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

**Project Title:** Gate 49 White Pine DWSP Harvest Permit Number: 1063

DWSP Proposal ID: HA-22-5

DCR Forest Cutting Plan File Number: 309-42840-24

#### **Site Information**

Watershed: Quabbin

Town(s): Ware Acres: 34.8

Nearest Road: Greenwich Plains Road Natural Heritage Atlas overlap: No

Public Drinking Water Supply Watershed: Quabbin Forest Types: White pine and white pine hardwoods Area of Critical Environmental Concern (ACEC): No Soils: Canton fine sandy loam, Charlton-Hollis

Wetland Resources: None, though an intermittent brook starts just north of the northeast

corner of the lot Vernal Pools: Two

#### **Harvest Information**

Harvest Start Date: 11/26/2024 Harvest End Date: 2/24/2025

Number of Wetland Crossings: Zero Number of Stream Crossings: Zero

#### **Best Management Practices Applied**

Stream Crossings: N/A

Filter Strips: N/A

Wetland Crossings: N/A Harvesting in Wetlands: N/A

### **DWSP Forester supervising this harvest**

Name: Douglas Hutcheson Forester License number: 375 Phone number: (413) 323-6921 Email: douglas.hutcheson@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 19<sup>th</sup> or early 20<sup>th</sup> century, it reverted to forest. Aerial photo from 1926 shows this area as wooded. Most of the overstory is estimated to be 95-110 years old. A few of the older trees here in 1926 were damaged or blown down by the 1938 hurricane.

The primary tree species present are white pine (77% of Basal Area) and mixed oaks (predominately red oak (7% of BA). Other hardwoods include black and paper birch, red maple, aspen, ash, and hickories. Hemlock occurs in small groups, mainly as suppressed mid-story trees on the northeastern section.

#### 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- or large-scale disturbances such as diseases, insect infestations, ice storms and hurricanes. This area is mostly even-aged white pine with small (mainly 0.1-0.5 acre) openings created by harvests in 2006 and 2008. 2023 regeneration survey showed these openings are 100% regenerated with black birch and are likely to retain that composition till management or natural disturbance changes that. The current harvest will create larger open areas which should regenerate into a more diverse mix of species but at the least will create another age class of vigorously growing seedlings and sprouts and will further release the previously established regeneration.

#### Silvicultural Objectives

The goal of this harvest is to build on 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 in overstory is being maintained by reserving groups and individuals of some of the dominate, healthy and vigorous individuals of all species present, notably red and white oak, hickory, white birch and white pine. This combination of structural and species diversity builds resistance and resilience into the forest.

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, in order 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 harvested. Where there were groups of regeneration created from the previous cuts these were 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**

Stone walls are numerous throughout this area. There are many breaks and barways in these walls and they can be used as crossing points for skid trails to protect the stone walls during the harvest, as was done in the past. 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

There is a vernal pool within the northwest section of the lot and another one abutting the lot to the northeast. Both were created when gravel/rock was removed, probably during creation of Goodnough Dike. Both have BMP's and filter strips consistent with our current guidelines. The lot contains no other critical habitats or known rare or endangered species. These uplands are also home to a variety of wildlife including bobcat, deer, turkey, coyote, and moose.

Location					Landowner
Town Ware DWSP	Lat 1063				Name DCR, Division of Water Supply Protection
Road Greenwich Pla	ains Rd.			da de	Mailing Address 485 Ware Rd.
Acres 34.8		osed Start			Town, State, Zip Belchertown, MA 01007
Vol. MBF 340.8 Vo	ol. Cds	182_ \	ol. Tons	379	Phone (413) 213-7903
					Ch61 61A 61B Stew *Case #
Plan Preparer		LANGE TO THE	_		FSC CR CR Holder
Name Steven J. Woo			By Alfa.		Licensed Timber Harvester**
Address DCR, Div. of	Water Su	pply Pro	tection		
485 Ware Road		10.0100	7	-	Name Stephen Glaszez Address 171 Old Enfield Road
Town, State, Zip Belch	nertown, f 13-7944	UUTU AIV	1	150 100	Town, State, Zip Belchertown, MA 01007
Phone (413) 2  Type of Preparer MA Li		orester	ele ye	SIGN BALL	Phone 413-362-9418
*Mass. Forester License				re B	Mass. Lic. Harvester # 2025 - 1156
*Required for land unde		h61A or	Forest Ste	ewardship	**This information may be supplied after the plan is approved, but work begins.
Stream Crossing	s				Harvesting in Wetlands
Stream crossing	10 P 7 St 193				Indicate location on map HW-1 HW-2 HW-3
Indicate location on map	SC-1	SC-2	SC-3	SC-4	Forest Type (see pg 2)
Type of Crossing					Acres to be Harvested
Existing Structure	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Control of the	Resid. Basal Area
Type of Bottom  Bank Height (ft)		THE REAL	TROUGH I		(>50%?)
Stabilization		1911015	18 THE R. P. LEWIS CO., LANSING, MICH.	1,020(2)	
Wetland Crossing	16	100			Service Forester Comments
	Mark Colons	WC-2	WC-3	WC-4	
Indicate location on map	WC-1	WC-2	WC-3	WC=4	No NHESP impact - see attached
Length of Crossing				404445	
Mitigation			FORWER!	No. 19 A	
Stabilization		11/3/3		M. 188 AU	
Filter Strips					
Indicate location on map	FS-1	FS-2	FS-3	FS-4	
Width (50', 100', or VA)		三明 法			
					1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
ype of Preparer F Mass. Lic. For CU Culter Lic. Tim. Har BR Bridg Timber Buyer D Landowner O Other O Other O Other O Other O Other	ert SE e Mi CC ST	J Mulch Corduro Stone	DR y OT	ation Frozen Dry Other	Type of Bottom LE Ledge ST Stony MM Mud GR Gravel OT Other  Note:  Applicant must provide DCR with all relevant inform before plan may be approved and cutting may begin some forestry activities, such as prescribed burning positicide or fertilizer application may require additionally application and produce and p

#### \*Note: Volumes 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. Mbf/Cds Mbf/Cds Species Red Maple 4.8 M 299.1 M White Pine **Cutting Standards** Red Pine Sugar Maple 15.4 M reatment Pitch Pine Red Oak ST-2 ST-3 ST-4 14.2 M Indicate location on map Black Oak Hemlock WH WP White Oak 0.8 M Forest Type Spruce Forest 7.0 27.8 Other Sftwd. Other Hdwd Acres LT Landowner Objective 340 B White Ash 3.5 M Total Mbf CT Designation of Trees 182 Cordwood (Cds) Beech Type of Cut SE SW Pulp (Tons) 379 White Birch Source of Regeneration AD AD HW Pulp (Tons) B & Y Birch Black Cherry Chips (Tons) 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. If arvest 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. andowner 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. 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 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. 6/6/2024 Signature of landowner(s) Date **Final Report and Comments Determination and Status** I hereby certify that the afore described Forest Cutting Plan Approved Disapproved Expires have been substantially complied with. service Forester 6113126 V Signature of Service Forester/Director's Agent Cutting Plan 9/11/25 Joed A Marks 6/28/24 Signature of Service Forester/Director's Agent Ser. For. Ints. Expires 2 1 Extension App 2 Dis 2 Dis I Amendment Designation of Trees CT Cut Tree LT Leave Tree SB Stand Boundary OT Other Landowner Objective LT Long-term Hgt. ST Short-term Hgt. is used an explan Source of Regeneration Forest Types WP White Pine WK WP/Hem WH WP/Hdwd WO WP/Oak HK Hemlock OM Mixed Oak HH Hem/Hdwd RM Red Maple BC Blck Cherry BE Bec/Bir/Map SF Spruce/Fir OB Oak/Hdwd SM Sugar Maple OR N Red Oak PP Pitch Pinc AD Advanced SE Natural Seed PL Plant CO Coppice DS Direct Seed OT Other Intermediate Harvests: Intermediate Harvests: CT Commercial Thin NT Non Com Thin Non-Standard Systems:\* HG Highgrade\* DL Diameter Limit\* OT Other\* Red Spruce \*If Other (OT) or a non-standard system is used an explanation must be given on attached narrative page

Products to be Harvested\*

## **Forest Cutting Plan**

Narrative Page (Effective Date: 3/15/16)
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
 309 - 42804 - 24

SdM

DIVI

esignation of Trees

Regeneration & Future Condition Desi

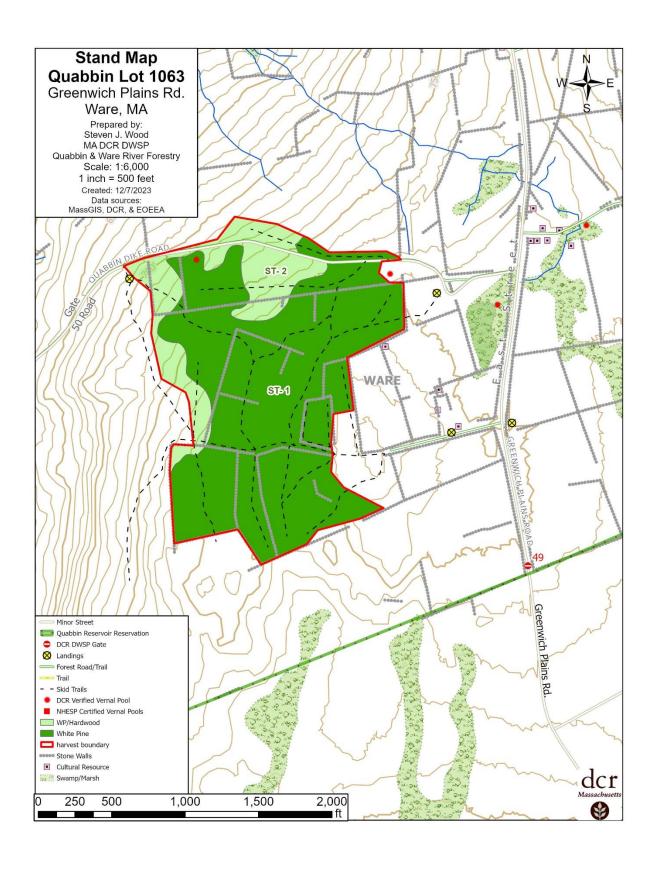
Use this Section to provide further explanation or if Other (OT) was used in any category in the Best Management Practices Section on Page 3. Cut trees marked with blue paint, orange paint on some save trees. Harvest boundary and protected areas marked with double stripe paint or pink flagging. Area has been cut several times previously with groups of mostly black birch but also some white pine and other hardwoods established. ST-1 has existing openings to about an acre created from irregular shelterwood. These will be expanded upon with groups of better formed, vigorous WP, RO, WO and HI retained scattered throughout stand as seed sources, carbon storage, age and diversity structure. St-2 has a more even shelterwood like overstory. Harvest in this stand will leave a more regularly spaced overstory of the same species individually and in groups. Note very heavy seed year in 2023 for WP, RM and SM. Buffer strips were left around the 2 vernal pools.

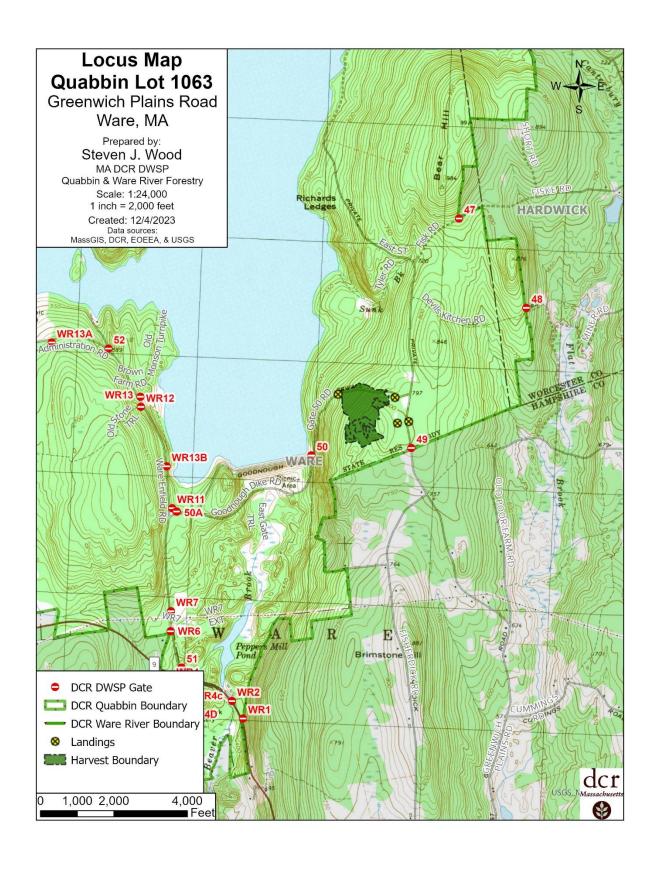
Use this Section to describe the types of trees to be harvested and/or retained if Other (OT) was used for "Designation of Trees" in the Stand Treatment Section on page 4. Additional narrative description may be added on a separate page.

	Describe Trees to be Cut			Describe Trees to be Left			% BA/AC	
Stand No.	Species	Size	Quality	Species	Size	Quality	Cut	Left
Park of								
Frank II.								

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 Cur" 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.	Describe what t	Desired Future Condition he stand is expected to look like five years from the harvest, including the condition of the overstory & understory
	Wellow Stolls	





FILE # 309 - 42804 - 24

## FOREST CUTTING PLAN CERTIFICATE

peration is to take place.
elcher from MA in accordance with the
with the Dept. of Conservation to cut forest products upon the
Priscilla E. Geigis, Director Division of State Parks and Recreation