

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

Project Title:

DWSP Harvest Permit Number: Lot 5285
DCR Forest Cutting Plan File Number: 282-22530-20

Site Information

Watershed: Wachusett	Town(s): Sterling
Acres: 31	Nearest Road: Beaman Road
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Yes
Forest Types: White pine; Mixed hardwoods	ACEC?: No
Soils: Excessively drained Hinckley and Merrimac make up 19%, Chatfield-Hollis Rock outcrop on about 17%, about half the working unit is well-drained thick Canton soils, and the remaining 18% is poorly to very poorly drained Whitman and Walpole.	
Wetland Resources: No stream or wetland resources will need to be crossed, and no harvesting will take place in wetlands.	
Vernal Pools: There is a vernal pool just north of the pond area above the dam on the east side of the intermittent stream (west of Rocky brook).	

Harvest Information

DWSP Permit Start Date: 12/4/19	DWSP Permit End Date: 12/15/21
Number of Wetland Crossings: None	Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings	There are no stream crossings.
Filter Strips	There is no cutting in the filter strips.
Wetland Crossings	There are no wetland crossings.
Harvesting in Wetlands	There is no harvesting in wetlands.

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

NARRATIVES

General Description/Forest Composition/History:

This forest is distinguishable by its bouldered slope and diverse regeneration. This lot was purchased in 1998 and has had no forestry work done since it was acquired. Although recent harvesting has taken place directly abutting this lot and the recent disturbances suggest hardwoods will come in thick and diverse on this lot. Near Beaman Road, Rocky Brook appears to have been damned previously on this lot and then the dam was taken down at some point. Beaver activity is current with a large beaver dam next to the field and the beaver have flooded a small section of timber in the southern portion of the lot. The field is well maintained and has five crab apple trees in it.

The primary species in the forest overstory is white pine with smaller amounts of red oak, black oak, white oak, pignut hickory, shagbark hickory, sugar maple, bigtooth aspen, trembling aspen, yellow birch, willow, red maple, hemlock, eastern hophornbeam, striped maple, Norway spruce and basswood. The white pine is a range of good to poor vigor. White oak regeneration is strong with some red oak and white pine on the slope and at the top of the hill. The lower and flatter sections are much more diverse in regeneration with black cherry, sugar maple, hickory, white pine and red oak. Shrubs are mostly Ilex and dogwood by the brook, highbush blueberry and hawthorn at the bottom of the slope. Mountain laurel, sheep laurel and maple-leaf viburnum are present throughout the rest of the lot. Maple-leaf viburnum is numerous and of good height, suggesting minimal deer pressure.

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 excellent understory of diverse regeneration, it was not difficult to place appropriate openings throughout the manageable areas. They will be removed in 6 patches that average about one acre and range in size from 0.27 to 1.9 acres, totaling 5.8 acres. The species composition of this new cohort will be much more diverse than the current overstory as the lot is currently dominated by white pine while the regeneration has a significant amount of hardwoods.

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.

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-C

Figure 5. Post Harvest Photographs A-B

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)

NOV 8 8 2019

For DCR Use Only:

File Number 22-20530-20 Case No.
 Date Rec'd 11-8-19 Net. Hort. NO
 Earliest Start 11-20-19 Nat. Hist. Inv. NO
 River Basin MA02019 Pub. Dr. Wat. WACHUSET
 Gen. Obj. LT ACRC NIC

Site Information

Location

Town Stirling Loc. 3285
 Road Deannan Road
 Acres 15.9 Proposed Start Date 12/19
 Vol. MHW 100.1 Vol. Cds. 45 Vol. Tows. 115

Plan Preparer

Name Gregory S. Duzzoli
 Address 180 Deannan 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/Studburs
 Mailing Address 180 Deannan St.
 Town, State, Zip West Boylston, MA 01583
 Phone 617-792-7806
 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				
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				
Stabilization				
Stabilization				

Filter Strips

Indicate location on map:	FS-1	FS-2	FS-3	FS-4
Width (50, 100, or 150)	VA			
	(50)			

Harvesting in Wetlands

Indicate location on map:	HW-1	HW-2	HW-3	HW-4
Forest Type (see pg 2)				
Access to be preserved				
Rehab. Natural Area (50%)				

Service Forester Comments

Codes

Forest Type	Type of Crossing	Stabilization	Material	Type of Bottom
TF: Mixed Use Forest	CU: Culvert	SE: Sediment	FR: Frozen	LE: Ledge
TH: Thick Hardwood	UB: Bridge	ML: Mulch	DR: Dry	ST: Stone
TL: Thin Hardwood	FO: Foot	CO: Corduroy	OT: Other	ML: Mud
LD: Low Density	PO: Pole	ST: Stone		GR: Gravel
OT: Other	OT: Other	HB: Hay Bales		OT: Other
		OT: Other		

Note:
 Applicant must provide DCR with a Notice of Intent information before plan may be approved and during map design.
 Some forestry practices, such as prescribed burning, are not permitted without special application to state agency and forest manager.
 Consult MA Forestry BMP Manual for further information.

If Other (O1) is used in any category an explanation must be given on an attached narrative page

Products to be Harvested*

Species	Mbf/Cda		Mbf/Cda
White Pine	95.4	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	2.6
Hemlock		Black Oak	1.6
Spruce		White Oak	0.2
Other S.Wd.		Other H.Wd.	0.7
White Ash		Total Mbf	100.1
Tweed		Cardinal (Cda)	45
White Birch		SW Pulp (Tons)	11.5
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.

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WT	WU		
Acres	12.0	3.9		
Landowner Objective	LT	LT		
Designation of Tract	C	C		
Type of Cut	SI	SI		
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 sustainable 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 11-18-2024

Cutting Plan 11-18-2019

Signature of Service Forester/Director's Agent _____ Date _____

Extended ☐ Expires 11-18-2019

Approved ☐ Dis ☐ App ☐ Rty? ☐

Final Report and Comments

I hereby certify that the above described Forest Cutting Plan and all relevant statutes have been substantially complied with.

Signature of Service Forester/Director's Agent _____

Date _____

Forest Type	Designation of Tract	Type of Cut	Source of Regeneration
WF White Pine	CJ Clear Cut	SP Shelterwood	AD Advanced
WK White Oak	CT Clear Cut	SL Seed Tree	SR Natural Reg.
WT White Birch	EM Stand Boundary	CC Clear Cut	PL Plant
WD White Oak	OT Other	SE Selection	CO Coppice
LA Red Pine	Landowner Objective	SA Salvage	HS Highgrade*
RB Red Spruce	LT Long-term Mgt	SH Sustained	OT Other
	ST Short-term Hct		

*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

Landowner: DCR-DWSP
Town: Sterling
File Number: 272-22530-20

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

RMPs	<p><u>The forwarder trails have been flagged as shown on the map.</u></p> <p><u>No trees are being cut in FS-1</u></p>
Silviculture	<p><u>In order to release advance regeneration, 6 openings in the overstory are being created, covering 5.8 acres. These openings range from 0.25 to 1.9 acres in size with an average of 1.0 acre. They are well distributed throughout the sale area, focusing on where the advance regeneration is well established.</u></p> <p><u>There is no cutting between the patches.</u></p>
Objectives	<p><u>The main objective of this operation is to diversify the age structure of the forest by removing the overstory in patches thereby releasing the good advance regeneration. The current age structure is limited with an insufficient component of young forest.</u></p>
Other	<p><u>No trees are being cut in SI-3.</u></p>



COMMONWEALTH OF MASSACHUSETTS
 DEPARTMENT OF CONSERVATION AND RECREATION
 DIVISION OF STATE PARKS AND RECREATION

FILE # 225-225-110

WV

FOREST CUTTING PLAN CERTIFICATE

Forest cutting is authorized in places within this area in which the harvesting operation is to take place.

CITY/TOWN AND DISTRICT OF Worcester
 (Name of District)

Worcester
 (Name of City/Town)

Approval of MA 271, Chapter 132A, Section 20-24, that this Worcester with the Dept. of Conservation and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products, and will be

RECEIVED
 MAY 20 1965

Approval Date May 19, 1965

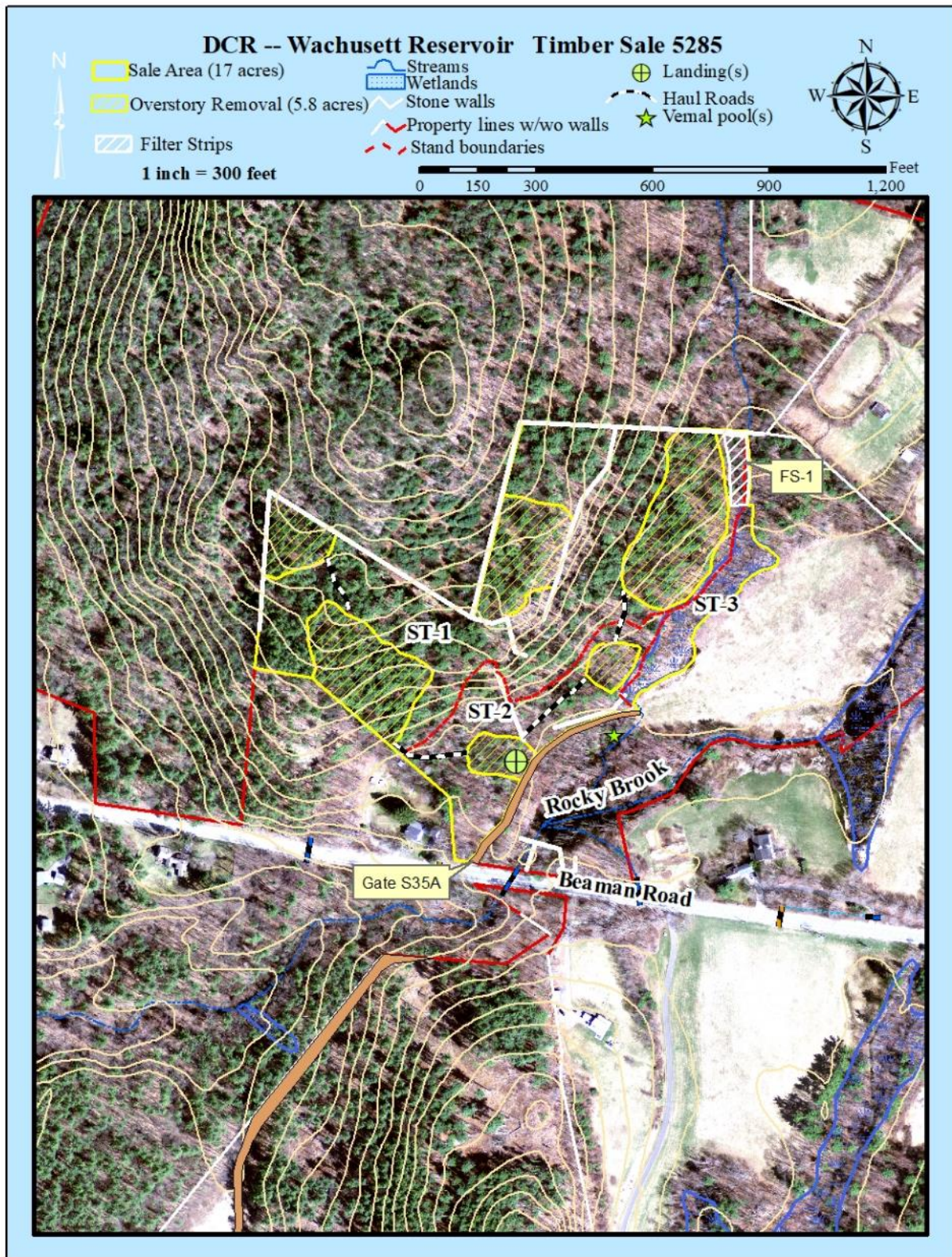
Director's Name MARTIN L. DUNN

DGR Plans No. 225-225-110

FILED BY Paul

PAUL E. BERRY, Director
 Division of State Parks and Recreation

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



DCR -- Wachusett Reservoir
Timber Sale No. 5285
Locus Map
USGS Worcester North Quadrangle
1 inch = 2,000 feet

N

0 1,250 2,500 5,000 7,500 10,000 Feet

W E S

Figure 4. Pre-Harvest Photographs, A-C



A) Landing Location



B) Opening with diverse hardwoods Maple, Cherry, and Oak regeneration to be released.



C) Opening with large diameter pine marked with a diverse mix of hardwoods and pine to be released.

Silvicultural Achievements:

Six openings were made ranging in size from 0.27 to 1.9 acres and totaled 5.8 acres. The species composition of this new cohort is much more diverse than the surrounding overstory that wasn't harvested and is dominated by white pine.

Figure 5. Post-Harvest Photographs A-B



A. Opening with large white pine retention, snags left for wildlife, and diverse hardwood regeneration.



B. Opening with hemlock and black cherry retention and an array of diverse regeneration released.