

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

**Project Title: Whitehall/Prison Camp**

<b>DWSP Harvest Permit Number: WR 4384</b>
<b>DCR Forest Cutting Plan File Number: 257-7300-15</b>

**Site Information**

<b>Watershed:</b> Ware River	<b>Town(s):</b> Rutland
<b>Acres:</b> 63	<b>Nearest Road:</b> Whitehall Rd, Prison Camp Rd
<b>Natural Heritage Atlas overlap?:</b> No	<b>Public Drinking Water Supply Watershed?:</b> Yes
<b>Forest Types:</b> Oak – Mixed, Dry	<b>ACEC?:</b> No
<b>Soils:</b> Most of the lot is on 927C Montauk-Scituate-Canton association, extremely stony. There is also 253B Hinckley loamy sand.	
<b>Wetland Resources:</b> None on lot, adjacent to wooded wetlands.	
<b>Vernal Pools:</b> Yes	

**Harvest Information**

<b>Harvest Start Date:</b> 7/24/15	<b>Harvest End Date:</b> 9/18/15
<b>Number of Wetland Crossings:</b> None	<b>Number of Stream Crossings:</b> None

**Best Management Practices Applied**

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

<b>DWSP Forester supervising this harvest</b>	
<b>Name:</b> Kenneth W. Canfield	
<b>Forester License #:</b> 431	
<b>Phone #:</b> 508-882-3636 ext.1603	

## **NARRATIVE**

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

This area is predominantly upland oak with pockets of white pine. Most of the area was previously cut at least once as a group shelterwood in 1993. The overstory is mostly healthy, with some storm damaged trees. The areas not previously cut are overstocked and less vigorous. The understory is relatively diverse, containing white pine, oak, red maple, black cherry, hemlock, and spruce regeneration. Invasive shrubs, glossy buckthorn and shrubby honeysuckle, are present on the lot.

The soil is a moderately to well-drained sandy loam and is rocky.

### **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. Forests in this condition are resilient to and quickly recover from small and large scale disturbances such as disease, insect infestation, ice storms and hurricanes.

### **Silvicultural Objectives:**

The main purpose of this harvest is to continue the process of diversifying and regenerating the forest that was started by the 1993 group shelterwood harvest. The intent is to regenerate 1/4 of the area, while releasing previously established regeneration, expanding previously established groups, and increasing the vigor of the remaining forest.

Additionally a more vigorous and diverse shrub/grass/forbs component will be established.

This treatment 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 and existing barways will be utilized as much as possible to cross them. Due to the larger size of modern equipment these will need to be widened, and this widening has been approved by the Archaeologist.

### **Wildlife/Rare or Endangered Species:**

There are three known vernal pools adjacent to the harvest area. The pools will be protected and buffered in accordance with DWSP's CLMP. There are no critical habitats or known rare or endangered plants or wildlife on this lot. A variety of wildlife such as deer, turkey, coyote and moose are known to frequent the lot and beaver and otter are in adjacent wetlands.

## **FIGURES**

**Figure 1. Final Forest Cutting Plan**

**Figure 2 A-C Pre-Harvest photographs from marked points taken 11/25/14**

**Figure 3 A-C Post-Harvest photographs from marked points taken 10/5/15**

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

**Figure 5 A-C After two growing seasons photographs from marked points taken 7/17/17**

Figure 1: Final 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)

### For DCR Use Only:

File Number: 257-2360-15 Case No. \_\_\_\_\_  
 Date Rec'd 11/13/2014 Nat. Hert. NO / \_\_\_\_\_  
 Earliest Start 11/26/2014 Nat. Hert. Imp. N/A  
 River Basin Chicopee Pub. Dr. Wat. Yes - Ware River  
 Gen. Obj. LT ACEC NO

*Final Report*

Site Information

### Location

Town Rutland  
 Road Whitehall & Prison Camp Rds  
 Acres 63.8 Proposed Start Date 12/2/14  
 Vol. MBF 82.9 Vol. Cds. 450 Vol. Tons 282

### 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 \_\_\_\_\_

### 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)	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

*Please see attached vernal pool guidelines*

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

Forest Products

**Products to be Harvested\***

Species	Mbf/Cds		Mbf/Cds
White Pine	27.4 M	Red Maple	0.8 MBF
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	45.6 M
Hemlock	3.9 MBF	Black Oak	
Spruce		White Oak	5.2 M
Other Sitwd.		Other Hdwd.	
White Ash		<b>Total Mbf</b>	82.9
Beech		<b>Cordwood (Cds)</b>	450
White Birch		<b>SW Pulp (Tons)</b>	282
B & Y Birch		<b>HW Pulp (Tons)</b>	
Black Cherry		<b>Chips (Tons)</b>	

\*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	OM4			
Acres	63.8			
Landowner Objective	LT			
Designation of Trees	CT			
Type of Cut	SE			
Source of Regeneration	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)

11-12-18  
Date

Service Forester

**Determination and Status**

Approved  Disapproved  Expires 11/13/2016

Cutting Plan

Signature of Service Forester/Director's Agent  Date 11/13/2014

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.

 9/29/2015  
Signature of Service Forester/Director's Agent Date

Codes

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

# 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 \_\_\_\_\_

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 area had been treated twice previously over the last 20 years. A group shelterwood cut was completed on 11/18/93. This cut will expand the small openings (up to 0.1 ac) started then. There were also some larger openings created by a cut completed 8/29/03. Many of the openings created by this harvest expand upon those. The openings created this time range from 0.1 acre to 0.5 acre averaging about 0.3 acre. The larger openings have reserve trees left which are orange marked (cut trees are blue). Opening edges are marked with an orange band with a dot, double orange is edge of marked area. There is some thinning between openings on some sections. Certified vernal pool guidelines were followed around the pools.

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

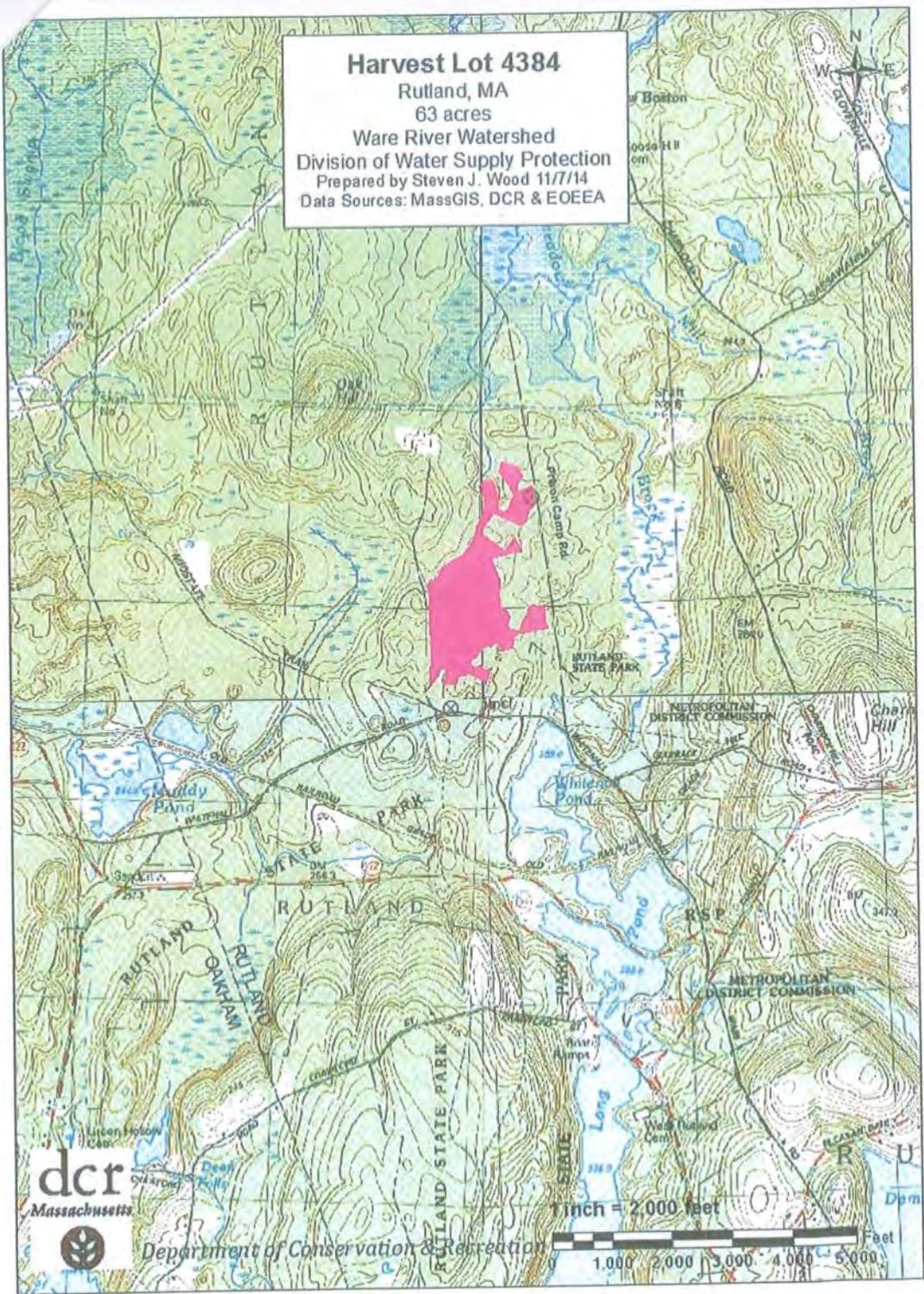
Regeneration & Future Condition

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

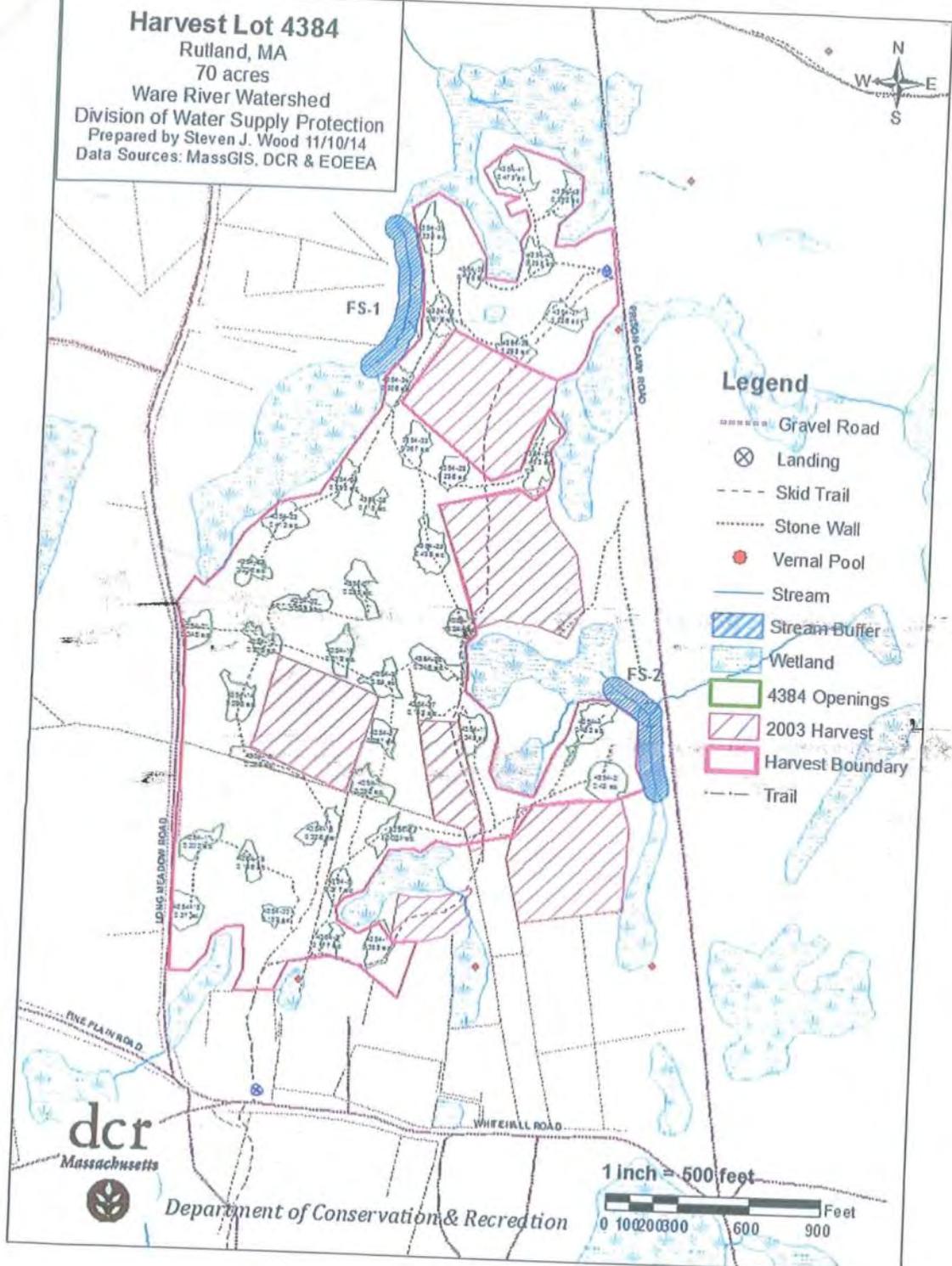
**Harvest Lot 4384**  
Rutland, MA  
63 acres  
Ware River Watershed  
Division of Water Supply Protection  
Prepared by Steven J. Wood 11/7/14  
Data Sources: MassGIS, DCR & EOEEA



Department of Conservation & Recreation



**Harvest Lot 4384**  
 Rulland, MA  
 70 acres  
 Ware River Watershed  
 Division of Water Supply Protection  
 Prepared by Steven J. Wood 11/10/14  
 Data Sources: MassGIS, DCR & EOEPA



**Legend**

- Gravel Road
- ⊗ Landing
- - - Skid Trail
- ..... Stone Wall
- Vernal Pool
- Stream
- ▨ Stream Buffer
- ▧ Wetland
- ▩ 4384 Openings
- ▨ 2003 Harvest
- ▭ Harvest Boundary
- - - Trail



Department of Conservation & Recreation



Isolated vegetated wetlands have many of the same characteristics as bordering vegetated wetlands, except that they do not border a pond, lake, or stream and are therefore not regulated by the Wetlands Protection Act, unless it can be considered isolated land subject to flooding that holds at least a ¼ acre-foot of water at least once per year to an average depth of 6 inches, or occurs within a 100-year floodplain or within 100 feet of a perennial stream (for new agriculture/forestry). Isolated vegetated wetlands may provide critical water quality and habitat functions. Therefore it is suggested that the standards for bordering vegetated wetlands also be applied to isolated vegetated wetlands—that is, avoid them if possible; cross only when the ground is dry, frozen, or otherwise stable; and harvest no more than 50% of the basal area at any one time.

## Vernal Pools

A vernal pool is a confined basin depression that in most years holds water for at least two continuous months during the spring and/or summer and that is free of adult fish populations. These areas provide essential breeding habitat for a variety of amphibian species such as wood frogs and spotted salamanders, and support other important wildlife species. BMPs for vernal pools are meant to maintain proper moisture and temperature conditions, serve as an important source of leaves and other organic matter, and ensure access for those species migrating from the forest to breed in them.

Because of their temporary nature, vernal pools can be difficult to identify. A certified vernal pool is an area that has been certified as a vernal pool by the Division of Fisheries and Wildlife. Learn more about vernal pools and their certification ([2P7C1](#)).

If the harvest includes a certified vernal pool, then the following Required BMPs are mandatory. Some certified vernal pools are also rare and endangered species habitat. If the certified vernal pool is known to be habitat for rare or endangered species, then see the "Rare and Endangered Species" section on page 19. If the vernal pool has not been certified, then the BMPs are guidelines. To find out if a certified or potential vernal pool is on the property, visit OLIVER, the MassGIS online data viewer ([2P2](#)).

### REQUIRED BMPs For all Certified Vernal Pools

-  Accurately show vernal pools on forest cutting plan map.
-  Adhere to filter strip standards (see page 11). Exceptions to this standard may be made by the service forester, if it is shown in the forest cutting plan that a heavier cut is necessary to protect environmental quality.

-  Do not operate equipment or conduct harvesting activity in the depression of a vernal pool, including stacking logs or otherwise creating soil compaction.
-  Keep tree tops and slash out of the vernal pool depression. If a top lands in the pool during the amphibian breeding season (March 1 through July 1), it should be left in place to avoid further disruptions of breeding activity.

### OPTIONAL BMPs

-  Apply required certified vernal pool BMPs to potential vernal pools functioning as vernal pool habitat.
-  Avoid making ruts deeper than 6 inches within 200 feet of a vernal pool. If filled with water, these can trick amphibians into laying eggs in them.
-  Prevent sedimentation from nearby areas of disturbed soil so as not to disrupt breeding activities within the pool.
-  Understory vegetation such as mountain laurel, hemlock, advance regeneration, or vigorous hardwood sprouts after a harvest will help maintain proper moisture and temperature conditions in the forest. Avoid leaving only trees with small or damaged tops, or only dead and dying trees.
-  In areas surrounding vernal pools, operate when the ground is frozen and covered with snow whenever possible. When operations must be scheduled in dry seasons, keep equipment 50 feet away from the pool depression and whinch out logs felled within this filter.
-  Minimize disturbance of the leaf litter and organic soils that together maintain proper moisture and temperature conditions for amphibian migrations.

## Rare and Endangered Species

The Massachusetts Endangered Species Act (MESA—MGL c131A and 321 CMR 10.00) prohibits the taking of rare or endangered species, which may include direct harm (e.g., mortality of individual animals or plants) or indirect harm (e.g., disrupt the nesting, breeding, feeding, or migratory activity through the alteration of habitat) to a local population. Each cutting plan filed, significantly amended, or extended will be reviewed by a service forester for rare and endangered species impacts. See Appendix 10 for a description of the review.

If it is determined that the harvest would negatively impact the state-listed species or their habitat, the NHESP will require specific practices to avoid negative impacts to state-listed species and their habitats. Those practices will be included within the forest

Close off truck roads to unauthorized use.

Use good road management practices during and after the harvesting; maintain and clear temporary culverts, maintain and periodically reinforce broad-based dips and water bars, and crown the road surface to direct water off the road and into adjacent ditches or undisturbed forest.

## Landings

Landings are areas, typically close to public roads, where logs that have been removed from the woods are piled until log trucks can take them to market.

### REQUIRED BMPs

- 1. Site landings in upland areas.
- 2. Stabilize soil, using seed if necessary.
- 3. Remove all unnatural debris such as cans, papers, discarded tires, metal parts, and other junk.
- 4. Neatly place woody debris from the landing (branches, cut log ends, and logs) in upland areas to improve its appearance and promote rapid decay.

### OTHER NOTES

- 1. Set the landing at least 100 feet from streams, wetlands, lakes, and ponds, including vernal pools.
- 2. If the landing must be located closer than 100 feet from water/wetland resource areas, use straw bales/wattles or other effective erosion control structures between the landing and the resource area (see technical specifications in Appendix 3), and store fuel and equipment away from resource areas.

Locate the landing on gently sloping or level ground with good drainage.

When siting the landing, remember to maintain the required buffer strip along public ways (see buffer strip section on page 12).

Locate overland flow diversions such as water bars or broad-based dips on skid trails and truck roads leading into or out of the landing.

Check hoses and fittings regularly to prevent leaks from machinery.

Outfit all logging equipment with a shovel, 5-gallon pail, and absorbent mats to mitigate any accidental release of hydraulic fluid or diesel fuel that might occur on the property due to a severed hydraulic/fuel line.

- 1. Have oil-absorbent mats on the landing in case of spills or leaks and place them as needed under parked equipment to catch slow leaks. See Appendix 5 for technical specifications for oil-absorbent mats and Appendix 6 for information about hazardous spills.

- 2. If seeding the landing is necessary to stabilize it, seed native grasses and other native herbaceous cover at the end of the operation (see seeding guidelines on page 21).

## Filter Strips

Filter strips are vegetated areas along water bodies, designed to slow the movement of overland flow of water so that sediment will be left behind, provide an opportunity for vegetation to remove nutrients from subsurface flow, provide shade to the adjacent water body to maintain cool water temperature, and protect bank stability and prevent erosion.

### REQUIRED BMPs

- 1. Filter strips are required along all ponds, lakes, regulated streams, and certified vernal pools.
- 2. Filter strips will extend 50 feet back from the bank, measured along the slope. Exceptions to this filter strip width are:

1. Slopes greater than 30%: Filter strips shall be 100 feet in width, or to the point between 50 and 100 feet from the bank, where a break in the topography reduces the slope to less than 30%.
2. Streams greater in width than 25 feet bank to bank, ponds 10 acres or larger in area, and along Outstanding Resource Waters (ORWs) and their tributaries: In these circumstances, variable-width filter strips must be used in accordance with Table 4.

Table 4: Variable-width filter strip

SLOPE (%)	FILTER STRIP WIDTH (FEET)
0	50
10	90
20	130
30	170
40	210
50	250
60	290
70	330
80	370
90	410
100	450

dcr



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

4384

FILE # 257-7300-15

W

# FOREST CUTTING PLAN CERTIFICATE

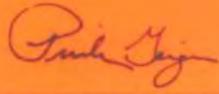
Post this in a conspicuous place within the area in which the harvesting operation is to take place.

This certifies that DCR 485 Ware Rd Belchertown accordance with the  
(Name of Owner) (Address)

provision of M.G.L. Chapter 132, Section 40-46, filed in Clinton with the Dept. of Conservation  
and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the

Whitehall Rd, Rutland

Approval Date 11/13/2014  
Director's Agent Kate Margolis  
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 11/25/14**

A. Photo point 1, looking northeast, taken 11/25/14



B. Photo point 2, looking west, taken 11/25/14



C. Photo point 3, looking northeast, taken 11/25/14



**Figure 3 A-C. Post-Harvest photographs from marked points, taken 10/5/15**

A. Photo point 1, looking northeast, taken 10/5/15



B. Photo point 2, looking west, taken 10/5/15



C. Photo point 3, looking northeast, taken 10/5/15



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

A. Photo point 1, looking northeast, taken 7/27/16



B. Photo point 2, looking west, taken 7/27/16



c. Photo point 3, looking northeast, taken 7/27/16



Figure 5 A-C After two growing seasons photographs from marked points taken 7/17/17

A. Photo point 1, looking northeast, taken 7/17/17



B. Photo point 2, looking west, taken 7/17/17



C. Photo point 3, looking northeast, taken 7/17/17

