

**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

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

<h2>Forest Cutting Plan</h2> <p>and Notice of Intent under M.G.L. Chapter 132 – The Forest Cutting Practices Act, 304 CMR 11.00 (Effective Date: 3/15/16)</p>		For DCR Use Only: File Number <u>272-32219-21</u> Case No. <u> </u> Date Rec'd <u>2-7-16-2021</u> Nat. Hrt. <u> </u> Earliest Start <u>3-15-2021</u> Pub. Dr. Wat. <u>WAKE RIVER INTAKE</u> River Basin <u>CHICORIE</u> ACEC <u>NO</u> Gen. Obj. <u>LT</u>																																																																																																																																																																							
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LO Landowner	PO Poled	ST Stone		GR Gravel	pesticide or fertilizer application may require additional permits.																																																																																																																																																																				
OT Other	OT Other	HB Hay Balcs		OT Other	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 Hdwd.	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.

Digital signature by Dan

Clark

Date: 2021-02-26 06:00:36

05100

2/26/2021

Date

Dan Clark

Signature of landowner(s)

Determination and Status # 222-32279-21

Final Report and Comments

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

11/11/21
Date

Signature of Service Forester/Director's Agent

Service Forester

Codes

Approved Disapproved Expires 2-26-2023
Cutting Plan
3-12-2021 Date

Signature of Service Forester/Director's Agent

For CHRIS CAFFREY

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

Amendment App 1 Dis 1 App 2 Dig 2
/ /

Forest Types	Designation of Trees	Type of Cut	Source of Regeneration
WP White Pine	HK Hemlock	CT Cut Tree	AD Advanced
WK WP/Hem	HH Hem/Hdwd	LT Leave Tree	SE Natural Seed
WH WP/Hdwd	BC Blck Cherry	SB Stand Boundary	PL Plant
WO WP/Oak	BB Beech/Map	CC Clear Cut	CO Coppice
RP Red Pine	OB Oak/Hdwd	OT Other	DS Direct Seed
SR Red Spruce	SM Sugar Maple	SE Selection	OT Other*
	PP Pitch Pine	SA Salvage	HG Highgrade*
		SA Sanitation	DL Diameter Limit*
		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

Other (OT) was used in any category on pages 3 or 4

Landowner DCR - DWSP
Town Oakham
File Number 222-32279-21

BMPS

Designation of Trees

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 How will Regeneration be obtained/protected?
 Regeneration
 (ex. AD, SE)

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

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.

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.

Locus Map
Ware River Lot # 4404
MA DCR DWSP

Loop Rd
Oakham, MA

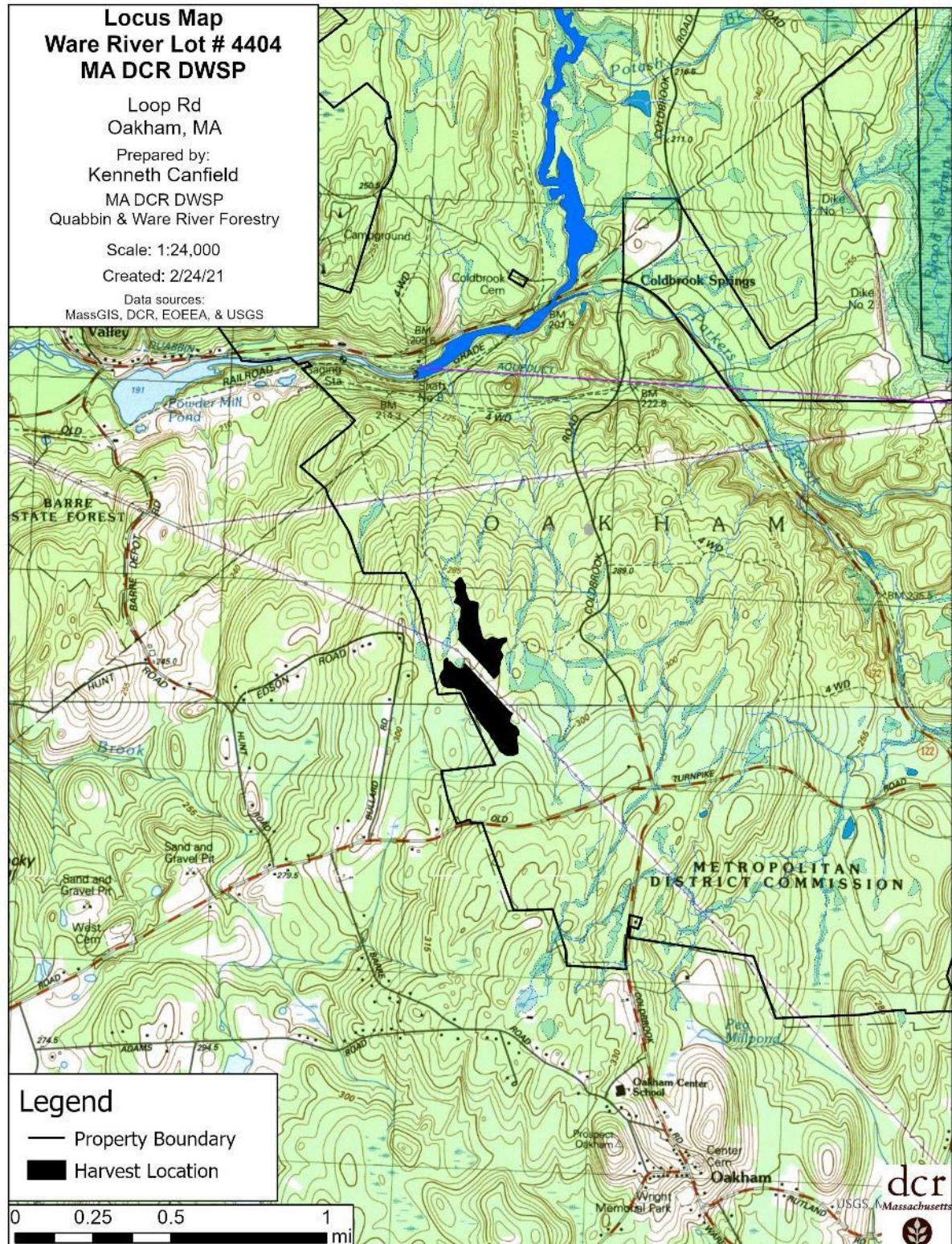
Prepared by:
Kenneth Canfield

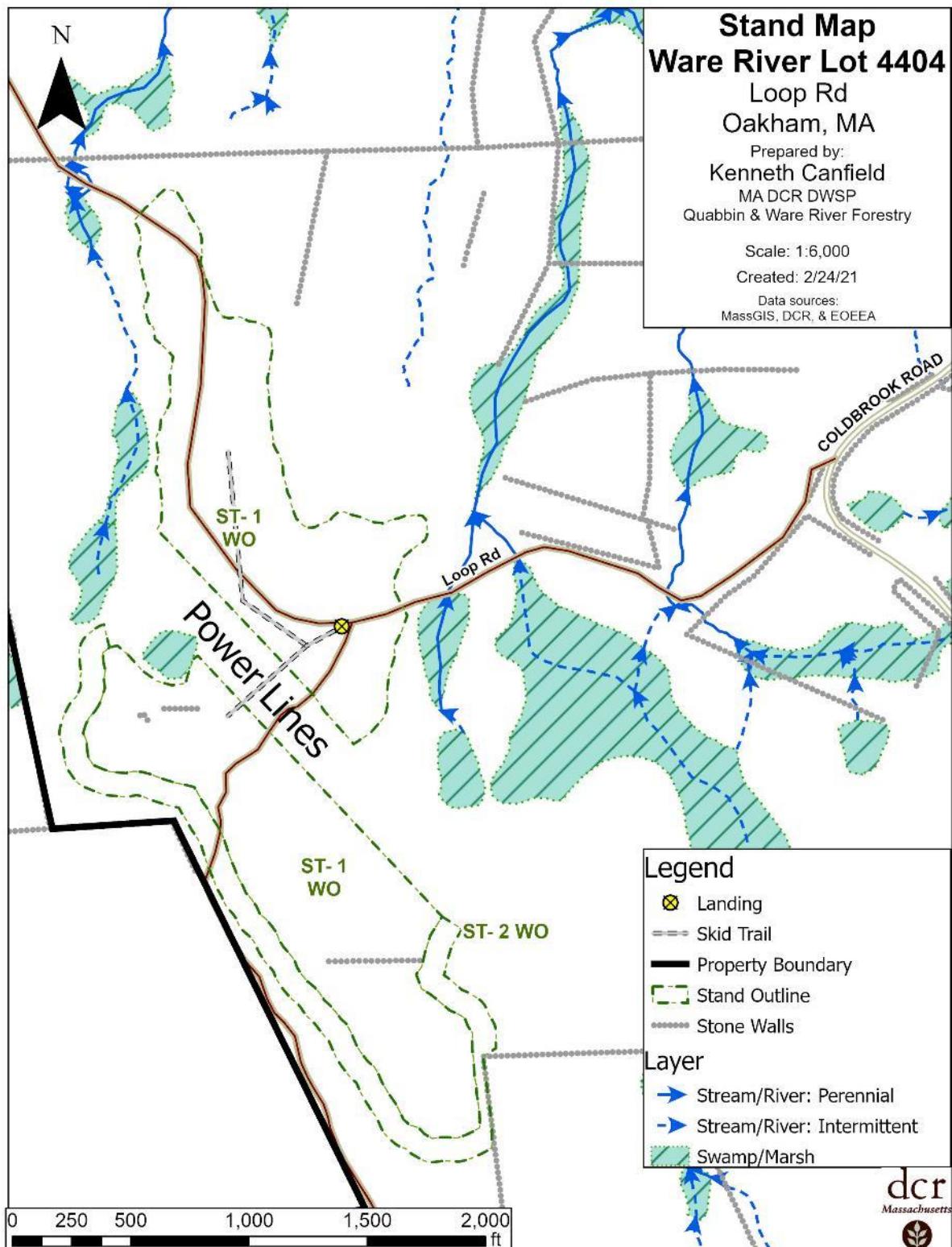
MA DCR DWSP
Quabbin & Ware River Forestry

Scale: 1:24,000

Created: 2/24/21

Data sources:
MassGIS, DCR, EOEEA, & USGS





dcr



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

FILE # 222-32279-21

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 DWSP
(Name of Owner)

BELCHERTOWN in accordance with the
(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

ISSUED BY:

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

Director's Agent CHRIS CAPONE

DCR Phone No. 857-406-0175