

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

**Project Title:**

<b>DWSP Harvest Permit Number:</b> Lot 5286
<b>DCR Forest Cutting Plan File Number:</b> 039-23715-20

**Site Information**

<b>Watershed:</b> Wachusett	<b>Town(s):</b> Boylston
<b>Acres:</b> 68	<b>Nearest Road:</b>
<b>Natural Heritage Atlas overlap?:</b> No	<b>Public Drinking Water Supply Watershed?:</b> Yes
<b>Forest Types:</b> White pine-Hardwood, Mixed oak, White pine	<b>ACEC?:</b> No
<b>Soils:</b> Chatfield-Hollis-Rock outcrop complex, Paxton, Woodbridge	
<b>Wetland Resources:</b> French Brook flows north through the middle of this area.	
<b>Vernal Pools:</b> There is a potential vernal pool that will be treated as a verified pool pending further investigation in the coming years.	

**Harvest Information**

<b>DWSP Permit Start Date:</b>	<b>DWSP Permit End Date:</b>
<b>Number of Wetland Crossings:</b> 1	<b>Number of Stream Crossings:</b> 1

**Best Management Practices Applied**

<b>Stream Crossings</b>	The stream will be bridged at the location of an historic crossing with stone abutments.
<b>Filter Strips</b>	No harvesting in the filter strips will occur.
<b>Wetland Crossings</b>	The narrow wetland will be crossed when dry or protected with appropriate material if wet.
<b>Harvesting in Wetlands</b>	No harvesting in wetlands will occur.

<b>DWSP Forester supervising this harvest</b>
<b>Name:</b> Greg Buzzell
<b>Forester License #:</b> 025
<b>Phone #:</b> 774-261-1841

## **NARRATIVES**

### **General Description/Forest Composition/History:**

This property was acquired in two separate parcels, once in 1991 and again in 1995. The dominant species is white pine followed by red oak, black oak, white oak, sugar maple, red maple, pitch pine, gray birch, paper birch, black birch, bigtooth aspen, white ash, black cherry, hickory, blue beech, American beech, hemlock and eastern hophornbeam. The oak is dominant in the higher elevations where rock is exposed in some locations with well drained soils. The oak is of average quality for the site. Fortunately, white pine is regenerating very well underneath this oak as the mature pines look to be of better health and vigor. In the lower elevations white pine is more prevalent, still with a mix of oak and other hardwoods. The white pine is of good quality and there is a greater abundance of hardwoods in the advance regeneration on the moister soils. This is beneficial, as the oak and other hardwoods show better health on these lower slopes. Even though there are prevalent deer, the viburnum populations (indicator plant) are at good heights. There is heavy storm damage from 1989 along the southern bound and 2009 ice storm damage on the oaks which are still rebuilding their crowns. The property has been cut at different times prior to DCR ownership and are related to the different property owners. The southern area pine stand was thinned and has resulted in hardwoods, mostly birches, maples, pine and some oaks. These trees are now 2-8" in diameter and are starting to create a new age cohort. Unfortunately, the area of the thinning was not very defined and is spread out. The northern area has old signs of small firewood type harvesting and has aided in good pine regeneration.

### **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, openings are being made to release these young trees and create a new young age class. To that end, 11 openings are being made, spread throughout the area, specifically targeting the areas with good regeneration present. These openings total 10.7 acres and range in size from 0.23 to 2.0 acres in size and average 1.0 acres. The species composition of this new cohort will be different since, for the most part, the oak hardwoods are regenerating under the mature white pine and the white pine are regenerating under the oak hardwoods. This is appropriate given the site conditions favor pine where it is regenerating on the thinner soils and the hardwoods are regenerating in the more well drained-moist sites.

### **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.

### **Wildlife/Rare or Endangered Species:**

There is a potential vernal pool that will be treated as a verified vernal pool.

## **FIGURES**

**Figure 1. Forest Cutting Plan**

**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-B**

**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 FEB 10 2020

(Effective Date: 1/1/04)

## For DCR Use Only:

File Number 039-23715-20 Case No.             
 Date Rec'd 2-10-20 Nat. Hert. NO  
 Earliest Start 2-26-20 Nat. Hert. Imp. NO  
 River Basin Nashua Pub. Dr. Wat. NO  
 Gen. Obj. LT ACEC NO

\* In ALB Area

Site Information

## Location

Town Boylston Lot 5286  
 Road Cross Street  
 Acres 68 Proposed Start Date 4/20  
 Vol. MBF 75.2 Vol. Cds. 140 Vol. Tons 161

## Plan Preparer

Name Gregory S. Buzzell  
 Address 180 Beaman Rd.  
 Town, State, Zip West Boylston, MA, 01583  
 Phone 774-261-1841  
 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 Beaman 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	BR			
Existing Structure	No			
Type of Bottom	ST			
Bank Height (ft)	3			
Stabilization	CO			

## Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing	20'			
Mitigation	OT			
Stabilization	CO			

## 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	HW-1	HW-2	HW-3	HW-4
Forest Type (see pg 2)				
Acres to be Harvested				
Resid. Basal Area (>50%)				

## Service Forester Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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	65.8	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	4.9
Hemlock		Black Oak	4.1
Spruce		White Oak	0.4
Other Sftwd.		Other Hdwd.	
White Ash		<b>Total Mbf</b>	75.2
Beech		<b>Cordwood (Cds)</b>	140
White Birch		<b>SW Pulp (Tons)</b>	161
B & Y Birch		<b>HW Pulp (Tons)</b>	
Black Cherry		<b>Chips (Tons)</b>	

\*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	WH	OM	WO	
Acres	44.3	15	8.7	
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 (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

039-23715-20

## Final Report and Comments

Approved Disapproved Expires

Cutting Plan



2-2022

Signature of Service Forester/Director's Agent

Date

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

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

Amendment App 1 Dis 1 App 2 Dis 2

## Forest Types

WP White Pine	HK Hemlock	OM Mixed Oak
WK WP/Hem	HH Hcm/Hdwd	RM Red Maple
WH WP/Hdwd	BC Blck Cherry	BE Beech
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple
SR Red Spruce	OR N Red Oak	PP Pitch Pine

## Designation of Trees

CT Cut Tree
LT Leave Tree
SB Stand Boundary
OT Other
<b>Landowner Objective</b>
LT Long-term Mgt.
ST Short-term Har.

## Type of Cut

SH Shelterwood
ST Seed Tree
CC Clear Cut
SE Selection
SA Salvage
SN Sanitation

## Intermediate Harvester:

CT Commercial Thin
NT Non Corn Thin
<b>Non-Standard Systems:</b>
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-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: DCR-DWSP

Town: Boylston

File Number: 039-23725-20

BMPs	<p><u>There is an old stone abutment at SC-1. There is currently a small metal plate across the abutments that will be replaced by a suitable timber bridge/swamp mats.</u></p> <p><u>WC-1 is on one of these old atv trails that crossed the outlet of a small, unmapped wetland adjacent to French Brook. Even if the wetland is dry or frozen at the time, tops or corduroy will be used at a minimum to protect the crossing.</u></p>
Silviculture	<p><u>In order to release advance regeneration, 11 openings in the overstory are being created, covering 10.7 acres. These openings range from 0.23 to 2.0 acres in size with an average of 1.0 acre. They are well distributed throughout the sale area focusing on where the advance regeneration is well established. The only partial cutting between the patches is the 1-acre area as shown on the map and another area on the east side of French Brook that was too small to map.</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 advance regeneration. The current age structure is limited with an insufficient component of young forest.</u></p>
Other	<p><u>Forwarder haul roads have generally been flagged and painted. There are numerous old cart path/atv trails throughout this area. Some of them are being used as haul roads. Some of the obvious trails that will be used for hauls roads have not been flagged. Only the portions of these trails that are being used as haul roads are shown...showing all of them would have cluttered the map.</u></p>





dcr  
COMMONWEALTH OF MASSACHUSETTS  
Department of Conservation and Recreation  
Division of State Parks and Recreation

FILE # 039.22715.20

## FOREST CUTTING PLAN CERTIFICATE

# W

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

This certifies that DCR-DWSP West Boylston, MA in accordance with the  
(Name of Owner) (Address)

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  
Cross St. lot.

Approval Date 3/20/20  
Director's Agent Laura Dooley  
DCR Phone No. 978.937.2692 x112


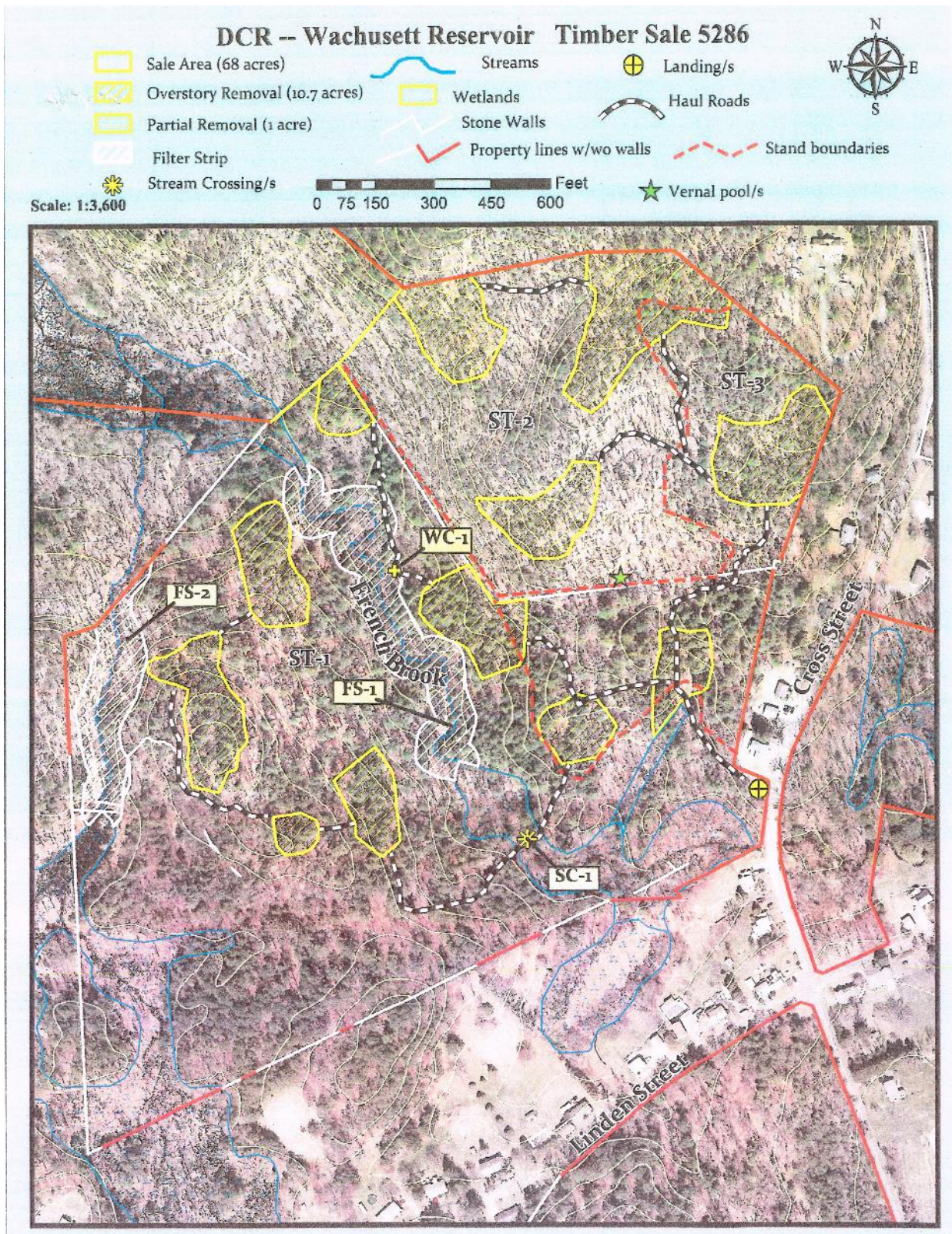
ISSUED BY:   
Priscilla E. Geigis, Director  
Division of State Parks and Recreation



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





DCR -- Wachusett Reservoir  
Timber Sale No. 5286  
Locus Map  
USGS Worcester North Quadrangle  
Scale: 1:24,000

0 0.2 0.4 0.8 1.2 1.6 Miles

N  
W E  
S

The map is a topographic representation of the Wachusett Reservoir area. It features contour lines indicating elevation, with major peaks like Faggot Hill (1337 ft) and Tower Hill (1100 ft) labeled. The Wachusett Reservoir is shown on the left side, with several coves and islands. To the right, the town of Fitchburg is partially visible, with landmarks like the Regional High School and the Mt. Pleasant Country Club. The timber sale area is a large, irregularly shaped region in the center, shaded in orange. It is bounded by French Brook to the west and Faggot Hill to the north. The map also shows various roads, including Route 70 and Route 100, and several smaller water bodies like Lord Cove and Hastings Cove. A scale bar at the top indicates distances from 0 to 1.6 miles. A compass rose in the top right corner points North. The map is titled 'DCR -- Wachusett Reservoir Timber Sale No. 5286 Locus Map USGS Worcester North Quadrangle' and has a scale of 1:24,000.



**Figure 4. Pre-Harvest Photographs, A-B**



Pre harvest Photo A. Mature oak marked for harvest with better site suited white pine regeneration waiting to be released.





Pre harvest photo B. Mature white pine marked for harvest with a diverse hardwood and pine regeneration mix waiting for release.

### **Silvicultural Achievements:**

11 openings were created in the overstory covering 10.7 acres. Openings were made in a variety of sizes from 0.2 acre to 2 acres in size. They are well distributed throughout the area and left advance regeneration comprised of oaks, maples, birches, and other hardwoods in the pine stands and white pine regeneration and mid story white pine in the oak hardwood stands.

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



Photograph A. Completed opening with plenty of mid story white pine retention.





Photograph B. Completed opening with a mix of retained trees and regeneration.