

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

Project Title: Lot 5291

DWSP Harvest Permit Number: 5291

DWSP Proposal ID: WA-20-124

DCR Forest Cutting Plan File Number: 282-28953-21

Site Information

Watershed: Wachusett

Town(s): Sterling

Acres: 47.8

Nearest Road: Princeton Road (Rt. 62)

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine-oak and Red oak

Area of Critical Environmental Concern (ACEC)?: No

Soils: Primarily Canton fine sandy loam along with Merrimac and Hinckley loamy sands.

Wetland Resources: Two very small intermittent brooks flow through this area.

Vernal Pools: None known.

Harvest Information

Harvest Start Date: 12/2/2020

Harvest End Date: 12/15/2022

Number of Wetland Crossings: None.

Number of Stream Crossings: Two.

Best Management Practices Applied

Stream Crossings: The old stone culvert at SC-1 will be protected by bridging regardless of stream flow. The old culvert at SC-2 will only be protected if water is flowing at the time of operation.

Filter Strips: No trees are being cut in the filter strips.

Wetland Crossings: There are no wetland crossings.

Harvesting in Wetlands: This 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

A forest management operation was performed in most of this area in 2006. At that time, the understory in the red oak stand was primarily mountain laurel with very few young trees. Fortunately, the mountain laurel was not exceedingly thick at that time. There was less mountain laurel and more young trees in the white pine-oak stand. For this reason, 5 openings were made in the white pine-oak stand totally 4.7 acres. In the red oak stand, with the goal of encouraging the establishment of advance regeneration, the overstory was heavily cut, removing approximately 50% of the stocking while requiring that the mountain laurel be mechanically damaged as much as possible. This was done in 3 large blocks totaling nearly 5 acres. This was very successful, and today there is excellent numbers and diversity of seedlings and saplings in these 3 blocks. It's clear that not only was there the establishment of new seedlings following the harvest, but that the scattered regeneration that was struggling under the mountain laurel was able to take advantage of the increased light and has now grown above the laurel.

The age structure for Working Unit #124 is as follows: 12%, 0-20 years old, 6%, 21-40 years, 9%, 41-60 years, 16%, 61-80 years, 0%, 81-100 years and 57%, >100 years old. The oldest stands originated in about 1910 making them 109 years old.

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 the goal of forest management being the establishment of a young class on in this area, the presence of good advance regeneration, well distributed throughout this area, should make this achievable. To that end, 5.3 acres of young forest will be released by creating 5 openings in the overstory forest. These openings range from 0.6 to 2.1 acres in size with an average size of 1.3 acres.

Cultural Resources

This lot was reviewed by the DCR archaeologist and all recommendations will be followed. There is no known cultural significance to this area, either historically or pre-European contact. All stone walls on DCR property are valued as a cultural resource, so the stone walls on this property will be protected from damage to the extent possible.

Rare or Endangered Species

There are no critical habitats or known rare or endangered plants or wildlife.

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-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)

For DCR Use Only:

File Number	202-280532	Case No.	
Date Rec'd	8/26/20	Nat. Hert.	NO
Earliest Start	9/10/20	Nat. Hert. Imp.	NO
River Basin	NASAWA	Pub. Dr. Wat.	WACHUSSETT
Gen. Obj.	LT	ACEC	NO

Site Information

Location

Town Sterling Lot 5291
Road Princeton Road (Rt 62)
Acres 47.8 Proposed Start Date 09/20
Vol. MBF 33.0 Vol. Cds. 72 Vol. Tons 12

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

Best Management Practices

Stream Crossings

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing	BR	CU		
Existing Structure	NO	Yes		
Type of Bottom	ST	GR		
Bank Height (ft)	1	1		
Stabilization	CO	CO/ri		

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	

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

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

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.

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

PLAN REVIEWED under moderate/severe drought conditions

ESCA FORESTS (TRAILS) ARE EXISTING

SC-1 + SC-2 LOCATED ON EXISTING WOODS ROAD

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.

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	8.8	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	20.9
Hemlock		Black Oak	2.7
Spruce		White Oak	0.6
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	33.0
Beech		Cordwood (Cds)	72
White Birch		SW Pulp (Tons)	
B & Y Birch		HW Pulp (Tons)	12
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	OR	WO	MH	WH
Acres	17.0	14.8	8.0	8.0
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	OT	OT
Type of Cut	SH	SH	OT	OT
Source of Regeneration	AD	AD	n/a	n/a

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)

8/19/2020

Date

Determination and Status**Final Report and Comments**

Approved	Disapproved	Expires		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8-26-2022		
Signature of Service Forester/Director's Agent				
Extension	1 <input type="checkbox"/>	2 <input type="checkbox"/>	Expires	Ser. For. Ints.
Amendment	App 1 <input type="checkbox"/>	Dis 1 <input type="checkbox"/>	App 2 <input type="checkbox"/>	Dis 2 <input type="checkbox"/>

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

*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: DOB DWSP

Town: Sterling

File Number: 280-28953-21

BMPs	<p>While there is an existing culvert at SC-1, it is very old and partially collapsed. Timber bridges, swamp mats or steel plates will be needed to prevent further damage to the culvert.</p> <p>There is also an existing culvert at SC-2. This intermittent stream rarely flows. Given the condition of the old cart path at SC-2, if no water is flowing, then no crossing structure is required. Otherwise, depending on the conditions at the time, poles or tops or mats will be used if necessary.</p> <p>No trees are being cut in any of the filter strips.</p>
Silviculture	<p>In order to release advance regeneration, 4 openings in the overstory are being created, covering 5.3 acres. These openings range from 0.6 to 2.1 acres in size with an average of 1.3 acres. They are well distributed throughout the sale area focusing on where the advance regeneration is well established. Some of these are where a timber harvest was performed in 2005 with the intent of creating the conditions where regeneration could become established.</p> <p>No trees are being cut in ST-3 or ST-4.</p>
Objective	<p>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.</p>
Other	<p>Only the haul road that connects the second most southerly opening to the most southerly opening has been flagged.</p> <p>The main haul road that includes the two stream crossings, is an old cart path and has not been flagged nor has the mowed path through the field that leads to the most northerly crossing.</p>



FILE # **282-28953-21**

WW

FOREST CUTTING PLAN CERTIFICATE

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

This certifies that West Boylston West Boylston in accordance with the
(Name of Owner) Clinton Clinton with the Dept. of Conservation
(Address)

provision of M.G.L. Chapter 132, Section 40-46, filed in Clinton
and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the
Bau Brook lot.

Approval Date Lot 5291 9.10.2020

Director's Agent MICHAEL DOWNEY
DCR Phone No. 978-368-0126

ISSUED BY:



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

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

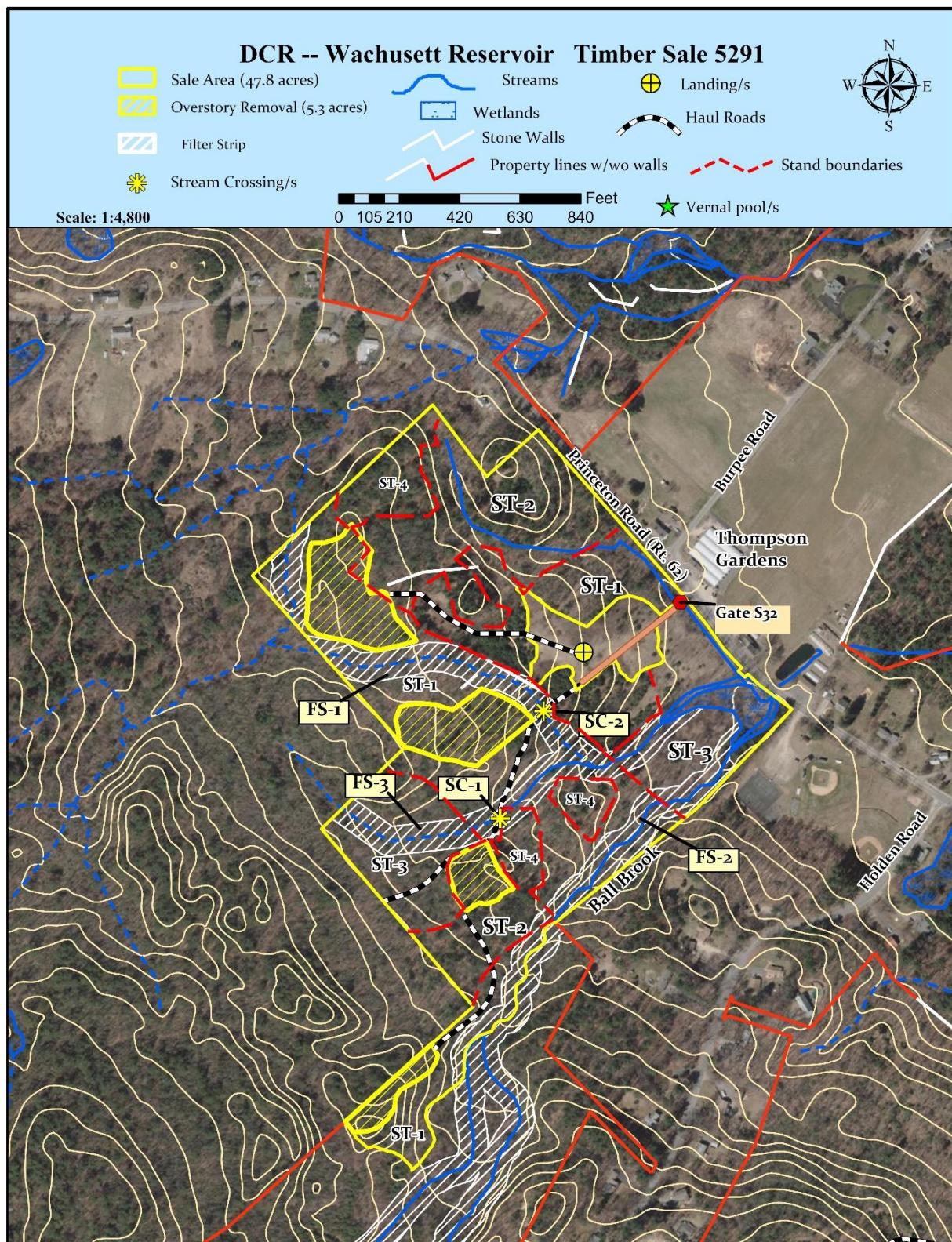


Figure 3. General locus map showing the location of the proposed timber harvest

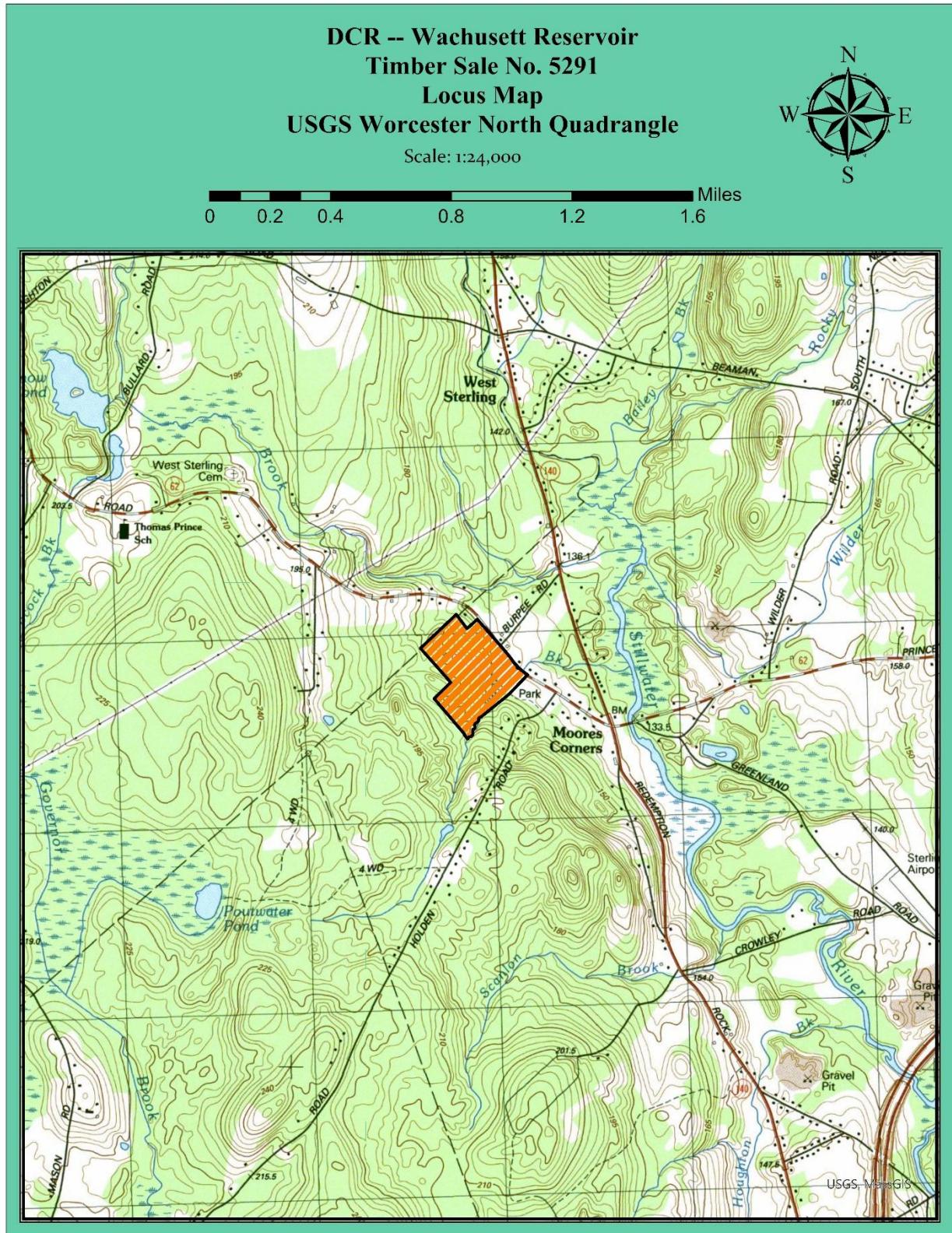


Figure 4. Pre-Harvest Photographs, A-C



A. The landing location will be in the old field inside Gate S32.



B. The older trees are being removed to give the white pine and hardwood saplings room to grow. Note the large black oak in the foreground which is being retained within this area to provide valuable structural diversity.



C. Another area with an excellent understory of white pine and hardwood saplings. In this case, the large white pine in the middle of the photo is being retained.

Figure 5. Post-Harvest Photographs, A-B



A. Completed opening with hardwood and pine regeneration, large and small diameter snags and a large white oak retained.



B. Completed opening with large diameter oak and pine retention. White pine and hardwood regeneration now released to the sun.