

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

Project Title: Lot 5298

DWSP Harvest Permit Number: 5298

DWSP Proposal ID: WA-21-141/248

DCR Forest Cutting Plan File Number: 282-32500-22

Site Information

Watershed: Wachusett

Town(s): Sterling

Acres: 75

Nearest Road: Justice Hill Road

Natural Heritage Atlas overlap?: No

Public Drinking Water Supply Watershed?: Yes

Forest Types: White pine/oak, Mixed hardwoods

Area of Critical Environmental Concern (ACEC)?: No

Soils: Paxton fine sandy loam, Woodbridge fine sandy loam

Wetland Resources: Wetlands and an intermittent stream

Vernal Pools: There's one potential vernal pool.

Harvest Information

Harvest Start Date: 08/27/2021

Harvest End Date: 08/27/2023

Number of Wetland Crossings: 4

Number of Stream Crossings: 2

Best Management Practices Applied

Stream Crossings: SC-1 was not used. SC-2 was poled when it was appropriately dry.

Filter Strips: There is no harvesting in the filter strip.

Wetland Crossings: WC-1 and WC-2 were not used. WC3 and WC-4 were primarily crossed when dry and corduroy was employed.

Harvesting in Wetlands: There is no harvesting in wetlands.

DWSP Forester supervising this harvest

Name: Greg Buzzell

Forester License number: 025

Phone number: 774-261-1841

Email: greg.buzzell@mass.gov

Narrative

General Description/Forest Composition/History

This proposed lot is the remnants of two previously reviewed proposed lots...WA-10-141 and WA-17-248. WA-10-141 was marked and sold as Lot #5248 in 2014 and was operated from June to November of 2016. Work only occurred in the portion of the lot south of the stone wall that divides this area in half. No cutting occurred in the 22 acres north of the wall.

WA-17-248 was marked and sold as Lot 5264 in 2016 and was operated in May and June of 2017. Work primarily occurred in the north and north-central part of this area. Within the 51 acres in the south and southeast side of the lot, 3 of 9 overstory removal areas were completed. Since the remaining portions of these two lots directly abut each other, it seemed reasonable to combine them into one new operation.

Here's the description for WA-17-248:

This working unit is part of the large Davis Farm property that was acquired in 1996. This specific piece of the Davis Farm is known as the Stuart Pasture and as is typical for abandoned pastures as it is dominated by low quality white pine. A timber sale in the early 1990s seems to have removed the best quality pines and left the trees with multi-stemmed crowns. Along with white pine, the overstory is dominated by black birch, red oak, red maple and black cherry. Paper birch and bigtooth aspen are found as well and are especially prevalent in the western part of the area. The logging in the early 1990s has led to a well developed midstory of black birch, red maple, red oak and paper birch poles. There is good advance regeneration present as well and is comprised of red oak, red maple, white pine, white oak, hickory, black cherry and white ash. Sampling found adequate regeneration in 66% of the plots with marginal regeneration in 17% of the plots. Oak regeneration was present in 75% of the plots.

The description for WA-10-141 is similar as it has a similar history as a former pasture and was logged prior to MDC acquisition leading to good advance regeneration. In general, the quality of the white pine is better than in the other area and there is some very good quality red oak on the northeast facing slope.

Site Selection

The ideal watershed protection forest is one which best serves the function of the land as a producer of high quality drinking water in both short- and long-term. This forest must be vigorous and diverse in tree species and ages, be actively accumulating biomass and actively regenerating. Such a forest will be ideally suited to be resilient to and quickly recover from small- and large-scale disturbances such as diseases, insect infestations, ice storms and hurricanes.

Silvicultural Objectives

The plan for the remainder of Lot 5264 (WA-17-248) is to complete the harvesting of the overstory openings that remain. There are 9 openings ranging in size from 1/3rd to 1.5 acres that total 8.6 acres. Three openings totaling 4.7 acres were cut in 2017. Following this operation there will be 13.3 acres (8.6+4.7) of young forest in these 51 acres which is 26% of the area. Lot 5248 was proposed for FY 2010 and the intent was to create overstory openings in the typical size range from about 1/5th to 2 acres in size in order to release advance regeneration resulting in a new young age cohort on up to 1/3rd of the area. When this lot was finally marked and sold in 2014 we were under silvicultural restrictions coming out of the moratorium that resulted in the STAC report and our response in the "From Here Forward" document. This

temporary restriction limited all overstory openings to less than 1/2 acre. This restriction was lifted in time for the FY 2015 round of lot proposals. Given how faded the marking paint is in this area is, the prudent course is to mark all-new openings in these 22 acres. As was the original intent for this area, the advance regeneration will be released by removing the overstory in patches that range from 0.5 to 2 acres in size totaling 7.6 acres resulting in young forest present on 33% of the area.

Cultural Resources

This area has been assessed by the DCR Archeologist for both known sites of cultural or archeological importance as well as for potential use by pre-Contact Native Americans.

Rare or Endangered Species

None.

Figures

- Figure 1. Forest Cutting Plan
- Figure 2. Maps of harvest area showing approximate boundary, proposed openings and other features
- Figure 3. General locus map showing the location of the proposed timber harvest
- Figure 4. Pre-Harvest Photographs, A-D
- Figure 5. Post-Harvest Photographs, A-C

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)

For DCR Use Only:

File Number	_____	Case No.	_____
Date Rec'd	_____	Nat. Hert.	_____ / _____
Earliest Start	_____	Nat. Hert. Imp.	_____
River Basin	_____	Pub. Dr. Wat.	_____
Gen. Obj.	_____	ACEC	_____

Site Information

Location

Town Sterling Lot 5298
Road Justice Hill Road
Acres 75 Proposed Start Date 9/01/21
Vol. MBF 95.5 Vol. Cds. 138 Vol. Tons 242

Plan Preparer

Name Russell Wilmot
Address 180 Beaman St.

Town, State, Zip West Boylston, MA, 01583
Phone 508-792-7806 Ext 318
Type of Preparer Mass. Licensed Forester
*Mass. Forester License # 426
*Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR/DWSP/OWM Wachusett/Sudbury
Mailing Address 180 Beaman St.

Town, State, Zip West Boylston, MA 01583
Phone 608-792-7806
Ch61 ☐ Ch61A ☐ Stew ☐ *Case # _____
Est. Stumpage Value _____

Licensed Timber Harvester**

Name Will be provided when known
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	BR	PO		
Existing Structure	No	No		
Type of Bottom	ST	MU		
Bank Height (ft)	1'>	1'>		
Stabilization	CO	CO		

Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing	20'	100'	30'	100'
Mitigation	OT	OT	FR/DR	FR/DR
Stabilization	ST/CO	ST/CO	CO	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

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

pg 3 of 5

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	68	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	21
Hemlock		Black Oak	6
Spruce		White Oak	.5
Other Sftwd.		Other Hdwd.	
White Ash		Total Mbf	95.5
Beech		Cordwood (Cds)	138
White Birch		SW Pulp (Tons)	242
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	WO	MO		
Acres	68	7		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	SH	SH		
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 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

7/22/21

Determination and Status

	Approved	Disapproved	Expires
Cutting Plan	<input type="checkbox"/>	<input type="checkbox"/>	_____
Signature of Service Forester/Director's Agent	Date		
Extension	1 <input type="checkbox"/>	2 <input type="checkbox"/>	Expires _____
Amendment	App 1 <input type="checkbox"/>	Dis 1 <input type="checkbox"/>	App 2 <input type="checkbox"/> Dis 2 <input type="checkbox"/> _____

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

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	SE Natural Seed
WK WP/Hem	HH Hem/Hdwd	RM Red Maple	LT Leave Tree	ST Seed Tree	NT Non Com Thin	PL Plant	CO Coppice
WH WP/Hdwd	BC Blck Cherry	BE Beech	SB Stand Boundary	CC Clear Cut	SE Selection	DS Direct Seed	OT Other
WO WP/Oak	BB Bee/Bir/Map	SF Spruce/Fir	OT Other	SA Salvage	DL Diameter Limit*		
RP Red Pine	OH Oak/Hdwd	SM Sugar Maple	Landowner Objective	SN Sanitation	OT Other*		
SR Red Spruce	OR N Red Oak	PP Pitch Pine	LT Long-term Mgt.				
			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

Use only if further explanation is required of information on pages one or two or if "other" was used in any category.

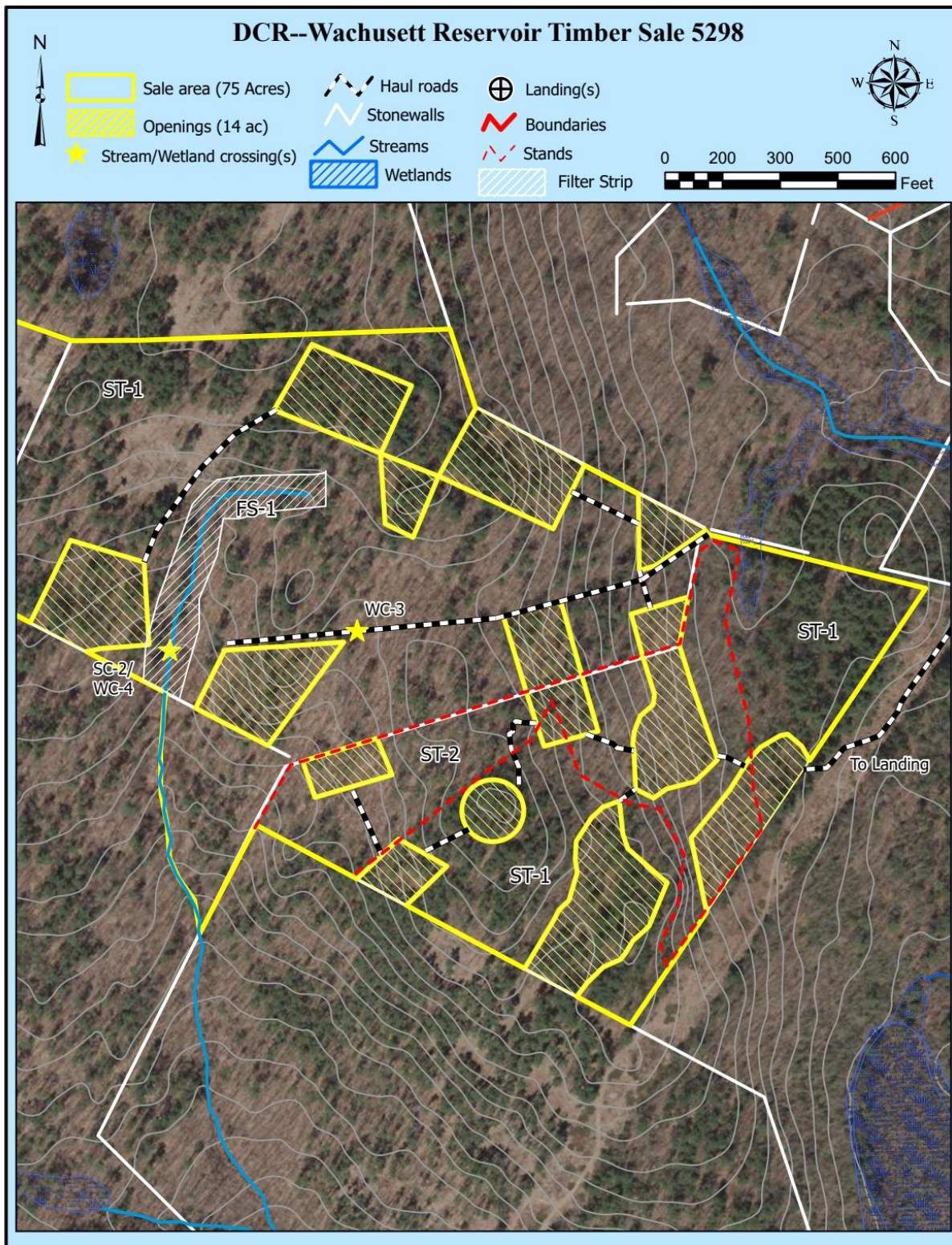
Landowner: _____

Town: _____

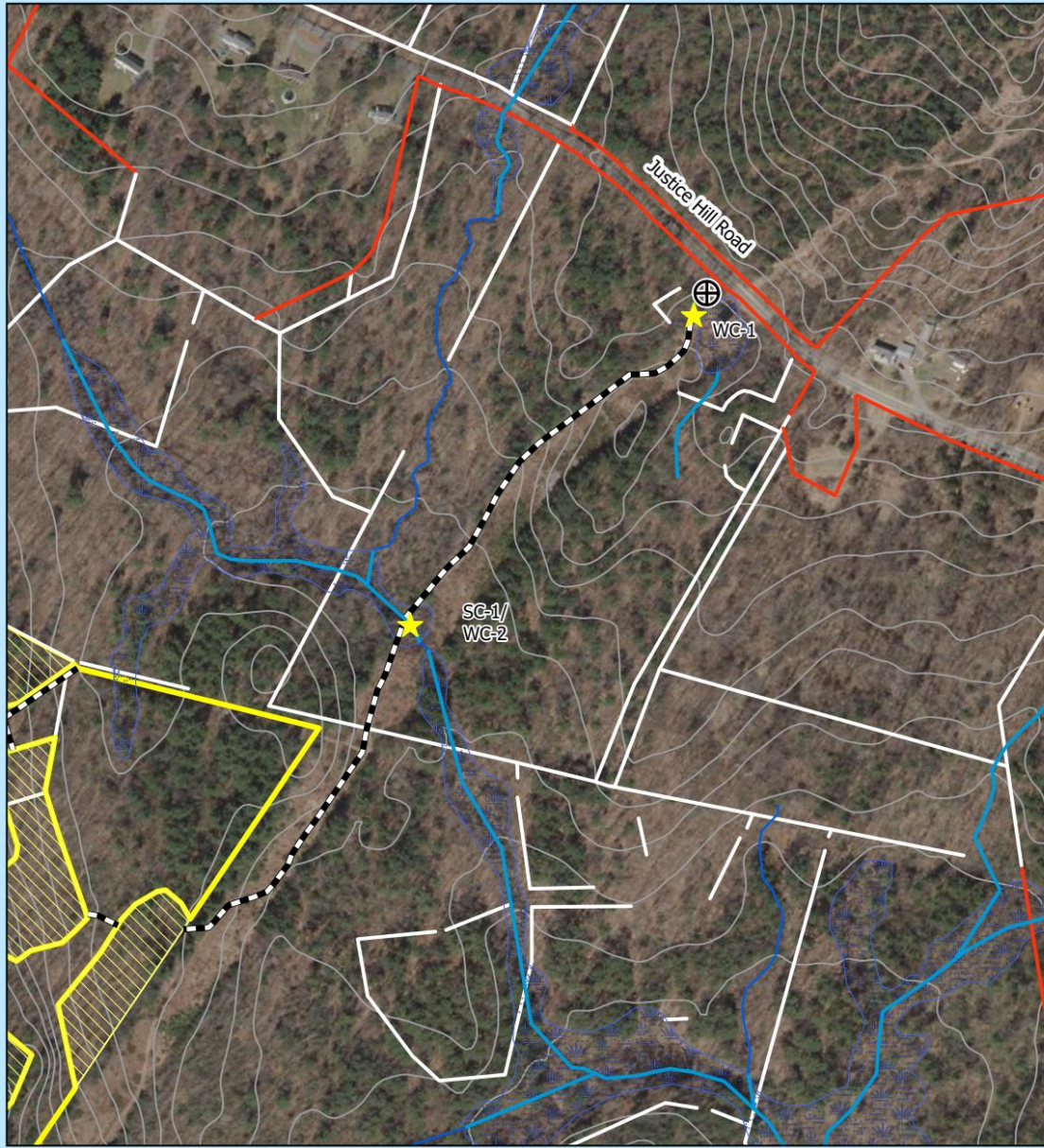
File Number: _____

BMPs	<u>WC-1 is on the powerline access gravel road. Gravel or poles will be placed on this crossing.</u>
	<u>SC-1 (Rocky Brook)/WC-2 are on a powerline road that has preexisting gravel and is regularly wet and SC-1 will require bridging. The approaches to the stream will be protected with gravel and/or poles unless the ground is adequately frozen or snow-covered.</u>
	<u>WC-3 is an isolated unmapped wetland area at the base of a slope on a preexisting road and will be protected with wood (corduroy and/or tops) as needed if it is not dry or frozen.</u>
	<u>SC-2 does not originate from a wetland but will be treated as if it were. This SC-2/WC-4 crossing (on a preexisting road) will only be utilized if the is dry, frozen, or snow packed. Otherwise a haul road North of the stream will be used.</u>
Silviculture	<u>In order to release advance regeneration, 13 openings in the overstory are being created, covering 14 acres. These openings range from .42 acre to 2 acres in size with an average of 1.1 acres. They are well distributed throughout the area taking advantage of the advance regeneration comprised of white pine, oaks, and other hardwoods. No thinning will occur between any of these patches.</u>
Object	<u>The objective of this operation is to diversify the age structure of the forest by removing the overstory in patches thereby releasing the advance regeneration. The current age structure is limited with an insufficient component of young forest.</u>
Other	<u>The landing of this site will be right next to timber sale #282-22531-20. An alternate landing is located about 3700' to the west on Justice Hill Road. This site has been used as a landing several times previously.</u> <u>The powerline has several wet spots in the road that will be graveled, or tops may be place to fill them in. Some water bars may be installed on the powerline as needed.</u> <u>All haul roads between openings have been flagged along with the crossings. The haul road from the western landing has not been flagged. It follows the path that has been used for previous operations in this area and then follows skid trails through Lot 5264 (CP #282-8469-17) that was cut in 2017.</u> <u>FS-1 No cutting will take place.</u>

Figure 2. Maps of harvest area showing approximate boundary, proposed openings and other features




DCR--Wachusett Reservoir Timber Sale 5298 (2)



DCR--Wachusett Reservoir (Alternate landing for)
Timber Sale 5298 (282-32500-22)



 Sale area (75 Acres)


 Wetlands

 Haul roads

 Stonewalls

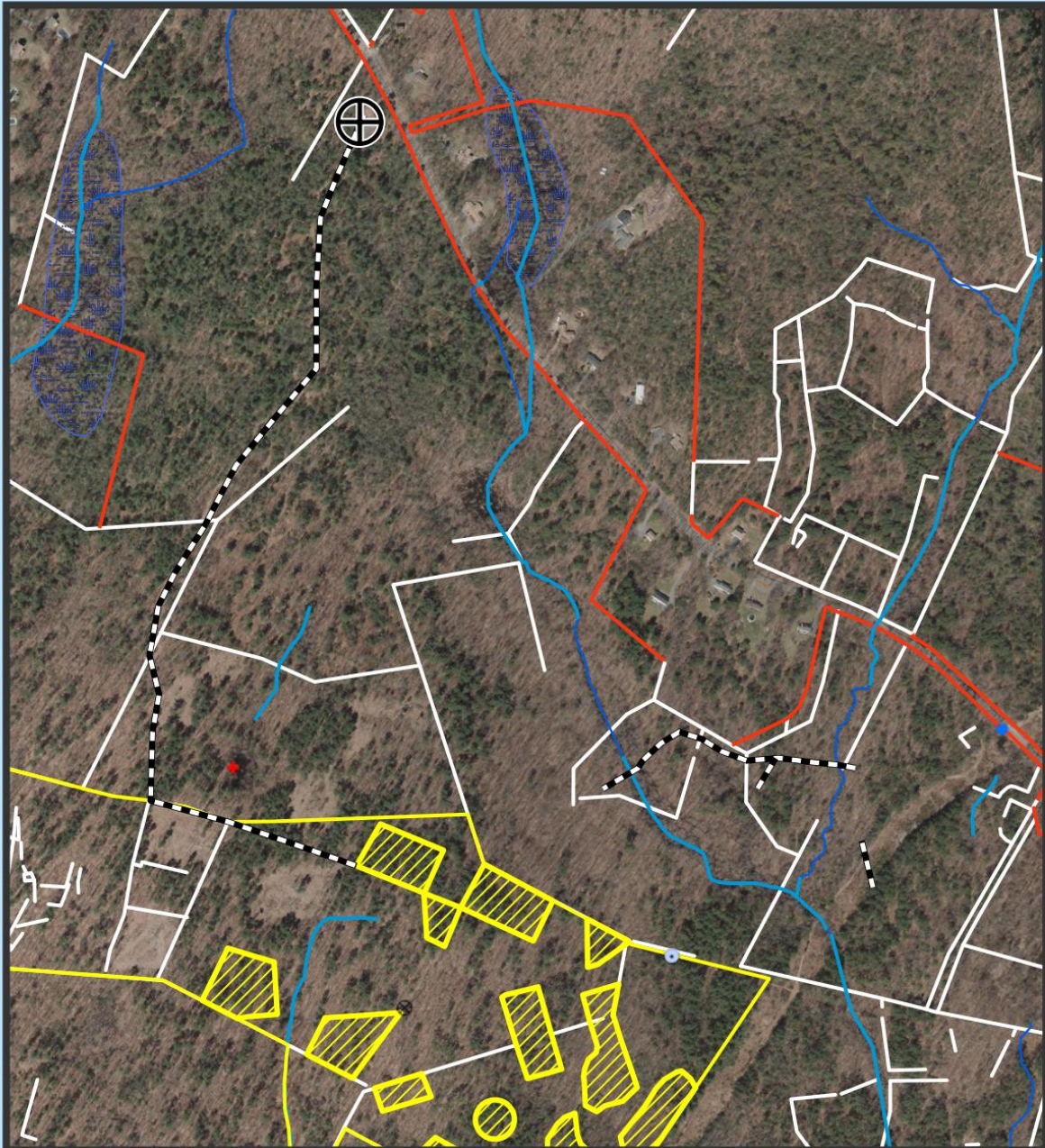
 Streams

 Landing(s)

 Boundaries



0 300 600 800 1,000
 Feet



DCR--Wachusett Timber Sale 5298 Locus Map

05000200300400
Feet

This topographic map displays the Wachusett area, including the towns of Leominster and Sterling. The map features contour lines indicating elevation, with a prominent orange-shaded area representing the timber sale. Key geographical features include Stuart Pond, Hy-Crest Pond, Bartlett Swamp, and the Fall Brook Reservoir. The map also shows various roads, including Route 100 and Route 101, and several hills such as Justice Hill, Rocky Hill, and Bee Hill. The timber sale area is located in the central part of the map, near the intersection of Route 100 and Route 101, and is surrounded by forested land.

Figure 4. Pre-Harvest Photographs, A-D



A. Landing.



B. White pine marked for removal in an opening with hardwood and white pine regeneration.



C. White pine marked in an opening with boulders and hardwood regeneration.



D. White pine marked with thick regeneration.

Figure 5. Post-Harvest Photographs, A-C



A. Looking into a newly-created patch of young forest from an old cart path along the edge of the opening.



B. One of the larger openings.



C. Both hardwood and white pine are being released in this area.