

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: 1062
DWSP Proposal ID: HA-22-05
DCR Forest Cutting Plan File Number: 309-34012-23

Site Information

Watershed: Quabbin	Town(s): Ware
Acres: 25.1	Nearest Road: Greenwich Plains Rd.
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Yes
Forest Types: Red pine plantation and white pine with hardwoods.	ACEC?: No
Soils: Well drained thick Canton fine sandy loam.	
Wetland Resources: 2 vernal pools, small stream, and several abutting wetlands.	
Vernal Pools: 2 on northern end of lot.	

Harvest Information

Harvest Start Date: 2/8/2023	Harvest End Date: 1/24/24
Number of Wetland Crossings: 1	Number of Stream Crossings: 1 (infrequently used)

Best Management Practices Applied

Stream Crossings	Existing stone culvert in cart road, portable bridge used to protect structure. Will be seeded in spring along with all main skid trails.
Filter Strips	Variable width filter strips used.
Wetland Crossings	The crossing is about 12' wide but occasionally floods so about 50' was poled with 2 iron culverts in existing stream channel. These are now removed, and area will be seeded in spring.
Harvesting in Wetlands	There is no harvesting in wetlands.

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 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 red pine was planted in the early '40's possibly from seedlings raised in nurseries run by the MDC. These seedlings were planted on areas of old fields/pastures that hadn't fully reverted to forest yet.

The primary tree species present are white pine and mixed oaks (predominately red oak). Other hardwoods include black and paper birch, red maple, aspen, ash, and hickories. Hemlock occurs in small groups, mainly as suppressed under-story or mid-story trees.

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. The red pine plantations that were present in several locations here have been declining for over a decade, mainly due to infestation by the non-native red pine scale. Additionally red pine is not a native species of this area.

Adjoining areas of white pine and mixed hardwoods were also treated to encourage more diverse regeneration to become established on these areas which are only accessible through the red pine stands due to property boundaries and wetlands. A small abutting stand of pitch pine (locally uncommon) with white pine and hardwoods was also treated to release some of the pitch pine and hopefully encourage it to regenerate. Interestingly there was an abundance of suppressed hickory regeneration and saplings here which is also locally uncommon. The added light to forest floor should allow these to thrive or sprout vigorously if ended up being cut or damaged in the harvest.

Silvicultural Objectives:

A goal of this harvest is to build on the success of the work started in 1990 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, and the resulting young forest will sequester carbon rapidly while maturing into the next stand. As this natural succession progresses habitat for many species will also be created from early successional to late seral stages. With proper management this process can be repeated indefinitely, all the while supplying clean water and air, habitat, carbon sequestration and storage, and the wonderful wood products that society needs, along with many other benefits.

Guided by the principles stated above, the primary purpose of this harvest is the establishment of a new age class by harvesting part of the overstory in small groups, up to 2 acres in size, to foster regeneration. 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 to be cut. Where there were patches of regeneration created from the previous cuts these were often expanded upon by harvesting some of the adjacent over-story or creating a new abutting opening.

Wherever possible wildlife habitat features were maintained and protected, such as snags (dead trees) and trees with large 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 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 cultural resources 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 other critical habitats or known rare or endangered species. The uplands are home to a variety of wildlife including deer, turkey, coyote, bobcat, and moose.

FIGURES

Figure 1. Forest Cutting Plan

08-25-22A 08:58 RCVD

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 <u>304.34012-23</u>	Case No. <u>—</u>
Date Rec'd <u>8/25/22</u>	Nat. Hert. <u>NO</u>
Earliest Start <u>9/12/22</u>	Nat. Hert. Imp. <u>NO</u>
River Basin <u>Chicopee</u>	Pub. Dr. Wat. <u>Quabbin</u>
Gen. Obj. <u>Long Term</u>	ACEC <u>NO</u>

Site Information

Location

Town Ware DWSP lot 1062

Road Greenwich Plains Road

Acres 25.1 Proposed Start Date Sept. 2022

Vol. MBF 147.2 Vol. Cds. 167 Vol. Tons 172

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

Best Management Practices

Stream Crossings

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing	CU			
Existing Structure	Y			
Type of Bottom	MU			
Bank Height (ft)	0.2'			
Stabilization	BR/SE			

Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing	12			
Mitigation	OT			
Stabilization	CO/SE			

Filter Strips

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

Codes

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	
		OT Other			

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 15,000

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.

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

Note SC-1 is an old stone culvert in cart rd. SJW

Initial field inspection 9/12/22

Harvester is allowed to operate within

the edge of FS-1. SC-1 to be

stabilized with wooden mats during

the harvest.

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

pg 3 of 5

Figure 1a: Forest Cutting Plan (continued).

Products to be Harvested*			
Species	Mbf/Cds		Mbf/Cds
White Pine	54.7 M	Red Maple	14 M
Red Pine	69.7 M	Sugar Maple	
Pitch Pine		Red Oak	2.2 M
Hemlock		Black Oak	2.6 M
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	
White Ash	3.6 M	Total Mbf	147.2 M
Beech		Cordwood (Cds)	167
White Birch		SW Pulp (Tons)	172
B & Y Birch	0.4 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.

Cutting Standards				
Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	RP4	WH4		
Acres	12.9	12.2		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	SE	SH		
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.

8/9/2022

Signature of landowner(s) Date

Determination and Status

Approved ☒
Disapproved ☐
Expires 8/25/24

Cutting Plan

9/9/22

Signature of Service Forester/Director's Agent Date

Extension ☐ 1 ☐ 2 ☐

Amendment ☐ App 1 ☐ Dis 1 ☐ App 2 ☐ Dis 2 ☐

Expires

Ser. For. Ints.

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

Codes

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

pg 4 of 5

Figure 1b: Forest Cutting Plan (continued).

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 Ware

File Number _____

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.

Cut trees marked with blue paint, some save trees marked with orange. RP stand is a final harvest with good seedling to pole sized WH established.

NE corner WH contains many pitch pine which are being saved, also various sized hickory and some sugar maple. Much of the WH type appears to not have been cut previously and will be treated as an irregular shelterwood saving most of the sugar maple, better formed oak and the best formed

RM, WP along with some various sized ash. Most but not all of ash has EAB. WC-1 to be felled or bridged. gdw

Would like to allow tracked harvester to operate in edge of filter strip to lift out stems to do less damage to residual trees and understory.

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

Stand Map
Quabbin Lot 1062
 Greenwich Plain Road
 Ware, MA

Prepared by:
 Steven J. Wood
 MA DCR DWSP
 Quabbin & Ware River Forestry

Scale: 1:5,000
 1 inch = 417 feet
 Created: 8/8/2022

Data sources:
 MassGIS, DCR, & EOEEA

Legend:

- Town Boundary
- Minor Street
- Quabbin Reservoir Reservation
- DCR DWSP Gate
- Landings
- Forest Road/Trail
- Skid Trails
- Stream Crossing
- Wetland Crossings
- Filter Strips
- Stream/River: Intermittent
- Stream/River: Ephemeral
- Swamp/Marsh: Shrub Swamp
- Swamp/Marsh: Wooded
- DCR Verified Vernal Pool
- Red Pine
- WP/Hardwood
- Harvest boundary
- Stone Walls


Map Labels:

Gate 50
 QUABBIN DIKE ROAD
 GREENWICH PLAIN ROAD
 EAST STREET
 WARE
 SC-1
 WC-1
 FS-1
 ST-1
 ST-2
 49

Scale:
 0 250 500 1,000 1,500 2,000 ft

DCR Massachusetts

Figure 1c: Forest Cutting Plan (continued).

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

FILE # 309-34012-23

W

FOREST CUTTING PLAN CERTIFICATE

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

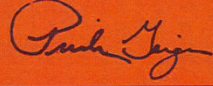
This certifies that DCR-DWSP 485 Ware Rd, Belchertown, MA 01007 in accordance with the
(Name of Owner) (Address)

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
Ware DWSP 1062 lot.
(Greenwich Plains Rd)

Approval Date 9/9/22

Director's Agent Jacob Macko

DCR Phone No. 857-202-2824

ISSUED BY: 

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