Massachusetts Department of Conservation and Recreation
Division of Water Supply Protection, Office of Watershed Management

Forest Management Project Summary

Project Title: O'Loughlin Pond Red Pine
DWSP Harvest Permit Number: 3155
DWSP Proposal ID: NS-18-RP_Rt122
DCR Forest Cutting Plan File Number: 204-9309-18

Location Information
Watershed: Quabbin
Town(s): New Salem
Acres: 13
Nearest Road: Route 122
Natural Heritage Atlas overlap?: Yes
Public Drinking Water Supply Watershed?: Yes
Area of Critical Environmental Concern (ACEC)?: No

Site Information
Forest Types: red pine, white pine-hardwoods
Soils: Windsor loamy sand, 8 to 15% slope; Walpole sandy loam, 0 to 2% slope; and Scarboro mucky sandy loam, 0 to 2% slope
Wetland Resources: There are no wetland resources within the harvest area. The lot is bordered to the north by wetlands that drain from Blackington Swamp, and to the south by O'Laughlin Pond.
Vernal Pools: none

Harvest Information
Harvest Start Date: March 10, 2020
Harvest End Date: June 10, 2020
Number of Wetland Crossings: none
Number of Stream Crossings: none

Best Management Practices Applied
Stream Crossings: n/a
Filter Strips: variable width
Wetland Crossings: n/a
Harvesting in Wetlands: n/a

DWSP Forester supervising this harvest
Name: Helen Johnson
Forester License number: 383
Phone number: (617) 733-2937
Email: Helen.Johnson@mass.gov

Narrative

General Description/Forest Composition/History

This 13 acre harvest in the town of New Salem is on the north and south sides of Route 122 in the vicinity of Gate 31. It is bordered to the north by wetlands that drain from Blackington Swamp, and to the south by O'Laughlin Pond.

The primary objective of this harvest is to remove red pine plantations before the trees are killed by red pine scale, an invasive insect that is moving swiftly through the region and causes rapid mortality, as has already occurred in other locations at Quabbin. If left to die, these trees would become safety hazards for vehicles on Route 122. By harvesting them before that happens we are protecting public safety, preventing the expense of removing dead trees, and facilitating the transition from monoculture to diverse native forest. Since the cut trees will be used primarily for durable wood products, an additional benefit is that most of their carbon will be sequestered for decades to come. If left to die, these trees would release carbon into the atmosphere as they decayed.

In addition to red pine, which accounted for 80% of the volume of wood harvested, 20% was white pine that was in decline due to white pine needle drop disease, a suite of fungal infections that seriously weaken pines, increasing their vulnerability to snapping and uprooting, and sometimes directly resulting in mortality.

Most of the trees within the 50 foot aesthetic buffer on the south side of Route 122 are red pines which, if left to die, would become safety hazards for vehicles. Therefore, more than 50% of basal area will be cut along the highways. However, within the variable width filter strip for O'Laughlin Pond, numerous red pines will be left in order to fulfill regulatory requirements, even though they are expected to die. Once dead, they will provide valuable wildlife habitat near the water.

The dominant soil type in this area is Windsor loamy sand, which is excessively drained glacial outwash. Also present are poorly drained Walpole sandy loam and Scarboro mucky sandy loam; however, based on vegetation and microtopography there are no wetlands within the harvest area, so these soil types are likely much less prevalent than is shown on soil maps. Nonetheless, corduroy (mats constructed from slash) will be employed to protect soils wherever needed.

Site Selection

The primary goal of harvesting on the watershed is to create and maintain a forest that is resilient to and can quickly recover from small and large scale disturbances such as diseases, insect infestations, ice storms and hurricanes, all of which are becoming increasingly common. The ideal way to achieve this is to have a diversity of species in various stages of development (seedlings through large legacy trees) that are actively growing and regenerating. This combination of structural and species diversity builds resistance and resilience into the forest.

This harvest will remove red pines that were planted in the first half of the 20th century, and are now threatened by red pine scale. Small areas dominated by white pine will also be harvested. The native stands of diverse species that replace these monocultures will be better able to resist and recover from natural disturbances, including invasive insects and diseases.

Silvicultural Objectives

This harvest focuses on removal of all red pine, except where it must be retained in order to meet regulatory requirements for filter strips. Small openings will also be made in white pine dominated areas that have been damaged by white pine weevil and needle drop fungi. Advance regeneration and mature trees of native species are being retained and protected wherever possible.

Cultural Resources

The Quabbin Takings Sheet shows that prior to the construction of the Quabbin Reservoir, there were three residences located around the northern harvest area. These were removed when the Reservoir was created. No other cultural resources have been found in this area.

Rare or Endangered Species

The Natural Heritage and Endangered Species Program (NHESP) of the Division of Fisheries and Wildlife has determined that state-listed sensitive species or habitats may exist within the harvest area. To protect them from unnecessary disturbance, detailed information regarding affected species and their locations is not included here. This harvest has been designed in consultation with NHESP in order to enhance habitat for state listed species, as well as to ensure their protection. In order to prevent a Take, NHESP issued restrictions on this project that are incorporated into the Forest Cutting Plan and have been implemented on this harvest from its earliest planning stages.

NHESP reviewed the Forest Cutting Plan for this lot and determined that,
"Based on details of the Plan and information in the NHESP database, the Division [of Fisheries and Wildlife] does not expect activities proposed in the Plan to negatively impact Estimated Habitat or result in "Take" (as defined in 321 CMR 10.02) of plant or animal species protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00)."

Forest Cutting Plan

Forest Cutting Plan page 1 of 6

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)

03-01-18P03:43 RCVD

Final (10/20)

For DCR Use Only:

File Number	204-9309-18	Case No.	—
Date Rec'd	3/1/18	Nat. Hert.	YES / 3-5-18
Earliest Start	3/16/18	Nat. Hert. Imp.	NO
River Basin	Chicopee	Pub. Dr. Wat.	NO
Gen. Obj.	LT	ACEC	NO

Site Information

Location Extension 1/3/20

Town New Salem **LOT 3155**
Road Route 122
Acres 13 Proposed Start Date April 2018
Vol. MBF 62.2 Vol. Cds. 11 Vol. Tons 27

Plan Preparer

Name Helen Johnson
Address DCR-DWSP Quabbin Forestry
485 Ware Road
Town, State, Zip Belchertown, MA 01007
Phone 978-544-6343
Type of Preparer Mass. Licensed Forester
*Mass. Forester License # 383
*Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR-DWSP Quabbin Forestry Pogram
Mailing Address 485 Ware Road
Town, State, Zip Helen.Johnson@state.ma.us
Email Address Belchertown, MA 01007
Phone 978-544-6343
Ch61☐ 61A☐ 61B☐ Stew☐ *Case #
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 None

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 None

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 None

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

Forest Products

Products to be Harvested*

Species	Mbf/Cds		Mbf/Cds
White Pine	12.1	Red Maple	
Red Pine	49.5	Sugar Maple	
Pitch Pine		Red Oak	
Hemlock		Black Oak	
Spruce		White Oak	
Other Sftwd.		Other Hdwd.	0.5
White Ash		**Total Mbf**	62.2
Beech		**Cordwood (Cds)**	11
White Birch		**SW Pulp (Tons)**	27
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	RP	WH		
Acres	8	5		
Landowner Objective	LT	LT		
Designation of Trees	CT	CT		
Type of Cut	SE	SE		
Source of Regeneration	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 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: 7-25-18

Service Forester

Determination and Status 204-9309-18

	Approved	Disapproved	Expires
Cutting Plan	☒	☐	3/1/20

Signature of Service Forester/Director's Agent — Date: 3-20-18

			Expires	Ser. For. Ints.
Extension	1☒	2☐	3-1-2021	

	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: 10-7-20

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 Har.

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 Quabbin

Town New Salem

File Number 204-9309-18

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.

Blue Paint: dot = cordwood or pulp; horizontal line = sawlog; vertical/diagonal line = TSI; "X" = cull; three dots = harvest boundary.

Trees to be protected: solid orange flagging (edge of group) or Pink "Do Not Cut." Combined pink, blue and orange flagging = Landing.

Pink "Wetland Delineation" flagging = stream channel or edge of wetland (no cutting and no equipment except at approved crossings).

Solid pink flagging = cultural features to be protected OR 50' filter strip (no equipment zone). Orange "Streamside Management Zone" or "SMZ" flagging = filter strip. Skidder/forwarder trails: blue flagging and/or yellow "Skid Trail" flagging and/or 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.

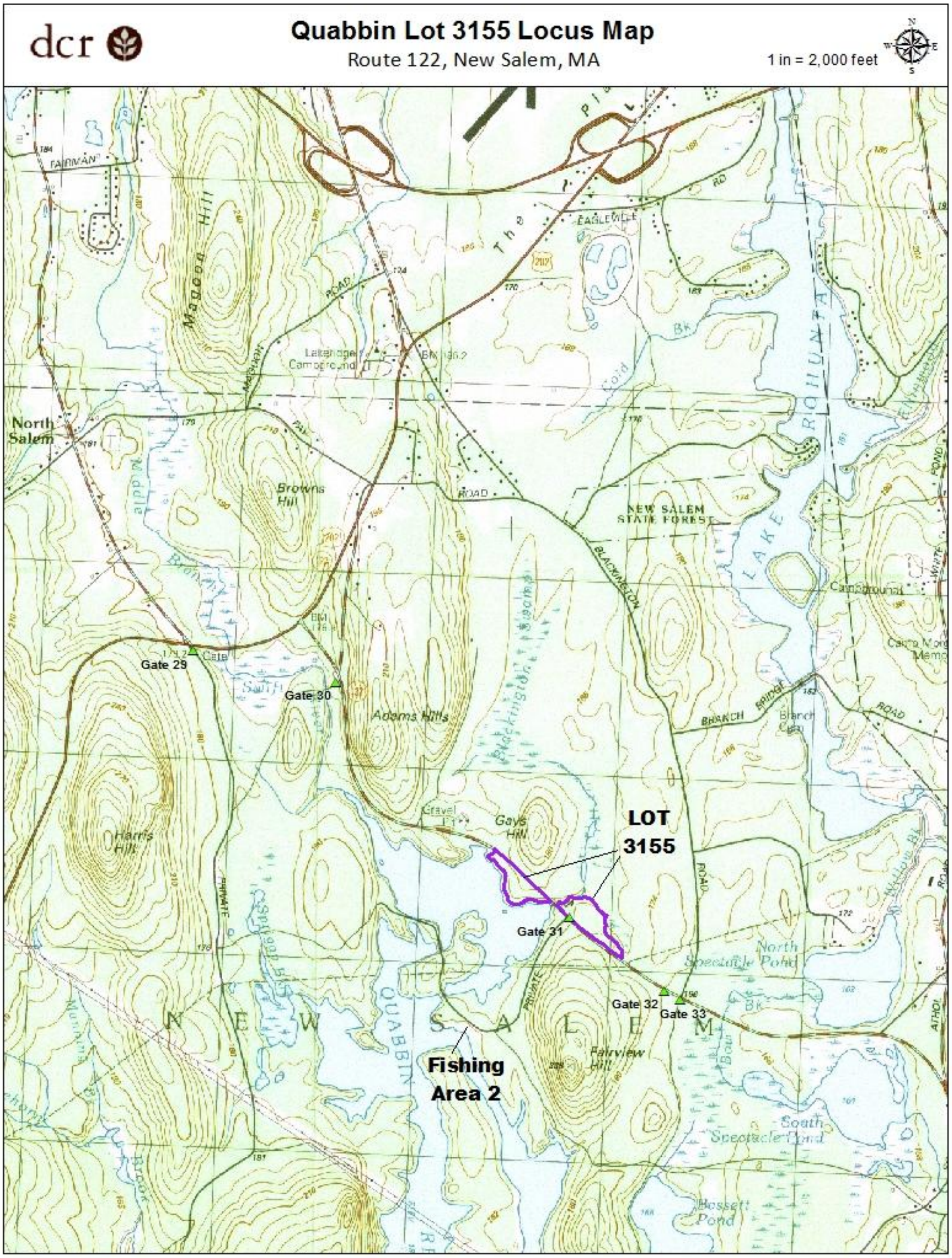
Stand No.	Species to be Cut	Size of Trees to be Cut	Quality of Trees to be Cut	% BA/Acre Removed

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


dcr
Quabbin Lot 3155 Locus Map
Route 122, New Salem, MA
1 in = 2,000 feet
LOT
3155
Gate 29
Gate 30
Gate 31
Gate 32
Gate 33
Fishing
Area 2
North
Salem
Browns
Hill
Adams Hills
Harris
Hill
Gays
Hill
Fairview
Hill
NEW SALEM
STATE FOREST
North
Spectacle Pond
South
Spectacle Pond
Bassett
Pond
Campground


dcr
Quabbin Lot 3155 Stands & BMPs
Route 122, New Salem, MA
1 in = 400 feet
180
ST-1
164
FS-2
ST-2
Gate 31
180
164
Gate 31
Landings
gates
Cultural Sites
Skid Roads
Road_Buffer
Harvest Boundary
Streams
Wetlands
Filter Strip
Stone Walls
NHESP Estimated Habitat
NHESP Priority Habitat

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

Jack Buckley, *Director*

Sean Libbey - Department of Conservation and Recreation
40 Cold Storage Drive
P.O. Box 484
Amherst, MA 01004

Cutting Plan No.	204-9309-18
NHESP Tracking No.	18-37577
Town	New Salem
Road	Route 122
Landowner	DCR-DWSP Quabbin
Preparer	Helen Johnson
Date	March 7, 2018

Dear Sean,

The Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife ("the Division") has reviewed the above-referenced Forest Cutting Plan ("the Plan") pursuant to the special approval procedures of the Forest Cutting Practices Regulations (304 CMR 11.04(6)). Based on details of the Plan and information in the NHESP database, the Division does not expect activities proposed in the Plan to negatively impact Estimated Habitat or result in "Take" (as defined in 321 CMR 10.02) of plant or animal species protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). Therefore, the Division does not require that the Plan be modified at this time.

Please copy the Division on any proposed amendment, extension and on the approved Plan for the site. If you have any questions about this letter, please contact David Paulson at (508) 389-6366 or david.paulson@state.ma.us.

Sincerely,

Thomas W. French

Thomas W. French, Ph.D.
Assistant Director

Cc: New Salem Conservation Commission (Via Email)