

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

Site Information

Watershed: Ware River Watershed	Town(s): Barre
Acres: 21.5	Nearest Road: Rt122, Old Worcester Rd and Granger Rd
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Yes
Forest Types: White Pine, White Pine/Hardwood and Mixed Oak	ACEC¹?: 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 present or within 200 feet of harvest : None known.	

Harvest Information

Harvest Start Date: 12/1/20	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 no 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 # 431
Phone #: 857-274-7090
Email: kenneth.canfield@mass.gov

¹ACEC: Area of Critical Environmental Concern

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 gypsy 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 gypsy 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.

Wildlife/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 from Point 1 on 8/18/20

Figure 3 (A-C) Post-Harvest photos taken from Point 1 on 1/19/21

Figure 4 (A-C) After 1 Growing Season photos taken from Point 1 on 8/17/21

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 021-28749.2 | Case No. _____
 Date Rec'd 8/17/20 | Nat. Hert. N
 Earliest Start 9/1/20 | Pub. Dr. Wat. N
 River Basin CHICOPPEE | ACEC _____
 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 PURNER 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.

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 LF Mass Lic. For. TH Lic. Tim. Har. TB Timber Buyer LO Landowner OT Other	Type of Crossing CU Culvert BR Bridge FO Faid PO Piled OT Other	Stabilization SE Seed MU Mulch CO Corduroy ST Stone HB Hay Bales OT Other	Mitigation FR Frozen DR Dry OT Other	Type of Bottom LE Ledge ST Story MU Mud GR Gravel OT Other	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. Consult MA Forestry BMP Manual for further information.
--	---	--	--	--	--

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	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)

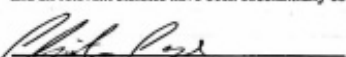
8-17-2020
Date

Determination and Status

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

 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	HK	Hemlock	OM	Mixed Oak	CT	Cut Tree	SH	Shelterwood	Intermediate Harvest:	AD	Advanced		
WK	WP/Hem	HH	Hem/Hdw	RM	Red Maple	LT	Leave Tree	ST	Seed Tree	CT	Commercial Thin	SE	Natural Seed	
WH	WP/Hdw	BC	Black Cherry	BS	Beech	SB	Stand Boundary	CC	Clear Cut	NT	Non Com Thin	FL	Plant	
WO	WP/Oak	BB	Bee/Bir/Hwp	SF	Spruce/Fir	OT	Other	SE	Selection	Non-Standard Systems:			CO	Coppice
RP	Red Pine	OH	Oak/Hdw	SM	Sugar Maple	Landowner Objective			SA	Salvage	HG	Highgrade*	DS	Direct Seed
SR	Red Spruce	OR	N Red Oak	PP	Pitch Pine	LT	Long-term Mgt	SN	Sanitation	DL	Diameter Limit*	OT	Other	
						ST	Short-term Har			OT	Other*			

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

pg 4 of 5

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

8/14/20

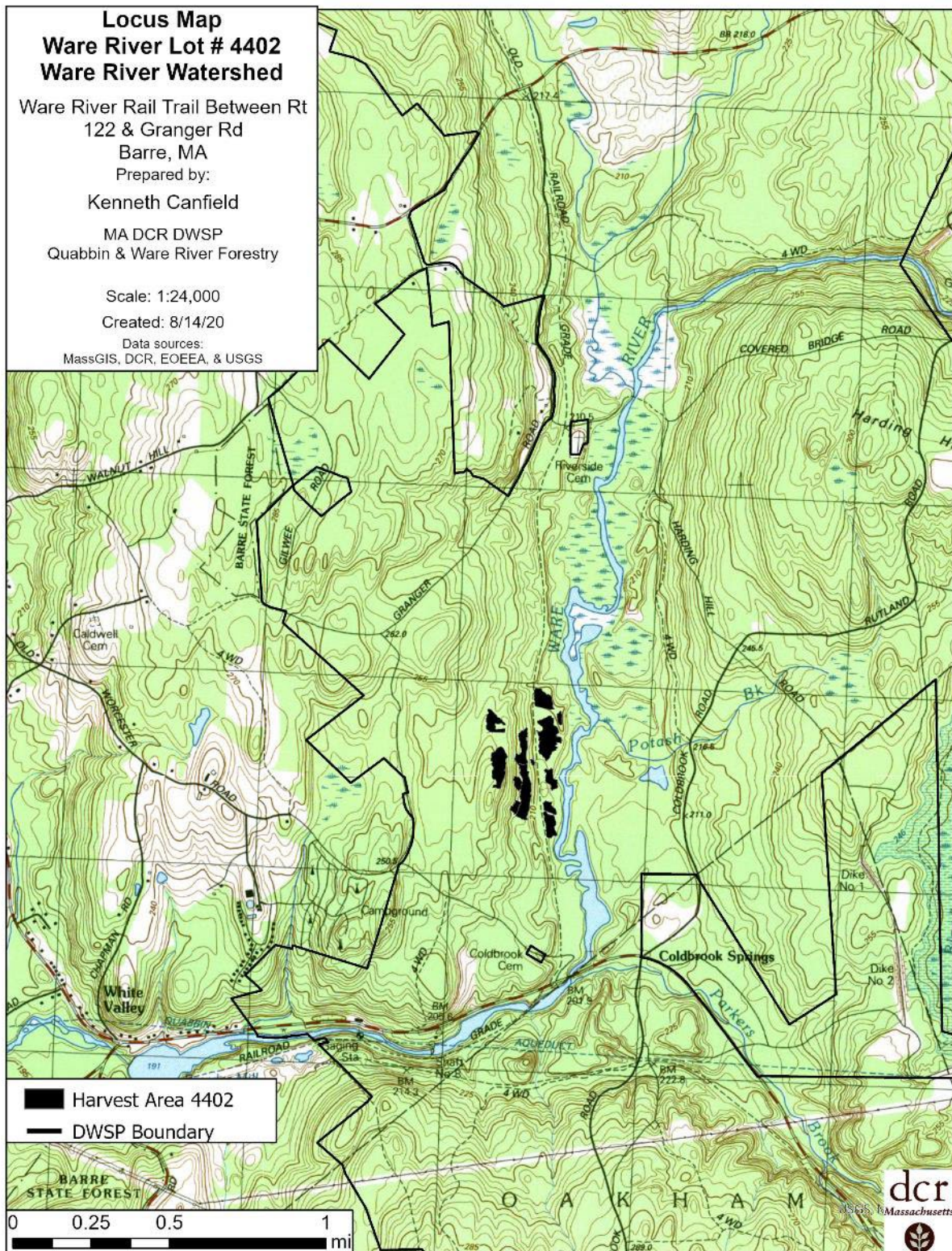
Cutting Standards	
Indicate Location on Map	ST-5
Forest Type	WP
Acres	4.4
Landowner Objectives	LT
Designation of Trees	CT
Type of Cut	CC
Source of Regeneration	SE

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

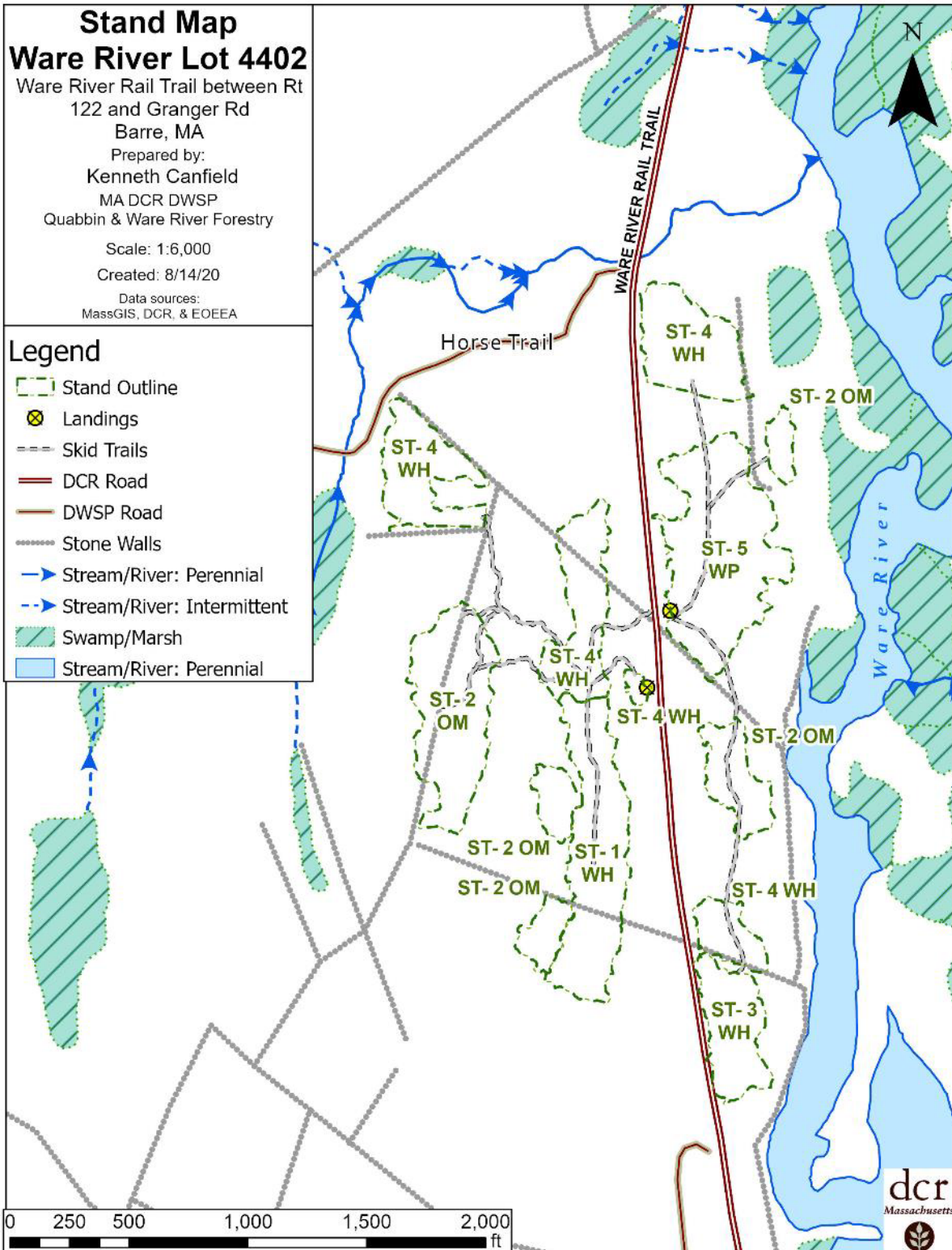
Scale: 1:6,000

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

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 485 WARE RD
DIVISION OF WATER BERCHERTOWN, MA 01007 in accordance with the
(Name of Owner) (Address)
SUPPLY PROTECTION

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 from Point 1 on 8/18/20

A. From Point 1 looking northeast



B. From Point 1 looking east



C. From Point 1 looking southeast



Figure 3 (A-C) Post-Harvest photos taken from Point 1 on 1/19/21

A. From Point 1 looking northeast



B. From Point 1 looking east



C. From Point 1 looking southeast



Figure 4 (A-C) After 1 Growing Season photos taken from Point 1 on 8/17/21

A. From Point 1 looking northeast



B. From Point 1 looking east



C. From Point 1 looking southeast

