Massachusetts Department of Conservation and Recreation Division of Water Supply Protection, Office of Watershed Management Forest Management Project Summary

Project Title:

DWSP Harvest Permit Number: 5301 DWSP Proposal ID: WA-21-232

DCR Forest Cutting Plan File Number: 241-33986-23

Site Information

Watershed: Wachusett Town(s): Princeton

Acres: 59.3

Nearest Road: Houghton Rd. Natural Heritage Atlas overlap?:No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine/hardwood, mixed hardwood Area of Critical Environmental Concern (ACEC)?: No

Soils: Montauk-Scituate-Canton, Paxton and Woodbridge tills

Wetland Resources: An intermittent stream flows from north to south along a bench in the

topography in the middle of this sale area.

Vernal Pools: None

Harvest Information

Harvest Start Date: 9/6/2022 Harvest End Date: 12/12/2024 Number of Wetland Crossings: 3 Number of Stream Crossings: 1

Best Management Practices Applied

Stream Crossings: SC-1 will be bridged or poled depending on conditions.

Filter Strips: No cutting will occur in the filter strips.

Wetland Crossings: The wetland crossings will be corduroyed. Harvesting in Wetlands: No harvest in wetlands will occur.

DWSP Forester supervising this harvest

Name: Greg Buzzell

Forester License number: 025 Phone number: 774-261-1841 Email: greg.buzzell@mass.gov

Narrative

General Description/Forest Composition/History

This property was acquired in 1996 and was previously owned by U.S. Farms Inc. The land was managed by Forester Joe Lee between 1978-1996. Just before the property was purchased in February of 1996, Joe Lee oversaw a shelterwood harvest that covered a larger portion of U.S. Farms land and only a couple sections of this specific area. The harvest resulted in some small stands of young mixed hardwoods and other areas with very advance hardwood and pine regeneration under a mature canopy. There are also sections of interfering mountain laurel on the drier sites, while witch-hazel is more prevalent along the stream. Some sections have no regeneration including areas with mature hemlock which is slowly dying or has died from the hemlock wooley adelgid. White pine is the dominant species within the area and is of fair quality with a lot of multi-stemmed or burly trees. The remaining species on the site are red oak, white oak, black oak, white ash, elm, paper birch, black birch, yellow birch, bigtooth aspen, hemlock, American beech, hophornbeam. Blue beech and black gum are along the stream with pitch pine on the hilltop. Pine snags are prevalent on this site with no stick nests noted. There are several uprooted trees down along the Stillwater River. The site conditions are variable with dry uplands and benches with leaky hillsides followed by very damp lowlands. The age structure is as follows; 0% 0-20 years old, 4% 21-40 years old, 10% 41-60 years old, 2% 61-80 years old, 84% 81-100 years old and 0% >100 years old.

Site Selection

The ideal watershed protection forest is one which best serves the function of the land as a producer of high quality drinking water in both short- and long-term. This forest must be vigorous and diverse in tree species and ages, be actively accumulating biomass and actively regenerating. Such a forest will be ideally suited to be resilient to and quickly recover from small- and large-scale disturbances such as diseases, insect infestations, ice storms and hurricanes.

Silvicultural Objectives

With advance regeneration in some areas and small pockets of a second age class established, this would be an excellent opportunity to create a new well-defined age class within this forest. This will be done by releasing the advance regeneration in some areas and expanding/defining a younger age class around these current small openings. To that end, 7 openings in the overstory will be created, giving the space and light the young trees need to continue to grow and thrive. The openings cover a combine 8.5 acres and range in size from 0.4 to 1.95 acres. Partial overstory removal will happen in 3.3 acres in the south east corner of the sale area. This area has a thick mountain laurel understory so the goal will be to damage the mountain laurel and encourage the establishment of young trees.

Cultural Resources

This operation was reviewed by the DCR Archeologist. No known or significant historic or archeological resources are currently documented in the project parcel. Any cultural resource features located before or during the forestry project will be protected according to guidelines set forth in the current DWSP's Land Management Program and indicated on harvest maps accordingly.

Rare or Endangered Species

Thoro aro n	o critical	hahitats o	r known	rare or	endangered	nlants or	wildlifa
THEIR AIR H	io ci iticai	Habitats 0	I KIIOWII	iaie oi	enuangereu	piants or	wiiuiiie.

Figures

Figure 1. Forest Cutting Plan

Figure 2. Maps of harvest area showing approximate boundary, proposed openings and other features

Figure 3. General locus map showing the location of the proposed timber harvest

Figure 4. Pre-Harvest Photographs, A-B

Figure 5. Post-Harvest Photographs, A-B

Forest Cutting Plan and 'Notice of Intent under M.G.L.

and 'Notice of Intent under M.G.L. Chapter 132 – The Forest Cutting Practices Act, 304 CMR 11.00

(Effective Date: 1/1/04)

	_		
For DCR U	se Only:		
File Number) <u>g (-35926-</u> 23	Caro No.	<u></u>
Date Recid	7 <u>an an</u>	Nat. Hert.	/_N0_
Partiest Start	<u> </u>	Nat. Hert. Imp	. <u>~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~</u>
River Basin	<u>NASHUA</u>	Pub. Dr. Wat.	WACHUSETT"
Gen, Obj.	<u>L</u> T	ACEC	<u>N</u>

Location	on			Landowner			
Town Princeton		Lat 530	<u> </u>	Name DOR/DWSP/OWM Wacjusen/Sudbury _			
Rasé <u>Houghton Ro</u>	ai			Mailing Address _80 Beaman St.			
Acres 36.2	Proposed Sta	rt Dato	7/15/22				
Vol. MBF <u>-82.8</u> Vo	l. Cas. <u>136</u>	Vol. Ten	s <u>68</u>	Town, State, Zip West Hosyls <u>ing, MA</u> 01589 .			
Plan Preparer							
N D	·			Hkt. Stumpage Value			
Name Russell Wi				Licensed Timber Harvester**			
Address 185 Bennia	L1 St.						
T 6	5			Name Will be provided when snown			
Town, State, Zip West				Address			
	92-7806 Ext 318			Town, State, Zip			
Type of Preparer. Mass		r		Phone			
*Mass, Forester License				Mass, Lic., Harvester # ** The mitanaton may be supplied after the plan is approved by tefor			
*Required for land under	r Ch61, Ch61A or	Forest St	townodship	work hear is			
Stream Crossing	s			Harvesting in Wetlands			
Indicate Instation on map	SC-1 SC-2	SC-3	8C-4	free rule focultion on map			
Type of Crossate	DRUC	SC-3	M9				
	» ST	1		Process Type (see ug 2)			
Existing Structure 1945-	MIC MIC	1		Acres to be Harvested Res/d. Baset Auen			
	vii		!	(×50%%) ;			
Bank Height (B)		 -	·- ·-·—· ·				
Stabilitation				Camila Farata Camara			
Watland Crossing	gs			Service Forester Comments			
Endicate function on map	WC4 WC2	WC-3	WC4				
Langth of Crossing	AØ 301	29		REASE NUMBER OUR SERVICE PORSIDES			
Mitgatioa	OT OT	07		AT START OF HARVETT OPERATION			
S abilitzation	CO CC	90	· .	"SKYD ROND) GMC CROSSING COCATIONS			
Filter Strips				ମ୍ୟର - ଫ୍ରାଲର ବ୍ୟକ୍ତ			
Indicate (cextise on map	FS-1 FS-2	FS-3	Г5-4				
Width (50, .00 , or VA)	VA						
	⊒ ∵•		1 1				
Type of Property Type of Co	overno Stale votron	Milip	ion Tun	r of Godom Nut -			
CF Mattrille Fer C. C. Oulk CH Lie, Len, Har SR Grad TB Titale Buyon FO Feel C Landowyce FO Feel	en NF Sacc ge MU Muleo C O Condo	FR DR	Frazen IV Dr; St Odko MOJ	(c) Applicant mish provide BDB, with all recovers information short before plan may be approved and curting may begin the 1. Some found yield with a sign partial form from might all Grave. Personal or ferminer partial provide an ferminer provide and control in a personal formation.			

Products to be Harvested*

Species	Mb@Cd:	\$	Mbf/Cds
White Pine	71	Red Maple	
Red Pine		Sugar Maple	
Pitch Pinc		Red Oak	3.4
Hernlock		Black Oak	8.4
Spruce		White Oak	
Other Sftwd.		Other Hdwd	
White Ash		Total Mbf	82.8
Becch		Cordwood (Cds)	136
White Birch		SW Pulp (Tons)	68
B & Y Birch		HW Pulp (1ons)	
Black Cherry		Chips (Tons)	

*Note: Volumes and values indicated in the Plan are as reported by the plan preparer and have not been independently varified by the service forester upon approval. Mbf = thousand board $ti_{\rm eff}$.

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WIL	374		
Acres	49	19		
Lurgiowner Chjective	LT	LT		
Designation of Trees	CT	cr		
Type of Cut	SH	SII		
Source of Regeneration	AD/SE	AD/SE		

pg 1 of 5

	B & Y Biren Black Cherry	HW Pulp (10ns) Chips (Tuns)	S	Source of Regenerat	cion AD/SE ADA	SE.				
	Landowner Si	gnature	_	-						
	which will remain; the	The most important information on a cutting plan is the Landowner's objective, as this will determine which trees will be harvested and which will remain; this decision will also determine the future condition of the forest for decades to come. After having read the Massachusetts Fores: Cutting Plan Information Sheet on page one, indicate your objective by checking the appropriate box below.								
Landowner	Planned managem following objective income, enhance w	ing-term Forest Managem ent of the forest to achieve of est produce immediate and siddlife habitat, improve rec iter quality, or produce fore								
	I (we) hereby certify I (we) certify that I (valuaters of record with I (we) understand that	that I (we) have the legal at we) have notified the Conse thin two bundred feet of the in the volumes and values (4	cthority to earry out to evation Commission area to be harvested Ch61 only) in this pla	and am aware of my (cur) management options. the operation described above, a in the town in which the operation is to take place and the d. lan have not been independently verified by the service ferester ter or his/her agent if the final figures differ from those reported.						
	Kelley F.	reda_ ren(s)	7/36/35 Date							
	Determination	n and Status 🚜	-33986-2	3 Final Repor	rt and Commer	nts				
ester	Appro-	ved D.sappreved Ex	oires 29 24	I hereby certify that the aftere described Forest Cutting Plan and all relevant statutes have been substantially complied with.						
Service Forester	Sprange of Services to	حر erester/Director's Agent	Signature of Service Forester/Director's Agent Date							
Servic	Extension 1	2 Expires								
	Arrandinant]	. Dis I App 2 Dis 2								
Codes	WII WP/Mixel BC WO WP/Cx: BB RP Red Pine OU	HereHibad RM Red Maple Block Charly BE Beach Bee-Bin/Map SF Spruce-Tin	Designation of Trees CT Con Pres LE Lesse Tree SB State Boundary OT Other Lancower Objective LT Long term Mgs	Type of Cur SJI Shelterwood ST Sest Tues CC Clear Cur SE Selection SA Solvage SN Surfaction	Interstudiate Harvasta: CC Commercia Thin NO Scott Prin Non-Standard Systems * 40 Highgrade* DL Diameter Limit*	Searca of Reprie AD Advince. SE Natural Seed Pt. Plant (X) Copyres DS Direct Seed OT Other				

Forest Cutting Plan

Narrative Page

Use only if further explanation is required of information on pages one or two or if "other" was used in any category.

Landowner: DOR DWSP LOWIE PRINCETON_

Pile Number <u>241 - 33</u> 986 - 26

Sitviculture

Objectives

Other

All haul roads and crossings are pre-existing,

One stream crossing will occur within the second wetland crossing. The steam is an intermittent small stream covered by rocks in an otherwise bare mod sequen, The rocks maintaining the streams integrity will be projected through the project. The first wetland crossing is on the transcontinental underground cable route and will be condumoved accordingly. The third wetland crossing is 20° past the second worland crossing and the shortest length of the three, it will also be corduroved.

In order to release advance regeneration, 7 openings in the overstory are being created, covering 8.5 acres. These openings range from .4 acre to 1.95 acres in size with an average of 1.2 acres. They are welldistributed throughout the area taking advantage of the advance agreementation comprised of white pine, oaks and other hardwoods.

Thinning will gaper in opp area in between the openings covering about 3.3 acres. The thinned area has dense mountain laurel and little to no regeneration.

the main objective of this operation is to diversify the age structure of the logget by removing the overstary in patches thereby releasing the advance regeneration. The current age structure is limited with an insufficient component of young forest.

A secondary objective is to create some ground disturbance and synlight in the linguistic where regeneration can then gake hold and remaining trees can FT in with more space.

Large pines marked G are to be gigdled. Large pines marked CL are to be out and left.

FS-1 & FS-2 No cutting will take place,



COMMONWEALTH OF MASSACHUSETTS

Department of Conservation and Recreation Division of State Parks and Recreation







FOREST CUTTING PLAN CERTIFICATE

Post this in a conspicuous place within the area in which the harvesting operation is to take place.

WEST BOYLSTON in accordance with the (Address) This certifies that DCR - DWSP (Name of Owner)

provision of M.G.L. Chapter 132, Section 40-46, filed in CLINTON

with the Dept. of Conservation

and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the

HOWENTON ROW. (LOT 5504)

DCR Phone No. (657) 406 - 075 Approval Date SIA 22

ISSUED BY:

Division of State Parks and Recreation Priscilla E. Geigis, Director

Figure 2. Maps of harvest area showing approximate boundary, proposed openings and other features

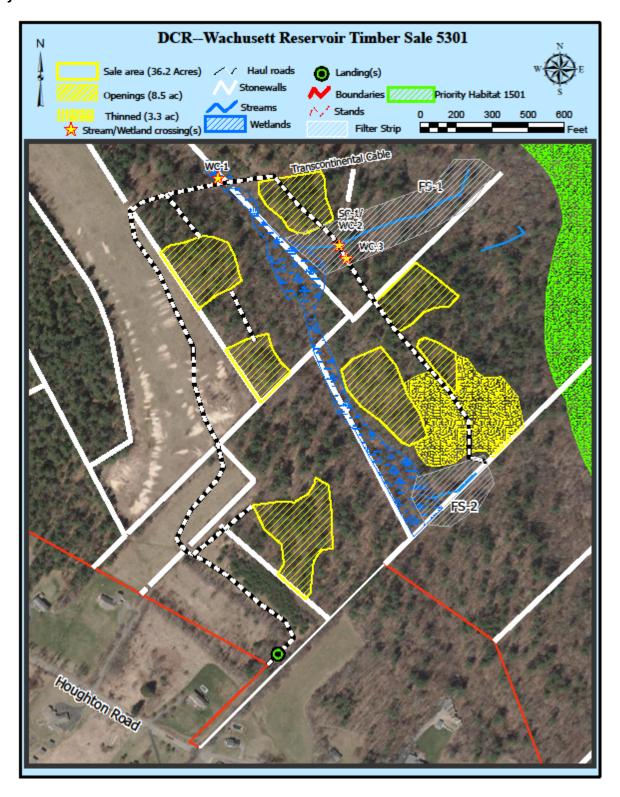


Figure 3. General locus map showing the location of the proposed timber harvest

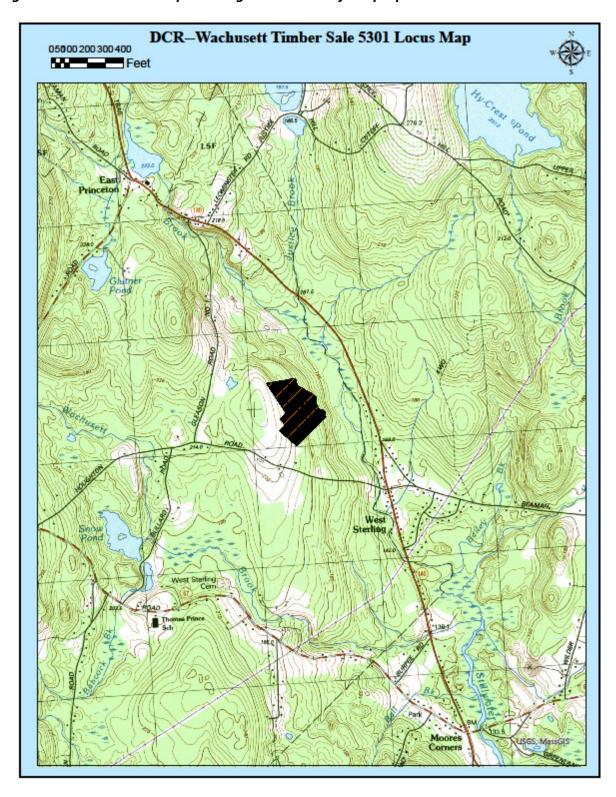


Figure 4. Pre-Harvest Photographs, A-B



A. Looking north within a 1.25-acre overstory removal openings. There is good pine and hardwood regeneration in place that needs more sunlight in order to continue to thrive.



B. Looking southerly through the smallest opening of 0.4 acres.

Figure 5. Post-Harvest Photographs, A-B



A. An area of overstory removal with trees of various sizes having been retained.



B. Another area where the overstory has been removed, creating an area of young hardwood forest.