Massachusetts Department of Conservation and Recreation
Division of Water Supply Protection, Office of Watershed Management

Forest Management Project Summary

Project Title: Lot 5288
DWSP Harvest Permit Number: 5288
DWSP Proposal ID: WA-19-328
DCR Forest Cutting Plan File Number: 282-27833-20

Site Information
Watershed: Wachusett
Town(s): Sterling
Acres: 62
Nearest Road: Justince Hill Road and Upper North Row Road
Natural Heritage Atlas overlap?: No
Public Drinking Water Supply Watershed?: Yes
Forest Types: White pine/oak, Mixed oak, Hemlock-hardwood
ACEC?: No
Soils: Chatfield-Hollis-Rock outcrop complex, Paxton and Woodbridge fine sandy loams
Wetland Resources: An intermittent stream originates from a wetland within this area and flows to the southeast. There is another intermittent stream in the northeast corner of this area. Rocky Brook forms the far western boundary of this area.
Vernal Pools: There is a vernal pool in the far northeast corner of this area.

Harvest Information
Harvest Start Date: 6/17/2020
Harvest End Date: 6/30/2023
Number of Wetland Crossings: None
Number of Stream Crossings: Two

Best Management Practices Applied
Stream Crossings: The southern stream crossing will require a temporary bridge in the form of a timber bridge or swamp mat. The northerly crossing will occur at an existing culvert.
Filter Strips: No trees will be cut in the filter strips.
Wetland Crossings: No wetlands will be crossed.
Harvesting in Wetlands: No harvesting in wetlands will occur.

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 area is comprised of three properties purchased by DCR since 2016. The far western parcel shows no signs of having been logged within the past few decades. The primary species in the overstory is red oak along with white oak, black birch, red maple and scattered, large, dominant white pines. Nearer to Rocky Brook there is more yellow birch and white ash. This area is extremely rocky with a decent amount of advance regeneration, which due to the higher stocking of the overstory is far less well developed compared to the rest of the proposed area. The understory is comprised of maple-leaved viburnum, highbush blueberry and striped maple.

The far eastern parcel was logged about twenty years ago prior to DCR acquisition. There is excellent advance regeneration beneath most of the white pine, red oak, white oak and red maple overstory. Many of the white pine, especially in the northern end, are very large, bully white pines.

The majority of the proposed sale area is the middle parcel that was purchased in 2017. This area was also logged about 20 years and, as a result, has an excellent understory of advance regeneration comprised of red oak, white pine, red maple, black birch, hickory, sassafras and hemlock. In the higher elevations to the north, there is also a significant component of chestnut oak in the understory. The overstory on the south facing slope is very diverse, comprised of red oak, white oak, chestnut oak, white pine, hemlock, black birch red maple, hickory and sassafras. Understory shrubs present are maple-leaved viburnum (very tall), lowbush and high bush blueberry, mountain laurel and arrowwood. There is black gum in the wetland at the base of the slope along with red maple, yellow birch and hemlock. On the hill in the southern, narrow part of the sale area, the overstory is dominated by hemlock, red oak, red maple and white pine. Hemlock wooly adelgid is present in this forest and is having a noticeable impact on the health of the hemlock.

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

Given the diverse and plentiful advance regeneration, there was no problem in finding places to make openings in the overstory in this sale area. In total, 15 openings totaling 16.8 acres were marked. They range in size from 0.5 to 2.0 acres and they average 1.1 acres in size. Given the relative scarcity of chestnut oak on DCR property in the Wachusett watershed, special attention was paid to ensuring that chestnut oak is well represented in this new age class.

Cultural Resources

There are no known historic and archaeological resources associated with this site. If any features are uncovered before or during the harvest, they will be protected according to guidelines set forth in the Comprehensive Land Management Plan.

Rare or Endangered Species

None known.

Figures

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	282-27833-20	Case No.	—
Date Rec'd	5-11-2020	Nat. Hert.	NO
Earliest Start	5-25-2020	Nat. Hert. Imp.	NO
River Basin	NASHUA	Pub. Dr. Wat.	WACHUSETT
Gen. Obj.	CT	ACEC	NO

Site Information

Location

Town Sterling Lot 5288
Road Justice Hill Road/Upper North Row Road
Acres 62 Proposed Start Date 6/20
Vol. MBF 63.0 Vol. Cds. 264 Vol. Tons 70

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	CU		
Existing Structure	No	YES		
Type of Bottom	ST	ST		
Bank Height (ft)	1	2'		
Stabilization	CO	corrugated		

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

*Skid TRAILS/ROADS ARE EXISTING.
*Apply Vernal Pool BMPs

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

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	22.2	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	36.2
Hemlock		Black Oak	4.5
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash		**Total Mbf**	63.0
Beech		**Cordwood (Cds)**	264
White Birch		**SW Pulp (Tons)**	70
B & Y Birch		**HW Pulp (Tons)**	
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	WH	WK	WO
Acres	31.1	12.6	10.3	8.0
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	CT	CT
Type of Cut	SH	SH	SH	SH
Source of Regeneration	AD	AD	AD	AD

Landowner

Landowner Signature

The most important information on a cutting plan is the Landowner's objective, as this will determine which trees will be harvested ar 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 result in a forest dominated by poor quality and low value spec

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: 5/6/2020

Service Forester

Determination and Status #282-27833-20

	Approved	Disapproved	Expires
Cutting Plan	☒	☐	5-11-2022

Signature of Service Forester/Director's Agent — Date: 5-22-2020

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

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

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

Codes

Forest Types
WP White Pine
WK WP/Hem
WH WP/Hdwd
WO WP/Oak
RP Red Pine
SR Red Spruce
HK Hemlock
HH Hem/Hdwd
BC Blck Cherry
BB Bee/Bir/Map
OH Oak/Hdwd
OR N Red Oak
OM Mixed Oak
RM Red Maple
BE Beech
SF Spruce/Fir
SM Sugar Maple
PP Pitch Pine

Designation of Trees
CT Cut Tree
LT Leave Tree
SB Stand Boundary
OT Other

Landowner Objective
LT Long-term Mgt.
ST Short-term Har.

Type of Cut
SH Shelterwood
ST Seed Tree
CC Clear Cut
SE Selection
SA Salvage
SN Sanitation

Intermediate Harvests:
CT Commercial Thin
NT Non Com Thin

Non-Standard Systems:*
HG Highgrade*
DL Diameter Limit*
OT Other*

Source of Regeneration
AD Advanced
SE Natural Seed
PL Plant
CO Coppice
DS Direct Seed
OT Other

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/OWNM

Town: Sterling

File Number: 282-27833-20

BMPs

The forwarder trails have been flagged as shown on the map.

No trees are being cut in FS-1

Silviculture

In order to release advance regeneration, 15 openings in the overstory are being created, covering 16.8 acres. These openings range from 0.5 to 2.0 acres in size with an average of 1.1 acre. They are well distributed throughout the sale area focusing on where the advance regeneration is well established.

Objectives

The main 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.

Other

The forwarder haul roads have been laid so that either or both landings may be used.

The small wetland in the far northeast corner of the sale is not mapped accurately. The haul road does not go through a wetland.

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

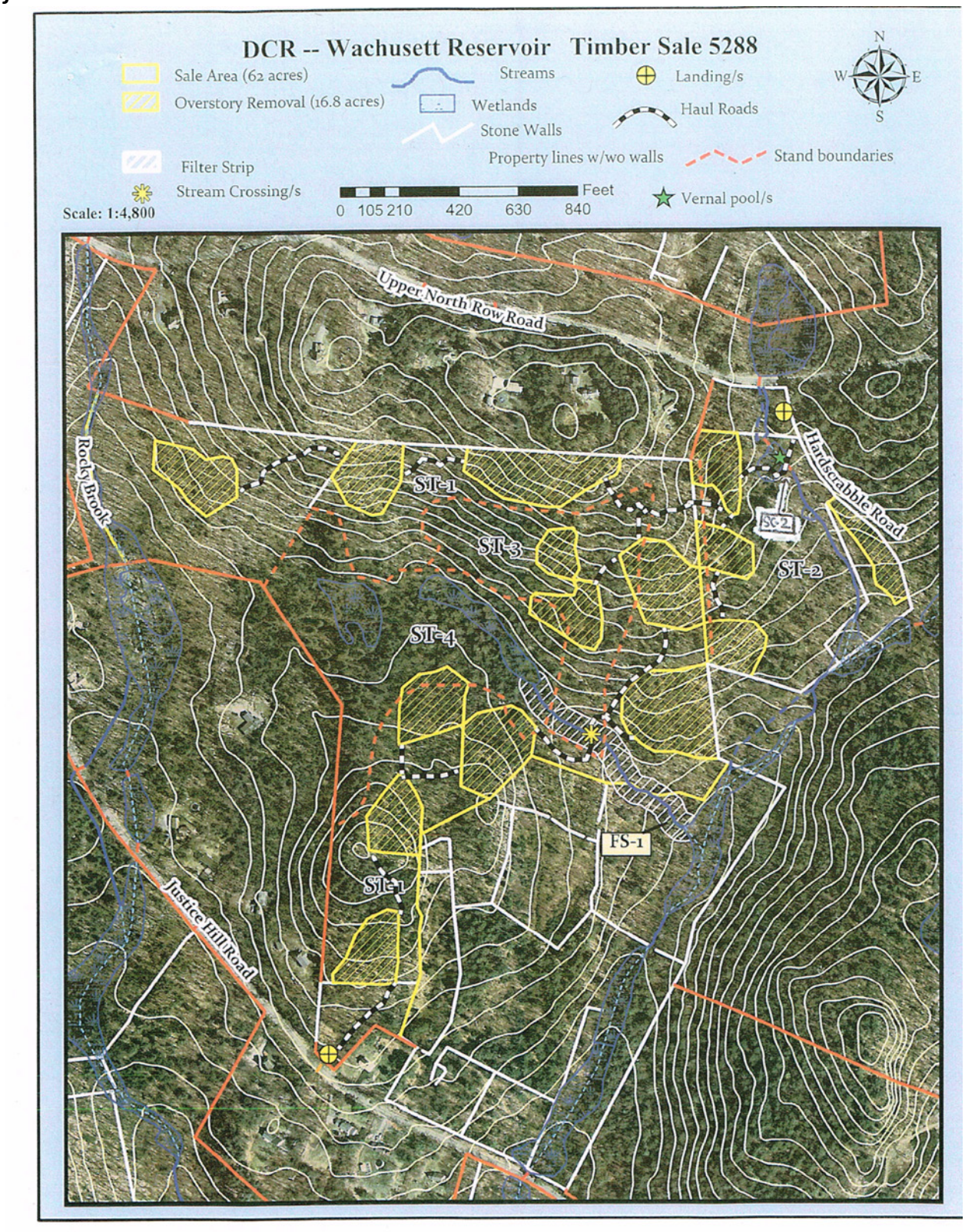

Figure 3. General locus map showing the location of the proposed timber harvest.

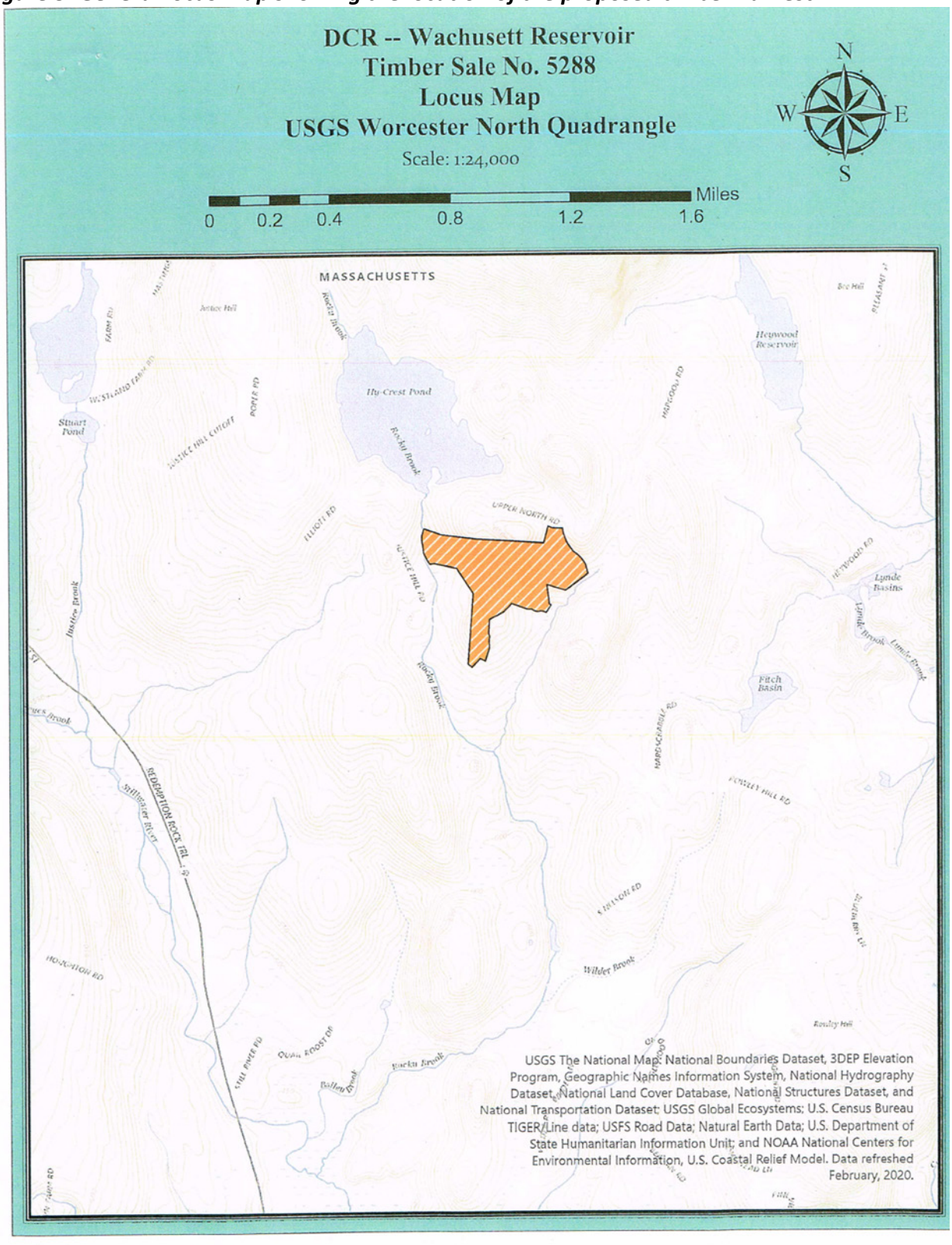

Figure 4. Pre-Harvest Photographs, A-D

A. The northern landing off Hardscrabble Road.

B. The southern landing on Justice Hill Road.

C. The overstory is being removed to release the excellent understory. The white oak in the foreground is being retained to provide important structural diversity within what will be a patch of young forest.

D. Another area of overstory removal. The chestnut oak in the right foreground is being retained and is a good example of the excellent chestnut oak which is not common on DWSP in the Wachusett watershed.

Figure 5. Post-Harvest Photographs, A-C

A. The northern landing off of Hardscrabble Road.

B. An area of overstory removal. The chestnut oak in the left-foreground was retained.

C. Another area of overstory removal. The smaller white pines and hemlock were retained to provide structural diversity.