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

Project Title: Old Worcester Rd
DWSP Harvest Permit Number: 4396
DWSP Proposal ID: WR-18-18-02
DCR Forest Cutting Plan File Number: 021-9283-18

Site Information
Watershed: Ware River Watershed
Town(s): Barre
Acres: 13
Nearest Road: Old Worcester Rd
Natural Heritage Atlas overlap?: No
Public Drinking Water Supply Watershed?: Yes
Forest Types: Red Pine, Spruce, White Pine/Hardwood
Area of Critical Environmental Concern (ACEC)?: No
Soils: 254C Merrimac fine sandy/loam, 253E Hinckley loamy sand, 910C Woodbridge-Paxton association
Wetland Resources: A stream and associated wetlands are located to the west of the harvest area. The Ware River is to the south on the other side of Rt 122.
Vernal Pools: None known

Harvest Information
Harvest Start Date: 8/8/18
Harvest End Date: 9/6/18
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 harvesting in a filter strip.
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 is located north of Rt 122 and south of Old Worcester Rd in Barre. Most of this area was fields in the 1930's. The stand adjacent to Old Worcester Rd was planted to Red Pine. The stand has been thinned twice and only scattered overstory red pine remain. The thick regeneration underneath is dominated by pole size white pine. Pole and sapling size red and white oak, black birch, and red maple are also present. The area closer to Rt 122 was planted with a mixture of Norway spruce, eastern white pine, and some European larch. This stand has never been thinned, so there is almost no sunlight reaching the forest floor. This has led to almost no regeneration being present in the stand. Areas that were allowed to regenerate naturally are dominated by low quality eastern white pine with some oak and hardwoods. Diverse natural regeneration is abundant in these areas.

Tree species present are eastern white pine, Norway spruce, white, red, and black oak, red maple, red pine, European larch, hemlock, black cherry, pitch pine, and quaking aspen.

Invasive shrubs, particularly glossy buckthorn, are present. Some invasive shrubs were hand-pulled during the marking of this lot. Harvesting trees in patches puts enough sunlight on the ground to create conditions that will help native tree species out-compete invasive shrubs over time.

The soil is well 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. A healthy and resilient forest is comprised of diverse native tree and shrub species and multiple age classes of trees.

This area was chosen because of the mixture of plantations of non-native species and large patches of low quality old field white pine. Plantations are by definition even-aged and low in overstory species diversity. Red pine is also vulnerable to an invasive insect that kills healthy trees very quickly. The old field white pine stands also lack species diversity and are dominated by a single age class.

Silvicultural Objectives

Within the red pine stand, overstory red pine trees will be harvested. The more diverse native species in the understory will be protected and released. Within the spruce/white pine/larch plantation, the non-native spruce and larch and the lowest quality white pine will be removed. The best quality overstory white pines will be retained as seed trees for the next crop of trees to be established. The old field white pine stands will be harvested in groups.

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. One stonewall will have to be breached to establish a landing.

Rare or Endangered Species

Natural Heritage Endangered Species Program (NHESP) does not show any rare habitat within the harvest area.

Figures

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: 3/15/16)

FEB 16 2018

For DCR Use Only:

File Number	281-1283-18	Case No.	
Date Rec'd	2/16/18	Nat. Hert.	No
Earliest Start	3/16/18	Pub. Dr. Wat.	Y WARE RIVER
River Basin	CHICOPEE	ACEC	No
Gen. Obj.	LT	NAT HER IMPACT	NO

Site Information

Location

Town: Barre
Road: Old Worcester Rd
Acres: 13.1 Proposed Start Date: 3/18
Vol. MBF: 54.5 Vol. Cds.: 15 Vol. Tons: 560

Plan Preparer

Name: Kenneth W. Canfield
Address: 578 Old Turnpike Rd

Town, State, Zip: Oakham, MA 01068
Phone: (508) 882-3636
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 #
FSC ☐ 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)	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 DCR SERVICE FORESTER WHEN WORK 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	29.3 Mbf	Red Maple	
Red Pine	11.0 Mbf	Sugar Maple	
Pitch Pine		Red Oak	0.4 Mbf
Hemlock		Black Oak	
Spruce	13.3 Mbf	White Oak	
Other Sftwd.	0.4 Mbf	Other Hdwd.	
White Ash		**Total Mbf**	54.4 Mbf
Beech		**Cordwood (Cds)**	15
White Birch		**SW Pulp (Tons)**	
B & Y Birch		**HW Pulp (Tons)**	
Black Cherry		**Chips (Tons)**	560

*Note: Volumes 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	RP	SR	WP	
Acres	5.6	3.7	3.8	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SH	ST	SH	
Source of Regeneration	AD	SE	SE	

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 specie

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 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: 2-13-18

Service Forester

Determination and Status 621-9283-18

	Approved	Disapproved	Expires
Cutting Plan	☒	☐	2/16/20

Signature of Service Forester/Director's Agent — Date: 3/7/18

SITE VISIT W/ D.H. 3/6/18

			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: 8/28/18

Codes

Forest Types

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

*If Other (OT) or a non-standard system is used an explanation must be given on attached narrative page

Forest Cutting Plan

Narrative Page (Effective Date: 3/15/16)

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

Landowner DCR - DWSP

Town Barre

File Number 021-9253-R

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 a 5.6 acre red pine stand that was seed tree harvested in 1992. That harvest left scattered overstory red pine trees. The stand has regenerated well underneath with white pine, black birch, and red and white oak seedlings/poles. The remaining overstory red pine trees will be harvested. The skid trails will be spaced so that enough existing regeneration will remain so that the stand is still stocked after harvest. Stand 2 is a 3.7 acre spruce, larch, and white pine plantation that was planted in the 1930's. The spruce, larch, and worst quality and vigor white pine will removed. The best quality and most vigorous white pine trees will be retained as seed trees. Stand 3 is a group shelterwood comprised of three separate groups of old field white pine. The groups are 0.5, 1.4, and 1.9 acres in size. Approximately 5 square feet of basal area per acre of the most vigorous red and white oak, white pine, and pitch pine will be retained for aesthetics.

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. Additional narrative description may be added on a separate page.

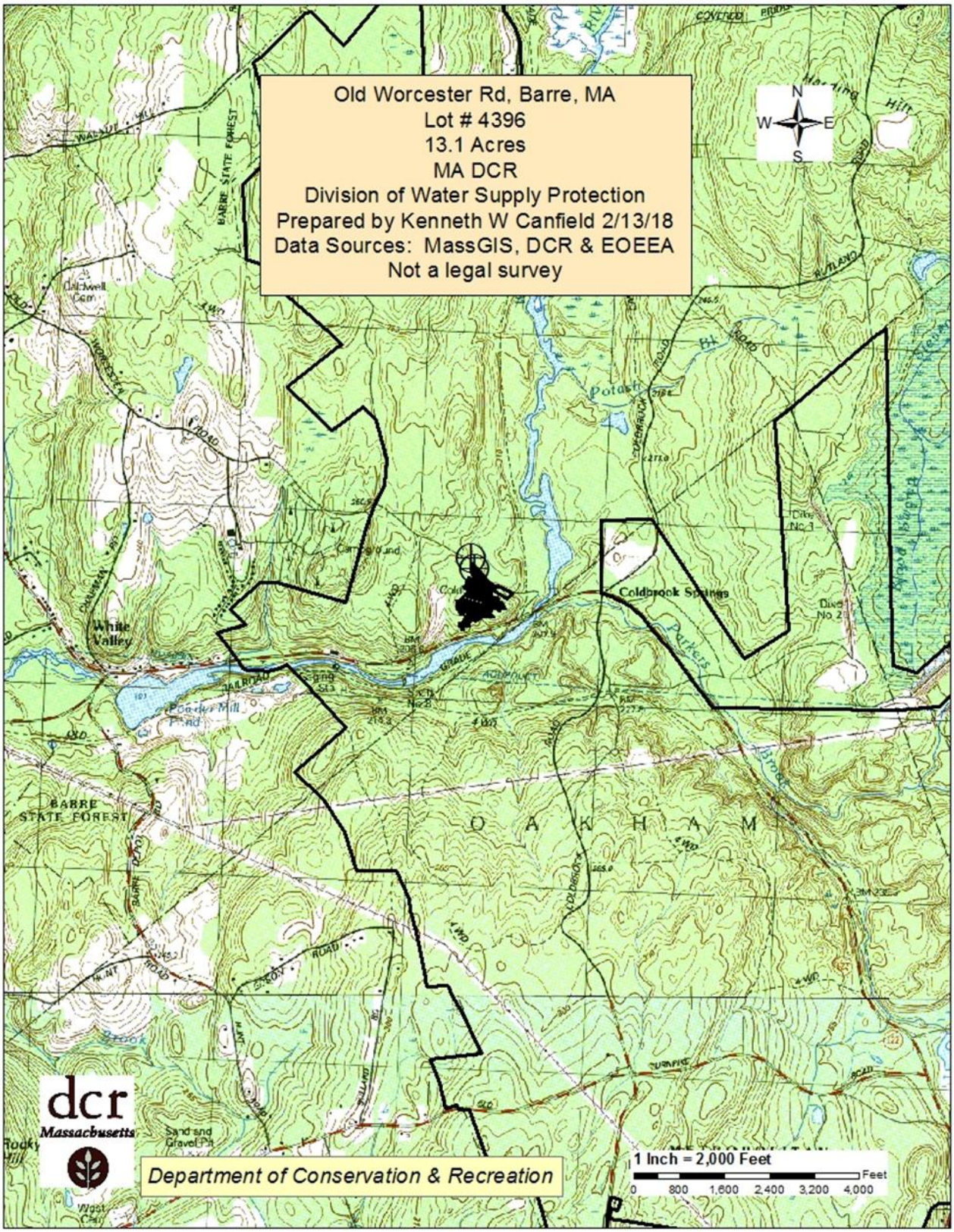
	Describe Trees to be Cut			Describe Trees to be Left			% BA/AC	
Stand No.	Species	Size	Quality	Species	Size	Quality	Cut	Left

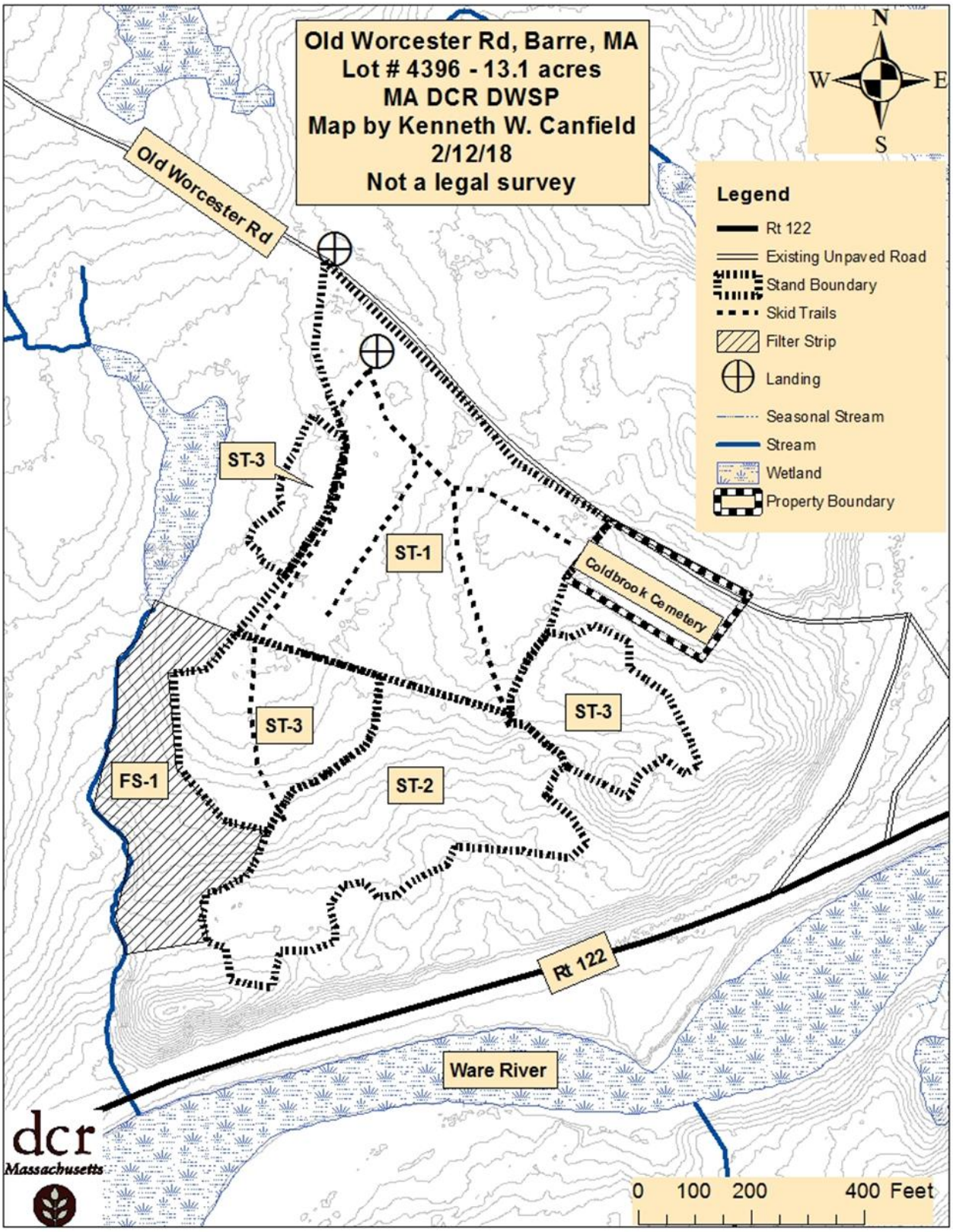
Regeneration & Future Condition

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


Old Worcester Rd, Barre, MA
Lot # 4396
13.1 Acres
MA DCR
Division of Water Supply Protection
Prepared by Kenneth W Canfield 2/13/18
Data Sources: MassGIS, DCR & EOEEA
Not a legal survey
N
W
E
S
Coldbrook Springs
White Valley
BARRE STATE FOREST
O A K H A M
dcr
Massachusetts
Department of Conservation & Recreation
1 Inch = 2,000 Feet
0 800 1,600 2,400 3,200 4,000 Feet


Old Worcester Rd, Barre, MA
Lot # 4396 - 13.1 acres
MA DCR DWSP
Map by Kenneth W. Canfield
2/12/18
Not a legal survey
N
W
E
S
Legend
Rt 122
Existing Unpaved Road
Stand Boundary
Skid Trails
Filter Strip
Landing
Seasonal Stream
Stream
Wetland
Property Boundary
Old Worcester Rd
ST-3
ST-1
Coldbrook Cemetery
ST-3
ST-3
FS-1
ST-2
Rt 122
Ware River
dcr
Massachusetts
0 100 200 400 Feet

dcr

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

FILE # 021-9283-18

FOREST CUTTING PLAN CERTIFICATE

W

Post this in a conspicuous place within the area in which the harvesting operation is to take place.

This certifies that DCR - DWSP (Name of Owner) 485 WARE RD BARRETTOWN, 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 BARRE lot. (OLD WORCESTER RD)

Approval Date 3/7/18

Director's Agent CHRIS CAPONE

DCR Phone No. (978) 368-0126 EXT. 136

ISSUED BY:

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