

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

Project Title: Earley Street
DWSP Harvest Permit Number: 2046
DWSP Proposal ID: PE-13-01A
DCR Forest Cutting Plan File Number: 024-7151-15

Site Information

Watershed: Quabbin
Town(s): Belchertown
Acres: 44
Nearest Road: Earley Street
Natural Heritage Atlas overlap?: No
Public Drinking Water Supply Watershed?: Yes
Forest Types: oak / hardwood, oak / white pine
Area of Critical Environmental Concern (ACEC)?: No
Soils: Scituate fine sandy loams
Wetland Resources: Lot abuts a wetland and small stream to the northwest and small stream to the north which drains east into the Quabbin Reservoir.
Vernal Pools: none known

Harvest Information

Harvest Start Date: 7/27/2016
Harvest End Date: 8/17/2016
Number of Wetland Crossings: none
Number of Stream Crossings: none

Best Management Practices Applied

Stream Crossings: none
Filter Strips: variable width
Wetland Crossings: none
Harvesting in Wetlands: none

DWSP Forester supervising this harvest

Name: Steven Wood
Forester License number: 257
Phone number: 413-323-6921 ext. 156
Email: steven.wood@state.ma.us

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) 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.

Silvicultural Objectives

The 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.

The main treatment at this time is the removal of the overstory in small groups, up to ½ acre in size, in order to foster regeneration (new age class). Some groups were placed where there were clusters of trees that were declining or had weak stem form, often due to insect, disease, or storm damage. 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) 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. Spruce cone middens indicate red squirrel activity.

Figures

Figure 1. 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 8/16

For DCR Use Only:

File Number 034-7151-15 Case No. _____
 Date Rec'd 9.8.14 Nat. Hert. N
 Earliest Start 9.23.14 Nat. Hert. Imp. N
 River Basin CHICODDEE Pub. Dr. Wat. QUABBIN
 Gen. Obj. LT ACEC N

DA

09-08-14A08:55 0265

Site Information

Location pt 2046

Town Belchertown
 Road DCR/DWSP Gate 4 end of Earley ST
 Acres 44 Proposed Start Date 2014
 Vol. MBF 61.5 Vol. Cds. 170 Vol. Tons 40

Plan Preparer

Name Steven Ward
 Address DCR/DWSP Quabbin
485 Ware road
 Town, State, Zip Belchertown, MA.01007
 Phone 413-323-7764-553
 Type of Preparer Other
 *Mass. Forester License # _____
 *Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR/Division Water Supply, Quabbin
 Mailing Address 485 Ware Road
 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				
Existing Structure				
Type of Bottom				
Bank Height (ft)				
Stabilization				

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			

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 page one.

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine		Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	57.5
Hemlock		Black Oak	
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	4
White Ash		Total Mbf	61.5
Beech		Cordwood (Cds)	170
White Birch		SW Pulp (Tons)	40
B & Y Birch		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	NR	WH	WK	
Acres	36	6	2	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SH	SH	SH	
Source of Regeneration	SE/AD	SE/AD	SE/AD	

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.

Donna S. Suter
Signature of landowner(s)

8-29-14
Date

Service Forester

Determination and Status

024-7151-15

Approved Disapproved Expires

Cutting Plan 9-8-2016
Donna Suter 9/9/14
Signature of Service Forester/Director's Agent Date

Extension 1 2 Expires Ser. For. Ints.

Amendment App 1 Dis 1 App 2 Dis 2 1

Final Report and Comments

I hereby certify that the afore described Forest Cutting Plan and all relevant statutes have been substantially complied with.

Donna Suter 8/23/16
Signature of Service Forester/Director's Agent Date

Codes

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

Figure 1b. Forest Cutting Plan page two with final report signature from Service Forestry.

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 DCRADWSP

Town Belchertown

File Number 024-7151-15

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.

Small wooded wetland west of the road is source to the intermitant stream flowing along the north end of the lot.

FS-1 is along this stream, variable width no trees are marked with in 50ft of this stream

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
ST-1	Harvest is basically shelterwood, thinning hardwood establishment will depend on seedling establishment furture entry will be to release advanced regeneration once established, Still Red Oak dominated stand
ST-2	Mixed species watershed protection forest, released/thinned pine should do well Reentry plans same as ST-1
ST-3	Stand may be managed for Sugar Maple tap lot along with other trees around the old home site here, depending on DCR policy

Figure 1c. Forest Cutting Plan page three.

Notes to Service Forester DCR/DWSP lot 2046, inside gate 4, Early street Belchertown

This is a remark of an old lot marking under different marking guidelines. CUT trees marked in "Orange". All others stay, this would include old red reserves, those blacked out and older faded paint. Lot is planned for cut to length systems Processors as well as hand felling allowed. Forwarder transport to landings required on the lot. Main roads flagged with black and orange strip flagging and orange painted arrows. Material will be decked along gravel road as well as on open landing sites. Locations where forwarder enters on the gravel road will be armored with Corduroy or other appropriate material ditch at road edge restored at end of the job. Eastern boundary of the lot along the power lines, Northern boundary the marked filter strip, Western boundary the gravel road, Southern boundary a woods road.

Goals for management Watershed protection forest, multiage structure as well as diverse species mix.

Figure 1d. Forest Cutting Plan narrative notes to Service Forester.

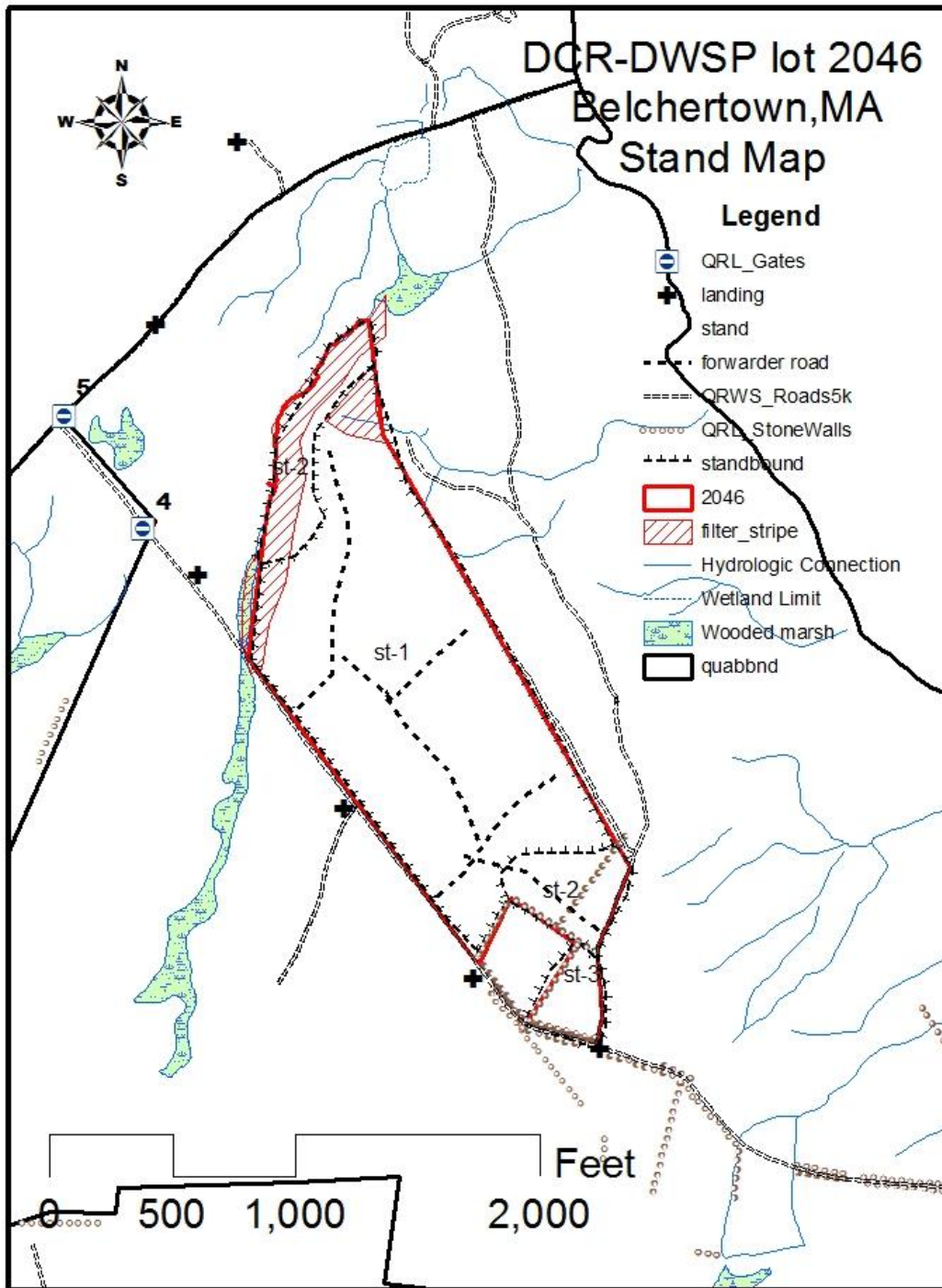


Figure 1f. Forest Cutting Plan stand map.

dc



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

FILE # 024.7151.15

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 Ware Road Belchertown in accordance with the
(Name of Owner) (Address)

provision of M.G.L. Chapter 132, Section 40-46, filed in The Amherst Office with the Dept. of Conservation
and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the
Plot #4, Early St. lot # 2046, Belchertown

Approval Date 9.9.2014
Director's Agent Douglas Hutcherson
DCR Phone No. (413) 545-7070
(413) 545-5752

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

Figure 1g. Forest Cutting Plan certificate.

Figure 2. Pre-Harvest Photo



Photo from before the harvest in July 2016 shows dense tree spacing before the harvest.

Figure 3. Post-Harvest Photo



Photo from after the harvest in June 2018 showing trees now have space to grow wider healthier crowns and root networks.