

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

**Project Title:**

<b>DWSP Harvest Permit Number: 5300</b>
<b>DCR Forest Cutting Plan File Number: WA-21-148</b>

**Site Information**

<b>Watershed: Wachusett</b>	<b>Town(s): Sterling</b>
<b>Acres: 53</b>	<b>Nearest Road: Redemption Rock Trail/Rte 140</b>
<b>Natural Heritage Atlas overlap?: Yes</b>	<b>Public Drinking Water Supply Watershed?: Yes</b>
<b>Forest Types: White pine/oak, Mixed hardwoods</b>	<b>ACEC?: No</b>
<b>Soils: Hinckley sandy loam, moderately well drained Sudbury</b>	
<b>Wetland Resources: Several wetlands and an intermittent stream</b>	
<b>Vernal Pools: Three verified vernal pools</b>	

**Harvest Information**

<b>DWSP Permit Start Date: 06/01/2022</b>	<b>DWSP Permit End Date: 06/01/2024</b>
<b>Number of Wetland Crossings: 2</b>	<b>Number of Stream Crossings: 1</b>

**Best Management Practices Applied**

<b>Stream Crossings</b>	One poled crossing
<b>Filter Strips</b>	Two variable width filter strips
<b>Wetland Crossings</b>	Two corduroyed crossings
<b>Harvesting in Wetlands</b>	None

<b>DWSP Forester supervising this harvest</b>
<b>Name: Greg Buzzell</b>
<b>Forester License #: 25</b>
<b>Phone #: 774-261-1841</b>

## **NARRATIVES**

### **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.

### **Wildlife/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. 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-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	<small>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.</small>
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

pg 3 of 5

**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
Cutting Plan	<input type="checkbox"/>	<input type="checkbox"/>	_____
Signature of Service Forester/Director's Agent	Date		
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"/> _____

**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
WK WP/Hem	HH Hem/Hdwd	RM Red Maple		LT Leave Tree	ST Seed Tree	NT Non Com Thin	SE Natural Seed
WH WP/Hdwd	BC Black Cherry	BE Beech		SB Stand Boundary	CC Clear Cut		PL Plant
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir		OT Other	SE Selection	<b>Non-Standard Systems:*</b>	CO Coppice
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple		<u>Landowner Objective</u>	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: \_\_\_\_\_

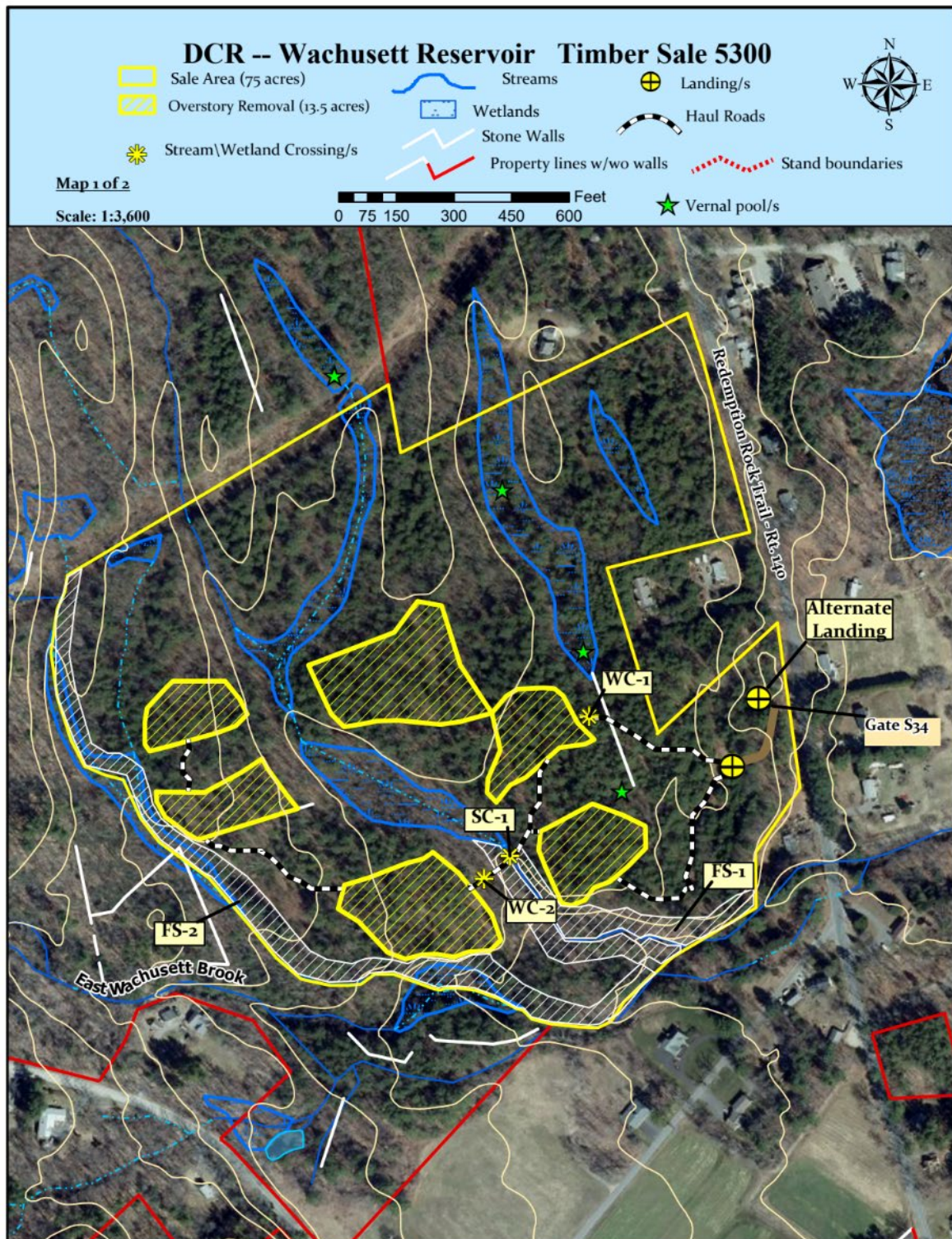
Town: \_\_\_\_\_

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

<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. Map 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)

Streams

Wetlands

Stone Walls

Property lines w/wo walls

Landing/s

Haul Roads

Stand boundaries

Stream\Wetland Crossing/s

Vernal pool/s



Map 2 of 2

Scale: 1:3,600

0 75 150 300 450 600 Feet

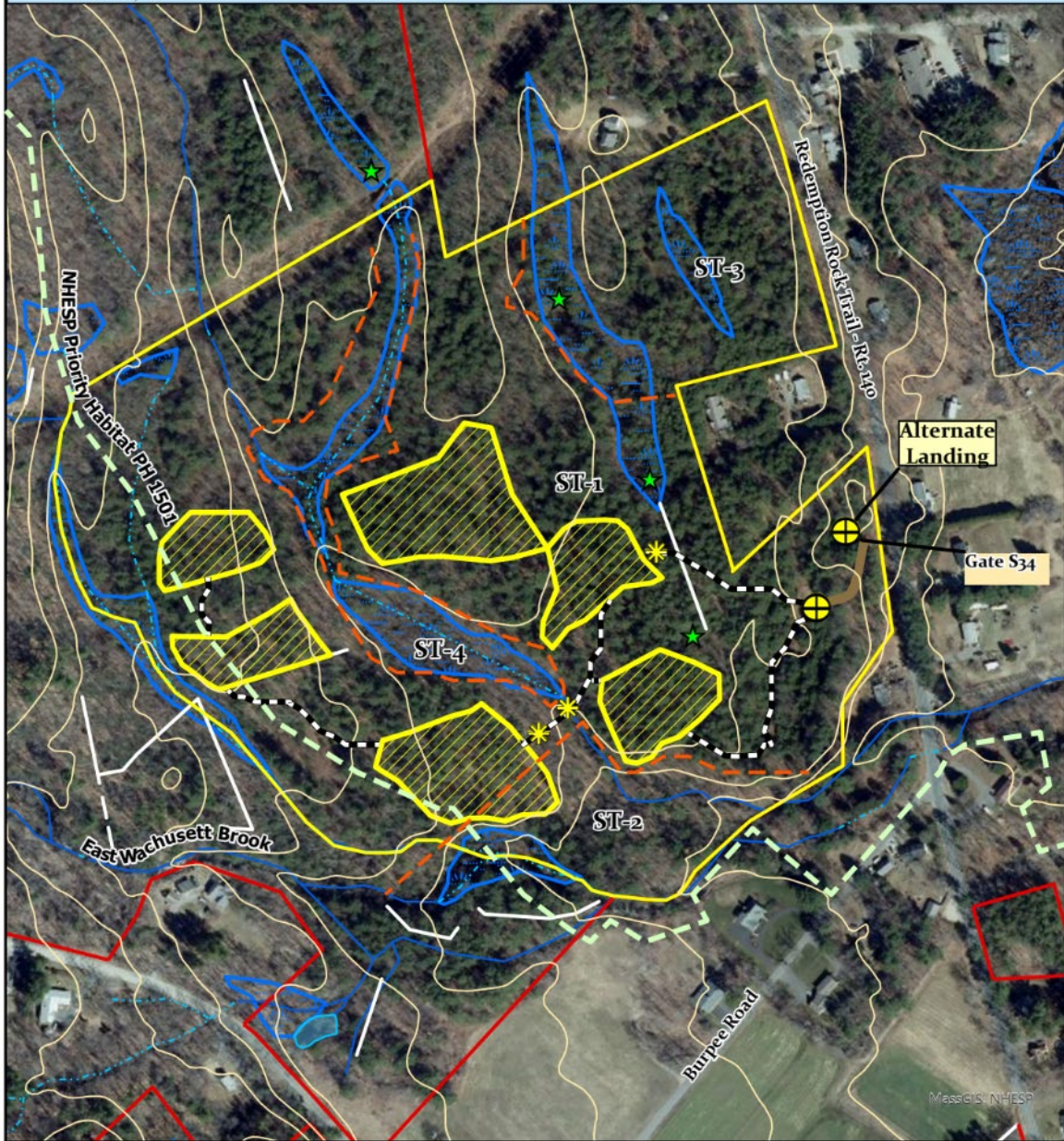
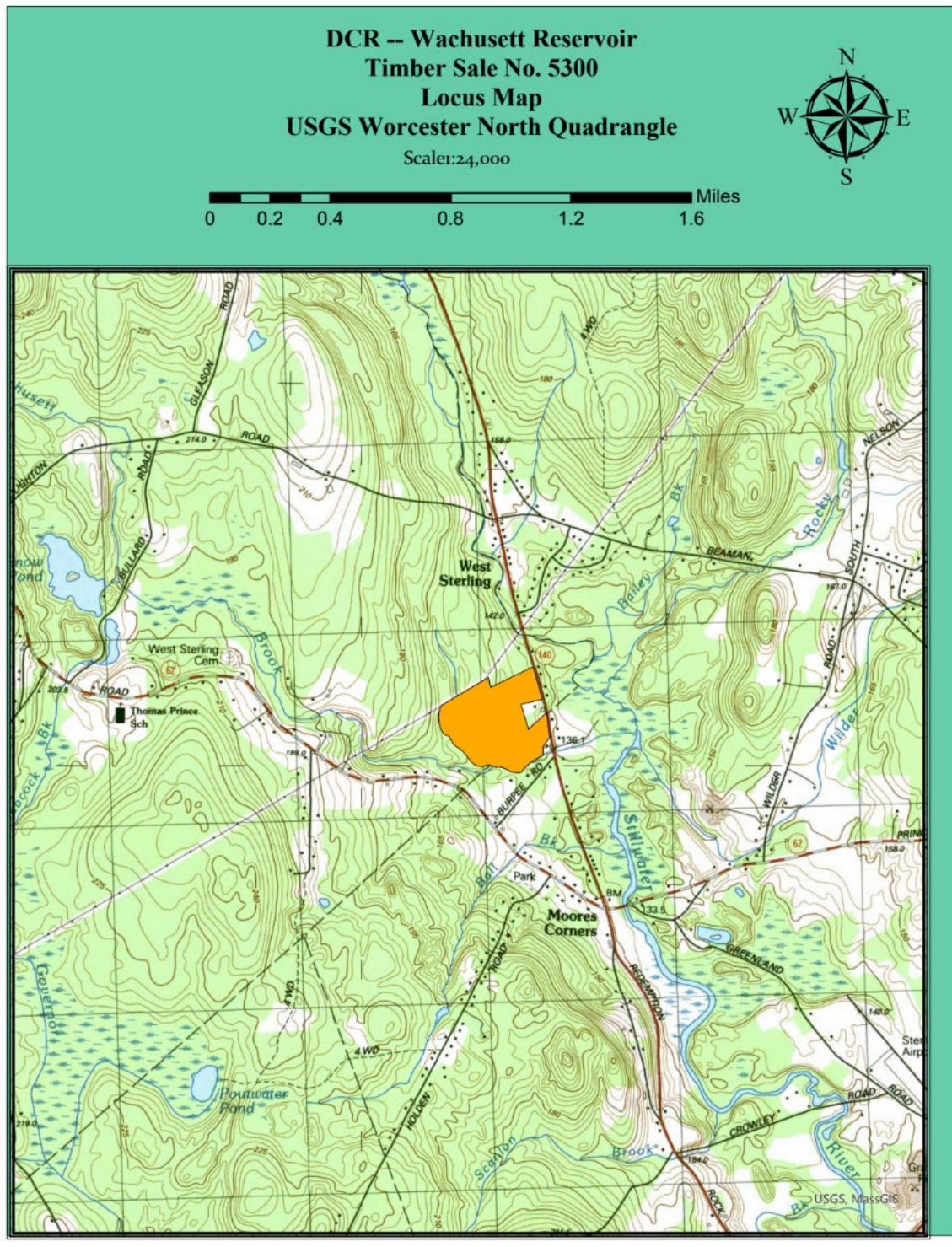




Figure 3. General locus map showing the location of the proposed timber harvest





**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.