

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

Project Title:

DWSP Harvest Permit Number: S09SQ

DWSP Proposal ID: PE-17-1

DCR Forest Cutting Plan File Number: 024-9488-19

Site Information

Watershed: Quabbin

Town(s): Belchertown

Acres: 60

Nearest Road: Earley Street

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: oak/hardwood, oak/white pine

ACEC?: No

Soils: Scituate fine sandy loams

Wetland Resources: The lot abuts a wetland and small stream to the northwest and contains two small streams which drain east into the Quabbin Reservoir.

Vernal Pools: None on the lot

Harvest Information

Harvest Start Date: 2/12/2019

Harvest End Date: 3/28/2019

Number of Wetland Crossings: None

Number of Stream Crossings: Two

Best Management Practices Applied

Stream Crossings: Two stream crossings were bridged with the approaches poled.

Filter Strips: Variable width filter strip based on slope

Wetland Crossings: None

Harvesting in Wetlands: None

DWSP Forester supervising this harvest

Name: Steven Wood

Forester License #: 257

Phone #: 413-213-7944

Email: steven.wood@mass.gov

NARRATIVE

General Description/Forest Composition/History

The area to be harvested is in the town of Belchertown on the east side of Earley St., just inside of Gate 4.

The stone walls on this lot attest to its history of clearing for agriculture, most likely for pasture. When the farmland was abandoned, probably in the late 19th or early 20th century, it reverted to forest.

The primary tree species present are mixed oaks (predominately red oak but also black, white and scarlet) and white pine. Other hardwoods include black and paper birch, red and sugar maple, beech, chestnut, chestnut oak, sassafras, hickory and several large spruce. Hemlock occurs in small groups, mainly as suppressed mid-story trees.

The soils on this lot are primarily Scituate fine sandy loams. These are moderately well drained soils with a hard pan 2'-4' below the surface, but normally with no frequent flooding or ponding.

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. In order 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 site was selected specifically to salvage trees which were killed by gypsy moth defoliations which have occurred here yearly since 2015. Salvages need to be done quickly before the wood degrades too much. Once oak has been dead for 2 years almost all economic value is lost.

Silvicultural Objectives

The goal of this harvest is to salvage the dead and dying oak and to establish new tree seedlings and providing space for existing regeneration to expand and grow. The removal of dying, weakened trees will reduce the chance of secondary pathogens becoming established and negatively impacting the surrounding forest.

The section east of the power line wasn't part of the 2016 harvest so there are more trees/acre to work with. Harvest here more resembles our typical group selection harvest with the removal of the overstory in small groups, up to about ½ acre in size, which encourages regeneration establishment (new age class). The main objective here was still salvage of dead and dying oaks but with additional firewood and low quality trees cut. These vulnerable trees will be replaced with vigorous new seedlings, or with saplings where there is existing regeneration to be released.

Wherever possible wildlife habitat features, such as snags (dead trees with evidence of recent wildlife use) and trees with cavities or nests were retained and protected.

Cultural Resources

Stone walls are present on the southeast corner of the lot and don't need to be crossed but will be protected during felling operations. This is also where a permanent landing is located. Adjacent to this are some foundations and wells which have been protected. 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 area is home to a variety of wildlife including deer, turkey, coyote and moose. Great horned owls have been seen and heard in the northern section.

FIGURES

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)

For DCR Use Only:

File Number 024.9488-19 Case No. _____
Date Rec'd 8/16/18 Nat. Hert. Y
Earliest Start 8/31/18 Nat. Hert. Imp. N
River Basin CHICPEE Pub. Dr. Wat. QUABBIN
Gen. Obj. LT ACEO N

Site Information

Location

Town Belchertown Quabbin lot S9SQ
Road Early St
Acres 60 Proposed Start Date 9/1/2018
Vol. MBF 129.8 Vol. Cds. 280 Vol. Tons _____

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 _____
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	BR	BR		
Existing Structure	NO	NO		
Type of Bottom	ST	ST		
Bank Height (ft)	0.5	0.5		
Stabilization	SE/CO	SE/CO		

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)	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

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
		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.

Figure 1a. Forest Cutting Plan

Forest Cutting Plan page 1 -

Forest Products	Products to be Harvested*			
	Species	Mbf/Cds		Mbf/Cds
	White Pine		Red Maple	
	Red Pine		Sugar Maple	
	Pitch Pine		Red Oak	105.2M
	Hemlock		Black Oak	18.5 M
	Spruce		White Oak	6.0 M
	Other Sftwd.		Other Hdwd.	
	White Ash		Total Mbf	129.8
	Beech		Cordwood (Cds)	280
	White Birch		SW Pulp (Tons)	
	B & Y Birch	0.1 M	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.

Stand Treatment	Cutting Standards				
	Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	OR4	OM4			
Acres	107.1	22.7			
Landowner Objective	LT	LT			
Designation of Trees	CT	CT			
Type of Cut	SA	SA			
Source of Regeneration	AD/SE	AD/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 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)

8-13-18

Date

Determination and Status 024-9488-19	Final Report and Comments
<p style="text-align: center;">Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/> Expires 8/16/20</p> <p>Cutting Plan <input checked="" type="checkbox"/> 8/23/18</p> <p> 8/23/18</p> <p>Signature of Service Forester/Director's Agent Date</p> <p>Extension 1 <input type="checkbox"/> 2 <input type="checkbox"/> Expires / Ser. For. Ints. /</p> <p>Amendment App 1 <input type="checkbox"/> Dis 1 <input type="checkbox"/> App 2 <input type="checkbox"/> Dis 2 <input type="checkbox"/> /</p>	<p>I hereby certify that the afore described Forest Cutting Plan and all relevant statutes have been substantially complied with.</p> <p> 3/8/19</p> <p>Signature of Service Forester/Director's Agent Date</p>

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
WK WP/Hem	HH Hem/Hdwd	RM Red Maple	LT Leave Tree	ST Seed Tree
WH WP/Hdwd	BC Black Cherry	BE Beech	SB Stand Boundary	CC Clear Cut
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir	OT Other	SE Selection
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple	SA Salvage	HG Highgrade*
SR Red Spruce	OR N Red Oak	PP Pitch Pine	LT Long-term Mgt.	DL Diameter Limit*
			ST Short-term Har.	OT Other*

Figure 1b. Forest Cutting Plan

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 Belchertown

File Number 024-9488-19

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.

This is a salvage of dead and dying oak (blue marked, orange=save, ignore old black and red) killed recently by gypsy moth. Lot was cut during summer 2016 (024-7151-15) and this salvage covers all of original area plus 22.7 acres on east side of power line. The new acreage is more of a mixed stand with not as high mortality. Additional poorly formed and suppressed stems are marked, mainly east of power line. This section will look thinned with openings up to an acre once cut. Original cut section will look like a seed cut of shelterwood on the south and along road with higher mortality along the northern edge and central section, some of this might have overstory removed on over 5acre openings.

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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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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Figure 1c. Forest Cutting Plan



MASSWILDLIFE

**DIVISION OF
FISHERIES & WILDLIFE**

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

Doug Hutcheson
Department of Conservation and Recreation
40 Cold Storage Drive
Amherst, MA 01004

Cutting Plan No. 024-9488-19
NHESP Tracking No. 18-37996
Town Belchertown
Road Early St., Quabbin Lot S9S0
Landowner DCR-DWSP Quabbin Section
Preparer Steven J. Wood
Date August 22, 2018

Dear Doug,

The Natural Heritage and Endangered Species Program (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 Rebekah Zimmerer at (508) 389-6354 or Rebekah.zimmerer@state.ma.us.

Sincerely,

A handwritten signature in cursive script that reads "Thomas W. French".

Thomas W. French, Ph.D.
Assistant Director

Cc: Belchertown Conservation Commission

MASSWILDLIFE

Figure 1d. Forest Cutting Plan

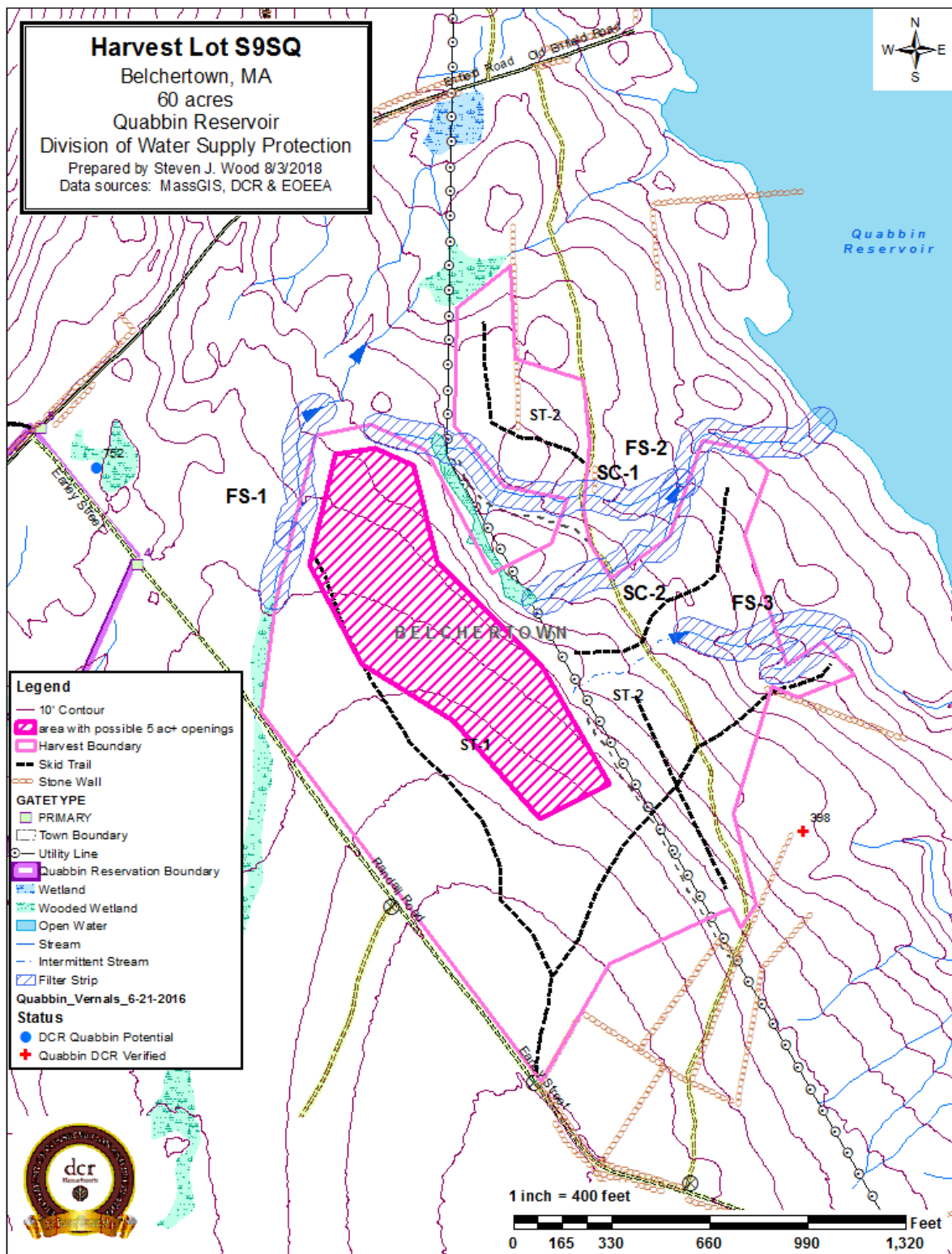


Figure 1e. Forest Cutting Plan

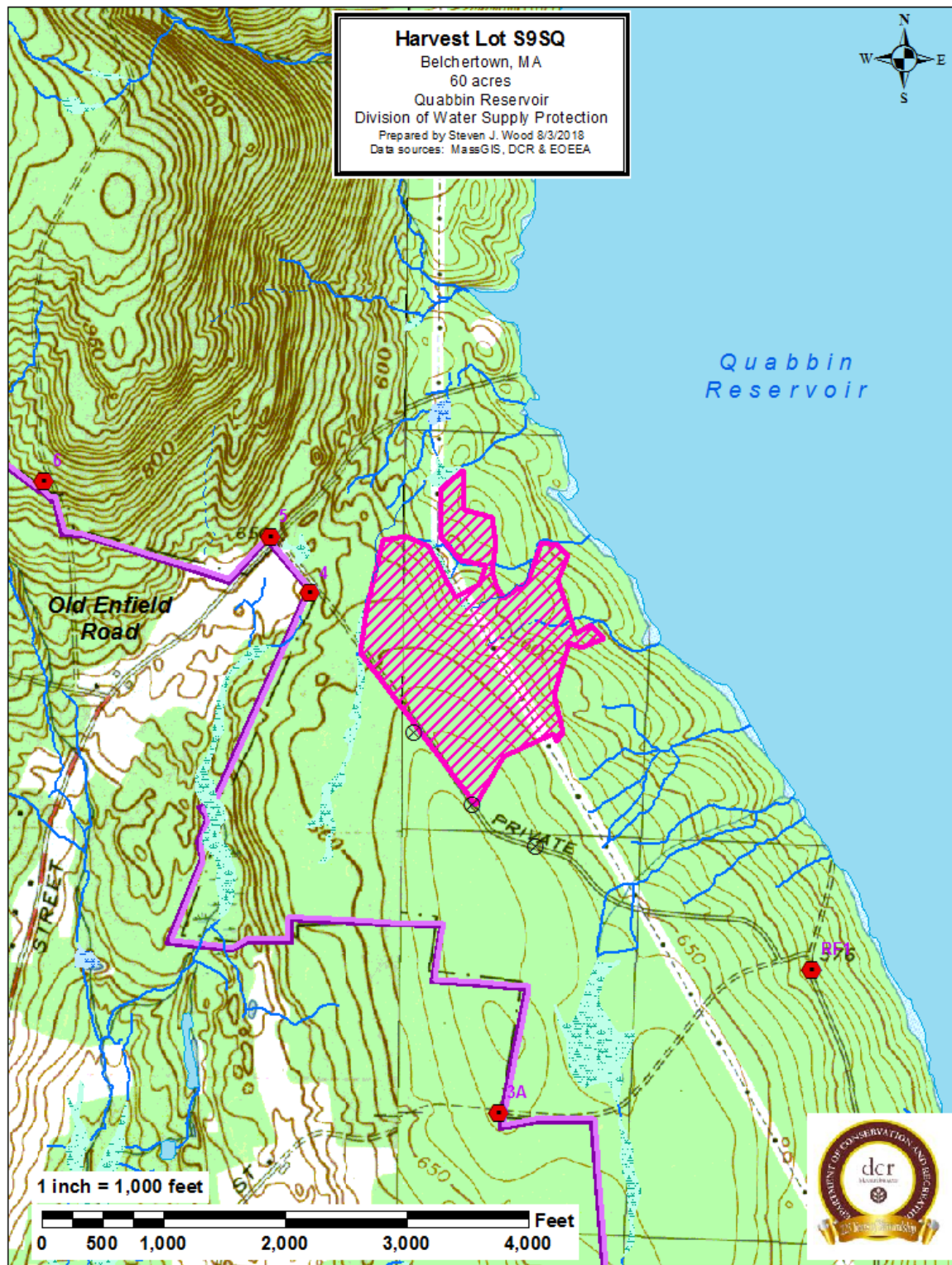


Figure 1f. Forest Cutting Plan

dc



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

FILE # 024.9488.19

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 485 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

Quabbin S&SQ lot, Belchertown
(Early St)

Approval Date 8/23/18

Director's Agent Douglas Hutcheson

DCR Phone No. (413) 545-7020

ISSUED BY:

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

Figure 1g. Forest Cutting Plan