

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

**Project Title: Lot 5300**

DWSP Harvest Permit Number: 5300

DWSP Proposal ID: WA-21-148

DCR Forest Cutting Plan File Number: 282-33904-22

***Site Information***

Watershed: Wachusett

Town(s): Sterling

Acres: 53

Nearest Road: Redemption Rock trail (Rt. 140)

Natural Heritage Atlas overlap?: Yes

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine/oak, Mixed hardwoods

Area of Critical Environmental Concern (ACEC)?: No

Soils: Hinckley sandy loam, moderately well drained Sudbury

Wetland Resources: Several wetlands and an intermittent stream

Vernal Pools: Three verified vernal pools

***Harvest Information***

Harvest Start Date: 6/01/2022

Harvest End Date: 6/01/2024

Number of Wetland Crossings: Two

Number of Stream Crossings: One

***Best Management Practices Applied***

Stream Crossings: Three verified vernal pools

Filter Strips: Two variable width filter strips

Wetland Crossings: Two corduroyed crossings

Harvesting in Wetlands: There 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***

The working unit was acquired from different owners around 1992. This unit was harvested most recently in 2006 with the goal of creating 5 new regeneration patch openings totaling 4 acres in addition to 18 acres worth of thinning that created some disturbance within mountain laurel areas and brought in some sunlight. The thinning has resulted in good quality regeneration consisting of mostly white pine (which is ideal) and hardwoods including red maple, black birch, red oak, white oak, black oak, sassafras, American beech, black cherry and hemlock. The overstory is primarily comprised of good quality white pine along with smaller amounts of black oak, red oak, white oak, red maple, black birch and yellow birch. There are still some patches of witch-hazel and mountain laurel, along with some highbush blueberry occurring even on the higher ground of the working unit. Some boulder outcrops were noted, as was an old bridge over East Wachusett Brook made out of a telephone pole.

### ***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***

This working unit has 46 manageable forested acres. Good regeneration was found to be spread fairly evenly throughout the working unit. There are already 4.7 acres of young forest resulting from the 2006 harvest. With this in mind we, 7.6 acres of openings which range in size from 0.8-2.0 acres in size will release the regeneration and create a new age class in this area.

### ***Cultural Resources***

This area has been assessed by the DCR Archeologist for both known sites of cultural or archeological importance as well as for potential use by pre-Contact Native Americans.

### ***Rare or Endangered Species***

NHESP has determined that certain state-listed sensitive species or habitats may exist within the lot proposal area. To protect them from unnecessary disturbance, detailed information regarding affected species and their locations is not included in this report. DWSP will coordinate with NHESP and follow recommendations to protect these species during the proposed activity.

## 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-C

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

Site Information

### Location

Town Sterling Lot 5300  
Road Redemption Rock Trail - Rt. 140  
Acres 52.8 Proposed Start Date 6/22  
Vol. MBF 114.4 Vol. Cds. 53 Vol. Tons 96

### 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	25'	55'		
Mitigation	DR	DR		
Stabilization	CO	OT		

### 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	Note:
LF Mass. Lic. For.	CU Culvert	SE Seed	FR Frozen	LE Ledge	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.
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			

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

**Products to be Harvested\***

Species	Mbf/Cds		Mbf/Cds
White Pine	104.3	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	9.6
Hemlock		Black Oak	0.5
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash		<b>Total Mbf</b>	114.4
Beech		<b>Cordwood (Cds)</b>	53
White Birch		<b>SW Pulp (Tons)</b>	96
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	OH	MH	RM
Acres	36.8	4.6	7.5	3.9
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	OT	OT
Type of Cut	SH	SH	n/a	n/a
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)

\_\_\_\_\_  
Date

**Determination and Status**

Approved  Disapproved  Expires \_\_\_\_\_

\_\_\_\_\_  
Signature of Service Forester/Director's Agent

\_\_\_\_\_  
Date

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

Amendment App 1  Dis 1  App 2  Dis 2  / /

**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

Forest Types				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	AD Advanced
WK WP/Hem	HH Hem/Hdwd	RM Red Maple	LT Leave Tree	ST Seed Tree	NT Non Com Thin	SE Natural Seed	SE Natural Seed
WH WP/Hdwd	BC Black Cherry	BE Beech	SB Stand Boundary	CC Clear Cut	OT Other	PL Plant	PL Plant
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir	OT Other	SE Selection	SA Salvage	CO Coppice	CO Coppice
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple	Landowner Objective	SA Salvage	SN Sanitation	DS Direct Seed	DS Direct Seed
SR Red Spruce	OR N Red Oak	PP Pitch Pine	LT Long-term Mgt.	SN Sanitation	DL Diameter Limit*	OT Other	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

# Forest Cutting Plan

Narrative Page

Landowner: \_\_\_\_\_

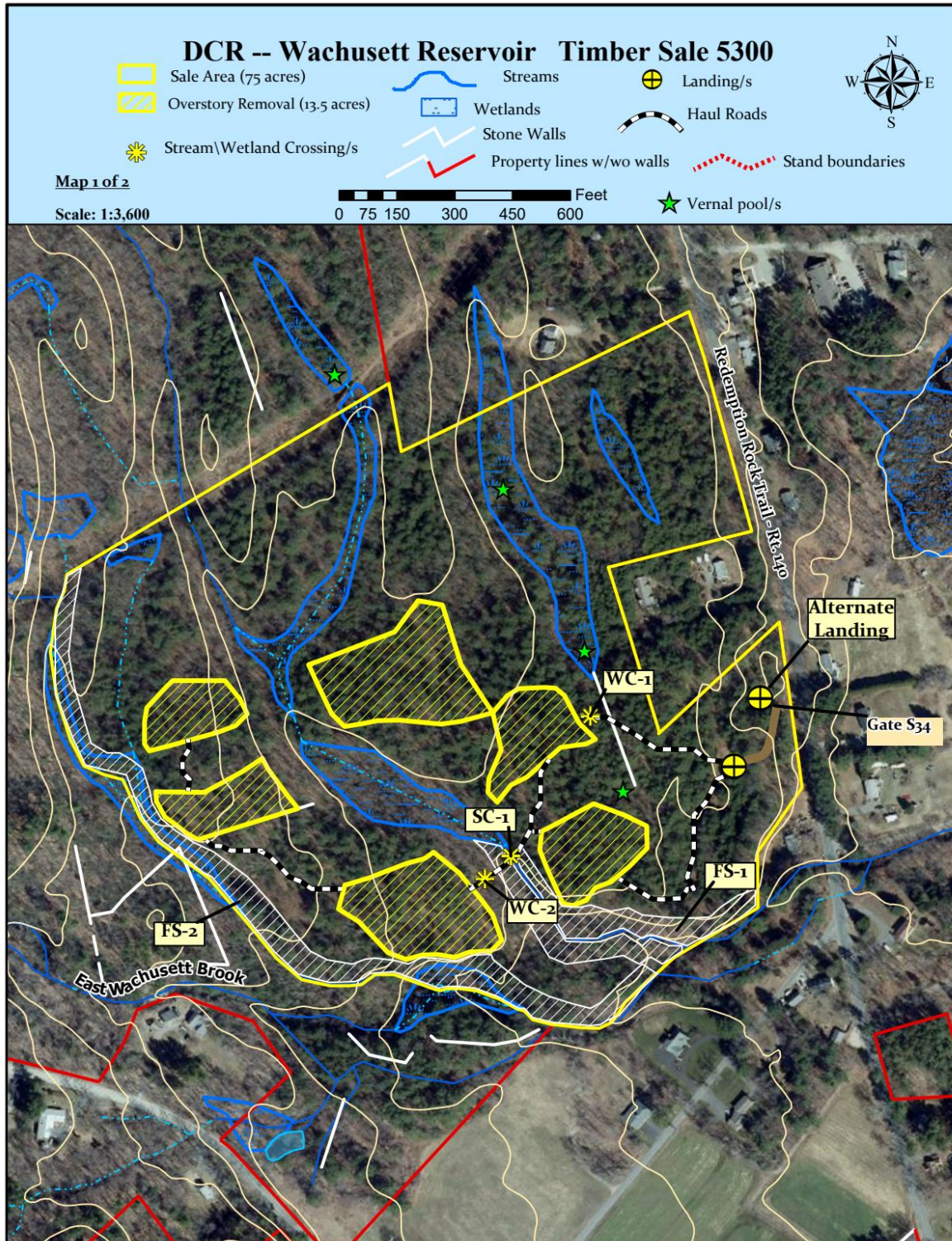
Town: \_\_\_\_\_

File Number: \_\_\_\_\_


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

<b>BMPs</b>	<p><u>Depending on the conditions at the time of operation, WC-1 may not be utilized.</u></p> <p><u>Swamp mats will be required at WC-2.</u></p> <p><u>Both WC-1 and WC-2 are needed because of small unmapped wetlands at each location.</u></p>
<b>Silviculture</b>	<p><u>In order to release advance regeneration, 6 openings in the overstory are being created, covering 7.6 acres. These openings range from .78 acre to 2.1 acres in size with an average of 1.2 acres. They are well distributed throughout the area taking advantage of the advance regeneration comprised of white pine, oaks, and other hardwoods. No thinning will occur between any of these patches.</u></p>
<b>Object</b>	<p><u>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.</u></p>
<b>Other</b>	<p><u>The preferred landing location is in the old field inside Gate S34. This landing was used when this same site was first harvested in 2006. However, if log trailers cannot make it up the short road inside Gate S34, the alternate landing location next to Rt. 140 will need to be used.</u></p> <p><u>All haul roads between openings have been flagged along with the crossings.</u></p> <p><u>No cutting is taking place in either FS-1 or FS-2.</u></p> <p><u>No cutting is taking place in either ST-3 or ST-4.</u></p>

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



# DCR -- Wachusett Reservoir Timber Sale 5300

 Sale Area (75 acres)


 Overstory Removal (13.5 acres)


 Stream\Wetland Crossing/s

 Streams

 Wetlands

 Stone Walls

 Property lines w/wo walls

 Landing/s

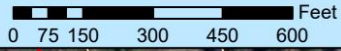
 Haul Roads

 Stand boundaries



Map 2 of 2

Scale: 1:3,600



 Vernal pool/s

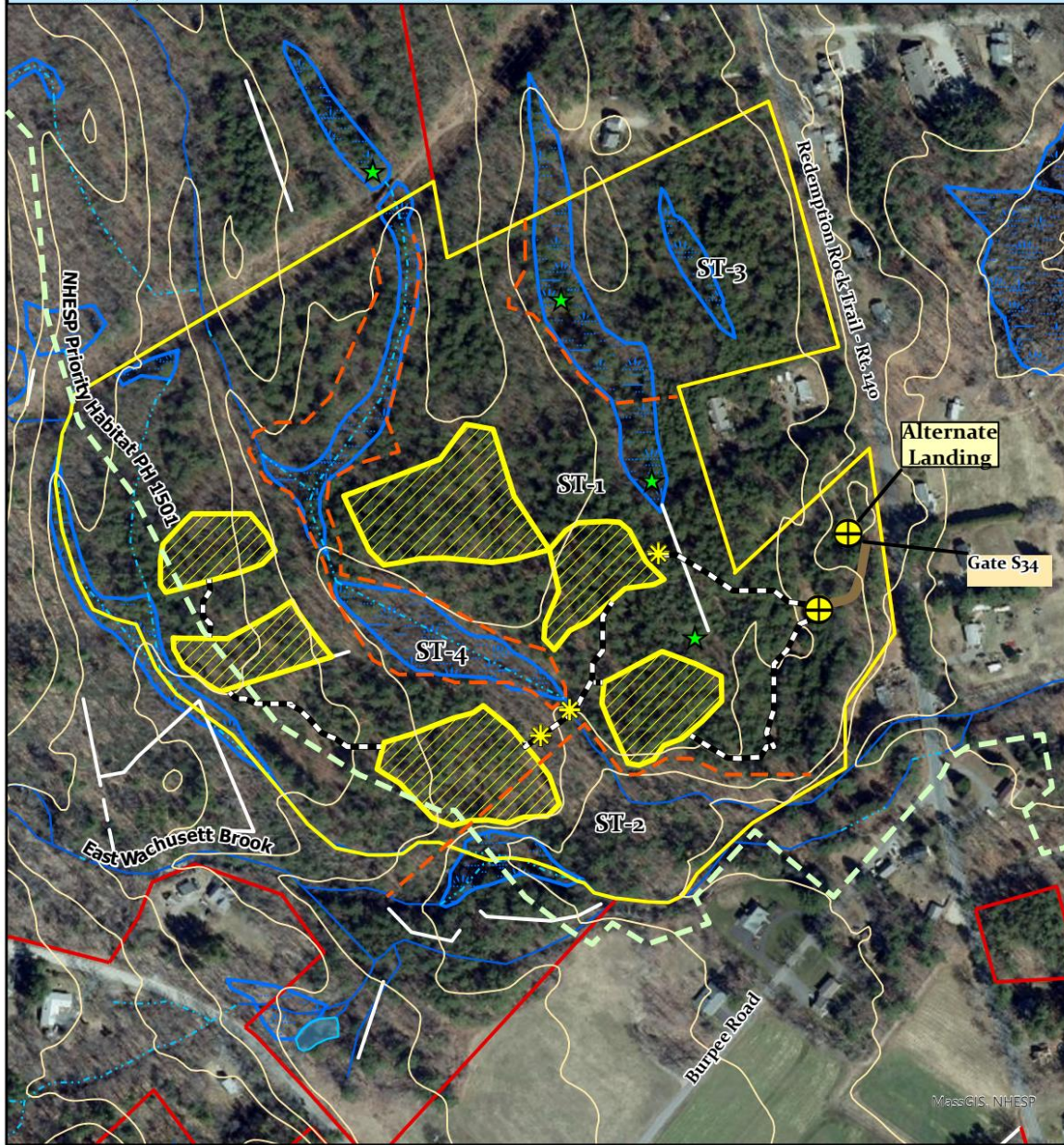
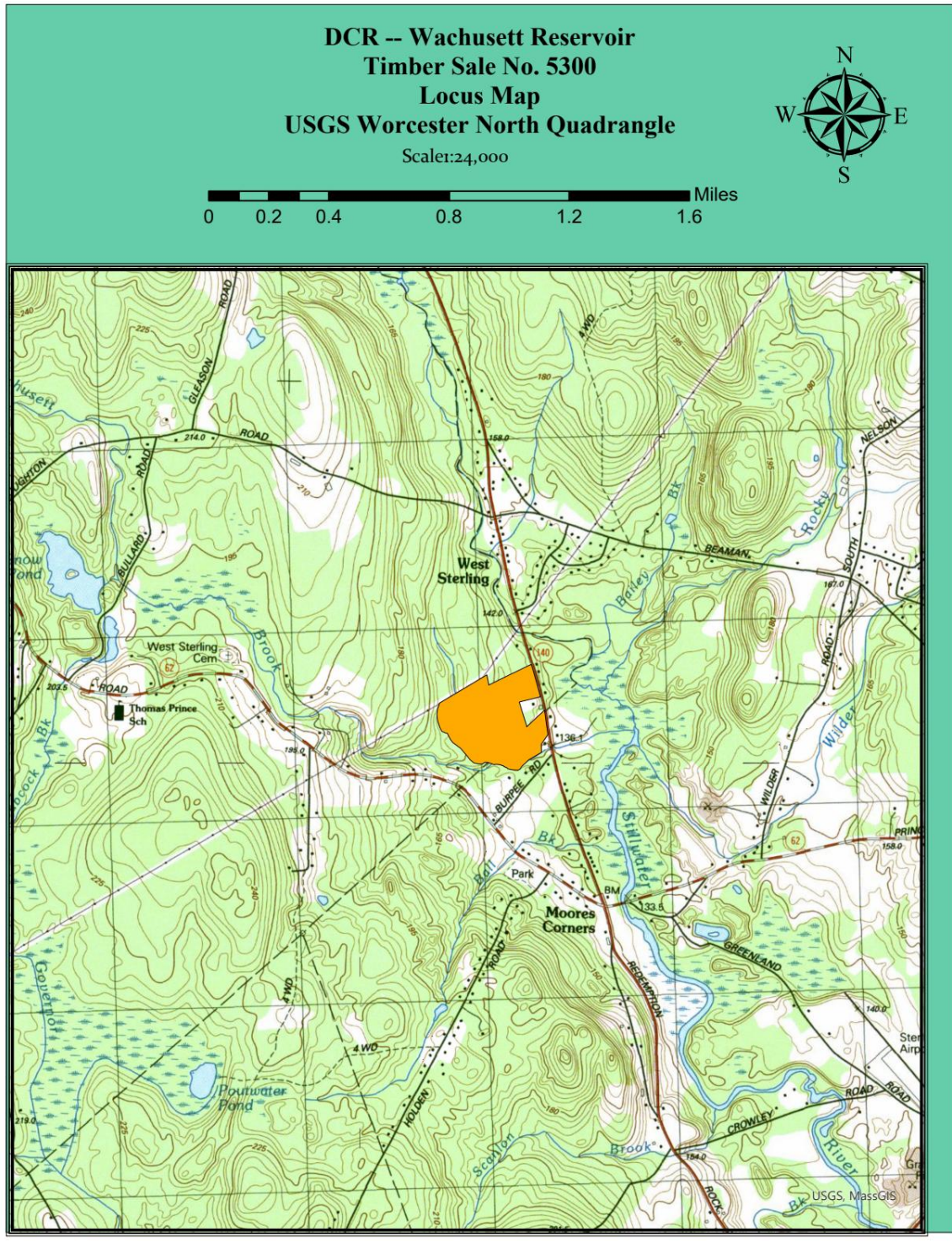


Figure 3. General locus map showing the location of the proposed timber harvest



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



**A-Landing Area**



**B- Opening with white oak retention and diverse hardwood understory.**



C- Opening with white pine marked for removal with diverse understory.



D-Stream Crossing

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



**A. Stream Crossing that was well protected through the use of timber bridges.**



**B. Part of a 1.7 acre opening where the white pine and hardwood understory is now free to grow.**



C. A 0.8 acre opening. The white pine in the right foreground is an overstory tree that is retained for the purpose of providing additional structural diversity.