

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: 3137
DCR Forest Cutting Plan File Number: 234-7509-15

Site Information

Watershed: Quabbin	Town(s): Petersham
Acres: 52	Nearest Road: Dugway
Natural Heritage Atlas overlap?: Yes	Public Drinking Water Supply Watershed?: Yes
Forest Types: Red Oak	ACEC?: No
Soils: Well drained very stony Charlton-Chesterfield	
Wetland Resources: One	
Vernal Pools: One	

Harvest Information

Harvest Start Date: April 14, 2015	Harvest End Date: June 30, 2017
Number of Wetland Crossings: None	Number of Stream Crossings: One

Best Management Practices Applied

Stream Crossings	temporary bridge if flowing
Filter Strips	One 50 feet either side of intermittent brook
Wetland Crossings	
Harvesting in Wetlands	

DWSP Forester supervising this harvest
Name: Derek Beard
Forester License #: 14
Phone #: 617-780-0631

NARRATIVES

General Description/Forest Composition/History

The project area is located one mile northwest of gate 39 (Dugway Road) in what is known as the Camels Hump section of Petersham. The area was used as semi improved pasture prior to state ownership. The south end of the project area is home to two field stone town bounds marking the boundary between Petersham and the now unincorporated town of Dana.

Forest overstory is composed mainly of red oak with a scattered intermediate layer of black birch and red maple. Understory composition ranges from witch-hazel, fern, huckleberry, blue berry and black birch saplings. The sapling layer was triggered by a thinning harvest in the mid 1980s. Scattered white pine inclusions account of a few acres of the project area. The NRCS soil survey indicates that the project area is covered by a well drained very stony Charlton-Chesterfield loamy till.

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. Forest in this condition is ideally suited to be resilient to and quickly recover from small and large scale disturbances such as disease, insect infestation, ice storms and hurricanes.

The area's mix oak forest has a very uniform overstory structure. Given the goal of structural diversity, this forest's lack of young or middle age development requires that some regeneration cutting begin.

Objectives

Diversifying the area's forest structure is the primary objective of the project. This will be accomplished by making a series of small forest openings randomly spaced through the area. Specifically, there are 19 openings covering 6.7 of the 52 acres with an average opening size of 1/3 acre. The well drained till soils are suited for hardwood regeneration. However, white pine is a possibility if the harvest is completed during a seed year.

Cultural Resources

In addition to the old town bounds mentioned above, there is a dug spring located in the south central part of the project area. The spring was likely used to water livestock.

Wildlife Resources

The project area just barely overlaps with a priority habitat bubble to the east, as compiled by MA Fish & Wildlife's Natural Heritage & Endangered Species program. Mid way down along the western edge (Camels Hump Road) is a vernal pool. Maintenance of habitat mainly in the form of partially alive and dead standing trees, known as *snags*, will be a priority.

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)

FEB 25 2015
MAR 25 2015

For DCR Use Only:

File Number 234-2509-15 Case No. _____
 Date Rec'd 2-25-15 Nat. Hert. Yes 1
 Earliest Start 3-14-15 Nat. Hert. Imp. NO
 River Basin Chicopee Pub. Dr. Wat. Quabbin
 Gen. Obj. LT ACEC No

1st EXTENSION (2/17) FINAL (3/17)

Location TIMBER LOT 3137

Town Petersham
 Road Dugway Road (Gate 39)
 Acres 52 Proposed Start Date _____
 Vol. MBF 41.9 Vol. Cds. 139 Vol. Tons 23

Plan Preparer

Name Derek Beard
 Address DCR – Div. of Water Supply Protection
21 Elm St.
 Town, State, Zip New Salem, MA 01355
 Phone 978-544-6343
 Type of Preparer LF
 *Mass. Forester License # 14
 *Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR – Division of Water Supply Protection
 Mailing Address 485 Ware Rd.
 Town, State, Zip Belchertown, MA 01007
 Phone 412-323-6921
 Ch61 ☐ 61A ☐ 61B ☐ Stew ☐ *Case # _____
 CR ☐ CR Holder _____

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.

Stream Crossings

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing	Fo/po			
Existing Structure	n			
Type of Bottom	St/mu			
Bank Height (ft)	<1'			
Stabilization	co			

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)	50'			

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

*Field inspection under snow conditions

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.
TH Lic. Tim. Har	BR Bridge	MU Mulch	DR Dry	ST Stony	Some forestry activities, such as prescribed burning and pesticide or fertilizer application may require additional permits.
TB Timber Buyer	FO Ford	CO Corduroy	OT Other	MU Mud	Consult MA Forestry BMP Manual for further information.
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

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	2.1	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	33.9
Hemlock		Black Oak	2.2
Spruce		White Oak	0.4
Other Sftwd.		Other Hdwd.	0.8
White Ash	0.8	Total Mbf	41.9
Beech		Cordwood (Cds)	139
White Birch		SW Pulp (Tons)	23
B & Y Birch	1.3	HW Pulp (Tons)	
Black Cherry	0.4	Chips (Tons)	

TIMBER LOT 3137

*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	OR			
Acres	52			
Landowner Objective	LT			
Designation of Trees	CT			
Type of Cut	SE			
Source of Regeneration	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.

David A. Smith
Signature of landowner(s)

2/29/15
Date

Service Forester

Determination and Status

New Expiration 3-14-2018

Final Report and Comments

Approved Disapproved Expires

Cutting Plan ☒ ☐ 3/14/17

John A. Smith
Signature of Service Forester/Director's Agent

3/14/15
Date

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

John A. Smith
Signature of Service Forester/Director's Agent

9-12-17
Date

Extension ☒ 1 ☐ 2 ☐ Expires *3-14-2018*

Amendment App 1 Dis 1 App 2 Dis 2

Codes

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

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-Quab

Town Petersham

File Number 234-1509-15

TIMBER LOT 3137

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.

This group selection (small patch cuts) timber harvesting project consists of 19 canopy openings spread across 52 acres. Opening size ranges from a quarter acre to half an acre with an average of one third of an acre. The 19 openings cover a total of 6.7 acres.

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

Commonwealth of Massachusetts



Division of Fisheries & Wildlife

Jack Buckley, *Acting Director*

Fletcher Clark
Department of Conservation and Recreation
40 Cold Storage Drive
P.O. Box 484
Amherst, MA 01004

Cutting Plan No.	234-7509-15
NHESP Tracking No.	15-34217
Town	Petersham
Road	Dugway Road
Landowner	DCR – Water Supply Protection
Preparer	Derek Beard
Date	March 19, 2015

Dear Fletcher,

The Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife ("the Division") has reviewed the above-referenced Forest Cutting Plan (hereinafter "the Plan") pursuant to the special approval procedures of the Forest Cutting Practices Regulations (304 CMR 11.04(6)). Based on details of the Plan and information in the NHESP database, the Division does not expect activities proposed in the Plan to negatively impact Estimated Habitat or result in "Take" (as defined in 321 CMR 10.02) of plant or animal species protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). Therefore, the Division does not require that the Plan be modified at this time.

Please copy the Division on any proposed amendment, extension and on the approved Plan for the site. If you have any questions about this letter, please contact Brent Powers at (508) 389-6354.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

Cc: Petersham Conservation Commission

www.mass.gov/nhesp



Natural Heritage & Endangered Species Program

North Drive, Route 135, Westborough, MA 01581 Tel: (508) 389-6360 Fax: (508) 389-7891

dc
Massachusetts

Department of Conservation & Recreation



Timber Lot 3137 Located in Petersham - 52 acres

Quabbin Reservoir Watershed

Division of Water Supply Protection

350

Feet

Legend

- - - Access Road
- - - Skid Road
- Property Boundary
- Harvest Boundary
- ⊕ Landing
- ▨ Opening
- ▨ Forested Wetland
- ▶ Intermittent Brook
- ▨ Filter Strip
- Stream Crossing
- ☆ Vernal Pool
- ⊕ Spring
- ⊕ Old Town Bound
- Stone Wall



Prepared by D. Beard - Feb. 2015

Data Sources: MassGIS, DCR & EOEEA

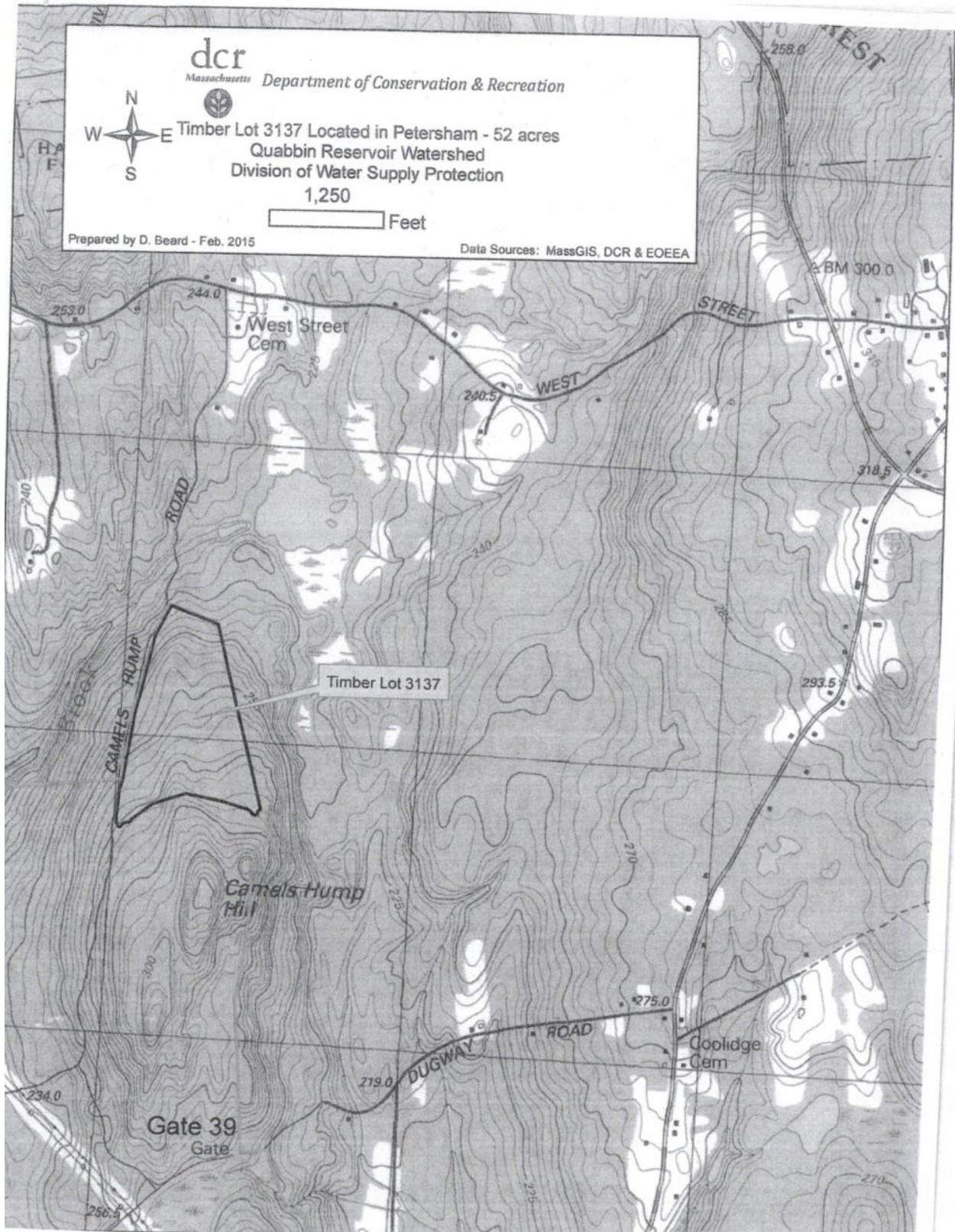


Figure2: Pre and post Harvest Photographs



A: Planned canopy opening on west side of project area.



A: Post harvest, July, 2017

A: 1 year of growth, July 2018





C: Planned canopy opening on south side of project area.



C: Post harvest, July 2017



C: 1 year of growth, July 2018