

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

Project Title:

DWSP Harvest Permit Number: Lot 5265
DCR Forest Cutting Plan File Number:

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	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

DWSP Permit Start Date: 04/12/17	DWSP Permit End Date: 06/28/19
Number of Wetland Crossings: 0	Number of Stream Crossings: 0

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 wetlands will occur.

DWSP Forester supervising this harvest
Name: Russell Wilmot
Forester License #: 426
Phone #: 508-792-7806x318

NARRATIVES

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 I190. 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.

Wildlife/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. 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

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 321-8675-17 Case No. _____
Date Rec'd 1/26/17 Nat. Hert. NO
Earliest Start 3/9/17 Nat. Hert. Imp. NO
River Basin NPSHUA Pub. Dr. Wat. VPS-LABUSE
Gen. Obj. LT ACEC NO

Site Information

Location

Town West Boylston/Holden Lot 5265
Road Malden Street
Acres 50.5 46 Proposed Start Date 3/01/16
Vol. MBF 13.7 Vol. Cds. 278 Vol. Tons _____

Plan Preparer

Name Russell Wilnot
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 Ch6f, 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
Ch6f 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 / ROADS ARE EXISTING
- * REVIEWED UNDER SNOW CONDITIONS
- * MAINTAIN 50' BUFFER STRIP ALONG STREET
- * STREAM LOCATED ON WEST BEYOND IS MARK-MADE AND HARVESTING ACTIVITY IS > 50' AWAY
- * VEGETAL PRED BYTS ATTRACTED

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 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>

Vernal Pools (from *MA Forestry Best Management Practices Manual, 2nd Edition, 2013*)

A vernal pool is a confined basin depression that in most years holds water for at least two continuous months during the spring and/or summer and that is free of adult fish populations. These areas provide essential breeding habitat for a variety of amphibian species such as wood frogs and spotted salamanders, and support other important wildlife species. BMPs for vernal pools are meant to maintain proper moisture and temperature conditions, serve as an important source of leaves and other organic matter, and ensure access for those species migrating from the forest to breed in them.

Because of their temporary nature, vernal pools can be difficult to identify. A certified vernal pool is an area that has been certified as a vernal pool by the Division of Fisheries and Wildlife. Learn more about vernal pools and their certification. If the harvest includes a certified vernal pool, then the following Required BMPs are mandatory. Some certified vernal pools are also rare and endangered species habitat.

If the certified vernal pool is known to be habitat for rare or endangered species, then see the "Rare and Endangered Species" section on page 19. If the vernal pool has not been certified, then the BMPs are guidelines. To find out if a certified or potential vernal pool is on the property, visit OLIVER, the MassGIS online data viewer.

Required BMPs For all Certified Vernal Pools

- R** Accurately show vernal pools on forest cutting plan map.
- R** Adhere to filter strip standards (see page 11). Exceptions to this standard may be made by the service forester, if it is shown in the forest cutting plan that a heavier cut is necessary to protect environmental quality.
- R** Do not operate equipment or conduct harvesting activity in the depression of a vernal pool, including stacking logs or otherwise creating soil compaction.
- R** Keep tree tops and slash out of the vernal pool depression. If a top lands in the pool during the amphibian breeding season (March 1 through July 1), it should be left in place to avoid further disruptions of breeding activity.

Guidelines

- G** Apply required certified vernal pool BMPs to potential vernal pools functioning as vernal pool habitat.
- G** Avoid making ruts deeper than 6 inches within 200 feet of a vernal pool. If filled with water, these can trick amphibians into laying eggs in them.
- G** Prevent sedimentation from nearby areas of disturbed soil so as not to disrupt breeding activities within the pool.
- G** Understory vegetation such as mountain laurel, hemlock, advance regeneration, or vigorous hardwood sprouts after a harvest will help maintain proper moisture and temperature conditions in the forest. Avoid leaving only trees with small or damaged tops, or only dead and dying trees.
- G** In areas surrounding vernal pools, operate when the ground is frozen and covered with snow whenever possible. When operations must be scheduled in dry seasons, keep equipment 50 feet away from the pool depression and winch out logs felled within this filter.
- G** Minimize disturbance of the leaf litter and organic soils that together maintain proper moisture and temperature conditions for amphibian migrations.

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

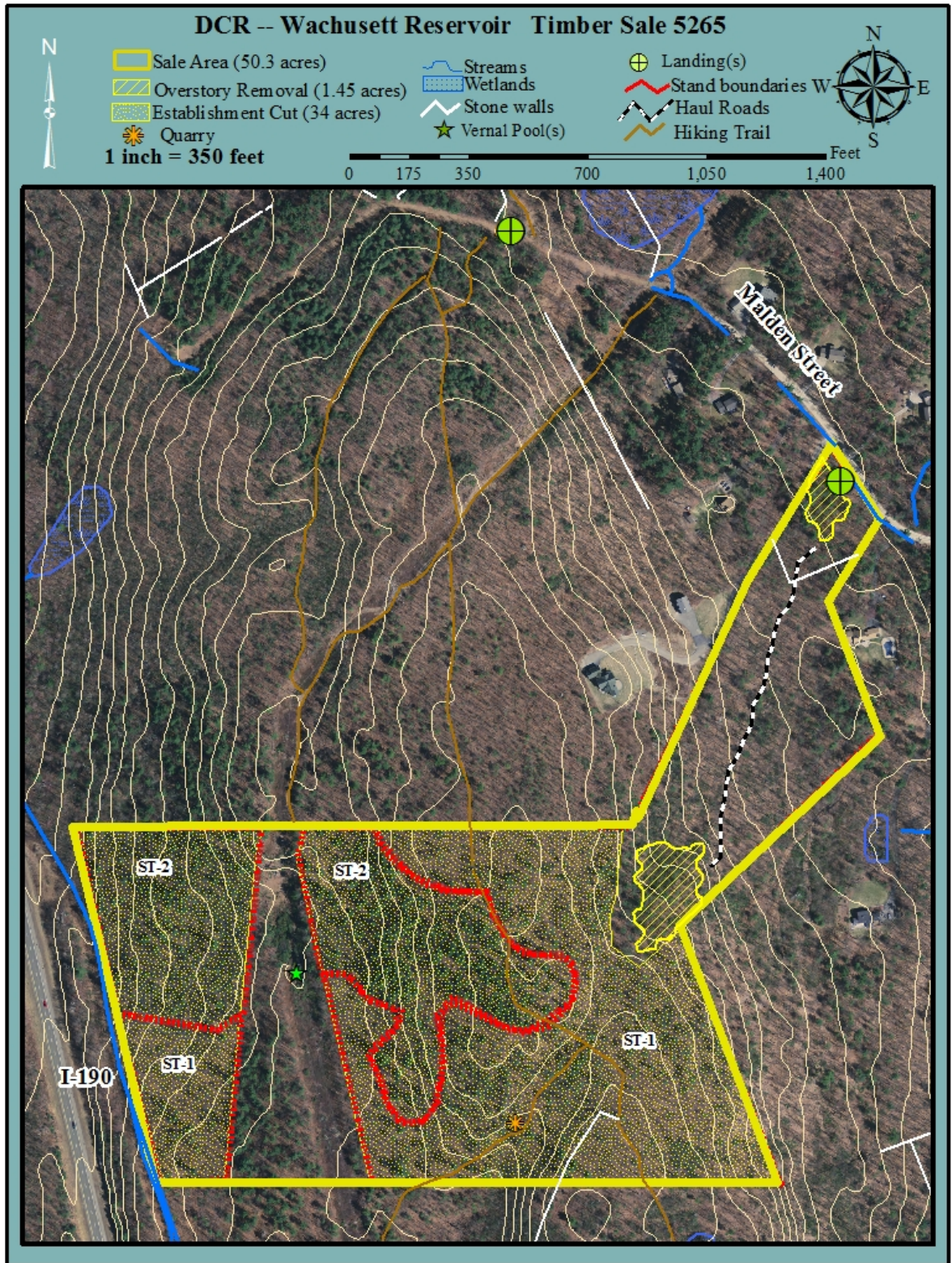


Figure 3. General locus map showing the location of the proposed timber harvest

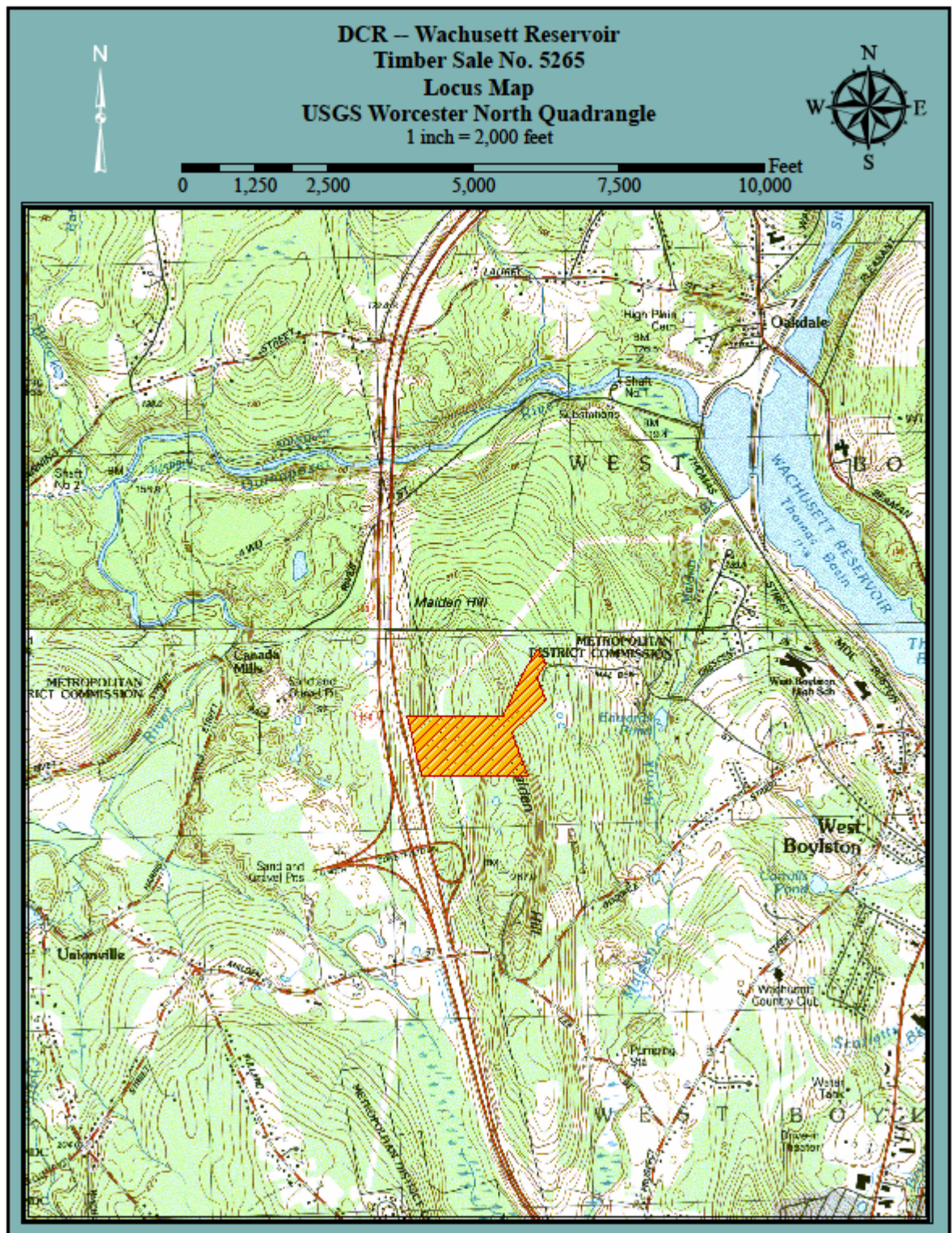


Figure 4. Pre-Harvest Photographs, A-D

A. 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.