

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

**Project Title: Birch Drive**

DWSP Harvest Permit Number: 3167

DWSP Proposal ID: PT-17-14

DCR Forest Cutting Plan File Number: 234-32393-21

***Location Information***

Watershed: Quabbin

Town(s): Petersham

Acres: 34.7

Nearest Road: Birch Drive

Natural Heritage Atlas overlap?: Yes

Public Drinking Water Supply Watershed?: Yes

Area of Critical Environmental Concern (ACEC)?: No

***Site Information***

Forest Types: red oak, hemlock-hardwood

Soils: Most of the harvest area has Montauk-Canton association soils, which are extremely stony and well drained. They're rated as having slopes of 15-45%, but slopes above 20% have been excluded from the cutting and operations areas. In addition, along the southern edge of the lot there are about 3.2 acres of Woodbridge-Paxton association soils, very stony, moderately well drained, with 3-15 % slopes.

Wetland Resources: A wetland traverses the lot from south to north, ending in an intermittent stream.

Vernal Pools: none

***Harvest Information***

Harvest Start Date: January 28, 2022

Harvest End Date: January 5, 2023

Number of Wetland Crossings: none

Number of Stream Crossings: one

***Best Management Practices Applied***

Stream Crossings: Temporary bridge over intermittent stream.

Filter Strips: Variable width filter strip on the stream and associated wetland.

Wetland Crossings: none (the wetland crossing on the cutting plan was not used).

Harvesting in Wetlands: none

***DWSP Forester supervising this harvest***

Name: Helen Johnson

Forester License number: 383

Phone number: (617) 733-2937

Email: Helen.Johnson@mass.gov

## **Narrative**

### ***General Description/Forest Composition/History***

Lot 3167 is located on the northwest side of Birch Drive in Petersham, east of Monson Turnpike. The terrain is highest to the south, sloping gradually to the north within the lot and steeply towards Monson Turnpike outside the west harvest boundary.

In the lower northwest corner there's an eight acre hemlock-hardwood stand dominated by hemlocks that are in decline due to infestation by hemlock wooly adelgid. There is little advance regeneration in this stand to hold the soil at the top of the steep slope to the west, should a large portion of the overstory die or get blown over.

The remainder of the harvest area is a more diverse mix of red oaks, black birch, paper birch and hemlock, with occasional white pine, white oak, yellow birch, beech, and white ash. Here too forest health is declining due to spongy moth, nectria canker and beech bark disease.

### ***Site Selection***

The primary goal of harvesting on the watershed is to create and maintain a forest that is resilient to and can quickly recover from small and large scale disturbances, including diseases, insect infestations, ice storms, microbursts, and hurricanes. The ideal way to achieve such resiliency is to foster a forest of diverse species at various stages of development (seedlings through large legacy trees) that are actively growing and regenerating. This combination of structural and species diversity builds resistance and resilience into the forest.

This site was chosen for harvesting because of its inadequate resistance and resilience to disturbance due to inadequate regeneration, especially in the hemlock-hardwood stand, and widespread forest health issues.

### ***Silvicultural Objectives***

The primary silvicultural objective for this lot is to work towards DWSP's goal of promoting forest resilience by increasing age class diversity through small group/patch selection. This is being done by creating openings where clusters of trees are diseased, declining, or have poor stem structure. Declining hemlock and nectria-infected birch are particularly being targeted for removal. Trees on the perimeter of openings have large, healthy crowns (hence strong seed bearing potential), stable stem structure, and are either vertical or leaning away from the openings so that they are less likely to damage regeneration in the opening if they fall in the future.

Selective improvement cutting between groups is also being done for the purpose of increasing tree vigor and seed production, especially of oaks, and improving overall forest health. The healthiest, most vigorous individual trees of all species are being retained in order to maintain existing biodiversity. Den trees, potential den trees, snags, large logs, trees with stick nests,

and potential nest trees (those with 3-way forks or similar canopy structures) are being retained to the greatest degree possible as valuable wildlife habitat.

### ***Cultural Resources***

The DCR Archeologist identified this lot as Not Sensitive, with the only known cultural resources being stone walls that border DWSP property near Birch Drive. If additional cultural resources are located in the course of the harvest they will be protected, mapped, photographed, and reported to the DCR Archeologist.

### ***Rare or Endangered Species***

NHESP has not identified any rare or endangered species in the project area.

Forest Cutting Plan

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06-08-21P03:48 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: 3/15/16) *Final (10/22)*

For DCR Use Only:	
File Number	234-32993-21 Case No. <i>NA</i>
Date Rec'd	6-8-21 Nat. Hert. <i>NO</i>
Earliest Start	6-23-21 Pub. Dr. Wat. <i>NO</i>
River Basin	Chicopee ACEC <i>NO</i>
Gen. Obj.	LT

Site Information

### Location

Town Petersham QUABBIN LOT 3167  
Road Birch Drive  
Acres 34.7 Proposed Start Date 6/22/2020  
Vol. MBF 65 Vol. Cds. 180 Vol. Tons 77

### Plan Preparer

Name Helen Johnson, Watershed Forester  
Address DCR-DWSP Quabbin Section  
485 Ware Road  
Town, State, Zip Belchertown, MA 01007  
Phone 617-733-2937  
Type of Preparer LF  
\*Mass. Forester License # 383  
\*Required for land under Ch61, Ch61A or Forest Stewardship

### Landowner

Name DCR-DWSP, Quabbin Section (ATTN: Forestry)  
Mailing Address 485 Ware Road  
Town, State, Zip Belchertown, MA 01007  
Phone 617-733-2937  
Ch61  61A  61B  Stew  \*Case #  
FSC  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

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing	PO			
Existing Structure	NO			
Type of Bottom	ST			
Bank Height (ft)	<1'			
Stabilization	CO			

### Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing	125'			
Mitigation	FR/DR			
Stabilization	OT			

### 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	CD Corduroy	OT Other	MU Mud
LO Landowner	PO Piled	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.

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

Forest Products	Products to be Harvested*			
Stand Treatment	Species	Mbf/Cds	Mbf/Cds	Mbf/Cds
	White Pine	1.5	Red Maple	
	Red Pine		Sugar Maple	
	Pitch Pine		Red Oak	21.1
	Hemlock	11.8	Black Oak	2.0
	Spruce		White Oak	
	Other Sflwd.		Other Hdwd.	4.3
	White Ash		<b>Total Mbf</b>	<b>40.7</b>
	Beech		<b>Cordwood (Cds)</b>	<b>110</b>
	White Birch		<b>SW Pulp (Tons)</b>	<b>51</b>
	B & Y Birch		<b>HW Pulp (Tons)</b>	
	Black Cherry		<b>Chips (Tons)</b>	

\*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.

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type		OR	HH	
Acres		23.8	10.9	
Landowner Objective		LT	LT	
Designation of Trees		CT	CT	
Type of Cut		SE	SE	
Source of Regeneration		SE	SE	

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### 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 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.

Digitally signed by Dan Clark  
 Date: 2021.06.08 07:20:50  
 Signature of landowner(s)

6/8/2021  
Date

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### Determination and Status

Approved    Disapproved    Expires

Cutting Plan            6/8/23

Signature of Service Forester/Director's Agent    Date

6-17-21

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

10/21/22

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Codes	Forest Types	Designation of Trees	Type of Cut	Source of Regeneration										
WP	White Pine	HK	Hemlock	OM	Mixed Oak	CT	Cut Tree	SH	Shelterwood	Intermediate Harvests:	AD	Advanced		
WK	Wp/Hem	HH	Hem/Hdwd	RM	Red Maple	LT	Leave Tree	ST	Seed Tree	CI	Commercial Thin	SE	Natural Seed	
WH	Wp/Hdwd	BC	Blk Cherry	BE	Beech	SB	Stand Boundary	CC	Clear Cut	NT	Non Com Thin	PL	Plan	
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	PF	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 4 of 5



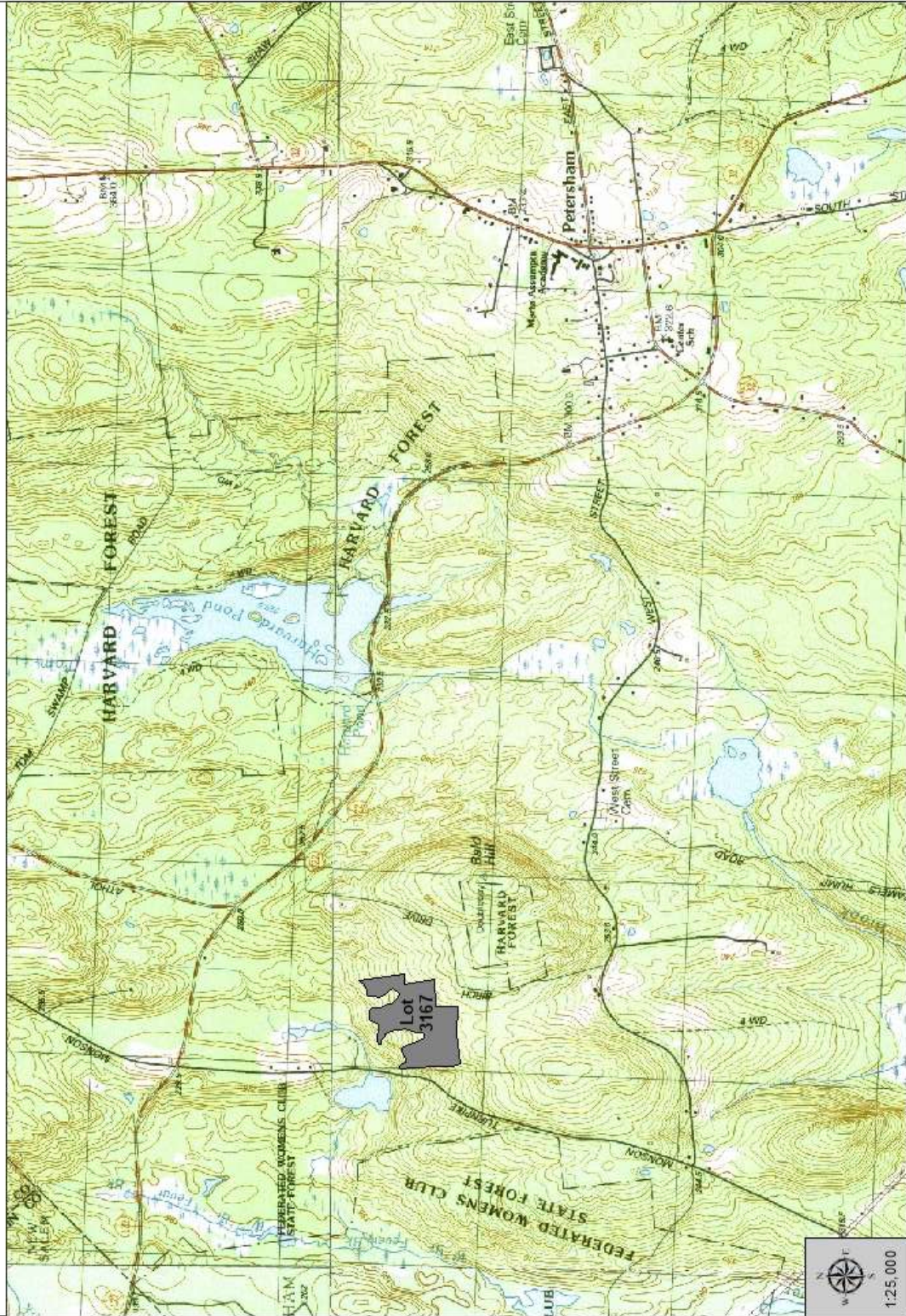


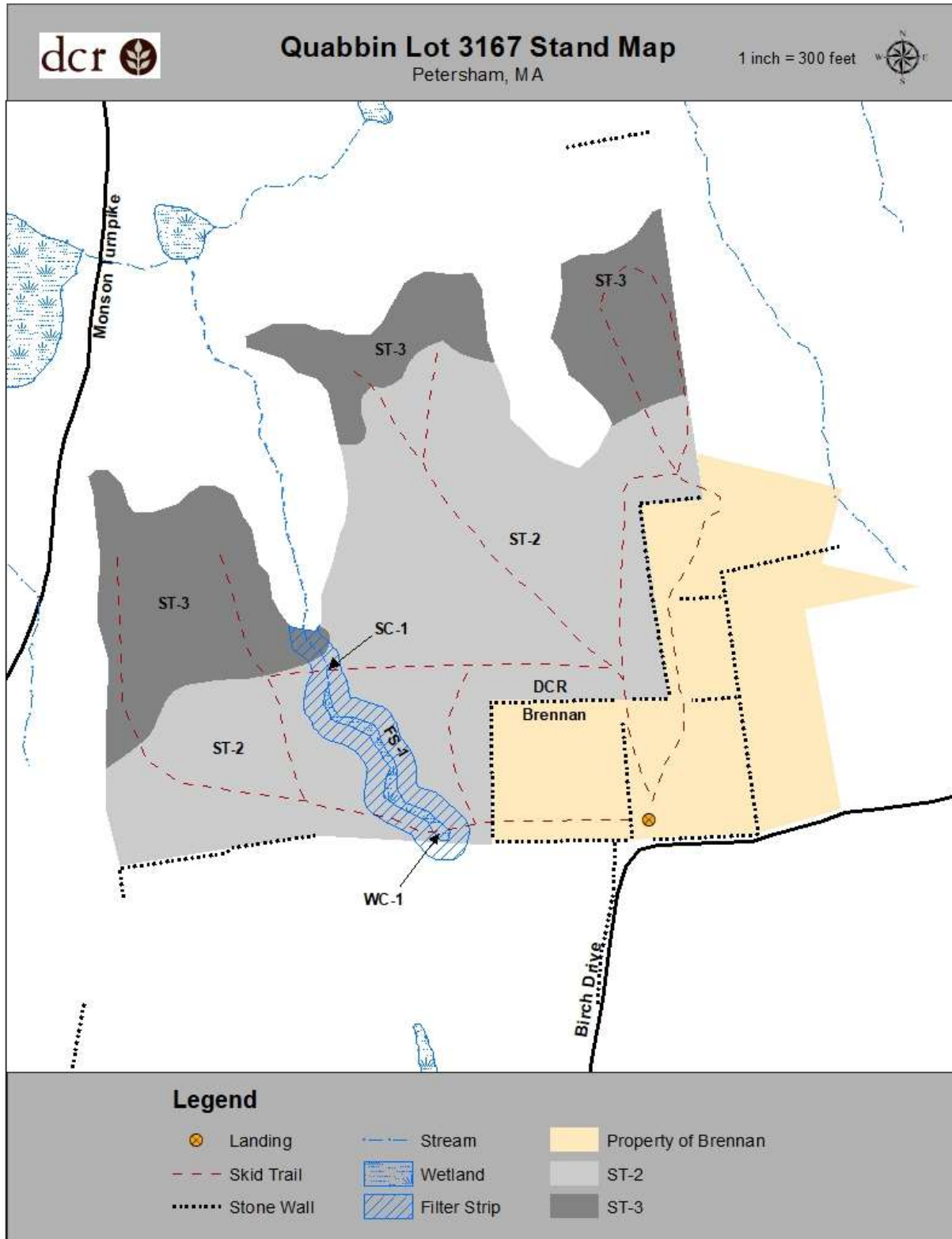
department of Conservation and Recreation

**Quabbin Lot 3167 Locus Map**

Petersham, MA

Prepared June 2021 by Helen Johnson







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

FILE # 234.32393.21

# 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 MA DCR DWSP Quabbin 485 Ware Rd Belcherstown, 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  
Quabbin 3167 lot, Petersham

Approval Date 6/17/21  
Director's Agent Andrew Rawcliffe  
DCR Phone No. 617.549.1677

ISSUED BY:

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

**Photo Series**

***Photo Point A***

Before harvest (June 2022)



Immediately after harvest (January 2023)



One growing season after harvest (August 2023)



Three growing seasons after harvest (July 2025)

