

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

Project Title: Top of 18
DWSP Harvest Permit Number: 3150
DWSP Proposal ID: PR-16-26B
DCR Forest Cutting Plan File Number: 204-8836-17

Site Information

Watershed: Quabbin
Town(s): New Salem
Acres: 36.5
Nearest Road: Hunt Road
Natural Heritage Atlas overlap?: No
Public Drinking Water Supply Watershed?: Yes
Forest Types: white pine/hardwood, white pine/oak, oak hardwood
Area of Critical Environmental Concern (ACEC)?: No
Soils: The dominant soil types are Charlton-Hollis-Rock outcrop complex; Canton fine sandy loam; Scituate fine sandy loam, extremely stony; and Canton fine sandy loam, extremely stony
Wetland Resources: none
Vernal Pools: none

Harvest Information

Harvest Start Date: 04/18/2019
Harvest End Date: 11/12/2019
Number of Wetland Crossings: none
Number of Stream Crossings: none

Best Management Practices Applied

Stream Crossings: none
Filter Strips: The filter strip shown on the Cutting Plan is around an intermittent stream near the lot boundary but no cutting or forwarding of wood will take place within the filter strip.
Wetland Crossings: none
Harvesting in Wetlands: none

DWSP Forester supervising this harvest

Name: Richard G MacLean, Helen Johnson
Forester License number: 383 (Johnson)
Phone number: 413-323-6921 ext. 553
Email: richard.maclean@state.ma.us

Narrative

General Description/Forest Composition/History

Lot 3150 is located within DCR-DWSP Gate 18 at the end of Hunt Rd. in New Salem, and just east of Lot 3144. The harvest area is composed of roughly three stand types, White Pine/Oak, White Pine/Hardwood, and Oak/Hardwood, with most of the harvest to occur within the White Pine stand types. These stands have a canopy dominated by white pine over black birch regeneration, with a minor canopy component of oak and mixed hardwoods.

The silvicultural goals for the harvest are to increase the age and species diversity of the forest through group selection with retention silviculture. Poorly formed and unhealthy canopy dominant white pine was targeted for group selection, especially where collocated in areas where black birch was regenerated in near monoculture, or areas with diverse hardwood seed sources in the canopy or mid-canopy. We are hoping that by removing the canopy white pine while retaining the healthy canopy hardwoods we can stimulate the release of those canopy hardwoods and seed/regeneration response more diverse than the current black birch understory. There are no streams or wetlands in either plantation. The dominant soil types are Charlton-Hollis-Rock outcrop complex; Canton fine sandy loam; Canton fine sandy loam, extremely stony; and Scituate fine sandy loam, extremely stony. These are moderately to somewhat excessively drained glacial till soils derived from granite, gneiss, and schist.

Site Selection

This harvest is intended to help improve species and age diversity of the forest to achieve DWSP goals for forest age class and species diversity. Historically, intense deer browse reduced the species diversity of tree regeneration for several decades within the Quabbin, where hunting was not allowed and natural predators were absent. Deer preferentially browsed certain species (such as oaks and maples) while leaving others (primarily white pine and black birch). This stand has low diversity in the understory regeneration, mostly comprised of low deer preference species of white pine and black birch.

Silvicultural Objectives

With browse pressure reduced in recent years, this harvest will open new regeneration opportunities for the diverse hardwood seed sources in the overstory and open up light for existing regenerating saplings to grow. Group selection with retention silviculture here targets stands of white pine with high understory black birch regeneration with openings up to 2 acres in size. Mid story hardwood of a diverse species composition is aggressively retained to provide a large seed source for the exposed soil after harvest. Smaller half to one-acre openings are targeting two oak hardwood stands with poor form and vigor to encourage regeneration of existing oak/hardwood seedlings/saplings. With low understory diversity will be harvested, Advance regeneration and mature trees of native species are being retained and protected wherever possible.

Cultural Resources

This lot contains stone walls both interior to and along the lot boundaries. Additionally, there is an old stone lined well located adjacent to the lot, but outside of any area of harvest activity. All cultural features are being protected and avoided as much as possible. Existing barways (breaks in walls) are being utilized to minimize damage.

Rare or Endangered Species

This lot contains no known rare or endangered species.

Figures

Figure 1. Forest Cutting Plan

05-26-17P02:51 PCV
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 204-883617 Case No. —
 Date Rec'd 5/26/17 Nat. Hert. NO
 Earliest Start 6/13/17 Nat. Hert. Imp N/A
 River Basin Chicopee Pub. Dr. Wat. Quabbin
 Gen. Obj. LT ACEC NO

Extension #1 (6/9) Final (11/9)

Site Information

Location

Town New Salem | Lot 3150
 Road Hunt Rd. | Quabbin Gate 18
 Acres 36.5 Proposed Start Date Summer 2017
 Vol. MBF 81.2 Vol. Cds. 80 Vol. Tons 49

Plan Preparer

Name Richard MacLean & Helen Johnson
 Address DCR-DWSP Quabbin Section
485 Ware Road
 Town, State, Zip Belchertown, MA 01007
 Phone 413 323-6921 x 553
 Type of Preparer Mass. Licensed Forester
 *Mass. Forester License # 383 (Helen Johnson)
 *Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR-DWSP Quabbin Section
 Mailing Address 485 Ware Road
Richard.MacLean@state.ma.us|Helen.Johnson@state.ma.us
 Town, State, Zip Belchertown, MA 01007
 Phone (413) 323-6921 x553 | (978) 544-6343
 Ch61 61A 61B Stew *Case #
 CR CR Holder

Licensed Timber Harvester**

Name TBD
 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 No 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 No 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 None

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	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			

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

Figure 1a: Forest Cutting Plan page one.

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	73.3	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	3.1
Hemlock		Black Oak	0.3
Spruce		White Oak	0.3
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	81.2
Beech		Cordwood (Cds)	80
White Birch		SW Pulp (Tons)	49
B & Y Birch	4.1	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.

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.

Signature of landowner(s) _____ Date 5-25-17

Service Forester

Determination and Status 204-8836-17

Approved Disapproved Expires 5/26/19

[Signature] _____ 6/5/2017
 Signature of Service Forester/Director's Agent Date

Extension Expires 5/26/20 Ser. For. Ints. [Signature]

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] _____ 11-15-19
 Signature of Service Forester/Director's Agent Date

Codes

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

*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 page two.

Forest Cutting Plan

Landowner DCR-DWSP Quabbin

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

Town New Salem | Lot 3150

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

File Number 204-8836-17

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.

FLAGGING: Pink "Do Not Cut" = trees to be protected | Blue = skid road | Orange = Edge of opening

BLUE PAINT: Dot = cordwood or pulp | Three vertical dots = edge of stand.

Horizontal line = sawlog

Vertical line = TSI

"X" = cull

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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ST-1		
ST-2		
ST-3		
ST-4		

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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ST-1	
ST-2	
ST-3	
ST-4	

Figure 1c: Forest Cutting Plan page three.



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

FILE # 204-8836-17

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 Quabbin 485 Ware Rd, Belchertown 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

Hunt Rd/Gate 18 lot. (Lot 3150), New Salem

Approval Date 6/5/17
 Director's Agent Fletcher Clark
 DCR Phone No (413) 262-2367

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

Figure 1d: Forest Cutting Plan certificate.

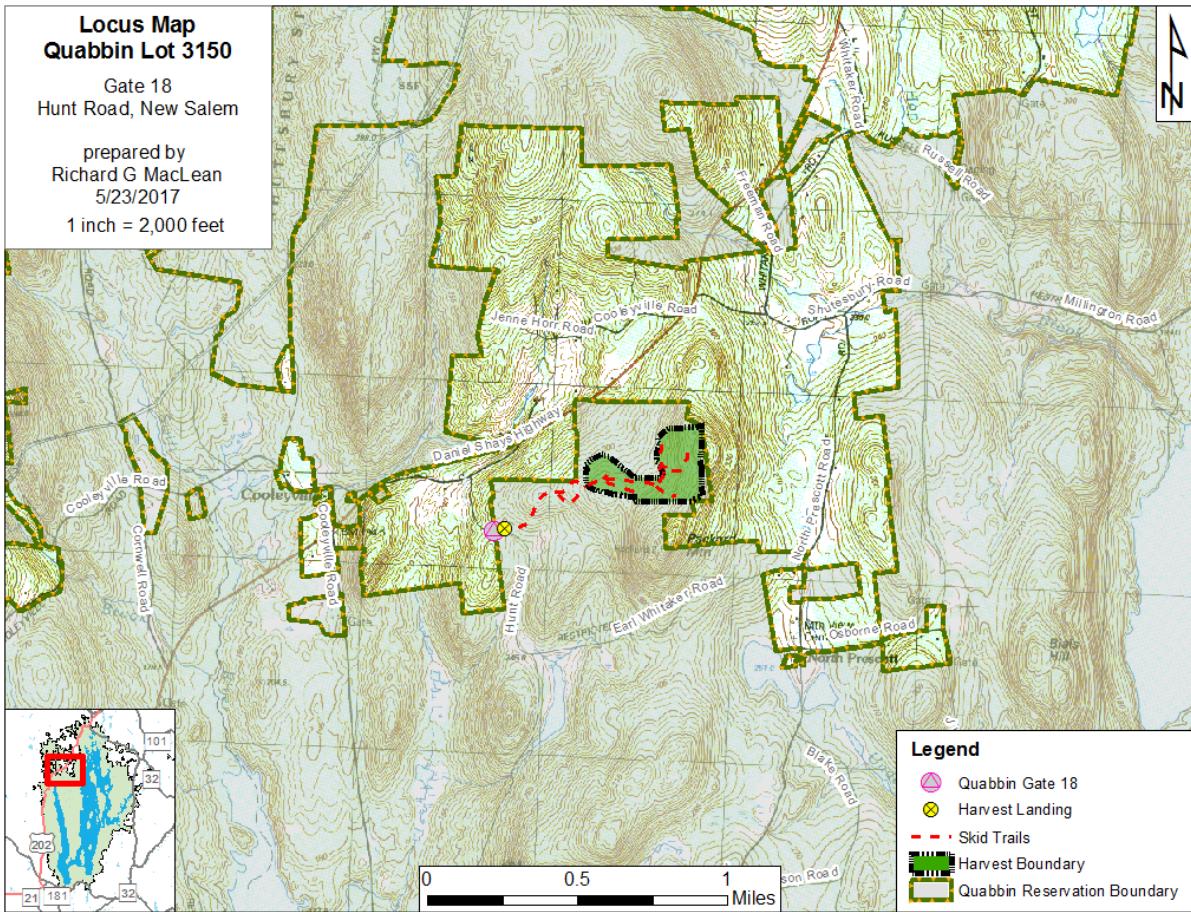


Figure 1e: Forest Cutting Plan locus map.

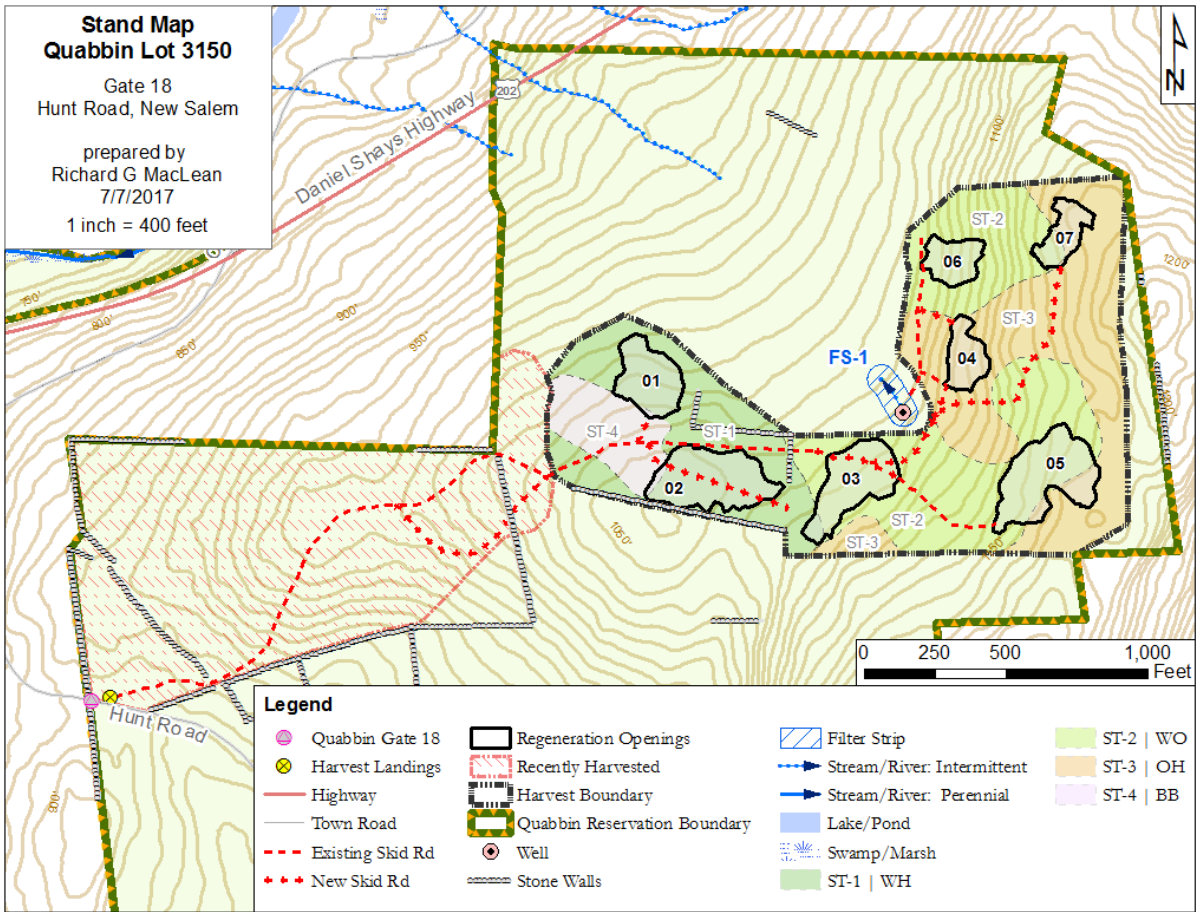


Figure 1f: Forest Cutting Plan stand map.



Figure 2a: Pre-Harvest Photo, June 2017. This view into the stand was captured facing northeast from the southern edge of the harvest into group 02.