

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

**Project Title:** 202 Pull-off

DWSP Harvest Permit Number: 2056

DWSP Proposal ID: PE-20-14

DCR Forest Cutting Plan File Number: 272.26770.20

***Site Information***

Watershed: Quabbin

Town(s): Shutesbury

Acres: 21

Nearest Road: Daniel Shays Highway (Rte. 202)

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine/hardwood, Oak/hardwood

Area of Critical Environmental Concern (ACEC)?: No

Soils: Hollis-Charlton, Canton-Chatfield-Hollis complex, Scituate fine sandy loam

Wetland Resources: No

Vernal Pools: None known

***Harvest Information***

Harvest Start Date: 5/28/2021

Harvest End Date: 8/24/2021

Number of Wetland Crossings: none

Number of Stream Crossings: none

***Best Management Practices Applied***

Stream Crossings: no crossings

Filter Strips: no nearby streams

Wetland Crossings: no crossings

Harvesting in Wetlands: no harvesting in wetlands

***DWSP Forester supervising this harvest***

Name: Richard MacLean & Herm Eck

Forester License number: 63 (Eck)

Phone number: 413-213-7950

Email: Richard.maclean@mass.gov

## **Narrative**

### ***General Description/Forest Composition/History***

Forest composition at this harvest is in two stands, eastern white pine/hardwood and northern red oak/hardwood. The eastern white pine/hardwood cover is the larger of the stands and is dominated by larger (>20 " diameter) even aged eastern white pine. Northern red oak is the second most abundant with red maple, eastern hemlock, and yellow birch rounding out the canopy. The northern red oak/hardwood stand is dominated by sawlog sized northern red oak with a minor component of red maple, eastern white pine and black and white oak.

Both stands were last harvested in 1983, and 1982 with a combination of thinning and small gap regeneration openings (< 0.25 acre). Regeneration within the gap openings is composed of white pine, black birch and a small amount of red maple. Much of the white pine regeneration has stagnated and died, but most gaps contain a few stems still growing with a healthy crown, and the black birch is similarly sized but a higher density. Regeneration between the gaps in the eastern white pine/hardwood stand is mixed between large sapling black birch and small sapling white pine. There is a large amount of dead large sapling white pine which grew up after the thinning but did not have enough light to persist in the understory. The small sapling white pine is less than ten years old and will respond well to release within new regeneration openings.

### ***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 harvest aims to increase the species diversity of the area by opening up low diversity eastern white pine stands to more diverse species regeneration and favoring oak and tall/well-formed white pine for the edge and interior retention. Finally, this harvest will improve quality and overall vigor of the forest by removing poorly formed white pine. Advanced white pine and oak seedlings will be released by the white pine removal. Further, group regeneration openings from previous harvests have helped start a new cohort of regeneration which would benefit from release by adjacent overstory harvest.

### ***Silvicultural Objectives***

The silvicultural objectives at this site will focus on species diversity and improving regeneration. The first goal will be to increase species diversity by treating the less diverse sections of eastern white pine/hardwood with large green retention openings (approximately 1 acre). The even aged eastern white pine will be replaced by shorter more vigorous mixed species regeneration waiting to be released. Additionally, the opening placed in the white pine stands have > 10 sq ft of basal area green tree retention to provide further seed for regeneration and retain some of the older cohort for advanced vertical structure.

The second goal will be accomplished in two separate ways. First, regeneration openings are being located adjacent to the southern and eastern edges of regeneration

openings from previous harvests, which will increase light and improve growing conditions for the regeneration established after previous harvests, these regeneration openings will also be releasing young white pine and mixed hardwood regeneration within the openings potentially creating a uneven aged stand. Secondly, thinning and improvement cutting will be performed in the area surrounding the harvest regeneration openings to reduce poorly formed and unhealthy individuals and promote the growth of the remaining trees by removing competition.

***Cultural Resources***

This lot does not contain any known cultural resources.

***Rare or Endangered Species***

No known rare or endangered species are present. Two DCR verified vernal pools are present to the south east of the harvest area, but excluded from the harvest.

# Figures

## Figure 1. Forest Cutting Plan

03-12-20A10:20 RCV0

### 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) FINAL (4/23)

**For DCR Use Only:**

File Number <u>272-26770-20</u>	Case No. <u>1</u>
Date Rec'd <u>3-12-20</u>	Nat. Hert. <u>NO</u>
Earliest Start <u>3-27-20</u>	Pub. Dr. Wat. <u>NO</u>
River Basin <u>Shicopee</u>	ACEC <u>NO</u>
Gen. Obj. <u>LT</u>	

#### Location

Town Shutesbury  
Road Daniel Shays Highway (Rte 202)  
Acres 21 Proposed Start Date TBD  
Vol. MBF 50.5 Vol. Cds. 27 Vol. Tons 80

#### 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

#### 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

#### 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.

#### 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				

#### 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%)				

#### Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing				
Mitigation				
Stabilization				

#### Service Forester Comments

#### Filter Strips

Indicate location on map	FS-1	FS-2	FS-3	FS-4
Width (50', 100', or VA)				

<b>Type of Preparer</b>	<b>Type of Crossing</b>	<b>Stabilization</b>	<b>Mitigation</b>	<b>Type of Bottom</b>	<b>Note:</b>
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 Ford	CO Corduroy	OT Other	MU Mud	
LO Landowner	PO Poled	ST Stone		GR Gravel	
OT Other	OT Other	HB Hay Bales		OT Other	
		OT Other			

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

pg 3 of 5

Figure 1a: Forest Cutting Plan pg. 1.

Products to be Harvested*			
Species	Mbf/Cds		Mbf/Cds
White Pine	43	Red Maple	.4
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	4.5
Hemlock	1.3	Black Oak	.9
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	50.5
Beech		Cordwood (Cds)	27
White Birch		SW Pulp (Tons)	80
B & Y Birch	.4	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.

Cutting Standards				
Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WH	OH	WO	OH
Acres	14.1	2.5	2.6	1.7
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	CT	CT
Type of Cut	SE	CT	CT	CT
Source of Regeneration	SE	AD	AD	AD

### 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) \_\_\_\_\_ Date 3-9-2020

### Determination and Status

Approved ☒ Disapproved ☐ Expires 3-12-22

Cutting Plan ☒ 3-26-20

Signature of Service Forester/Director's Agent \_\_\_\_\_ Date \_\_\_\_\_

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 2.23.23

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 Harvester:	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 4 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 DCR DWSP - Quabbin

Town Shutesbury (Quabbin Lot 2056)

File Number \_\_\_\_\_

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 | ORANGE PAINT - Leave trees | Pink and Black Timber Harvest Boundary Flagging - end of sale | Yellow and Black Stripe Flagging - Skid Road | G trees are to be girdled | BLUE & ORANGE X trees are to be felled and left whole on site.

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

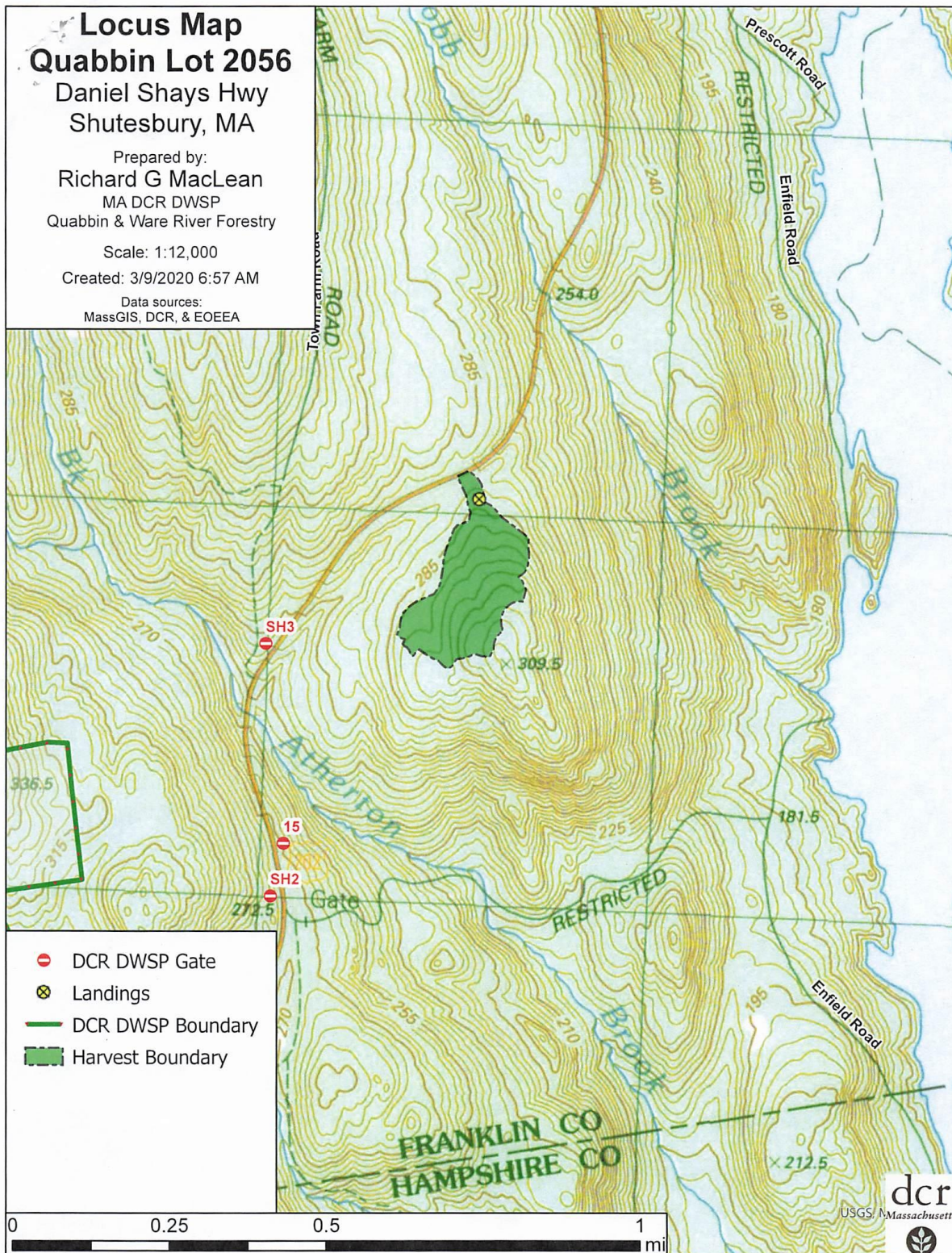
Regeneration & Future Condition

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

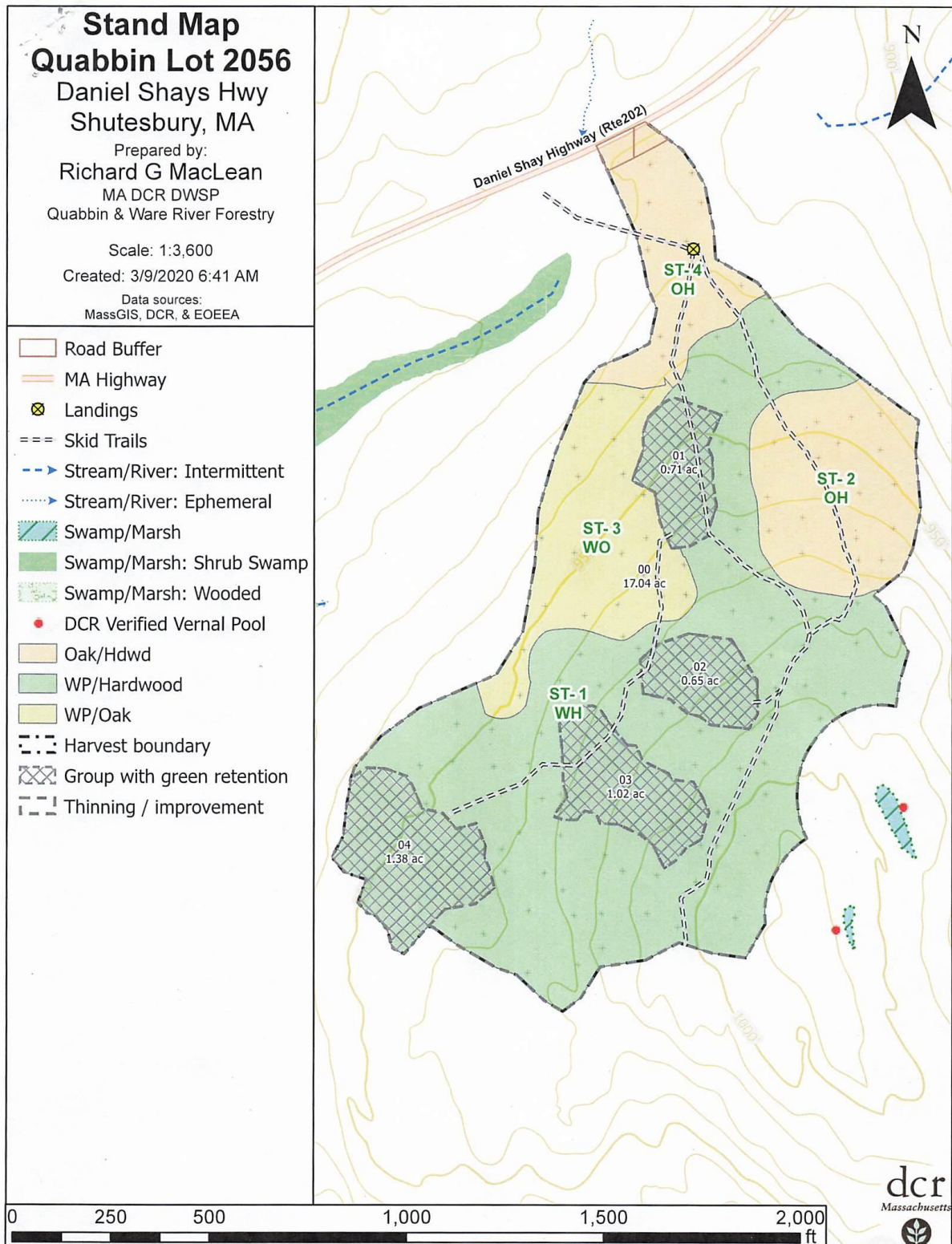

Stand No.      Desired Future Condition  
Describe what the stand is expected to look like five years from the harvest, including the condition of the overstory & understory


Figure 1c: Forest Cutting Plan pg. 3.



**Figure 1d:** Forest Cutting Plan pg. 4, locus map.





**Figure 1e:** Forest Cutting Plan pg. 5, stand map.



dcr



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

FILE # 272-26770-20

## 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 Quabbin 485 Ware Rd, Belchertown, MA in accordance with the  
(Name of Owner) (Address) 01007

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

Quabbin 2056 lot, Shutesbury

Approval Date 3/26/2020

Director's Agent Andrew Rawcliffe

DCR Phone No. 617-549-1677

ISSUED BY:

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

Figure 1f: Forest Cutting Plan Certificate.



**Figure 2a.** Photo point pre-harvest





**Figure 2b.** Photo point immediately post-harvest.





**Figure 2c.** Photo point one year post-harvest.





**Figure 2d.** Photo point two years post-harvest.





**Figure 2d.** Photo point three years post-harvest.