

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

Project Title: Davis Rd
DWSP Harvest Permit Number: 2057
DWSP Proposal ID: PE-15-06
DCR Forest Cutting Plan File Number: 230-288944-21

Site Information

Watershed: Quabbin
Town(s): Pelham
Acres: 40.1
Nearest Road: Davis Rd.
Natural Heritage Atlas overlap?: No
Public Drinking Water Supply Watershed?: Yes
Forest Types: oak / hardwood, white pine / hardwood
Area of Critical Environmental Concern (ACEC)?: No
Soils: Charlton-Hollis-rock outcrop complex, Ridgebury fine sandy loam
Wetland Resources: No
Vernal Pools: None known

Harvest Information

Harvest Start Date: 6/14/2021
Harvest End Date: 2/3/2022
Number of Wetland Crossings: none
Number of Stream Crossings: none

Best Management Practices Applied

Stream Crossings: none
Filter Strips: none
Wetland Crossings: none
Harvesting in Wetlands: none

DWSP Forester supervising this harvest

Name: Richard MacLean and Herm Eck
Forester License number: 63 (Eck)
Phone number: 413-213-7950
Email: richard.maclean@mass.gov

Narrative

General Description/Forest Composition/History

Lot 2057 is composed of one dominant stand and three minor stands. The dominant stand is an oak hardwood comprising 35 of the 40 acres within the lot; the remainder of the lot is composed of a 3 acre white pine stand in the middle of the lot, and a 2 acre red maple / hardwood stand, and 1 acre white pine hardwood stand at the southern end. The lot was previously harvested in 1976, 1981, 1996, and 1997 with the more recent harvesting not overlapping each other, but did overlap the previous harvests.

The oak hardwood stand is dominated by sawlog sized northern red oak, averaging 22" in diameter. Beneath this oak dominated canopy is a mid-layer of red maple and black birch stems, with defect and rot throughout the red maple. Coming up under the mid layer is an understory dominated by stout and tall witch hazel, shading out the understory throughout most of the lot. There are also pockets of sapling sized eastern white pine regeneration coming up in place not dominated by witch hazel. The herbaceous layer currently has a large amount of fern, but also has very abundant northern red oak seedlings from a recent oak mast year. Most of these seedlings have yet to begin putting on height and are currently being suppressed by the fern and witch hazel.

The eastern white pine stand in the middle of the lot is composed of large legacy pine greater than 25" diameter with tall pole sized black birch mid-canopy growing up under. There are slightly fewer northern red oak seedlings within this stand than in the oak hardwood stand, but still fairly abundant. The red maple stand contains a mix of mesic hardwoods with an overstory including red maple, white ash, northern red oak, and white pine. The understory transitions from blueberry to enriched species from north to south as the topography transitions into a drainage catchment.

Site Selection

The primary goal of harvesting on the watershed is to create and maintain a forest that is resilient to, and can quickly recover from, small and large scale disturbances. With climate change we expect to see a range of disturbances such as diseases, insect infestations, ice storms and hurricanes becoming increasingly common. The ideal way to achieve such resiliency is to foster a forest diverse in species of various stages of development (seedlings through large legacy trees) that are actively growing and regenerating. This combination of structural and species diversity builds resistance and resilience into the forest.

This lot is dominated by an even aged oak stand. Though northern red oak is desirable as a high value watershed, wildlife, economic, and aesthetic tree, the overstory of the stand is close to a monoculture after previous thinning harvests. With the exception of some pockets of white pine and black birch regeneration, below the oak canopy is a large amount of witch hazel interfering with new regeneration. A large amount of the trees growing above the witch hazel are diseased or poorly formed red maple, or cankered black birch. Harvesting in this stand will accomplish the goals of increasing species and age diversity by releasing healthy advanced regeneration, cutting or pulling the witch hazel, and lowering the canopy closure to allow more light to the forest floor.

Silvicultural Objectives

This harvest aims to increase the age and species diversity of the area by opening up several areas with healthy white pine and black birch regeneration. While there will be less oak in the overstory the overall species and age diversity of the stand will increase by releasing this healthy advanced regeneration. This harvest will also serve to treat the witch hazel currently suppressing the northern red oak seedlings, and to reduce the overall canopy by a third to help foster further growth of those seedlings. The biggest hurdle for northern red oak seedlings at the Quabbin is deer and moose herbivory. We will return to this lot within the next five years to reassess how well the oak seedlings are continuing, and to assess the viability of further shelterwood harvest for successful regeneration of northern red oak at the site. If we find that browsing pressure continues to be too great at this site for successful regeneration the area will remain untreated until a future oak mast event occurs.

Cultural Resources

This lot contains extensive stone walls and a foundation in the northwest corner. Stone walls will generally be avoided and existing barways will only be used when necessary. The lot is laid out to minimize the need to use existing barways and forwarding will be allowed on DCR roads to further reduce the potential to disturb standing walls.

Rare or Endangered Species

No known rare or endangered species are present. A single DCR verified vernal pool is located ~ 200 ft south of the lot, but no known pools are present within the harvest boundaries.

Figures

Figure 1. 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)

AUG 20 2020

For DCR Use Only:
 File Number 130-28944-21 Case No. _____
 Date Rec'd 8-20-20 Nat. Hert. _____
 Earliest Start 9-4-20 Pub. Dr. Wat. _____
 River Basin CH/COPEE AGECE _____
 Gen. Obi. LT NHP IMPACT? N

Site Information

Location

Town Pelham
 Road Davis Rd
 Acres 40.1 Proposed Start Date 9/15/2020
 Vol. MBF 63.6 Vol. Cds. 149 Vol. Tons 60

Plan Preparer

Name Richard MacLean & Herm Eck
 Address 485 Ware Rd
 Town, State, Zip Belchertown, MA 01007
 Phone (413) 213-7950
 Type of Preparer Licensed Forester (Eck)
 *Mass. Forester License # 63
 *Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR DWSP Quabbin Ware River Region
 Mailing Address 485 Ware Rd
 Town, State, Zip Belchertown, MA 01007
 Phone 413-213-7918
 Ch61 61A 61B Stew *Case # _____
 FSC CR CR Holder _____

Licensed Timber Harvester**

Name TBD
 Address _____
 Town, State, Zip _____
 Phone _____
 Mass. Lic. Harvester # _____

**This information may be supplied after the plan is approved, but before work begins

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

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 Furd	CO Corduroy	OI Other	MU Mud	
LO Landowner	PO Paled	ST Stone		GR Gravel	
OT Other	OI Other	HB Hay Bales		OI Other	
		OI Other			

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

Figure 1a: Forest Cutting Plan pg. 1.

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	3.9	Red Maple	2.7
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	48.3
Hemlock		Black Oak	4.7
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash	1.4	Total Mbf	63.6
Beech		Cordwood (Cds)	149
White Birch		SW Pulp (Tons)	60
B & Y Birch	2.7	HW Pulp (Tons)	
Black Cherry		Chips (Tons)	

*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.

Stand Treatment

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	OH	WP	RM	WH
Acres	35.2	2.6	1.4	.9
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	CT	CT
Type of Cut	SA	SE	SE	SE
Source of Regeneration	AD	AD	AD	AD

Landowner

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.

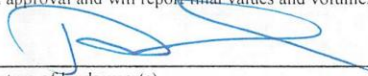
LT - Long-term Forest Management

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

Service Forester

Determination and Status

Approved Disapproved Expires 8/20/2022

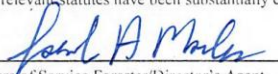
Cutting Plan 
 Signature of Service Forester/Director's Agent Date 9/17/20

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

Amendment App 1 Dis 1 App 2 Dis 2 /

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 8/5/22

Codes

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/Hdwd	RM Red Maple	LT Leave Tree	ST Seed Tree	CT Commercial Thin	SE Natural Seed			
WH WP/Hdwd	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/Hdwd	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 2 of 5

Figure 1b: Forest Cutting Plan pg. 2.

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 DWSP DCR Quabbin

Town Pelham

File Number 230.28944.21

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.

BLUE PAINT - CUT TREES (horizontal slash - sawlogs; dots - cord/pulpwood; X a- culls; vertical slash - TSI; Three vertical dots - harvest boundary) | ORANGE PAINT - SAVE TREES | PINK FLAGGING is to be avoided with equipment (stone features, hazards, unregulated wet spots) | YELLOW & BLACK FLAGGING - skid roads | Operator is instructed to cut low or pull all marked witch hazel.

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
-----------	---	--

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
-----------	---

Figure 1c: Forest Cutting Plan pg 3.

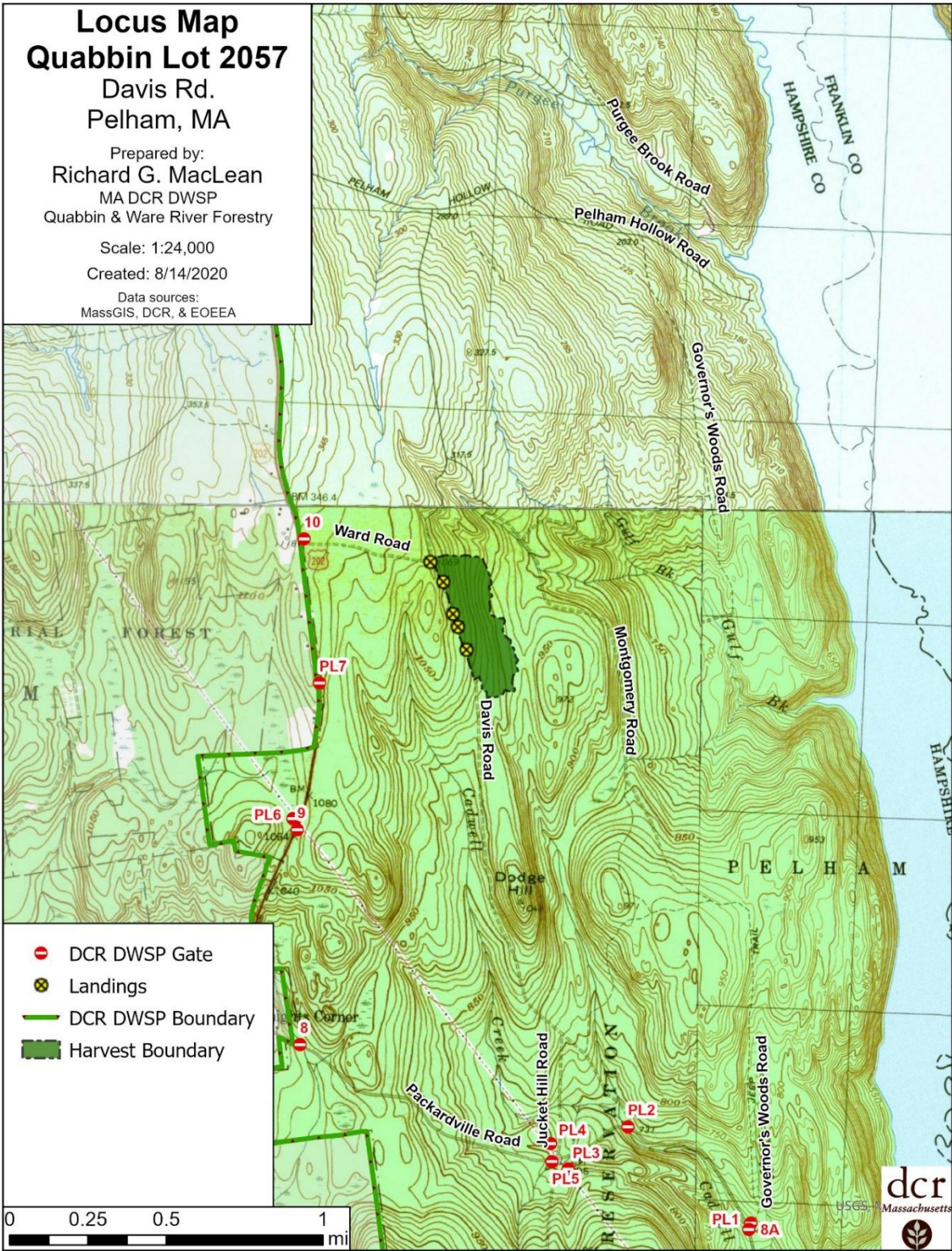


Figure 1d: Forest Cutting Plan pg. 4.

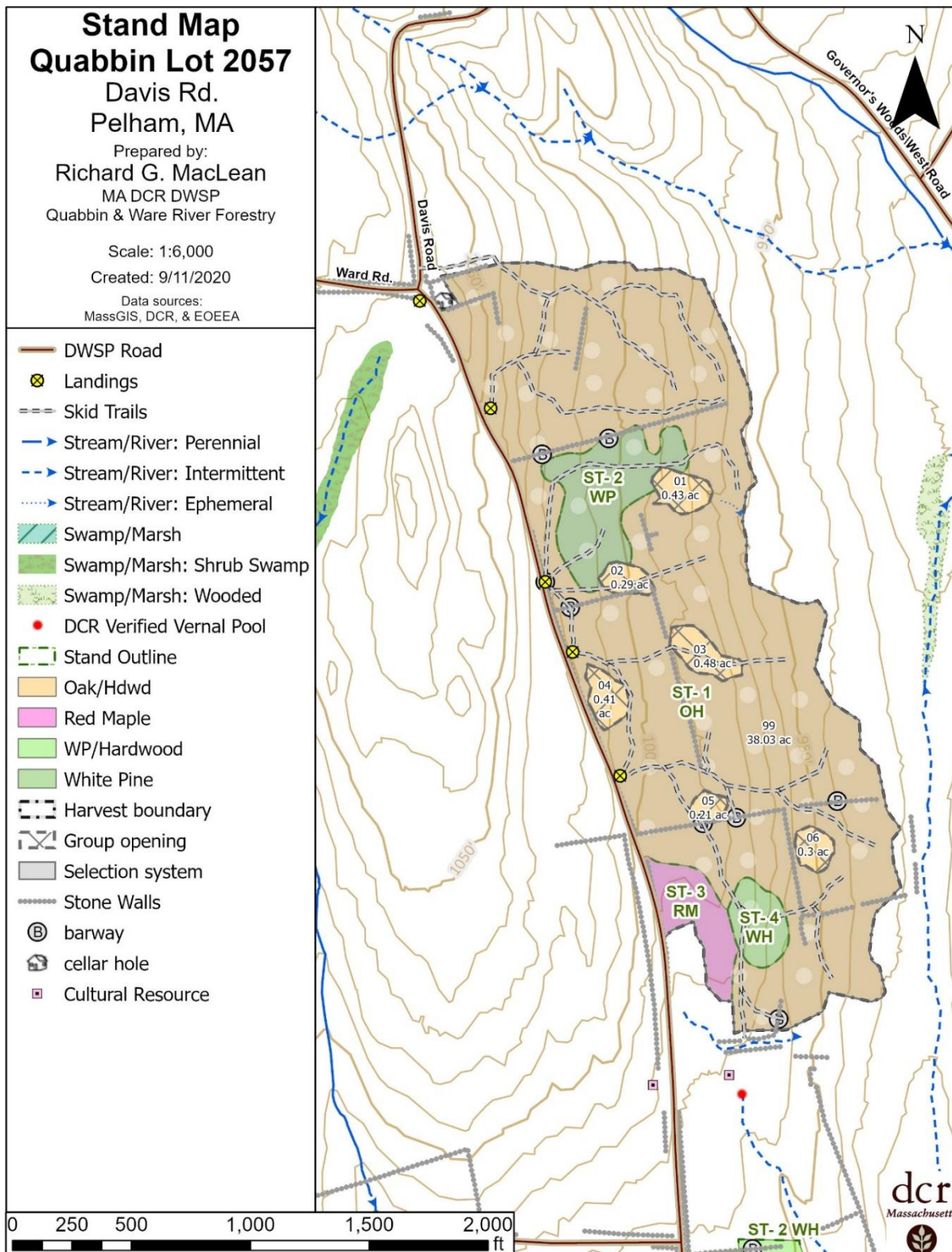


Figure 1e: Forest Cutting Plan pg. 5.



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 DUSP Quabbin, Ware Rd, Belchertown, MA 01007 in accordance with the
(Name of Owner) (Address)

provision of M.G.L. Chapter 132, Section 40-46, filed in Amherst F.O. with the Dept. of Conservation
and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the
Davis Rd lot, Pelham

Approval Date 9/12/20

Director's Agent Douglas Hutcheson

DCR Phone No. 413-237-9713

ISSUED BY:

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

Figure 1f: Forest Cutting Plan pg. 6