

**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: Lot 5282</b>
<b>DCR Forest Cutting Plan File Number:241-11023-19</b>

**Site Information**

<b>Watershed: Wachusett</b>	<b>Town(s):Princeton</b>
<b>Acres: 15</b>	<b>Nearest Road: Worcester Rd (Rte. 31)</b>
<b>Natural Heritage Atlas overlap?:No</b>	<b>Public Drinking Water Supply Watershed?: Yes</b>
<b>Forest Types: White pine-oak; oak-mixed</b>	<b>ACEC?: No</b>
<b>Soils: Woodbridge-Paxton, extremely stony</b>	
<b>Wetland Resources: There are no wetland resources in the sale area. However, access into the site will require stream crossings which will include their associated bordering vegetated wetlands.</b>	
<b>Vernal Pools: There are no known vernal pools.</b>	

**Harvest Information**

<b>DWSP Permit Start Date: 06/19/19</b>	<b>DWSP Permit End Date: 06/30/21</b>
<b>Number of Wetland Crossings: None</b>	<b>Number of Stream Crossings: Three</b>

**Best Management Practices Applied**

<b>Stream Crossings</b>	There are three stream crossings (outside of the sale area).
<b>Filter Strips</b>	There are no filter strips.
<b>Wetland Crossings</b>	There are no wetland crossings.
<b>Harvesting in Wetlands</b>	There is no harvesting in wetlands.

<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:**

This property was purchased by the MDC in 1996. This former pasture is dominated by white pine, red oak, white oak and black oak with lesser numbers of red maple, black birch, hickory, yellow birch and sassafras. The white pine is of generally good quality with few of the multi-stemmed individuals common to abandoned pastures. The yellow birch is present almost exclusively on the flat area near the wetland and on the adjacent southwest facing slope. The understory is dominated by advance regeneration. Regeneration sampling found adequate regeneration present on 76% of the plots with marginal regeneration on the remaining 24% of the plots. This regeneration is comprised of white pine, white oak, red oak, black birch, red maple, black oak, yellow birch and sassafras. What little there is of a shrub layer is comprised primarily of lowbush blueberry.

### **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 is within the young forest focus area that was chosen for the Wachusett watershed in the 2017 Comprehensive Land Management Plan (see the CLMP for a full discussion of this topic).

### **Silvicultural Objectives:**

This area was chosen because of the relatively large contiguous block of DCR land; the presence of DCR-maintained fields in the area and a timber sale that was conducted in 2006 that included a 12.6 acre early successional habitat overstory removal cut. This 15-acre proposed overstory removal cut will directly abut the 12.6 acre cut. The entire overstory will be removed except for green retention as required in the CLMP. The level of retention in the adjacent 12.6 cut will give a good impression of the amount of the retention that will be maintained in this area. Trees were left primarily in small groups focusing on species not common on the site (e.g. black cherry) or providing for additional structural diversity by leaving groups of pole-sized trees or just leaving groups of trees that are typical of the overstory. Single trees are retained as well. These are often trees of superior form and quality or of larger than average size.

### **Cultural Resources:**

This site is partially bordered by stone walls which will be protected.

### **Wildlife/Rare or Endangered Species:**

None known.

## **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-B**

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

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)

JUN 03 2019

## For DCR Use Only:

File Number 241-11023-19 Case No.         
Date Rec'd 6-3-19 Nat. Hert. NO  
Earliest Start 6-18-19 Nat. Hert. Imp. NO  
River Basin NASHUA Pub. Dr. Wat. WACHUSETT  
Gen. Obj. LT ACEC NO

Site Information

## Location

Town Princeton Lot 5282  
Road Worcester Rd. (Rt.31)  
Acres 15 Proposed Start Date 6/2019  
Vol. MBF 104.2 Vol. Cds. 223 Vol. Tons 148

## 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	BR	BR	
Existing Structure	No	No	NO	
Type of Bottom	GR	ST	GR	
Bank Height (ft)	1'	2'	1'	
Stabilization	CO	CO	CO	

## 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			

## 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

\*UTILIZING A METHOD OTHER THAN THE  
APPROVED BUFFERED STREAM CROSSING'S REQUIRES  
AN AMENDMENT TO THIS PLAN

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

## Products to be Harvested\*

Species	Mbf/Cds		Mbf/Cds
White Pine	81.9	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	4.6
Hemlock		Black Oak	10.3
Spruce		White Oak	7.4
Other Sftwd.		Other Hdwd.	
White Ash		<b>Total Mbf</b>	104.2
Beech		<b>Cordwood (Cds)</b>	223
White Birch		<b>SW Pulp (Tons)</b>	148
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	WO	OM		
Acres	8.0	7.0		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	CC	CC		
Source of Regeneration	AD	AD		

## 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

6/3/19

## Determination and Status 241-11023-19

## Final Report and Comments

Approved Disapproved Expires

Cutting Plan

☒☐

6-3-2021

Signature of Service Forester/Director's Agent

Date

6-14-2019

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

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

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

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

Town: Princeton

File Number: 241-11023-19

BMPs	<u>These are the same stream crossings that were used for Lot 5189 in 2006 (CP #241-425-3). SC-1 is actually comprised of two crossings of the same small, braided intermittent stream. The plan is to ford them when the stream is dry or frozen. If they must be crossed when flowing, all necessary mitigations will be used depending upon the conditions. SC-2 is a small perennial, very rocky stream. Bridging may not be possible due to the rockiness. The approaches on either sides of both SC-1 and SC-2 will be corduroyed or otherwise appropriately armored.</u>
Silviculture	<u>This overstory removal cut is approximately 15 acres in size. Four small patches of forest and numerous individual trees have been retained to mimic the result of the natural disturbance which would create such an opening.</u>
Objectives	<u>This cut has been designed with the input of our wildlife biologists and in accordance with the DWSP 2017 Land Management Plan to enhance the biodiversity of the watershed by the creation of a relatively large even-aged early-successional stand. The larger DCR-owned property that this area is a part of, was chosen as a young forest focus area where, every 3-5 years, a new early-successional habitat cut will occur.</u>
Other	



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

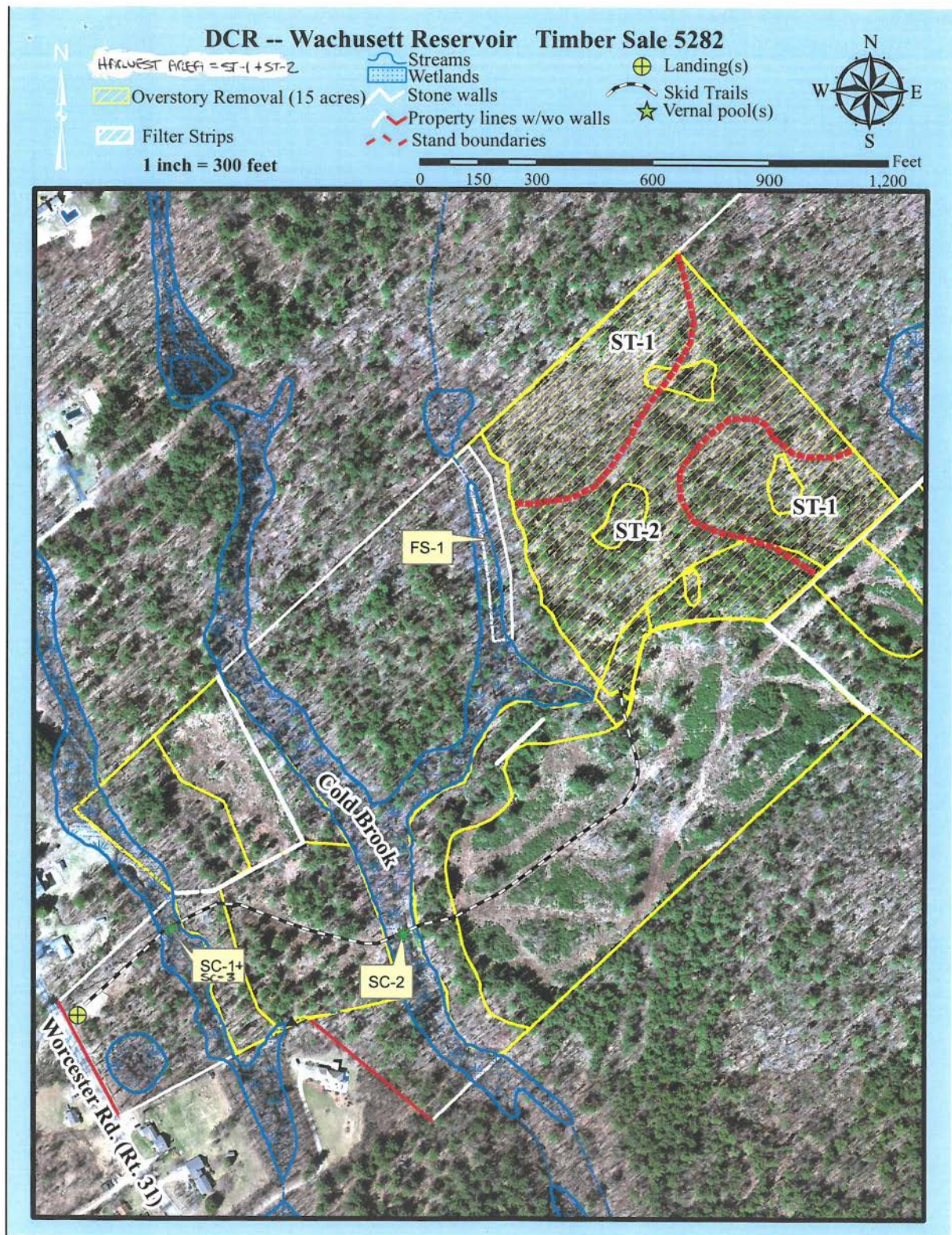
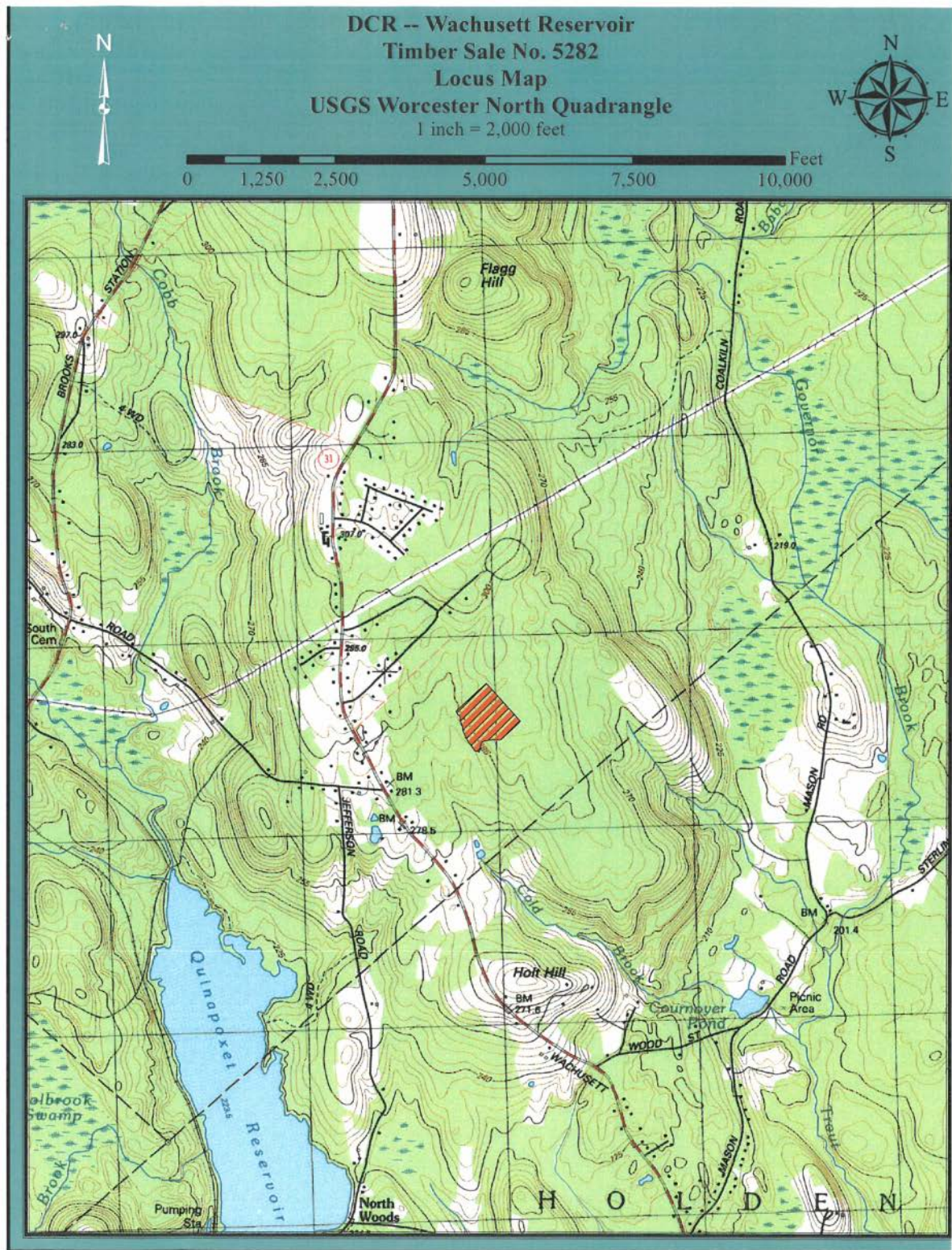




Figure 3. General locus map showing the location of the proposed timber harvest





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

A. Wachusett St-Rte 31 access.



B. Landing.





C. Stream Crossings 1 & 2





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



A. The landing as seen from Rt. 31 (Worcester Road)



B. The main skid trail passing through first early successional habitat cut that was done in this area in 2006.





C. The flagged trees were intentionally retained in order to more closely mimic the patchy effect that large-scale natural disturbances typically have.



D. This is the northeast corner of the area looking towards the early successional habitat that was created in 2006. The retained trees to the right are a small group of white oaks, some of which show evidence of use by black bears as marking trees.