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: 5290
DCR Forest Cutting Plan File Number: 321-31099-21

Site Information

Watershed: Wachusett	**Town(s)**: West Boylston
Acres: 39	**Nearest Road: Malden Street**
Natural Heritage Atlas overlap?:No	**Public Drinking Water Supply Watershed?:** Yes
Forest Types: Oak/Hardwood, White pine	**ACEC?: No**
Soils: Hinckley and Merrimac Excessively Drained	
Wetland Resources: A small seep	
Vernal Pools: A large Vernal pool	

Harvest Information

DWSP Permit Start Date:	**DWSP Permit End Date:**
Number of Wetland Crossings: 0	**Number of Stream Crossings:** 2

Best Management Practices Applied

Stream Crossings	2
Filter Strips	2
Wetland Crossings	None
Harvesting in Wetlands	No

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

NARRATIVES

General Description/Forest Composition/History:

This working unit was part of the original takings and most of it was previously owned by Aaron Goodale and George Newton. All of it was mapped as woodland in 1900 with exception to one small chunk of pasture in the northern section. The northern section was planted and planted-improved to white pine in 1905. The eastern half of the northern section was planted again to white pine in the spring of 1907 in a 6' x 6' layout. The western half was a chestnut and oak stand which was thinned in 1909. The 1938 Hurricane assessment map shows scattering damage in the northern section and along the southern portion of Malden Brook with no subsequent removals. The property was cover typed in 1951 to white pine in the northern section and a little section along the southern portion of Malden Brook was cover typed as mixed. There has only been one timber sale on this working unit which occurred in 1983 in the northern section and was a part of a sale to the north. The total impact was a thinning in the white pine stand covering only 8 acres. The result of that work shows a good hardwood regeneration mix of black birch, red maple, sugar maple and hickory. There is crown damage on the oaks, possibly ice storm damage and the crowns are rebuilding. Red oak and white pine are of good quality along with some white oak. White ash seems of good vigor. Beech scale was found in this working unit. Witch-hazel in the lower elevations of this working unit are a minor issue, while the higher elevations have good regen.

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:

Because there is good, advanced regeneration spread throughout this working unit, openings will be made accordingly in order to release the advance regeneration. Given that ~80% of the working unit is at a mature age class and none of the working unit is under twenty years old, 13 acres of openings will occur. After the harvest is complete, the result will be closer to the watersheds ultimate goal of having three distinct age cohorts within each working unit. The species composition will be different in the white pine stand where hardwoods are regenerating, but similar in the other white pine/hardwood stands. Care will be taken to avoid unnecessary release or encouragement of the American beech which is in small pockets in the working unit. The operation will focus on creating openings where they are suitable to the topography and have good regeneration.

Cultural Resources:

None Known

Wildlife/Rare or Endangered Species:

There is a classic seep in the northern end of the working unit that provides a source of water and bare ground in the winter to local wildlife. There is also a giant vernal pool with stadium like topography surrounding it.

FIGURES

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)

For DCR Use Only:

File Number		Case No.	
Date Rec'd		Nat. Hert.	/
Earliest Start		Nat. Hert. Imp.	
River Basin		Pub. Dr. Wat.	
Gen. Obj.		ACEC	

Site Information

Location

Town West Boylston Lot 5290
Road Malden Street
Acres 29.1 Proposed Start Date 12/20
Vol. MBF 102.6 Vol. Cds. 55 Vol. Tons 57

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	CU	BR		
Existing Structure	Yes	No		
Type of Bottom	ST	ST		
Bank Height (ft)	2	3		
Stabilization	OT	OT		

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	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

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	96.0	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	5.7
Hemlock		Black Oak	0.9
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash		**Total Mbf**	102.6
Beech		**Cordwood (Cds)**	55
White Birch		**SW Pulp (Tons)**	57
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.

Stand Treatment

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	OH	WP	WO	
Acres	22.0	3.8	3.3	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SH	SH	SH	
Source of Regeneration	n/a	AD	n/a	

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.** 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 _____

Service Forester

Determination and Status

	Approved	Disapproved	Expires
Cutting Plan	☐	☐	_____

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

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

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

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

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

Designation of Trees
CT Cut Tree
LT Leave Tree
SB Stand Boundary
OT Other

Landowner Objective
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 Harvests:
CT Commercial Thin
NT Non Com Thin

Non-Standard Systems:*
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**

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:_____

Town: _____

File Number:_____

BMPs

Both stream crossings are along an existing woods road.
SC-1 is a stone culvert.
The culvert at SC-2 washed out many years ago and so it will be bridged.
It is not anticipated that stabilization will be required at either crossing. However, appropriate stabilization measure will take place should it be needed.

No trees are being cut in the filter strips.

There is a flow channel that emanates from the seep that ends after about 200'.

Silvicult

In order to release advance regeneration in ST-1, 2 openings in the overstory are being created, covering 2.8 acres. These openings range from 0.8 to 2.0 acres in size with an average of 1.4 acres.

The silviculture in ST-2 and ST-3 is a shelterwood establishment cut with a focus on encouraging white pine regeneration.

Objectiv

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 and to encourage the establishment of regeneration where it is lacking. The current age structure is limited with an insufficient component of young forest.

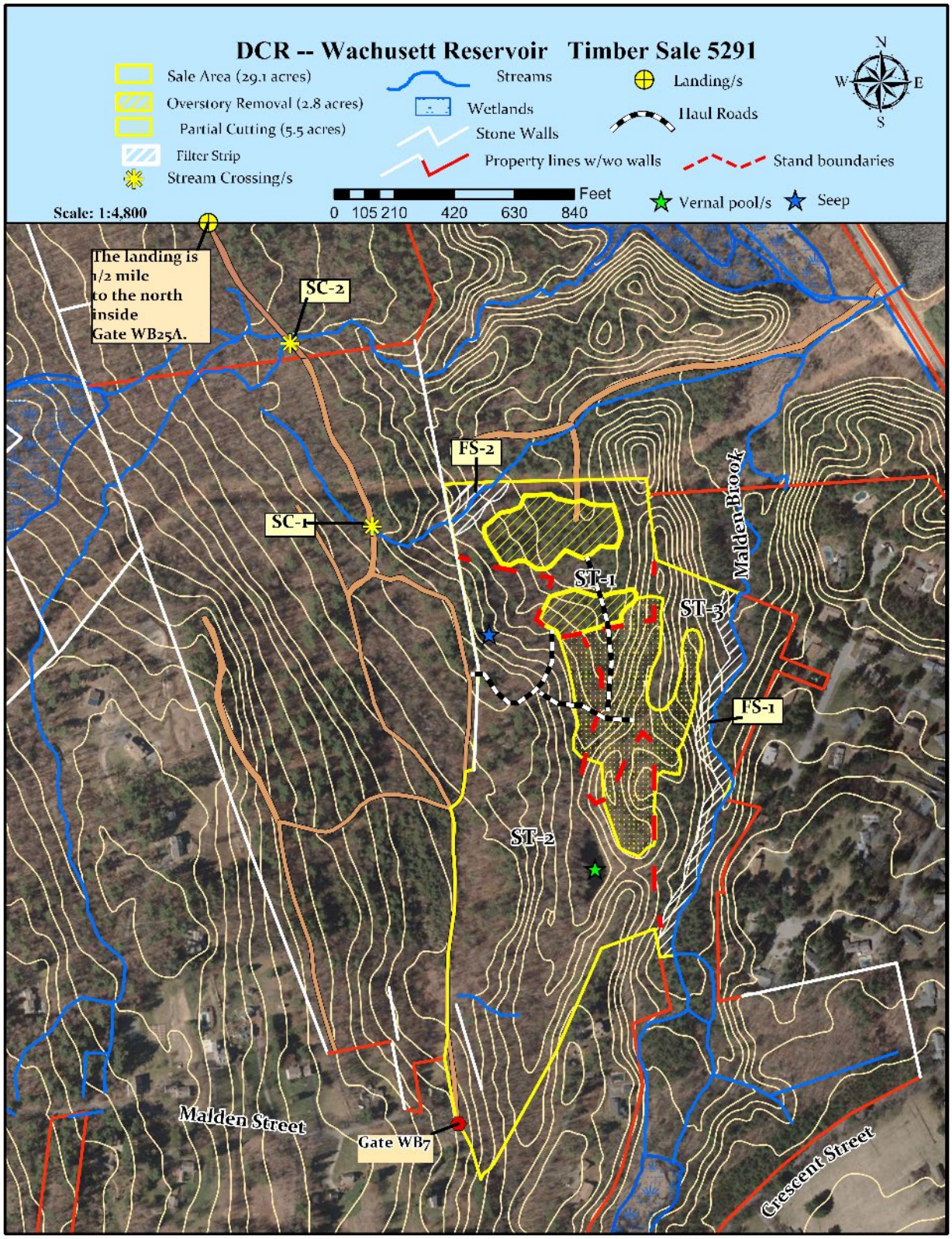
Other

The haul roads within the sale area have been flagged. The existing woods road that connects the sale area to the landing about ½ mile to the north has not been flagged although the streams crossings have been flagged.

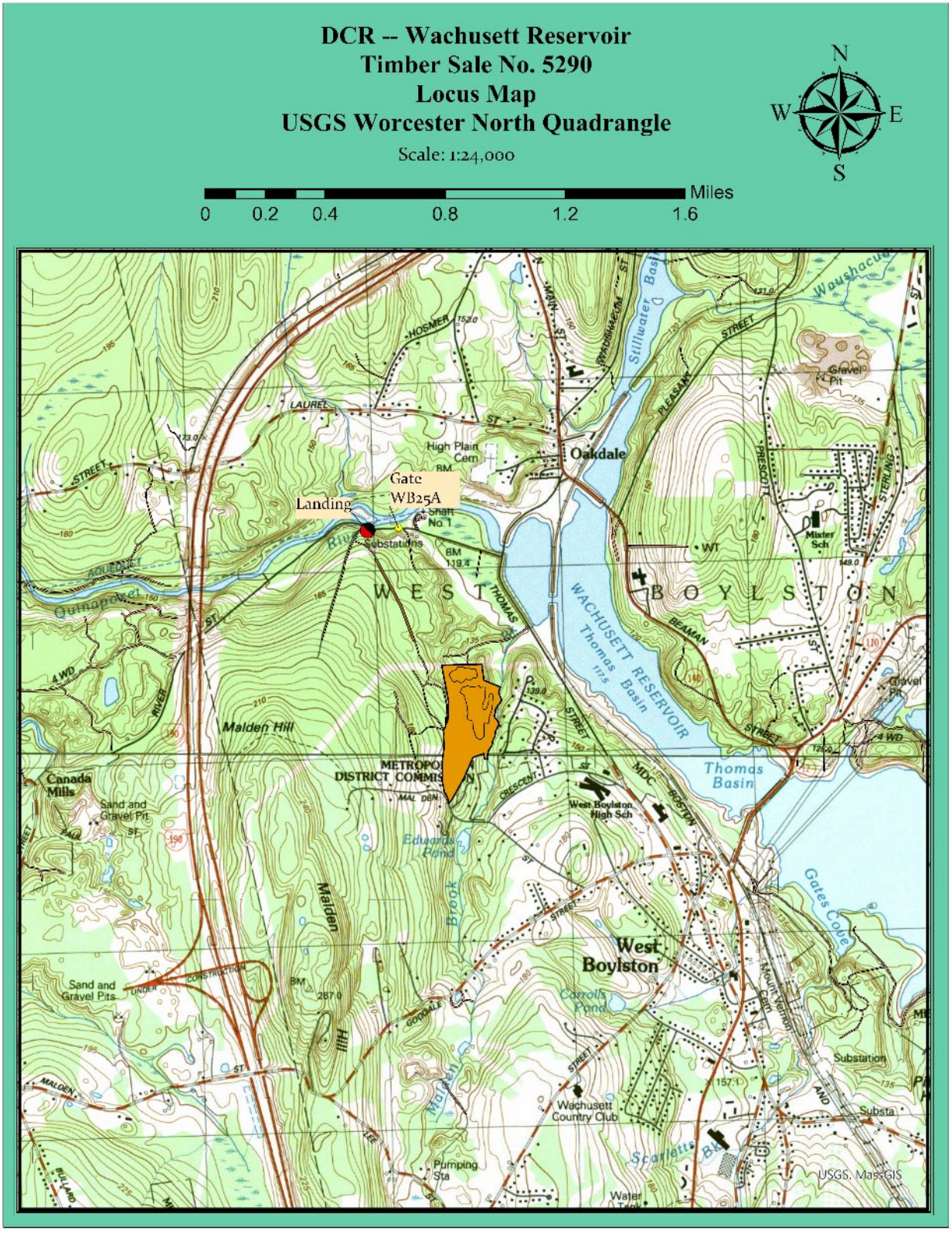
While the entire sale area is 29.1 acres, trees have only been marked in the two overstory removal openings that total 2.8 acres in ST-1 and the 5.5 acres in ST-2 and ST-3 where roughly 50% of the stocking will be removed.

The landing is about ½ mile north of the sale area inside Gate WB25A which is at the end of River Road. The landing will be the same area that was used for a landing for the recently completed Lot 5266 (CP #321-8692-17). It's location is shown on the Locus Map.

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



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



Pre-Harvest Photographs, A-B

Photo A) Pine marked with diverse regeneration underneath.

Photo B) Hardwoods and pine marked with diverse regeneration ready to be released.

Figure 5. Post-Harvest Photographs, A-C

A. The main haul road running through and area of partial overstory removal.

B. Part of a 2 acre opening where the older overstory is removed to give the more diverse understory of saplings the space and light they need to continue to grow.

C. The landing area inside Gate WB7 off of Malden Street.