

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

Project Title: 32A Red Pine East-1
DWSP Harvest Permit Number: 1057
DWSP Proposal ID: HA 18-13
DCR Forest Cutting Plan File Number: 124-16418-20

Site Information

Watershed: Quabbin
Town(s): Barre, Hardwick
Acres: 41.6
Nearest Road: Petersham Road (Rte. 32A)
Natural Heritage Atlas overlap: No
Public Drinking Water Supply Watershed: Yes
Forest Types: Red Pine, White Pine-hardwoods, Oak-hardwoods, Red Maple
Area of Critical Environmental Concern (ACEC): No
Soil(s): Range of conditions from excessively to well to moderately well drained soils
Wetland Resources: Yes
Vernal Pools: None

Harvest Information

Harvest Start Date: 3/31/2020
Harvest End Date: 5/6/2020
Number of Wetland Crossings: One
Number of Stream Crossings: One

Best Management Practices Applied

Stream Crossings: An existing culvert was utilized, and stone was used for soil stabilization.
Filter Strips: Three strips of variable width were established
Wetland Crossings: Corduroy was used for soil stabilization
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.gov

Narrative

General Description/Forest Composition/History

The focus of the harvest is the removal of the red pine plantations in decline. The cutting of over stocked and/or poorly formed white pine and white pine/hardwood stands, along with areas with hemlock, will also be prioritized.

All the red pine plantations have some mortality from red pine scale or root rot and will continue to deteriorate. This section of forest, on the east side of Route 32A, only had a few areas harvested in the late 60's and early 80's. These areas now have an understory comprised mainly of sapling and pole sized black birch or a diverse mix of most native hardwoods with white pine and hemlock. Open to hunting, the east side of 32A has a lower deer density which may partially explain the increased understory species diversity. In areas that haven't been harvested since the 60's, the forest is a mix of intermediate and/or suppressed black birch, red maple, white pine and hemlock, with most of the white pine occurring on the drier sites. Some of the non-tree species present in the understory are low and high bush blueberry, dogwood, hawthorn, princess pine, running cedar, common clubmoss, grapevine, witch hazel, poison ivy and a variety of ferns and forbs. Invasives are present in multiple areas, mainly around old foundations and many of the landings.

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. DWSP recognizes that wildlife habitat management and restoration of rare habitats are important secondary goals, where they are compatible with maintaining high quality drinking water. This site was chosen because of the amount of declining red pine and a general lack of diversity in the age, structure and health of the overstory tree species.

Silvicultural Objectives

The goals of this harvest are to establish new tree seedlings and provide 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.

To establish a new age class, some of the overstory will be harvested in small groups to foster regeneration. Groups were placed in clusters of dead or declining trees, or trees with weak stem form, often due to insects, diseases, or storm damage. Where there were groups of regeneration created from previous harvests, these were expanded upon by cutting a new abutting group. Red and white oak, black cherry, hickory, sugar maple and white birch were favored for retention in hopes that they will seed in and be more common in the future stand.

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

There are numerous cellar holes, foundations, stone walls, some wells, a cistern and a couple of breached dams.

Rare or Endangered Species

No rare or endangered species. Coyote, bear, deer, raccoon, turkey and moose are some of the species known to inhabit this 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: 1/1/04)

AUG 22 2019

Final
For DCR Use Only:

File Number	124-16418-20	Case No.	_____
Date Rec'd	8-22-19	Nat. Hert.	1 N
Earliest Start	9-9-19	Nat. Hert. Imp.	N
River Basin	CHICOPPEE	Pub. Dr. Wat.	Y
Gen. Obj.	LT	ACEC	N

Site Information

Location

Town Hardwick & Barre DWSP lot 1057
Road Petersham Rd. 32A
Acres 41.6 Proposed Start Date 9/2019
Vol. MBF 214.8 Vol. Cds. 411 Vol. Tons 782

Plan Preparer

Name Steven J. Wood
Address DCR, Division of Water Supply Protection
485 Ware Rd.
Town, State, Zip Belchertown, MA 01007
Phone (413) 213-7944
Type of Preparer Mass. Licensed Forester
*Mass. Forester License # 257
*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 Ch61A Stew *Case # _____
Est. Stumpage Value _____

Licensed Timber Harvester**

Name Chris Pirner
Address 152 Williamsville Road
Town, State, Zip Hubbardston, MA 01452
Phone 978 270-9916
Mass. Lic. Harvester # 587

**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	CU			
Existing Structure	yes			
Type of Bottom	GR			
Bank Height (ft)	0.5'			
Stabilization	ST			

Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing	10'			
Mitigation	DR/FR			
Stabilization	CO			

Filter Strips

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

*PLEASE NOTIFY DCR SERVICE FORESTER
AT START OF HARVEST OPERATION
• SKID ROADS & CROSSING ARE EXISTING
• PLAN APPROVAL DELAYED DUE TO MAP
ADJUSTMENT REQUESTED BY SERVICE
FORESTER*

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Bottom
LF Mass. Lic. For.	CU Culvert	SE Seed	FR Frozen	LE Ledge
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

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

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	111.6 M	Red Maple	14.4 M
Red Pine	47.0 M	Sugar Maple	
Pitch Pine		Red Oak	9.0 M
Hemlock		Black Oak	16.4 M
Spruce		White Oak	1.1 M
Other Sftwd.		Other Hdwd.	
White Ash	11.7 M	Total Mbf	214.8
Beech		Cordwood (Cds)	411
White Birch		SW Pulp (Tons)	782
B & Y Birch	2.5 M	HW Pulp (Tons)	
Black Cherry	1.2 M	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.

Stand Treatment

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WH	RP	OH	RM
Acres	30.4	3.4	4.2	3.6
Landowner Objective	LT	LT	LT	LT
Designation of Trees	CT	CT	CT	CT
Type of Cut	SE	SE	SE	SE
Source of Regeneration	AD/SE	AD/SE	AD/SE	AD/SE

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 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)

8-13-19

Date

Service Forester

Determination and Status 124-16418-20

	Approved	Disapproved	Expires
Cutting Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8/22/21
			9/13/19
	Signature of Service Forester/Director's Agent		Date

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

6/17/20
Date

Extension	1 <input type="checkbox"/>	2 <input type="checkbox"/>	Expires	Ser. For. Ints.
Amendment	App 1 <input type="checkbox"/>	Dis 1 <input type="checkbox"/>	App 2 <input type="checkbox"/>	Dis 2 <input type="checkbox"/>

Codes

Forest Types	Designation of Trees	Type of Cut	Source of Regeneration
WP White Pine	CT Cut Tree	SH Shelterwood	AD Advanced
WK WP/Hem	LT Leave Tree	ST Seed Tree	SE Natural Seed
WH WP/Hdwd	SB Stand Boundary	CC Clear Cut	PL Plant
WO WP/Oak	OT Other	SE Selection	CO Coppice
RP Red Pine	Landowner Objective	SA Salvage	DS Direct Seed
SR Red Spruce	LT Long-term Mgt.	SN Sanitation	OT Other
	ST Short-term Har.		

*If Other (OT) or a non-standard system is used an explanation must be given on attached narrative page

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

Town Hardwick & Barre

File Number 124-16418-20

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.

Lot is marked with blue paint, save trees in orange and double stripe paint is sale boundary (note some internal double stripe is excluded area or wet.

Goal of harvest is to remove declining RP, regenerate 1/4 to 1/3 of area and salvage dead and dying oak and ash. Silviculture is group selection with

thinning between groups. 8 numbered groups created from 0.24 ac-2.51 ac with retention in groups over 0.5 acre. Additionally around 6 1/10th acre

small groups created for a total of about 11.4 acres regenerated. Edge of groups are designated by orange paint stripe with a dot.

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

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

Quabbin Lot 1057

Hardwick & Barre, MA

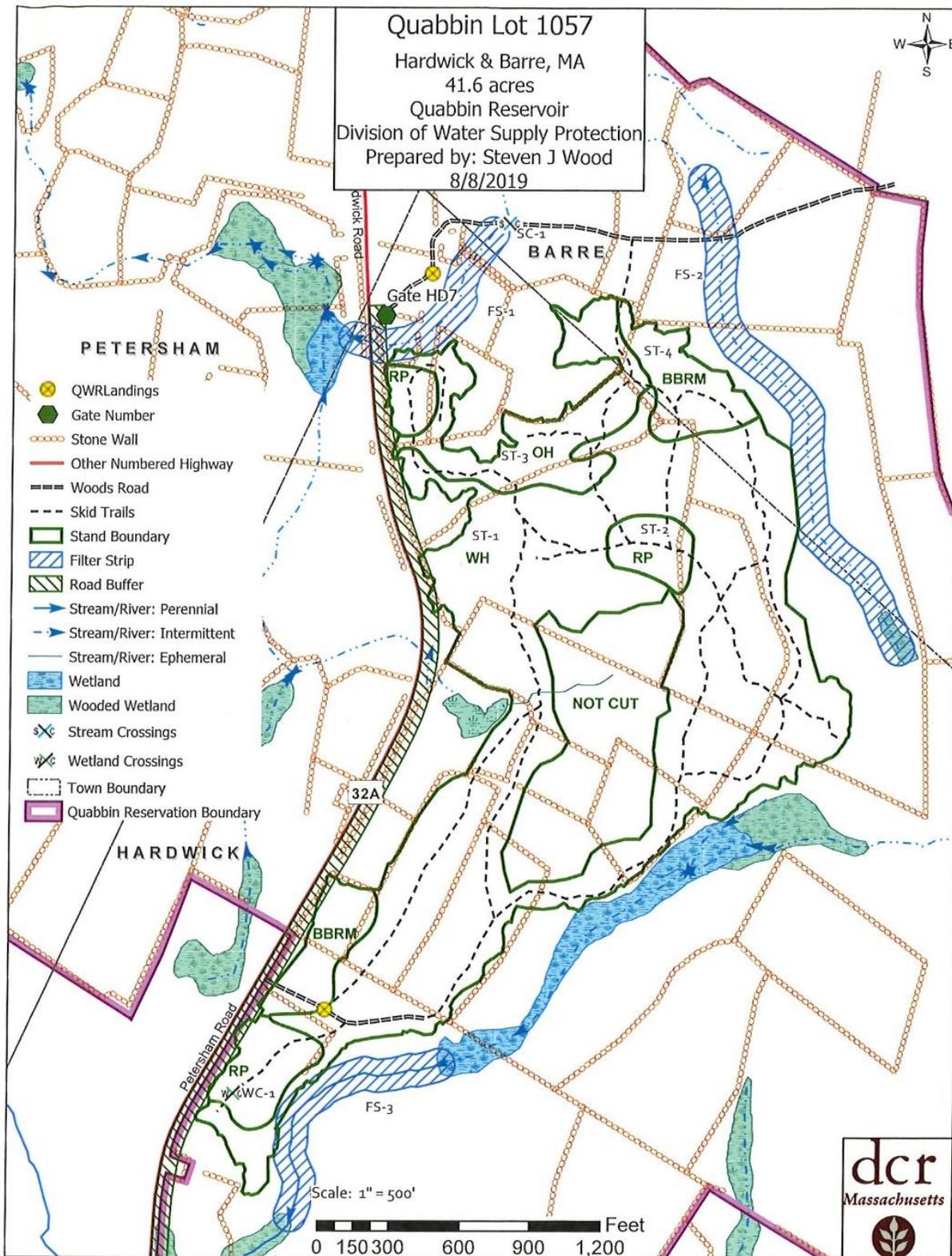
41.6 acres

Quabbin Reservoir

Division of Water Supply Protection

Prepared by: Steven J Wood

8/8/2019



Quabbin Lot 1057

Hardwick & Barre, MA

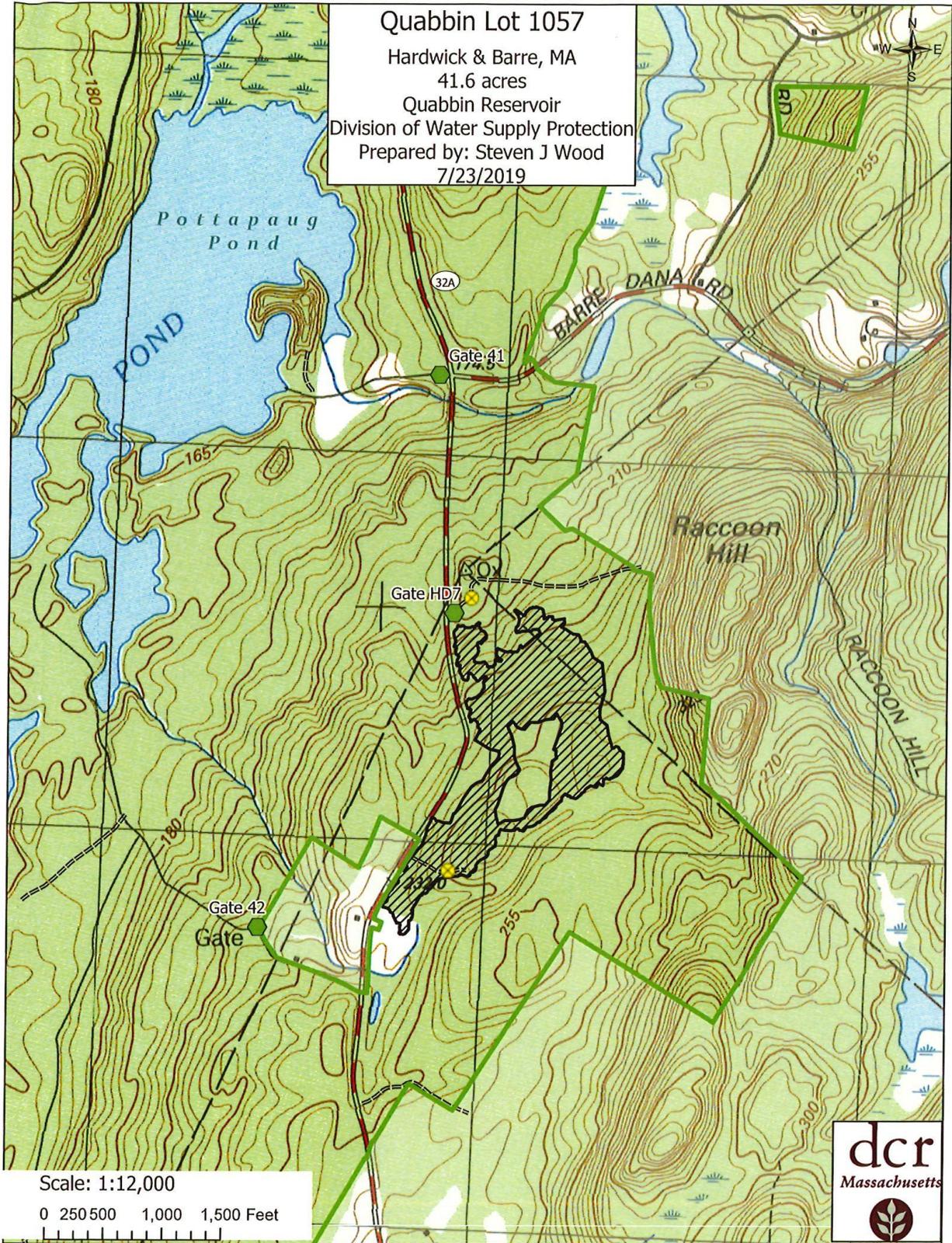
41.6 acres

Quabbin Reservoir

Division of Water Supply Protection

Prepared by: Steven J Wood

7/23/2019





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

FILE # 124-16418-20

W

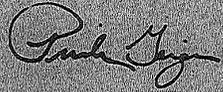
FOREST CUTTING PLAN CERTIFICATE

Post this in a conspicuous place within the area in which the harvesting operation is to take place.

This certifies that DIVISION OF WATER SUPPLY PROTECTION 485 WARE RD.
 (Name of Owner) (Address) BECKETTOWN, MA 01007 in accordance with the

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 PETERSHAM RD lot.

Approval Date 9/13/19
 Director's Agent CHRIS CAPONE
 DCR Phone No. (857) 406-0175

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