

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

Project Title: South main entrance

DWSP Harvest Permit Number: 1050
DCR Forest Cutting Plan File Number: 0248838-17

Site Information

Watershed: Quabbin Reservoir	Town(s): Belchertown
Acres: 165	Nearest Road: Ware Road
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Quabbin
Forest Types: mixed oak and white pine oak	ACEC?: No
Soils: Mainly Charlton-Hollis rock outcrop with Scituate fine sandy loam.	
Wetland Resources: 4 small streams and several wetlands.	
Vernal Pools present or within 200 feet of harvest: 2	

Harvest Information

Harvest Start Date: 8/15/2017	Harvest End Date: TBD
Number of Wetland Crossings: None	Number of Stream Crossings: possibly 3, typically dry.

Best Management Practices Applied

Stream Crossings	Portable bridge required if flowing otherwise poled ford. Approaches will be stabilized.
Filter Strips	Variable filter strips used with less than 50% of basal area cut if any was cut at all.
Wetland Crossings	No wetland crossings.
Harvesting in Wetlands	No harvesting in wetlands.

DWSP Forester supervising this harvest
Name: Steven J. Wood
Forester License #: 257
Phone #: 1 (413) 323-6921 ext. 156
Email: steven.wood@state.ma.us

NARRATIVE

General Description/Forest Composition/History:

The area to be harvested is located in the town of Belchertown. Lot includes most of the upland portion of DCR property on the south side of Route 9. Abutters are Mass. Fish and Wildlife Herman Covey tract and privately owned farm, woodland and two residential lots.

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.

The primary tree species present are white pine and mixed oaks (predominately red and black oak). Other hardwoods include black and paper birch, red maple, aspen, ash, and hickories. There is one section near the southeast corner with hemlock, mainly suppressed mid-story trees. Along the south facing fence line, south of the main landing there are some unusually large sassafras with smaller ones scattered throughout that area.

The forest here is generally healthy and moderately vigorous. There has been a history of gypsy moth defoliation and hardwoods were totally defoliated again in June of 2017 (after lot was marked and put out to bid).

The soils on this lot are primarily Charlton and Hollis rock outcrop with some Scituate fine sandy loam around the north drainage.

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 area had a light harvest in 1968 and in 1980-1981 had firewood thinnings and salvage of gypsy moth killed trees. These cuts maintained the even-aged structure of the forest and didn't add much to the diversity of species or structure. This harvest should increase structure, and age and species diversity to help achieve goals stated above.

Silvicultural Objectives:

The main goal of this harvest is to establish 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.

To achieve the principles stated above, we will harvest part of the overstory in small groups, up to ½ acre in size, in order to foster regeneration that will be free to grow for an extended time. Groups were placed according to our guidelines. Areas where there were clusters of trees that were declining or had weak stem form, often due to insects, diseases, or storm damage, were specifically targeted. In

areas where there were groups of regeneration created from the previous cuts these were often expanded upon by creating a new abutting group.

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 several stone walls present and many of the boundaries have walls. There are existing breaks and barways in these walls and they will be used where needed for equipment access to avoid creating new breaks in the walls and protect them 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.

There also are some old remains of a temporary CCC camp near gate BL-4. The foundation remaining has been flagged and will be avoided. It is cement and in very poor condition already. There are multiple wells and a cistern associated with this camp but they are outside the harvest area. Otherwise, this area has been determined not to be culturally or archeologically sensitive based on a review by the DCR Archaeologist.

Wildlife/Rare or Endangered Species:

The lot contains no critical habitats or known rare or endangered species. There are two vernal pools which have buffers retained. The uplands are home to a variety of wildlife including deer, turkey, coyote and moose. This area is open to hunting (not within area of restricted Quabbin hunt) and is a popular spot for deer hunters so herbivore browse of regeneration is not much of a problem here.

FIGURES

Figure 1. Forest Cutting Plan

Figure 2. Pre-Harvest Photographs, A-B

Figure 1: Forest Cutting Plan

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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:

The Number 024-8838-17 Case No. _____
Date Rec'd 5/26/17 Nat. Hert. N
Earliest Start 6/13/17 Nat. Hert. Imp. N
River Basin CHICOPPE Pub. Dr. Wat. QUABBIN
Gen. Obj. LT ACRC N

Site Information

Location

Town Belchertown Lot 1050
Road Ware Rd.
Acres 165 Proposed Start Date _____
Vol. MBF 395 Vol. Cds. 610 Vol. Tons 496

Plan Preparer

Name Steven J. Wood
Address DCR, Division of Water Supply Protection
485 Ware Rd.
Town, State, Zip Belchertown, MA 01007
Phone (413) 323-6921 ext. 156
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 \$71000.00

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	BR	
Existing Structure	no	no	no	
Type of Bottom	GR	ST	MU	
Bank Height (ft)	0.5	0.5	0	
Stabilization	CO/SE	CO/SE	CO/SE	

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.

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	120 M	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	158.1 M
Hemlock		Black Oak	103.2 M
Spruce		White Oak	3.5 M
Other Sftwd.		Other Hdwd.	10.3 M
White Ash		Total Mbf	395 M
Beech		Cordwood (Cds)	610
White Birch		SW Pulp (Tons)	496
B & Y Birch		RW 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	OM4	WO4		
Acres	111.6	53.4		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	SE	SE		
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.

Steve Wood
Signature of landowner(s)

5-26-17
Date

Determination and Status 024-8838-17

Approved Disapproved Expires

Cutting Plan ☒ ☐ 5/26/19
Poughmattun 6/6/17

Signature of Service Forester/Director's Agent Date

STEVE VISIT W/ STEVE WOOD 6/1/17

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

Forest Types	Designation of Trees			Type of Cut	Source of Regeneration	
WP White Pine	HK Hemlock	OM Mixed Oak	CI Cut Tree	SH Shelterwood	Intermediate Harvests:	AD Advanced
WK WP/Horn	HH Horn/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	FL 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

Forest Cutting Plan

Landowner DCR, DWSP

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

Town Belchertown

Use this page to provide further explanation or if
Other (OT) was used in any category on pages 3 or 4.

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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, opening boundaries are marked with an orange stripe with a dot on back side, some save trees in openings are also

marked with orange. Harvest is a group selection with openings up to 0.5 acre. There are 76 openings averaging 0.4 acre in size and totaling 32.2

acres. There is some thinning between the openings. Skid trails are flagged between openings with orange and black flagging and/or long horizontal

blue paint stripe. There was an excellent red oak acorn crop in 2016. SC-1 if used will be crossed with a portable bridge if wet. All crossing locations

were dry for most of 2016. There is an NHESP potential pool west of SC-2 on private property which was buffered as if it is a vernal pool.

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.

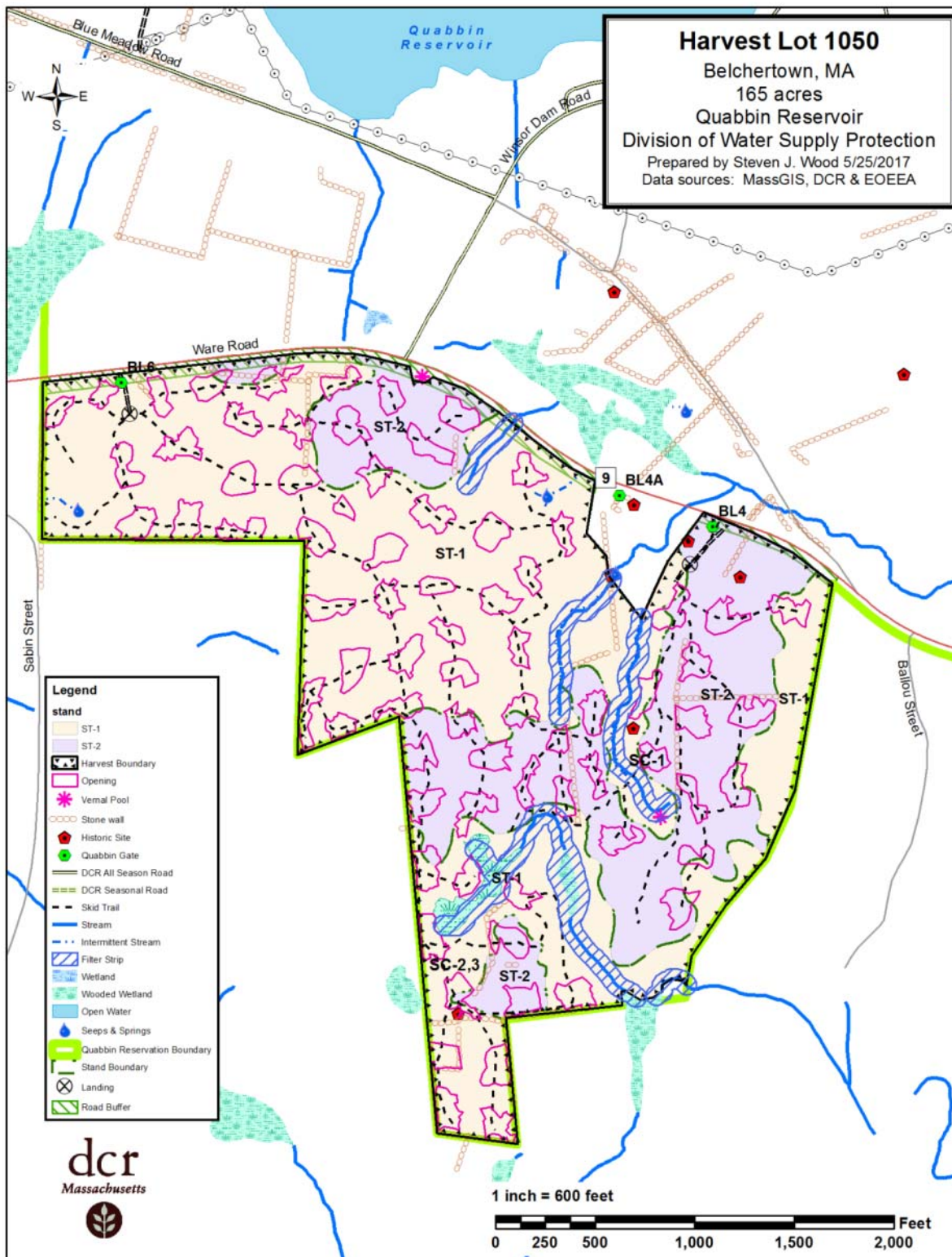
Stand No.	Species to be Cut	Size of Trees to be Cut	Quality of Trees to be Cut	% BA/Acre Removed

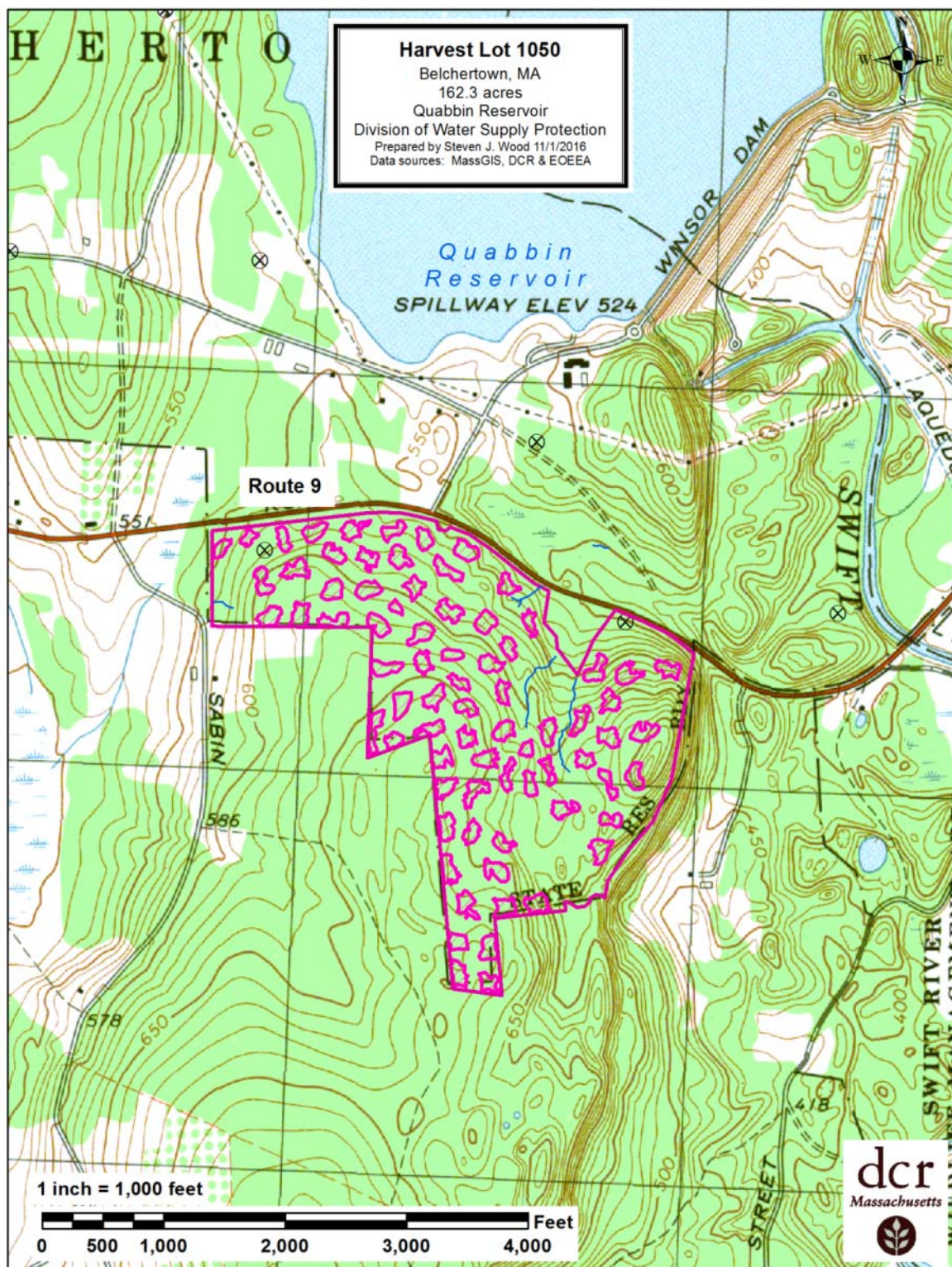
Regeneration & Future Condition

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





dc



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

FILE # 024-8838-17

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 DCR-DWSP 485 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 FO with the Dept. of Conservation
and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the
Ware Rd lot. /"Lot 1050", Belchertown

Approval Date 6/6/17
Director's Agent Douglas Hutcheson
DCR Phone No. (413) 545-7020

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

Figure 2: Pre-Harvest Photographs, A-B

A.



Photo point 1 looking south into a typical area with a pine and oak overstory with past light thinning.

B.



Photo point 2 (main landing) looking south into typical mixed oak stand. Photo taken 6/23/2017, note heavy defoliation of oak, most of which have since put out new leaves.