

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

**Project Title:**

<b>DWSP Harvest Permit Number: 3164</b>
<b>DWSP Proposal ID: PR-19-18</b>
<b>DCR Forest Cutting Plan File Number: 204-23723-20</b>

**Site Information**

<b>Watershed:</b> Quabbin	<b>Town(s):</b> New Salem
<b>Acres:</b> 74	<b>Nearest Road:</b> Cooleyville
<b>Natural Heritage Atlas overlap?:</b> No	<b>Public Drinking Water Supply Watershed?:</b> Yes
<b>Forest Types:</b> White Pine/Red Pine/ Mixed Oak	<b>ACEC?:</b> No
<b>Soils:</b> Stony till with varying levels of sandy loam	
<b>Wetland Resources:</b> Intermittent brooks	
<b>Vernal Pools:</b> 0	

**Harvest Information**

<b>Harvest Start Date:</b> 3/25/2020	<b>Harvest End Date:</b> 6/30/2022
<b>Number of Wetland Crossings:</b> 1	<b>Number of Stream Crossings:</b> 0

**Best Management Practices Applied**

<b>Stream Crossings</b>	0
<b>Filter Strips</b>	0
<b>Wetland Crossings</b>	1
<b>Harvesting in Wetlands</b>	0

<b>DWSP Forester supervising this harvest</b>
<b>Name:</b> Derek Beard
<b>Forester License #:</b> 14
<b>Phone #:</b>
<b>Email:</b> derek.beard@mass.gov

## **NARRATIVE**

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

The project heads west from Gate 17 Rd. (Cooleyville Rd.) over a height of land to an inoperable west facing slope. The area is bounded by Pelham Rd to the south and Atkinson Hollow Rd to the north.

High canopy white pine is the dominate forest cover. Quality varies with aspect, although taller, east facing pine has a wider range of quality then west facing timber. The east face is also very close to gate 17 Rd; an old thoroughfare dotted with cellar holes whose past inhabitants modified/enriched/tilled the soil for crop production. Generally white pine growing on higher quality sites develops fast and attracts weeviling (insect that kills terminal leader) which greatly effects tree form (lumber potential). In addition to being mixed in with the east facing white pine, there is a 4 acre sawtimber size red pine plantation. Beginning in the late 2000s a portion of the plantation started to succumb to red rot (*Heterobasidion annosum*); a common fungus that afflicts dense softwood stands. More recently there has also been mortality from red pine scale. There is also small inclusions of sugar maple and aspen. The sugar maple area is a sugar bush; a grove of maple trees that are tapped for their sap to produce maple syrup.

From east to west, associated hardwoods are white ash, maples, black birch, cherry and red oak; and transition to mixed oak (red, black, white and scarlet) black birch, red maple and hickory. A 1997 early stage shelterwood harvest trigger what is now mostly a black birch sapling layer. Unfortunately most of the white pine regeneration was shaded out by overstory and faster growing birch regeneration; Furthermore, most of the hemlock regeneration has been mortally browsed.

Invasive species such as Barberry and Asiatic Bittersweet radiate west (a few hundred feet) from gate 17 road. Some type of control particularly after the harvest will be critical to successful regeneration of native species.

### **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 and future users. 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 to large scale disturbances such as disease, insect infestation, ice storms and hurricanes.

### **Silvicultural Objectives:**

The multi-pronged goal includes: One - salvage the remaining red pine; two – release/initiate a quantifiable regeneration layer and three improve the overall quality of the white pine overstory.

This will be accomplished by removing all live red pine along with lower quality white pine (11 acres); along with seven well distributed openings encompassing a total of nine acres. Openings range between 1 and 1.6 acres in size.

### **Cultural Resources:**

Right along the gate 17 road are a cellar hole and several barn foundations. Up slope from one of the barn foundations is a field stone lined well. Along with the cellar holes/barn foundations are numerous stone walls; a legacy of land's past agrarian use.

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

According to the latest edition of the MA Natural Heritage & Endanger Species Atlas, the project does not overlap with any estimated or critical habitat area.

## **FIGURES**

**Figure 1. Forest Cutting Plan**

Figure 1a: Forest Cutting Plan pg. 1.

# 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)

## For DCR Use Only:

File Number 204-23723-20 Case No.         
Date Rec'd 2-13-20 Nat. Hert. NO  
Earliest Start 3-2-20 Pub. Dr. Wat. NO  
River Basin Chicopee ACEC NO  
Gen. Obj. LT

Site Information

## Location

Town New Salem  
Road Cooleyville Rd (Quabbin Gate 17)  
Acres 20 Proposed Start Date         
Vol. MBF 199.7 Vol. Cds. 110 Vol. Tons 397

## Plan Preparer

Name Derek Beard  
Address 485 Ware Rd.  
  
Town, State, Zip Belchertown, MA 01007  
Phone (617) 780-0631  
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 #         
FSC ☐ 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.

Best Management Practices

## 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	30'			
Mitigation	FR/DR			
Stabilization	CO			

## 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

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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	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		

**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

Figure 1b: Forest Cutting Plan pg. 2.

Products to be Harvested*			
Species	MbB/Cds	Species	MbB/Cds
White Pine	91.2	Red Maple	2.6
Red Pine	62.0	Sugar Maple	3.6
Pitch Pine		Red Oak	9.8
Hemlock	7.4	Black Oak	3.8
Spruce		White Oak	3.6
Other Spwd.		Other Hdw.	4.1
White Ash	5.2	Total Mtd	189.7
Beech		Cordwood (Cds)	110
White Birch		SW Pulp (Tons)	397
R & Y Birch	5.6	NW Pulp (Tons)	
Black Cherry	1.8	Chips (Tons)	

\*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. MBT = thousand board feet.

Cutting Standards				
Subsite location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WP/SP	WH		
Acre	11	9		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	SA	CC		
Source of Regeneration	AD/SE	AD/SE		

**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.

Signature of Landowner(s) \_\_\_\_\_ Date 2-13-2020

**Determination and Status**

Approved ☒ Disapproved ☐ Expires 2-13-22  
Cutting Plan 3-12-20  
Signature of Service Forester/Director's Agent \_\_\_\_\_ Date \_\_\_\_\_

Extension ☐ ☐ Expires ☐ Set For Sale ☐  
Anticipation ☐ App 1 ☐ Dis 1 ☐ App 2 ☐ Dis 2 ☐

**Final Report and Comments**

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

Signature of Service Forester/Director's Agent \_\_\_\_\_ Date 7-22-20

Forest Types				Designation of Trees				Type of Cut				Source of Regeneration			
WP	White Pine	HK	Hemlock	OM	Mixed Oak	CT	Cut Tree	SS	Shelterwood	Intermediate Harvest	AD	Advanced	SE	Normal Seed	
WC	White Pine	HM	Hemlock	RM	Red Maple	LT	Leave Tree	ST	Seed Tree	CL	Conservation Thin	SE	Normal Seed		
WH	White Pine	BC	Black Cherry	HO	Hemlock	SD	Stand Boundary	CC	Clean Cut	NT	Non-Seed Thin	PL	Plan		
WO	White Oak	BB	Black Birch	SP	Spruce	OT	Other	SE	Selection	NS	Non-Standard Systems	CO	Crop		
RP	Red Pine	OB	Oak	SM	Sugar Maple	LO	Long-term Mgt	SA	Salvage	RG	Regeneration	ES	Direct Seed		
SR	Red Spruce	OR	Red Oak	TP	Pitch Pine	LT	Long-term Mgt	SM	Simulation	DI	Director's 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. 1 of 5

Figure 1c: Forest Cutting Plan pg 3.

# 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 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.

Twenty acres of the 74 acre area are being treated. Seven openings encompass a total of nine acres. Openings range between 1 and 1.6 acres in size. All openings have live tree retention as well as live and dead snags (valuable wildlife habitat). The remaining treatment area (11 acres) is mainly dedicated to salvaging dying red pine; a secondary focus in this area is thinning poor quality white pine. Harvest stands are marked with blue paint and skid roads are marked 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. Additional narrative description may be added on a separate page.

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

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




Figure 1d: Forest Cutting Plan pg. 4.

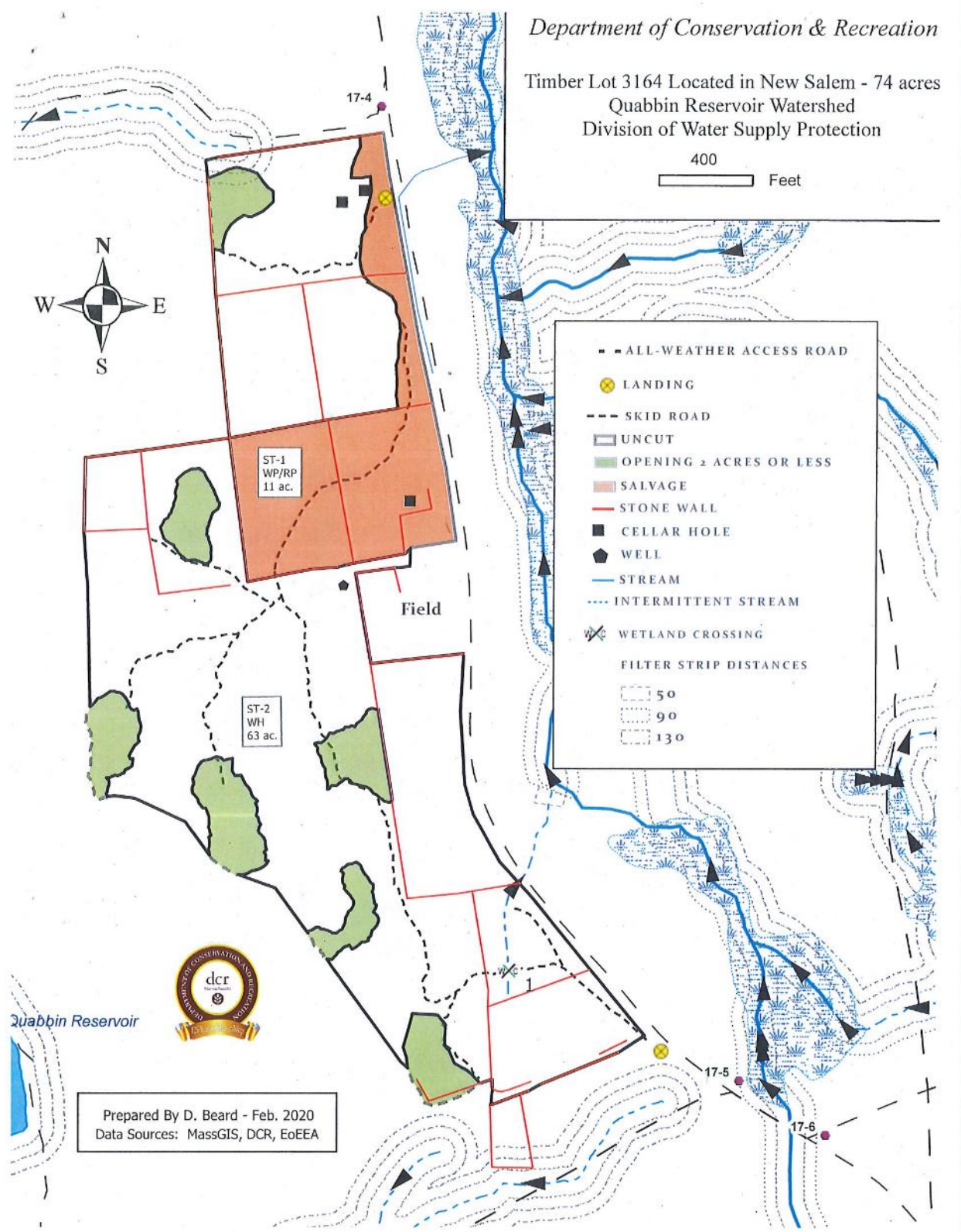




Figure 1e: Forest Cutting Plan pg. 5.

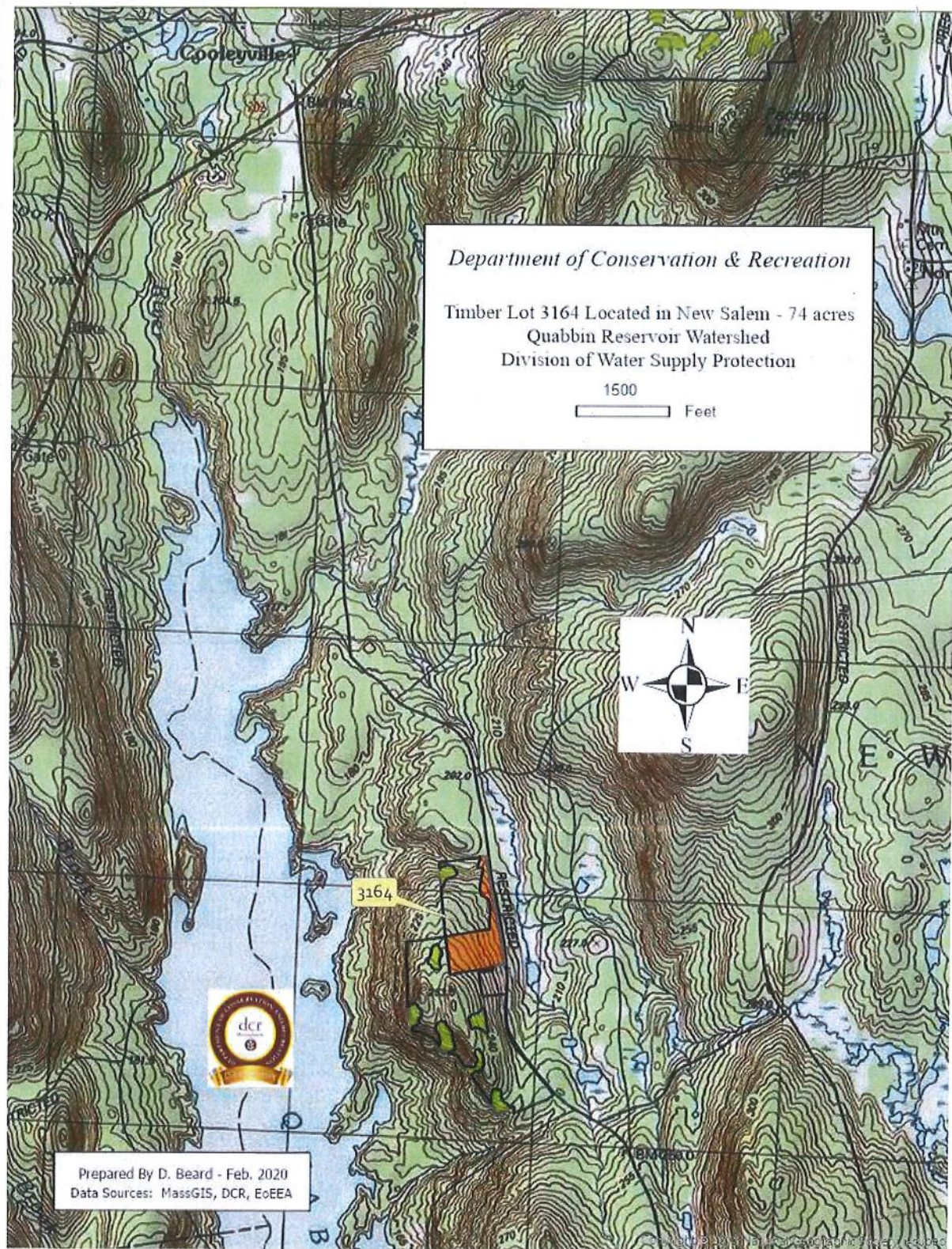






Figure 1f: Forest Cutting Plan pg. 6

 COMMONWEALTH OF MASSACHUSETTS Department of Conservation and Recreation Division of State Parks and Recreation	FILE # <u>204-23723-20</u>
<h1>W</h1>	
<h2>FOREST CUTTING PLAN CERTIFICATE</h2>	
Post this in a conspicuous place within the area in which the harvesting operation is to take place.	
This certifies that <u>DCR-DWSP 485 Ware Rd, Belchertown, MA 01007</u> in accordance with the (Name of Owner) (Address)	
provision of M.G.L. Chapter 132, Section 40-46, filed in <u>Amherst F.O.</u> with the Dept. of Conservation and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the <u>Quabbin Gate 17 lot, New Salem</u>	
Approval Date <u>3/12/2020</u>	ISSUED BY: 
Director's Agent <u>Andrew Rawcliffe</u>	Priscilla E. Geigis, Director Division of State Parks and Recreation
DCR Phone No. <u>617-549-1677</u>	