

**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

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 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	021-2844-1	Case No.	_____
Date Rec'd	8/17/20	Nat. Hrt.	N
Earliest Start	9/1/20	Pub. Dr. Wat.	Y
River Basin	CHICOPEE	ACEC	N
Gen. Obj.	L1		

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

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

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

Licensed Timber Harvester**

Name PIRNER LOGGING & LAND CLEARING

Address 152 WILLIAMSVILLE ROAD

Town, State, Zip HOPKINTON, MA 01746

Phone (978) 928-4736

Mass. Lic. Harvester # 2021-587-2242, 2117, 2416

**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)				

Best Management Practices

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Bottom	Note
LF Mass. Lic. For.	CU Culvert	SB Seed	FR Frozen	LE Ledge	Applicant must provide DCR with all relevant information before plan may be approved and cutting may begin.
TH Lic. Tim. Har.	BR Bridge	MU Mulch	DR Dry	ST Stony	Some forestry activities, such as prescribed burning and
TB Timber Buyer	FO Ford	CO Corduroy	OT Other	MU Mud	pesticide or fertilizer application may require additional permits.
LO Landowner	PO Poled	ST Stone		GR Gravel	Consult MA Forestry BMP Manual for further information.
OT Other	OT Other	HB Hay Bales	OT Other		

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

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FINAL

Products to be Harvested*

Species	MbFCds		MbFCds
White Pine	48.0 MbF	Red Maple	29 Cds
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	11.6 MbF
Hemlock	3 Cds	Black Oak	0.4 MbF
Spruce		White Oak	0.9 MbF
Other Sftwd.		Other Hdwd.	158 Cds
White Ash		Total MbF	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. MbF = 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

Stand Treatment

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)

8-17-2020

Date

Determination and Status**Final Report and Comments**

	Approved	Disapproved	Expires
Cutting Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8/17/22
Signature of Service Forester/Director's Agent			8/26/20
			Date

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

<i>Phil Case</i>	1/11/22
Signature of Service Forester/Director's Agent	Date

Extension	1 <input type="checkbox"/>	2 <input type="checkbox"/>	Expires	Ser. For. Ints.
Amendment	App 1 <input type="checkbox"/>	Dis 1 <input type="checkbox"/>	App 2 <input type="checkbox"/>	Dis 2 <input type="checkbox"/>

<i>Phil Case</i>	1/11/22
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 WP/Hem	LT Leave Tree	ST Seed Tree	SE Natural Seed
WH WP/Hdw	SB Stand Boundary	CT Commercial Thin	PL Plant
WO WP/Dak	OT Other	NT Non Com Thin	
RP Red Pine	SE Selection	Non-Standard Systems: [*]	CO Coppice
SR Red Spruce	SA Salvage	HG Highgrade*	DG Direct Seed
	ST Short-term Har.	DL Diameter Limit*	OT Other
		OT Other*	

*If Other (OT) or a non-standard system is used an explanation must be given on attached narrative page.

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Addendum To FCP
DCR DWSP - Ware River Watershed
Lot 4402 - Ware River Rail Trail
Kenneth Canfield
Town of Barre

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

Locus Map

Ware River Lot # 4402

Ware River Rail Trail Between Rt 122 & Granger Rd

Barre MA

Banc, MA
Prepared by:

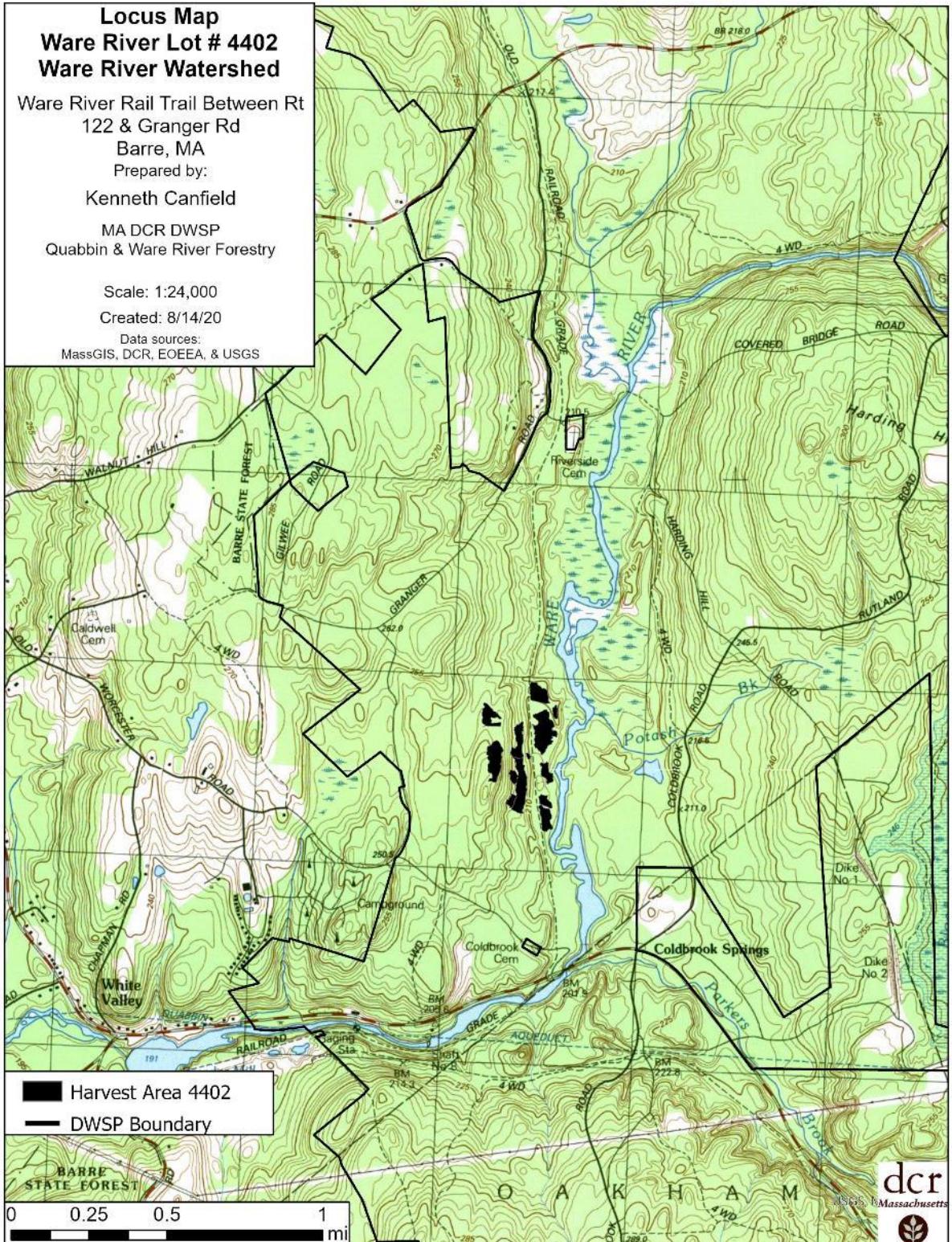
Prepared by:

MA DCR DWSP
Quabbin & Ware River Forestry

Scale: 1:24,000

Created: 8/14/20

Data sources:
MassGIS, DCR, EQEEA, & USGS



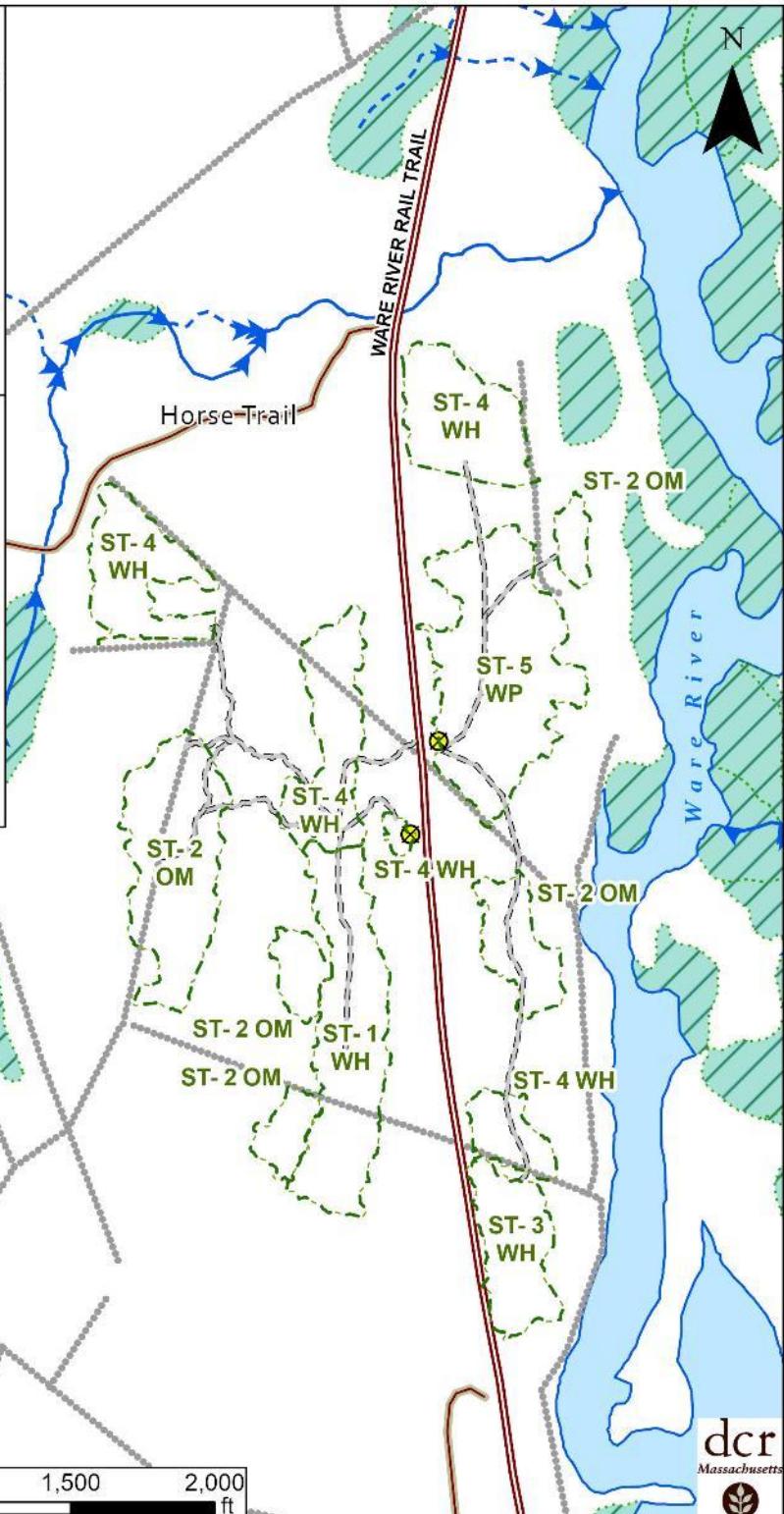
Stand Map Ware River Lot 4402

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

0 250 500 1,000 1,500 2,000 ft



dcr



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.

DCR

485 WARE RD

This certifies that DIVISION OF WATER BELCHERTOWN, MA 01007 in accordance with the
(Name of Owner) (Address)

SUPPLY PROTECTION

CLINTON

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

ISSUED BY:

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

Director's Agent CHRIS CAPONE

DCR Phone No. (857) 406-0175

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

