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

Project Title: Potash Brook

DWSP Harvest Permit Number: 4393	
DCR Forest Cutting Plan File Number: 021-8695-17	

Site Information

Watershed: Ware River Watershed	Town(s): Barre
Acres: 7.0	Nearest Road: Coldbrook Rd
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Yes
Forest Types: White Pine/Hardwood	ACEC?: No
Soils: 253 B & C Hinckley loamy sand excessively drained	l, and 254 B Merrimac fine sandy loam 3-8% slopes
somewhat excessively drained.	
Wetland Resources: Wetlands and a pond are present, adja	acent to but outside of harvest area. Potash Brook is
adjacent to, but outside of the harvest area. A seasonal broo	ok in the harvest area will be crossed.
Vernal Pools present or within 200 feet of harvest : Yes.	

Harvest Information

Harvest Start Date: After 4/12/17	Harvest End Date: 6/27/17
Number of Wetland Crossings: None	Number of Stream Crossings: 1

Best Management Practices Applied

Stream Crossings	The crossing has been located in the best possible spot. Temporary skidder bridges will be used over the stream channel. The approaches to the crossing may be armored with
	brush or corduroyed if necessary. The approaches will be seeded post harvest.
Filter Strips	There is 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 # 431				
Phone #: 508-882-3636 X 1603				
Email: kenneth.canfield@state.ma.us				

NARRATIVE

General Description/Forest Composition/History:

The area adjacent to Coldbrook Rd was used as pasture land until the 1930's. The area was probably planted with eastern white pine and European larch. The white pine that now dominates the site is very low quality.

Overstory tree species diversity is relatively low. The harvest area is dominated by low quality "old pasture" white pine trees that are 80+ years old. Although there are scattered black cherry, red maple, European larch, hemlock, and red oak trees, they make up a very low percentage of overstory trees. Advanced regeneration of all species is abundant, and is much more balanced in terms of diversity.

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 specifically targeted because there is a 25 + acre stand dominated by poorly formed pasture white pine. That type of stand is relatively low in diversity of overstory tree species. The white pine trees that are present are also more prone to windthrow in a wind event because they are tall and multi-stemmed. The abundant advanced regeneration present consists of a more balanced species mix, and makes it more likely that the resulting stand will be established quickly and will be more diverse.

Silvicultural Objectives:

The silvicultural objective for this lot is to regenerate 7.0 acres of old pasture white pine stand to a more diverse stand with a higher percentage of dominant or co – dominant hardwood species, especially oak. This will be done in four groups that are 2.5 acres, 2.0 acres, 1.7 acres, and 0.8 acres in size.

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.

Wildlife/Rare or Endangered Species:

No known vernal pools are present within the lot. There is 1 vernal pool and 2 potential pools within 200 feet of the boundary of the lot. State CMP's and DWSP policy were implemented to mitigate potential impacts to these areas.

FIGURES

Figure 1 Final Forest Cutting Plan

- Figure 2 A & B Pre-Harvest photographs from marked photo point 1 (A & B) taken 4/12/17
- Figure 3 A & B Post-Harvest photographs from marked photo point 1 (A & B) taken 7/12/17

Figure 1: Forest Cutting Plan

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	Location		*******				Landowner	************	NG SHERNADON		11-1-3-1-4-1-6-1-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1
uo	Town Barre Road Coldbrook Ro Acres 7.0			rt Date_4			Name <u>DCR Division</u> Mailing Address <u>485</u>		r Supply	Protec	tion
lformati	Vol. MBF 15.1 V. Plan Preparer					<u></u>	Town, State, Zip <u>Belc</u> Phone <u>(413) 3</u> Ch61 61A 61B	323 - 692	1		
Site Ir	Name Kenneth W. C Address 578 Old Turn			······································	 		FSC CRCCRI Licensed Timber Name	· Harve			
	Town, State, Zip Oakl Phone (508) 8 Type of Preparer LF *Mass. Forester License *Required for land under	82-3636 # <u>431</u>		Forest St		3	Name Address Town, State, Zip Phone Mass. Lic. Harvester # **This information may be st work begins.				
				63300000000000000000000000000000000000	****		4 2	watian.	is	*****	
	Stream Crossing	15					Harvesting in V	********			
	Stream Crossing	IS SC-1 BR	SC-2	SC-3	SC-4	-	Indicate location on map Forest Type (see pg 2)	IFW-1	HW-2	HW-3	• HW-4]
actices	Indicate location on map	SC-1	SC-2	SC-3	SC-4	-	Indicate location on map			HW-3	HW-4
nt Practices	Indicate location on map Type of Crossing Existing Structure Type of Bottom	SC-1 BR NO MU <1' SE	SC-2	553	SC-4	-	Indicate location on map Forest Type (see pg 2) Acres to be Harvested Resid. Basal Area (>50%?) Service Forest	er Con	HW-2	5	
Vanagement Practices	Indicate location on map Type of Crossing Existing Struchwe Type of Bottom Bank Height (ft) Stabilization	SC-1 BR NO MU <1' SE		¥C-3	8C-4		Indicate location on map Forest Type (see pg 2) Acres to be Harvested Resid. Basal Area (>50%?)	HW-1 Proventional and the second seco	HW-2 Iment	5	
Best Management Practices	Indicate location on map Type of Crossing Existing Structure Type of Bottom Baak Height (ft) Stabilization Wetland Crossing Indicate location on map Length of Crossing Mitigation	SC-1 BR NO MU <1' SE 35					Indicate location on map Forest Type (see pg 2) Acres to be Harvested Resid. Basal Area (>50%?) Service Forest Please nema when humzaa	HW-1 Proventional and the second seco	HW-2 Iment	5	

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If Other (OT) is used in any category an explanation must be given on an attached narrative page pg 3 of 5

Products to be Harvested	Products	to	be	Harvested*	k
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Species	MMCds		Mht/Cds
White Pinc	15.1	Red Maple	1
Red Pine	<u> </u>	Sugar Maple	1
Pitch Pine		Red Oak	1
Hemiock		Black Oak	}
Spruce		White Oak	
Other Sftwd.		Other Håvd.	}
White Asb		Total Mbf	15.1
Beech		Cordwood (Cds)	38
White Binds		SW Palp (Tens)	
B & Y Birch		HW Pulp (Tons)	
Black Cherry		Chips (Tons)	521

*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.

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WH	WH		
Acres	2.5	4.5		·
Landowner Objective	Lĩ	L.T		
Designation of Trees	CT	СТ		-1
Type of Cut	CC	SE		
Source of Regeneration	SE	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 arn 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.

istion si	nd Status	Northermonie	Final Report and Comments
Approved	Disapproved	Expires <u>3/4/19</u>	I hereby certify that the afore described Forest Cutting Plan and all relevant statutes have been substantially complied with.
svice Foresta	Director's Agen	r <u></u>	Signature of Service Forester/Director's Agent Date
١	2	xpires Ser. For. Ints.	<u>ita erritziinin Associaritzi (Uk. 1918)</u>
App 1 E	Dis I App 2	Dis 2	<u>Ann mannin na hai an gang</u> <u>Ann can an an can ban</u> an an a
INSE HK Hea	nigek OM Mix	<u>Designation of Trees</u> at Oak CT Cut Tree	SH Shelterwood Intermediate Horvests: AD Advanced
			ST Seed Tree CT Commercial Thin SE Namual Seed y CC Clear Car, NT Non Com Thin PL Plant
		ne/Fir OT Other n Maple Landumer Objective	SE Selection Non-Standard Systems:* CO Coppies e SA Salvago HG Highgrade* DS Direct Soud
	Approved	Approved Disapproved	Approved Disapproved Expires Approved Disapproved Expires M 3/4/19 Approved Disapproved Expires M 3/4/19 Approved Disapproved Expires Jac 3/4/19 Approved Disapproved Expires 3/4/19 Approved Disapproved Expires Date App 1 Dis 1 App 2 Dis 2 App 1 Dis 1 App 2 Dis 2 App 1 Dis 1 App 2 Dis 2 HH Hem/Ridwel RM Red Mapie Stated Banadar HH Hem/Ridwel RM Red Mapie Stated Banadar BB Bece/Bio/Mag S Sprace/Bio/Aprice/Fir OT Other

Stream Crossings

Overflow Page

Best Management Practices Information

Indicate location on map	SC-5	SC-6	SC-7	SC-8	SC-9	SC-10
Type of Crossing					÷	
Existing Structure						
Type of Bottom						
Bank Height (ft)						!
Stabilization						

Wetland Crossings

Indicate obstion on map	WC-5	WC-6	WC-7	WC-8	WC-9	WC-10
Length						1 .
Mitigation			-1			
Stabilization						1

Filter Strips

Indicate location on map	fS-5	FS-6	F5-7	FS-8	FS-9	F5-10
Width (50',100' or VA)	VA	VA]	<u> </u>		

Harvesting in Wetlands

Indicate location on map	HW-5	HW-6	HW-7	HW-8	HW-9	HW-10
Forest Type (see pg 2)			1			
Acres to be Harvested						
Resid. Basal Area (>50%)						

191	<u>e af Crossing</u>	Srab	ilization	MI	ration	Түрс	<u>e of Bottom</u>	Note
CJ	Colvert	SE	5eed	FR	Frazen	16	eche	Applicant must provide DCR with all relevant Information
3R	Bridge	MU	Malch	OR	Dry	5 ~	Stony	before plan may be approved and outting may begin.
FØ	Ford	00	Conductory	01	Other	MU	Mud	Some forestry activities, such as prescribed burning and
PO	Polec	SL.	Stone			GR	Grave	pesticide or fertilizer application may require additional permit:
OT	Other	148	Hay Bales			DT.	Othe:	Consult MA Forestry BMP Manual for Arther information.
		ΰT	Other					

if Other (OT) is used in any category an explanation must be given on narrative page

Forest	Cutting	Plan
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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 - DWS
Town	Barre
File Number	

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 an old field white pine - hardwood stand. A 2.5 acre opening (clearcut) will be established, leaving 5 - 10 square

BMPs feet of basal area per acre of residual overstory trees, mostly oak and black cherry, for aesthetic purposes. Stand two is

an old field white pine - hardwood stand. Three group selection openings of 0.8, 1.7, and 2.0 acres will be established,

leaving 5 - 10 square feet of basal area per acre of residual overstory trees, mostly oak, for aesthetic purposes.

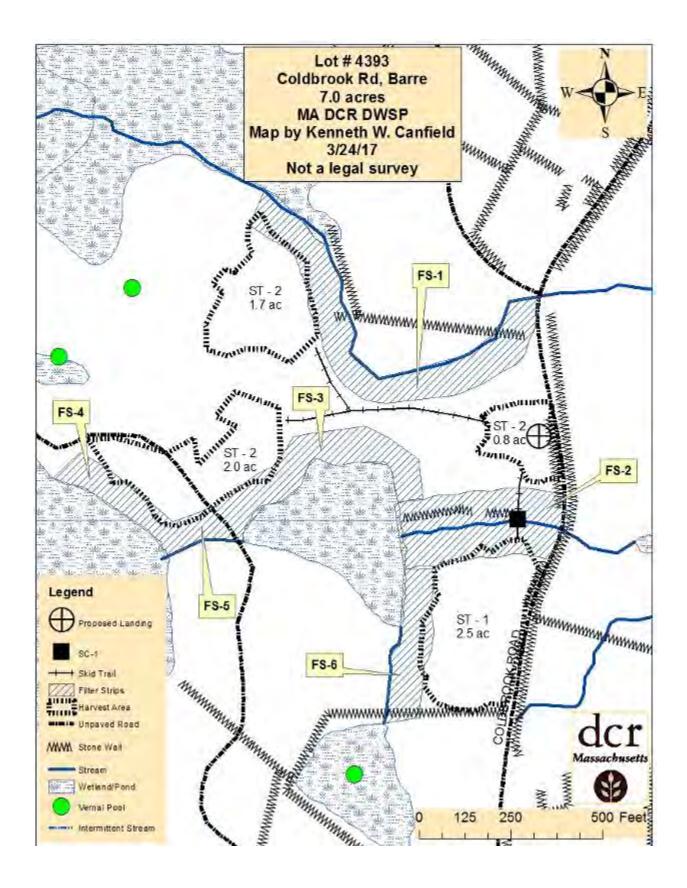
Use this Section to describe the types of trees to be harvested and/or retained if Other (OT) was used for "Designation of Trees" in the Stand Treatment Section on page 4. Additional narrative description may be added on a separate page.

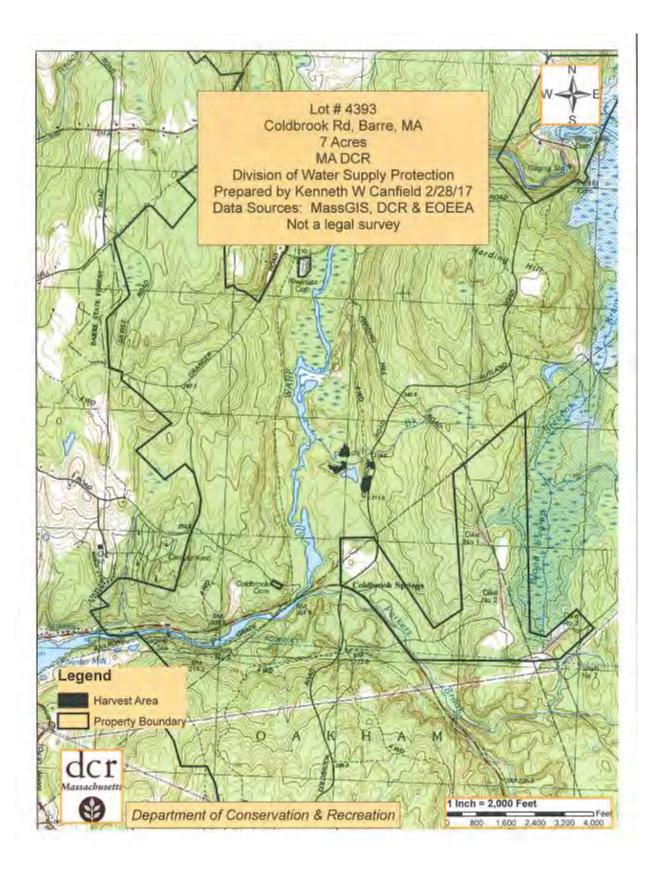
	Describe Tre	es to be Cut		Describe Tre	es to be Left		% BA/	AC
Stand No.	Species	- Size	Quality	Species	Size	Quality	Cut	Left
	ļ		<u> </u>					
				ļ	<u>.</u> .	.		
			· .	<u>i</u>				
					i			

Use this Section to describe how Chapter 132 requirements will be met if a non-standard system (IIG, DL, or (VI) was used for the "Type of Cut" in the Criting 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 treestacre
	·	
Stand No.	Describe what the st	Desired future Condition and is expected to look like five years from the harvest, including the condition of the overstory & understor

pg 5 of 5





dcr COMMONWEALTH OF MAS		FILE #	021-8695-17	1
Division of State Parks and Recr				
				1
				1
FOREST CUTTING PLA	N CERTIFIC	CATE V		
Post this in a conspicuous place within the area in	which the harvesting ope	ration is to tak	e place.	
This certifies that DCR DWSP 48				th
				the
This certifies that DCR DWSP 48 (Name of Owner)	<mark>(S Wore Rd Bel</mark> (Address)	shertown,		
This certifies that DCR DWSP 48 (Name of Owner) provision of M.G.L. Chapter 132, Section 40-46, file	ed in Clinton	shertown,	MA in accordance with 0\007 with the Dept. of Conserval	
This certifies that DCR DWSP 48 (Name of Owner) provision of M.G.L. Chapter 132, Section 40-46, file and Recreation, Division of State Parks and Recreat	ed in Clinton	shertown,	MA in accordance with 0\007 with the Dept. of Conserval	
This certifies that DCR DWSP 48 (Name of Owner) provision of M.G.L. Chapter 132, Section 40-46, file	ed in Clinton	shertown,	MA in accordance with 0\007 with the Dept. of Conserval	
This certifies that DCR DWSP 48 (Name of Owner) provision of M.G.L. Chapter 132, Section 40-46, file and Recreation, Division of State Parks and Recreat Cold brook Kd lot.	ed in Clinton	shertown,	MA in accordance with 0\007 with the Dept. of Conserval	
This certifies that DCR DWSP 48 (Name of Owner) provision of M.G.L. Chapter 132, Section 40-46, file and Recreation, Division of State Parks and Recreat Cold brook Kd lot.	ed in Clinton	shertown,	MA in accordance with 0\007 with the Dept. of Conserval	
provision of M.G.L. Chapter 132, Section 40-46, file and Recreation, Division of State Parks and Recreat	ed in Clinton	shertown,	MA_in accordance with 01007 with the Dept. of Conservat ducts upon the	

Figure 2 A & B: Pre-Harvest Photographs taken from marked photo point 1 (A & B) taken 4/12/17



A. Point 1 taken 4/12/17 towards WSW

B. Point 1 taken 4/12/17 towards WNW



Figure 3 A & B Post-Harvest photographs from marked photo point 1 (A & B) taken 7/12/17

A. Point 1 taken 7/12/17 towards WSW



B. Point 1 taken 7/12/17 towards WNW

