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: WR 4383
DCR Forest Cutting Plan File Number: 257-7012-14

Site Information

Watershed: Ware River	**Town(s)**: Rutland
Acres: 23.5	**Nearest Road:** Ruben Walker Rd.
Natural Heritage Atlas overlap?: No	**Public Drinking Water Supply Watershed?:** Yes
Forest Types: Red pine plantation, white pine and white pine & oak.	**ACEC?:** No
Soils: Most of the lot is on soil 927C Montauk-Scituate-Canton association, 3-15% slope, extremely stony. The red pine section had been cleared in the past as evidenced by the stone wall which runs partway up the center of the lot.	
Wetland Resources: None on lot, adjacent to wooded wetlands.	
Vernal Pools: 1	

Harvest Information

Harvest Start Date: 6/1/15	**Harvest End Date:** 5/29/15
Number of Wetland Crossings: None.	**Number of Stream Crossings:** None.

Best Management Practices Applied

Stream Crossings	There are no stream crossings.
Filter Strips	Buffers applied as required to 200’ from vernal pool.
Wetland Crossings	There are no wetland crossings.
Harvesting in Wetlands	There is no harvesting in wetlands.

DWSP Forester supervising this harvest
Name: Kenneth W. Canfield
Forester License #: 431
Phone #: 508-882-3789 ext.1603

NARRATIVE

General Description/Forest Composition/History:

This area contains 3 different forest types. A good quality, healthy 2 aged red/white pine stand which originally was a red pine plantation that has been cut in several times now and has regenerated to mainly white pine. The white pine is well formed and ranges from seedling to saw log size (at least 2 distinct age classes present). This section also contains some hardwoods, mainly red maple and oak. This type is in the western corner of the lot.

To the southeast the plantation ended and type changes from a small section of white pine of variable form and vigor to a dry pine-oak type of poorly formed stems with a fair amount of past storm damage. Overstory is white pine, mixed oak, red maple and some black cherry with some pitch pine in the northeastern portion. The understory is a mix depending on slope location; mostly white pine with oak and red maple and picking up some hemlock near the wetlands. There are more shrubs in this section, mainly sheep laurel and blueberry.

The third type is in the northern section and is mainly white pine that is in decline and diseased. The understory here has, and still is being heavily impacted by deer and moose but is covered with white pine and white oak which the herbivores seem to be avoiding. Hemlock and red maple are heavily browsed.

The only invasive seen was some glossy buckthorn.

The soil is a well-drained sandy loam and is rocky. The red pine section was probably a pasture in the past as evidenced by the stone walls in this area.

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 mature trees). In addition, the forest should be vigorous; actively growing and regenerating. Forest in this condition is suited to be resilient to and quickly recover from small and large scale disturbances such as disease, insect infestation, ice storms and hurricanes.

This site was chosen for treatment due to the red pine not being native and being susceptible to a prevalent non-native insect, the red pine scale, which can quickly kill red pines. The unthinned white pine section was also a concern due to its declining condition caused in part by overcrowding which probably also increased its susceptibility to disease.

Silvicultural Objectives:

The 3 separate types will each be treated differently. The red/white pine type will have most of the remaining red pine cut along with some of the remaining unacceptable growing stock (UGS) of the other species. Intent is to cut the red pine before it is infested with scale and finish converting the stand to native species. Most of the cutting will release previously established white pine and scattered hardwoods but a few new small openings (max. .3 acres) may be created where there is currently a lack of acceptable growing stock (AGS). Vernal pool regulations will be followed around the small vernal pool.

The pine/oak type will have a group selection cut with groups of .1-.33 acres removed in irregular shaped patches with additional thinning of UGS throughout. Better formed vigorous stems of mixed species will be left outside of the groups. Pitch pine and hemlock, where healthy, will be retained within the patches. Intent is to regenerate as close to 1/3 of this section as possible.

The last type, the declining white pine stand, will be treated with a seed cut in the shelterwood system retaining mainly AGS white pine with a few white and red oak and some hemlock near the wetlands. Due to the current irregular condition of the stand there will be some openings created of up to .2 acre. In all areas a 50' (non regulatory) buffer strip of at least 50% stocking will be maintained along the wooded wetlands. No logging is planned in wetland areas.

These treatments should increase the diversity of species and will increase the age and structural diversity of the forest as a whole.

Cultural Resources:

This land has been determined to not be culturally or archeologically sensitive based on a review by the DCR Archaeologist. Standard practice dictates that every effort is made to avoid disturbing stone walls. There are multiple walls on this lot but they are mainly along the road or short in length and won't need to be crossed.

Wildlife/Rare or Endangered Species:

There is one small vernal pool where fairy shrimp and wood frogs were found. No other critical habitats, or rare or endangered plants or wildlife have been found on this lot. Current DWSP recommendations and BMP's will be used around the vernal pool. A variety of wildlife such as deer, turkey, coyote and moose are known to frequent the lot and beaver and otter are in the adjoining river and wetlands.

FIGURES

Figure 1. Final Forest Cutting Plan

Figure 2 A-C. Pre-Harvest photographs from marked points taken 8/29/14

Figure 3 A-C. Post-Harvest photographs from marked points taken 7/29/15

Figure 4 A-C. After one growing season photographs from marked points taken 7/27/16

Figure 1: Final Forest Cutting Plan

FINAL REPORT

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)

MAY 20

For DCR Use Only:

File Number	05-[illegible]-17	Case No.	
Date Rec'd	2-[illegible]	Nat. Hert.	No
Earliest Start	[illegible]	Nat. Hert. Imp.	N/A
River Basin	Chicopee	Pub. Dr. Wat.	Ware River
Gen. Obj.	[illegible]	ACEC	No

Amendment 1; add landing FINAL REPORT

Site Information

Location

Town: Rutland, lot WR 4383
Road: Ruben Walker Rd.
Acres: 23.5 Proposed Start Date: 7/1/14
Vol. MBF: 86.2 Vol. Cds.: 66 Vol. Tons: 467

Plan Preparer

Name: Steven J. Wood
Address: DCR, Division of Water Supply Protection
578 Old Turnpike Rd.
Town, State, Zip: Oakham, MA 01068
Phone: (508)882-3789 ext.1603
Type of Preparer: Mass. Licensed Forester
*Mass. Forester License #: 257
*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: (413) 323-4447
Ch61 ☐ Ch61A ☐ Stew ☐ *Case #
Est. Stumpage Value: 7500.00

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				
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: LF Mass. Lic. For. / TH Lic. Tim. Har / TB Timber Buyer / LO Landowner / OT Other

Type of Crossing: CU Culvert / BR Bridge / FO Ford / PO Poled / OT Other

Stabilization: SE Seed / MU Mulch / CO Corduroy / ST Stone / HB Hay Bales / OT Other

Mitigation: FR Frozen / DR Dry / OT Other

Type of Bottom: LE Ledge / ST Stony / MU Mud / GR Gravel / 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*

Species	Mbf/Cds		Mbf/Cds
White Pine	36.1 M	Red Maple	0.4 M
Red Pine	48 M	Sugar Maple	
Pitch Pine		Red Oak	0.6 M
Hemlock	0.2 M	Black Oak	
Spruce		White Oak	0.9 M
Other Sftwd.		Other Hdwd.	
White Ash		**Total Mbf**	86.2 M
Beech		**Cordwood (Cds)**	66
White Birch		**SW Pulp (Tons)**	467
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.

Stand Treatment

Cutting Standards

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	RP4	WP4	WO4	
Acres	7.03	9.34	7.16	
Landowner Objective	LT	LT	LT	
Designation of Trees	CT	CT	CT	
Type of Cut	SH	SH	SE	
Source of Regeneration	AD/SE	AD/SE	AD/SE	

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 specie

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: 5-19-14

Service Forester

Determination and Status

	Approved	Disapproved	Expires
Cutting Plan	☒	☐	5/20/16

Signature of Service Forester/Director's Agent — Date: 5/20/14
SWF WS A- 5/20/14

			Expires	Ser. For. Ints.
Extension	1☐	2☐	/	/

	App 1	Dis 1	App 2	Dis 2	
Amendment	☒	☐	☐	☐	/

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: [illegible]

Codes

Forest Types
WP White Pine, WK WP/Hem, WH WP/Hdwd, WO WP/Oak, RP Red Pine, SR Red Spruce, HK Hemlock, HH Hem/Hdwd, BC Blck Cherry, BB Bee/Bir/Map, OH Oak/Hdwd, OR N Red Oak, OM Mixed Oak, RM Red Maple, BE Beech, SF Spruce/Fir, SM Sugar Maple, PP Pitch Pine

Designation of Trees
CT Cut Tree, LT Leave Tree, SB Stand Boundary, OT Other

Landowner Objective
LT Long-term Mgt, ST Short-term Han

Type of Cut
SH Shelterwood, ST Seed Tree, CC Clear Cut, SE Selection, SA Salvage, SN Sanitation

Intermediate Harvests:
CT Commercial Thin, NT Non Com Thin

Non-Standard Systems:*
HG Highgrade*, DL Diameter Limit*, OT Other*

Source of Regeneration
AD Advanced, SE Natural Seed, PL Plant, CO Coppice, DS Direct Seed, OT Other

*If Other (OT) or a non-standard system is used an explanation must be given on attached narrative page.

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

Town Rutland

File Number 259-2012-14

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.

ST1 is a RP plantation that has been cut multiple times, this will be the final harvest cutting most of the remaining RP and any other poorly formed.

ST2 is a stagnent WP/WO type and this is the first cut in a 2-3 cut shelterwood but good advance WP, HK and WO are present.

ST3 is a mostly poorly formed pine oak type on dry soils. Group selection with thinning between groups is the prescription here. 4 patches from 0.3-0.4 acre are flagged and marked, some better formed and healthy trees, mainly pitch pine, were retained in each group.

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.

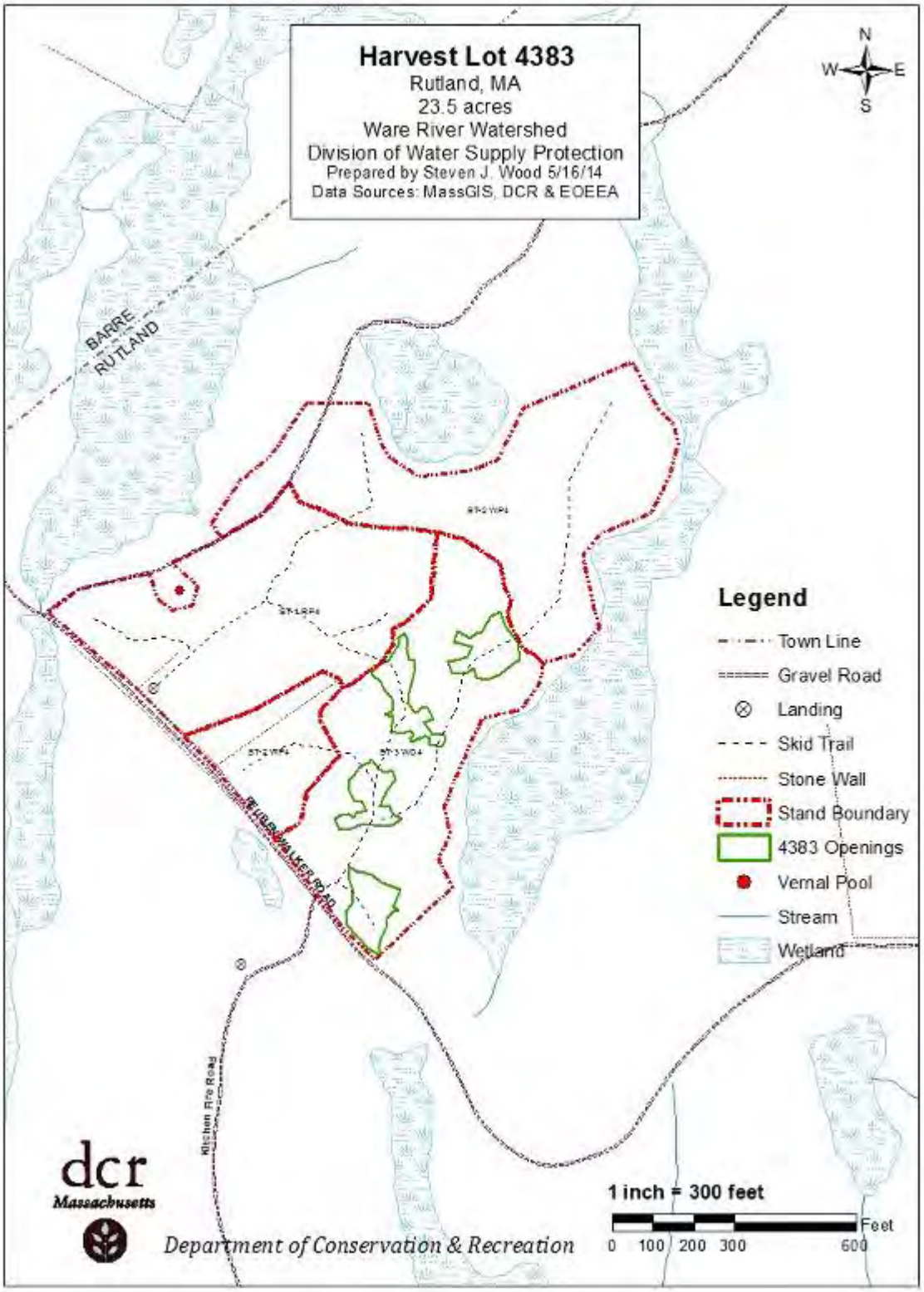
Stand No.	Species to be Cut	Size of Trees to be Cut	Quality of Trees to be Cut	% BA/Acre Removed

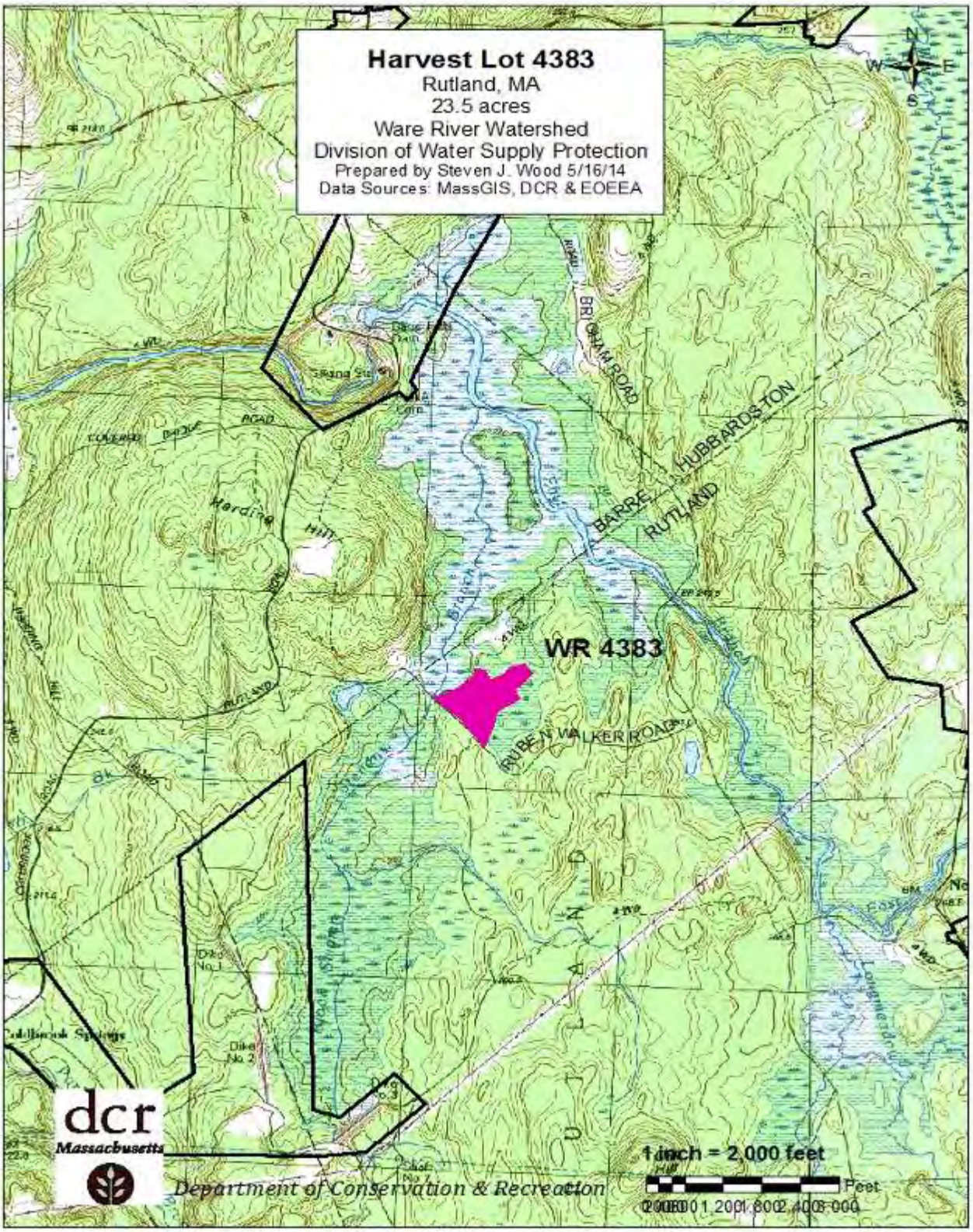
Regeneration & Future Condition

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


Harvest Lot 4383
Rutland, MA
23.5 acres
Ware River Watershed
Division of Water Supply Protection
Prepared by Steven J. Wood 5/16/14
Data Sources: MassGIS, DCR & EOEEA
N
W
E
S
BARRE
RUTLAND
Legend
Town Line
Gravel Road
Landing
Skid Trail
Stone Wall
Stand Boundary
4383 Openings
Vernal Pool
Stream
Wetland
Kitchen Fire Road
1 inch = 300 feet
Feet
0 100 200 300 600
dcr
Massachusetts
Department of Conservation & Recreation


Harvest Lot 4383
Rutland, MA
23.5 acres
Ware River Watershed
Division of Water Supply Protection
Prepared by Steven J. Wood 5/16/14
Data Sources: MassGIS, DCR & EOEEA
WR 4383
BRIGHAM ROAD
HUBBARDSTON
BARRE
RUTLAND
RUBEN WALKER ROAD
Harding Hill
COVERED BRIDGE ROAD
Dike No. 1
Dike No. 2
dcr
Massachusetts
Department of Conservation & Recreation
1 inch = 2,000 feet
Feet

dcr

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

FILE # 257-7012-14

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, Division of Water Supply Protection (Name of Owner) Belchertown (Address) in accordance with the provision of M.G.L. Chapter 132, Section 40-46, filed in Clinton, MA with the Dept. of Conservation and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the Ruben Walker Rd lot.

Approval Date 5/20/2014

Director's Agent Kate Marquis

DCR Phone No. 413-992-8734

ISSUED BY:

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

Figure 2 A-C. Pre-Harvest photographs from marked points taken 8/29/14

A. Photo point 2 in red pine section looking north northeast, taken 8/29/14.

B. Photo point 3 looking east, Ruben Walker Road is in foreground, taken 8/29/14.

C. Photo point 4 looking northeast, Ruben Walker Road is in foreground, taken 8/29/14.

Figure 3 A-C. Post-Harvest photographs from marked points taken 7/29/15

A. Photo point 2 in red pine section looking north northeast, taken 7/29/15.

B. Photo point 3 looking east, Ruben Walker Road is in foreground taken 7/29/15.

C. Photo point 4 looking northeast, Ruben Walker Road is in foreground taken 7/29/15.

Figure 4 A-C. After one growing season photographs from marked points taken 7/27/16

A. Photo point 2 in red pine section looking north northeast, taken 7/27/16.

B. Photo point 3 looking east, Ruben Walker Road is in foreground taken 7/27/16.

C. Photo point 4 looking northeast, Ruben Walker Road is in foreground taken 7/27/16.