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

### **Project Title: Barre Heath Part 2**

DWSP Harvest Permit Number: 4394
DCR Forest Cutting Plan File Number: 021-8843-17

#### **Site Information**

Watershed: Ware River Watershed	Town(s): Barre					
Acres: 24.6	Nearest Road: Rt 62					
Natural Heritage Atlas overlap?: Yes	Public Drinking Water Supply Watershed?: Yes					
Forest Types: White Pine/Hardwood ACEC?: No						
Soils: 253 B & C Hinckley loamy sand excessively drained						
Wetland Resources: The lot is located between the Burnshirt River and Canesto Brook and associated wetlands						
Vernal Pools present or within 200 feet of harvest : Yes.						

#### **Harvest Information**

Harvest Start Date: After 2/20/18	Harvest End Date: 3/29/18
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 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					
<b>Phone #:</b> 508-882-3636 X 1603					
Email: kenneth.canfield@state.ma.us					

## NARRATIVE

#### **General Description/Forest Composition/History:**

The harvest area lies south of Rt 62 in Barre, between the Burnshirt River and Canesto Brook.

This area was mined for gravel decades ago. Much of the topsoil may have been removed in spots to prepare for gravel extraction. The area may have also burned repeatedly. This resulted in a heath type habitat that is characterized by low bush blueberry with scattered pitch pine and large crowned oaks. Over the years, low quality white pine with scattered red maple and white, red, and black oaks have regenerated much of the site, resulting in the loss of much of the open heath habitat.

Open heath still exists in the area, and has been enhanced by hand girdling by NHESP staff. A harvest was completed in the spring of 2017 on the site. That harvest removed undesirable species in three large groups of 4.6, 4.9, and 4.9 acres and two smaller groups of 1.0 and 0.5 acres.

Species present are white pine, white, red, black, and scarlet oak, pitch pine, red maple, hemlock, black cherry, quaking aspen, and grey birch.

Invasive buckthorn is abundant on the site, and invasive barberry, honeysuckle, and burning bush are present, particularly adjacent to Rt 62.

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 for upland heath habitat restoration in cooperation with NHESP. The upland heath habitat is rare this far inland and is considered globally significant.

#### Silvicultural Objectives:

The main purpose of this harvest is to expand the existing upland heath habitat by harvesting overstory trees adjacent to the existing heath and the openings created by the last harvest. All overstory white pine, red maple, hemlock, and black cherry will be harvested. All pitch pine will be retained. Scattered large crowned white oak will also be retained. Aspen will be retained to avoid sprouting. The resulting stand will be open, with areas that have less than 5 square feet per acre of basal area. Up to 20 square feet per acre of basal area will be retained where more desirable species are present.

#### **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 are 3 vernal pools within 200 feet of the boundary of the lot. State CMP's and DWSP policy will be implemented to mitigate potential impacts to these areas.

## **FIGURES**

Figure 1 Final Forest Cutting Plan

- Figure 2 A-C Pre-Harvest photographs from marked photo points 1 & 2 taken 7/28/17
- Figure 3 A-C Post-Harvest Photographs taken from marked photo points 1 & 2 taken 8/15/18

Figure 1 Final Forest Cutting Plan

Location     Landowner       Town:     Barre     Name     CR Division of Water Supply Protection       Name     CA:ed     Proposed Start Date 5007       Vol: MBF:     20.1     Vol: Cds58     Vol. Tons 832       Plan:     Preparer     Chill     Gli: Gli: Gli: Gli: Gli: Gli: Gli: Gli:	Nat. Hert. Image: Constraint of the second	For DCR Use Only:       File Numbert     A1: (1, 1, 2, 1)       Case     (24, 1, 4, 2, 1)       Date Rec d     (24, 1, 4, 2, 2)       Barliest Start     (5, 1, 4, 4, 1)       River Basin     (24, 1, 4, 2, 2)       Gén. Obi.     (37, 1)		lan	4.G.L. Itting	inder N rest Ci R 11.0	OFEST CUT id Notice of Intent i apter 132 – The Fo actices Act, 304 CM fective Date: 3/15/16)	al C P
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# **Forest Cutting Plan**

BMPs

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 - D

File Number 021-

Town

OWSP

8843

Barre

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.

The objective of this harvest is to expand and restore sandplain heathland habitat. Sandplain heathland is very open, with

scattered pitch pine and large crowned white oak. This harvest will remove all undesireable species, mostly white pine,

black cherry, red maple, and red oak. Overstory pitch pine and aspen will be retained where present. Large crowned white oak will be retained where present up to 20 ft^2 of basal area/acre. Where more white oak is present only the largest

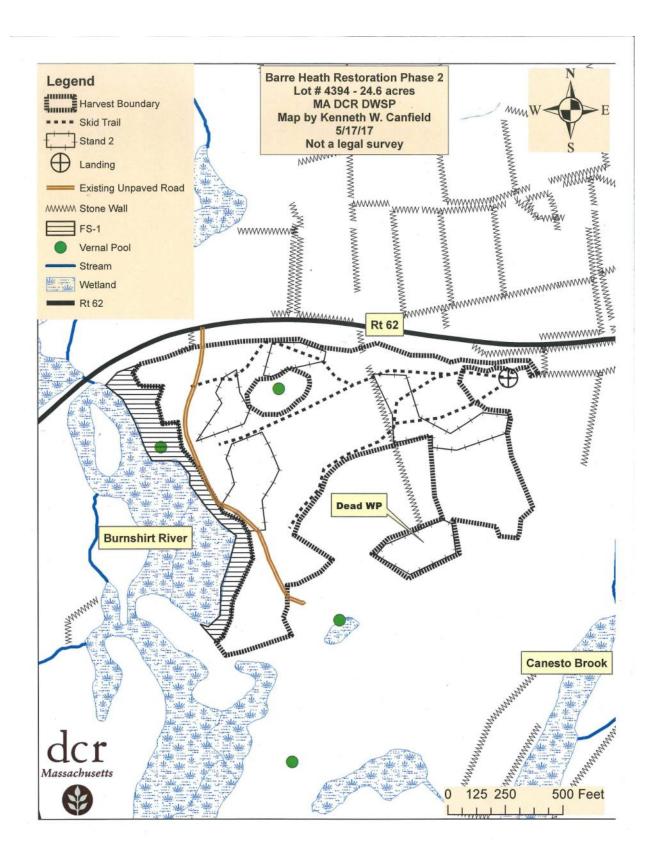
and healthiest will be retained. Retained overstory trees will be patchy, with an average of < 5 ft^2 of basal area/acre.

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.

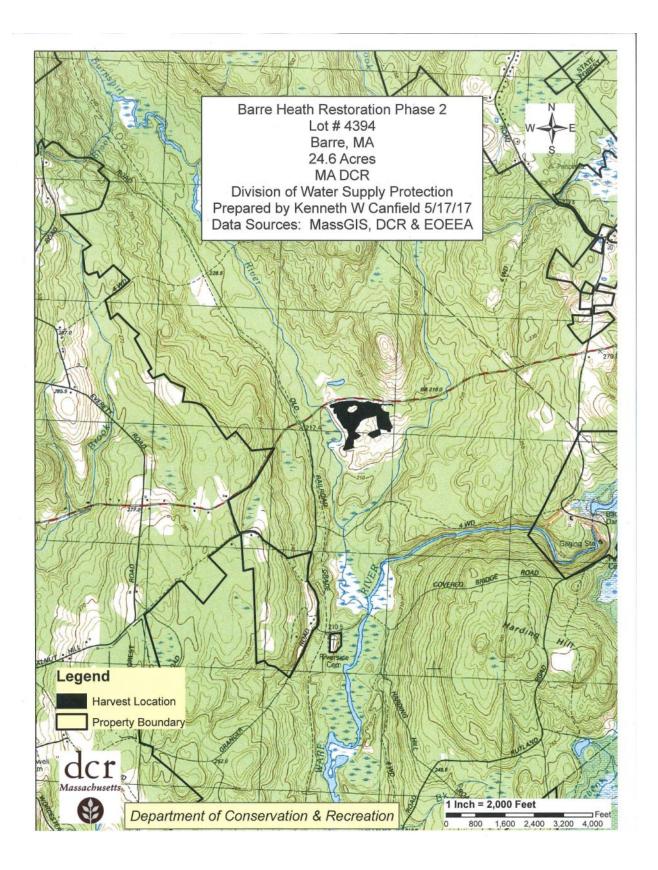
	Describe Tree	es to be Cut		Describe Tr	rees to be Left		% BA	/AC
Stand No.	Species	Size	Quality	Species	Size	Quality	Cut	Lef
1&2	ALL BUT PP, WO, AS	>2" dbh	All	PP, AS	> 5" dbh	. Any	0	100
				WO	> 6" dbh	Any	40	60
			1				· · ·	-
,								

	Use this Section	a 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
1		This stand is dominated by white pine, with some white oak, black cherry, red and black oak, red maple, aspen, and pitch pine present. It is the intention of DWSP to maintain the heathland habitat
	· · · · ·	that will be created/restored with help from MA DFW and MA DCR Fire Control.
2		Stand 2 is comprised of open heathland and old gravel pits with sapling and pole size white pine and hardwood. It is the intention of DWSP to maintain the heathland habitat that will be created/restored
	2	with help from MA DFW and MA DCR Fire Control. There is also 1.3 acres on which 35 dead white pine trees will be removed from open heathland.
Stand No.	Describe what	Desired Future Condition the stand is expected to look like five years from the harvest, including the condition of the overstory & understor
1&2	These stands wi	I be part of a larger sandplain heathland community. This habitat is dominated by heath species, such berry and huckleberry, some shrubs, and scattered pitch pine and large crowned white oak trees.
	This type of habi NHESP will be u	tat is very open. Prescribed burning and/or mowing in conjunction with DCR Fire Control and DFW sed to maintain the heathland.
1	Due to the prese unless a protecti	nce of a NHESP species of special concern, harvesting activities will only occur between 11/1 and 3/31 on plan is developed, submitted to and approved by NHESP, and followed. DWSP will notify the servic
f	forester if that oc	curs. There is some rolling terrain with short sections of steep slopes (60%) on very dry soils present ng contractor will be instructed to minimize equipment on the steep slopes as much as possible.

pg5of5







dct COMMONWEALTH OF MASSACHUSE Department of Conservation and Recreation Division of State Parks and Recreation	
FOREST CUTTING PLAN CEI	RTIFICATE
Post this in a conspicuous place within the area in which the har 485 Wo	vesting operation is to take place.
This certifies that DCR DWSP Belower	Address) in accordance with the
provision of M.G.L. Chapter 132, Section 40-46, filed in	
<u>Rt 62</u> lot.	
Approval Date 3/19/17-	ISSUED BY: Park Jein
Director's Agent Kate Marquis DCR Phone No. (413) 992-8734	Priscilla E. Geigis, Director
DCR Phone No. 415 18 OT 3	Division of State Parks and Recreation

Figure 2 A-C Pre-Harvest Photographs taken from marked photo points 1 & 2 taken 7/28/17



A. Point 1 taken 7/28/17

B. Point 2 taken 7/28/17





Figure 3 A-C Post-Harvest Photographs taken from marked photo points 1 & 2 taken 8/15/18

A. Point 1 taken 8/15/18



B. Point 2 taken 8/15/18



C. Point 2 taken 8/15/18

