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

Project Title: Moosehorn and North Main

DWSP Harvest Permit Number: 3165
DWSP Proposal ID: NS-16-15
DCR Forest Cutting Plan File Number: 204-28932-21

## Site Information

Watershed: Quabbin	Town(s): New Salem					
Acres: 33.1	Nearest Road: Moosehorn Road					
Natural Heritage Atlas overlap?: No	Public Drinking Water Supply Watershed?: Yes					
Forest Types: white pine-hemlock, hemlock, and	ACEC?: No					
oak-hardwood, northern hardwoods						
Soils: Montauk fine sandy loam, 3-25% slopes, and C	hatfield-Hollis complex, 8-15% slopes.					
Wetland Resources: A long, narrow wetland between two hills nearly bisects the project area, starting						
about 350 feet from the north border of the harvest area and extending to the south border. A second,						
smaller wetland starts about 90 feet from North Main Street and extends 150 feet east, where it becomes						
an intermittent stream that crosses an existing cart roa	d before entering the large wetland.					

Vernal Pools: none known

## **Harvest Information**

Harvest Start Date: 3/12/2021	Harvest End Date: 5/19/2021
Number of Wetland Crossings: 1	Number of Stream Crossings: 0

## **Best Management Practices Applied**

Stream Crossings	n/a
Filter Strips	Variable width filter strips on internal and adjacent wetlands and streams,
_	including Moosehorn Brook across the Moosehorn Road to the north.
Wetland Crossings	Stabilized with corduroy, mitigated with bridge panels.
Harvesting in Wetlands	n/a

## **DWSP** Foresters supervising this harvest

Name	Helen Johnson
Forester License #	383
Phone #	617-733-2937
Email	Helen.Johnson@mass.gov

## NARRATIVE

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

Lot 3165 is located in New Salem between North Main Street and Moosehorn Roads. The terrain descends easterly from North Main Street to a long narrow wetland, then up and over a ridge and back down to Moosehorn Road.

The overstory is primarily emergent white pine and hemlock over diverse mixed hardwoods, including red and black oak, black birch and red maple, as well as smaller components of sugar maple, white ash, black cherry, and yellow birch, as well as occasional poplars and pitch pine. Hemlock is most prevalent in the eastern portion of the lot, becoming nearly pure hemlock with little or no regeneration on parts of the ridge near Moosehorn Road.

Forest health is variable. Many of the hemlocks have thinning crowns due to hemlock wooly adelgid, and possibly also hemlock elongate scale. The white pine has been moderately impacted by white pine weevil, but it's generally still vigorous. Nectria fungus and sugar maple borer are also present.

## **Site Selection**

This site was selected because its high proportion of tall overstory pines and hemlocks, combined with inadequate regeneration make it a high risk for severe stand damage in the event of w major windstorm (hurricane, tornado, microburst, etc.) or other natural disaster.

## **Silvicultural Objectives**

The primary objective is to create a new age class of vigorous young trees of all species through small group selection, with openings up to two acres. Group size will be appropriate for the terrain, with the larger openings located on the most moderate slopes. Openings will be irregular in shape, and will be located where there are clusters of trees that are diseased, declining, or have unstable stem structure. Declining hemlock, weevilled white pine, nectria-infected black birch, and other diseased and declining trees will be prioritized for removal. Oaks, hickories, northern hardwoods (sugar maple, white ash, black cherry, and yellow birch) and pitch pine will be favored for retention. The healthiest individuals of all species will be retained.

## **Cultural Resources**

There are several stone walls in the northwestern corner of the lot, near North Main Street. These will be avoided and protected as much as possible; however due to terrain limitations it is necessary to cross two of the walls in locations where they've been crossed in the past. There are no other known cultural features in the project area.

## **Rare or Endangered Species**

NHESP has not identified any rare or endangered species in the project area.

Forest Cutt	ing Plan
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and Notice of Intent under M.G.L. Chapter 132 - The Forest Cutting Practices Act, 304 CMR 11.00 (Effective Date: 3/15/16) Amendment 1 (3/2)

#### Location

Codes

Road North Main Street								
Acres 33.1	Prop	osed Star	t Date 9/	9/2020				
Vol. MBF 46.1 V	ol. Cds	50	Vol. Ton	s <u>96</u>				
Plan Preparer								
Name Helen Johnson, V	Vatershed F	orester						
Address DCR-DWSP Qu	abbin Section	n						
485 Ware Road								
Town, State, Zip Belch	ertown, M/	A 01007						
Phone 617-733	-2937							
Type of Preparer LF								
*Mass. Forester Licens	e # <u>383</u>							
*Mass. Forester Licens *Required for land und	e # <u>383</u> er Ch61, C	h61A or	Forest St	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing	e # <u>383</u> er Ch61, C <b>gs</b>	h61A or	Forest St	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map	e # <u>383</u> er Ch61, C <b>gs</b> SC-1	h61A or	Forest St	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing	e # <u>383</u> er Ch61, C <b>gs</b> SC-1	ch61A or SC-2	Forest St	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure	e # <u>383</u> er Ch61, C <b>gs</b> SC-1	SC-2	Forest St	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure Type of Bottom	e # <u>383</u> er Ch61, C gs SC-1	SC-2	Forest St	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure Type of Bottom Bank Height (ft)	e # <u>383</u> er Ch61, C gs SC-1	SC-2	SC-3	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure Type of Bottom Bank Height (ft) Stabilization	e # 383 er Ch61, C gs SC-1	SC-2	SC-3	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure Type of Bottom Bank Height (ft) Stabilization Wetland Crossin	e # <u>383</u> er Ch61, C gs SC-1	SC-2	SC-3	ewardsl				
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*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure Type of Bottom Bank Height (ft) Stabilization Wetland Crossing Indicate location on map Length of Crossing	e # 383 er Ch61, C gs SC-1 gs gs WC-1 40'	SC-2	SC-3	ewardsl				
*Mass. Forester Licens *Required for land und Stream Crossing Indicate location on map Type of Crossing Existing Structure Type of Bottom Bank Height (ft) Stabilization Wetland Crossing Indicate location on map Length of Crossing Mitigation	e # 383 er Ch61, C gs SC-1 gs gs WC-1 40' OT	SC-2 WC-2	SC-3	wc-4				

Filter Strips		
Stabilization	со	
Mitigation	ОТ	
Length of Crossing	40'	

Indicate location on map	FS-1	FS-2	FS-3	FS-4
Width (50', 100', or VA)	VA	VA	VA	

#### For DCR Use Only: File Number 20428931. Date Rec'd 8.4.20 Case No. 21 No Nat. Hert. Pub. Dr. Wat. Ves ACEC Earliest Start 8 .27 .20 River Basin Chicopee

#### Landowner

LT

Gen. Obj.

Name DCR-DWSP, Quabbin Section (ATTN: Forestry Mailing Address 485 Ware Road

Town, State, Zip		Belchertown, MA 01007				
Phone	61	7-733-2937				
Ch61	61A	61B	Stew	*Case #		
FSC 🗌	CR 🗌	CR Hole	der			

#### Licensed Timber Harvester\*\*

Name John Conkey and Sons Logging Address 621 Daniel Shays Highway Town, State, Zip Belchertown, MA 01007 Phone (413) 883-2182

Mass. Lic. Harvester # 2021-039, -106, -1847, -1848 \*\*This information may be supplied after the plan is approved, but before work begins

### **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**

	incute rocution of	. map		110-1	110-2	1	1 110-4		0
Le	ngth of Crossi	ng		40'			1	1 1	leplace SC-1 w/WC-1 to favor
M	itigation			OT				1	Equipment Safery and operability -AK
St	abilization			со				] -	
F	ilter Strip	os							
Inc	licate location or	1 map	Г	FS-1	FS-2	FS-3	FS-4	] -	
W	idth (50', 100',	or V.	A)	VA	VA	VA		] -	
		-			u haan sa har		Constant.		
F	e of Preparer	Type	e of Cross	ing Sta	bilization	Miti	gation	Type of Bottom	Note:
н	Lic Tim Har	BR	Bridge	M	I Mulch	DR	Dry	ST Stony	Applicant must provide DCR with all relevant information
в	Timber Buyer	FO	Ford	CC	Cordurov	OT	Other	MU Mud	Some forestry activities such as prescribed huming and
0	Landowner	PO	Poled	ST	Stone	8 2862		GR Gravel	pesticide or fertilizer application may require additional permits
T	Other	ОТ	Other	HE	Hay Bale Other	s		OT Other	Consult MA Forestry BMP Manual for further information
	If Other	(OT	) is used	l in any	category	an expl	anation m	ust be given on	an attached narrative page pg 3 of 5

Species	Mbf/Cds		Mbf/Cds
White Pine	22.400	Red Maple	
Red Pine		Sugar Maple	2
Pitch Pine		Red Oak	1.200
Hemlock	19.600	Black Oak	1000
Spruce		White Oak	
Other Sftwd.	24.00	Other Hdwd.	2.900
White Ash	-	Total Mbf	46.100
Beech	1	Cordwood (Cds)	
White Birch		SW Pulp (Tons)	
B & Y Birch	1.000	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	WK	- · · · /		
Acres	33.100	1		
Landowner Objective	LT	1		1.4
Designation of Trees	CT	1		
Type of Cut	SE			
Source of Regeneration	SÉ			

#### Landowner Signature

115

OWD

and

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.

#### X 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.

De	Determination and Status						Final Report and Comments					
Cut	Ap ting Plan	prov Ø	red Disar	prov	red Exp 08/1	oires 2/2(	)22_	I he and	reby certify th all relevant st	at the atutes	afore described For have been substanti	est Cutting Plan ally complied with.
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Sig	nature of Servio	:e ko	ibater/Directo	or's /	Agent	D	ate			1		ALL GALLEN
		1			Expires		Ser. For. Ints.					
Ext	ension	1	2	]								
Am	endment 3.	pp 1	Dis 1	App	2 Dis 2	3	AR1				X	
	Forest Types		Designatio	n of T	rees	C.1.940	Type of	Cut	(1960-serv) Ga		Source of Rege	neration
WP	White Pine	HK	Hemlock	OM	Mixed Oak	CT	Cut Tree	SH	Shelterwood	Inte	rmediate Harvests:	AD Advanced
WH	WP/Hdwd	BC	Blck Cherry	RE	Rea Maple	SR	Stand Boundary	CC	Clear Cut	NT	Non Com Thin	PI Plant
	WD/Oal-	BB	Bee/Bir/Man	SF	Spruce/Fir	OT	Other	SE	Selection	Non	-Standard Systems:*	CO Coppice
WO	AV 1 1 1 1 1 1 1 1				1. pro 1. 1. 1. 1.						statema.	ee coppies
WO RP	Red Pine	OH	Oak/Hdwd	SM	Sugar Maple	Lan	downer Objective	SA	Salvage	HG	Highgrade*	DS Direct Seed

Species	Mbf/Cds		Mbf/Cds
White Pine	22.4	Red Maple	
Red Pine		Sugar Maple	
Pitch Pine		Red Oak	1.2
Hemlock	19.6	Black Oak	
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	2.9
White Ash		Total Mbf	
Beech		Cordwood (Cds)	
White Birch		SW Pulp (Tons)	
B & Y Birch		HW Pulp (Tons)	
Black Cherry		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. Mbf = thousand board feet.

#### **Cutting Standards**

Indicate location on map	ST-1	ST-2	ST-3	ST-4
Forest Type	WK			
Acres	33.1			
Landowner Objective	LT			
Designation of Trees	CT	1.1		
Type of Cut	SE			
Source of Regeneration	SE			

#### Landowner Signature

-andowne

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Stand Treatment

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.

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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.

8-11-2020 Date

### **Determination and Status**

Signature of landowner(s)

#### **Final Report and Comments**

Disapproved Expires Approved 

I hereby certify that the afore described Forest Cutting I	Diam
Thereby certify that the affore described Porest Cutting I	rian
and all relevant statutes have been substantially compli-	

Cutt	ing Plan							and	all relevant st	atutes	have been substant	ially co	mplied with	i.
Sign	ature of Se	rvice Fo	rester/Direc	tor's A	Agent	D	ate	Sig	nature of Serv	ice Fo	rester/Director's Ap	gent	1	Date
Exte	nsion	۱D	2[	]	Expires /		Ser. For. Ints.							-
Ame	endment	App I	Dis 1	App .	2 Dis 2									
	Forest Ty	pes				Desi	gnation of Trees		Type of	Cut		Source	of Regeneration	
WP	White Pine	HK	Hemlock	OM	Mixed Oak	CT	Cut Tree	SH	Shelterwood	Inte	rmediate Harvests:	AD	Advanced	
WK	WP/Hem WP/Hdurd	HH	Hem/Hdwd	RM	Red Maple	SB	Stand Boundary	SI	Clear Cut	NT	Commercial Thin	SE	Natural Seed	
wo	WP/Oak	BB	Bee/Bir/Man	SF	Sonice/Fir	OT	Other	SE	Selection	Nor	-Standard Systems:*	CO	Connico	
RP	Red Pine	OH	Oak/Hdwd	SM	Sugar Maple	Lan	downer Objective	SA	Salvage	HG	Higherade*	DS	Direct Seed	
SR	Red Spruce	OR	N Red Oak	PP	Pitch Pine	LT ST	Long-term Mgt. Short-term Har.	SN	Sanitation	DL	Diameter Limit* Other*	OT	Other	
	*11	Other (	OT) or a no	on-sta	ndard syste	m is i	used an explanati	ion m	ust be given o	n atta	ched narrative pa	ge	pg 4 of 5	

in. F.

BMPs

rees

# **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	

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. SC-1 is an existing ford on an intermittent stream with a hard bottom. Consistent with the DWSP Land Management Plan, it will be bridged if flowing. However the stream rarely contains water, so bridging is unlikely to be necessary. If the stream bod is damp but does not contain flowing water, tops and slash will be used to stabilize the soil. In dry conditions no stabilization will be necessary.

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.

	Describe Tre	es to be Cut	1	Describe Tre	% BA/AC			
Stand No.	Species	Size	Quality	Species	Size	Quality	Cut	Left
<del></del>								-
Sum Coorning							1	-
								-

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.

Dentra 110.	Regeneration	If using AD - Describe the species present and how the regeneration will be protected
	(el. Ab, SE )	It using 3D - beserve are source of the seed and the builder of seed needs are
	_	
	-	
Stand No.	Describe what the s	Desired Future Condition stand is expected to look like five years from the harvest, including the condition of the overstory & unde
	1 N -	
		and the second sec
1		

pg 5 of 5





