

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: 3135
DCR Forest Cutting Plan File Number: 204-6847-14

Site Information

Watershed: Quabbin	Town(s): New Salem
Acres: 10	Nearest Road: Route 202
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Yes
Forest Types: White Pine/Red Pine	ACEC?: No
Soils: Primarily Montauk fine sandy loam along with very stony Henniker sandy loam.	
Wetland Resources: None	
Vernal Pools: None	

Harvest Information

Harvest Start Date: April 1, 2014	Harvest End Date: July 1, 2016
Number of Wetland Crossings: None	Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings	There are no stream crossings.
Filter Strips	There are no filter strips.
Wetland Crossings	There are no wetland crossings.
Harvesting in Wetlands	There is no harvesting in wetlands.

DWSP Forester supervising this harvest
Name: Derek Beard
Forester License #: 14
Phone #: 978-544-6343

General Description/Forest Composition/History

This timber lot is located on the Prescott Peninsula, south of the reclaimed University of Massachusetts Astronomy site; along the east side of the Gate 17 road; the primary access through the peninsula. The forest is composed of White and Red Pine likely planted in the late 1930s. A thinning was completed in 1991. Proceeding the thinning, Red Oak seedlings were planted. As part of the 1927 original taking, this area was classified as arable and likely open (not forested) before public ownership. Believing that forest was the preferred watershed cover, early managers were quick to colonize these open areas with softwood plantations; like this one.

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, 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.

Objectives

Guided by the principals above, the foremost intention of this timber harvest is to address the lack of structural diversity. The whole of this area is dominated by relatively high canopy forest. Creating a series of small openings (each 1/3 of an acre or smaller) should spur development of young forest that is distributed through the area. Success will create two distinct age/size classes growing amongst each other. Furthermore, the richer soils of this arable site favor development of hardwoods versus the existing white/red pine plantation forest cover. A secondary intention of this harvest is to reduce the red pine component; a regionally non-native species that has recently succumbed to an insect/disease cycle, ravaging many of the reservoir edge stands.

Cultural Resources

The harvest area is flanked to the north and south by old farmsteads, evidenced by cellar holes and barn foundations. Several stone walls traverse the area as well as form its boundary. Three fieldstone lined wells exist; one in the middle of the area; and the others just beyond the southern boundary. All, particularly the one within the area, will be identified for protection during operation.

Wildlife Resources

The harvest area does not overlap or abut any priority floral or faunal habitat; as compiled by MA Fish & Wildlife's Natural Heritage & Endangered Species program. No unusual wildlife, or evidence of, has been seen in, or adjacent to, the area. Maintenance of habitat mainly in the form of partially alive and dead standing trees, known as *snags*, will be a priority.

Figure 1. Approved and final report forest cutting plan

Figure2. Pre harvest photographs A-B

Figure 3. Post harvest photographs A-B

Figure 4. After one growing season photographs A-B

Figure 1

01-28-14A11:29 RCVD (H)

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 204.6947.14 Case No. _____
 Date Rec'd 1.28.14 Nat. Hert. NO
 Earliest Start 2.12.14 Nat. Hert. Imp. N/A
 River Basin Chicopee Pub. Dr. Wat. NO
 Gen. Obj. WT ACEC NO

TIMBER LOT 3135 FINAL CR: None

Location

Town New Salem
 Road Gate 17
 Acres 10 Proposed Start Date _____
 Vol. MBF 89.7 Vol. Cds. 27 Vol. Tons 208

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 – Div. of Water Supply Protection
 Mailing Address 485 Ware Rd.
 Town, State, Zip Belchertown, MA 01007
 Phone 413-323-6921
 Ch61 61A 61B Stew *Case # _____
 CR CR Holder _____

Licensed Timber Harvester**

Name King Timber Harvesting
 Address 15 Ragged Hill Rd
 Town, State, Zip Hubertston, MA 01752
 Phone _____
 Mass. Lic. Harvester # PA 128
 **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				
Existing Structure				
Type of Bottom				
Bank Height (ft)				
Stabilization				

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)				

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	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 pg 3 of 5

TIMBER LOT 3135

Products to be Harvested*

Species	Mbf/Cds	Mbf/Cds	Mbf/Cds
White Pine	21.4	Red Maple	
Red Pine	64.8	Sugar Maple	
Pitch Pine		Red Oak	
Hemlock		Black Oak	
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	3.5
White Ash		Total Mbf	89.7
Beech		Cordwood (Cds)	27
White Birch		SW Pulp (Tons)	208
B & Y Birch		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	WP/RP			
Acres	10			
Landowner Objective	LT			
Designation of Trees	CT			
Type of Cut	SE			
Source of Regeneration	AD/SE			

Forest Products

Stand Treatment

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.

William E. Pale
Signature of landowner(s)

1-27-14
Date

Landowner

Determination and Status

204.6847.14

Final Report and Comments

Approved Disapproved Expires 1.29.2016

H. Johnson
Signature of Service Forester/Director's Agent

1/29/14
Date

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

[Signature]
Signature of Service Forester/Director's Agent

3/7/16
Date

Service Forester

Extension 1 2 Expires _____ Ser. For. Ins. _____

Amendment App 1 Dis 1 App 2 Dis 2 _____

Codes

Forest Types	Designation of Trees	Type of Cut	Source of Regeneration
WP White Pine	CT Cut Tree	SH Shelterwood	AD Advanced
WK WP/Hem	LT Leave Tree	ST Seed Tree	SE Natural Seed
WH WP/Hdwd	SB Stand Boundary	CC Clear Cut	PI Plant
WO WP/Oak	OT Other	SE Selection	CO Coppice
RP Red Pine	Landowner Objective	SA Salvage	HS Highgrade*
SR Red Spruce	LT Long-term Mgt	SN Sanitation	DS Direct Seed
	ST Short-term Har	DL Diameter Limit*	OT Other
		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

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.

TIMBER LOT 3135

Landowner DCR-DWSP

Town New Salem

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.

Harvest consists of a series of small openings. Each opening is less than or equal to a third (.3) of an acre in area.

Main skid trails are delineated with orange paint.

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
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

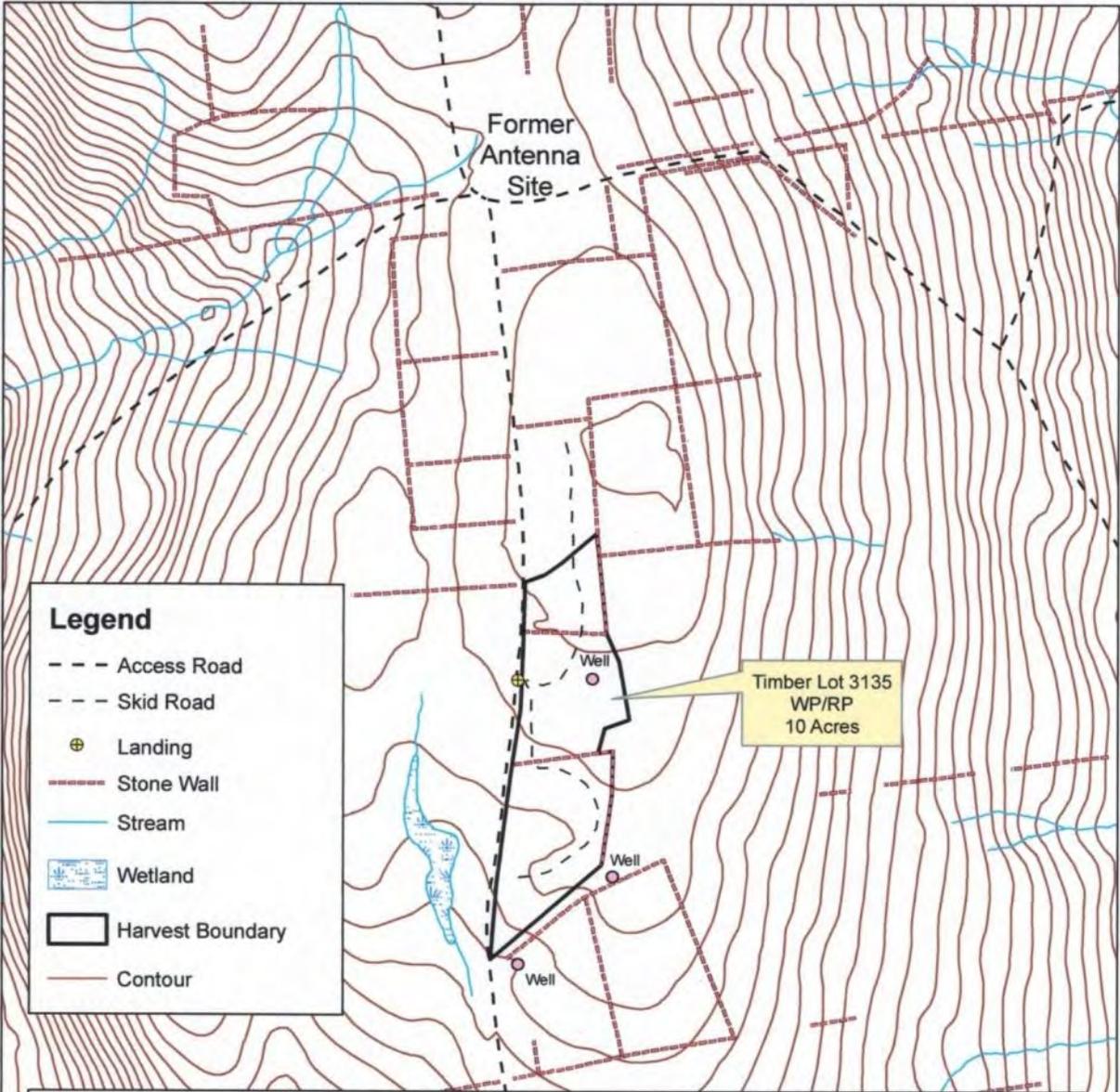
Regeneration & Future Condition

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.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



Legend

- - - Access Road
- - - Skid Road
- ⊕ Landing
- Stone Wall
- Stream
- Wetland
- Harvest Boundary
- Contour

Timber Lot 3135
WP/RP
10 Acres


 Massachusetts Department of Conservation & Recreation



Timber Lot 3135 Located in New Salem - 10 acres
 Quabbin Reservoir Watershed
 Division of Water Supply Protection

0 250 500 750 1,000
 Feet

Prepared by D. Beard - Dec. 2013

Data Sources: MassGIS, DCR & EOEEA

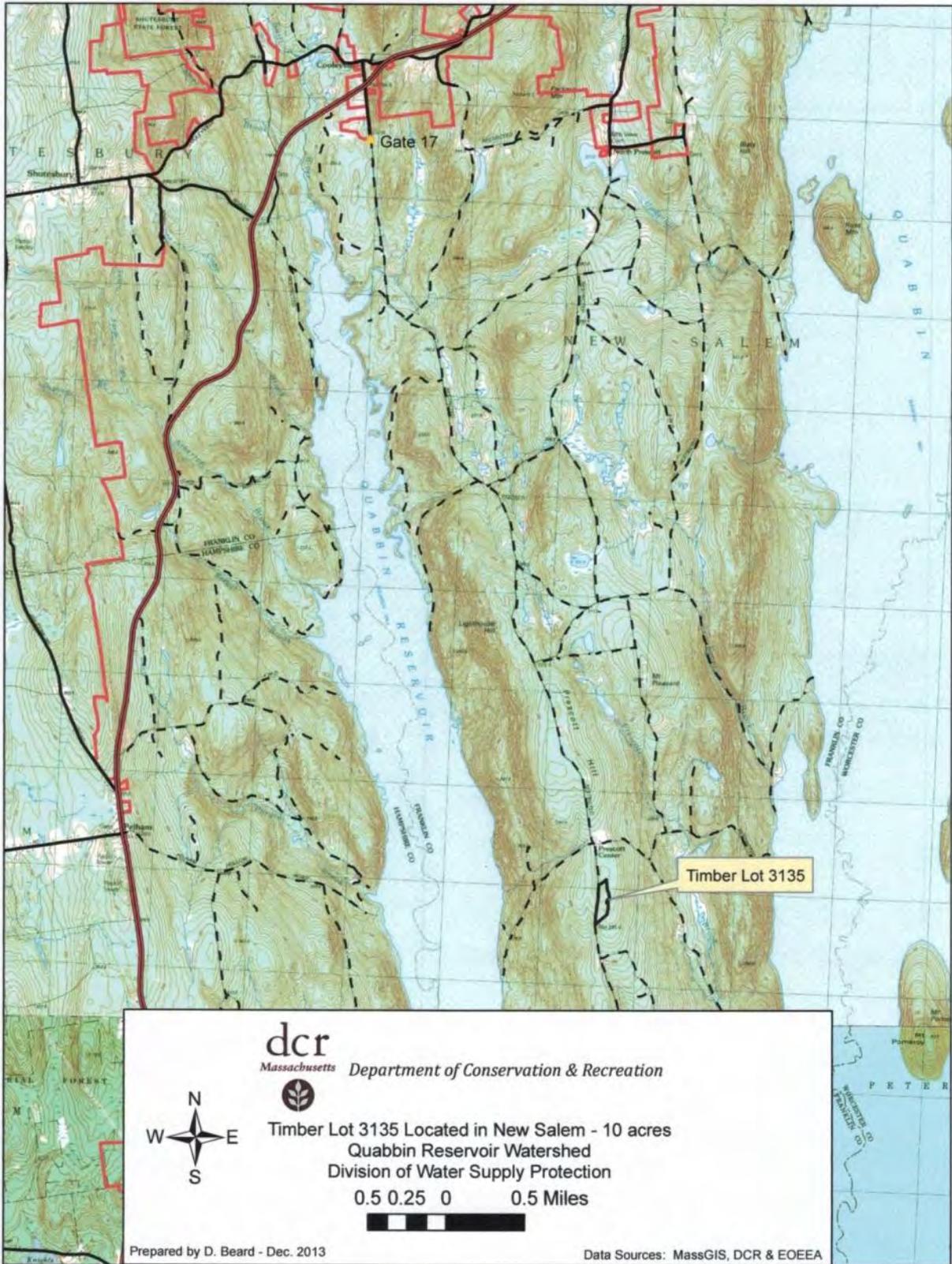


Figure 2: Pre-Harvest Photographs, A-B (November 2013)



A. Red and White Pine overstory shading a dense understory of Hayscented Fern. Rock outcrop in left foreground.



B. Similar over and understory composition with the addition of Black Berry (*Rubus* spp) in the middle background.

Figure 3: Post Harvest Photographs, A –B (October 2015)



A. Small opening with fairly good scarification, or duff layer disturbance, which is an important factor in seedling germination.



B. Small opening with plenty of coarse woody debris which will decompose providing soil nourishment and wildlife habitat. In the center background is an excellent white ash tree which provides some species diversity and a local seed source.

Figure 4: After one growing season (July 2016)



A. The increased sunlight is triggering herbaceous growth which hopefully will include some raspberry and tree seedlings to break up the dense fern layer.



B. Center background of the frame is the excellent white ash surrounded by a raspberry patch. Hopefully the increased sunlight will trigger expansion of the patch, breaking up the dense fern layer.