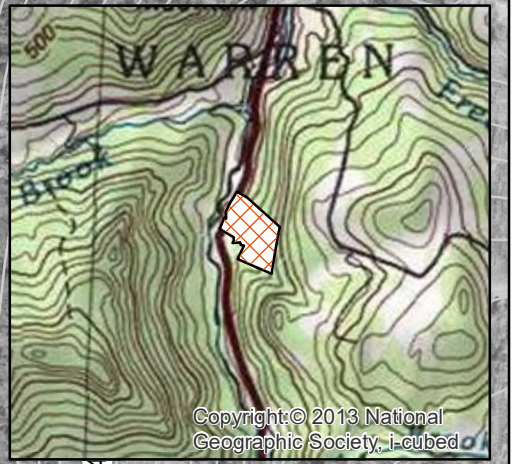


UVA FOREST MANAGEMENT MAP

Property of
Stoddard Land Company, LLC.
C/O Brooks Pace
Land in Warren, VT
VT Route 100
SPAN: 690-219-11550



**New England
Forestry Consultants, Inc.**
neforestryconsultants.com



Acreage Summary		
Area	Acres	Type
1	34.97	Hemlock/Hardwood
2	8.23	White Pine/Hardwood
	43.20	Total Forested
UVA	43.20	Enrolled
	43.20	Grand List

Legend

- Property Boundary
- Stand Type Line
- Blazed Line
- Wire Fence
- Corner Pin
- Road
- Stream

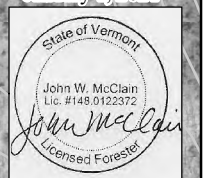
1:5,000



NOT A LEGAL SURVEY
Data obtained from
State of VT, GPS field work and
New England Forestry Consultants Inc.

2017 Orthophotos
471176, 471177
Source: VCGI.vermont.gov
Coordinate System: NAD 1983 State Plane
Projection: Transverse Mercator

Prepared by:
Masha Mokeyeva &
John McClain
Licensed Forester
Randolph, VT
802-728-3742
January 1, 2021



**FOREST MANAGEMENT PLAN
for the property of**

**Stoddard Land Company, LLC.
C/O Brooks Pace**

Located in

Warren, VT

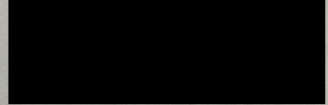
CERTIFIED BY: Robert R. Nelson
Washington County Forester

DATE: 2/21/2023

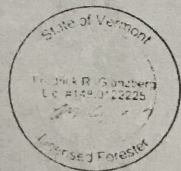
LANDOWNER SIGNATURE: Brooks Pace, MGR
Stoddard Land Company, LLC.

DATE: 14 Feb 2023

LANDOWNER ADDRESS & PHONE:



Prepared by
Masha Mokeyeva and Fred Glanzberg
Licensed Forester # 148.012225
NEW ENGLAND FORESTRY CONSULTANTS, INC.
PO Box 476
Randolph, VT 05060
(802) 728-3742



**FOREST MANAGEMENT PLAN
for the property of**

**Stoddard Land Company, LLC.
C/O Brooks Pace**

Located in
Warren, VT

Prepared by
Masha Mokeyeva and Fred Glanzberg
Licensed Forester # 148.0122225
NEW ENGLAND FORESTRY CONSULTANTS, INC.
PO Box 476
Randolph, VT 05060
(802) 728-3742



INTRODUCTION

Landowner: Stoddard Land Company, LLC.

Town: Warren

Grand List Description: 43.2 A

Parcel ID: 100005-001

SPAN: 690-219-11550

Biophysical Region: Northern Green Mountains

Orthophoto Numbers: 471176, 471177 - 2017

Location Description: VT Route 100

Wooded Acres: 43.2

Open/Idle Acres: 0.00

Agricultural Acres: 0.00

Non-Productive Acres: 0.00

Excluded Acres: 0.00

The goals of management for the woodland are to maintain a healthy forest and wildlife habitat and provide periodic income from the sale of woodland products. Vermont's Acceptable Management Practices (AMPs) will be employed during the harvesting of any timber.

In order to evaluate the possibility of meeting the objectives for the property, a field cruise was undertaken to gather data about the woodland January of 2023. Specific information regarding timber types, tree size, age, quality, limitations on harvesting, and site quality was collected using systematic sampling procedures. Basal Area Factor (BAF) used in this cruise was 15. Due to computational rounding of numbers, total basal area per acre may not always equal the sum of acceptable growing stock basal area, unacceptable growing stock basal area, and wildlife basal area. Wildlife basal area is not considered acceptable growing stock for timber production. Regeneration data is collected on 28ft² plots for each stand as needed. In management of uneven aged stands on this property, a residual Q factor of 1.5 will be the target.

STAND # 1

Acres: 34.90 Site Class II from soil data

Access distance less than one mile.

Soils: Tunbridge-Lyman complex, very rocky

STAND DESCRIPTION

All-Aged

Forest Type: Hemlock/Hardwood

Size Class: Seedling, sapling, pole, sawtimber

Mean Stand Diameter: 9.8"

Total BA/A: 120

Acceptable BA/A: 58

Unacceptable BA/A: 63

Wildlife BA/A: 0

Expected Residual BA/A: 80

Stems/acre: 202.7

Average site index: 58 for yellow birch

Stand History: Harvest sometime between 30-40 years ago

Slope/Aspect: 15-60% with a westerly aspect

Insects or disease problems: None observed

Stocking: Adequately stocked

Invasive species: None observed

Scheduled Activity: Growth

Reference: NE-603; Tubbs 1977

Data developed from information collected on 0-factor prism points.

Species name BA/AC % of Total BA

<u>Species name</u>	<u>BA/AC</u>	<u>% of Total BA</u>
Hemlock	53	43.8%
Red Maple	15	12.5%
Red Spruce	15	12.5%
Sugar Maple	5	4.2%
White Birch	5	4.2%
Yellow Birch	28	22.9%

STAND NOTES

Recent observations made through the cruise of this woodlot have resulted in a new allocation of stand boundaries, combining the small hardwood components into the hemlock that encircles most of the sites of birch and early successional species. This stand can be defined as all aged, with hemlock remaining as the dominant overstory species with larger diameters, while the smaller sites of yellow birch, red maple, and

occasional presence of other hardwoods are the secondary species in a smaller size range of saplings, poles, and small sawtimber. Red spruce seedlings populating parts of the understory not suppressed by hemlock indicate that mature stems likely populated the area prior to what was likely an unregulated harvest, which occurred about 30-40 years ago and targeted most of the spruce on the property.

There is not a substantial number of sawtimber-sized hardwood in relation to softwood species presently. Yellow birch poles appear vigorous and in excellent shape, while red maple poles of roughly the same age class display some defects in terms of timber quality. Coppiced growth was commonly seen in this species. White birch of the same size range is in decline or stands dead throughout the stand. Hemlock and spruce in the denser softwood pockets is in a larger diameter class, with some observable shake in the 20” and larger stems of the former. The general conditions of the stand are average, and regeneration is taking place as expected of the sunlight and terrain conditions. This is a rather rocky environment of a glacial nature, with some soil sites appearing shallower than others. The slope is uneven and steep at higher elevations. The entirety of this stand is a designated deer wintering habitat on the ANR Atlas. No rare, threatened, or endangered species have been observed, and no invasive species were spotted at this time. The southern boundary of the stand and property is particularly wet, as it is flanked by a brook that turns into a waterfall as it nears Route 100.

Access to this stand is made directly from Route 100, via a moderately steep skid road that reaches a small plateau and former landing site before branching out into the forest. Minimal work can be done to improve landing access.

Stand 1 Regeneration Data			
Seedlings/Acre	519	Saplings/Acre	2,282
Red Spruce	60%		45%
Yellow Birch	40%		55%

MANAGEMENT OBJECTIVES and SILVICULTURAL TREATMENTS

Growth is being prescribed to allow target diameters among hardwood species to be reached in the stand.

- Target DBH: 16” for softwood, 18” for yellow birch and red maple
- Cutting Cycle: 15 years
- Scheduled activity: Growth
- Residual basal area goal: TBD

Area : Trees/Acre & BA/Acre

1/13/2023

10:43 AM

PAGE 1

g_FOREST NAME Stoddard Cruise 1.10.23

g_FOREST CODE

g_CRUISE DATE

COMPARTMENT NAME

COMP ID

COMP ACREAGE

1

1

43.2

Area : 1

AREA ACRES

OF STATIONS

DBH

TREE COUNT

TREES PER ACRE

BA PER ACRE

34.97

6

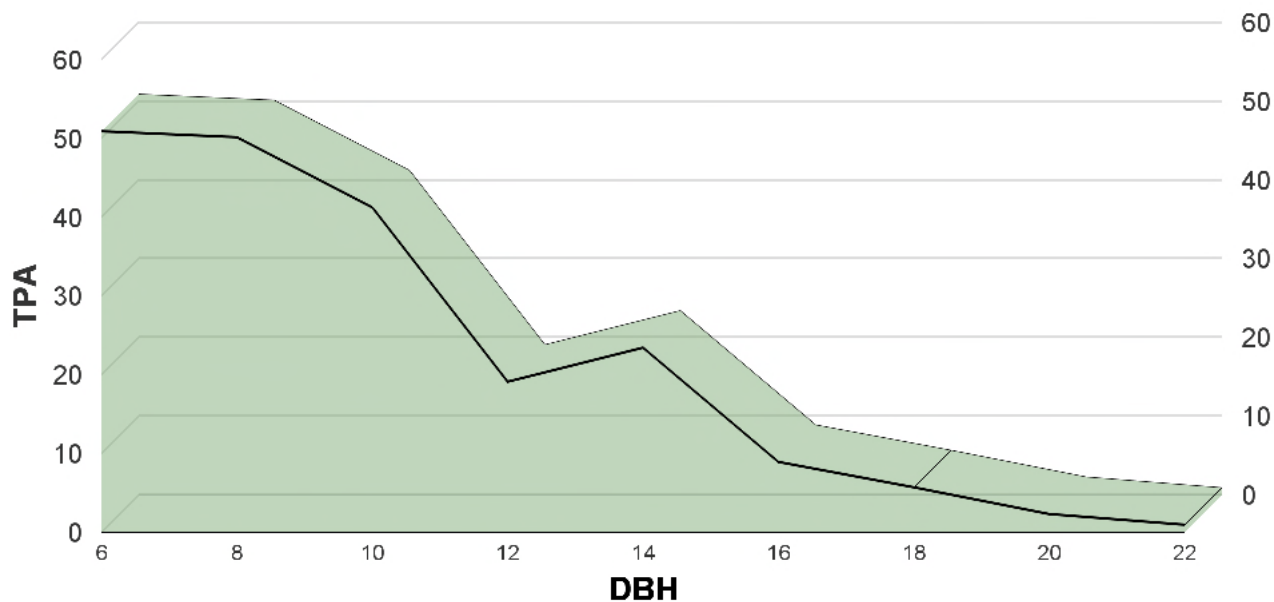
6	4.0	50.9	10.0
8	7.0	50.1	17.5
10	9.0	41.3	22.5
12	6.0	19.1	15.0
14	10.0	23.4	25.0
16	5.0	9.0	12.5
18	4.0	5.7	10.0
20	2.0	2.3	5.0
22	1.0	0.9	2.5

TOTALS FOR AREA 1:

202.7

120.0

Area 1 - Trees per Acre by DBH



1, gradually growing sparser uphill. Northern hardwood and early successional species can be found throughout the rest of the stand, down to Route 100; these have a diverse range in diameter, with some white ash reaching up to 20 inches, and red maple being around 10-12 inches.

There is observable decline in the health and vigor of most white pine stems in this stand. Some stems 14-16” are dying or dead. Most of this pine is weevilled, having made it susceptible to comorbidities over the years. Vigor among younger pine poles is also somewhat questionable on this site. Ash and other hardwood species are not exceptional in timber quality but appear sturdy overall. Some large legacy hardwoods were observed in passing and provide habitat and mast to local wildlife. A significant portion of this stand falls under a deer wintering area; signs of other wildlife, like porcupine, have been spotted in the pine areas. No rare, threatened, or endangered species were observed on the ANR Atlas.

The sole access from Route 100 described in Stand 1 lies through this stand; the trail runs parallel to the highway at a moderate slope, going southbound, before deviating east into the stand and onto the old landing site.

Stand 2 Regeneration Data			
Seedlings/Acre	726	Saplings/Acre	415
Red Maple	29%	White Ash	50%
White Ash	29%	Other Hardwood	50%

MANAGEMENT OBJECTIVES and SILVICULTURAL TREATMENTS

Growth is being prescribed to allow hardwood species’ target diameters to be reached.

Target DBH: 18” for hardwoods

Cutting Cycle: 20 years

Scheduled activity: Growth

Residual basal area goal: TBD

TREE COUNT TREES PER ACRE BA PER ACRE

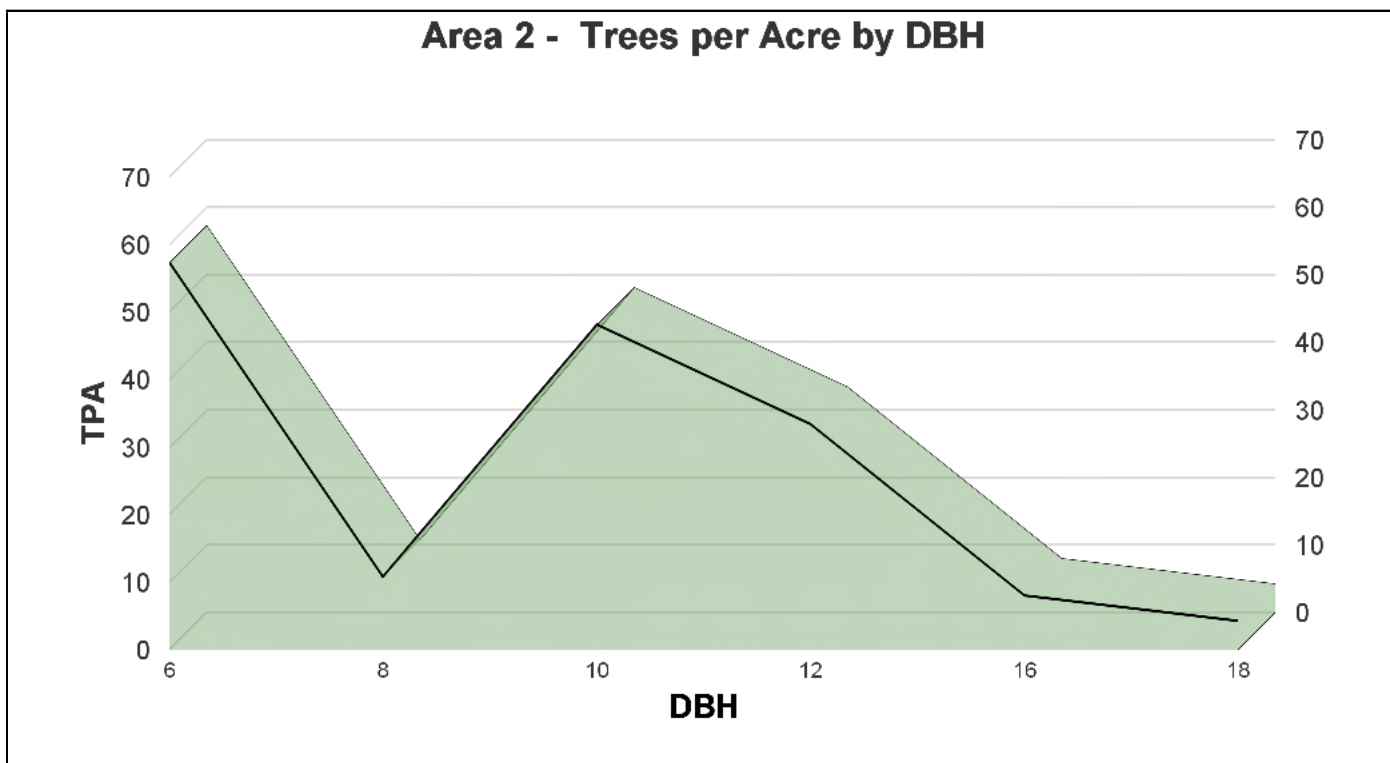
Area : 2

AREA ACRES 8.23 # OF STATIONS 4

DBH	TREE COUNT	TREES PER ACRE	BA PER ACRE
6	3.0	57.3	11.3
8	1.0	10.7	3.8
10	7.0	48.1	26.3
12	7.0	33.4	26.3
16	3.0	8.1	11.3
18	2.0	4.2	7.5

TOTALS FOR AREA 2: 161.9 86.3

Area 2 - Trees per Acre by DBH



MANAGEMENT SCHEDULE

Stand Number	Activity
1	Growth
2	Growth

2033 Update forest management plan.

2023-2033 File Forest Management Activity Report prior to February 1st of each year, if activity has taken place.

Footnote: Specific harvest dates are required by statute to be in the management schedule. In reality, the statute also contains a flexible window of plus or minus three years surrounding any given date to accomplish the prescribed treatment.

GLOSSARY

ANR Atlas – An online visual interactive atlas prepared by the VT Agency of Natural Resources.

Basal Area – The cross-sectional surface area of a tree stem at 4.5 feet. Basal area per acre (BA/A) is the sum of all stems on an acre. A measure of stand density and relative stocking expressed in square feet.

Board Foot – The volume of a piece of wood 1 inch thick 1 foot wide and 1 foot long or its equivalent. Woodlot volumes are commonly expressed in thousand board feet (MBF).

Cord – A measure of volume of firewood or pulpwood equal to 128 cubic feet of wood, air, and sometimes debris, commonly stacked in piles 4 feet by 8 feet.

Cruise – A survey of a forest area to determine the number, size, and species of trees and other facts relevant to forest planning.

DBH – Diameter Breast High – the diameter of a tree outside the bark measured at 4.5 feet above the ground.

Deciduous – Not persistent; leaves fall in autumn or trees having leaves of this type.

Entry - A forest stand is said to be entered anytime cutting or other silvicultural activities, such as timber stand improvement, occurs there.

Evergreen – Remaining verdant, as many coniferous trees.

Even-aged Management – Any system of stand treatment which maintains one age class in the featured stand. A site can be occupied by more than one even-aged stand at a time.

Hardwoods – Broad-leaved deciduous trees. Wood of these trees, with a few exceptions, is harder and stronger than the wood of the softwoods. Northern hardwoods refers to a timber type which consists of a combination of the following species: sugar maple, yellow birch, and American beech. Other species such as red maple, paper birch, and ash are common associates.

High Grading – The cutting of the biggest and best trees in a stand, leaving behind the inferior trees to grow and reproduce.

Increment Boring - A procedure in which a core of wood is taken from a tree to determine age, soundness, and radial growth.

Mast – Generally food for animals that has originated from trees. Hard mast refers to acorns, beech nuts, and other seeds. Soft mast usually refers to fruits, such as apples.

M.S.D. – Mean stand diameter.

Overstory - Trees found in the main canopy which receive some amount of direct sunlight taken as a unit.

Poles, Poletimber – Trees 4 to 10 inches at DBH.

RT&E – Rare, threatened and endangered species.

Regeneration – Seedlings and saplings that will replace removals. If present prior to any cutting, the status is described as advanced regeneration.

Saplings – Trees 4.5 feet tall and taller, and less than 5 inches DBH.

Sawtimber - Trees 11 inches and greater in DBH that are suitable for manufacture into lumber.

Seedlings – Trees less than 1 inch DBH and less than 4.5 feet tall.

Selection System - A method of harvest cutting in which individual trees or groups of trees are selected for cutting, used in uneven-aged management.

Shelterwood – An even-aged system of regenerating that removes the overstory in a series of two or three harvests spaced appropriately over time.

Silviculture – The art and science of manipulating the forest for the benefit of people. Benefits may include timber, firewood, wildlife, maple syrup, aesthetics, etc.

Site Index - An expression of soil productivity based on height and age of the trees.

Softwoods – Coniferous or needle-leaved trees. The most common of these in Vermont are spruce, balsam fir, hemlock, and white pine.

Stand - A contiguous group of trees sufficiently uniform in species, size, and condition to be recognized as a unit.

Stem – Synonym of tree.

Stocking - A term describing the density of a stand with respect to diameters and the number of trees present.

T/PA – Trees per acre.

Understory – Vegetation found on the forest floor which usually does not exceed 3 inches in diameter or 30 feet in height.

Uneven-aged (All-aged) Management - A system which has as its goal the creation of at least three size classes on a site. Every cut is designed to include regeneration as a result.

Update - A re-evaluation of a parcel of land under forest management. This usually involves re-cruising the property to determine the effects of activities, growth, and time.

USE VALUE APPRAISAL PARCEL DATA ENTRY FORM

new update¹ amendment² change of ownership

*****FP&R COUNTY FORESTER USE ONLY*****

Parcel ID For Data Entry (by state) # _____, _____
 Year of Plan _____

Year of Entry _____
 Year of Last Inspection _____

- 1) Landowner Name (last name, first name) Stoddard Land Company, LLC.; Pace, Brooks
- 2) Landowner Address (Street, PO Box) 285 Pinyon Hills
 (Town) Dammeron Valley (State) UT (Zip Code) 84783
 Phone Number (435) 680-2295 Email Address _____
- 3) Town That Parcel Is In Warren 4) Total Forestry Acres in Parcel 43.20 (Grand list acreage, minus active agricultural and open land and exclusions)
- 5) Plan Preparer (last name, first name) New England Forestry Consultants, Inc. 6) Previous Owner (last name, first name) _____
- 7) SPAN 690-219-11550
- 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	34.90	U	II	12	9.8	120	58	12	N/A
2	8.23	U	I	12	9.4	86	34	12	N/A

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).

- 9) No activity – (identify stand # and reasons) 1, 2 - Growth needed
- 10) Management Activities – other (identify stand #) _____
- 11) Stand Types – other (identify stand #) 1 - Hemlock/Hardwood; 2 - White Pine/Hardwood
- 12) Amended prescriptions – (identify stand #) _____

STAND TYPES	CODE #
aspen and/or white birch	01
white pine, red oak	02
white pine	03
hemlock	04
sugar maple	05
beech, birch, sugar maple	06
beech, red maple	07
spruce	08
spruce/fir	09
pioneer species	10
mixed wood (25%-65% softwood)	11
other (identify other in section 11)	12
ESTA	13
open	14
significant wildlife habitat	15
special places and sensitive sites	16
miscellaneous	17

MANAGEMENT ACTIVITY CODES (if one of the following choices reasonably describes the planned management activity, use it. If not, use #13 other and describe the management activity in Section 10. Note these descriptions are for choosing codes only; they are not the silvicultural standards).

1. Non-commercial forest stand improvement

EVEN-AGED MANAGEMENT

2. Intermediate thinning
3. Shelterwood cut
4. Overstory removal cut
5. Clearcut
6. Progressive clearcutting

UNEVEN-AGED MANAGEMENT

7. Single Tree Selection
8. Group Selection

MISCELLANEOUS CHOICES

9. Salvage cut
10. Sugarbush management
11. Species conversion
12. No Activity
13. Other
14. Crop Tree Release
15. Invasive Species Control