

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

**Project Title: Oakham Slashwall**

DWSP Harvest Permit Number: 4404

DWSP Proposal ID: WR-21-01-1

DCR Forest Cutting Plan File Number: 222-32279-21

***Site Information***

Watershed: Ware River Watershed

Town(s): Oakham

Acres: 33

Nearest Road: Loop Rd off of Coldbrook Rd

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White Pine/Oak

Area of Critical Environmental Concern (ACEC)?: No

Soils: 927C - Montauk-Scituate-Canton association - moderately well drained

Wetland Resources: Two streams and associated wetlands are adjacent to the harvest area.

Vernal Pools: No

***Harvest Information***

Harvest Start Date: 5/17/21

Harvest End Date: 7/6/21

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 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 Oakham on Loop Rd off of Coldbrook Rd. It consists of a white pine/oak stand.

Tree species present in the overstory are white pine, red, black, and white oaks, red maple, paper birch, yellow birch, black cherry, white ash, shagbark hickory, and eastern hemlock. The understory consists of eastern white pine, black birch, red maple, red, black, and white oak, eastern hemlock and black cherry.

Glossy buckthorn is present but is not well established. 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 soils are 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. 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 it is a good site for an experimental slash wall to be built. There is enough low quality wood to put in the wall and enough good quality wood to pay for the construction.

### ***Silvicultural Objectives***

This harvest is part of a regional study on the effectiveness of building slashwalls to control herbivory. Research in other states has shown that this can be an effective method of controlling herbivory of native vegetation. Researchers from the Connecticut Agricultural Experiment Station want to establish sites in New England states to continue evaluating this method. A slashwall will be constructed around the unit that is south of the transmission lines. All deer and moose will be driven from the enclosure prior to completion of the wall. Dr. Jeff Ward from the Connecticut Station has established and measured pre-harvest vegetation plots in both units. The plots will be remeasured yearly to compare vegetation composition and herbivory with and without a slashwall. The silviculture and size of harvest units has been chosen in part to maintain consistency with other study sites. The construction of slashwalls appears to be more cost effective on units larger than 10 acres due to the smaller ratio of perimeter to acreage.

This harvest will also create early successional habitat that will be utilized by many wildlife and plant species. This habitat will complement the existing early successional habitat corridor under the transmission lines. The large woody debris in the slashwall will provide abundant habitat for many small mammal and invertebrate species. Although the slashwall is intended to minimize the impacts of moose and deer on half of the project, the lack of herbivory should

benefit grasses, forbs and shrubs that are preferred by deer and moose and increase the diversity of vegetation that is established.

This harvest will result in a fully regenerated stand that will be free to grow for the foreseeable future. Approximately 7 square feet of basal area per acre of dominant, well formed, vigorous oaks and white pines were left for seed and structure. With existing regeneration, sprouts, and seedlings to be established there should be ample regeneration within a few years. No further silvicultural entries will be required for decades, which will allow skid trails to heal and will reduce any potential environmental impacts.

### ***Cultural Resources***

Standard practice dictates that every effort is made to avoid disturbing stone walls and other cultural resources.

### ***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

# 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 222-32279-21 Case No. ✓  
Date Rec'd 2-26-2021 Nat. Hert. NO  
Earliest Start 3-15-2021 Pub. Dr. Wat. WARE RIVER INTAKE  
River Basin CHICKOPEE ACEC NO  
Gen. Obj. LT

Site Information

## Location

Town Oakham  
Road Loop Rd off of Coldbrook Rd  
Acres 33.3 Proposed Start Date 4/21  
Vol. MBF 208.8 Vol. Cds. 510 Vol. Tons 491

## 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 S + N LOGGING  
Address 247 ZERAH FISKE RD  
Town, State, Zip SHERBURNE MA 01370  
Phone (413) 824 - 0413  
Mass. Lic. Harvester # 2021: 1835  
\*\*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

\* PLAN REVIEWED UNDER SNOW CONDITIONS  
\* SKID ROAD/DRIVE ARE EXISTING.

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Bottom
LF Mass. Lic. For.	CU Culvert	SE Seed	FR Frozen	LE Lodge
TH Lic. Tim. Har	BR Bridge	MU Mulch	DR Dry	ST Stony
TB Timber Buyer	PO Piled	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		

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

## Products to be Harvested\*

Species	Mbf/Cds		Mbf/Cds
White Pine	94.3 Mbf	Red Maple	3.5 Mbf
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	78.9 Mbf
Hemlock	1.8 Mbf	Black Oak	9.7 Mbf
Spruce		White Oak	16.7 Mbf
Other Sftwd.		Other Hdw.	3.1 Mbf
White Ash	0.1 Mbf	Total Mbf	208.8
Beech		Cordwood (Cds)	510
White Birch		SW Pulp (Tons)	
B & Y Birch	0.4 Mbf	HW Pulp (Tons)	
Black Cherry	0.3 Mbf	Chips (Tons)	491

\*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	WO	WO		
Acres	28.2	5.1		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT	CT	
Type of Cut	CC	CT		
Source of Regeneration	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.

Dan Clark

Digitally signed by Dan Clark  
Date: 2021.02.26 06:00:36  
+0500

2/26/2021

Date

Signature of landowner(s)

## Determination and Status #222-32279-21

Approved	Disapproved	Expires
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2-26-2023
Cutting Plan		3-12-2021
Signature of Service Forester/Director's Agent		Date
For Chris Caffone		
Extension	Expires	Ser. For. Ints.
1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>
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.

Signature of Service Forester/Director's Agent Date 1/11/22

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 Harvests:	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	BE Beech	SB Stand Boundary	CC Clear Cut	NT Non Com Thin	PL Plant			
WO WP/Oak	BB Bee/Bir/Map	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 Situation	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

# 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 Oakham

File Number 222-32279-21

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.

Part of the purpose of this harvest is to study the effectiveness of building a slashwall around a harvest to limit deer and moose access and herbivory. Stand 1 is comprised of 2 clearcuts. A 14.2 acre clearcut located south of the transmission lines and a 14.0 acre clearcut on the north side of the transmission lines, along Loop Rd. A 10 ft tall, 20 ft wide slashwall will be constructed during harvesting operations around the perimeter of the southern unit using woody material from that unit and from stand 2. Approximately 7 square feet of basal area per acre of well formed, vigorous, dominant oak and white pine stems will be retained in both clearcuts for seed and structure. Stand 2 is 5 acres of thinning around the southern unit in a 100 ft wide band around the edge of where the slash wall will be built. Low grade material will be harvested to be added to the slashwall.

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. 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

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
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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
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MA DCR DWSP #222-32279-21

Lot 4404 Slashwall

Loop Rd in Oakham FCP

Stand 1 Narrative:

The harvest in stand 1 consists of two clearcuts that are each 14 acres in size in a white pine/oak stand. The clearcuts are located on either side of a National Grid transmission line right of way. The harvest will have the following benefits:

This harvest is part of a regional study on the effectiveness of building slashwalls to control herbivory. Research in other states has shown that this can be an effective method of controlling herbivory of native vegetation. Researchers from the Connecticut Agricultural Experiment Station want to establish sites in New England states to continue evaluating this method. A slashwall will be constructed around the unit that is south of the transmission lines. All deer and moose will be driven from the enclosure prior to completion of the wall. Dr. Jeff Ward from the Connecticut Station has established and measured pre-harvest vegetation plots in both units. The plots will be remeasured yearly to compare vegetation composition and herbivory with and without a slashwall. The silviculture and size of harvest units has been chosen in part to maintain consistency with other study sites. The construction of slashwalls appears to be more cost effective on units larger than 10 acres due to the smaller ratio of perimeter to acreage.

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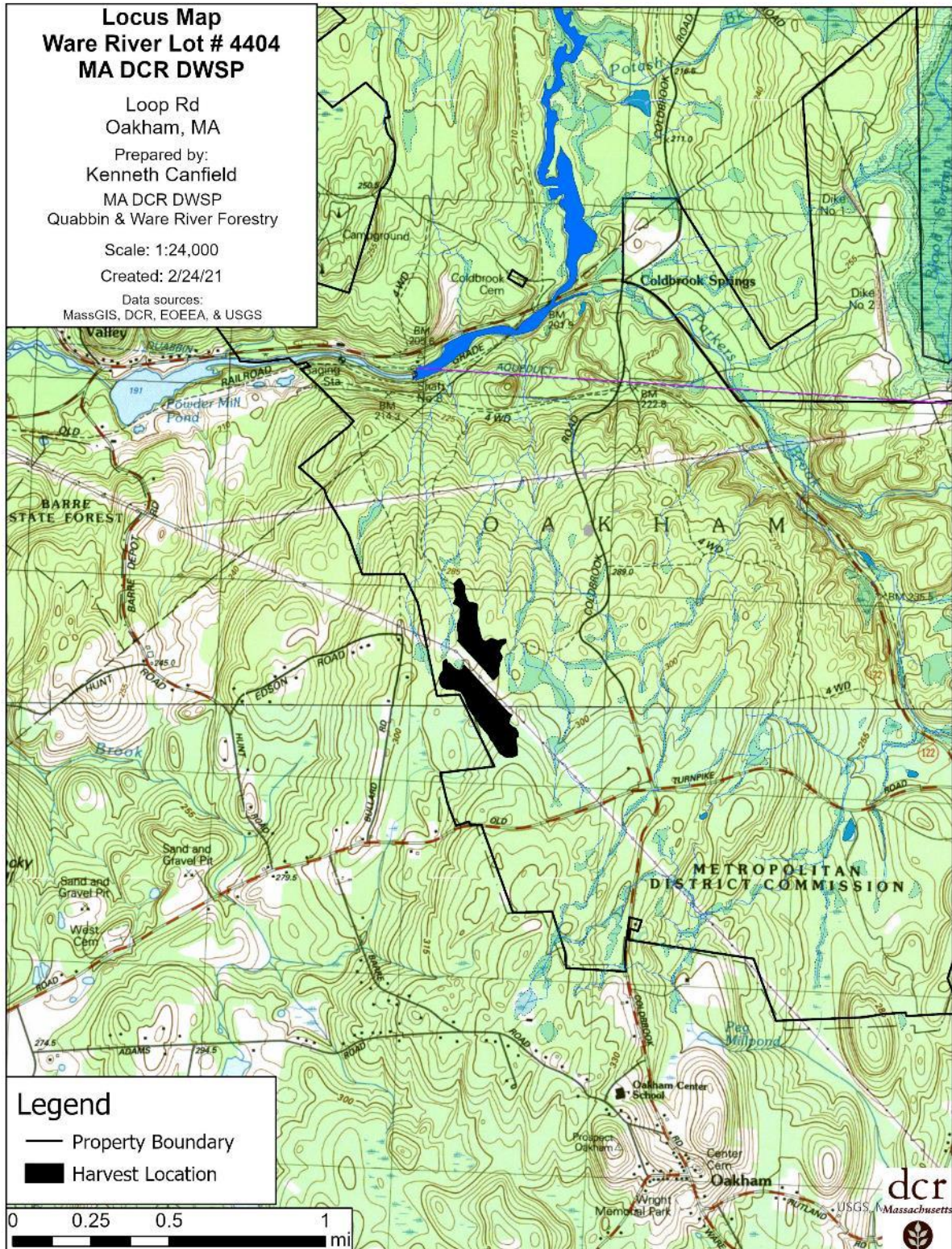
**Locus Map  
Ware River Lot # 4404  
MA DCR DWSP**

Loop Rd  
Oakham, MA  
Prepared by:  
Kenneth Canfield  
MA DCR DWSP  
Quabbin & Ware River Forestry

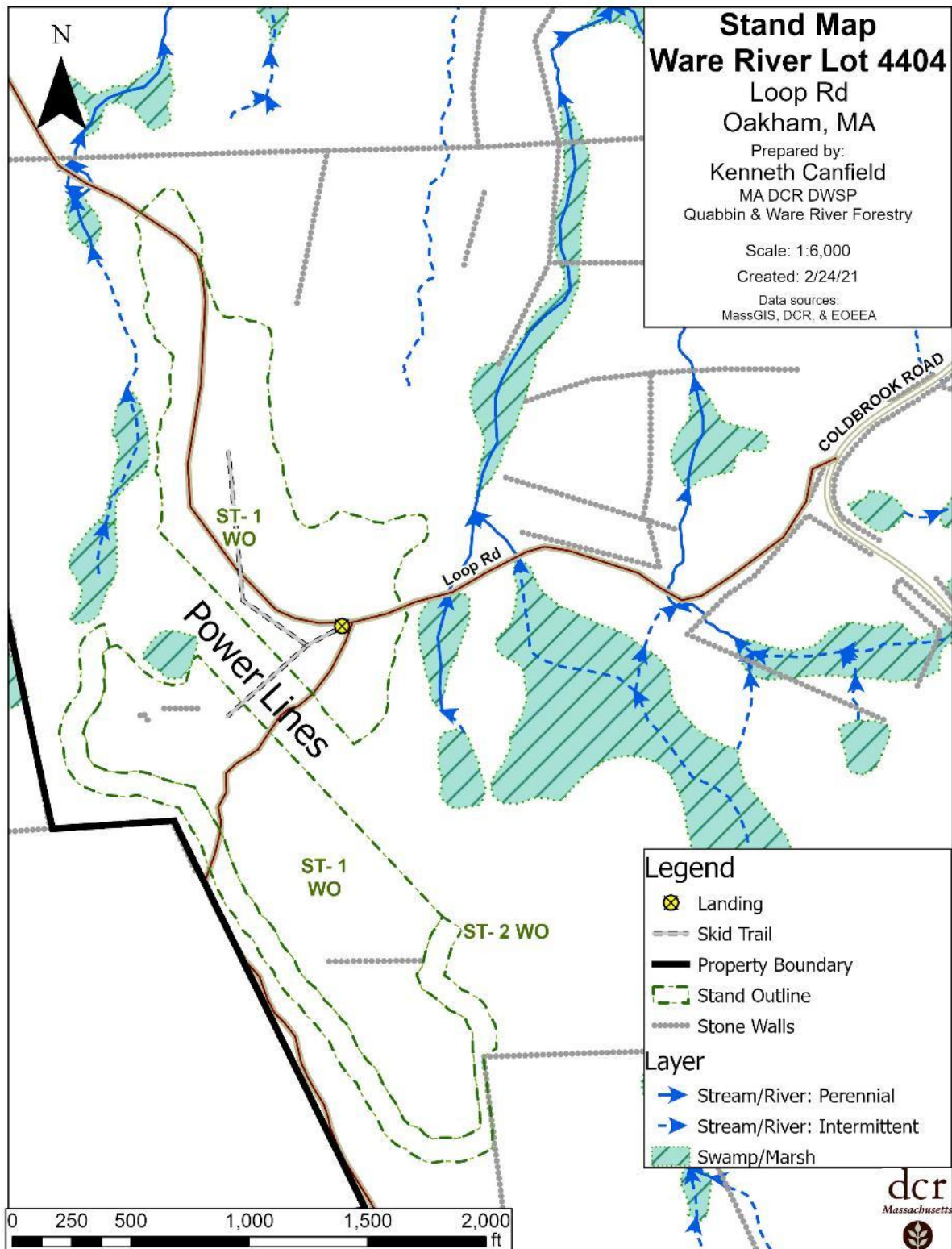
Scale: 1:24,000

Created: 2/24/21

Data sources:  
MassGIS, DCR, EOEEA, & USGS







dc



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

FILE # 222-32279-21

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 DWSP BELCHERTOWN in accordance with the  
(Name of Owner) (Address)

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  
LOOP lot.

Approval Date 3.12.2021

Director's Agent CHRIS CAPONE

DCR Phone No. 857.406.0175

ISSUED BY:

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