

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

Project Title: Webster Road East Red Pine
DWSP Harvest Permit Number: 1052
DWSP Proposal ID: HA-16-RP
DCR Forest Cutting Plan File Number: 309-8712-17

Site Information

Watershed: Quabbin
Town(s): Ware
Acres: 32.1
Nearest Road: Webster Road
Natural Heritage Atlas overlap: N
Public Drinking Water Supply Watershed: Quabbin
Forest Types: Red pine and mixed red and white pine
Area of Critical Environmental Concern (ACEC): No
Soils: Canton fine sandy loam and Hinckley loamy sand
Wetland Resources: Several wetlands and small drainages abut the harvest area.
Vernal Pools: No

Harvest Information

Harvest Start Date: 8/31/2017
Harvest End Date: 10/3/2017
Number of Wetland Crossings: 0
Number of Stream Crossings: 0

Best Management Practices Applied

Stream Crossings: N/A
Filter Strips: One of variable width
Wetland Crossings: N/A
Harvesting in Wetlands: N/A

DWSP Forester supervising this harvest

Name: Steven J. Wood
Forester License number: 257
Phone number: (413) 323-6921
Email: steven.wood@state.ma.us

Narrative

General Description/Forest Composition/History

The area to be harvested is in the town of Ware. Access is through the east entrance of Quabbin Park, Webster Road (gated) is on left across from Hank's Meadow.

The stone walls on this lot attest to its history of being cleared for agriculture, mostly for pasture. When the farmland was abandoned, probably in the late 19th or early 20th century, it reverted to forest. Much of this area was planted with red pine in the 1930's or early 1940's.

The primary tree species present are red and white pine with some ash. Other hardwoods include black and paper birch, red maple, aspen, oaks and hickories.

All the red pine is in various stages of decline due mainly to the red pine scale and root rot. Sections already have significant mortality. The outlook for red pine surviving in this area is very poor and the species no longer meets our objectives of having "a diverse mix of healthy trees that are long-lived, well-suited to their location, and vigorously growing and assimilating nutrients". The ash has also been declining for several years, and many have died over the last decade.

This whole area was previously cut several times from 1980-2000 resulting in a 2 aged stand with an unevenly stocked understory of mainly white pine with some hardwood and hemlock. Deer browsing is high here due to the park not being hunted; moose occasionally pass through here too. This pressure has resulted in low species diversity and has allowed invasive plant establishment, notably bittersweet and Japanese barberry. Areas were hand pulled or cut in spring of 2017 to try and reduce their impact to the future stand.

The soils on this lot are primarily well drained loamy sands.

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. To achieve this, DWSP has determined that the forest should contain a diversity of species in various stages of development (seedlings through large legacy trees). In addition, the forest should be vigorous; actively growing and regenerating. A forest in this condition is resilient to and can quickly recover from small- and large-scale disturbances such as diseases, insect infestations, ice storms and hurricanes.

This area was chosen mainly due to the likelihood of the red pine and ash dying over the next 5 years. This harvest will capture the timber value before it declines and the scarification of the soils during harvest should promote a more diverse and vigorous seedling response than if they were just allowed to establish under a dying overstory. The high overstory which the invasive bittersweet was using to widely disperse seed will also be reduced.

Silvicultural Objectives

The goal of this harvest is to build on the success of the work started in the 1980's by continuing the process of establishing new tree seedlings and providing space for existing regeneration to expand and grow. The diversity of native species present is being maintained. This combination of structural and species diversity builds resistance and resilience into the forest.

This cut is the final overstory removal in these plantations. The well-formed, vigorous advanced regeneration established during the previous cuts will be protected as much as possible. The harvest will allow room for established regeneration to grow and create conditions suitable for new regeneration to become established. White pine does very well here, is not browsed by deer, and there is a good cone crop this year which should provide an abundance of seed.

Wherever possible, wildlife habitat features were maintained and protected, such as snags (dead trees) and trees with cavities or nests. Exceptional individuals of all species present were retained in the stand for seed and to enhance diversity.

Cultural Resources

Stone walls are numerous throughout this area. There are many breaks and barways in these walls and they can be used to avoid and protect the stone walls during the upcoming harvest. This is in keeping with DWSP's standard practice, which dictates that every effort is made to keep existing stone walls intact. Otherwise, this area has been determined not to be culturally or archeologically sensitive based on a review by the DCR Archaeologist.

Rare or Endangered Species

The lot contains no critical habitats or known rare or endangered species, and no vernal pools. The uplands are home to a variety of wildlife including deer, turkey, coyote and moose.

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: 1/1/04)

FINAL (10/17)

For DCR Use Only:

File Number	309-8912-17	Case No.	
Date Rec'd	3/13/17	Nat. Hert.	YES / 3/15/17
Earliest Start	3/28/17	Nat. Hert. Imp	N
River Basin	CH10REE	Pub. Dr. Wat.	QUABBIN
Gen. Obj.	LT	ACEC	N

Site Information

Location

Town Ware – Lot 1052

Road Webster Rd.

Acres 32.1 Proposed Start Date Summer 2017

Vol. MBF 190.4 Vol. Cds. 36 Vol. Tons 72

Plan Preparer

Name Steve Wood; Richard G MacLean

Address DCR-DWSP Quabbin Section

485 Ware Road

Town, State, Zip Belchertown, MA 01007

Phone 413 323-6921 x 156

Type of Preparer LF

*Mass. Forester License # 257

*Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR-DWSP Quabbin Section

Mailing Address 485 Ware Road

Steven.Wood@State.MA.US

Town, State, Zip Belchertown, MA 01007

Phone 413 323-6921 x 156

Ch61 ☐ 61A ☐ 61B ☐ Stew ☐ *Case #

CR ☐ CR Holder

Licensed Timber Harvester**

Name

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 No 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 No 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)	VA			

Harvesting in Wetlands None

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

NO NET SO IMPACT - SEE ATTACHED REVIEW

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 Ford	CO Corduroy	OT Other	MU Mud	
LO Landowner	PO Poled	ST Stone		GR Gravel	
OT Other	OT Other	HB Hay Bales		OT Other	

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

pg 1 of 5

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	55.1	Red Maple	
Red Pine	129.5	Sugar Maple	
Pitch Pine		Red Oak	
Hemlock		Black Oak	0.4
Spruce		White Oak	0.1
Other Sftwd.		Other Hdwd.	
White Ash	5.2	Total Mbf	190.4
Beech		Cordwood (Cds)	36
White Birch		SW Pulp (Tons)	72
B & Y Birch	0.1	HW Pulp (Tons)	
Black Cherry		Chips (Tons)	

*Note: Volumes and values 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	RP/WP			
Acres	32.1			
Landowner Objective	LT			
Designation of Trees	CT			
Type of Cut	SH			
Source of Regeneration	AD/SE			

* Small group and single tree selection, with groups up to 1/2 acre.

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 and values (Ch61 only) 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

Determination and Status 309-8712-17

Approved	Disapproved	Expires
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3/13/19
Signature of Service Forester/Director's Agent		Date
SITE VISIT 3/28/17		3/30/17
Extension	Expires	Ser. For. Ints.
<input type="checkbox"/> 1 <input type="checkbox"/> 2	1	1
Amendment	App 1	Dis 1
<input type="checkbox"/> <input type="checkbox"/>	App 2	Dis 2
<input type="checkbox"/> <input type="checkbox"/>		1

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

Forest Types				Designation of Trees	Type of Cut	Intermediate Harvests:	Source of Regeneration
WP White Pine	HK Hemlock	OM Mixed Oak	CT Cut Tree	SH Shelterwood	CT Commercial Thin	AD Advanced	
WK WP/Hem	HH Hcm/Hdwd	RM Red Maple	LT Leave Tree	ST Seed Tree	NT Non Com Thin	SE Natural Seed	
WH WP/Hdwd	BC Black Cherry	BE Beech	SB Stand Boundary	CC Clear Cut	SE Selection	PL Plant	
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir	OT Other	SA Salvage	DL Diameter Limit*	CO Coppice	
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple	LT Long-term Mgt	SN Sanitation	OT Other*	DS Direct Seed	
SR Red Spruce	OR N Red Oak	PP Pitch Pine	ST Short-term Har			OT Other	

2 OF 5

Forest Cutting Plan

Narrative Page (Effective Date: 1/1/04)

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 Ware

File Number 309-8712-17

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.

Forwarder and Cut to Length Required. FLAGGING: Orange and Black = skid trail | Pink = wet area or hazard

BLUE PAINT: Dot = cordwood or pulp | Horizontal Line = sawlog | Vertical slash = skid trail

Previous cuts were group shelterwood. This harvest is final overstory removal of red pine. Most areas well stocked with white pine regeneration to 20'. This regen will be protected as much as possible. There will be some areas with opening up to ~ 1/2 acre.

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.

Stand No.	Species to be Cut	Size of Trees to be Cut	Quality of Trees to be Cut	% BA/Acre Removed

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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ST-1		
ST-2		
ST-3		
ST-4		

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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






ST-1	
ST-2	
ST-3	
ST-4	

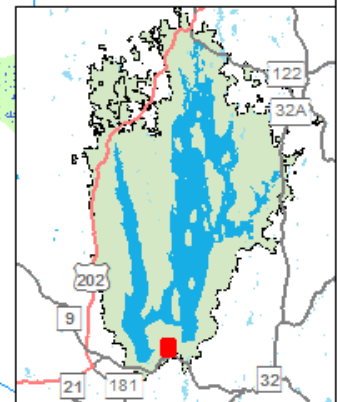
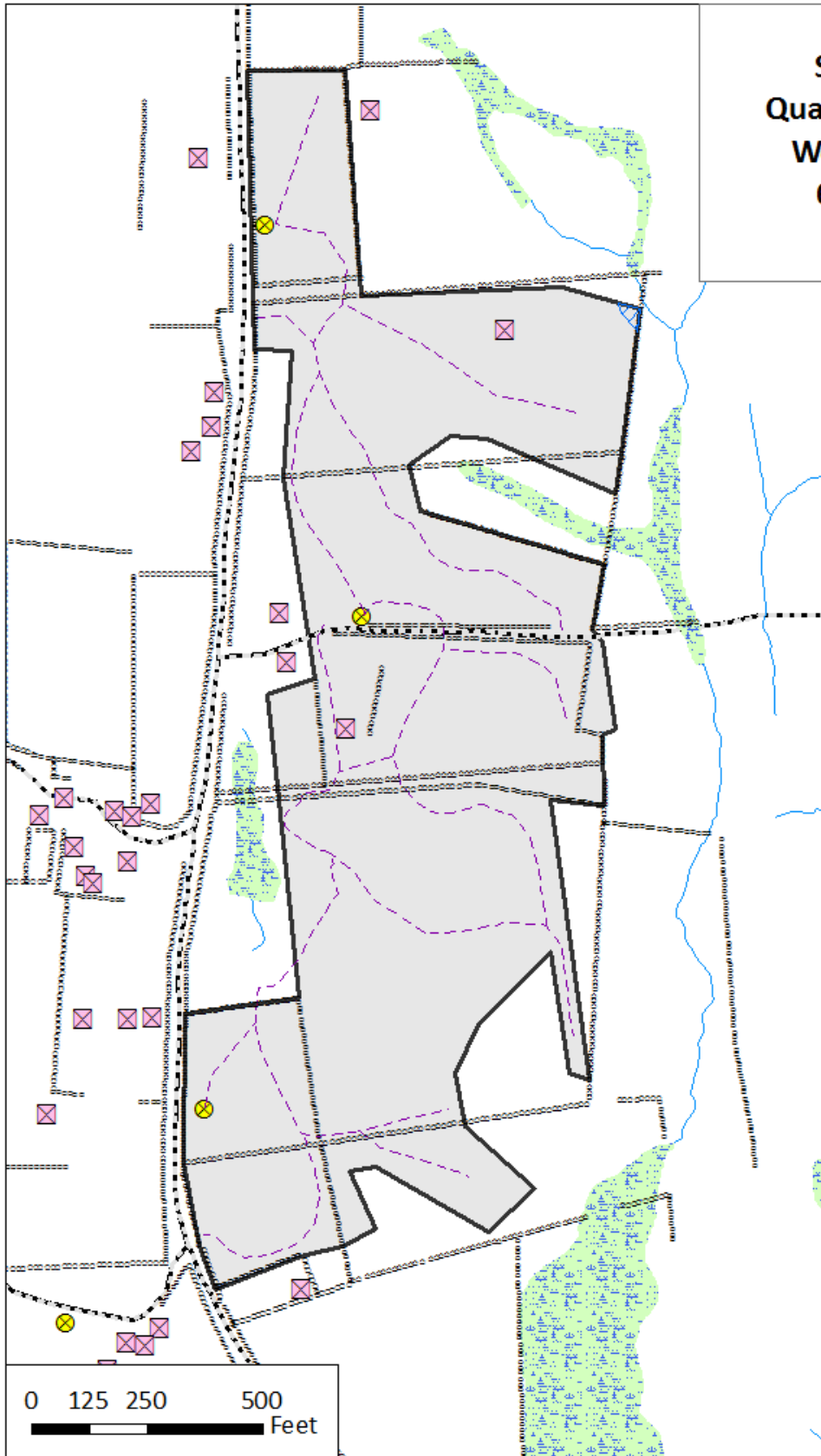
Stand Map
Quabbin Lot 1052
Webster Road
6/27/2017

1 inch = 300 feet



Legend

-  Filter Strip
-  Cultural Resources
-  Stone Walls
-  Forwarder Trail
-  Stream
-  Wooded marsh
-  Landings
-  Forest Road / Trail
-  Stand Boundary







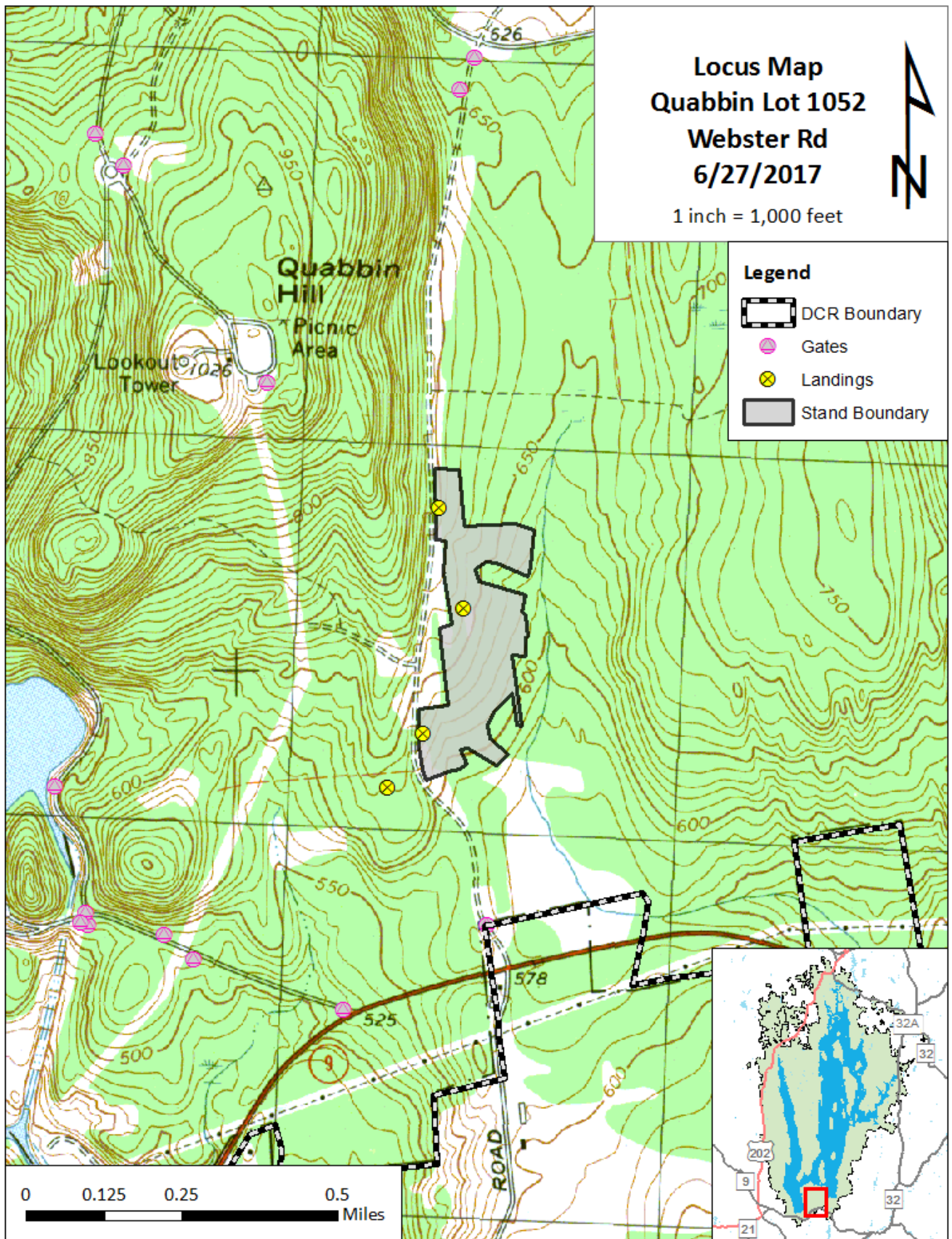
Locus Map
Quabbin Lot 1052
Webster Rd
6/27/2017

1 inch = 1,000 feet



Legend

-  DCR Boundary
-  Gates
-  Landings
-  Stand Boundary





**DIVISION OF
FISHERIES & WILDLIFE**

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

Jack Buckley, Director

Doug Hutcheson - Department of Conservation and Recreation
40 Cold Storage Drive
P.O. Box 484
Amherst, MA 01004

Cutting Plan No.	309-8712-17
NHESP Tracking No.	17-36591
Town	Ware
Road	Off Webster Road
Landowner	DCR - DWSP
Preparer	Steve Wood
Date	March 29, 2017

Dear Doug,

The Natural Heritage and Endangered Species Program ("the NHESP") of the Massachusetts Division of Fisheries and Wildlife ("the Division") has reviewed the above-referenced Forest Cutting Plan ("the Plan") pursuant to the special approval procedures of the Forest Cutting Practices Regulations (304 CMR 11.04(6)). Based on details of the Plan and information in the NHESP database, the Division does not expect activities proposed in the Plan to negatively impact Estimated Habitat or result in "Take" (as defined in 321 CMR 10.02) of plant or animal species protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). Therefore, the Division does not require that the Plan be modified at this time.

Please copy the Division on any proposed amendment, extension and on the approved Plan for the site. If you have any questions about this letter, please contact Brent Powers at (508) 389-6354 or brent.powers@state.ma.us.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

Cc: Ware Conservation Commission

MASSWILDLIFE

dc



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

FILE # 301-8712-17

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 Quabbin Ware Rd, Belchertown, MA 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

Webster Rd lot. "Lot 1052"

Approval Date 3/30/17

Director's Agent Doug Hutcheson

DCR Phone No. (413) 237-9713

ISSUED BY:

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