

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

Project Title: Lot 5279

DWSP Harvest Permit Number: 5279

DWSP Proposal ID: WA-18-154

DCR Forest Cutting Plan File Number:

Site Information

Watershed: Wachusett

Town(s): Boylston

Acres: 35

Nearest Road: Scar Hill Road

Natural Heritage Atlas overlap?: Yes

Public Drinking Water Supply Watershed?: Yes

Forest Types: Mixed oak, White pine-oak

Area of Critical Environmental Concern (ACEC)?: No

Soils: The vast majority of this area is the Hinckley sandy loam.

Wetland Resources: The only mapped wetland is at the very bottom of the large kettlehole adjacent to the Boylston town well.

Vernal Pools: There are three vernal pools. Two are at the bottom of the large kettlehole in the north east section of the sale. The other vernal is located at the Boylston town well site.

Harvest Information

Harvest Start Date: 3/27/2019

Harvest End Date: 6/30/2021

Number of Wetland Crossings: None

Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings: There are no stream crossing.

Filter Strips: Some logging may occur at various locations either within the filter strip of the reservoir or the small intermittent stream on the east side of the working unit.

Wetland Crossings: There are no wetland crossings.

Harvesting in Wetlands: No harvesting 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

The far southeastern corner of this working unit was acquired in 1996. The rest of the area is old MWW property taken prior to the construction of the reservoir. This area was described as "Sproutland chestnut oak" on the taking plans. About half of the area was then planted in 1904 to white pines at 10'X10' on the cut-over sproutland and 5 foot by 7 foot on open portions. Today, much of the planted areas are white pine-oak stands and the unplanted sproutlands are either mixed oak stands on the flatter, drier sections or red oak stands on the steep slopes.

About half of this area has received treatment in the past. A small piece in the far southwestern corner was cut in 2000 and another operation took place in 1994 that cut in various parts of the working unit. Both of these operations were essentially establishment cuts or, on a small scale, the first removal cut in a shelterwood system. Either there was little to no advance regeneration when the cut was done, in which case regeneration has since become established or there was some advance regeneration which is now very well developed along with more becoming established since then.

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

Given the excellent level of advance regeneration present throughout working unit, openings will be made. Given the noticeably superior quality of the white pine compared to the oaks, white pine regeneration will be the focus of these openings although, of course, other species will be released along with the pine. Care will be taken to avoid unnecessary release or encouragement of the beech that is scattered throughout this area.

Outside of the openings, cutting will take place designed to continue and enhance the presence and dominance of white pine over the oaks.

Cultural Resources

None known.

Rare or Endangered Species

NHESP has determined that certain state-listed sensitive species or habitats may exist within the lot proposal area. To protect them from unnecessary disturbance, detailed information regarding affected species and their locations is not included in this report. DWSP will coordinate with NHESP and follow recommendations to protect these species during the proposed activity.

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-C
- Figure 5. Post-Harvest Photographs, A-B

Figure 1. Forest Cutting Plan

Forest Cutting Plan

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

JAN 29 2019

For DCR Use Only:

File Number 039-9742-19 Case No. _____
Date Rec'd 1-29-19 Nat. Herl. Yes/
Earliest Start 2-13-19 Nat. Herl. Imp. -
River Basin Nashua Pub. Dr. War. No
Gen. Obj. LT ACEC. No

In ALB Area

Site Information

Location

Town Boylston Lot 5279
Road Scar Hill Road
Access 41.2 Proposed Start Date 4/2019
Vol. MBI _____ Vol. Cds. _____ Vol. Tons _____

Plan Preparer

Name Gregory S. Huzzell
Address 180 Desano Rd.
Town, State, Zip West Boylston, MA, 01583
Phone 508-792-7806 Ext. 117
Type of Preparer Mass. Licensed Forester
*Mass. Forester License # 25
*Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR/DWSP/OWM Wachusett Sudbury
Mailing Address 180 Beacon St.
Town, State, Zip West Boylston, MA 01583
Phone 608-792-7806
Ch61 Ch61A Stew *Case # _____
Est. Stumpage Value _____

Licensed Timber Harvester**

Name To be supplied when known.
Address _____
Town, State, Zip _____
Phone _____
Mass. Lic. Harvester # _____
**This information may be supplied after the plan is approved, but before work begins.

Best Management Practices

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

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

Harvesting in Wetlands

Indicate location on map	IHW-1	IHW-2	IHW-3	IHW-4
Forest Type (see pg 2)				
Acres to be Harvested				
Rusid. Buffer Area (>50%)				

Service Forester Comments

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Stream
LF Mass Lic. For	OT Other	SB Sand	JK Juncos	LC Lodge
PH Lic. Tim Har	BK Bridge	ML Mulch	DR Dry	ST Stuck
TR Jimmie Inver	FC Ford	CO Coaling	OT Other	MU Mud
LO Licensed	PO Road	ST Stone		CR Cover
OT Other	OT Other	TD Tree Bark		OT Other
		OT Other		

Note:
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 4-MP Manual for further information.

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

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	28.7	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	6.7
Hemlock		Black Oak	12.0
Spruce		White Oak	0.8
Other Sfld.		Other Sfld.	
White Ash		Total Mbf	48.2
Beech		Cordwood (Cds)	110
White Birch		SW Pulp (Tons)	31
B & Y Birch		HW Pulp (Tons)	
Black Cherry		Chips (Tons)	

*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	OM	WO	OK	
Acres	18.2	10.6	7.4	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SH	SH	SH	
Source of Regeneration	AD	AD	AD	

Landowner Signature

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 species.

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 (Cds) 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

Determination and Status 039-9742 19

Final Report and Comments

Approved Disapproved Expires 1-29-20

Signature of Service Forester/Director's Agent: [Signature] Date: 2-15-19

I hereby certify that the above described Forest Cutting Plan and all relevant statutes have been substantially complied with.

Signature of Service Forester/Director's Agent

Date

Extension: Expires 7 Sec. For. Inc. 7

Amended: App 1 Dis 1 App 2 Dis 2

Forest Types				Description of Trees	Type of Cut		Source of Regeneration
WP White Pine	CC	Hemlock	OM	Mixed Oak	LT	Shelterwood	AD Advance
WK White Pine	HF	Iron Pine	EM	Red Maple	LT	Seed Tree	SK Natural Seed
WJ White Pine	UC	Black Cherry	SH	Beech	SR	Clear Cut	PL Plant
WO White Oak	BD	Black Maple	SP	Spruce Fir	OT	Other	CO Coppice
AP Red Pine	SH	White Pine	SM	Sugar Maple	LT	Long-term Mgt	DS Open Seed
SR Red Spruce	OR	Red Oak	PL	Pitch Pine	ST	Short-term Har.	CT Other

*If Other (OT) or a non-standard system is used, an explanation must be given on attached narrative page pg 4 of 5

Forest Cutting Plan

Narrative Page

Landowner: DCE DWSP

Town: Boyiston

File Number: 039-9742-19

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

BMPs	<p><u>Only the most northerly patch cut is mapped as overlapping with the filter strip. However, no trees in the arborvitae hedge or white pines behind the hedge are being cut.</u></p>
Silviculture	<p><u>In order to release advance regeneration, 8 openings in the overstory are being created, covering 8.4 acres. These openings range from 0.3 to 2.4 acres in size with an average of 1.9 acre. They are well distributed throughout the sale area focusing on where the advance regeneration is well established. 2.1 acres are being partially cut in order to daylight white pines and remove low quality oaks and black birch.</u></p>
Objectives	<p><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 good advance regeneration. The current age structure is limited with an insufficient component of young forest. Management operations have happened in this area in the past and these have led to good white pine regeneration on this very dry site. The long term goal, along with having a more diverse age structure is to increase the proportion of white pine in these stands.</u></p>
Other	<p><u>NHESP Priority Habitat of Rare Species Polygon # 1414 does intersect this sale area. I did not include it in the map as the map would have been too cluttered and hard to read. It extends inland from the reservoir, roughly following the edge of FS-1.</u></p> <p><u>The interior forest roads will be used as forwarder haul roads.</u></p>

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

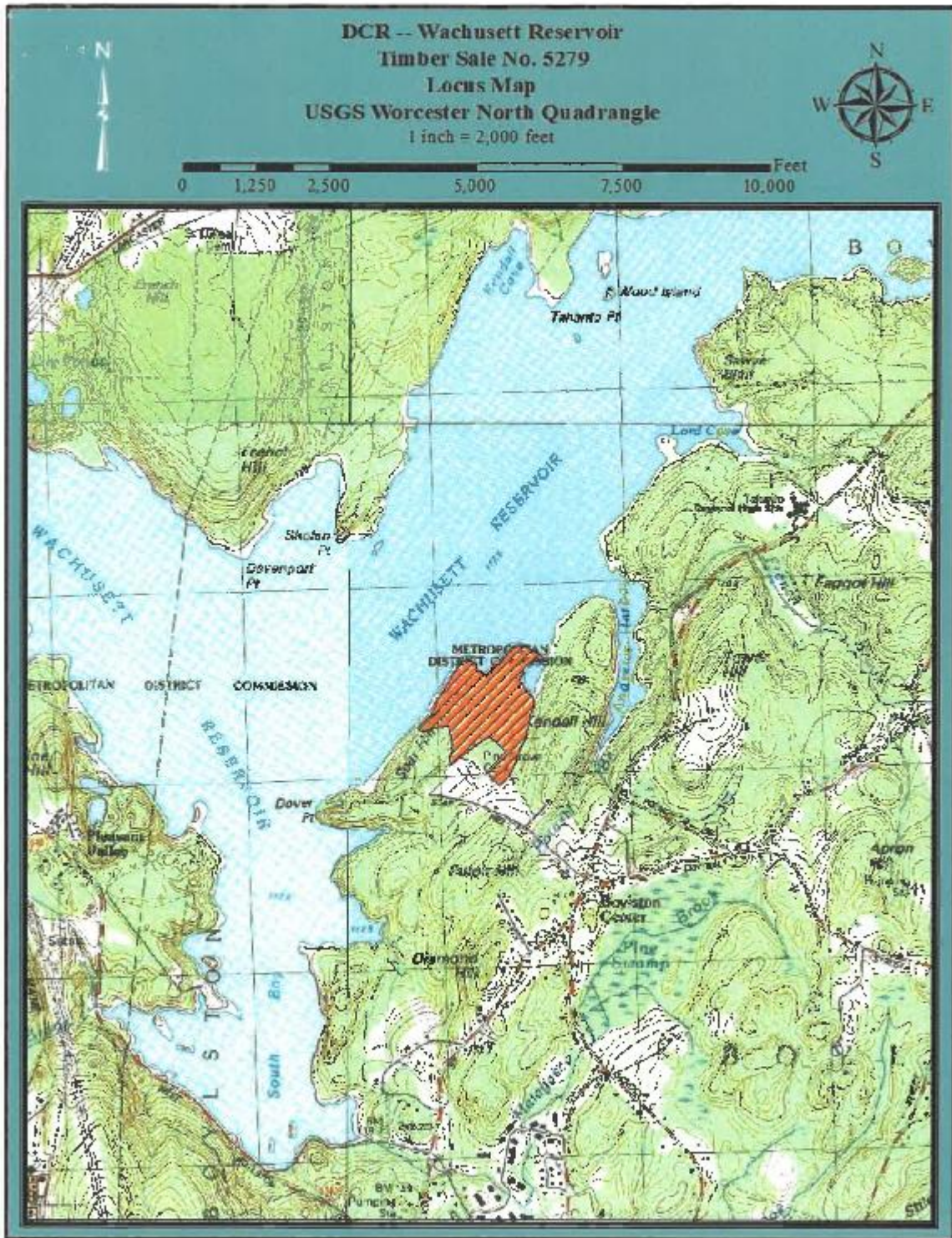


Figure 4. Pre-Harvest Photographs, A-C



A. Gate 14 access off Scar Hill road.



B. Opening with white pine retention and hardwood regeneration.



C. Boylston Water Dept building

Figure 5. Post-Harvest Photographs, A-B



D. Landing



B. Looking south into a 0.7-acre overstory removal opening.