

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
Phone #: 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

JUN 01 2017

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)

Final

For DCR Use Only:

File Number 21-66-101 / Case No.

Date Rec'd 5/11/17 Nat. Hort. Yes

Earliest Start 6/15/17 Pub. Dr. Wat. Yes

River Basin ACEC No

Gen. Obj. LT

Location

Town Barre

Road Rt 82

Acres 24.6 Proposed Start Date 6/20/17

Vol. MBF 20.1 Vol. Cds. 58 Vol. Tons 832

Plan Preparer

Name Karineth 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 CHRIS FLYNN

Address 152 WILLIAMSVILLE ROAD

Town, State, Zip ROXBOROUGH, MA 01868

Phone (781) 210-7105

Mass. Lic. Harvester # 2608-SS

**This information may be supplied after the plan is approved, but before work begins.

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

*off stream crossing is wetland adjacent to stream
proposed for this stream*

*Area within 50 feet of stream when moved
beyond*

*Operation of skidder, skidder etc will start
adjacent to stream, please beginning the land cutting
within 30 days of year*

*Use of equipment on steep slopes should be minimized
as much as possible*

Please review NHESP guidelines

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Bottom	Note:
LF - Mass. Lic. For.	CU - Culvert	SE - Seed	FR - Frozen	LE - Ledge	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.
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 - Piled	ST - Stone		GR - Gravel	
OT - Other	OT - Other	HB - Hay Bales		OT - Other	
		OT - Other			

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*

Species	Mbf/Cds		Mbf/Cds
White Pine	19.4 Mbf	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	0.7 Mbf
Hemlock		Black Oak	
Spruce		White Oak	
Other Shwd.		Other Hdw.	
White Ash		Total Mbf	20.1
Beech		Cordwood (Cds)	58
White Birch		SW Pulp (Tons)	
B & Y Birch		HW Pulp (Tons)	
Black Cherry		Chips (Tons)	832

*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	18.9	5.7		
Landowner Objective	LT	LT		
Designation of Trees	LT	LT		
Type of Cut	OT	OT		
Source of Regeneration	OT	OT		

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 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]

5-25-17

Signature of landowner(s)

Date

Determination and Status

Approved	Disapproved	Expires
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8/1/17
Cutting Plan		
Signature of Service Forester/Director's Agent		
Date		
Extension	Expires	Ser. For. Ins.
1 <input type="checkbox"/>	2 <input type="checkbox"/>	
Amendment	App 1	Dis 1
	App 2	Dis 2

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 Types	Designation of Trees	Type of Cut	Source of Regeneration
WF White Pine	CT Cut Tree	SH Shelterwood	AD Advanced
WK WP/Hdw	LT Leave Tree	ST Seed Tree	SE Natural Seed
WH WP/Hdw	SB Stand Boundary	CC Clear Cut	FL Plant
WO WP/Oak	OT Other	SE Selection	CO Coppice
RP Red Pine	Landowner Objective	SA Salvage	HS Highgrade*
SR Red Spruce	LT Long-term Mgt.	SN Sanitation	DL Diameter Limit*
	ST Short-term Har.	OT Other*	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 021-8843-17

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 undesirable 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 ft² 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 ft² 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.

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

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

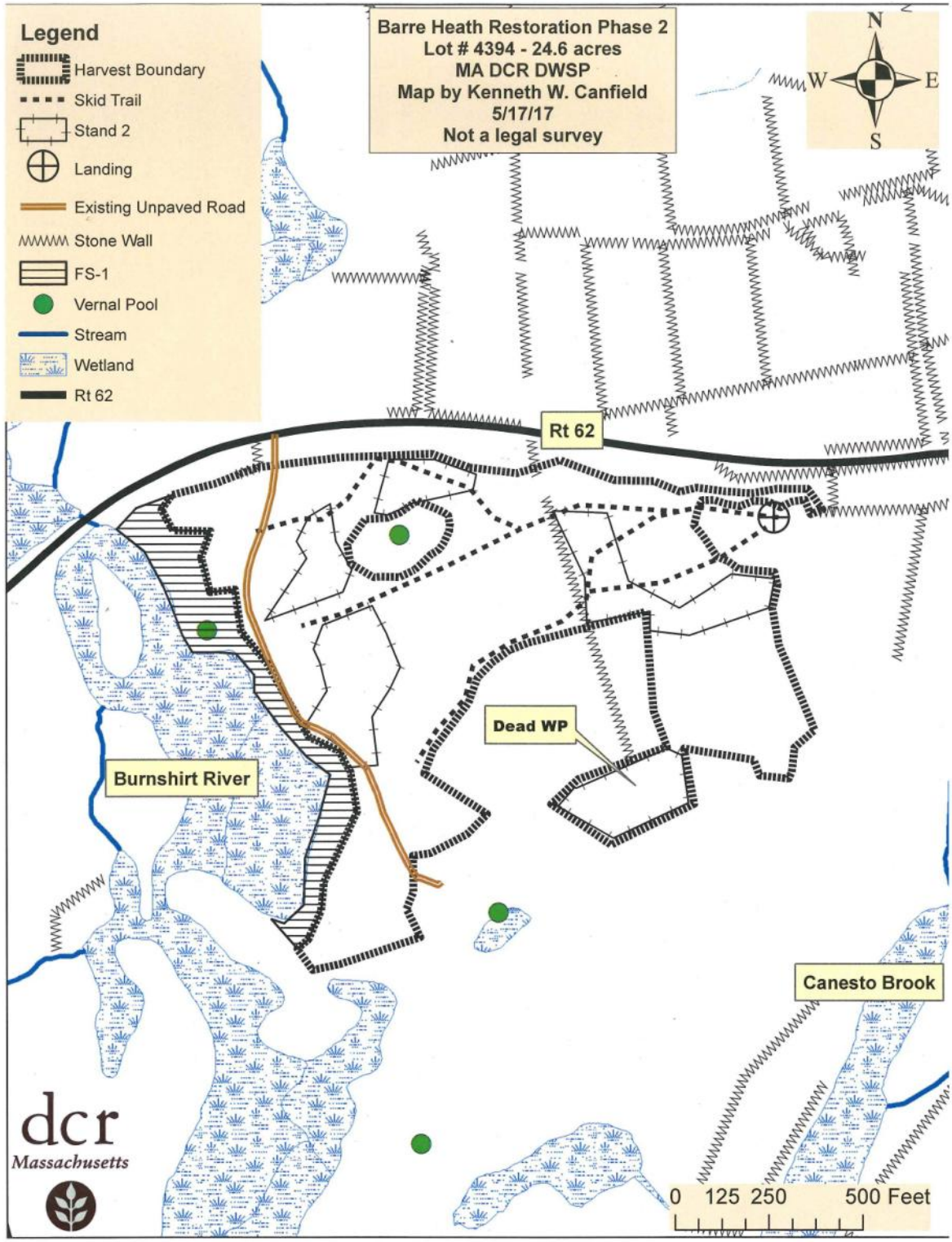
1	This stand is dominated by white pine, with some white oak, black cherry, red and black oak, red maple, aspen, and pitch pine present. It is the intention of DWSP to maintain the heathland habitat that will be created/restored with help from MA DFW and MA DCR Fire Control.
2	Stand 2 is comprised of 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 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.

Desired Future Condition

Describe what the stand is expected to look like five years from the harvest, including the condition of the overstory & understory

1 & 2	These stands will be part of a larger sandplain heathland community. This habitat is dominated by heath species, such as low bush blueberry and huckleberry, some shrubs, and scattered pitch pine and large crowned white oak trees.
	This type of habitat is very open. Prescribed burning and/or mowing in conjunction with DCR Fire Control and DFW NHESP will be used to maintain the heathland.
	Due to the presence of a NHESP species of special concern, harvesting activities will only occur between 11/1 and 3/31 unless a protection plan is developed, submitted to and approved by NHESP, and followed. DWSP will notify the service forester if that occurs. There is some rolling terrain with short sections of steep slopes (60%) on very dry soils present on the lot. Logging contractor will be instructed to minimize equipment on the steep slopes as much as possible.



Legend

-  Harvest Boundary
-  Skid Trail
-  Stand 2
-  Landing
-  Harvested 3/17
-  FS-1

Barre Heath Restoration Phase 2
Lot # 4394 - 24.6 acres
MA DCR DWSP
Map by Kenneth W. Canfield
5/17/17
Not a legal survey



Barre Heath Restoration Phase 2

Lot # 4394

Barre, MA

24.6 Acres

MA DCR

Division of Water Supply Protection

Prepared by Kenneth W Canfield 5/17/17

Data Sources: MassGIS, DCR & EOEEA



Legend

- Harvest Location
- Property Boundary



Department of Conservation & Recreation

1 Inch = 2,000 Feet

0 800 1,600 2,400 3,200 4,000 Feet



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

FILE # 021-8843-17

W

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 Road
(Name of Owner) (Address) Belchertown, MA 01007 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 62 lot.

Approval Date 7/19/17
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-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



C. 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

