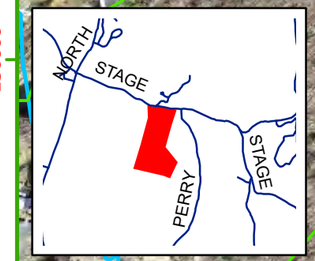
490500 491000 491500 492000

136000

135500

LEGEND
- Property Line
- Forest Type Line
- Town Road
- Woods Road
- Contour Lines
- Stone Wall
- Wire Fence
- Stream
- GPS Points
- Height of Land
- Excluded Land
- Log Landing



STAGE RD
GROVE RD
STAGE RD
N PERRY RD
House
5893 Stage Rd.
1,700'
EX
1
2
3
4
5
6
7
8
9
N
500 250 0 500 Feet

USE VALUE PROGRAM
FOREST MANAGEMENT MAP
Property of
Grant J. LaMontagne & Judith A. LaMontagne
Trustees of the LaMontagne Trust Agreement
P.O. Box 891
Barnard, VT 05031
(510) 499-3912
glamontagne4@gmail.com

SPAN # 030-009-10674
Parcel I.D. # 01-0662.

Property Located in the Town of Barnard
Orthophoto Sheets: #140132 & #140136 - 2016
Sheet Names: The Gulf & Barnard
Orthophoto Scale 1" = 416'
Updated 1/31/22 by
Bartlett Forestry & Wildlife LLC.
of Woodstock, VT 05091 (802) 457-4315
www.forestrywildlife.com

NOTE: This is not a survey and should not be used for surveying purposes.

State of Vermont
Tucker Westenfeld
#148.0122992
Licensed Forester

State of Vermont
Patrick M. Bartlett
#148.0122458
Licensed Forester

GPS Points 1-9 - WGS 84
Position Format hhd'mmmm
Taken 1/22 by Bartlett Forestry & Wildlife LLC
Average accuracy recorded +/- 10'
Not to be used for surveying purposes

	I.D.	Latitude	Longitude
1	Wall Crnr	43.725536	-72.609633
2	I.P.	43.721753	-72.610536
3	Fence Crnr	43.719524	-72.611469
4	Trail	43.718896	-72.607562
5	Fence Crnr	43.718627	-72.606711
6	Wall Crnr	43.720140	-72.605690
7	Fence Crnr	43.721570	-72.607289
8	Wall Crnr	43.723653	-72.606470
9	Wall Crnr	43.725118	-72.605825

USE VALUE APPRAISAL PROGRAM

Town Listed Acres-	54.26
Actual number of acres to be excluded -	7.00
Acres to be enrolled in the program -	47.26
Acres to be enrolled as measured -	47.32
Factor to prorate map acres -	0.9987

Stand Number	Stand Type	Map Acres	X	Factor	=	Pro-Rated Acres
1	Mixed Woods	10.69	x	0.9987	=	10.68
2	Sugar Maple	25.05	x	0.9987	=	25.02
3	Hemlock	11.58	x	0.9987	=	11.56
Productive Land		**47.32**				**47.26**
Total Map Acres:		**47.32**		**Total Adjusted:**		**47.26**
Enrolled Acres:						**47.26**
Excluded Land:						**7.00**
Total Grand List Acres:						**54.26**

State of Vermont Patrick M. Bartlett #148.0122458 Licensed Forester

State of Vermont Tucker Westenfeld #148.0122992 Licensed Forester

USE VALUE PROGRAM
FOREST & WILDLIFE MANAGEMENT PLAN

APPLICANT:

Grant J. and Judith A. LaMontagne, Trustees of
the LaMontagne Trust Agreement
P.O. Box 891
Barnard, VT 05031
(510) 499-3912
glamontagne4@gmail.com

SPAN # 030-009-10674
PARCEL ID # 01-0662.
Grand List Acreage: 54.26
TOWN WHERE PROPERTY IS LOCATED:
Barnard, Vermont

ORTHOPHOTOS USED TO MAKE MAP
Sheet Names: The Gulf & Barnard
Sheet Numbers: #140132 & #140136
Photo Scale: 1":416'
Series: 5000, 2016

Plan Period: 2022 - 2032

THIS PLAN IS ACCEPTED AND WILL BE FOLLOWED BY:

Grant J. LaMontagne, Trustee _____ Date 2/28/22

Judith A. LaMontagne, Trustee _____ Date 2/28/22

PLAN PREPARED BY BARTLETT FORESTRY & WILDLIFE LLC.
260 Greengate Rd, Woodstock, Vermont 05091. (802) 291-0179

BARTLETT FORESTRY & WILDLIFE LLC. INFORMATION & SERVICES
Website: www.forestrywildlife.com

Written by:
Tucker Westenfeld _____ Date 3/1/22

Certified by:
Patrick Bartlett TSP _____ Date 3/1/22

CERTIFIED BY:

AJ Follensbee _____ Date 3/3/2022
Windsor County Forester (802) 595-2429 or Linda Jacobs, Administrative Assistant (802) 281-5262

TABLE OF CONTENTS

Page 1 ..... Cover Sheet

Page 2 ..... Table of Contents

Page 2 ..... Important UVA information

Page 3-4 ..... Landowner Goals

Page 5-8 ..... Property Description

Page 9 ..... Vermont Forestry Facts

Page 10–11 ..... Vermont's Wildlife History

Page 12 ..... Patch Cut Description

Page 13 ..... Rare, T & E Species

Page 14 ..... State Deer Yard Map

Page 15 ..... NRCS Web Soil Survey

Page 16 ..... Wetlands Map

Page 17–28 ..... Individual Area Descriptions

Page 29 .....Summary Page

Page 30 .....20% Rule

Page 31-34 .....Glossary of Terms & References

IMPORTANT USE VALUE PROGRAM REQUIREMENTS TO REMEMBER

Any land that is enrolled in this program must be actively managed to receive tax benefits. When you sign this plan, it acknowledges that you have read and fully understand the contents of this plan. Any cutting of trees on enrolled land contrary to this plan could result in being expelled from the program and loss of tax benefits.

If any acreage is sold or developed that has been enrolled in the program, there may be a penalty. If more than twenty-five acres of forest land are sold after it has been enrolled in the Use Value Program, UVA benefits must be transferred to the new owner by filing an application and providing new maps and new cover page within 30 days of the transfer. A new application, map and cover page are also required within 30 days of any changes of the owner's name(s) on your deed. Be sure to call your Forester before making any changes to your deed to confirm that your changes meet the UVA acreage rules.

If you have Active Agriculture acres enrolled in the program, it must be actively managed according to the UVA regulations. You will get an Ag Certification letter each year from the State which MUST be signed and returned. If you do not, your Ag land will be removed from the program that year. Inactive or Idle Agriculture acres falls under the Forest category and can be either kept open by brush hogging or normal agriculture practices.

There is a Forest Management Activity Report that needs to be filed with the State of Vermont if any trees have been cut or harvested that year or if any trees have been tapped. You must contact me or the state to obtain one of these reports and they are to be mailed to the State by February 1 of each year. Failure to do so promptly will result in being expelled from the program. If you have Active Ag land you will be mailed an annual report that needs to be filed with the State each year.

Every ten years an updated plan is required by the State. They will mail you a notification.

The harvesting of mature trees is required by anyone in this program with exception to sugar bushes. Generally, this work is done by loggers. Skidders or tractors, bulldozers and log trucks may be needed to accomplish this. Access will be needed for this large equipment. Failure to do so as this plan calls for may also result in being expelled from the program.

Any dates that are scheduled for work to be done have a six - year window to get the work done. Three years prior or three years after the scheduled date.

To practice woodlot management in a professional manner so that the best trees are raised until they reach their peak value and then they need to be harvested. Exceptions are made for specimen trees that may be left for sugaring operations, seed trees or viewing.

The Forest Management plan should be followed to remain in the program. The State of Vermont Website for Current Use Information is: https://tax.vermont.gov/propertyowners/currentuse.

LANDOWNERS CURRENT USE INFORMATION AND MANAGEMENT GOALS - 2022
Property Managed by: Bartlett Forestry & Wildlife LLC. - www.forestrywildlife.com

Landowners Names as the appear on the tax bill:
Contact Owner Grant Lallamtagne
Additional Owner(s) Judith Lallamtagne

Primary mailing address:
Box 891 Barnard VT 05031

Town property is located in: Barnard

Are you enrolled in a Land Trust? Y or (N) : If Yes, which trust? _____

Email Address of contact owner: GTLAMMTAGNE4@GMAIL.COM
Email Address of additional owner(s): _____
Home Phone Number: _____
Cell Phone of contact owner: 510-499-3912

Please let us know which are your highest and lowest priorities for your woodlot by answering the topics below. Please call if you have any questions.

(Y) or N: Maintain or Improve Wildlife Habitats -

Comments: _____

(Y) or N: Maintain Water Quality & Quantity (required in UVA standards) - Comments:
_____

Y or (N): Timber Production - Comments: _____
_____

Y or (N): Regenerating the next Forest for the Future- Comments: _____
_____

(Y) or N: Recreational Trails - Comments: _____
_____

(Y) or N: Forest Health & Invasive Species (required in UVA standards) - Comments:
_____

(Y) or N: Protecting Cultural Features - Stone Walls & Old Foundations - Comments:

Y or (N): Permit Hunting - Comments:

(Y) or N: Manage for Maple Syrup production - Comments: Let's talk about this pls.

Y or (N): Plan to enroll property in a Land Trust - Comments:

(Y) or N: Aesthetics - Comments:

Y or (N): Personal Firewood from the forest – Comments: (If yes, how many cords annually?)

GENERAL MANAGEMENT UNIT INFORMATION

Location

The property is located along Stage Road, in the town of Barnard in Windsor County. The woodlot is composed of three timber types which are discussed in detail later in this plan. The woodlot can be accessed from the driveway and proposed log landing shown on the map. The property contains 47.26 acres of productive forest land. There are 7.00 acres excluded from the program where the house and pond are located. Neighboring properties contains similar forest types and terrain.

Property Access

The property has good access from the driveway and proposed log landing site shown on the map.

Property Boundaries

Most but not all the lines and corner points were found. We hung pink ribbons during this update on all the property lines but where there were no walls, wire fence or blazes, we estimated where the lines are. These ribbons are not surveyed property line markers and should not be used for surveying purposes. The blazes and paint are the only legal identification of the property in the woods beside stone walls, wire fence and iron pins. It is important to freshen these paint marks every 10 -15 years for this reason. New paint should be above or below the old blazes for proof if a neighbor challenges the location of the new blaze. If there are property lines with no prior markings or evidence, you will need to hire a surveyor to locate and mark that property line. Bartlett Forestry can supply you an estimate for marking the property lines with existing evidence on this property if you are interested.

The blue GPS points 1 - 9 on the map are labeled with white dots and black numbers. The GPS points were taken by Bartlett Forestry & Wildlife LLC during this timber cruise. The Map Datum on the GPS that was used is WGS 84. Position Format that was used is hdd'mmmm'. These coordinates are accurate with +/- 10 feet. These points are not to be used for surveying or surveying purposes. They are given so foresters, loggers, and county foresters find the boundaries during forestry operations. There are 6,300 feet of property lines (not including town roads), that should be maintained with blazes and paint every fifteen years.

LANDOWNERS OBJECTIVES

To maintain a healthy forest and promote the wildlife habitat for a variety of species are their goals. There is an established and maintained recreational trail system that they use frequently, part of which is used by VAST. See pages 3 and 4 for more details.

RESOURCE INFORMATION INVENTORY

Land Use History

Most of the property and surrounding lands were formerly cleared for pasture land in the 1800's. There are only a few stone walls and no old cellar holes on the property. The former pastures have been slowly growing in from the early 1900's to the present time. Area 1 & 2 were logged in 2000 and in 2007 a whole tree operation was done and Areas 2 & 3 were treated.

Rare, T & E Species & Natural Communities

There are no Rare, T&E Species & Natural Communities mapped on this property. If you did have some there would be solid purple circles showing the location. See map on page 13.

RESOURCE INFORMATION INVENTORY

Deer Wintering Areas

The State of Vermont has not mapped your property as a deer wintering area. If it had been mapped, you would see a brown shaded area on the map that would indicate the location. See map on page 14.

Important Natural Features

There are no important natural features such as view scapes, waterfalls, scenic areas, or cliffs.

Recreational & Aesthetic Values

The landowners have a maintained recreational trail system that is maintained annually. Portions of the trail system are used by VAST.

Soils

The soils have been mapped by the NRCS soil survey. The Vershire-Dummerston complex, 8 to 25 percent slopes, rocky, make up most of the soil types on the property. See the map on page 15 and individual area descriptions for more details.

Riparian Areas & Wetlands

The State of Vermont has not mapped any wetlands on the property. See map on page 16. If they had mapped some wetlands there would be a blue circle indicating the location on this map. There are streams on the property that are shown on the map. These areas will have 100' riparian zones around them to protect their functions as breeding areas for aquatic invertebrates and amphibians.

Topography

The majority of this property slopes gradually to the north. There are a few steep sections. Overall, the property has average topography and can be easily accessed.

LOGGING ACCESS

To stay compliant with current use forestry program, logging must be done at some point. Some properties have existing logging access for log trucks and equipment already established. Any property that does not have access established, will have to have it built. This is a construction project that often involves bulldozers or excavators, crushed stone, road fabric and culverts. These accesses are a permanent improvement to the property just as a driveway to house would be and add value to the property. Landowners will be responsible for paying for this work either directly or through timber sale revenues.

FOREST HEALTH

The health of your forest varies depending on which species you look at. Overall, the majority your trees are doing fine. The problems I did see are as follows.

A small insect known as the **White Pine Weevil** (*Pissodes strobi*) has deformed some of pines in Area 1. This insect lives in the grass lands but feeds on pines. This forest pest feeds on the succulent terminal branch of the pine tree causing mortality only to this "leader" section. Once this occurs, a lateral branch must assume vertical height growth, which will cause a permanent crook in the tree. This insect does not harm the tree but rather causes potential sawlogs to be lost due to excessive crookedness. Recent studies indicate that the weevil is on the decline due the loss of grass lands in Vermont.

RESOURCE INFORMATION INVENTORY
FOREST HEALTH (continued)

Phellinus tremulae, one of the many causes of internal rot in trees, is affecting the quaking aspen trees in Area 1. The fruiting body of *Phellinus tremulae* are conks at or near old branch stubs and is black to brown with a corky texture.

Ash yellows disease is affecting some of the white ash (*F. americana*) on the property. It is caused by a wall-less microbe called mycoplasma like organisms (MLO's), which invade the trees systemically (phloem sieve tubes). It has not been proven what is carrying the disease but insects such as leaf hoppers are suspected. Trees infected will exhibit slow growth, dieback in the tops, small chlorotic leaves growing in tufts at the end of the branches. Also, the bark may split open near the trunk and sucker sprouts may appear from the stump and along the main trunk. To date there is no treatment for this disease. My personal observation is that it takes 10 to 15 years to kill the tree. Ash on drier sites and near meadows tend to be more susceptible to the disease. Some of the ash appear to be resistant to it, these trees should not be harvested. The ash that are showing signs of this on this property and will likely die or lose value in the next 10 years

Beech tops are declining in Area 3. This is due to the **Beech Bark disease** (*Nectria fungus*). This disease is an insect-fungus "complex" that kills or injures American beech. Disease results when a species of *Nectria*, especially *N.coccinia var. faginata*, infects the bark of the trunk though feeding wounds made by the scale insects *Cryptococcus fagisuga* and *Xylococculus betulae*. Within the range of the disease, few large beeches escape injury. Most of these trees will die from it eventually, but it takes ten to twenty years for them to die. In the meantime, they will still produce beech nuts and many species of wildlife will feed on them. I have witnessed many of the mature beech in this region succumbing to this disease in the past few years, so this is not uncommon. There are some beech that are not showing any signs of the disease. They may be resistant and should not be harvested in future harvesting operations.

INVASIVE PLANTS

A few honeysuckle bushes were noted in Area 1. The State of Vermont Forest and Parks Department recommends removing invasive plants from your property.

WILDLIFE HABITAT

The openings that were created after the last logging operation provided significant wildlife habitat that benefitted almost all wildlife, especially deer, bear, turkeys, and forest birds by creating a flush of new growth. The structural diversity is important to support many different forest bird habitats, from nesting to breading and feeding. Larger mammals also take advantage of this dense undergrowth for feeding and protection.

Tracks or signs of deer, bear, coyote, fox, grouse and turkeys were seen on this property while doing the timber cruise.

Many properties in this area have very limited early successional forests that provide low, brushy cover. This property is no exception. Any new logging will help increase early successional habitat and increase wildlife use on the property.

WATER QUALITY REGULATIONS

The state of Vermont has some regulations concerning logging around streams and they are called Acceptable Management Practices or (AMP), which should be followed during any logging operation in Vermont. **New manuals are now available at your County Foresters office for free.**

TIMBER CRUISE DATA

The cruise was done by Bartlett Forestry & Wildlife LLC in January of 2022. A ten-factor prism was used to cruise the timber and 5 - 7 plots were taken in each area. NED 1 program was used to compile the data.

FOREST STAND TYPES

The area numbers that represent different timber types are shown as numbers on the map. The ag land and nonproductive land are abbreviated on the map.

STATE OF VERMONT FOREST, PARKS AND RECREATION
SUGARBUSH GUIDELINES FOR UVA

Either Even-age or Uneven-age silviculture systems can used. It is however recommended that uneven-age management model is the most natural management model for an active sugarbush. The FPR Dept. does highly recommend the maintenance of at least 25% non-maple species in order to support forest health in a sugarbush. When converting a hardwood stand to a sugarbush the minimum acceptable basal area would be 65 sq.ft. When converting a mixed wood stand the minimum acceptable basal area is 80 sq.ft. Drop lines should be 24" - 36" in length to allow the staggering of tapping holes.

Tapping guidelines -	Health Spouts(5/16")	Standard Spouts(7/16)
1 tap -	10-14" d.b.h.	12-18" d.b.h
2 taps -	16-20" d.b.h.	20" & over d.b.h
3 taps -	22"-over d.b.h.	Prohibited
4 taps -	Prohibited	Prohibited

WHY THE CURRENT USE PROGRAM EXISTS

The reason this program was created was to lower property taxes to discourage land fragmentation and promote professional forestry & agriculture practices that will supply forest products and agriculture crops for the State of Vermont's economy. The forest products industry is a huge part of the Vermont economy (see page 9). Even though this is a small woodlot, the timber that will be harvested in the future will create jobs for a group of loggers, truckers, and mill workers. Their work and your trees will provide forest products for Vermont's economy. Some trees may be used to produce electricity at a biomass plant or firewood to heat Vermont homes. Future harvests will do the same.

It is something like a State-wide co-op, where everyone enrolled in the program harvests forest products for the good of Vermont's forests, wildlife, and economy. In return the owners get rewarded annually with a tax break. Tax saving will then provide landowners extra funds to do a variety thing to improve their land such as liming & fertilizing ag land and control invasive plants moving into their forests.

Suggested Reading & Resource List for Landowners

Working With Your Woodland: A Landowners Guide, 1993
Hands on Land; A History of the Vermont Landscape, by Jan Albers. MIT Press 2000
Landowners Guide to Wildlife Habitat: Forest Management for the New England Region 2005
Introduction to Forest Ecology and Silviculture, by Thom McEvoy
Tracking and the Art of Seeing: How to Read Animal Tracks and Signs, by Paul Rezendes. 1999

VERMONT FOREST FACTS

The Current Use Program has created more forestry related jobs for working Vermonters than any other program or business in the State's history. There are literally thousands of loggers, foresters, farmers, truckers, saw mill workers, firewood dealers, sugar makers, tree farmers (Christmas) and furniture makers in this state that obtain work directly from the land enrolled in the Current Use Program. Your enrolled property will help the economic viability of the State of Vermont and its residents if your forestry plan is followed. Along with the economic benefits, many species of wildlife are now increasing in numbers due to the new growth habitat that grows soon after a sustainable timber harvest.

Vermont's land area is 5.92 million acres. Seventy-eight percent or 4.59 million acres, is forested. The USDA Forest Service classifies 4.36 million acres as timber land or land that is fertile and accessible enough to produce wood as a crop and is not withdrawn from timber harvesting by statute or regulation.

Total Land Area	Forest Land	Timberland
5,919,702	4,591,281	4,352,855

The majority of timberland in Vermont are privately owned (3.7 million acres or 81%) by family forest owners or business concerns. Local, State and Federal government owns 19% or 872,343 acres of Vermont forest.

Highlights

[a] The annual contribution of forest-based manufacturing and forest-related recreation and tourism to the Vermont economy is over $3.42 billion.

[a] Forest-based manufacturing contributed $1.5 billion in output value to the economy in 2011 or 44% of Vermont's total manufacturing and forest-related recreation and tourism sales.

[a] The forest based recreation and tourism provides employment for over 10,000 people and generated payrolls of $1.58 million in 2011.

[a] Revenues from forest-related recreation and tourism activities totaled $1.9 billion in 2011.

[a] Vermont landowners received estimated stumpage revenues of $31.5 million in 2011.

[a] The sale of Christmas trees, wreaths, and maple syrup contributed approximately $29 million in 2011.

[a] Current inventories show that Vermont's forests add 2.4 million cords of growth per year while only 1.4 million cords of timber are harvested.

[a] Each 1,000 acres of forest land in Vermont supports 2.4 forest-based manufacturing, forestry, and logging jobs and 2.2 forest related tourism and recreation jobs.

VERMONT'S WILDLIFE HISTORY

I like to give all my clients a bit of Vermont's wildlife history. Following is a brief rundown of what has happened in the past two hundred years.

Many species of Vermont wildlife once in decline have made a dramatic comeback during the past century, due largely to a dramatic change in the state's forest cover. Whitetail deer, black bear, moose, coyote, bobcat, wild turkey, fisher, and beaver are some of the more notable species, but many other wildlife that depends on forested habitats could be included.

Before the 1700s, Vermont was entirely forested except for marshes, rocky areas and burned over sections. Open areas along the Connecticut River were used by Native Americans for growing corn. White pines grew to a height of up to 250 feet and 6 feet in diameter in the Champlain and Connecticut River Valleys. Red oak was abundant in the Champlain Valley. Higher elevations were covered with balsam fir and red spruce. Along the hillsides, birch, beech, and maple trees were intermixed with spruce, hemlock, ash, elm, bass, butternut, cherry and hornbeam.

Forest-dwelling wildlife, including timber wolves, mountain lions and many of the species mentioned above existed in healthy numbers. Species that need open areas, young forest stands and forest edges, such as woodcock, ruffed grouse, cottontail rabbits and meadow larks, would not have been found in great numbers due to a shortage of habitat.

As Vermont became more heavily settled, the forested nature of the state changed rapidly. The state's forest land shrank from 91 percent in 1700 to 30 percent in 1860. Farms were almost everywhere, with sheep and cattle pastured even on high-elevation hillsides.

Forest-dwelling wildlife had very little habitat, and only a few laws existed to control hunting. Many species nearly disappeared; some were wiped out. For example, from the early 1800s until 1878, when they were reintroduced, only a few deer lived here, with most of them in Essex County or on Mount Mansfield. In 1878, several citizens bought 17 deer from an Adirondack preserve and released them in Rutland and Bennington Counties.

Several unsuccessful attempts to stock turkeys were made by hunters in Bennington, Windsor, and Washington Counties as early as the 1920s. The wild turkeys we have in Vermont today originated from 31 wild turkeys brought in from southwestern New York in 1969 and 1970. They were stocked in Pawlet and Castleton. By then, there was sufficient mature oak in southwestern Vermont to provide plenty of acorns, which is an important staple in the diet of wild turkeys. The turkeys we see around here today have adapted to live off of a large variety of seeds and buds in the winter. Hophornbeam seeds, beech nuts, barberry berries and acorns are their favorite winter foods. Deep powder snow is their worst enemy because they cannot walk in it to forage for food. You can thank hunters and fishermen for the turkeys that you see here today. Money from their licenses and taxes on equipment paid for the stocking program.

Between 1959 and 1967 a total of 125 fishers were brought into the state from Maine to reestablish this once native forest-dwelling Vermonter. The fisher is the only predator that regularly preys on porcupines. They were reintroduced to the state to help control the over population of porcupines the state was experiencing. Porcupines feed on the twigs and bark of the white pine, hemlock and sugar maple. In doing so they can cause serious defects or kill these valuable trees. The porcupine population is now in check and fisher tracks can be seen statewide.

The Eastern coyote is a new subspecies that evolved from the western coyote crossing with the eastern timber wolves of Canada. The eastern coyote will sometimes be born with the pure red or black coats of their wolf ancestors, but most are gray with black trim on their shoulders. They weigh around forty pounds which is fifteen to twenty pounds more than their western cousin and have filled the niche that the timber wolf once had in the East. These animals are rarely seen and are on the top of the food chain. Their diet varies from berries to whitetail deer and will feed upon anything in between. They moved into Vermont in the 1940s and now exist statewide.

VERMONT'S WILDLIFE HISTORY (continued)

Ravens, considered rare just thirty years ago, have repopulated the state. Beavers abound, creating temporary wetlands that provide habitat for many other species.

Moose have moved back to Vermont and can be found statewide. Most came in from New Hampshire and Canada. When people picture moose, they think of moose feeding in a lake, which is common in Maine. Windsor county is very different from Maine. The moose that live here spend much of their lives at high elevations. There are some small wetlands at these high elevations and the moose will feed on the vegetation around them during the spring and summer months. The moose is a very large animal but depends on the small twigs and buds of young trees as its main food source. Twenty to thirty pounds of buds and twigs (bushel basket) a day is what a full-grown moose requires. In the winter they will also peel the bark from red maple and striped maple for food. Chew marks on trees six to twelve feet high are common in moose wintering areas. Clear cuts that are five to twenty-five acres in size produce thousands of saplings. The first fifteen years of growth in these clear cuts is the desired feeding area for the moose. The moose now have a serious problem with ticks. The moose ticks are killing moose and the moose population is on a serious decline all over the northeast.

Overpopulation is the whitetail deer's worst enemy now because they are so successful at living close to humans where hunting is not allowed. Posting your land to "No Hunting" is not recommended. "Hunting by Permission Only" is a good way to monitor the hunters on your property and keep the deer numbers in check.

The forests with high deer populations suffer. Deer love the taste and can snip off the more valuable maple, ash, oak, and birch buds. Constant browsing on these species allow the less desirable regeneration and less valuable beech, hornbeam, and striped maple to thrive. Leaving to tops of harvested trees whole in the woods during a logging operation will provide a barrier and help protect seedlings from browsing deer.

All the fish and game stocking programs are paid for by hunters, trappers, and fishermen indirectly through taxes on their equipment and license fees.

There is a non-game fund that anyone can donate money to the stocking of non-game species. This is done on your Vermont State Tax return. The loon, osprey and peregrine falcon are a few of the species that benefit from this program

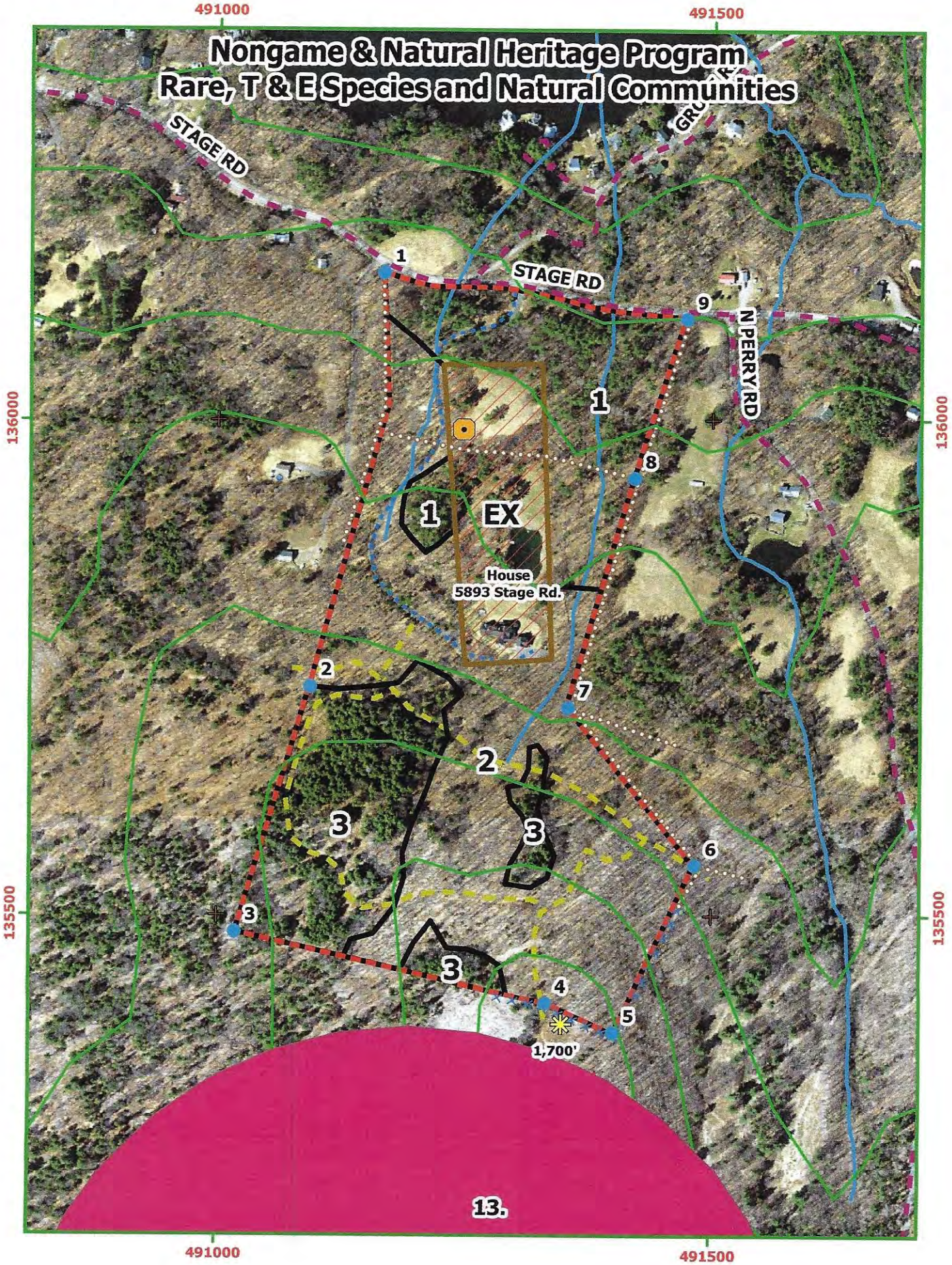
Today, 77 percent of Vermont is again covered by forest. We have more wildlife habitat, many more species of wildlife and larger populations than we have had in more than one hundred and fifty years.

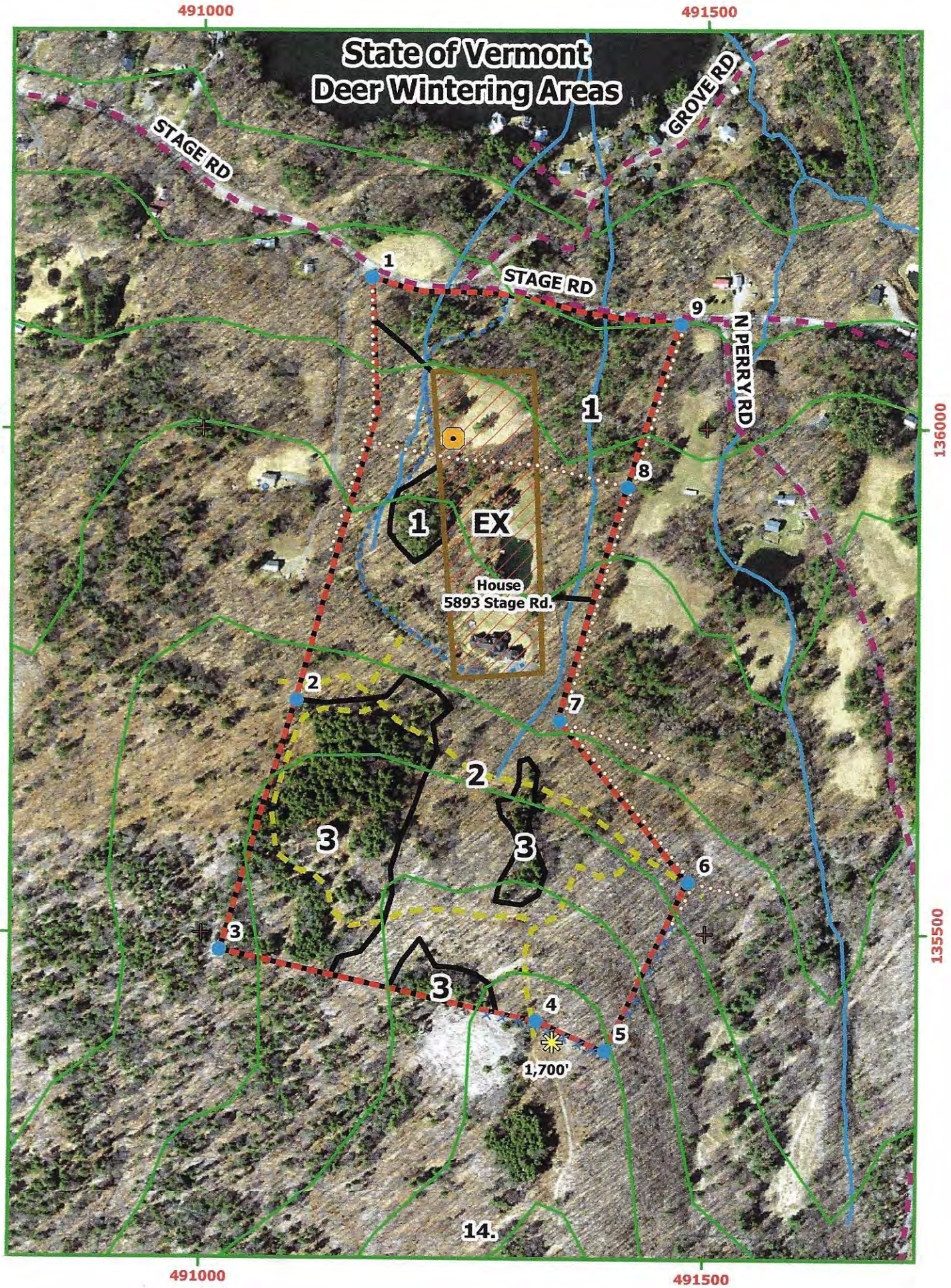
GROUP-WILDLIFE-REGENERATION CUTTING PRACTICE

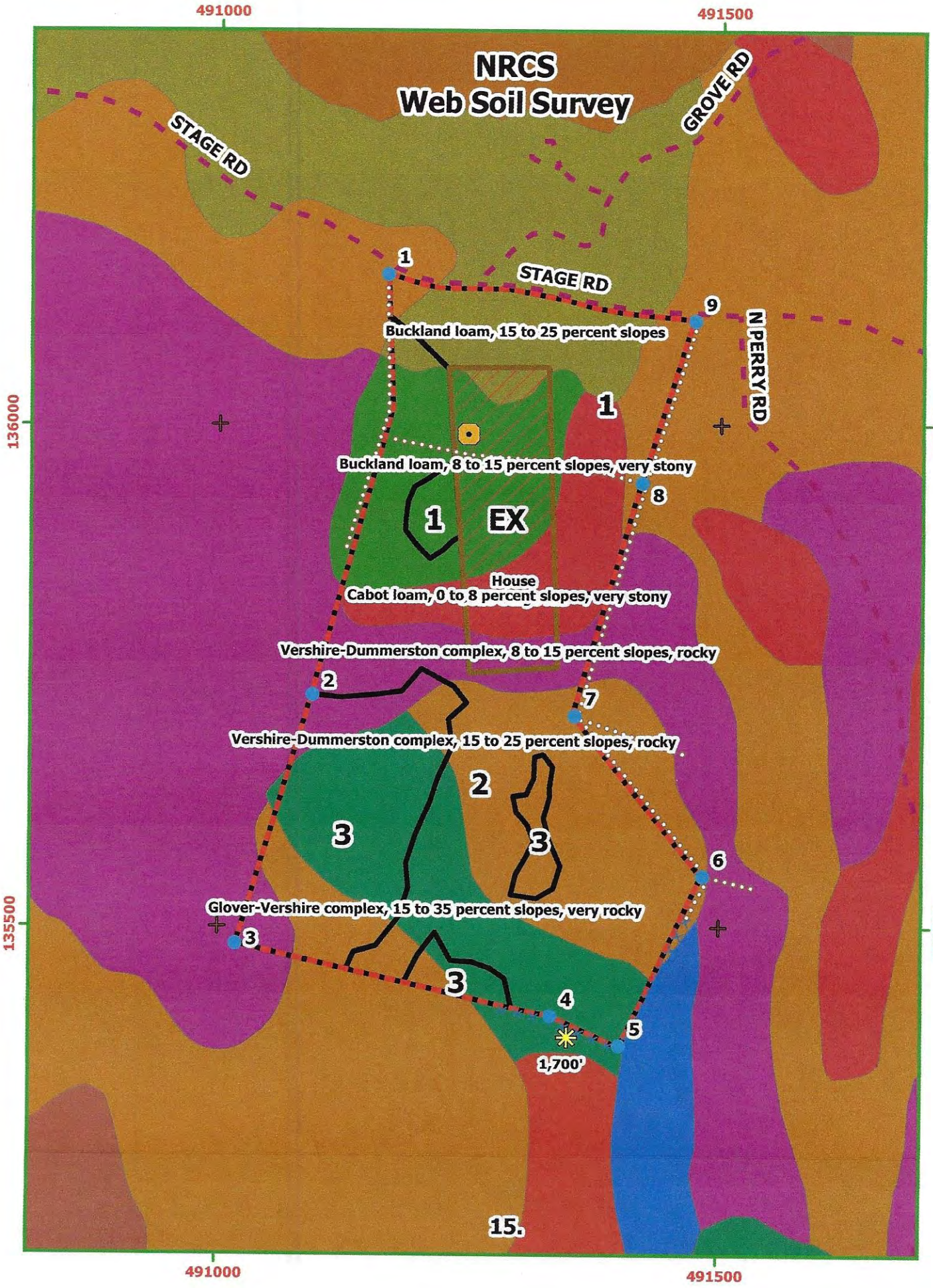
A group selection is described as a defined area where all the trees are cut. The group cuts I prescribed on this property will be 1/4 to 1 acre in size. Generally, the trees are either mature or declining in health where the patch cuts are prescribed. There are a few pockets of beech where this is happening. There are many important reasons for prescribing these cuts and I will now explain them.

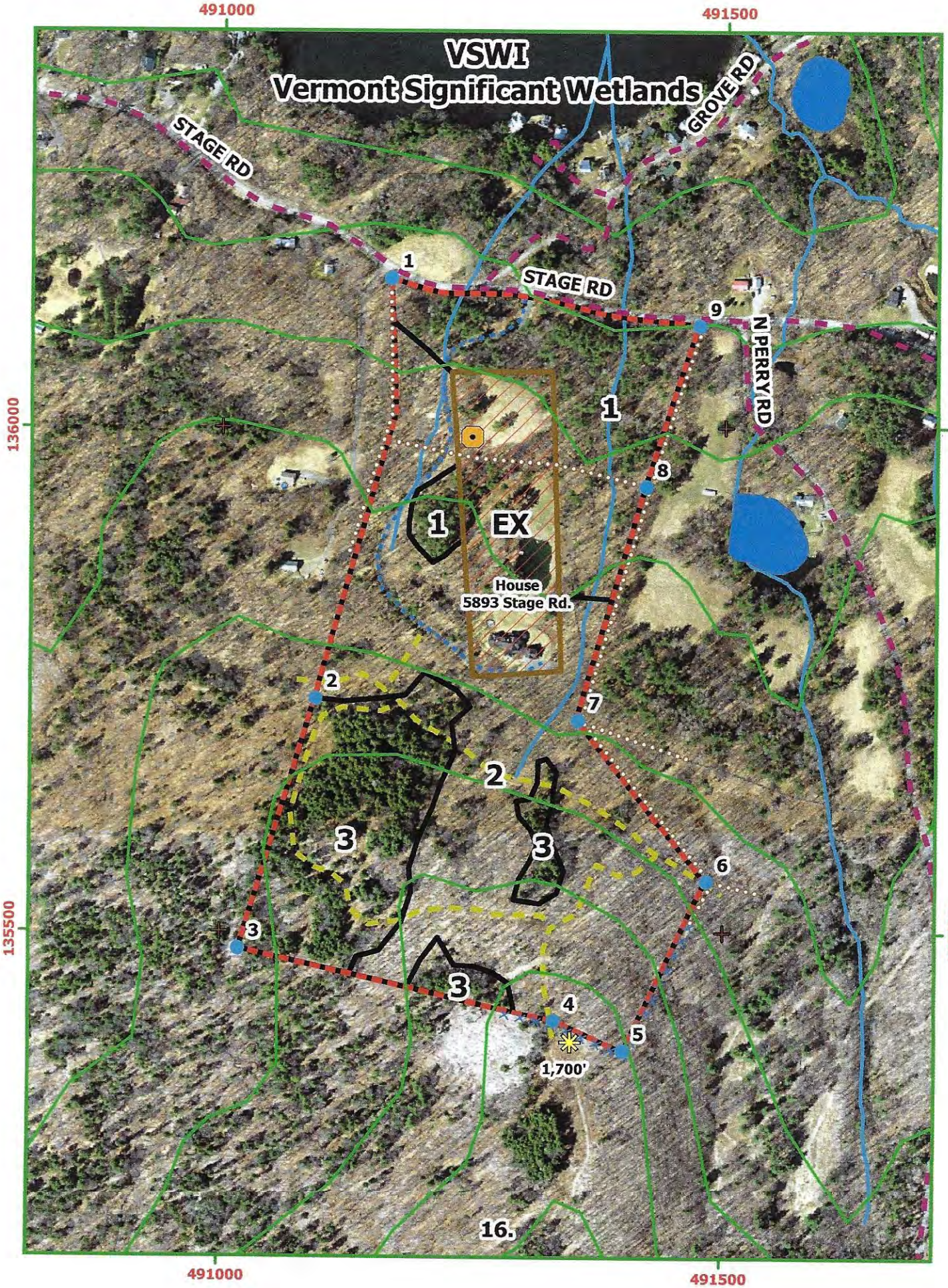
Wildlife need water, food, and cover to survive. Black berry and raspberry bushes are the native plants that provides both food and cover for wildlife. These plants need direct sunlight to flourish. Once an opening (patch cut) is created in the forest, birds and animals will transport berry seeds in their droppings while visiting these new openings. Within one-year berry bushes will begin to grow. For the next ten years berries will dominate the site. Many species of songbirds will nest and feed in these patch cuts for the following 15 years. The dense cover of brush and twigs prevents hawks and owls from catching young birds that cannot fly. Deer, moose, turkey, grouse, coyote, fox, raccoon, fisher, squirrels, and bear will come to these areas to feed on the berries, bushes and young trees. Landowners quite often pick these delicious berries also. After 15 years the berries get shaded out and die. The trees soon will be too tall for even the long-legged moose to feed on. Wildlife use of the property will begin to subside. By scheduling new group cuts at 15 - 20-year intervals, the wildlife will have a continuous supply of food and cover on your property.

Our forests consist of many tree species. Some are more valuable than others. Sugar maple, white ash and yellow birch are your most valuable trees. These trees can live up to 150 years, but many will begin to decline in health and value after 100 years. An important aspect of forest management is growing new trees. Different cutting practices will promote different tree species. The more valuable trees tend to need more sunlight and protection from deer browse than the less valuable trees. Using patch cuts is one forestry practice that will allow enough sunlight to reach the ground to regenerate your most valuable trees. Leaving tops of harvested trees whole in the woods may be unsightly to some folks for a few years but they are proven to be good for the forest and its inhabitants. The tree tops will act as a barrier and protect young valuable tree seedlings from browsing deer. They also provide nesting habitat for many birds and will eventually rot down to ground level in less than 8 years. Amphibians live under the branches when they reach the ground. They feed on the many insects that break the wood down. Planting sprouted red oak acorns in the brush piles the following spring after the harvest is recommended. I generally have a supply of these in April and provide them free to clients who wish to plant some themselves. These brush piles also provide nesting cover for many bird species.


Nongame & Natural Heritage Program
Rare, T & E Species and Natural Communities
491000
491500
136000
135500
STAGE RD
STAGE RD
N PERRY RD
1
2
3
4
5
6
7
8
9
1
EX
1
2
3
3
3
House
5893 Stage Rd.
1,700'
13.


State of Vermont
Deer Wintering Areas
491000
491500
136000
135500
STAGE RD
GROVE RD
N PERRY RD
1
2
3
4
5
6
7
8
9
1
EX
House
5893 Stage Rd.
1
2
3
3
3
1,700'
14.


NRCS
Web Soil Survey
491000
491500
136000
135500
STAGE RD
GROVE RD
N PERRY RD
1
9
8
2
7
6
3
4
5
Buckland loam, 15 to 25 percent slopes
Buckland loam, 8 to 15 percent slopes, very stony
EX
House
Cabot loam, 0 to 8 percent slopes, very stony
Vershire-Dummerston complex, 8 to 15 percent slopes, rocky
Vershire-Dummerston complex, 15 to 25 percent slopes, rocky
Glover-Vershire complex, 15 to 35 percent slopes, very rocky
1,700'
15.


491000
491500
VSWI
Vermont Significant Wetlands
STAGE RD
GROVE RD
STAGE RD
N PERRY RD
136000
135500
1
9
8
7
6
5
4
3
2
1
EX
House
5893 Stage Rd.
1
2
3
3
3
1,700'
16.

AREA 1

General Description: This area is dominated by a mix of white pine and various hardwoods and is located the northern portion of the property. The average age of the trees in this area is 65 years. Much of the land slopes to the north. The operability is poor in most parts of the stand due to wet soils, winter logging will be necessary. Access to this area is good from the proposed log landing shown on the map.

Forest Type: Mixed Woods **Trees/Acre:** 260

Species Composition: white ash 28%, sugar maple 23%, white pine 20%, black cherry 5%, paper birch 5%, red maple 5%, aspen 4%, red spruce 4%, black ash 3% and yellow birch 3%

Acres: 10.68 **Access Distance**: +/-1/4 mile **Stocking**: Between A & B line

Total BA/AC: 114 **Acceptable BA/AC**: 98 **Mean Stand Diameter**: 10"

Site Class: 2 **Stand Age**: Even-aged **Q-Factor**: 1.24

Soils: Buckland and Cabot loams, 0 to 25% slopes, stony. **Site Index**: 65

Stand History: This area was thinned in 2000.

Insects, Disease and Invasives: A few honeysuckle bushes were noted here. Aspen are declining and a few of the white pines have been weevilled. Many of the ash are declining from ash yellows.

Wildlife Habitat: Deer, coyote, and mink tracks were noted here during the timber cruise.

Boundaries: Pink ribbon and stone wall.

Regeneration: Mainly beech and sugar maple with some striped maple, hophornbeam and white pine. Regeneration is established with +/- 600 stems per acre, not free to grow.

Long Term Objectives: To use uneven age management to grow sawlogs and pulpwood. Cutting cycle of 15 years. Cutting diameter objective 18" d.b.h. for sugar maple and white pine, 14" d.b.h. for red maple, paper birch, and aspen and 10" d.b.h. for ash. Single tree & group selection system will be used. Group size will vary from 1/4 to 1/2 acre and no more than 10% of the area will be harvested as groups. Maintain 85 sq.ft. of basal area between groups. If possible, leave tree tops whole in the woods to protect valuable hardwood regeneration from browsing deer. In the first few years the tops provide nesting habitat for birds. The tops also put nutrients back into the soil as the rot. During this whole process the dead timber also acts as a carbon sink and keeps our atmosphere cleaner. I referred to following publications on the reference page which is located on the last page of this plan; #2, #5, #6, #7, #8 & #9. These openings will help regeneration to get established. The goal with this work is to have a variety of sapling, pole and saw logs size trees in this stand.

Scheduled Treatment: 2025 – Single Tree and Group Selection: Mature timber that have met diameter objectives and low quality trees will be harvested. Declining ash and low quality white pine will be targeted for harvest. Reduce basal area back to +/-85 sq.ft. Medium priority.

AREA 1

Residual Basal Area after cut: 85 sq.ft.
Species favored for retention and regeneration: Sugar maple.

Diameter Distribution

Diameter Range (2-inch D. class)	Current Total Basal Area(ft/acre)	Current Acceptable Basal Area (ft/acre)	Target Total Residual Basal Area (ft/acre)
6-10 inch	56 sq.ft.	48 sq.ft.	42 sq.ft.
12-14 inch	40 sq.ft.	34 sq.ft.	30 sq.ft.
16 inch plus	18 sq.ft.	16 sq.ft.	13 sq.ft.

Stand Overstory Vegetation Summary

Composition (sq.ft/ac, %BA, stems/ac)

	ALL SPP	BC	QA	BA	WA	PB
Basal area	114.0	6.0	4.0	4.0	32.0	6.0
Basal area	100.0	5.3	3.5	3.5	28.1	5.3
Stems /area	260.2	13.3	3.7	20.4	74.8	7.4

	YB	SM	RM	EWP	RS
Basal area	4.0	26.0	6.0	22.0	4.0
Basal area	3.5	22.8	5.3	19.3	3.5
Stems /area	12.7	96.1	11.9	14.6	5.1

Diameters (in)

	ALL SPP	BC	QA	BA	WA	PB
Medial diameter	11.7	10.0	14.0	6.0	10.6	12.7
Merch. diameter	11.7	10.0	14.0	6.0	10.6	12.7
Quad. mean diam.	9.0	9.1	14.0	6.0	8.9	12.2
Average diameter	8.2	8.8	14.0	6.0	8.3	12.0

	YB	SM	RM	EWP	RS
Medial diameter	9.0	8.8	10.0	18.5	12.0
Merch. diameter	9.0	8.8	10.0	18.5	12.0
Quad. mean diam.	7.6	7.0	9.6	16.6	12.0
Average diameter	7.2	6.6	9.5	15.9	12.0

Structure

	ALL SPP	BC	QA	BA	WA	PB
q factor	1.24	1.35	0.00	0.00	1.26	0.99

	YB	SM	RM	EWP	RS
q factor	1.26	1.33	1.22	1.05	0.00

Relative density (%)

	ALL SPP	BC	QA	BA	WA	PB
Relative density	72.9	3.2	2.4	3.5	16.8	5.6
ags and crop only	62.8	2.4	2.4	3.5	13.0	5.6

	YB	SM	RM	EWP	RS
Relative density	3.5	23.1	4.1	9.3	1.4
ags and crop only	3.5	21.3	2.7	6.9	1.4

Volumes (cords/area, bdft/area) - International 1/4 inch

	ALL SPP	BC	QA	BA	WA	PB
Tree volume	32.5	1.4	1.3	0.6	8.4	2.0
Net tree volume	26.0	1.1	1.1	0.5	6.7	1.6
Net pulp volume	16.7	1.1	0.5	0.5	5.0	1.1
Board-foot volume	6086	0	329	0	1300	294
Net boardfoot vol.	6086	0	329	0	1300	294

	YB	SM	RM	EWP	RS
Tree volume	0.9	5.0	1.7	9.7	1.4
Net tree volume	0.7	4.0	1.3	7.8	1.1
Net pulp volume	0.5	3.6	1.2	3.0	0.1
Board-foot volume	105	238	108	3172	538
Net boardfoot vol.	105	238	108	3172	538

Values ($/area) - for volumes above

	ALL SPP	BC	QA	BA	WA	PB
Pulp value	0.0	0.0	0.0	0.0	0.0	0.0
Boardfoot value	0.0	0.0	0.0	0.0	0.0	0.0
Dollar value	0.0	0.0	0.0	0.0	0.0	0.0

	YB	SM	RM	EWP	RS
Pulp value	0.0	0.0	0.0	0.0	0.0
Boardfoot value	0.0	0.0	0.0	0.0	0.0
Dollar value	0.0	0.0	0.0	0.0	0.0

AREA 2

General Description: This area is dominated by sugar maple and makes up the largest forest type on the property. The average age of the trees in this area is 70 years. Much of the land slopes to the north. The operability is good in most parts of the stand. Access to this area is good from the established woods roads and driveway. The logging will occur in the winter during frozen conditions to address wet areas on the property.

Forest Type: Sugar Maple **Trees/Acre**: 280

Species Composition: sugar maple 92%, ash 7% and black cherry 1%.

Acres: 25.02 **Access Distance**: +/-1/4 mile **Stocking**: Between A & B line

Total BA/AC: 127 **Acceptable BA/AC**: 106 **Mean Stand Diameter**: 9"

Site Class: 1 **Stand Age**: Even-aged **Q-Factor**: 1.28

Soils: Vershire-Dummerston complex, 8 to 35% slopes, rocky. **Site Index**: 65

Stand History: This area was thinned in 2000 and a whole tree operation was done in 2007. A small section just south of the house was not thinned at the previous owner's request. It needs to be thinned in the next operation.

Insects, Disease and Invasives: Some old ice storm damage in the upper elevations of the stand was evident and ash yellows disease is causing decline in the ash.

Wildlife Habitat: Deer and coyote tracks were noted during the timber cruise.

Boundaries: Pink ribbon with sections of wire fence and stone wall.

Regeneration: Mainly ash and sugar maple with some hophornbeam, striped maple, and yellow birch. Regeneration is established with +/- 800 stems per acer, not free to grow.

Long Term Objectives: To use uneven age management to grow sawlogs and pulpwood. Cutting cycle of 15 years. Cutting diameter objective 18" d.b.h. for sugar maple and 10" d.b.h. for ash. Single tree & group selection system will be used. Group size will vary from 1/4 to 1/2 acre and no more than 10% of the area will be harvested as groups. Maintain 80 sq.ft. of basal area between groups. If the owner agrees it is recommended to leave treetops whole in the woods to protect valuable hardwood regeneration from browsing deer. In the first few years the tops provide nesting habitat for birds. The tops also put nutrients back into the soil as the rot. During this whole process the dead timber also acts as a carbon sink and keeps our atmosphere cleaner. I referred to following publications on the reference page which is located on the last page of this plan; #2, #5, #6, #7, #8 & #9. These openings will help regeneration to get established. The goal with this work is to have a variety of sapling, pole and saw logs size trees in this stand.

Scheduled Treatment: 2025 – Single Tree and Group Selection: Mature timber that have met diameter objectives and low quality trees. Reduce basal area back to +/- 80 sq.ft. Medium priority.

AREA 2

Residual Basal Area after cut: 80 sq.ft.
Species favored for retention and regeneration: Sugar maple.

Diameter Distribution

Diameter Range (2-inch D. class)	Current Total Basal Area(ft/acre)	Current Acceptable Basal Area (ft/acre)	Target Total Residual Basal Area (ft/acre)
6-10 inch	80 sq.ft.	66 sq.ft.	51 sq.ft.
12-14 inch	45 sq.ft.	38 sq.ft.	28 sq.ft.
16 inch plus	2 sq.ft.	2 sq.ft.	1 sq.ft.

Stand Overstory Vegetation Summary

Composition (sq.ft/ac, %BA, stems/ac)

	ALL SPP	BC	WA	SM
Basal area	126.7	1.7	8.3	116.7
Basal area	100.0	1.3	6.6	92.1
Stems /area	280.1	3.1	9.2	267.8

Diameters (in)

	ALL SPP	BC	WA	SM
Medial diameter	10.3	10.0	13.6	10.0
Merch. diameter	10.3	10.0	13.6	10.0
Quad. mean diam.	9.1	10.0	12.9	8.9
Average diameter	8.7	10.0	12.6	8.5

Structure

	ALL SPP	BC	WA	SM
q factor	1.28	0.00	1.14	1.09

Relative density (%)

	ALL SPP	BC	WA	SM
Relative density	102.9	0.8	3.4	98.7
ags and crop only	86.1	0.8	2.1	83.2

Volumes (cords/area, bdft/area) - International 1/4 inch

	ALL SPP	BC	WA	SM
Tree volume	39.2	0.6	3.4	35.2
Net tree volume	31.4	0.5	2.7	28.2
Net pulp volume	25.3	0.5	1.2	23.6
Board-foot volume	3646	0	966	2680
Net boardfoot vol.	3646	0	966	2680

Values ($/area) - for volumes above

	ALL SPP	BC	WA	SM
Pulp value	0.0	0.0	0.0	0.0
Boardfoot value	0.0	0.0	0.0	0.0
Dollar value	0.0	0.0	0.0	0.0

AREA 3

General Description: This area is located in three different areas and is dominated by hemlock. The average age of the trees in this area is 80 years. Much of the land slopes to the north with some western aspect. The operability is good in most parts of the stand. Access to this area is good from the established woods roads shown on the map. The logging will occur in the winter during frozen conditions to address wet areas on the property.

Forest Type: Hemlock **Trees/Acre**: 140

Species Composition: hemlock 84%, beech 6%, sugar maple 6%, yellow birch 2%, and red spruce 2%.

Acres: 11.56 **Access Distance**: +/-1/4 mile **Stocking**: Between A & B line

Total BA/AC: 108 **Acceptable BA/AC**: 92 **Mean Stand Diameter**: 12"

Site Class: 2 **Stand Age**: Even-aged **Q-Factor**: 1.17

Soils: Glover-Vershire complex, 15 to 35% slopes, very rocky. **Site Index**: -

Stand History: Small groups were harvested from this area during the whole tree harvest of 2007.

Insects, Disease and Invasives: Beech are declining from beech bark disease here.

Wildlife Habitat: Deer winter here in the December and January. They will move to the north road deer yard later in the winter. This should be managed as a deer wintering area in the future and maintain the hemlock cover here that can last another 100 years.

Boundaries: Pink ribbon.

Regeneration: Mainly beech and red spruce with some yellow birch and hophornbeam. Regeneration is established with +/- 500 stems per acre, free to grow in the group cuts.

Long Term Objectives: To use uneven age management to grow sawlogs and pulpwood. Cutting cycle of 15 years. Cutting diameter objective 24" d.b.h. for hemlock and 18" d.b.h. for sugar maple and yellow birch. Single tree & group selection system will be used. Group size will vary from 1/4 to 1/2 acre and no more than 10% of the area will be harvested as groups. Maintain 110 sq.ft. of basal area between groups. If possible, leave tree tops whole in the woods to protect valuable hardwood regeneration from browsing deer. In the first few years the tops provide nesting habitat for birds. The tops also put nutrients back into the soil as the rot. During this whole process the dead timber also acts as a carbon sink and keeps our atmosphere cleaner. I referred to following publications on the reference page which is located on the last page of this plan; #3, #5, #6, #7, #8 & #9. These openings will help regeneration to get established. The goal with this work is to have a variety of sapling, pole and saw logs size trees in this stand.

Scheduled Treatment: No treatment during this plan period due to acceptable stocking levels and deer wintering use.

AREA 3

Residual Basal Area after cut: - sq.ft.
Species favored for retention and regeneration: Hemlock and sugar maple.

Diameter Distribution

Diameter Range (2-inch D. class)	Current Total Basal Area(ft/acre)	Current Acceptable Basal Area (ft/acre)	Target Total Residual Basal Area (ft/acre)
6-10 inch	28 sq.ft.	24 sq.ft.	28 sq.ft.
12-14 inch	60 sq.ft.	51 sq.ft.	60 sq.ft.
16 inch plus	20 sq.ft.	17 sq.ft.	20 sq.ft.

Stand Overstory Vegetation Summary

Composition (sq.ft/ac, %BA, stems/ac)

	ALL SPP	AB	YB	SM	EH	RS
Basal area	108.0	6.0	2.0	6.0	92.0	2.0
Basal area	100.0	5.6	1.9	5.6	85.2	1.9
Stems /area	140.3	26.1	1.4	6.5	103.7	2.5

Diameters (in)

	ALL SPP	AB	YB	SM	EH	RS
Medial diameter	13.7	6.7	16.0	14.0	14.2	12.0
Merch. diameter	13.7	6.7	16.0	14.0	14.2	12.0
Quad. mean diam.	11.9	6.5	16.0	13.0	12.8	12.0
Average diameter	11.2	6.4	16.0	12.6	12.3	12.0

Structure

	ALL SPP	AB	YB	SM	EH	RS
q factor	1.17	1.89	0.00	1.04	1.21	0.00

Relative density (%)

	ALL SPP	AB	YB	SM	EH	RS
Relative density	54.9	5.5	1.6	4.8	42.3	0.7
ags and crop only	46.7	1.6	4.8	39.6	0.7	

Volumes (cords/area, bdft/area) - International 1/4 inch

	ALL SPP	AB	YB	SM	EH	RS
Tree volume	31.6	0.7	0.6	2.0	27.6	0.7
Net tree volume	25.3	0.5	0.5	1.6	22.1	0.6
Net pulp volume	11.3	0.5	0.2	0.6	9.8	0.1
Board-foot volume	8171	0	151	573	7178	269
Net boardfoot vol.	8171	0	151	573	7178	269

Values ($/area) - for volumes above

	ALL SPP	AB	YB	SM	EH	RS
Pulp value	0.0	0.0	0.0	0.0	0.0	0.0
Boardfoot value	0.0	0.0	0.0	0.0	0.0	0.0
Dollar value	0.0	0.0	0.0	0.0	0.0	0.0

A NED-1 REPORT FOR MGMT UNIT
generated: 1/31/2022

Management Unit Species X Size Class Table

Basal area (sq.ft/ac) -Crop, AGS, UGS (excludes dead)

Stand 1 (ac)

Diam.	All Spp	BC	QA	BA	WA	AB	PB
saps	6.0	-	-	-	-	-	-
poles	50.0	4.0	-	4.0	18.0	-	2.0
sm saw	40.0	2.0	4.0	-	12.0	-	4.0
med saw	12.0	-	-	-	2.0	-	-
lg saw	6.0	-	-	-	-	-	-
Total	114.0	6.0	4.0	4.0	32.0	-	6.0

Diam.	YB	SM	RM	EH	EWP	RS
saps	-	6.0	-	-	-	-
poles	2.0	14.0	4.0	-	2.0	-
sm saw	2.0	4.0	2.0	-	6.0	4.0
med saw	-	2.0	-	-	8.0	-
lg saw	-	-	-	-	6.0	-
Total	4.0	26.0	6.0	-	22.0	4.0

Stand 2 (ac)

Diam.	All Spp	BC	QA	BA	WA	AB	PB
saps	8.3	-	-	-	-	-	-
poles	71.7	1.7	-	-	1.7	-	-
sm saw	45.0	-	-	-	5.0	-	-
med saw	1.7	-	-	-	1.7	-	-
lg saw	0.0	-	-	-	-	-	-
Total	126.7	1.7	-	-	8.3	-	-

Diam.	YB	SM	RM	EH	EWP	RS
saps	-	8.3	-	-	-	-
poles	-	68.3	-	-	-	-
sm saw	-	40.0	-	-	-	-
med saw	-	-	-	-	-	-
lg saw	-	-	-	-	-	-
Total	-	116.7	-	-	-	-

Stand 3 (ac)

Diam.	All Spp	BC	QA	BA	WA	AB	PB
saps	0.0	-	-	-	-	-	-
poles	28.0	-	-	-	-	6.0	-
sm saw	60.0	-	-	-	-	-	-
med saw	20.0	-	-	-	-	-	-
lg saw	0.0	-	-	-	-	-	-
Total	108.0	-	-	-	-	6.0	-

Diam.	YB	SM	RM	EH	EWP	RS
saps	-	-	-	-	-	-
poles	-	2.0	-	20.0	-	-
sm saw	2.0	4.0	-	52.0	-	2.0
med saw	-	-	-	20.0	-	-
lg saw	-	-	-	-	-	-
Total	2.0	6.0	-	92.0	-	2.0

Totals for entire management unit (0.0 ac)

Diam.	All Spp	BC	QA	BA	WA	AB	PB
saps	0	-	-	-	-	-	-
poles	0	-	-	-	-	-	-
sm saw	0	-	-	-	-	-	-
med saw	0	-	-	-	-	-	-
lg saw	0	-	-	-	-	-	-
Total	0	-	-	-	-	-	-

Diam.	YB	SM	RM	EH	EWP	RS
saps	-	-	-	-	-	-
poles	-	-	-	-	-	-
sm saw	-	-	-	-	-	-
med saw	-	-	-	-	-	-
lg saw	-	-	-	-	-	-
Total	-	-	-	-	-	-

SUMMARY SHEET

Area 1

Scheduled Treatment: 2025 – Single Tree and Group Selection: Mature timber that have met diameter objectives and low quality trees will be harvested. Declining ash and low quality white pine will be targeted for harvest. Reduce basal area back to +/-85 sq.ft. Medium priority.

Area 2

Scheduled Treatment: 2025 – Single Tree and Group Selection: Mature timber that have met diameter objectives and low quality trees. Reduce basal area back to +/- 80 sq.ft. Medium priority.

Area 3

Scheduled Treatment: No treatment during this plan period due to acceptable stocking levels and deer wintering use.

**USE VALUE APPRAISAL: INTERPRETATION OF THE "20% RULES" OF OPEN IDLE/AG LAND, SITE IV LANDS, AND ECOLOGICALLY SIGNIFICANT TREATMENT AREAS (ESTA)

Background: In all cases, parcels enrolled in the Forestry Program of Use Value Appraisal (UVA) must have a minimum of 25 acres enrolled of which at least 20 acres are enrolled as productive forestland. Acreage in addition to the 20 acres of productive forestland may be enrolled in any forestry program category to meet or exceed the 25-acre minimum. All of the forestry program enrollment categories and eligibility requirements are described in the *Minimum Standards for Forest Management and Regeneration.* Eligibility requirements commonly referred to as the "20% rules," affect eligibility of three enrollment categories including: Open/Idle Ag Land, Site IV and Ecologically Significant Treatment Areas (ESTAs).
Application of the 20% rules are being calculated inconsistently, affecting acreage charts and plan review processes. This guidance is being issued to reduce associated challenges. Consistent with the standards in the 2010 Department of Forests, Parks and Recreation's *Use Value Appraisal Manual*, the calculation of the 20% rules for Open/Idle Ag, Site IV, and ESTA categories should be made by separate calculations. The procedure for meeting these standards is summarized below.

Forested Productive Soils (FPS): are Site I, II, or III soils that are "forest" as defined in the Minimum Standards for Forest Management and Regeneration. FPS may include acreage from multiple enrollment categories, including Productive Forestland, ESTAs, Significant Wildlife Habitat, or others.
Open/Idle Ag lands (often called Open or Inactive Ag): is limited to no more than 20% of the total of enrolled forested productive soils (FPS) plus Open land. This limit on open land is equivalent to 25% of the enrolled FPS acres or put another way, 1 acre of open land for every 4 acres of enrolled FPS.
Calculation to determine the maximum acreage of eligible open land that can be enrolled:
Maximum eligible open land = FPS acres (to be enrolled) X 0.25
Example: 100 acres of forested productive soils & 23 acres open/idle lands.
100 FPS acres X 0.25 = 25 acres. In this example, with 100 acres of FPS, a maximum of 25 acres of open/idle land would be eligible. Therefore, all 23 acres of open/idle land are eligible.

Site IV land: There is no cap when all other eligibility criteria are met, however, the number of site IV acres ≤ 20% of the enrolled FPS and those acres > 20% of the enrolled FPS must be indicated on separate lines in the acreage chart of the UVA map.
Calculation to determine acreage of site IV comprising 20% or less of enrolled FPS and >20% of enrolled FPS:
Site IV land ≤ 20% = FPS acres X 0.2 **Site IV land > 20%** = Total acres of Site IV (minus) Acres Site IV land ≤ 20%
Example: 150 acres forested productive soils & 47 acres site IV.
Site IV ≤ 20%: 150 acres X 0.2 = 30 acres. **Site IV land > 20%:** 47 acres – 30 acres = 17 acres.

Ecologically Significant Treatment Area (ESTA): There is no cap when all other eligibility criteria are met, however, the number of ESTA acres ≤ 20% of the enrolled FPS must be indicated on separate lines in the acreage chart of the UVA map. *Enrollment of > 20% of the FPS requires approval by the Commissioner of Forests, Parks and Recreation.*
Calculation to determine acreage of ESTAs comprising 20% or less of enrolled FPS and > 20% of enrolled FPS:
ESTA ≤ 20% = FPS acres X 0.2 **ESTA > 20%** = Total ESTA (minus) ESTA ≤ 20%.
Example: 200 acres forested productive soils & 73 acres riparian ESTA.
ESTA ≤ 20%: 200 acres X 0.2 = 40 acres. **ESTA > 20%:** 73 acres – 40 acres = 33 acres.
***Information was provided by Vermont Woodlands Association & Vermont Tree Farm Program Vol. 15, No. 4 December 2019*

GLOSSARY OF TERMS

Abbreviations: AB-American Beech, QA- Aspen, BC-Black Cherry, EWP-Eastern White Pine, EH-Eastern Hemlock, NRO- Northern Red Oak, NS - Norway spruce, OST- Hophornbeam, PB-Paper Birch, REP- Red Pine, RM- Red Maple, SM- Sugar Maple, SPP- Species, YB- Yellow Birch, WA-White Ash

Acceptable Growing Stock: The basal area per acre (BA/AC) of stems which have the potential to meet merchantability standards for the products identified in the plan.

Acre: An area on the ground, 43,560 square feet or 209' x 209'

Armillaria: One of the most common fungus in the eastern United States that can infect nearly every species of tree through a wound or root graft. This can and usually does kill the infected tree.

BA/AC or Basal Area per Acre: The area in square feet of a cross section at breast height of the trees in stand expressed on per acre basis.

Browse: Buds, leaves and twigs of seedling and sapling regeneration that are utilized as a food resource by wildlife.

Canopy: The combined cover of individual tree crowns.

Chain: A measurement of horizontal distance, 66 feet. Areas expressed in square chains can immediately be converted to acres by dividing by 10.

Cleaning: The removal of competing vegetation to release desired regeneration for optimal growth.

Patch or clear cut: A silvicultural method which removes all trees from a designated area at one time for the purpose of creating a new, even-aged stand. This management system is usually used to regenerate shade-intolerant tree species. Variation include patch and strip clear cutting.

Climax: An association of plant and animals that will prevail in the absence of disturbance.

Codominant: Trees with crowns forming the general level of the forest canopy and receiving full sunlight from above but comparatively little for the sides.

Crop trees: Trees to be grown to the end of the rotation in even-aged management or trees to be favored for future growth in uneven-aged management.

Crown: The branches and twigs of the upper part of a tree.

Cruise: A survey of forest stands to determine the number, size, and species of trees, as well as terrain, soil condition, access and any other factors relevant to forest management planning.

Cull: Trees that have no current or potential commercial value.

Cutting Cycle: Period of years between cuts.

D.B.H. or Diameter at Breast Height: This is a diameter measurement that is taken on the tree at 4.5' above the ground.

Dominant: Trees with well-developed crowns which are above the canopy and receive direct sunlight from above and partially from the side.

Epicormic branching: Branches that sprout from adventitious buds on the bole of a tree, usually when it is stressed or is subjected to full sunlight.

Even age Stand: A stand of trees with no more than two age classes of trees. Example: Red Pine Plantation.

Even age Management: This management strategy involves managing a forest until the best trees are mature and then harvesting the majority of these trees to start a new stand.

Uneven age Stand: A stand of trees with three or more age classes. Typically, sawlogs, pole timber and saplings.

Uneven age Management: This management strategy involves doing selective harvesting of some sawlogs and pole sized trees every ten to twenty years. The goal is to maintain an equal number of sawlog, pole, and sapling sized trees in the forest.

Intermediate Treatments: Harvesting methods employed during even-aged management. The removal of trees from a stand between the time of establishment and the final harvest with the purpose of improving stand growth and/or health.

Intolerant Species: Trees unable to grow and develop in the shade of other species. Intolerant commercial species in Vermont include paper birch and aspen.

Landing: Any place where logs are assembled for further transport.

Liquidation Cutting: Removal of all merchantable products from the forest with no regard for stand improvement or regeneration, usually preceding the sale of land.

Log Rule: A table or formula showing estimated volumes, usually in board feet, for various log diameters and lengths.

Mast: Nuts, berries and seeds utilized by wildlife as a food resource.

Mature Tree: Any tree that has reached the point in its life span when it will no longer gain any economic value. Sites, soils, and water will have a key role in the specific heights and diameters attained by individual trees and species.

MBF: The abbreviation for one thousand board feet.

M.S.D. or Mean Stand Diameter: The average D.B.H. of a given stand of trees which are 5" or larger at breast height.

Mixed Hardwoods: Timber stands characterized by a mixture of hardwood species.

GLOSSARY OF TERMS (continued)

Over mature: A tree or stand of trees that is older than normal rotation age for the type.

Overstory: Those trees making up the main canopy. The overstory is usually referenced as the larger trees in the stand.

Phloem: Tissue of the inner bark that conducts photosynthate from the leaves down to the roots.

Pioneer: Shade intolerant species that are the first trees to develop in an area after a large-scale disturbance or after the abandonment of a field. Pioneer species include aspen, gray birch, pin cherry and paper birch.

Pole Timber: Trees with a D.B.H. between 5" and 11.9"

Productivity Class: A number that represents the expected volume produced per year in cubic feet per hectare (1 cubic meter per hectare = 14.3 cubic feet per acre).

Q-Factor: The ratio of the number of trees in a diameter class divided by the number of trees in the next smaller diameter class. The lower the q-factor, the higher the proportion of large diameter trees.

Rotation Age: The period of years required to grow a stand of trees to maturity.

Sapling: A tree with a D.B.H. of 1" – 4.9"

Sawlogs: A tree with a D.B.H. greater than 11.9" that is sound enough to be sawed into lumber.

Scheduled Treatment: The Use Value Program requires that specific dates be set for work to be done but allows the work to be completed up to three years before or three years after the scheduled date. Any greater deviations from that date requires that an amendment to the plan be submitted to the County Forester for approval.

Site Class: A classification of forest land to denote the potential tree growth expressed in cubic feet per year. Example: Site I could be a former corn field in a valley with deep, fertile soils, that was planted back to pines. Site IV may be on a mountain top where the soils are only a few inches deep and red spruce are growing.

T.S.I. or Timber Stand Improvement: Improvements that are made to the forest that encourages desirable trees by reducing the number of undesirable trees competing with them. These improvements generally do not produce enough revenue to pay for the work. Cost share programs are sometimes available to help pay for this work in some cases.

Weevilled: This refers to the crooked or badly formed trunks of the white pine and Norway spruce. This is caused by the white pine weevil feeding on and killing the young new growth at the top of the tree. Once the terminal leader on the tree has been killed, one of the side branches curves upward to become the terminal leader. The result is a severe bend in the main stem of the tree.

Wildlife Habitat: An area that provides wildlife with either food, water and/or shelter in a given area.

REFERENCES

1. A Silvicultural Guide for White Pine in the Northeast; Lancaster & Leak, Forest Service General Technical Report NE-41, 1978.

2. A Silvicultural Guide for Northern Hardwoods in the Northeast; USDA Forest Service Research

3. Managing Eastern Hemlock–A Preliminary Guide; USDA Forest Service NE FES.

4. A Silvicultural Guide for Spruce-Fir in the Northeast, Technical Report NE-6; USDS, USFS, NA FES, 1973.

5. Vermont Agency of Natural Resources.

6. Intermin Soil Survey Report - USDA Soil Conservation Service

7. Wetland,Woodland,Wildland - Elizabeth H. Thompson & Eric Sorenson

8. Ecology and Management of Northern Hardwood Forests in New England- Hornbeck & Leak

9. Forest & Wildlife Management in New England - DeGraaf, Yamasaki, Leak, Lester

10. Wildlife & Forestry in New York Northern Hardwoods - Audubon, New York. http://ny.audubon.org

11. Silviculture Guide for Paper Birch in the North East - USDA Forest Service NE FES. L.O. Safford

12. Forest Bird Habitat Assessment - Audubon Vermont, Katie Manaras. 2012

13. Vermont Fish & Wildlife Department - Vermont. http://www.vtfishandwildlife.com

Soils information - Intrim Soil Survey Report for Windsor County, Vermont, USDA Soil Conservation Service. 1993

USE VALUE APPRAISAL PARCEL DATA ENTRY FORM ☐ new ☒ update[1] ☐ amendment[2] ☐ change of ownership

FP&R COUNTY FORESTER USE ONLY

Parcel ID For Data (by state) # _____ **Year of Entry** _____
Year of Plan _____ **Year of Land Inspection** _____

1) **Landowner Name (last name, first name)** LaMontagne, Grant J. + Judith A. Trustees
2) **Landowner Address (Street, PO Box)** PO Box 891
(Town) Barnard **(State)** VT **(Zip Code)** 05031
Phone Number (510) 499-3912 **Email Address** glamontagne4@gmail.com
3) **Town That Parcel Is In** Barnard 4) **Total Forestry Acres in Parcel** 47.26 (Grand list acreage, minus active agricultural and open land and exclusions)
5) **Plan Preparer (last name, first name)** Bartlett Forestry + Wildlife LLC 6) **Previous Owner (last name, first name)** _____
7) **SPAN** 030-009-10674
8) **Stand information (this information is for data entry only and does not override what is in actual plan):**

Stand #	Acres	Even-aged Uneven-aged (existing)	Predominant Site Class (I, II, III or IV)	Stand Type	Quadratic M.S.D.	Total BA	AGS BA	Management Activities	Treatment Year
1	10.68	1	2	11	10	114	98	7+8	2025
2	25.02	1	1	5	9	127	106	7+8	2025
3	11.56	1	2	4	12	108	92	12	–

[1] Update of an existing plan that includes all new stand descriptive data required every 10 years at minimum.
[2] Change to an approved existing plan does not change the 10-year cycle of the existing plan. If this form is filed with an amendment, indicate the amended information in the appropriate stand, and write an explanation in section 12. Amendments must be signed by the landowner(s).

VERMONT	Current Use Program **Use Value Appraisal** **Application for Agricultural Land, Forest Land, Conservation Land and Farm Buildings**	Alternate Form **CU-301** Rev. 10/2014	
Reference Number: 20160811-92-92006-000 **Tax Year:** 2017 **Received On:** 08/11/2016 **Town:** Barnard			

Section A. Application Reason

Select an application reason:?	Land and/or buildings that are enrolled and that have been transferred to your ownership

Section B. Landowners

Owner #1 *(PRIMARY CONTACT)*	**Owner #2**	**Owner #3**
Judith A LaMontagne - Trustee LaMontagne Trust Agreement 157 N Park Ave Neenah WI 54956 United States	Grant J LaMontagne - Trustee LaMontagne Trust Agreement 157 N Park Ave Neenah WI 54956 United States	

<More than three owners for this parcel, see Form CU-302 for additional owners and signatures.>

Section C. Property Description

1. Property Located in the Town or City of	Barnard
2. SPAN	030-009-10674
3a. Is the parcel located in more than one town?	No
3b. List the other town(s) and SPAN(s)	
4. Location of Property (911 Address and Description): 5893 Stage Road	
5. According to the Town's Grand List, how many acres are in this parcel?	54.26
6a. Do you have any adjoining parcels that are listed separately in the Town's Grand List?	No
6b. Please explain:	
7. From the acres in Question 5, how many acres are being excluded from enrollment?	7.00
8. Describe each excluded portion from Question 7 (to prevent you from being charged a penalty in the future, precisely describe each portion). 7.0 acres around house, pond and meadow	
9. Is the enrolled land subject to conservation easement?	No

Section D. Transfer of Enrolled Land

1. When was the deed recorded in town records?	07/25/2016
2. Was 100% of the parcel transferred?	Yes
3. How many acres were transferred according to the deed or survey?	54.21
4. If you are the transferee, who owned it previously?	LaMontagne, Judy & Grant
5. What was the SPAN of the parcel prior to the transfer?	030-009-10674
6. Was the parcel transferred to a family member of the owner?	No

Section E. Buildings

1a. How many houses, dwellings, and/or mobile homes are on the parcel?	1
1b. Describe them: House	
2. Does the owner(s) qualify as a farmer as defined in 32 V.S.A §3752(7)?	No
3. Are the farm buildings leased to and actively used by a qualifying farmer under a written lease of at least 3 years?	No
Lease expiration date	
4. Have any dwelling(s) been in use during the preceding tax year exclusively to house one or more farm employees as defined in 9 V.S.A § 4469a and their families, as a nonmonetary benefit of the farm employment?	No

5. List all buildings on the parcel in the "Total #" column. Enter the number of buildings to be enrolled in the "# to Enroll" column.

Building Type	Total #	# to Enroll	Building Type	Total #	# to Enroll
Sugarhouse	0	0	Barn	0	0
Greenhouse	0	0	Shed	0	0
Farm Employee Housing	0	0	Silo	0	0
Farm Crop Processing Facility	0	0	Garage	1	0
Other (explain:)				0	0
Total				1	0

Section F. Agricultural Land

1. How many acres are you applying to enroll in active agriculture use?	0.00
2. Of these agricultural acres, how many are used to produce an annual maple product?	0.00
3. If this land is subject to an easement, do you have the legal right to access, manage, and implement agricultural activities on it?	n/a
4. Do you (owner) qualify as a farmer by making half of your annual gross income from the business of farming as defined in Regulation 1.175-3 issued under the Internal Revenue Code of 1986 and/or from the sale of processed products produced from 75% of the farm crops produced on the farm?	No
5. Does the land produce gross income of at least $2,000/year from the sale of farm crops?	No
6a. Is the land leased to and actively used by a farmer under a written lease for at least 3 years?	No
6b. Lease expiration date	

Section G. Forest Land

1. How many acres of forest land are you applying to enroll?

	< 1 mile	> 1 mile		< 1 mile	> 1 mile
Open/Idle Ag (20% Rule Limit)	0.00	0.00	Ecologically Significant Treatment Area	0.00	0.00
Productive Forest I, II, III	47.26	0.00	Significant Wildlife Habitat	0.00	0.00
Nonproductive Forest (20% Rule Limit)	0.00	0.00	Miscellaneous < or = 1 Acre	0.00	0.00
Nonproductive Forest (>20% Rule)	0.00	0.00	Special Places/Sensitive Sites	0.00	0.00
			TOTAL Forest Land Acres	47.26	0.00

2. Of these forest acres, how many are used to produce an annual maple product?	0.00
3. If this land is subject to an easement, do you have the legal right to access, manage, and implement the required forestry activities on it?	n/a

Section H. Conservation Land

1. How many acres are you enrolling as conservation land?	<1 Mile: 0.00	>1 Mile: 0.00	0.00 Total Acres
2. Are you an organization that has been certified by the Commissioner of Taxes as a qualified organization as defined in 10 V.S.A §6301a and for at least five years preceding this certification you have been determined by the Internal Revenue Service to qualify as a 501(c)(3) organization which is not a private foundation as defined in Section 509(a) of the Internal Revenue Code?			No
3. Is parcel certified under 10 V.S.A §6306(b)?			No

Comments

Section J. Certification

I hereby certify that the information provided in this form is true and accurate to the best of my knowledge. I intend to have all of my property described on this application appraised at use value except those portions specifically excluded. I acknowledge that I, my heirs and assigns are subject to the provisions of 32 V.S.A. Chapter 124 and the rules and regulations and use values as adopted and prescribed by the Current Use Advisory Board, the Commissioner of Taxes, and state statutes. **When this application is signed by the owner(s) and approved by the state, the state shall record a lien in the land records of the municipality to secure payment of the land use change tax upon development of the parcel. The lien shall run with the land.** I acknowledge that the Vermont Department of Forests, Parks and Recreation, the Vermont Department of Taxes, and their employees or duly authorized representatives have the right to enter the property at anytime without prior notice for the purposes of ensuring compliance with the Use Value Appraisal Program requirements.

Owner #1	/S/	Judith A LaMontagne - Trustee	08/11/2016
Owner #2	/S/	Grant J LaMontagne - Trustee	08/11/2016

Section K. Approval

From the information herein certified by the applicant, I have determined that the applicant's property is eligible for use value appraisal effective beginning with the **2017** Tax Year.

/S/ Doreen Salls FOR Director, Property Valuation & Review **01/30/2017**

RECEIVED AND RECORDED
ON 1-30-2017
AT 8:00 A.M.
BOOK 115 PAGE 231-232
ATTEST:
ASSIST TOWN CLERK [illegible] VT