

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

Project Title: 148 and 122

DWSP Harvest Permit Number: 4390

DWSP Proposal ID: WR-16-04-02

DCR Forest Cutting Plan File Number: 222-8241-16

Site Information

Watershed: Ware River Watershed

Town(s): Oakham and Rutland

Acres: 35

Nearest Road: Rt 148 and Rt 122

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White Pine/Hardwood, red pine

Area of Critical Environmental Concern (ACEC)?: No

Soils: Most of the lot is on 253 Hinckley loamy sand, excessively drained.

Wetland Resources: Wetlands present adjacent to but outside of harvest area.

Vernal Pools: none known

Harvest Information

Harvest Start Date: 4/10/17

Harvest End Date: 4/28/17

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 harvesting in filter strips.

Wetland Crossings: There are no wetland crossings.

Harvesting in Wetlands: There is no harvesting in wetlands.

DWSP Forester supervising this harvest

Name: Ken Canfield

Forester License number: 431

Phone number: 857 274 7090

Email: Kenneth.canfield@mass.gov

Narrative

General Description/Forest Composition/History

The harvest area lies south of Rt 122 and east of Rt 148 where they intersect in Oakham. The lot extends east to the Rutland town line. A small portion of one group selection patch crosses into Rutland.

This area was harvested several times in the recent past. Shelterwood harvests were completed in 1991 and 2000. Two patch cuts of 4 and 7 acres were also created in 2000 on the eastern edge of the lot. The patch cuts regenerated well with a mix of oak, white pine, aspen, red maple, and birch.

There is 6.5 acres of previously thinned red pine plantation in the northwest corner of the lot. That area was thinned in 1991 and 1998 and has regenerated well under a sparse canopy of residual red pine stems. There is some heath type habitat with large pitch pines present in the western portion of the lot.

The soil is excessively drained.

Site Selection

The primary goal of the watershed forest management program is to create and maintain a forest that provides high quality drinking water to current users and future generations. DWSP recognizes that wildlife habitat management and restoration of rare habitats are important secondary goals, where they are compatible with maintaining high quality drinking water.

This area was chosen partially because the residual red pine is likely to succumb to pests within the next ten years. The two patch cuts are ready to have their edges released and expanded. The pitch pine that is present will be released.

Silvicultural Objectives

The harvest in the red pine will be a shelterwood removal cut to remove the residual overstory red pine before it succumbs to pests and release the advanced regeneration that is abundantly present. The two patch cuts on the eastern edge of the lot will be expanded by placing new groups adjacent to them. The new groups will be located to the south of the patch cuts, resulting in increased light for the regeneration on the southern edge. New groups, ¼ to 1.9 acres in size, will be established throughout the lot, removing low quality overstory white pine and hardwood, while retaining some stems, mostly white and red oak, for aesthetic purposes.

Cultural Resources

This land has been determined to not be culturally or archeologically sensitive based on a review by the DCR Archaeologist. Standard practice dictates that every effort is made to avoid disturbing stone walls and other cultural resources.

Rare or Endangered Species

No known vernal pools are present within the lot. One group in particular was located within an area that had mature pitch pine present. All pitch pine was retained and released.

Figures

- Figure 1 Final Forest Cutting Plan
- Figure 2 (A-D) Pre-Harvest photographs taken 7/22/16
- Figure 3 (A-C) Post-Harvest photographs taken 5/9/17
- Figure 4 (A-D) Post-Harvest photographs taken 8/16/22 (after 5 growing seasons)

Figure 1

Final 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 06 2016

- Final -

For DCR Use Only:

File Number 22-8241-16 Case No. _____
 Date Rec'd 6/16/16 Nat. Hert. No
 Earliest Start 6/16/16 Nat. Hert. Imp. N/A
 River Basin Chicopee Pub. Dr. Wat. Yes - Ware River intake
 Gen. Obj. LT ACEC No

Site Information

Location

Town Oakham and Rutland
 Road Rt 122
 Acres 35 Proposed Start Date 6/16
 Vol. MBF 47.5 Vol. Cds. 69 Vol. Tons 645

Plan Preparer

Name Kenneth W. Canfield
 Address 578 Old Turnpike Rd
 Town, State, Zip Oakham, MA 01068
 Phone (508) 882-3789 X 1603
 Type of Preparer LF
 *Mass. Forester License # 431
 *Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR, Division of Water Supply Protection
 Mailing Address 485 Ware Rd
 Town, State, Zip Belchertown, MA 01007
 Phone (413) 323-6921
 Ch61 61A 61B Stew *Case # _____
 CR CR Holder _____

Licensed Timber Harvester**

Name _____
 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				
Mitigation				
Stabilization				

Filter Strips

Indicate location on map	FS-1	FS-2	FS-3	FS-4
Width (50', 100', or 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

Notify Service Forester when harvest begins

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	32.5 M	Red Maple	
Red Pine	12.9 M	Sugar Maple	
Pitch Pine		Red Oak	1.4 M
Hemlock		Black Oak	0.2 M
Spruce		White Oak	0.5 M
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	47.5
Beech		Cordwood (Cds)	69
White Birch		SW Pulp (Tons)	
B & Y Birch		HW Pulp (Tons)	
Black Cherry		Chips (Tons)	645

*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	WH	WH	RP	
Acres	23.5	5	6.5	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SE	SE	SH	
Source of Regeneration	SE	SE	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 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.

William E. Paul 6-1-2016
 Signature of landowner(s) Date

Service Forester

Determination and Status

Approved Disapproved Expires 6/16/2018
 Cutting Plan
[Signature] 6/13/2016
 Signature of Service Forester/Director's Agent Date

Final Report and Comments

I hereby certify that the afore described Forest Cutting Plan and all relevant statutes have been substantially complied with.
[Signature] 4/28/17
 Signature of Service Forester/Director's Agent Date

Extension 1 2 Expires / Ser. For. Ints. /
 Amendment App 1 Dis 1 App 2 Dis 2 /

Codes

Forest Types	Designation of Trees	Type of Cut	Intermediate Harvests:	Source of Regeneration
WP White Pine	OM Mixed Oak	SH Shelterwood	CT Commercial Thin	AD Advanced
WK WP/Hem	RM Red Maple	ST Seed Tree	NT Non Com Thin	SE Natural Seed
WH WP/Hdwd	BE Beech	CC Clear Cut	Non-Standard Systems:*	PL Plant
WO WP/Oak	SF Spruce/Fir	SE Selection	HG Highgrade*	CO Coppice
RP Red Pine	SM Sugar Maple	SA Salvage	DL Diameter Limit*	DS Direct Seed
SR Red Spruce	PP Pitch Pine	SN Sanitation	OT Other*	OT Other
	LT Long-term Mgt.			
	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 (Effective Date: 1/1/04)

Use this page to provide further explanation or if Other (OT) was used in any category on pages 3 or 4.

Landowner MA DCR, DWSP

Town Oakham and Rutland

File Number 222-8241-16

BMPs

Use this Section to provide further explanation or if Other (OT) was used in any category in the Best Management Practices Section on Page 3.

Stand 1 is WH with 8 group selection openings ranging from 1/4 to 1.9 acres in size, with 7.5 acres total in groups. Groups are targeted in areas to expand past group openings that were established in previous harvests and to remove patches of low quality white pine. There is also some pitch pine present that will be released. Stand 2 is WH, with lower stocking and younger trees than Stand 1. One area with pitch pine present will have a less than 1/4 acre group established to release the pitch pine. Some thinning will take place directly adjacent to main skid trails in both Stands 1 and 2. Stand 3 is a shelterwood removal cut in a red pine stand that has two previous shelterwood cuts. Advanced regeneration of WP and oak is abundant.

Designation of Trees

Use this Section to describe the types of trees to be harvested and/or retained if Other (OT) was used for "Designation of Trees" in the Stand Treatment Section on page 4.

Stand No.	Species to be Cut	Size of Trees to be Cut	Quality of Trees to be Cut	% BA/Acre Removed

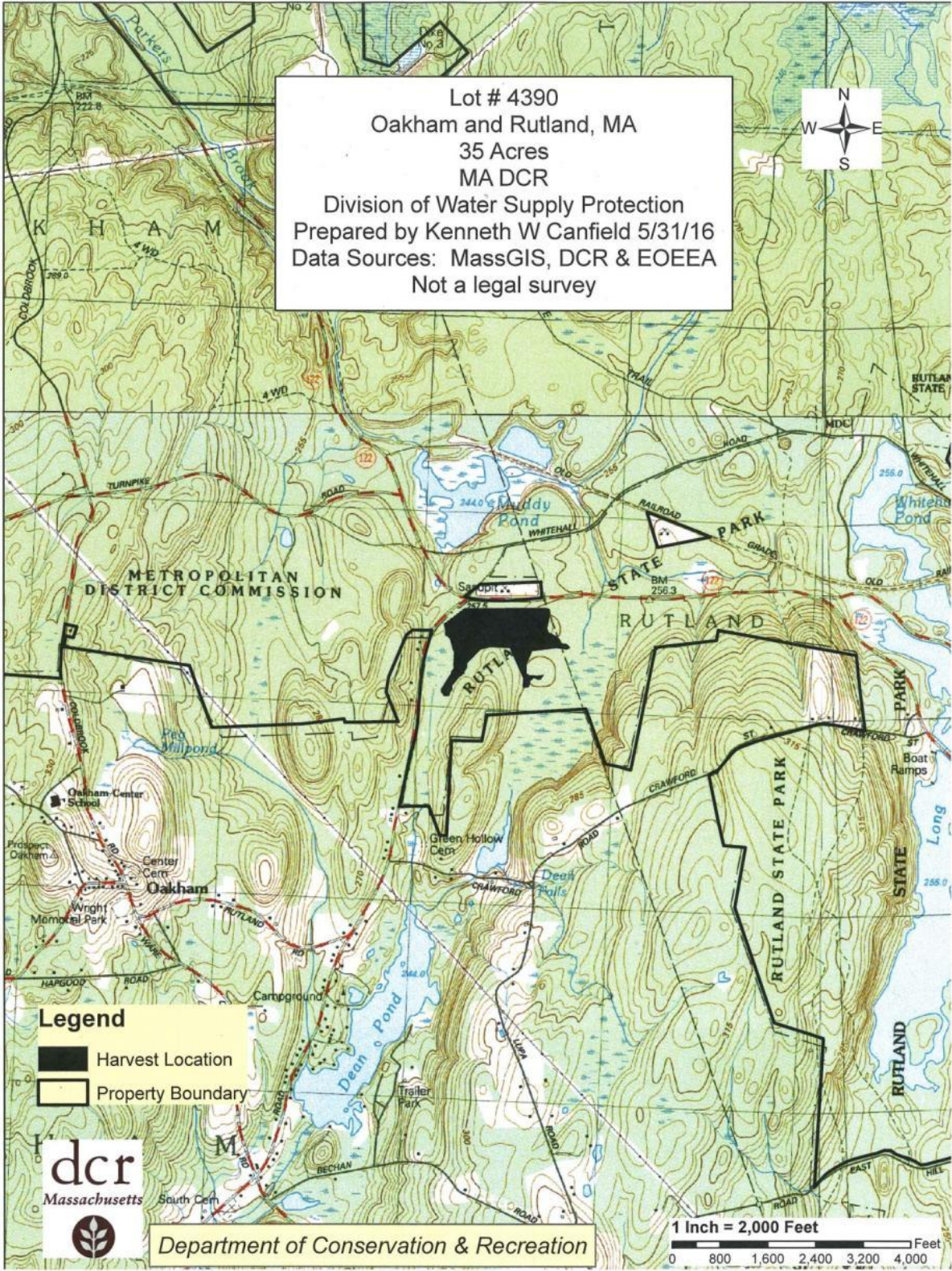
Regeneration & Future Condition

Use this Section to describe how Chapter 132 requirements will be met if a non standard system (HG, DL, or OT) was used for the "Type of Cut" in the Cutting Standards Section on page 4.



Stand No.	Source of Regeneration (ex. AD, SE)	How will Regeneration be obtained/protected? If using AD - Describe the species present and how the regeneration will be protected If using SE - Describe the source of the seed and the number of seed trees/acre

Stand No.	Desired Future Condition Describe what the stand is expected to look like five years from the harvest, including the condition of the overstory & understory

Lot # 4390
 Oakham and Rutland, MA
 35 Acres
 MA DCR
 Division of Water Supply Protection
 Prepared by Kenneth W Canfield 5/31/16
 Data Sources: MassGIS, DCR & EOEAA
 Not a legal survey



Legend

-  Harvest Location
-  Property Boundary



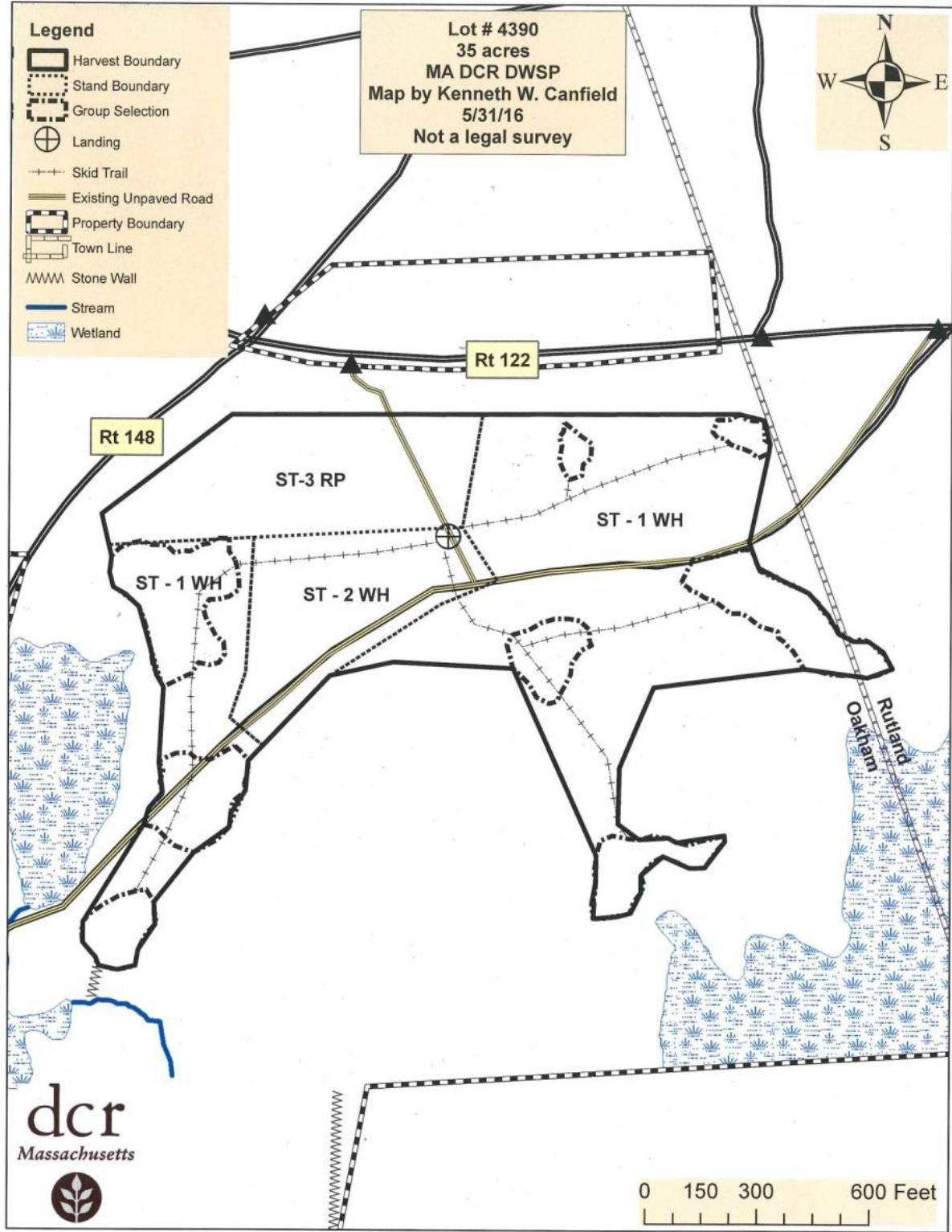
Department of Conservation & Recreation

1 Inch = 2,000 Feet

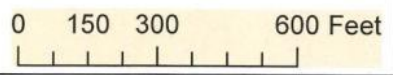
Legend

-  Harvest Boundary
-  Stand Boundary
-  Group Selection
-  Landing
-  Skid Trail
-  Existing Unpaved Road
-  Property Boundary
-  Town Line
-  Stone Wall
-  Stream
-  Wetland

Lot # 4390
35 acres
MA DCR DWSP
Map by Kenneth W. Canfield
5/31/16
Not a legal survey



dcr
Massachusetts



dc



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

FILE # 222 - 8241-16

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 - DWSP 485 Ware Rd
(Name of Owner) Belchertown, MA 01007 (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
Rt 122 lot.

Approval Date 6/13/2016
Director's Agent Kate Marquis
DCR Phone No. (413) 992-8734

ISSUED BY:

Priscilla E. Geigis, Director
Division of State Parks and Recreation

Figure 2 (A-D) Pre-Harvest photographs taken 7/22/16

2A Taken looking southwest from the edge of recreational trail at east opening



2B Taken looking southeast from the edge of recreational trail at east opening



2C Taken from the edge of the northwest opening



2D From the recreational trail intersection into the western opening



Figure 3 (A-C) Post-Harvest photographs taken 5/9/17

3A Taken looking southwest from the edge of recreational trail at east opening



2B Taken from the edge of the northwest opening



3C From the recreational trail intersection into the western opening



Figure 4 (A-D) Post-Harvest photographs taken 8/16/22 (after 5 growing seasons)

4A Taken looking southwest from the edge of recreational trail at east opening



4B Taken looking southeast from the edge of recreational trail at east opening



4C Taken from the edge of the northwest opening



4D From the recreational trail intersection into the western opening

