

**Division of Water Supply Protection, Office of Watershed Management**  
***Forest Management Project Summary***

**Project Title:**

<b>DWSP Harvest Permit Number: Lot 5283</b>
<b>DCR Forest Cutting Plan File Number: 134-16375-20</b>

**Site Information**

<b>Watershed: Wachusett</b>	<b>Town(s): Holden</b>
<b>Acres: 88</b>	<b>Nearest Road: River Street</b>
<b>Natural Heritage Atlas overlap?: Yes</b>	<b>Public Drinking Water Supply Watershed?: Yes</b>
<b>Forest Types: Mixed oak; white pine-oak</b>	<b>ACEC?: No</b>
<b>Soils: The excessively drained Windsor, Hinckley and Merrimac soils make up almost all of the soils that will be managed. Agawam make up only one half acre and Hadley, Limerick and Freetown are along the Quinapoxet River, abutting the pond outside our property to the east and a small chunk beside River Street.</b>	
<b>Wetland Resources: No stream or wetland resources will need to be crossed, and no harvesting will take place in wetlands.</b>	
<b>Vernal Pools: There are two verified vernal pools. They are both associated with the old piece of the Quinapoxet River that was cut off when the railroad bed was constructed.</b>	

**Harvest Information**

<b>DWSP Permit Start Date: 9/11/19</b>	<b>DWSP Permit End Date: 12/15/21</b>
<b>Number of Wetland Crossings: None</b>	<b>Number of Stream Crossings: None</b>

**Best Management Practices Applied**

<b>Stream Crossings</b>	There are no stream crossings.
<b>Filter Strips</b>	A very small area of cutting will occur in one of the 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: Russ Wilmot</b>
<b>Forester License #: 426</b>
<b>Phone #: 774-261-1840</b>

## **NARRATIVES**

### **General Description/Forest Composition/History:**

This working unit was part of the original takings and was previously owned by the Linus M. Harris Manufacturing Company. Linus ran a cotton mill and then later it turned into a shoddy mill which was demolished in 1902. The 1938 hurricane survey showed "scattering damage" on this parcel. This lot was first cover typed in 1951 as hardwoods. This property is characterized by its highly variable topography and its steep slopes along the Quinapoxet River. Most of the forest in this proposed sale area is a mixed oak stand with an overstory of red oak, black oak, white oak, white pine, red maple and scattered black cherry. The understory is dominated by advance regeneration comprised of white pine, oaks, red maple, hemlock, black cherry, sassafras and eastern hophornbeam. Shrubs are primarily lowbush blueberry, witch-hazel, mountain laurel, shadbush and sheep laurel. Several timber sales have occurred over the years that have resulted in good regeneration and a small component of young forest. The first work was conducted in 1983 in the central area of the working unit targeting low quality oaks in the overstory. At that time, it was noted that while some white pine regeneration is present - it is of inadequate quantities and should be planted. In 1997 a small area of cordwood was cut in the western section. The most recent activity was in 2007 focusing on the eastern section where three openings were made and one thinned area. The working unit has a decent quality mix of oaks and the white pine is of a better health and vigor. An ice storm has damaged the oaks which are still in the process of rebuilding their crowns.

### **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 such widespread advance regeneration on this working unit, openings will be made throughout. 19.1 acres of openings have been marked. Openings have been spaced and placed in relation to the topography and regeneration and they range from 0.5 to 2.2 acres in size. Some openings might abut pre-existing openings to further release regeneration where viable. Active den/nest trees and exceptional individuals of all species present will be retained for habitat and/or diversity. An additional 6.6 acres will be salvaged where gypsy moth caterpillars have killed most of the oaks. The combination of mortality and removal in some portion of these areas will no doubt result in the release of a new age class of young forest. The mapping of such areas will occur after the harvest is complete.

### **Cultural Resources:**

None known.

### **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-B**

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

Figure 1. Forest Cutting Plan

COPY for Greg Buzzell

## 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) JUL 26 2019

**For DCR Use Only:**

File Number <u>124-16375-20</u>	Case No. _____
Date Rec'd <u>7-20-19</u>	Nat. Hert. <u>YES</u>
Earliest Start <u>8-12-19</u>	Nat. Hert. Imp. <u>YES</u>
River Basin <u>NASHUA</u>	Pub. Dr. Wat. <u>WACHUSETT</u>
Gen. Obj. <u>LT</u>	ACEC <u>NO</u>

**Location**

Town Holden Lot 5283

Road Harris Street

Acres 88 Proposed Start Date 09/11/19

Vol. MBF 58.7 Vol. Cds. 399 Vol. Tons 12

**Plan Preparer**

Name Russell Wilmot

Address 180 Beaman St.

Town, State, Zip West Boylston, MA, 01583

Phone 774-261-1840

Type of Preparer Mass. Licensed Forester

\*Mass. Forester License # 426

\*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 774-261-1840

Ch61 ☐ Ch61A ☐ Stew ☐ \*Case # \_\_\_\_\_

Est. Stumpage Value \_\_\_\_\_

**Licensed Timber Harvester\*\***

Name Will be provided when known

Address \_\_\_\_\_

Town, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_

Mass. Lic. Harvester # \_\_\_\_\_

\*\*This information may be supplied after the plan is approved, but before work begins.

**Stream Crossings**

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing				
Existing Structure				
Type of Bottom				
Bank Height (ft)				
Stabilization				

**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	

**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**

\* OPERATION OF MOTORIZED VEHICLES WITHIN 0 TO 50' OF QUINAPOXET SHALL OCCUR ONLY NOV 15 TO APRIL 15

\* OPERATION OF MOTORIZED VEHICLES WITHIN 50' TO 300' OF QUINAPOXET SHALL OCCUR ONLY OCT 15 TO APRIL 15

\* SEE N HESP DETERMINATION LETTER FOR DETAILS

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	27	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	10.5
Hemlock		Black Oak	12.9
Spruce		White Oak	8.3
Other Sftwd.		Other Hdwd.	
White Ash		<b>Total Mbf</b>	58.7
Beech		<b>Cordwood (Cds)</b>	399
White Birch		<b>SW Pulp (Tons)</b>	12
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	MO	WO	MO	
Acres	73.9	7.5	6.6	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SH	SH	SA	
Source of Regeneration	AD/SE	AD/SE	AD/SE	

## 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 134-16375-20

Approved ☒ Disapproved ☐ Expires 7-26-2021

Signature of Service Forester/Director's Agent. Date 8-9-2019

## 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

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

\*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: DCE-DWSP

Town: Holden

File Number: 34-16375-20

BMPs	<p><u>There are no stream crossings. There will be a small amount of cutting in one filter strip (FS-2) and no cutting in wetlands. Forwarder trails are flagged and were determined by topographical challenges and the avoidance of wetlands, streams and forest roads. There are two landing locations in the southeast corner of the sale.</u></p>
Silviculture	<p><u>In order to release advance regeneration 16 openings in the overstory are being created, covering 19.1 acres. These openings range from a 0.5 acre to 2.2 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, black cherry, oaks and other hardwoods. No thinning will occur between any of these openings.</u></p> <p><u>Another two sections totaling 6.6 acres are an oak salvage cut for dead and almost dead oaks that were infested with gypsy moth caterpillars.</u></p>
Objectives	<p><u>The first 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> <p><u>The second objective is the removal of dead and dying oaks that were ravaged by gypsy moth caterpillars.</u></p>
Other	<p><u>The Natural Heritage GIS layer comes into the sale area (Priority Habitat # 1383) surrounding the Quinapoxet River. There will be cutting and hauling in sections of this NHESP layer.</u></p>

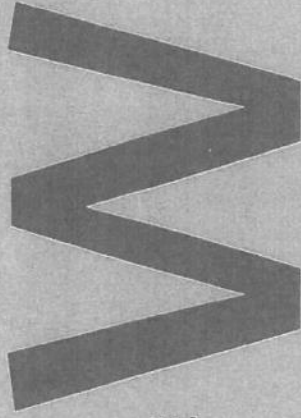
dc



COMMONWEALTH OF MASSACHUSETTS  
Department of Conservation and Recreation  
Division of State Parks and Recreation

FILE #

134-16375-20



## 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 DCR/DWSE/OWM  
(Name of Owner)

West Boylston  
(Address) in accordance with the

provision of M.G.L. Chapter 132, Section 40-46, filed in CLINTON with the Dept. of Conservation and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the

HARLES lot.

Lot 5283

8-9-2019

Approval Date

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

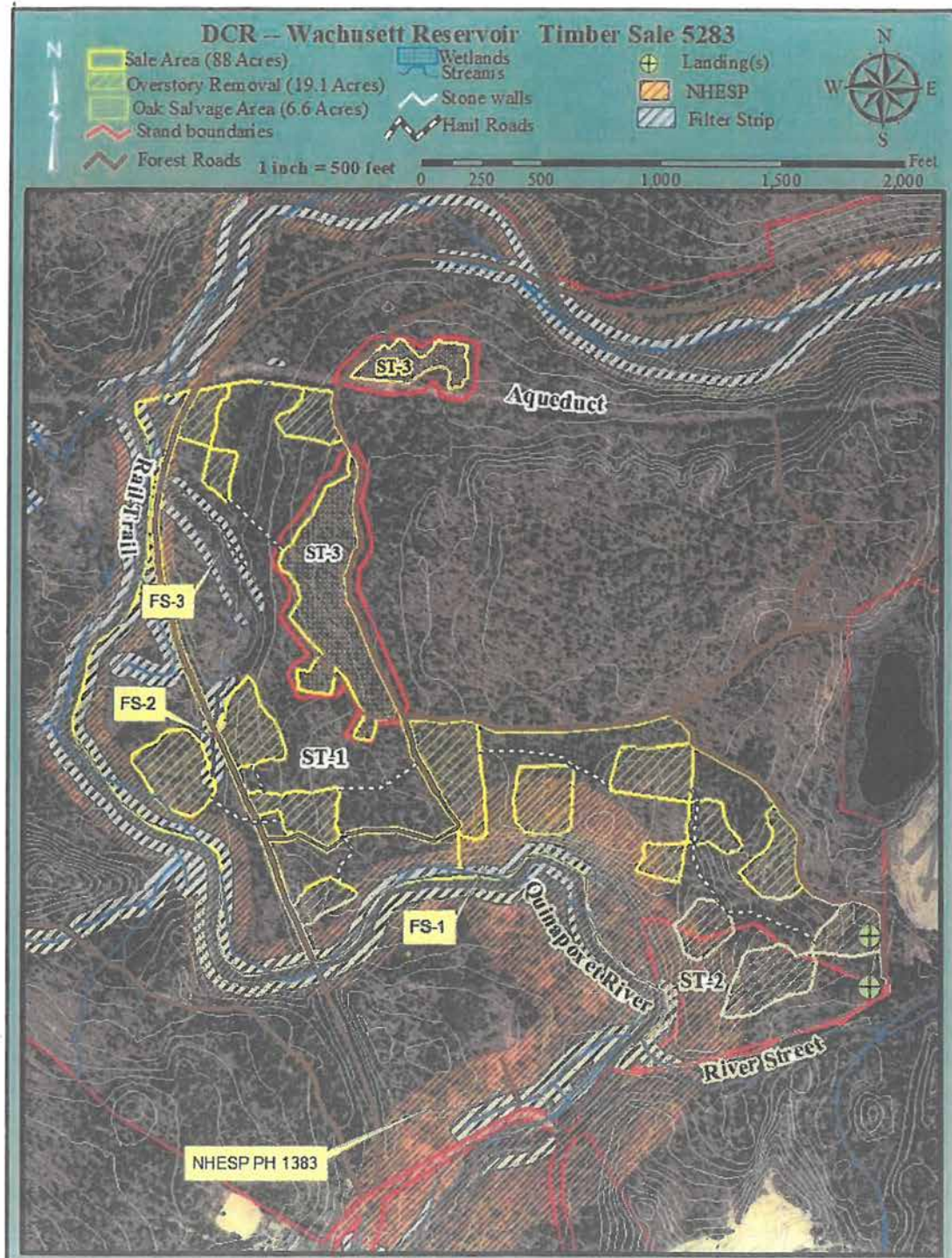
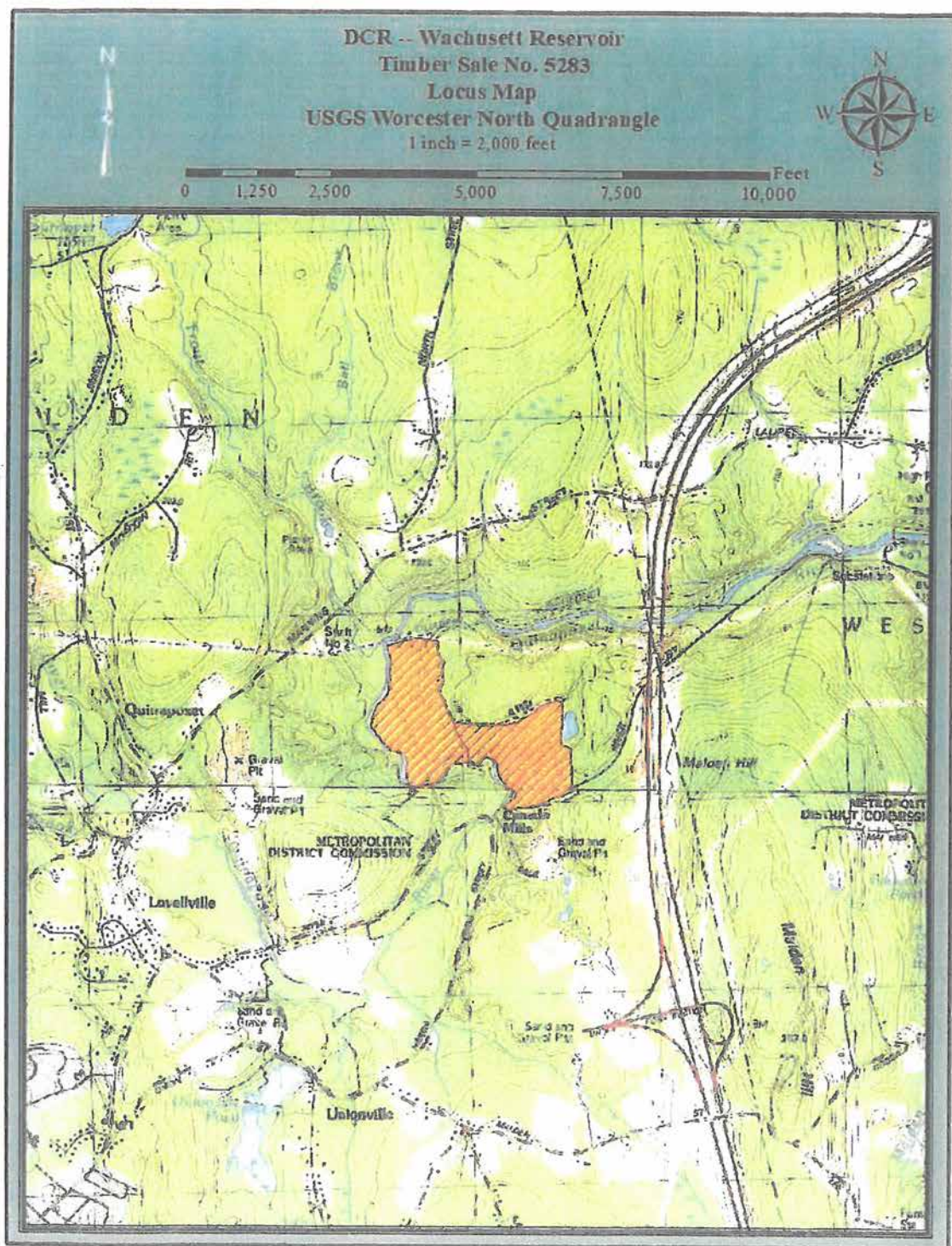




Figure 3. General locus map showing the location of the proposed timber harvest





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

A. Landing just inside Gate H20 on River Street.



B. Opening with diverse regeneration to be released.





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



A. Most of the older forest overstory was removed in this area, giving the younger seedlings and saplings the light and space they need to continue to thrive. Some overstory trees are retained to provide valuable structural diversity.



B. Oaks that had been killed by the recent gypsy moth infestation were removed in this area.