

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

**Project Title: Ware River Rail Trail**

DWSP Harvest Permit Number: 4402

DWSP Proposal ID: WR-18-18-03

DCR Forest Cutting Plan File Number: 021-28949-21

***Site Information***

Watershed: Ware River Watershed

Town(s): Barre

Acres: 22

Nearest Road: Rt 122, Old Worcester Rd, and Granger Rd

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine/hardwood, white pine, mixed oak

Area of Critical Environmental Concern (ACEC)?: No

Soils: 910C Woodbridge-Paxton association 902E Charlton-Paxton association 254 B and C Merrimac fine sandy loam 253 C and E Hinckley loam sand. Soils are well drained to excessively well drained.

Wetland Resources: The harvest area is adjacent to the Ware River and associated wetlands. A small stream, beaver pond, and associated wetlands are also adjacent to the harvest area.

Vernal Pools: None known

***Harvest Information***

Harvest Start Date: 12/1/2020

Harvest End Date: 1/11/2021

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](mailto:Kenneth.canfield@mass.gov)

## **Narrative**

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

The harvest area is located in the town of Barre, adjacent to the Ware River Rail Trail in between Rt 122 (to the south) and Granger Rd (to the north).

Tree species present in the overstory are white pine, red, black, and white oak, red maple, black birch, black cherry, hemlock, and aspen. The understory consists of red and white oak, eastern white pine, hemlock, black birch, red maple, and black cherry.

Glossy buckthorn is present, particularly along the rail trail. 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 to excessively 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 there is an abundance of low quality, old field white pine. There is also significant mortality and damage in the overstory oak due to spongy moth caterpillars.

### ***Silvicultural Objectives***

There are several objectives on this harvest.

The first is to reduce the amount of mature, low quality, old field white pine in the area. These types of stands are prevalent in the Ware River Watershed due to historical agricultural land use in the area. These stands generally consist of a single dominant species (white pine) with dominant trees that are all the same age because they all started when the pastureland was abandoned in the 1920's. The white pine is usually very low quality due to its open growing conditions and the effects of the white pine weevil, back when the dominant trees were seedlings and saplings. The regeneration that is already present under these stands is generally much more diverse in terms of species composition, and will be released in patches with plenty of sunlight to grow. These low quality white pine stands will be harvested in patches. There will be a 4.4 acre clearcut and several group selection patches totaling 6.4 acres.

The second objective is to salvage dead and dying overstory oak trees that were killed or damaged by spongy moth caterpillars. These trees still have financial value as sawlogs or firewood. Reducing the amount of these trees in the area also helps to reduce populations of secondary pests that could possibly otherwise damage healthy trees. The oak salvage will be done in several patches totaling 5.7 acres.

The third objective is to establish new regeneration and encourage existing regeneration in in a 3.4 acre white pine stand where the overstory trees are higher quality and healthier than those in the old field white pine stands. This will be done with a shelterwood harvest.

The fourth objective is to promote a pitch pine/white oak barren in a 1.6 acre area where pitch pine is present. The soils on this site are well suited to this type of habitat. Barrens are a relatively rare type of habitat that provide opportunities for some rare and threatened species of plants and insects. The harvest will remove undesirable competing species such as white pine, red maple, and red oak to encourage the overstory pitch pine and white oak trees that are present.

### ***Cultural Resources***

Standard practice dictates that every effort is made to avoid disturbing stone walls and other cultural resources. Several stone walls in the area have been crossed in previous harvests. These crossings will be re-used wherever possible to minimize damage to the existing stonewalls.

### ***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
- Figure 2 (A-C) Pre-Harvest photos taken on 8/18/20
- Figure 3 (A-C) Post-Harvest photos taken on 1/19/21
- Figure 4 (A-C) After 3 Growing Seasons photos taken on 7/18/23

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)

## For DCR Use Only:

File Number 021-28544.2 Case No. \_\_\_\_\_  
Date Rec'd 8/17/20 Nat. Hert. N  
Earliest Start 9/1/20 Pub. Dr. Wat. N  
River Basin CHICOMEE ACEC N  
Gen. Obj. LT

Site Information

### Location

Town Barre  
Road Ware River Rail Trail Between Rt 122 & Granger  
Acres 21.5 Proposed Start Date 9/20  
Vol. MBF 60.9 Vol. Cds. 194 Vol. Tons 845

### Plan Preparer

Name Kenneth W. Canfield  
Address 578 Old Turnpike Rd  
Town, State, Zip Oakham, MA 01068  
Phone (857) 274-7090  
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 PIRNER LOGGING & LAND CLEARING  
Address 152 WILLIAMSVILLE ROAD  
Town, State, Zip HUDDARDSTON, MA 01452  
Phone (978) 928-4736  
Mass. Lic. Harvester # 2021: 587, 2242, 2417, 2416  
\*\*This information may be supplied after the plan is approved, but before work begins.

FINAL

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

\*PLEASE NOTIFY DCR SERVICE FORESTER  
AT START OF HARVEST OPERATION

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

## Products to be Harvested\*

Species	Mb/Cds		Mb/Cds
White Pine	48.0 Mb	Red Maple	29 Cds
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	11.6 Mb
Hemlock	3 Cds	Black Oak	0.4 Mb
Spruce		White Oak	0.9 Mb
Other Sftwd.		Other Hdw.	158 Cds
White Ash		Total Mb	60.9
Beech		Cordwood (Cds)	194
White Birch		SW Pulp (Tons)	
B & Y Birch	4 Cds	HW Pulp (Tons)	
Black Cherry	4 Cds	Chips (Tons)	845

\*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. Mb = thousand board feet.

## Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WH	OM	WH	WH
Acres	3.4	5.7	1.6	6.4
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	CT	CT
Type of Cut	SH	SA	ST	SE
Source of Regeneration	SE	SE	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 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

## Determination and Status

Approved	Disapproved	Expires
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8/17/22
Signature of Service Forester/Director's Agent		Date
8/26/20		
Extension	Expires	Ser. For. Ints.
<input type="checkbox"/> 1 <input type="checkbox"/> 2		
Amendment	App 1	Dis 1
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

## 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

Forest Types	Designation of Trees	Type of Cut	Source of Regeneration
WP White Pine	CT Cut Tree	SH Shelterwood	AD Advanced
WK White Hem	LT Leave Tree	ST Seed Tree	SE Natural Seed
WH White Hdw	SB Stand Boundary	CC Clear Cut	NT Non Com Thin
WO White Oak	OT Other	SE Selection	FL Plant
RP Red Pine	Landowner Objective	SA Salvage	CO Coppice
SR Red Spruce	LT Long-term Mgt	SN Sanitation	DS Direct Seed
	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

8/14/20

Cutting Standards	
Indicate Location on Map	ST-5
Forest Type	WP
Acres	4.4
Landowner Objectives	LT
Designation of Trees	CT
Type of Cut	CC
Source of Regeneration	SE

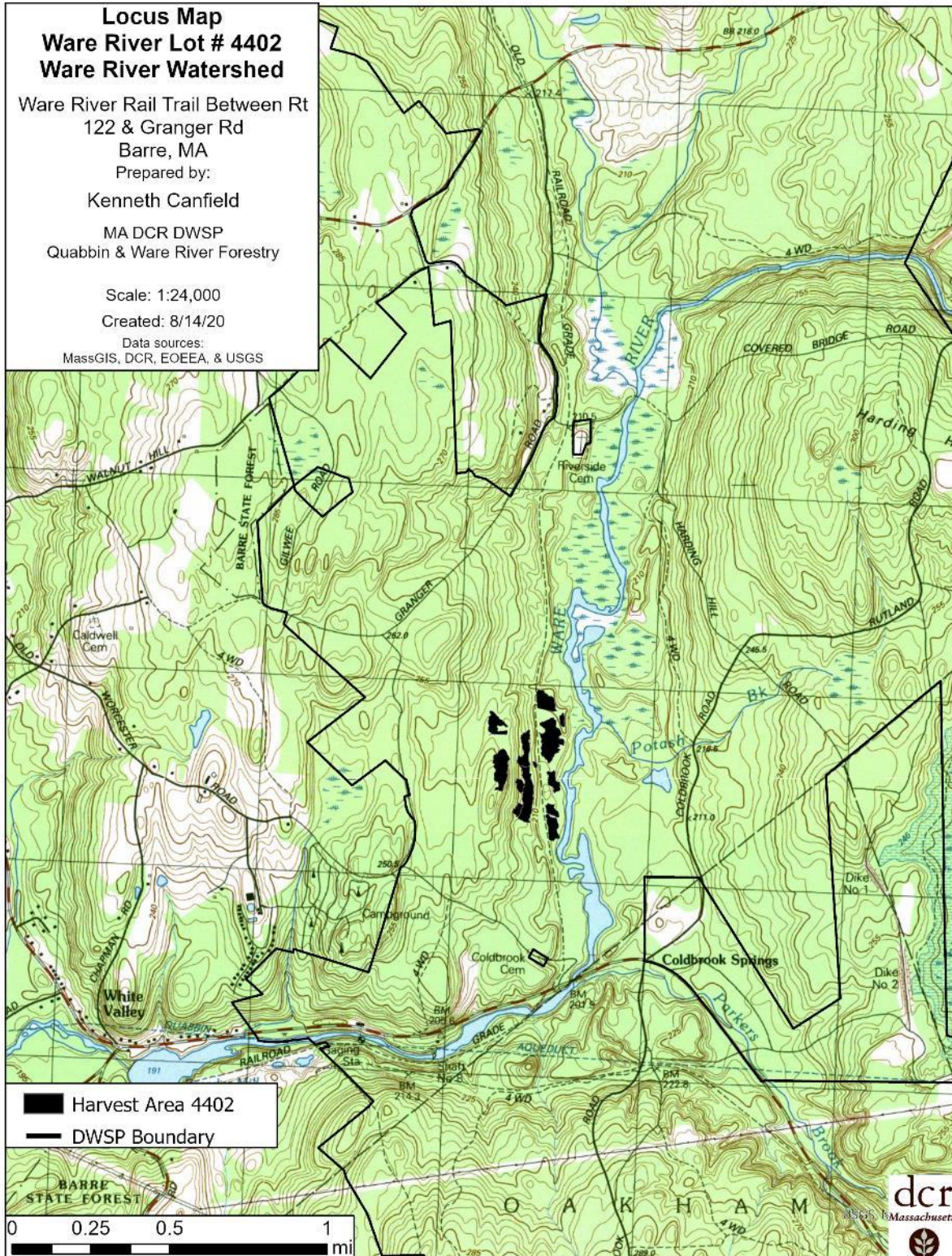


Ware River Rail Trail Between Rt  
122 & Granger Rd  
Barre, MA  
Prepared by:  
Kenneth Canfield  
MA DCR DWSP  
Quabbin & Ware River Forestry

Scale: 1:24,000

Created: 8/14/20

Data sources:  
MassGIS, DCR, EOEEA, & USGS





# Stand Map Ware River Lot 4402

Ware River Rail Trail between Rt  
122 and Granger Rd  
Barre, MA










Prepared by:  
Kenneth Canfield  
MA DCR DWSP  
Quabbin & Ware River Forestry

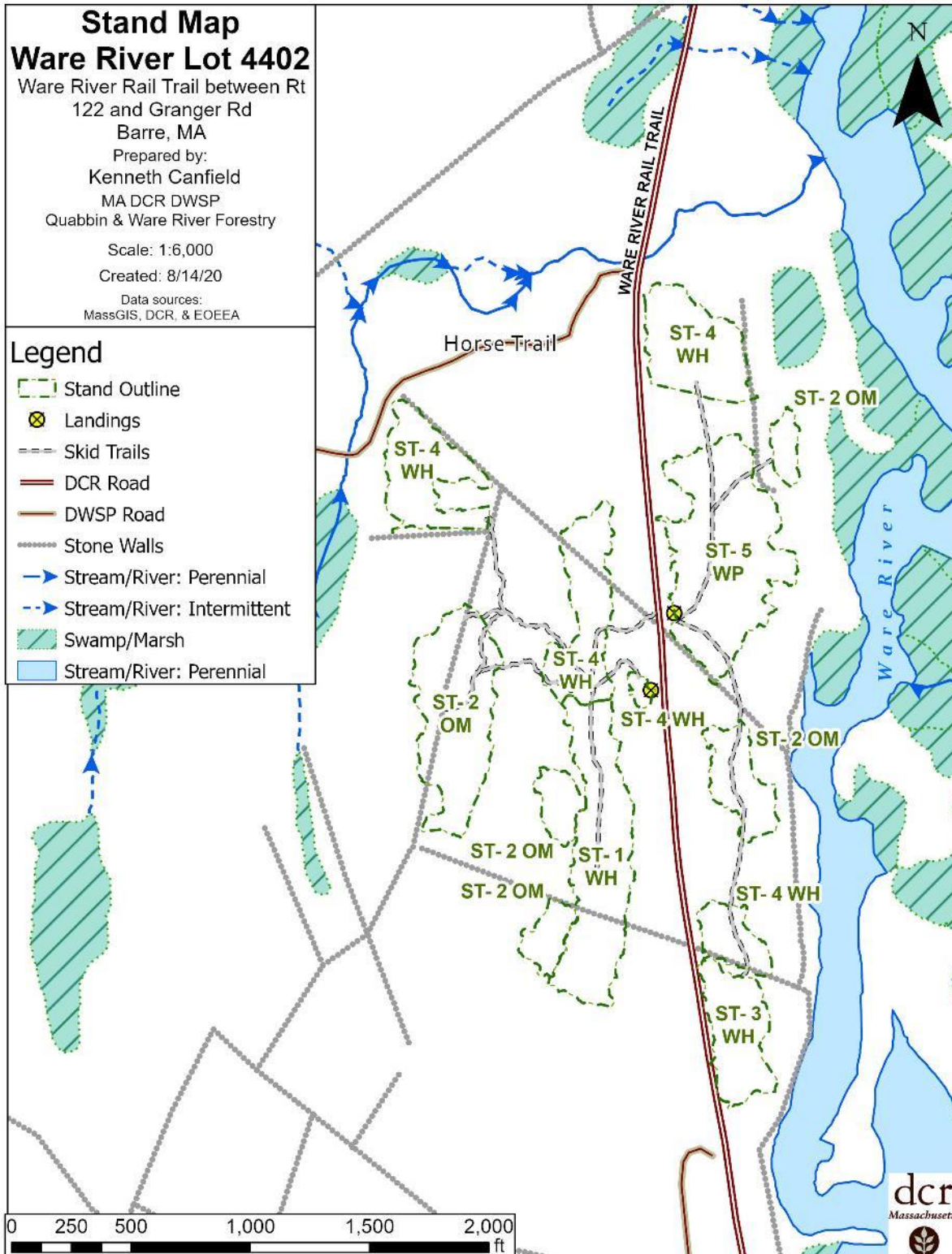
Scale: 1:6,000

Created: 8/14/20

Data sources:  
MassGIS, DCR, & EOEEA

## Legend

-  Stand Outline
-  Landings
-  Skid Trails
-  DCR Road
-  DWSP Road
-  Stone Walls
-  Stream/River: Perennial
-  Stream/River: Intermittent
-  Swamp/Marsh
-  Stream/River: Perennial



dc



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

FILE # 021.28949.21

## 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 485 WARE RD  
(Name of Owner) (Address)  
SUPPLY PROTECTION BERCHERTOWN, 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  
RAIL TRAIL lot.

Approval Date 8/26/20

Director's Agent CHRIS CAPONE

DCR Phone No. (857) 406-0175

ISSUED BY:

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



**Figure 2 (A-C)**

***Pre-Harvest photos taken on 8/18/20***

***2A Looking northeast from bank on rail trail***



***2B Looking east from bank on rail trail***





***2C Looking southeast from bank on rail trail***



***Figure 3 (A-C)***

***Post-Harvest photos taken on 1/19/21***

***3A Looking northeast from bank on rail trail***





***3B Looking east from bank on rail trail***



***3C Looking southeast from bank on rail trail***





**Figure 4 (A-C)**

***After 3 Growing Seasons photos taken on 7/18/23***

***4A Looking northeast from bank on rail trail***



***4B Looking east from bank on rail trail***



***4C Looking southeast from bank on rail trail***

