted.

### WILDLIFE HABITAT VALUE:

Cavity trees and cover. Scattered rock outcrops. Potential for deer yard.

### SOIL TYPE:

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CpC – Chatfield – Hollis – Canton complex, 8 to 15 % slope.

CtD – Chatfield – Hollis – Rock outcrop complex, 15 to 35 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

Actual soils are sand and gravel with springs seeping water out of the base of the slopes.

### MANAGEMENT PRESCRIPTION:

#### FORESTRY:

Improvement harvest within the next 10 years. Harvest low quality hemlock while reserving trees and areas that have significant wildlife value. Harvest mature white pines and low quality hardwoods. Clear-cutting in some areas would allow regeneration to become established.

**WILDLIFE:**

Reserve cavity trees and areas of potential deer yard value.

**RECREATION:**

Leave buffers on existing trails as appropriate and take the creation or relocation of trails into consideration before and during timber harvesting.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: HM 2,1; WP1; MH 2,1**

**ACRES +/-: 25**

**Lot: Burns & Gibbons, Milford, Tax Map 10 Lot 55, 56, & 58**

**Plots: 11**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	2.7	2.5	381	6.4	3.4	2,255	0.9	3.5	502	11.0	3.6	1.8	18.1	15.6	13.6	3,138	3.23	341	78,455	81
HEMLOCK	1.8	1.5	171	2.7	1.8	557				10.3	36.4	1.6	26.5	10.9	40.9	728	6.03	1,023	18,205	151
TOTAL SOFTWOOD	4.5	2.1	552	9.1	2.9	2,813	0.9	3.5	502	10.4	40.0	1.6	44.6	12.1	54.5	3,866	9.26	1,364	96,659	232
RED OAK	13.6	1.2	1,046	6.4	1.4	965	0.9	2.0	335	9.1	21.8	1.5	32.4	11.8	42.7	2,346	5.37	1,068	58,659	134
RED MAPLE	1.8	1.3	146	0.9	1.0	124				8.4	9.1	1.5	6.2	9.8	11.8	270	1.09	295	6,750	27
CHESTNUT OAK	1.8	1.0	142	0.9	1.0	96				10.0	0.9	1.5	3.6	13.5	3.6	238	0.44	91	5,955	11
WHITE OAK										10.6	6.4	1.4	3.9	10.6	6.4	0	0.64	159	0	16
BEECH										10.7	2.7	1.7	1.7	10.7	2.7	0	0.34	68	0	8
BLACK BIRCH	0.9	1.0	71	0.9	1.5	130				8.7	8.2	1.5	5.3	9.8	10.0	201	1.01	250	5,023	25
WHITE BIRCH	0.9	1.0	71										1.0	14.0	0.9	71	0.11	23	1,773	3
YELLOW BIRCH										8.0	0.9	1.5	0.3	8.0	0.9	0	0.05	23	0	1
OTHER										8.0	0.9	1.5	0.3	8.0	0.9		0.05	23		1
TOTAL HARDWOOD	19.1	1.1	1,476	9.1	1.3	1,315	0.9	2.0	335	9.1	50.9	1.5	54.7	11.1	80.0	3,126	9.09	2,000	78,159	227
TOTAL SAWTIMBER	23.6	1.3	2,028	18.2	2.1	4,128	1.8	2.8	836	9.7	90.9	1.5	99.2	11.5	134.5	6,993	18.36	3,364	174,818	459

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## STAND DESCRIPTION

TIMBER TYPE: MH 2,1  
WP 1

Acres: 16

### COMPOSITION AND SIZE CLASS:

Mixed hardwood pole timber and sawtimber, with scattered White Pine sawtimber.

### UNDERSTORY VEGETATION AND REGENERATION:

A variety of scattered mixed hardwood species; with patches of mountain laurel.

### LOCATION:

On the northeast and south west parts of the Sullivan Lot. Tax Map 38 Lot 29.

### STAND HISTORY:

This stand was at one time pasture land. In the 1870's the pastures were abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and a mixture of hardwoods with white pine regenerated.

Prior harvesting occurred in the 1960's  $\pm$  and salvage harvesting following the 1938 hurricane.

### TIMBER QUALITY:

Moderate and low quality hardwoods and generally good quality white pine.

### INSECT AND DISEASE DAMAGE:

Evidence of old gypsy moth damage was noted.

### WILDLIFE HABITAT VALUE:

Cavity trees, acorn mast from mature oak trees, vernal pool from a quarry, and a sixty foot rock and ledge face were observed in this stand.

### SOIL TYPE:

CtD – Chatfield – Hollis – Rock outcrop complex, 15 to 35 % slope..

HsD – Hinckley loamy sand, 15 to 35 % slope.

CtD - Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

HsD – Generally outwash sands and gravels. Soil moisture is adequate for good softwood growth, but is limited for hardwoods. Due to less hardwood competition, these soils are ideally suited for softwood production. .

### MANAGEMENT PRESCRIPTION:

#### FORESTRY:

Allow continued growth for 10 to 15 years before reviewing for potential for next timber harvest. If harvesting in the abutting WP 1 MH 2 stand additional harvesting could be included from this stand.

#### WILDLIFE:

Reserve cavity and mast producing trees.

#### RECREATION:

Maintain trails and consider additional trails to create a loop.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: MH 2,1; WP 1**

**ACRES +/-: 16**

**Lot: Sullivan, Milford, Tax Map 38 Lot 29**

**Number of plots: 5**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	6.0	1.2	372	6.0	2.5	1,536				7.8	36.0	1.5	23.6	9.5	48.0	1,908	3.93	768	30,528	63
HEMLOCK										8.0	4.0	1.0	1.4	8.0	4.0	0	0.16	64		3
TOTAL SOFTWOOD	6.0	1.2	372	6.0	2.5	1,536				7.8	40.0	1.4	25.0	9.4	52.0	1,908	4.09	832	30,528	65
RED OAK	10.0	1.0	736	2.0	1.5	368				7.9	58.0	1.2	30.7	9.0	70.0	1,104	4.69	1,120	17,664	75
RED MAPLE	2.0	1.0	156							8.5	8.0	1.4	5.0	9.6	10.0	156	0.80	160	2,496	13
CHESTNUT OAK																				
WHITE OAK																				
BEECH										8.5	8.0	1.3	3.2	8.5	8.0	0	0.49	128		8
BLACK BIRCH										6.0	2.0	1.0	0.4	6.0	2.0	0	0.05	32		1
WHITE BIRCH																				
YELLOW BIRCH																				
OTHER																				
TOTAL HARDWOOD	12.0	1.0	892	2.0	1.5	368				7.9	76.0	1.2	39.3	8.9	90.0	1,260	6.03	1,440	20,160	96
TOTAL SAWTIMBER	18.0	1.1	1,264	8.0	2.3	1,904				7.9	116.0	1.3	64.3	9.1	142.0	3,168	10.12	2,272	50,688	162

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.



## **STAND DESCRIPTION**

**TIMBER TYPE:** HM 2

MH 2

WP 1

Acres: 15

**COMPOSITION AND SIZE CLASS:**

Hemlock pole timber, mixed hardwood pole timber, and white pine sawtimber.

**UNDERSTORY VEGETATION AND REGENERATION:**

Scattered hemlock, with patches of mountain laurel. The dense shade prevents productive growth of regeneration and in the under story from lack of sun light. .

**LOCATION:**

On the Millimet tract. Part of Tax Map 40 Lot 14, and 15.

**STAND HISTORY:**

This stand probably at one time pasture land. In the late 1800's the pastures were no longer maintained then abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and the mixture of white pine and hardwood regenerated.

Timber from this stand was a likely source of cordwood and lumber for use on the farm. The most recent timber harvest was in the 1970's.

**TIMBER QUALITY:**

Much of the hemlock is low quality. The white pine and hardwood quality is varied.

**INSECT AND DISEASE DAMAGE:**

None noted.

**WILDLIFE HABITAT VALUE:**

Cavity trees. Potential for deer yard in some areas. Edge of beaver meadow.

**SOIL TYPE:**

Soils map show:

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CmD – Canton stony fine sandy loam, 15 to 25 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

Actual soils are sand and gravel with springs seeping water out of the base of the slopes.

**MANAGEMENT PRESCRIPTION:**

**FORESTRY:**

Allow continued growth for 15 to 20 years before harvesting.

**WILDLIFE:**

Reserve areas suitable for deer yards, and cavity trees.

**RECREATION:**

Reserve buffers on existing trails as appropriate.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: HM 2; MH 2; WP1**

**ACRES +/-: 15**

**Lot: Millimet, Milford, Tax Map 40 Lot 14 & 15**

**Number of plots: 6**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	6.7	2.0	762	5.0	3.0	1,177	1.7	2.0	613	8.4	8.3	1.8	18.8	12.6	21.7	2,552	2.78	325	38,275	42
HEMLOCK	1.7	1.0	93							8.9	58.3	1.3	26.2	8.9	60.0	93	6.04	900	1,400	91
TOTAL SOFTWOOD	8.3	1.8	855	5.0	3.0	1,177	1.7	2.0	613	8.8	66.7	1.4	45.0	9.9	81.7	2,645	8.82	1,225	39,675	132
RED OAK				3.3	1.0	403	1.7	1.0	352	9.0	6.7	1.6	11.0	13.1	11.7	755	1.76	175	11,325	26
RED MAPLE	1.7	1.5	175							9.1	15.0	1.8	8.4	9.6	16.7	175	1.84	250	2,625	28
CHESTNUT OAK										9.0	6.7	1.0	2.9	9.0	6.7	0	0.30	100	0	5
WHITE OAK																				
BEECH	1.7	1.5	175							11.6	8.3	1.5	7.9	12.0	10.0	175	1.46	150	2,625	22
BLACK BIRCH										8.6	11.7	1.1	4.7	8.6	11.7	0	0.71	175	0	11
WHITE BIRCH										10.0	1.7	2.0	0.9	10.0	1.7	0	0.22	25	0	3
YELLOW BIRCH																				
OTHER																				
TOTAL HARDWOOD	3.3	1.5	350	3.3	1.0	403	1.7	1.0	352	9.4	50.0	1.5	35.8	10.5	58.3	1,105	6.28	875	16,575	94
TOTAL SAWTIMBER	11.7	1.7	1,205	8.3	2.2	1,580	3.3	1.5	965	9.1	116.7	1.4	80.7	10.1	140.0	3,750	15.11	2,100	56,250	227

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## **STAND DESCRIPTION**

TIMBER TYPE: WP 1  
                  MH 2

Acres: 10

### **COMPOSITION AND SIZE CLASS:**

White Pine sawtimber and mixed hardwood pole timber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Mixed hardwood, and white pine.

### **LOCATION:**

On the northwest and southeast parts of the Sullivan Lot. Tax Map 38 Lot 29.

### **STAND HISTORY:**

This stand was at one time pasture land. In the 1920's the pastures were abandoned and became overgrown with trees, mostly white pine. The areas near the road was a field until the 1940's +/- . It appears that a raceway for a water powered mill was partly dug near the road at the top of the bank near the type edge, but that the raceway and mill were never constructed.

The most recent harvesting occurred in the 1970's ± .

### **TIMBER QUALITY:**

Generally good quality white pine with moderate to low quality hardwoods.

### **INSECT AND DISEASE DAMAGE:**

White pine weevil damage was observed in some of the white pines.

### **WILDLIFE HABITAT VALUE:**

Frontage on Tucker Brook.

### **SOIL TYPE:**

HsD – Hinckley loamy sand, 15 to 35 % slope.

Generally outwash sands and gravels. Soil moisture is adequate for good softwood growth, but is limited for hardwoods. Due to less hardwood competition, these soils are ideally suited for softwood production. .

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

Improvement harvest in about 10 years. Harvest low quality hardwood as cordwood and mature and low quality white pine sawtimber. Access may be easiest through the abutting property to the north.

#### **WILDLIFE:**

Reserving trees and areas that have significant wildlife value

#### **RECREATION:**

Leave buffers on existing trails as appropriate, and take the creation or relocation of trails into consideration before and during timber harvesting.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: WP 1; MH 2**

**ACRES +/-: 10**

**Lot: Sullivan, Milford, Tax Map 38 Lot 29**

**Number of plots: 4**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	35.0	1.9	3,770	32.5	2.6	7,443				9.2	32.5	1.9	91.5	13.0	100.0	11,213	12.57	1,000	112,125	126
HEMLOCK																				
TOTAL SOFTWOOD	35.0	1.9	3,770	32.5	2.6	7,443				9.2	32.5	1.9	91.5	13.0	100.0	11,213	12.57	1,000	112,125	126
RED OAK	5.0	1.0	390	5.0	1.0	530				10.3	15.0	1.2	20.3	12.2	25.0	920	2.58	250	9,200	26
RED MAPLE										10.0	12.5	1.3	6.8	10.0	12.5	0	1.08	125		11
CHESTNUT OAK																				
WHITE OAK										8.0	2.5	1.0	0.9	8.0	2.5	0	0.10	25		1
BEECH																				
BLACK BIRCH																				
WHITE BIRCH																				
YELLOW BIRCH																				
OTHER																				
TOTAL HARDWOOD	5.0	1.0	390	5.0	1.0	530				10.0	30.0	1.2	28.0	11.3	40.0	920	3.76	400	9,200	38
TOTAL SAWTIMBER	40.0	1.8	4,160	37.5	2.4	7,973				9.6	62.5	1.6	119.4	12.5	140.0	12,133	16.33	1,400	121,325	163

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## **STAND DESCRIPTION**

**TIMBER TYPE:** RO 1,2  
WP 1

Acres: 9

### **COMPOSITION AND SIZE CLASS:**

Red Oak sawtimber and pole timber with scattered white pine sawtimber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Mountain laurel.

### **LOCATION:**

In the west side of the Goodridge Lot. Tax Map 40 Lot 61.

### **STAND HISTORY:**

This stand was at one time pasture land. The pastures were over time abandoned and became overgrown with trees, mostly white pine. As the pine became merchantable for saw timber it was harvested and the mixture of white pine and hardwood regenerated.

The most recent timber harvest was in 1997. This harvest was a conventional cable skidder and chain saw harvest of 49,595 board feet and 56 cords. This was an improvement harvest removing lower quality trees to allow the better quality tree improved growth. No large openings were created which would encourage the regeneration of red oak and white pine, and the resulting partial sunlight created by the harvest benefited the mountain laurel already growing in the understory.

### **TIMBER QUALITY:**

Much of the lower quality timber was harvested in 1997 leaving mostly good quality white pine and red oak.

### **INSECT AND DISEASE DAMAGE:**

None noted.

### **WILDLIFE HABITAT VALUE:**

Very dense mountain laurel cover.

### **SOIL TYPE:**

CaC – Canton fine sandy loam, 8 to 15 % slope.

CmC – Canton stony fine sandy loam, 8 to 15 % slope.

CnC - Canton very stony fine sandy loam, 8 to 15 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

Allow continued growth for 15 to 20 years before reviewing for potential for next timber harvest.

#### **WILDLIFE:**

None.

#### **RECREATION:**

Thick mountain laurel makes it difficult to clear for trails.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: RO 1,2; WP 1**

**ACRES +/-: 9**

**Lot: Goodridge, Milford, Tax Map 40 Lot 61, & 62**

**Number of plots: 3**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	3.3	1.0	187							8.0	16.7	1.1	8.2	8.7	20.0	187	0.93	180	1,680	8
HEMLOCK																				
TOTAL SOFTWOOD	3.3	1.0	187							8.0	16.7	1.1	8.2	8.7	20.0	187	0.93	180	1,680	8
RED OAK	6.7	1.0	373	20.0	1.4	2,973	3.3	1.0	703	8.4	36.7	1.3	51.5	11.9	66.7	4,050	8.49	600	36,450	76
RED MAPLE	3.3	1.0	187							7.3	10.0	1.0	5.3	8.5	13.3	187	0.63	120	1,680	6
CHESTNUT OAK																				
WHITE OAK										8.0	3.3	1.0	1.2	8.0	3.3	0	0.13	30	0	1
BEECH																				
BLACK BIRCH										8.0	3.3	1.0	1.2	8.0	3.3	0	0.13	30	0	1
WHITE BIRCH										6.0	3.3	1.0	0.7	6.0	3.3	0	0.08	30	0	1
YELLOW BIRCH																				
OTHER																				
TOTAL HARDWOOD	10.0	1.0	560	20.0	1.4	2,973	3.3	1.0	703	8.0	56.7	1.2	59.7	10.9	90.0	4,237	9.47	810	38,130	85
TOTAL SAWTIMBER	13.3	1.0	747	20.0	1.4	2,973	3.3	1.0	703	8.0	73.3	1.2	67.9	10.5	110.0	4,423	10.40	990	39,810	94

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.

## **STAND DESCRIPTION**

TIMBER TYPE: WP 1, 2  
                  MH 2,1

Acres: 7.5

### **COMPOSITION AND SIZE CLASS:**

White Pine sawtimber and poletimber with mixed hardwood poletimber and sawtimber.

### **UNDERSTORY VEGETATION AND REGENERATION:**

Varied stocking of mixed hardwood, and mountain laurel.

### **LOCATION:**

Millimet Lot. Tax Map 10 Lot 64 and Tax Map 40 Lot 14. Field and swamp edge on the east and west sides of Savage Road.

### **STAND HISTORY:**

Some of these stands were at one time cultivated for agricultural crops and was probably farmed until the late 1940's or later. Other areas have been maintained for a sugar bush and a source of farm fuel wood. Some areas may have been planted with white pine or hickory.

The most recent harvesting was a strip that was cut along Tax Map 10 Lot 54 with the development of the abutting lot a few years ago. Prior harvesting occurred in the late 1970's.

### **TIMBER QUALITY:**

Varied. Good to poor quality white pine and hardwoods.

### **INSECT AND DISEASE DAMAGE:**

Past white pine weevil damage.

### **WILDLIFE HABITAT VALUE:**

Field and swamp edge providing cover for birds and mammals.

### **SOIL TYPE:**

CaB – Canton fine sandy loam, 0 to 8 % slope.

CmD – Canton stony fine sandy loam, 15 to 25 % slope.

LvB – Leicester – Walpole complex stony, 3 to 8 % slope.

Generally sandy or loamy over sandy textures. Moderately well and well drained but adequate moisture for good tree growth. Hardwood competition is moderate to severe and the successional trend is toward a climax of tolerant hardwoods.

### **MANAGEMENT PRESCRIPTION:**

#### **FORESTRY:**

Thin stands by removing poorly formed and low quality trees. Access and small stand size make commercial harvesting difficult. Reserve immature high quality timber for continued growth.

#### **WILDLIFE:**

Reserve cavity and mast producing trees.

#### **RECREATION:**

Consider expansion of trails around the beaver ponds. Bridges would be needed to span between islands.

**TABLE II STAND STOCKING AND VOLUME BY TIMBER TYPE  
TUCKER BROOK TOWN FOREST**

**Owner: Town of Milford**

**TIMBER TYPE: WP 1,2; MH 2,1**

**ACRES +/-: 7.5**

**Lot: Millimet, Milford, Tax Map 10 Lot 64 & Map 40 Lot 14**

**Number of plots: 2**

**Plot size: 0.10 Acre**

SPECIES	SAWTIMBER 12" - 14" DBH			SAWTIMBER 16" - 20" DBH			SAWTIMBER 22"+ DBH			CORDWOOD AND PULP			TOTAL PER ACRE					STAND TOTAL		
	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	TREES ACRE	AVG. HGT.	BF ACRE	AVG. DBH	TREES ACRE	AVG. HGT.	BASAL AREA	AVG. DIA.	TREES ACRE	BF ACRE	CORDS ACRE	# TREES	BF	CORDS
WHITE PINE	30.0	1.3	2,275	40.0	2.1	8,460	10.0	3.3	6,345	10.0	10.0	2.0	120.5	15.7	90.0	17,080	14.96	675	128,100	112
HEMLOCK																				
TOTAL SOFTWOOD	30.0	1.3	2,275	40.0	2.1	8,460	10.0	3.3	6,345	10.0	10.0	2.0	120.5	15.7	90.0	17,080	14.96	675	128,100	112
RED OAK																				
RED MAPLE																				
CHESTNUT OAK																				
WHITE OAK																				
BEECH																				
BLACK BIRCH	5.0	1.5	525										5.3	14.0	5.0	525	0.79	38	3,938	6
WHITE BIRCH																				
YELLOW BIRCH																				
OTHER										10.7	15.0	1.5	9.3	10.7	15.0		1.55	113		12
TOTAL HARDWOOD	5.0	1.5	525							10.7	15.0	1.5	14.7	11.5	20.0	525	2.34	150	3,938	18
TOTAL SAWTIMBER	35.0	1.3	2,800	40.0	2.1	8,460	10.0	3.3	6,345	10.4	25.0	1.7	135.1	14.9	110.0	17,605	17.30	825	132,038	130

BF = Board feet.

DBH = Diameter breast high (4.5').

BASAL AREA = Square feet of stem per acre.



## **STAND DESCRIPTION**

**TIMBER TYPE:** RM 2

BG 2

Acres: 5.5

**COMPOSITION AND SIZE CLASS:**

Red maple poletimber with black gum poletimber.

**UNDERSTORY VEGETATION AND REGENERATION:**

Grass and alders.

**LOCATION:**

The Curtis Lot Tax Map 10 Lot 53, Occasionally flooded wetland.

**STAND HISTORY:**

These stand was probably farmed at one time as meadow land. Because of the saturated soft soils no harvesting has occurred in the last 60 + years.

**TIMBER QUALITY:**

Poor.

**INSECT AND DISEASE DAMAGE:**

Significant rot was noted.

**WILDLIFE HABITAT VALUE:**

Cavity trees.

**SOIL TYPE:**

BoA – Borohemists, nearly level

Very poorly drained sparkly wood bog.

**MANAGEMENT PRESCRIPTION:**

**FORESTRY:**

Maintain for wildlife.

**WILDLIFE:**

Reserve cavity trees.

**RECREATION:**

None.

## **STAND DESCRIPTION**

**TIMBER TYPE:** MH 3

WP 3

Acres: 6

**COMPOSITION AND SIZE CLASS:**

Mixed hardwood saplings and seedlings and white pine saplings and seedlings.

**UNDERSTORY VEGETATION AND REGENERATION:**

Varied stocking of alders, brush, mixed hardwood and white pine.

**LOCATION:**

Several small stands on the Millimet Lot. Tax Map 10 Lot 64 and Tax Map 40 Lot 14; The Curtis Lot Tax Map 10 Lot 53; and the Goodridge Lot. Tax Map 40 Lot 61. Old fields and swamp edge.

**STAND HISTORY:**

These stands have been cultivated for agricultural crops or open fields, but are currently un-maintained for those purposes because of unsuitable soil conditions or change of use.

**TIMBER QUALITY:**

Varied. Generally poorly formed.

**INSECT AND DISEASE DAMAGE:**

White pine weevil damage.

**WILDLIFE HABITAT VALUE:**

Field and swamp edge providing cover for birds and mammals.

**SOIL TYPE:**

SsA – Scituate fine sandy loam, 0 to 3 % slope

SsB – Scituate fine sandy loam, 3 to 8 % slope.

CaB – Canton fine sandy loam, 0 to 8 % slope.

CaC – Canton fine sandy loam, 8 to 15 % slope.

LtA – Leicester – Walpole complex , 0 to 3 % slope

Sr – Scarboro stony mucky loamy sand

Generally fertile loamy soils. Moderately wet to well drained. Hardwood competition is severe and the successional trend is toward shade tolerant hardwoods.

**MANAGEMENT PRESCRIPTION:**

**FORESTRY:**

Allow continued growth or maintain for wildlife or open fields.

**WILDLIFE:**

Periodic mowing or clearing to maintain early successional habitat.

**RECREATION:**

None.

## **STAND DESCRIPTION**

**TIMBER TYPE:** Open swamp or pond

Acres: 19

**COMPOSITION AND SIZE CLASS:**

Grass and brush.

**UNDERSTORY VEGETATION AND REGENERATION:**

Grass and brush.

**LOCATION:**

The Millimet Lot. Tax Map 40 Lot 14; the Curtis Lot Tax Map 10 Lot 53, and the Burns lot Tax Map 10 Lot 55. Flooded wetland.

**STAND HISTORY:**

These stands were probably farmed at one time as meadow land.

**TIMBER QUALITY:**

None.

**INSECT AND DISEASE DAMAGE:**

Not applicable .

**WILDLIFE HABITAT VALUE:**

Beaver activity.

**SOIL TYPE:**

BoA – Borohemists, nearly level.

Sr – Scarboro stony mucky loamy sand

Cu – Chocorua mucky peat.

LtA – Leicester – Walpole complex , 0 to 3 % slope

Very poorly drained.

**MANAGEMENT PRESCRIPTION:**

**FORESTRY:**

Maintain for wildlife. Cutting along edges of swamps will maintain hardwood regeneration for beavers.

**WILDLIFE:**

Reserve cavity trees near pond edge.

**RECREATION:**

Construct trails for viewing wildlife.

## **STAND DESCRIPTION**

**TIMBER TYPE:** Open Field

Acres 24.5

**COMPOSITION AND SIZE CLASS:**

Non forest

**UNDERSTORY VEGETATION AND REGENERATION:**

Grasses, Areas of brush.

**LOCATION:**

The Millimet Lot. Tax Map 40 Lots 11, and 14 Tax Map 10 Lot 64

**STAND HISTORY:**

Formerly cultivated farm land. Currently in pasture and hay.

**TIMBER QUALITY:**

None.

**INSECT AND DISEASE DAMAGE:**

None.

**WILDLIFE HABITAT VALUE:**

Grazing, small mammal cover, hunting for hawks and foxes.

**SOIL TYPE:**

CaC – Canton fine sandy loam, 8 to 15 % slope.

CaB – Canton fine sandy loam, 0 to 8 % slope.

SsA – Scituate fine sandy loam, 0 to 3 % slope

SsB – Scituate fine sandy loam, 3 to 8 % slope.

**MANAGEMENT PRESCRIPTION:**

**FORESTRY:**

None.

**WILDLIFE:**

Maintain bird and bat houses. Continue maintaining as fields.

**RECREATION:**

None.

## **TIMBER SALE RECOMENDATIONS**

The areas that were harvested in 1988 or 1997 are healthy and vigorous and should be allowed continued growth for 10 or more years before reexamination for consideration of a timber harvest. In the next ten years areas of the Goodridge and Millimet Lots, Burns Lot, and Sullivan Lot may be considered for a harvest. Access, restrictions, the impact to hiking trails will need to be considered before committing to a harvest.

The harvest recommendations are based on the management objectives given earlier in this plan. Any harvesting should remove mature, and low quality low value timber which will allow improved growth of high quality valuable immature timber, and create conditions favorable to the regeneration of white pine, red oak, and other valuable commercial species. At the same time, wildlife habitat and the aesthetic quality of recreational areas such as trails, brooks, and vistas should be protected.

Improvement harvesting has multiple goals:

1. Upgrading stand quality by removing diseased, over-topped, and poorly formed stems of all sizes and species.
2. Release of well-formed, high quality stems of valuable species capable of growing rapidly to larger size.
3. Release of advance regeneration of a more desirable quality or species.
4. Creation of openings allowing full sunlight to reach the forest floor so that seeds can germinate, and seedlings and sprouts to grow without being suppressed by the shade of larger trees.

As a harvest is carried out, trees of value to wildlife should be reserved and the needs of wildlife, both birds and animals, carefully considered

The proposed harvesting should remove low-valued and low quality hemlock as pulp / sawtimber; pole-sized hardwood as cordwood / hardwood pulp, low quality and mature white pines; and low quality and mature hardwood sawtimber. High valued species may be removed which are reduced in value as a result of poor form or over-crowding. Sawtimber size trees that are of low or decreasing value from rot, branching, or poor form should also be removed. Areas that are opened to sunlight will regenerate naturally, and high quality, high valued trees will benefit from improved growth from additional sunlight and better spacing.

Areas where all trees have been removed allowing full sunlight to reach the soil quickly regenerate from the germination of seeds and the sprouting of hardwoods. This regeneration generally will trend toward a better stocking of white pine and red oak than areas that have been lightly thinned. These areas do not need to be planted as this natural regeneration generally will out grow any planted trees.

In areas where mountain laurel exists in the understory regeneration is difficult without clearcutting the area and trampling the laurel with the harvesting equipment. Any partial cutting in these areas will benefit the growth of the mountain laurel and prevent the regeneration of

white pine and red oak.

While timber harvesting may have an unwanted visual impact, careful logging during strong markets can minimize aesthetic impact. Also, owners must remember that the visual impact is temporary. Improvement harvesting is extremely important to the long-term health, productivity and quality of the woodland. Proper stewardship requires periodic harvesting to give the best trees improved growing conditions and regenerate new stands of timber providing for an excellent forest resource now and many decades into the future.

Harvests as outlined and described in the Stand Descriptions can be expected to generate approximately the following volumes and income.

Timber Sale #1 Goodridge and Millimet Lots

Within the next four years if accessible.

Estimated Harvest Volume and Value:

<u>Species</u>	<u>Estimated Cut Volume</u>	<u>Value</u>	<u>Total</u>
White Pine	70 MBF*	\$170.00	\$11,900.00
Hemlock	17 MBF*	\$30.00	\$510.00
Red Oak	34 MBF*	\$150.00	\$5,100.00
Hardwood	15 MBF*	\$100.00	\$1,500.00
TOTAL	136 MBF*		
Cordwood	130 cords	\$10.00	\$1,300.00
Hemlock Pu	60 tons	\$0.50	\$30.00

Estimated gross value of timber sale: \$20,340.00

Timber Sale #2 Burns Lot

Within the next ten years, subject to timber rights.

Estimated Harvest Volume and Value:

<u>Species</u>	<u>Estimated Cut Volume</u>	<u>Value</u>	<u>Total</u>
White Pine	165 MBF*	\$170.00	\$28,050.00
Hemlock	12 MBF*	\$30.00	\$360.00
Red Oak	20 MBF*	\$275.00	\$5,500.00
Hardwood	15 MBF*	\$100.00	\$1,500.00
TOTAL	212 MBF*		
Cordwood	100 cords	\$10.00	\$1,000.00
Hemlock Pu	250 tons	\$0.50	\$125.00

Estimated gross value of timber sale: \$36,535.00

Timber Sale #3 Sullivan Lot

In ten years if accessible.

Estimated Harvest Volume and Value:

<u>Species</u>	<u>Estimated Cut Volume</u>	<u>Value</u>	<u>Total</u>
White Pine	55 MBF*	\$170.00	\$9,350.00
Red Oak	5 MBF*	\$275.00	\$1,375.00
Hardwood	2 MBF*	\$100.00	\$200.00
TOTAL	62 MBF*		
Cordwood	20 cords	\$10.00	\$200.00

Estimated gross value of timber sale: \$11,125.00

## SUMMARY OF RECOMENDATIONS

1. Locate boundary corners and lines on Tax Map 10 Lot 64 and Tax Map 40 Lot 11; and the lines that abut Tax Map 40 Lot 13 and the eastern side of Map 10 Lot 54.
2. Blaze and paint lines not previously blazed and painted and repaint previously blazed and painted lines. Install small signs designating the Tucker Brook Town Forest on boundaries near abutting houses and yards where blazing and painting could be considered unsightly, along lines where there are few trees to blaze and paint, and along road frontages and otherpoints of entry on the Town Forest. Clearly defining the boundary lines on the ground would prevent accidental encroachment ensure that the public would know when they are entering the Tucker Brook Town Forest.
3. Review for expansion of hiking trails and access. Suggestions parking areas and trails are
  - A. A parking area on Savage Road on the Millimet and Curtis Lots and a trail crossing Tucker Brook and connecting with the Lower Path and Ridge Trail. Bridges would be needed over Tucker Brook and the open swamp.
  - B. A loop trail on the Sullivan Lot, linking the ledge and the old quarry with the existing trail.
  - C. A trail on the Burns Lot linking the ledges with Falls Loop and the parking area.
4. Timber Sale #1. Consider harvesting mature and non productive timber on the Goodridge and Millimet Lots within the next four years. Inquire in access can be temporarily gained through an abutting property south east of the Millimet Lot. Take into consideration existing and future hiking trails. See Timber Sale schedule.
5. Timber Sale #2. Consider harvesting mature and non productive timber in the Burns Lot within the next ten years. The Burns Lot is subject to timber rights. Access could be from Savage Road. Take into consideration existing and future hiking trails. See Timber Sale schedule.
6. Timber Sale #3. Consider harvesting mature and non productive timber in the Sullivan Lot in about 10 years (2018±) Inquire in access can be temporarily gained through an abutting property north of the Sullivan Lot. Take into consideration existing and future hiking trails. See Timber Sale schedule.





5. Tree Farm certification.

6. Re-evaluate the property in 10 to 15 years to assess the timing of harvesting timber, and to update and revise the Forest Management Plan.

New England Forestry Consultants is ready and able to continue management of this timberland and looks forward to implementing these recommendations.

## **CONCLUSION**

Present timber volumes and stand conditions, productive soils, and varied vegetation; wildlife and recreational use and potential, all combine to produce a property with excellent management potential for timber, recreation, and wildlife into the future. By following the recommendations as outlined, this plan will meet the owner's objectives and enhance the open space values of the property.