

Forest Management Conservation Activity Plan/ Forest Stewardship Plan
Environmental Quality Incentives Program (EQIP)

Prepared for

Charlie Brown
1 Happy Valley Way
Pleasantville, New Hampshire
603.555.0000

Location of Property: 1 Happy Valley Way, Pleasantville, NH
Acres: 398 acres

Plan Prepared by:
Forest Forester, NH Licensed Forester 1, TSP 01-056-9000
1 Forest Street
Woodsville, NH 00000
603.555.5555 (work)
603.000.0000 (cell)
forest.forester@forests.com

Landowner Signature: _____

TSP Signature: _____

NRCS Designated Conservationist Signature: _____

Plan Submitted: August, 2009

Table of Contents

Executive Summary of Activity Schedule (Plan of Operations, Schedule of Operations)	1
Location Map for Property (topographic map removed for privacy purposes)	2
Property Description	2
Objectives	2
Past Management	2
Property Boundaries	2
Current Property Conditions (General)	3
Forest Inventory	3
Access	4
Recreation	5
Wildlife Features	5
Threatened and Endangered Plants and Animals	6
Cultural Resources	6
Forest Health Considerations	6
Descriptions of Forest Stands and Prescriptions for Management	7
Figure 1: Sketch Map/ Forest Cover Type Map	8
Figure 2: Aerial Photo of Brown Woodlot	9
Figure 3: Soils Map of Brown Woodlot	10
Stand 1: Pole and Sawlog sized white pine with pole sized red maple, red pine and red oak. White pine represents greater than 75% of species composition.	11
Stand 2: Mix of pole and sawlog sized white pine, red maple, red oak and hemlock	13
Stand 3: Pole to small sawlog sized hardwoods including red maple, beech, and red oak. Hardwoods represent greater than 75% of species composition.	14
Stand 4: Pole and small sawlog sized hemlock and hardwoods	15
Stand 5: Open Grown, stunted white pine and red spruce	16
Fields/Christmas Tree Plantations	16
Conclusion	17
Activity Schedule	17

Appendix

1. Soil Types Found on the property
2. Summary of Inventory Data by Stand and Summary of Volumes for Property
3. Glossary of Forestry Terms from UNH Cooperative Extension
4. Woodlot Boundary Line Marking Fact Sheet from UNH Cooperative Extension
5. Soil Descriptions from Natural Resources Conservation Service
6. Threatened and Endangered Plants and Animals in New Hampshire's Forested Habitats
7. Best Management Practices for Erosion Control on Timber Harvesting Operations
8. Landowner Goal Assessment Form
9. CPA-52 form
10. Cultural Resources Review Form

Executive Summary of **Activity Schedule** (Plan of Operations, Schedule of Operations)

Stand or Field	NRCS Plan of Operations	Amount	Units	Month	Year
Boundaries	Boundary Marking NC	13,000	Feet	March	2009
Stands 1,2,3,4	Forest Trails and Landings (655)	2,000	Feet	July	2010
Stands 1 and 2	Forest Stand Improvement Commercial NC	30	Acres	August	2010
Stands 1 and 2	Tree/Shrub Pruning (660)	5	Acres	January	2011
Stands 3 and 4	Forest Stand Improvement Commercial NC	30	Acres	August	2012



Location Map for Property (topographic map removed for privacy purposes)

Property Description:

Your property consists of approximately 398 acres of farm and forest land located in Pleasantville, New Hampshire along Happy Valley Way. You have owned this land for approximately 40 years, and your land has been a certified Tree Farm since 1968. You are also enrolled in New Hampshire's Current Use Assessment Program. The highest point on your property is located along the northeastern boundary where your property reaches the summit of Mt Pleasant (elevation 1,100 ft). From the mountain summit, your land slopes downward toward the eastern, western and southern corners. Much of the terrain on Mt. Pleasant is very steep and rocky with numerous rock outcrops. The summit, however, provides beautiful views of surrounding mountains and ponds.

You manage approximately 77 acres of your land as a Christmas tree plantation. Approximately 296 acres of your land are currently forested. An additional twenty-three acres of your land is considered unproductive in your current use description due to rock outcrops or wet conditions. There are three wildlife ponds located on your land and one open wetland area. There are forested wetland areas and several streams throughout your woodland as well.

Objectives:

From my discussions with you regarding your land and according to your completed "Landowner Goal Assessment Form (see appendix 7), your objectives are to:

1. Continue managing your Christmas tree operation which is currently operating on approximately 77.
2. Grow quality timber and harvest trees selectively from the forested portion of your property over time.

Past Management:

According to your past records, harvesting has occurred periodically on your property with the most recent harvesting consisting of:

2000/2001: harvest on 30 acres removing 78,285 board feet and 56 cords of fuelwood.
1998/1999: harvest on 130 acres removing 298,070 board feet and 3,607 tons of fuelwood
1973: harvest conducted on approximately 35 acres
1960: selective harvest done for the previous owner

Past records and conversations indicate that for a number of years you harvested fuelwood from your property for your own use (harvesting/ thinning approximately 5 acres per year). With a change in your heating system you indicated that you are no longer doing this.

Much of your land was cleared for agricultural purposes (pasture and cropland) in the past and it has since grown back to forest. White pine is currently a major forest species on your land because it establishes itself well on abandoned agricultural lands.

Property Boundaries

Stone walls and/or barbed wire delineate your property boundaries for the most part. David Noyes conducted a survey of your property in 1989. In areas without stonewall or barbed wire boundaries, your boundary has been flagged. It is important to keep these boundaries well

marked as you undertake forest management activities within your woodland and also to protect yourself from activities occurring on adjacent properties.

Blazing and painting your boundary lines will last longer than the flagging. I recommend that you rerun your property boundaries every 5-7 years and blaze and paint trees on your boundaries where there are not stonewalls. A boundary marking fact sheet is enclosed in the Appendix.

Current Property Conditions: (General)

Forest Inventory

This fall, an inventory was conducted on your forest land to determine timber species composition, size, and stocking (density) of trees to evaluate what management activities may be needed to foster increased value growth and productivity on your land.

The timber inventory is a sampling process where trees are measured at points located in a grid-like pattern across your property. Following compass lines and stopping at predetermined distances, information is collected about tree species, diameters, and heights. This is done to get a representation of the forest types on your land to be better able to make recommendations.

Inventory points were set up to sample approximately 10% of your forest land. Inventory information was not collected for the Christmas tree plantations. Trees were measured on 158 sample points, and a 10 factor prism was used at each point to determine which trees should be measured.

At each point, information was collected including tree species, tree diameters, and merchantable heights. Tree diameters were measured at 4.5 feet above the ground. This height is known as diameter at breast height (dbh). Tree heights were measured for all sample trees in 16 foot logs. Information was also collected about trees and shrubs in the understory (the smaller trees and shrubs growing in the forest).

Basal area was also measured at each sampling point. Basal area is a measure of the density or stocking of trees in your forest. If your forest is overstocked, your trees will grow slower and the growth will be distributed across more stems than if your forest is well-stocked. If your forest is understocked, your land is not growing as much timber as it could be. A well-stocked stand will have a density of trees that will increase in volume and value more quickly than an overstocked or understocked stand.

An increment borer was used to evaluate the site index throughout the forest. Site index is a measure of how well the soil/site is suited to growing trees. Increment cores were taken from dominant trees at 26 points in the forest.

Based on the information collected during the inventory, your forest is described in this report in terms of stands. Stands differ from each other in terms of tree size, species composition, density of stocking, access and past management history.

Trees and stands are described according to the following size groups:

Seedlings: less than 4.5 feet tall

Saplings: 1-4 inches at diameter at breast height (dbh)

Pole: 5-10 inches dbh
Small sawtimber: 10-14 inches dbh
Large sawtimber: 15+” dbh

The inventory information collected was then used to map where the various stands were located on your property. Based on the inventory, there were four major forest types delineated on your property. A fifth type describes the species found around the summit of Mount Pleasant.

The computer program INVENT was used to calculate timber volumes, average basal areas and number of trees per acre. This information was then expanded out to cover your property based on the number of acres in each forest stand.

Inventory results indicate that your land currently contains approximately 2,250,000 board feet of sawlog sized timber ($\pm 9\%$), and 312,700 cubic feet of pulpwood ($\pm 9\%$). The breakdown of sawlog volumes is as follows:

Species	Estimated Board Feet	% of Total Board Feet
White pine	1,245,500	55%
Red maple	312,510	14%
Hemlock	246,410	11%
Red oak	238,270	10.5%
Other	208,530	9.5%

Please note that of this volume, some of the timber is very knotty, rough pine which is of questionable market value.

Individual stands are described following the general access, recreation features, cultural resources, wildlife features, and forest health considerations sections of this report. Inventory data can be found in the Appendix.

Access

You have access to much of your property using the existing roads to your Christmas tree plantations. Woods roads/ skid trails are also prevalent throughout your property from past harvesting activities. There are also a number of smaller four-wheeler trails that criss-cross your property and extend up to the top of Pleasant Mountain.

You may want to consider developing a woods road system that reaches and connects these roads and trails on the various parts of your property. Federal financial assistance is available for constructing access roads.

General soil/site limitations on your property include steep, rocky slopes over much of your forested acreage (particularly the northern/northeastern portion of your property) and streams and wet soils in other areas. Best Management Practices for Erosion Control on Timber Harvesting Operations in NH provides good information about minimizing erosion on slopes and reducing negative impacts on streams and wet soils (See Appendix).

Soil information is enclosed for your property as different trees grow better or worse depending upon the soil characteristics. Soils also influence operability of management activities. General

soil information is included under each stand description and detailed soil information (including productivity ratings for tree growth and equipment limitations) from the Natural Resources Conservation Service (NRCS) can be found in the Appendix.

Recreation:

Your network of trails and roads provides good access for recreation as well as for forest management. Your property offers many scenic views, both from the summit and rock outcrops on Mt. Pleasant and from high spots on your Christmas tree plantations.

Your land is not posted and you welcome hunters onto your land to help control the deer population and reduce the damage they cause in your Christmas tree plantations. One deer stand was noted during the woodland exam.

Wildlife Features:

There are three ponds on your property, several forested wetlands and numerous streams. In addition to the ponds, there is one open wetland which seems to have been created by a beaver dam; the dam appears to be abandoned. Trees around the dam have some basal damage, but the damage appears to be old.

Wildlife observed on your property include deer, wild turkey, porcupines, woodpeckers, chipmunks, meadow voles, hawks, blue jays, numerous red efts, toads, a wood frog and a common garter snake. Your son mentioned a bear has been seen on the property. You mentioned that you also have a family of coyotes on the property that have done a good job keeping the groundhog population in the plantations in check.

The harvesting that has occurred over the years has created a diversity of densities of trees on your property. Sunlight is reaching the forest floor in many of the patches where harvesting has occurred and along the skid roads which are now growing back with blackberries, raspberries, hobblebush, birches and other young trees. These areas provide food sources for wildlife (wild turkey, bluejays, woodpeckers, cardinals, grosbeaks etc) and are used as travel corridors.

Dense hemlock areas in the lower depression areas on your property provide winter cover for deer and other wildlife. There are parts of your property that are suitable for deer wintering areas but it is unknown if they are being actively used for this purpose.

Trees around the plantations have been cut back to reduce the shading on your Christmas trees. This has created a brushy edge habitat with low growing, herbaceous food sources for wildlife such as blackberries, raspberries and pin cherry. The stone walls surrounding your plantations also provide homes for rodents which, in turn, provide food sources for hawks and other predators.

Numerous porcupine were seen on your property. There is evidence of several porcupine den sites around the rock outcrops on Mount Pleasant. In the eastern corner of your property bark has been stripped away from the roots and trunks of a number of trees which has likely been caused by porcupines.

You have a good distribution of cavity trees which should be left standing in the forest unless they pose a hazard. At least four cavity trees (the larger the diameter, the better) should be left in

the forest as the cavities provide shelter for many wildlife species such as black-capped chickadees, nuthatches, woodpeckers, owls and fishers.

Numerous animal trails were observed throughout the forest and along the contours of Mt. Pleasant. Because of low density of trees near the summit, there is a thick ground cover of low-bush blueberries which are consumed by many wildlife species including ruffed grouse, black bear, scarlet tanager, bluebirds and chipmunks. Blueberries are also found in the understory throughout much of the property.

There is a good component of pole sized and small sawlog sized red oak and beech on your property. Consideration should be given to leaving at least 10-12 of these trees standing per acre when you are conducting management activities. Beech and red oak produce mast (acorns and beech nuts) which are used by many species of wildlife including wild turkey, bear, ruffed grouse and squirrels.

There are a number of forested wetlands, intermittent streams and vernal pools distributed around the lower portions of your property. Care should be taken to protect the soil and water quality in these areas when conducting management activities or constructing roads to protect amphibian populations which depend upon these resources.

Threatened or Endangered Plants and Animals

No rare or endangered plant or animal species were observed during the woodland exam, though it is possible that some may be present. Information is included in the Appendix of this report about threatened and endangered species which may be found in forested habitats as well as information about who to contact if you think you have found an endangered species on your property.

Cultural Resources:

Stonewalls throughout your property provide evidence of the lands past use as a dairy farm/pasture land. An old stone foundation is located just off Happy Valley Way (see Figure 1). Care should be taken to preserve these features associated with your lands' past history. Slightly to the east of the foundation is an old trash disposal site with metal box springs, glass etc. Near your barn there are the rusted remains of an old tractor in the woods. You mentioned that there is an old well on your property which you have covered with a large rock. This was not observed during the woodland exam and inventory.

A "Cultural Resources Review Form" was submitted to NRCS and appears in the appendix.

Forest Health Considerations:

Beech bark disease was noted on beech throughout your forest. Beech bark disease is caused by a beech scale insect which infects trees with a necrotic fungus. Trees infected with beech bark disease have bark which is bubbled and crackled, in contrast to the smooth silvery gray bark seen on healthy beech trees. Some beech trees appear to be resistant to beech bark disease so you often see healthy trees and diseased trees in close proximity to each other. When conducting improvement work in stands with beech, trees without signs of the disease should be retained, while trees with the disease should be chosen for removal. Beech bark disease reduces the growth of affected trees and can ultimately kill severely affected trees.

In your pine stands, the overstory trees (larger pines) show damage caused by the white pine weevil. This insect bores into the terminal leader of the pine tree and lays its eggs. The leader then dies and the side branches take over, creating crooked stems and multiple stemmed tops in affected trees. This weevil damage has reduced the quality of the timber in those trees. Care should be taken when releasing younger pine trees to keep them out of full sun until they are at least 16 feet tall.

No non-native invasive plants were found during the many site visits.

Descriptions of Forest Stands and Prescriptions for Management

A map delineating the forest stand types is attached as Figure 1. Each stand is described based on species composition and stocking. General soils descriptions and prescriptions for management activities are included for each stand.

The stands include:

Stand 1: Pole and sawlog sized white pine with pole sized red maple, red pine and red oak (white pine > 75% of species composition).

Stand 2: Mix of pole and sawlog sized white pine, red maple, red oak and hemlock.

Stand 3: Pole to small sawlog sized hardwoods including red maple, beech and red oak (hardwoods > 75 % of species composition).

Stand 4: Pole and sawlog sized hemlock and hardwoods.

Stand 5: Open grown, stunted white pine and red spruce.

Fields/Christmas tree plantations

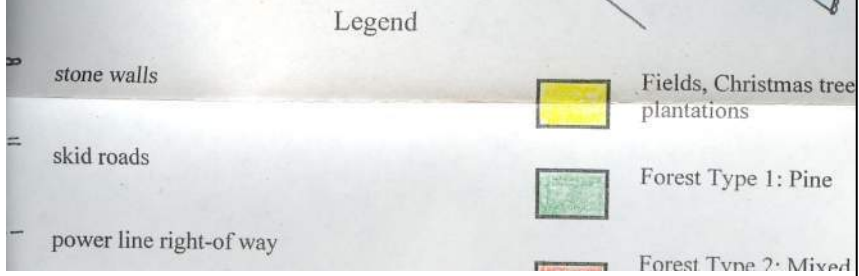


Fig. 1: Sketch Map/ Forest Cover Type Map

Stand #	Acres
1	58
2	102
3	76
4	74
5	6.5
Field 1 & 2	Christmas Trees

Scale: 1inch= 660 feet



Figure 2:
Aerial Photo



Figure 3:
Soils Map

Stand 1: Pole and sawlog sized white pine with some pole sized red maple, red pine and red oak. White pine averages over 75% of the basal area in this stand type.

Description:

This stand covers 58 acres of your property as delineated on Figure 1. White pine averages over 75% of species composition in this type. Other stand components are red maple, red pine and red oak. The white pine averages 10-14" in diameter with red maple, red pine and red oak averaging 5-12". The basal area for this stand is 125 square feet for all trees 1" dbh and up. There are approximately 488 trees/acre. Blueberries, red oak seedlings and saplings are major components of the understory with some pine, red maple, and beech.

The pine is of average quality with some white pine weevil damage to the overstory pines. The pine along the back property line is also somewhat limby which reduces the clear lumber that can be sawn from these trees.

There is quite a bit of variability in stand density due to past harvesting and skid road systems. The upper elevations of this stand appear to have been harvested in the 1960's and 1970's while the lower portions of the stand appear to have seen harvesting activity more recently.

There is a small pocket of heavily stocked large pine (approximately 1 acre) adjacent to Field one on the road toward Field 2.

Soil Characteristics:

The largest pine area occurs on the south facing slope of Mount Peasant. The main soil type here is Hollis-Gloucester extremely fine sandy loam with slopes of 25 - 60% (HIE). This soil is somewhat excessively drained with numerous rock outcrops. See Figure 3, Property Soils Map for distribution of soils across property. NRCS soil descriptions can also be found in the Appendix. Productivity for timber is considered fair for pine and oak and good for northern hardwoods. Access, however, is quite limited due to rock outcrops and steep slopes.

The pine along the back (northeastern side of the property) is on Paxton very stony fine sandy loams with slopes of 25-60% (PdE). This soil is considered a deep, well-drained loamy soil with a good productivity rating for pine and excellent for oak and northern hardwoods. Due to the location of this stand (on the far side of a poorly drained area) and the steep slopes, access to this stand is poor due to equipment limitations.

The easternmost pine stand is on a combination of Hollis-Charlton very rocky fine sandy loams with 3 - 8% slope (HgB) and Hollis-Charlton extremely rocky fine sandy loams with 8-25% slopes (HeD). Both of these types are fair for pine and oak and good for northern hardwoods. Site index measurements in this stand ranged from good to poor for white pine. Again, these are somewhat excessively drained soils, but slopes and the rocky nature of this soil are often a consideration for access and management.

The pine stand adjacent to Happy Valley Way is on Hollis-Gloucester very rocky fine sandy loam with 3-8% slopes (HgB). Wood production on this soils type is fair for pine and oak and excellent for northern hardwoods. Access to this stand is excellent.

Site index was measured on seven points in Stand 1 and productivity ranged from good to poor for white pine.

Prescriptions:

The basal area for this stand is 125 square feet per acre while the ideal stocking is 90-110 square feet per acre. I recommend that you conduct an improvement cutting with trees marked for removal by a forester. The objective of the cutting would be to remove some of the poor quality, weeviled pines and some of the red maple to reduce competition around nice quality white pine and red oak poles and small sawlogs to encourage increased value growth of those stems. Once you have released some of the younger pines, you may also want to prune some of the nice straight 7-10" trees in the stand to increase the quality of the timber in those trees.

While there is some good quality, sawlog sized pine throughout this stand, these trees should be left to grow to be 20"-24" in diameter to maximize their volume growth before harvesting.

SAMPLE

Stand 2: Mix of pole and sawlog sized white pine, red maple, red oak and hemlock

Description:

This stand covers 102 acres of your property as delineated on Figure 1. The stand has an average basal area 125 square feet. White pine is a major component of this stand (representing approximately 38% of the species composition), followed by red maple (22%), red oak (16%) and hemlock. (8%). The stand also contains occasional beech, white and black birch, and red spruce. Understory vegetation includes beech, red maple, white pine and witch hazel saplings and blueberry plants.

There are approximately 1,184 trees per acre with white pine averaging 9-16" in diameter and red oak averaging 5-12".

Soil Characteristics:

Much of the mixed cover type is on the lower, more protected slopes of Mount Pleasant. The soils for this stand type include Hollis-Charlton (HlE) and Paxton (PdE), which are described under Stand 1. These soils are well drained and excessively drained with steep slopes. The Hollis-Charlton soils are rated fair for white pine and oak growth and good for northern hardwoods. The Paxton soils are rated good for pine and excellent for oak and northern hardwoods. See NRCS information in Appendix for more detailed soils information.

Further down the slope the mixed stand overlays Leicester-Ridgebury (LrB) soils that are deeper and are somewhat poorly drained and poorly drained. These soils are rated good for pine and oak productivity and fair for northern hardwoods.

The mixed stand to the east of your house overlays soils of Leicester-Ridgebury (LrB) and Hollis-Charlton (HdC).

Site index was measured on 15 points in this stand type with majority of trees indicating fair to poor growth for pine.

Prescription:

Stocking of this stand is 125 square feet per acre. The ideal stocking range for this stand is somewhere around 80-100 square feet per acre, so the stand is presently overstocked. An improvement cutting is recommended to release the competition around good quality white pine and red oak stems. Yellow and black birch stems represent a smaller portion of the stocking, but these should be released where they are competing with red maple and beech.

Stand 3: Pole to small sawlog sized hardwoods including red maple, beech, red oak. Hemlock is a small component of this stand.

Description:

This stand covers 76 acres as delineated in Figure 1. It is comprised of predominantly hardwoods (greater than 75% of species composition). Red maple represents approximately 44% of the basal area followed by beech, red oak, white ash and hemlock. White pine represents approximately 4%. Average tree size is 7 -15" pole to small sawlog size.

The average basal area in this stand is 108 square feet with an average of 833 trees per acre. The understory is comprised of beech, hemlock, black birch, red maple seedlings and saplings and ferns. This stand has some wet areas and meandering streams where black gum and spice bush were observed.

There are some large sugar maples within and adjacent to the fields that have provided a seed source for some sugar maple in the stand east of your driveway. The sugar maple in this area average 10" dbh.

Like other stands on your property, stand densities are variable due to past harvesting, particularly in hardwood areas below Field 1.

Soil Characteristics:

The predominant soils found under this stand type are Leicester-Ridgebury very stony fine sandy loams with 3-8 percent slopes (LrB) and Gloucester very stony fine sandy loams with 8-15% slopes(GsC). The Leicester-Ridgebury soils are deep somewhat poorly drained soils found in depressions and nearly level/ gently sloping areas on uplands. These soils are rated good for pine and oak and fair for northern hardwoods. The Gloucester soils are somewhat excessively drained soils. These are also well suited to forest production, although they are rocky.

There is a small area of Hollis-Charlton extremely rocky fine sandy loams with 8-25% slopes (HeD) along the far eastern corner of the property.

Prescription:

The average basal area in this stand is 108 square feet per acre and the ideal basal area for this stand is between 60-80 square feet per acre. An improvement cutting is recommended to remove some of the red maple and beech infected with beech bark disease. In removing these trees, the objective is to reduce the competition surrounding quality white ash, red oak, sugar maple and white pine.

Stand 4: Pole and sawlog sized hemlock and hardwoods

Description:

This stand covers 74 acres as delineated in Figure 1 and has a basal area of 145 square feet per acre. Hemlock represents 36% of the stand followed by red maple (28%), red oak (9%), beech (9%) and pine (8%). The trees average 5-15" in diameter. The understory vegetation is predominantly hemlock and beech seedlings and saplings.

Throughout this stand (especially just south of the upper and lower fields) there is a small component of nice quality white ash averaging 10-14" in diameter.

This stand has quite a bit of variability in density as harvesting has occurred throughout the stands closest to Happy Valley Way Road.

Soil Characteristics:

The predominant soil under this stand type are Gloucester very stony fine sandy loam with 8-15% slopes (GsC) and Leicester-Ridgebury very stony fine sandy loams with 3-8 percent slopes (LrB).

The Gloucester soils are found under this stand in the western corner of the property along Happy Valley Way Road.

Leicester-Ridgebury soils are found under the hemlock and hardwood stands around the pond and wetland, in the middle of the property, and in the back corner. The Leicester-Ridgebury soils are somewhat poorly drained and poorly drained.

Hollis-Charlton extremely rocky fine sandy loams with 8-25% slopes (HeD) are found under this stand in the eastern corner of the property.

Site index was measured on four points in this stand type. They indicated fair to poor productivity for pine and good to poor productivity for oak.

Prescription:

This stand type is overstocked with a basal area of 145 square feet per acre. The ideal basal area for the stand is around 80-100 square feet per acre. I recommend thinning this stand to reduce the competition around the good quality red oak, white ash, hemlock and pine stems where found.

Care should be taken to leave some of the larger, good quality beech as it is valuable for mast production for wildlife.

In areas where there is dense hemlock (particularly along streams and adjacent to wetland area) these stands should be left relatively dense to provide cover for wildlife and shading for amphibian vernal pool species in those areas.

Stand 5: Open grown, stunted white pine and red spruce.

Description:

This forest type covers approximately 6.5 acres and is found at the upper reaches and summit of Mt. Pleasant (see Figure 1). The land here is steep with rock outcrops, and has an understory of juniper and blueberries. There are numerous wildlife trails across this area. The basal area of trees here is 90 square feet per acre with an average of 250 trees/per acre. The trees are short, and open grown with a lot of limbs. The major tree species in this type are white pine, red spruce, red maple and red oak.

Soil Characteristics:

The soil found here is Hollis-Gloucester extremely rocky fine sandy loams with 25-60% slopes (HIE). Slopes are extremely steep with numerous rock outcrops. Equipment access is quite limited.

Prescription:

Due to limited access and stunted growth of trees in this area, no activity is recommended in this stand type. Some trees may be removed to improve scenic views if desired.

Fields:

Description:

You are currently growing balsam fir and fraser fir Christmas trees on your fields on an 8-10 year cycle. You indicated that you are currently cutting 5,000-7,000 Christmas trees per year through your choose and cut operation.

Soil Characteristics:

Your Christmas tree plantations occupy the most level, rolling hills portions of your property.

There are a number of soils found under the Christmas tree plantations. Hollis-Gloucester very rocky fine sandy loams with 3-8% slopes (HgB) are found under Field 1.

The field by the house is on Hollis-Gloucester soils as well with 8-15% slopes (HgC).

Field 2 contains a combination of soil types including Paxton (PbC and PbD), Woodbridge (WgB), Charlton (CsC) and Hollis-Charlton (HcC). These soils are all well drained with slopes ranging from 0-15% with a small area with slopes up to 25%.

Prescription:

No recommendations are made for the Christmas tree plantation portions of your property. From observations of your plantations, I suggest that you continue with the same excellent management of your Christmas tree operation.

Conclusions

Your activities impact the productivity, health and future condition of your forest. Management recommendations are based upon the woodland examination and inventory and are based on your objectives /ownership goals.

In the short term the prescriptions recommended here will not generate much revenue. Reducing the competition in your forest will enable the remaining trees to grow and increase in value quicker than if the stands are not thinned. The thinnings/ improvement cuttings should also reduce the component of red maple in your forest to favor other tree species with higher timber and wildlife values.

Activity Schedule

<u>Location</u>	<u>Activity</u>	<u>Year to do</u>
Boundaries	Blaze boundaries without stone walls	2009
Throughout forest as needed for stand improvements	Access road improvement/ construction	2010
Stands 1 & 2	improvement cutting/ remove large weeviled pines	2010
	prune good quality crop trees	2011
Stands 3 & 4	improvement cutting	2012

Federal financial assistance is available for weeding and thinning operations if there are not suitable markets for timber removed through improvement cuttings.

APPENDIX

(not included in this sample plan)

Soil Types Found on Your Property

Summary of Inventory Data

Glossary of Forestry Terms

Soil Description Information

Threatened and Endangered Species Information

Boundary Marking Fact Sheet

Guide to Best Management Practices for Erosion Control on Timber Harvesting Operations in
New Hampshire

Landowner Goal Assessment Form

CPA-52 form

Cultural Resources Review Form