

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

Project Title: Lot 5281

DWSP Harvest Permit Number: 5281

DWSP Proposal ID: WA-19-133

DCR Forest Cutting Plan File Number: 134-10879-19

Site Information

Watershed: Wachusett

Town(s): Holden

Acres: 44

Nearest Road: River Street

Natural Heritage Atlas overlap?: Yes

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine-oak; northern red oak

Area of Critical Environmental Concern (ACEC)?: No

Soils: The excessively drained soils are the Merrimac and Hinckley sandy loams. The poorly drained soil is the Limerick silt loam which is on the low areas near the Quinapoxet River.

Wetland Resources: Three small intermittent tributaries to the Quinapoxet river will need to be crossed.

Vernal Pools: None known.

Harvest Information

Harvest Start Date: 6/19/2019

Harvest End Date: 6/30/2021

Number of Wetland Crossings: None

Number of Stream Crossings: Three

Best Management Practices Applied

Stream Crossings: There are 3 stream crossings, all on the pre-existing B road and each has a culvert.

Filter Strips: There is no cutting in the filter strips.

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

The overstory is primarily comprised of red oak, white pine, white oak, black oak, red maple. There is also some hemlock scattered throughout with more on the slopes nearer to the Quinapoxet River. The hemlock is infested with the hemlock wooly adelgid and there is some mortality as a result. Most of this area was previously harvested in 1996 with the goal of encouraging the establishment of regeneration. This was largely successful. A regeneration survey shows that there is adequate regeneration in 52% of the plots along with marginal regeneration on another 22%. This advance regeneration is comprised primarily of white pine, red oak and black birch along with hemlock and red maple. Interfering levels of mountain laurel and witch-hazel were found in 7% of the plots.

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

Openings in the overstory are being made in order to release the advance regeneration. Given that the advance regeneration is well distributed throughout this area, openings are well distributed accordingly. These openings 8 openings total 8 acres and range from 0.5 to 1.8 acres in size. Opportunities were sought where good regeneration coincides with hemlock that is infested with HWA.

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-C

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 MAY 17 2019
(Effective Date: 1/1/04)

For DCR Use Only:

File Number 134-108691-9 Case No. _____
Date Rec'd 5-17-19 Nat. Hert. YES /
Earliest Start 6-4-19 Nat. Hert. Imp. NO
River Basin NASHUA Pub. Dr. Wat. WACHUSETT
Gen. Obj. LT ACEC NO

IN AUB AREA

Site Information

Location

Town Holden Lot 5281
Road Manning Street/River Street
Acres 44 Proposed Start Date 05/22/19
Vol. MBF 88.3 Vol. Cds. 64 Vol. Tons 11

Plan Preparer

Name Russell Wilnot
Address 180 Beaman St.
Town, State, Zip West Boylston, MA, 01583
Phone 774-261-1840
Type of Preparer Mass. Licensed Forester
*Mass. Forester License # 426
*Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR/DWSP/OWM Wachusett/Sudbury
Mailing Address 180 Beaman St.
Town, State, Zip West Boylston, MA 01583
Phone 774-261-1840
Ch61 ☐ Ch61A ☐ Stew ☐ *Case # _____
Est. Stumpage Value _____

Licensed Timber Harvester**

Name Will be provided 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	CU	CU	CU	CU
Existing Structure	Yes	Yes	Yes	YES
Type of Bottom	MU	MU	MU	MU
Bank Height (ft)	1'	1'	1'	1'
Stabilization	ST	ST	ST	ST

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	VA	

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

*SKID TRAILS/ROADS ARE EXISTING
*SEE ATTACHED NHESP LETTER - "NO IMPACT"
*AUB COMPLIANCE REQUIRED (SEE ATTACHED)

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Bottom
LF Mass. Lic. For.	CU Culvert	SE Seed	FR Frozen	LE Ledge
TH Lic. Tim. Har	BR Bridge	MU Mulch	DR Dry	ST Stony
TB Timber Buyer	FO Ford	CO Corduroy	OT Other	MU Mud
LO Landowner	PO Poled	ST Stone		GR Gravel
OT Other	OT Other	HB Hay Bales		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 BMP Manual for further information.

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

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Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine		Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	3.8
Hemlock		Black Oak	7.9
Spruce		White Oak	1.5
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	13.2
Beech		Cordwood (Cds)	135
White Birch		SW Pulp (Tons)	
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	MO	OH	WO	RO
Acres	15	6	5	4
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	CT	CT
Type of Cut	SH	SH	SH	SH
Source of Regeneration	AD/SE	AD/SE	AD/SE	AD/SE

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 (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

Determination and Status 134-10879-19

Final Report and Comments

Approved ☒ Disapproved ☐ Expires 5-17-2021

Cutting Plan ☒ 6-3-2019

Signature of Service Forester/Director's Agent _____ Date _____

Extension 1 ☐ 2 ☐ Expires / / Ser. For. Ints. / /

Amendment App 1 ☐ Dis 1 ☐ App 2 ☐ Dis 2 ☐ / /

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

Signature of Service Forester/Director's Agent

Date

Forest Types				Designation of Trees	Type of Cut	Intermediate Harvester:	Source of Regeneration
WP White Pine	HK Hemlock	OM Mixed Oak	CT Cut Tree	SH Shelterwood	CT Commercial Thin	AD Advanced	SE Natural Seed
WK WP/Hem	HH Hem/Hdwd	RM Red Maple	LT Leave Tree	ST Seed Tree	NT Non Com Thin	PL Plant	CO Coppice
WH WP/Hdwd	BC Black Cherry	BE Beech	SB Stand Boundary	CC Clear Cut	SE Selection	DS Direct Seed	OT Other
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir	OT Other	SA Salvage	HG Highgrade*		
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple	Landowner Objective	SN Sanitation	DL Diameter Limit*		
SR Red Spruce	OR N Red Oak	PP Pitch Pine	LT Long-term Mgt.	OT Other*			
			ST Short-term Har.				

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

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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: DCE-Wach/Sudbury

Town: Holden

File Number: 134-10879-19

BMPs	<u>There is a forest road that cuts through the middle of the sale and will be used for the three stream crossings. Otherwise the haul roads will be off the main forest road. The landing will be in the southern most opening near the River Street parking lot.</u>
Silviculture	<u>In order to release advance regeneration 8 openings in the overstory are being created, covering 8 acres. These openings range from a 0.5 acre to 1.8 acres in size with an average of 1 acre. They are well distributed throughout the area taking advantage of the advance regeneration comprised of white pine, oaks, hemlock and other hardwoods. No thinning will occur between any of these openings.</u>
Objectives	<u>The 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>
Other	<u>The Natural Heritage GIS layer comes into the sale area (Priority Habitat # 1383) on the Quinapoxet River and the extreme south east corner of the lot. There will be no cutting or hauling in these specific areas.</u>

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

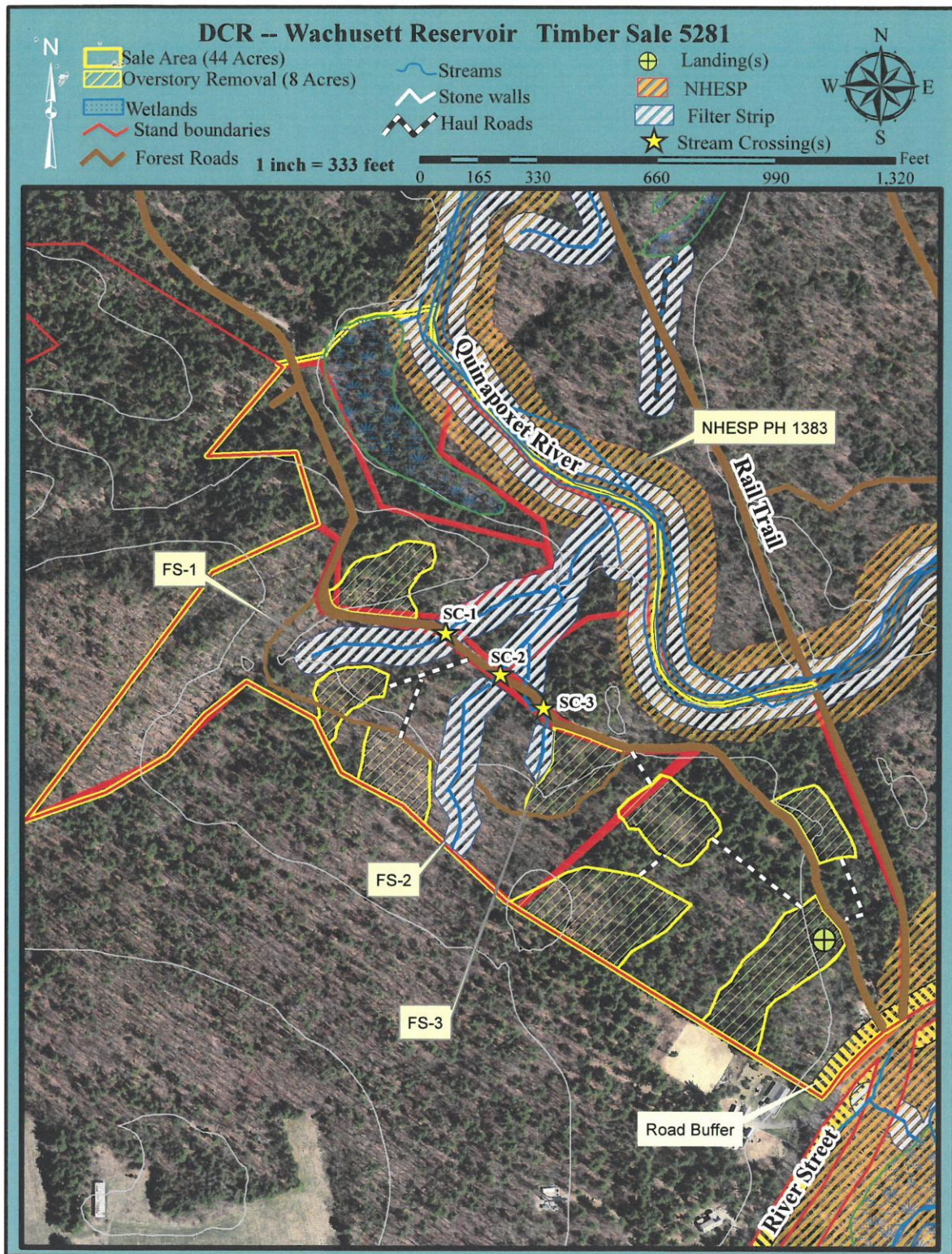


Figure 3. General locus map showing the location of the proposed timber harvest

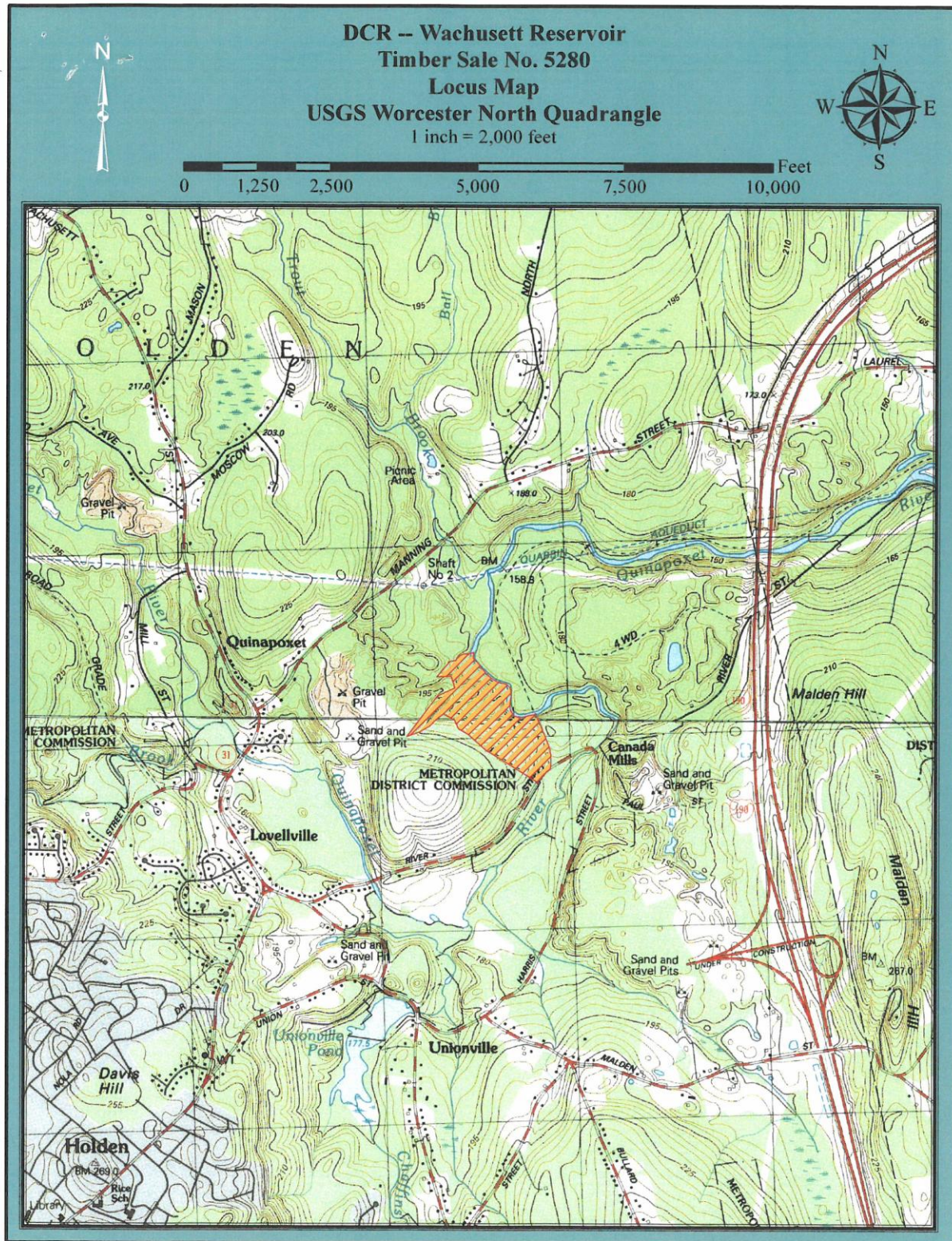


Figure 4. Pre-Harvest Photographs, A-C



A. River Street gate access.



B. Landing



C. Opening where existing forest road and new Wachusett Greenways trail will exist.

Figure 5. Post-Harvest Photographs, A-C



A. An opening in the overstory that was made immediately adjacent to a new stretch of the Central Mass Rail Trail that is under construction.



B. An overstory removal patch where much of the hardwood-dominated understory was preserved.



C. An opening in the overstory was made here to release the young hardwood forest beneath. Note the large white pine that was retained in order to provide for structural diversity as this now young forest continues to develop.