

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

Project Title: Lot 5265

DWSP Harvest Permit Number: 5265

DWSP Proposal ID: WA-17-150

DCR Forest Cutting Plan File Number: 321-8645-17

Site Information

Watershed: Wachusett

Town(s): West Boylston

Acres: 50.3

Nearest Road: Malden Street

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: Oak, mixed-dry site, white pine/oak

Area of Critical Environmental Concern (ACEC)?: No

Soils: Chatfield-Hollis-Rock outcrop complex

Wetland Resources: There are no wetland resources.

Vernal Pools: There is one vernal pool located under the powerline.

Harvest Information

Harvest Start Date: 4/12/2017

Harvest End Date: 6/28/2019

Number of Wetland Crossings: None

Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings: There are no stream crossings.

Filter Strips: There are no filter strips.

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

This forest is a piece of a much larger property that was acquired in 1997. The stand on the lower, more mesic piece of this property that extends to Malden St. to the northeast is comprised of white oak, red oak, black oak and white pine with witch-hazel and highbush blueberry in the understory. Ascending the slope to the southwest as the soil thins the trees get much shorter, the amount of mt. laurel increases and huckleberry becomes common. There's a zone in the southeast corner where 90 year old oaks reach only 50 feet tall. Losing elevation down the hill to the west, tree heights, particularly white pines, quickly increase. The quality of the pine in this working unit is far superior to the oaks. This is especially true where the soil is thinnest and the tree heights shortest. Black birch becomes more common in the far west end of the area and a few blackgum can be found in the lowest areas near I-190. A scattering of paper birch exist around the hill top. Advance regeneration is lacking, with over half of the property having either inadequate regeneration or interfering mt. laurel and witch-hazel.

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.

This area was selected for management because of the lack of age diversity on both in these 50.3 acres as well as the 2,458 acres that the DCR owns that flow into the Quinapoxet River and Malden Brook.

Silvicultural Objectives

Due to the lack of adequate advance regeneration, particularly white pine which is best suited to growing on this dry site, the primary goal of this operation will be to encourage the establishment of white pine seedlings. Throughout the area, the forest will be thinned variably with some areas being reduced up to 60%. This both provides the heat and light that seeds need to germinate as well as disturbing the leaf litter on the forest floor which provides a better seed bed. In addition, many of the mature white pines are chosen for "daylighting" which consists of cutting all or most of the surrounding oak trees, giving the pines more light and room to grow which further encourages the production of seeds.

Cultural Resources

There are no known or documented significant historic or archeological resources in this area. According to models that predict the likelihood of the past use of a site by Native Americans, this area ranks as "Not Sensitive".

The small quarry in the south end of this area will be protected from damage from the logging equipment.

Rare or Endangered Species

There are no critical habitats or known rare or endangered plants or wildlife. All Best Management Practices regarding the retention of snag trees, trees with cavities and other valuable wildlife habitat features will be employed.

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-D
- 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 26 2017

For DCR Use Only:

File Number 321-8645-17 Case No.
Date Rec'd 1/26/17 Nat. Hert. NO
Earliest Start 2/9/17 Nat. Hert. Imp. NO
River Basin NRSALIA Pub. Dr. Wat. YES-WACHUSETT
Gen. Obj. LT ACEC NO

Site Information

Location

Town West Boylston/Holden Lot 5265
Road Malden Street
Acres 303.46 Proposed Start Date 3/01/16
Vol. MBF 13.7 Vol. Cds. 278 Vol. Tons

Plan Preparer

Name Russell Wilmot
Address 180 Beaman St.

Town, State, Zip West Boylston, MA, 01583
Phone 508-792-7806 Ext 318
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 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)				

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

* ALL SKID TRAILS / LOADS ARE EXISTING
* REVIEWED UNDER SNOW CONDITIONS
* MAINTAIN 50' BUFFER STRIP ALONG STREET
* STREAM LOCATED ON WEST BEAMOND IS MAN-MADE
AND HARVESTING ACTIVITY IS > 50' AWAY
* VERNAL POOL BODS 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

Forest Products

Products to be Harvested*

Table with 4 columns: Species, Mbfs/Cds, Species, Mbfs/Cds. Rows include White Pine, Red Pine, Pitch Pine, Hemlock, Spruce, Other Sftwd., White Ash, Beech, White Birch, B & Y Birch, Black Cherry.

*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. Mbfs = thousand board feet.

Stand Treatment

Cutting Standards

Table with 5 columns: Indicate location on map, ST-1, ST-2, ST-3, ST-4. Rows include Forest Type, Acres, Landowner Objective, Designation of Trees, Type of Cut, Source of Regeneration.

Landowner

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.

[X] 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.

Signature of landowner(s) [Handwritten Signature] Date 1/18/17

Service Forester

Determination and Status

Form with checkboxes for Approved, Disapproved, Extension, Amendment and handwritten dates for Expires (1-26-2019, 1-31-2017).

Final Report and Comments

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

Codes

Table with 4 columns: Forest Types, Designation of Trees, Type of Cut, Source of Regeneration. Lists various codes and their corresponding descriptions.

*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

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

Landowner: DCR

Town: W. Bayston/Holden

File Number: 321-8645-17

BMPs	<p><u>There are no stream or wetland crossings. However, the main haul road in from the landing does have seasonally damp spots. There is also a vernal pool in the power line.</u></p>
Silviculture	<p><u>In the very limited area where advance regeneration was adequate 2 openings were made covering 1.45 acres. They are in the Eastern section of the sale area. The primary objective of this operation is an establishment cut. Given the favorable vigor and quality of white pine over the oaks, the goal will be the establishment of white pine regeneration. Stocking will be reduced in variable levels with the largest decreases where mt. laurel and witch hazel are thickest, where some day lighting of white pine can occur, or around white pine seed sources.</u></p>
Objectives	<p><u>The main objective of this operation is to prep the site by reducing the stocking of oak, creating ground disturbance, and increasing sunlight on the forest floor to establish regeneration.</u></p>
Other	<p><u>There is an old quarry off of a hiking trail along the southern boundary of the sale area.</u></p>

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

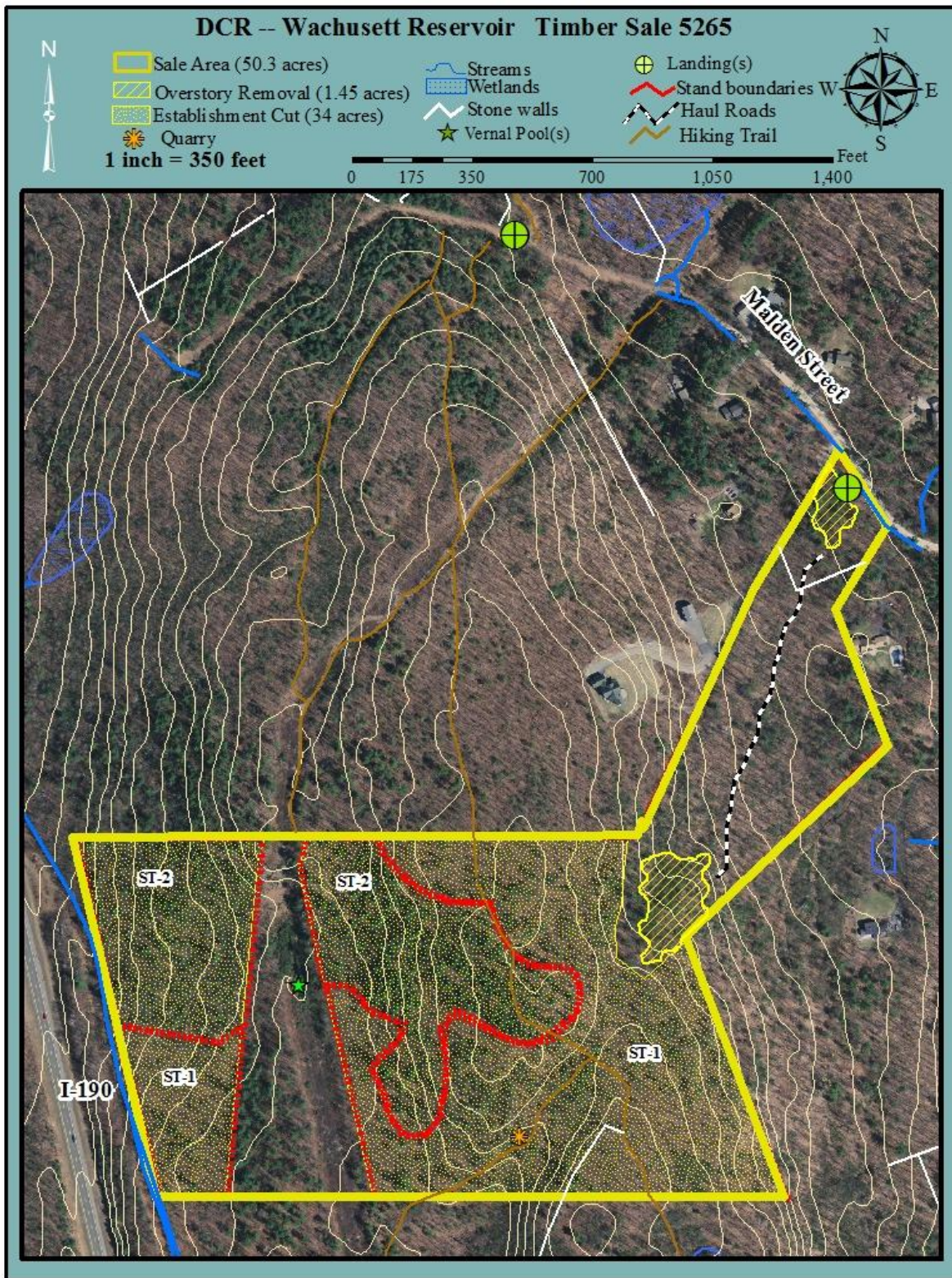


Figure 3. General locus map showing the location of the proposed timber harvest

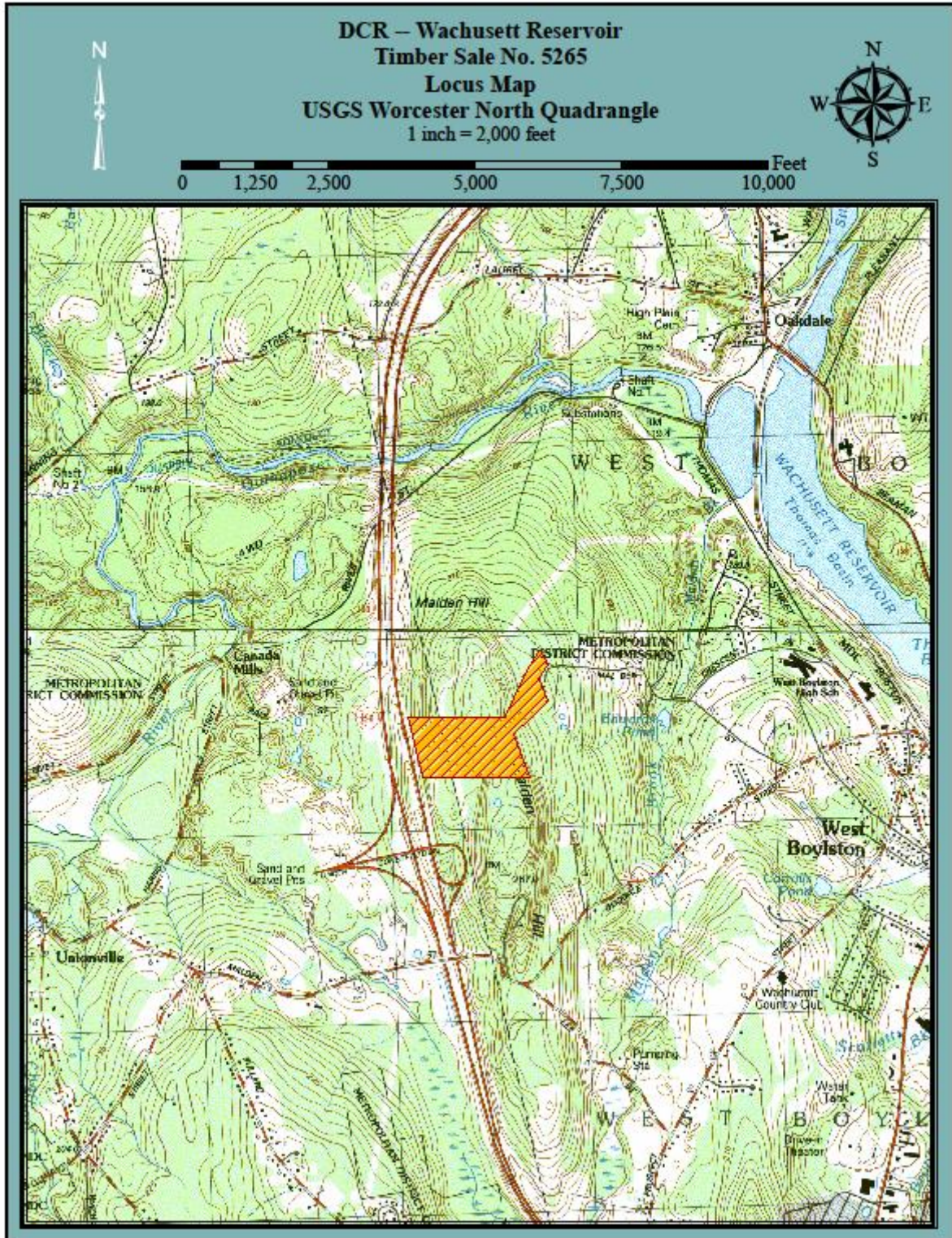


Figure 4. Pre-Harvest Photographs, A-D



A. Road frontage on Malden Street in West Boylston



B. One of the few areas with white pine regeneration. Note how short the 90 year old oaks are due to the very thin soil here on top of the hill.



C. The oaks are being removed from around the white pine in the middle of the photo. This “daylighting” of the pine will encourage the establishment of white pine seedlings.



D. Another area where most of the oaks are being removed to encourage the scattered large white pines to establish a new, young crop of pine seedlings.

Figure 5. Post-Harvest Photographs, A-B



A. Trees have been removed from around the white pine in the foreground. This should encourage white pine seedlings to become established in this area.



B. The oaks were removed from among these smaller diameter white pines giving them the light and space they need to continue to grow and provide seed into the future.