

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

Project Title: Barre Falls Dam

DWSP Harvest Permit Number: WR 4386
DCR Forest Cutting Plan File Number: 021-7625-15

Site Information

Watershed: Ware River	Town(s): Barre
Acres: 21	Nearest Road: Coldbrook Rd, Lackey Lane
Natural Heritage Atlas overlap?: Yes	Public Drinking Water Supply Watershed?: Yes
Forest Types: White pine – oak, oak – mixed, dry	ACEC?: No
Soils: Most of the lot is on 910C Woodbridge-Paxton, fine sandy loam, extremely stony, moderately well-drained. There is also 902E Charlton-Paxton association, extremely stony, well drained.	
Wetland Resources: Lot is adjacent to wetlands.	
Vernal Pools: No	

Harvest Information

Harvest Start Date: 7/1/15	Harvest End Date: 8/15/16
Number of Wetland Crossings: None	Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings	There are no stream crossings.
Filter Strips	There are no filter strips.
Wetland Crossings	There are no wetland crossings.
Harvesting in Wetlands	There is no harvesting in wetlands.

DWSP Forester supervising this harvest	
Name: Kenneth W. Canfield	
Forester License #: 431	
Phone #: 508-882-3636 ext.1603	

NARRATIVE

General Description/Forest Composition/History:

The overstory is mostly white pine – oak, with an oak stand in the middle. Species present are white pine, red, black, white, and scarlet oak, with some hemlock and red maple. The overstory is generally even aged with good quality stems of varying vigor. The area was lightly thinned 20 to 25 years ago. The understory is made up of mostly white pine and red maple with sections of oaks and hemlock, and is adequate but somewhat sparse.

No invasive shrubs were observed.

The soil is moderately 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. In order to achieve this, DWSP has determined that the forest should contain a diversity of species in various stages of development (seedlings through large mature trees). In addition, the forest should be vigorous; actively growing and regenerating. A forest in this condition is resilient to and quickly recovers from small and large scale disturbances such as disease, insect infestation, ice storms and hurricanes.

Silvicultural Objectives:

The main purpose of this harvest is to diversify and regenerate the forest. Small (up to 1/3rd of an acre) groups of trees will be removed, generally in areas where the trees have the lowest vigor and poorest form. The groups have been targeted in areas where softwood species dominate the overstory and/or understory. Most snags and trees with stick nests, dens or unusual wildlife habitat characteristics will be retained.

This treatment should increase the diversity of species and will increase the age and structural diversity of the forest as a whole.

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. There are multiple walls on this lot that will need to be crossed. Existing barways will be used to cross walls, but will need to be widened due to the size of modern harvesting equipment.

Wildlife/Rare or Endangered Species:

There are no known vernal pools adjacent to the harvest area. There are NHESP critical habitats on the lot. NHESP has visited the site and made recommendations to mitigate any potential adverse effects on habitat, and to improve habitat where possible. NHESP has determined that because of the mitigations incorporated into the cutting plan, the harvest will not result in any significant impacts on that habitat. A variety of wildlife such as deer, turkey, coyote and moose are known to frequent the lot and beaver and otter are in adjacent wetlands.

FIGURES

Figure 1 Final Forest Cutting Plan

Figure 2 Pre-Harvest photograph from marked photo point 1 taken 7/2/15

Figure 3 Post-Harvest photograph from marked photo point 1 taken 5/9/16

Figure 4 After one growing season photograph from marked photo point 1 taken 8/8/16

Figure 5 After two growing seasons photograph from marked point 1 taken 7/17/17

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)

MAY 21 2015

For DCR Use Only:

File Number 091-225-15 Case No. _____
 Date Rec'd 5-21-15 Nat. Hert. Yes /
6-8-15
 Earliest Start _____ Nat. Hert. Imp. No
 River Basin Chungpee Pub. Dr. Wat. Yes
 Gen. Obj. LT ACEC No

Site Information

Location

Town Barre, lot WR 4386
 Road Coldbrook Road
 Acres 21 Proposed Start Date 6/15
 Vol. MBF 28.9 Vol. Cds. 69 Vol. Tons 158

Plan Preparer

Name Kenneth W. Canfield
 Address DCR, Division of Water Supply Protection
578 Old Turnpike Rd.
 Town, State, Zip Oakham, MA 01068
 Phone (508)882-3789 ext.1603
 Type of Preparer Mass. Licensed Forester
 *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 Ch61A Stew *Case # _____
 Est. Stumpage Value _____

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

* See attached NHESP
RENEW

ies

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	BO Belied	ST Stone		CP Gravel

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.

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	18.6M	Red Maple	0.2M
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	5.9M
Hemlock		Black Oak	2.9M
Spruce		White Oak	1.3M
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	
Beech		Cordwood (Cds)	69
White Birch		SW Pulp (Tons)	158
B & Y Birch		HW Pulp (Tons)	
Black Cherry		Chips (Tons)	

*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	WP	OH	WH	
Acres	4.6	8.2	8.0	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SE	SE	SE	
Source of Regeneration	SE	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 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.

Signature of landowner(s)

Date

Service Forester

Determination and Status

Approved Disapproved Expires 5-21-17

6-15-15
Signature of Service Forester/Director's Agent Date

Extension 1 2 Expires / Ser. For. Ints. /

Amendment App 1 Dis 1 App 2 Dis 2 /

Final Report and Comments

I hereby certify that the afore described Forest Cutting Plan and all relevant statutes have been substantially complied with.

8/15/2016
Date

Codes

Forest Types	HK Hemlock	OM Mixed Oak	Designation of Trees	SH Shelterwood	Intermediate Harvests:	Source of Regeneration
WP White Pine	HH Hem/Hdwd	RM Red Maple	CT Cut Tree	ST Seed Tree	CT Commercial Thin	AD Advanced
WK WP/Hem	BC Blck Cherry	BE Beech	LT Leave Tree	CC Clear Cut	NT Non Com Thin	SE Natural Seed
WH WP/Hdwd	BB Bee/Bir/Map	SF Spruce/Fir	SB Stand Boundary	SE Selection	Non-Standard Systems: *	PL Plant
WO WP/Oak	OH Oak/Hdwd	SM Sugar Maple	OT Other	SA Salvage	HG Highgrade*	CO Coppice
RP Red Pine			Landowner Objective			DS Direct Seed

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 DCR, DWSP

Town Barre

File Number 021-7625-15

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. To benefit [REDACTED] ** Sensitive species information* and their habitat, the following recommended management actions from NHESP will be incorporated.

Harvesting operations will be conducted first in the northern and eastern (higher elevation) sections of the harvest area, working towards the south and west. Groups have been concentrated in areas with dense softwood stands and regeneration as much as possible. Trees to be harvested have been limited to within groups and skid trails, with no thinning in between groups. Four trees have been identified within the harvest area to be "tip" trees. These trees will be pushed over by harvesting equipment, with operator safety as a priority, and left onsite as habitat.

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

Harvest Lot 4386
Barre, MA
21 Acres
MA DCR
Division of Water Supply Protection
Prepared by Kenneth W Canfield 5/7/15
Data Sources: MassGIS, DCR & EOEEA
Not a legal survey



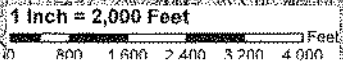
WR 4386

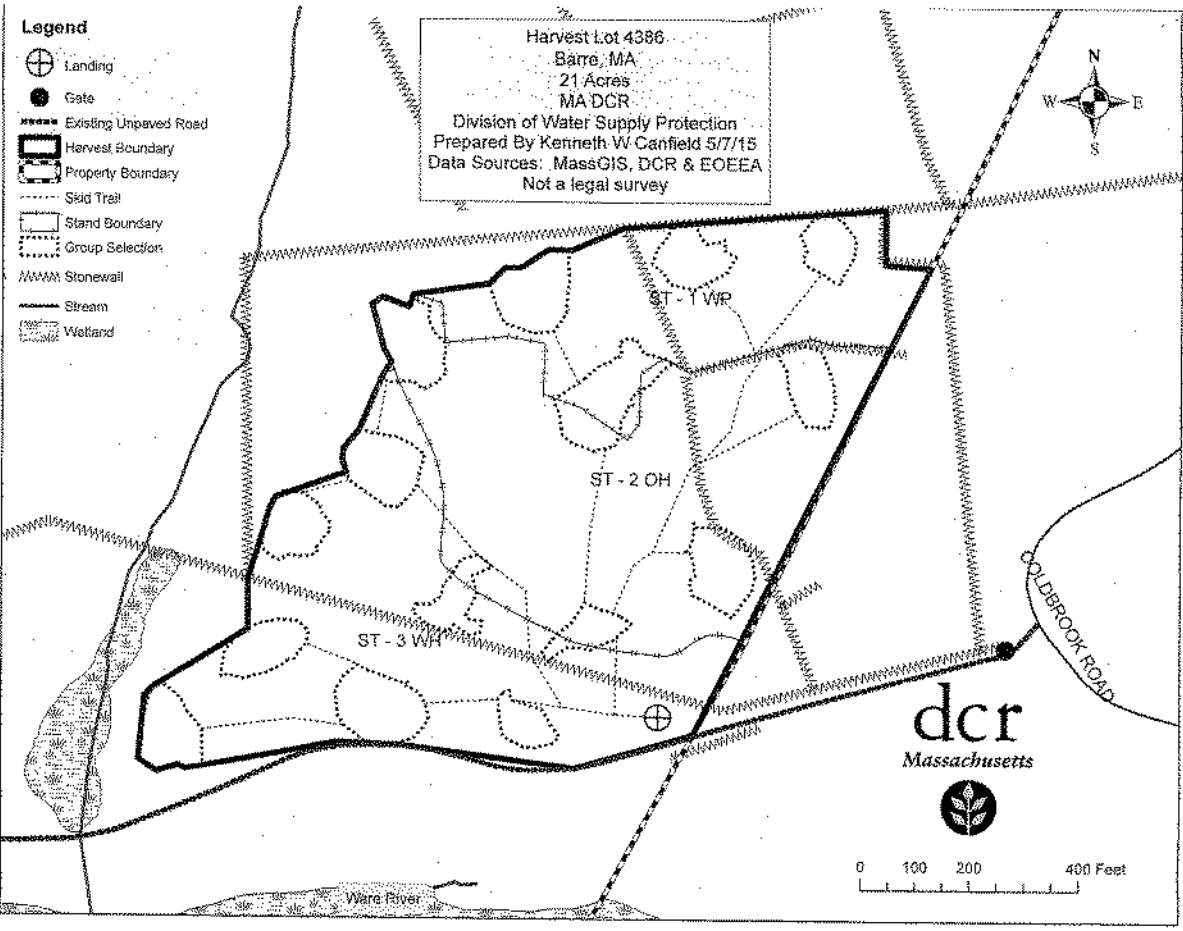
Legend

- Property Boundary
- Harvest Boundary
- Landing
- ACE Gate



Department of Conservation & Recreation







Division of Fisheries & Wildlife

Jack Buckley, *Director*

Kate Marquis
Department of Conservation and Recreation
355 West Boylston St.
Clinton, MA 01510

Cutting Plan No. 021-7625-15
NHESP Tracking No. 15-34531
Town Barre
Road Off Coldbrook Road
Landowner DCR - DWSP
Preparer Kenneth Canfield
Date June 12, 2015

Dear Kate,

The Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife (the Division) has reviewed the above-referenced Forest Cutting Plan (hereinafter "the Plan") pursuant to the special approval procedures of the Forest Cutting Practices Regulations (304 CMR 11.04(6)). Based on details of the Plan and information in the NHESP database, the Division does not expect activities proposed in the Plan to negatively impact Estimated Habitat or result in "Take" (as defined in 321 CMR 10.02) of plant or animal species protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). Therefore, the Division does not require that the Plan be modified at this time.

Please copy the Division on any proposed amendment, extension and on the approved Plan for the site. If you have any questions about this letter, please contact Brent Powers at (508) 389-6354.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

Cc: Barre Conservation Commission (via e-mail)





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

FILE # 021-7625-15

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 DWSP 485 Ware Rd Belchertown in accordance with the
(Name of Owner) (Address) 01007

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
Coldbrook Rd lot, Barre

Approval Date 6/12/2015
Director's Agent Kate Marquis
DCR Phone No. (413) 992-8734

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

Figure 2. Pre-Harvest photograph from marked photo point 1 taken 7/2/15



Figure 3. Post-Harvest photograph from marked photo point 1 taken 5/9/16



Figure 4. After one growing season photograph from marked photo point 1 taken 8/8/16



Figure 5 After two growing seasons photograph from marked point 1 taken 7/17/17

