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

Project Title: Lot 5287

DWSP Harvest Permit Number: 5287 DWSP Proposal ID: WA-20-257 DCR Forest Cutting Plan File Number: 241-24742-20

Site Information

Watershed: Wachusett Town(s): Princeton Acres: 16 Nearest Road: Bullard Road Natural Heritage Atlas overlap?: No Public Drinking Water Supply Watershed?: Yes Forest Types: White pine/oak, White pine Area of Critical Environmental Concern (ACEC)?: No Soils: Hinckley sandy loam Wetland Resources: Babcock Brook borders the area to the south and Snow Pond to the north. Vernal Pools: None

Harvest Information

Harvest Start Date: 3/25/2020 Harvest End Date: 6/30/2023 Number of Wetland Crossings: None Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings: There are no stream crossings. Filter Strips: No harvesting will occur in the filter strip. Wetland Crossings: There are no wetland crossings. Harvesting in Wetlands: There is no harvesting in wetlands.

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 forest is identified by its flat topography that slopes down on all sides gradually. It is a welldrained site with a potentially high-water table as evidenced by the highbush blueberry. The dominant species is white pine and red oak followed by black birch, black cherry, black oak, sugar maple, red maple, striped maple, American beech, and paper birch. The sugar maples are on the southwestern slopes and not on the flat hilltop. The white pine is of the best vigor on the site and the oak is of decent quality, although smaller oaks are now dying back. Fortunately, white pine is regenerating well and is for the most part spread out throughout the lot. There is some mixing of oak regeneration on the site as well as areas with chestnut sprouts and hemlock regeneration. Mountain laurel is present in small veins and patches throughout the site and becomes thick on the northern slopes where the hemlock is thinning out leading down to Snow Pond.

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 good advance regeneration on much of this area, openings will be made to release advance regeneration. The focus of management is on the flat hilltop and the gently sloped areas adjacent to it. Three openings totaling 2.7 have been marked with one of the openings being 2.0 acres in size. These openings specifically targeted areas with good regeneration present. Good white pine regeneration has been especially targeted as pine is better suited to this site, although a mix of hardwoods including oak will be released as well. A thinning of the white pines will occur on a 1.7 acre area adjacent to the openings.

Cultural Resources

There are no known historic and archaeological resources associated with this site. If any features are uncovered before or during the harvest, they will be protected according to guidelines set forth in the Comprehensive Land Management Plan.

Rare or Endangered Species

There are no critical habitats or known rare or endangered plants or wildlife.

Figures Figure 1. Forest Cutting Plan

Forest Cutting Plan

and Notice of Intent under M.G.L. Chapter 132 – The Forest Cutting FEB 2 7 2020 Practices Act, 304 CMR 11.00 (Effective Date: 1/1/04)

File Number	741.24743-2	OCase No.	/
Date Rec'd	2.27.2D	Nat. Hert.	NO 1
Earliest Start	3.13.00	Nat. Hert. Imp	NO
River Basin	NASUUA	Pub. Dr. Wat.	WACHUSETT
Gen. Obj.	LT	ACEC	NO

Location Lot 5287 Princeton Town Road Bullard Road Acres 16 Proposed Start Date 4/20 Vol. MBF 39.9 Vol. Cds. 61 Vol. Tons 58

Plan Preparer

nformation

Site I

Best Management Practices

Codes

Name Gregory S. Buzzell Address 180 Beaman Rd.

Town, State, Zip West Boyslton, MA, 01583

774-261-1841 Phone

Type of Preparer Mass. Licensed Forester

*Mass. Forester License # 25

*Required for land under Ch61, Ch61A or Forest Stewardship

Stream Crossings

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing				
Existing Structure				
Type of Bottom				
Bank Height (ft)				
Stabilization				

Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing				
Mitigation				
Stabilization				

Filter Strips

Type of Preparer LF Mass. Lic. For.

LO Landowner OT Other

TH

TB

Lic. Tim. Har Timber Buyer

ndicate location on map	FS-1	FS-2	FS-3	FS-4
Width (50', 100', or VA)	VA	VA		

Stabilization

SE Seed

MU Mulch

CO Corduroy ST Stone

Type of Crossing

BR Bridge

OT Other

Ford FO

CU Culvert

PO Poled

Landowner

Name DCR/DWSP/OWM Wachusett/Sudbury Mailing Address 180 Beaman St.

Town, Star	te, Zip West Boylston, MA 01583	
Phone	608-792-7806	
Ch61	Ch61A Stew *Case #	
Est. Stump	bage Value	

Licensed Timber Harvester**

To be supplied when known. Name

Address

Town, State, Zip _ Phone

Mass. Lic. Harvester # _

**This information may be supplied after the plan is approved, but before work begins.

Harvesting in Wetlands

Indicate location on map	HW-1	HW-2	HW-3	HW-4
Forest Type (see pg 2)				
Acres to be Harvested				
Resid. Basal Area (>50%?)				

Service Forester Comments

Applicant must provide DCR with all relevant information before plan may be approved and cutting may begin. Some forestry activities, such as prescribed burning and pesticide or fertilizer application may require additional permits. Consult MA Forestry BMP Manual for further information.

HB Hay Bales OT Other If Other (OT) is used in any category an explanation must be given on an attached narrative page

Type of Bottom

ST Stony MU Mud

LE Ledge

GR Gravel Other

Mitigation

DR Dry

OT Other

FR Frozen

pg3 of 5

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	37.3	Red Maple	
Red Pine	-	Sugar Maple	
Pitch Pine		Red Oak	2.6
Hemlock		Black Oak	
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	39.9
Beech		Cordwood (Cds)	61
White Birch		SW Pulp (Tons)	58
B & Y Birch		HW Pulp (Tons)	
Black Cherry		Chips (Tons)	1

*Note: Volumes and values indicated in the Plan are as reported by the plan preparer and have not been independently verified by the service forester upon approval. Mbf = thousand board feet.

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WO	WP		
Acres	12.5	3.5		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	SH	SH		
Source of Regeneration	AD	AD		

Landowner Signature

11 0

Forest Products

Landowner

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 Forest Cutting Plan Information Sheet on page one, indicate your objective by checking the appropriate box below.

🔀 LT – Long-term Forest Management

Planned management of the forest to achieve one or more of the following objectives: produce immediate and maximize long-term income, enhance wildlife habitat, improve recreational opportunities, protect soil and water quality, or produce forest specialty products.

ST - Short-term Harvest

Harvest of trees with the main intention of producing short-term income with minimal consideration given to improving the future forest condition, which often results in a forest dominated by poor quality and low value specie

alan la a

I (we) have read the Massachusetts Cutting Plan Information Sheet, and am aware of my (our) management options.

I (we) hereby certify that I (we) have the legal authority to carry out the operation described above.

I (we) certify that I (we) have notified the Conservation Commission in the town in which the operation is to take place and the abutters of record within two hundred feet of the area to be harvested.

I (we) understand that the volumes and values (Ch61 only) in this plan have not been independently verified by the service forester upon approval and will report final values and volumes to the Director or his/her agent if the final figures differ from those reported.

Signature of Landowner(s)			Date	000	
Determi	ation and Status	241-24743-20	Final Repo	rt and Comment	S
Cutting Plan	Approved Disapproved	Expires	I hereby certify the and all relevant sta	at the afore described Fore atutes have been substantia	st Cutting Plan ally complied with.
Signature of S	Prvice Forester/Director's Ag	gent <u>3-9-202</u> 0 Date	Signature of Servi	ce Forester/Director's Age	ent Date
Extension	1 2	Expires Ser. For. Ints.			
Amendment	App 1 Dis 1 App 2	Dis 2			
Forest Types WP White Pin WK WP/Hem WH WP/Hdwc WO WP/Oak RP Red Pine SR Red Spruc	HK Hemlock OM HH Hem/Hdwd RM BC Blck Cherry BE BB Bee/Bir/Map SF OH Oak/Hdwd SM o OR N Red Oak PP	Designation of Trees Mixed Oak CT Cut Tree Red Maple LT Leave Tree Beech SB Stand Boundary Spruce/Fir OT Other Sugar Maple Landowner Objective Pitch Pine LT Long-term Mg	Type of Cut SH Shelterwood ST Seed Tree CC Clear Cut SE Selection SA Salvage t, SN Sanitation	Intermediate Harvests: CT Commercial Thin NT Non Com Thin Non-Standard Systems:* HG Highgrade* DL Diameter Limit* OT Other*	Source of Regeneration AD Advanced SE Natural Seed PL Plant CO Coppice DS Direct Seed OT Other
-	If Other (OT) or a non-sta	ndard system is used an explan	nation must be given o	on attached narrative pag	ge pg 4 of 5

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: <u>DOR-DWSP</u>
Town: Princeton
File Number: <u>241-24743-20</u>

BMPs	There will be no cutting taking place within FS-1 and FS-2.
Silviculture	In order to release advance regeneration, 3 openings in the overstory are being created, covering 2.7 acres. These openings range from 0.25 to 2.1 acres in size with an average of 0.9 acres. They are placed up on the plateau within the sale area focusing on where the advance regeneration is well established. The only partial cutting between the patches is the 1.7 acre area as shown on the map.
Objectives	<u>The main objective of this operation is to diversify the age structure of the forest by removing the overstory in patches thereby releasing the advance regeneration. The current age structure is limited with an insufficient component of young forest.</u> <u>A secondary objective is to help establish regeneration where it is lacking by conducting a thinning.</u>
Other	The landing on Bullard Road and access into the woodlot will be very tight and need careful attention prior to the initial layout.

provision of M.C.L. Chapter 132, Section 40-46, filed in with the Dept. of Conservation and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the Building Jot. Building Jot.	Post this in a conspicuous place within the area in which the harvesting operation is to take place. This certifies that <u>bcc/busp/own</u> <u>w.Baylston</u> in accordance with the (Name of Owner) (Address)	FOREST CUTTING PLAN CERTIFICATE	dcr commonwealTH of Massachusetts File # 241-24743-20 Image: Book of the state Parks and Recreation Image: Book of the state Parks and Recreation
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Figure 2. Map 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-D



A. Landing location on Bullard Road in Princeton.



B. The overstory here is being removed to release the young white pine and hardwoods and give them the light and space they need to continue to thrive.



C. This group of white pine trees is being retained within the opening to provide structural diversity.



D. This area is being thinned to provide the remaining overstory trees more space.

Figure 5. Post-Harvest Photographs, A-C



A. An area of overstory removal with good regeneration and retention of white pines.



B. The overstory of primarily white pines where removed to give this more diverse understory the light and space they need to thrive.



C. This area was thinned to give the remaining trees more space and light.