Massachusetts Department of Conservation and Recreation
Bureau of Forest Fire Control and Forestry
Forest Management Proposal
Name: Old House Lot

Date Posted: June 30, 2021
End of Comment Period: August 14, 2021

Region:	**West**
Recreation District:	**Lakes**
Forest Management District:	**Central Berkshires**
State Forest:	**Chester-Blandford State Forest**
Closest Road:	**Beulah Land Road**
Town:	**Blandford**

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Overview:

The Old House Lot Forest Management Project is located within the Chester-Blandford State Forest adjacent to Beulah Land Road. It consists of plantations at various stages of conversion to natural stands, and natural stands. Tree species within the entire project area include Norway spruce, red pine, hemlock, red oak, aspen, and northern hardwood species. Various harvesting methods will be used to fulfill management goals within this project area including overstory removal, clearcut, traditional and irregular shelterwood, and commercial thinning.

The conditions that led to selecting this project for forest management are:

- Continue transforming Norway spruce plantations into native forest types.
- Areas regenerated by previous forestry projects within the state forest and by abutters to enhance wildlife populations are beginning to succeed beyond the desired age class (<10 years).
- Portions of project area have a high percentage of hemlock which is or may be infested with hemlock woolly adelgid (HWA) and hemlock looper (proper management will enhance residual dominant hemlock's ability to survive).
- Throughout the oak-hemlock and oak-hardwood stands there is a significant amount of white ash which is or may be infested with emerald ash borer (EAB).
- Will provide an opportunity to demonstrate regeneration techniques and perpetuation of hemlock-hardwood stands by transitioning portions of the current single-aged stands to multiage / mosaic conditions.

The Old House Lot Forest Management Project proposes to:

- In old plantations, remove remnant Norway spruce retained during an earlier harvest, to release established regeneration of native tree species with small amounts of Norway spruce.
- Begin the conversion of two small Norway spruce plantations to native, naturally regenerated stands through a two-stage shelterwood regeneration method.
- Demonstrate patch cutting, using patches of up to 5 acres, for continued early successional wildlife habitat within the red pine-red maple-aspen stand.
- Demonstrate techniques aimed to reduce stress from HWA and hemlock looper, and retain healthy, dominant hemlock trees within the hemlock and oak-hemlock stands.
- Salvage and pre-salvage dead and dying white ash trees while converting oak-hemlock and oak-hardwood stands from even-aged to uneven-aged structure through irregular shelterwood harvesting.
- Demonstrate harvesting techniques and best management practices that protect forest productivity, soil, and water resources.
- Fulfill management approaches for the Woodlands landscape designation as directed by the Forest Futures Visioning Process (2010) and subsequent Management Guidelines (2012), including the restoration of a native forest ecosystem.

Project Description:

This approximately 106 acre project area is a mosaic of both first-generation planted and natural forest stands that populate previously agricultural lands (abandoned fields and cleared areas). Throughout the project area the age classes of these different forest types are close to each other, approximately 90 – 100 years old. Stem size varies by the forest type from small to large sawtimber-sized. The dominant tree species found in the project area are Norway spruce, red pine, hemlock, white pine, red oak, red maple, sugar maple, white ash, birches, and aspen.

Topography and Hydraulic Features: The project area is located along the southern entrance to the forest and is bounded by Beulah Land Road, State Forest boundaries, and two tributaries of Sanderson Brook. Elevations range from 1200 – 1450 ft. above sea level creating level to moderately sloped conditions. Existing woods roads and landings are available to use for access to the project area.

There are several intermittent streams and one forested wetland associated with the project area. Drainage from the project area generally flows northwest through intermittent streams feeding into main feeder streams of Sanderson Brook. There is one known forested wetland associated with one of these intermittent streams, much of which is located off the state forest. Although there are no certified vernal pools these wetlands may be functioning as vernal pools.

Soil: There are several soil types associated with this project area, mostly associated with deep, well drained, and stony upland soils. As with topography the forest composition changes slightly with the soil types. The soil types are listed below.

- 911C – (32.4 ac) Ashfield-Shelburne Association
- 921C / 921E – (73.6 ac) Westminster-Millsite Association

Aesthetic, Recreation, Wetlands, Cultural, Rare Species and Wildlife Considerations:

Recreation & Aesthetics: There is no formal recreational use in this portion of the state forest, however it is open for DCR-approved forms of passive recreation. During pre-proposal scouting visits no unauthorized trails were found. Chester-Blandford State Forest has been popular in the past for hunting, hiking, and snowmobile riding. Sanderson Brook Falls is the main attraction of the

forest. There is also a history of illegal ATV use on the wood roads and illegal mountain bike and hiking trail building and use. These activities have been increasing over the past several years.

All logging debris from proposed harvests along Beulah Land Road will be treated to meet slash requirements as directed in the "Massachusetts Forestry Best Management Practices Manual" and "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines".

Cultural Resources: There are cellar holes, outbuilding sites, and stone walls within the project area. These features will be identified in the field and protected during harvest; and vegetation removal for preservation of these features may be conducted. Work in and adjacent to these features will be subject to the standards outlined in the "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines".

Environmental: The location of this project area is not near any designated forest reserve, certified/potential vernal pool, or Natural Heritage and Endangered Species Program (NHESP) mapped estimated or priority habitat. There are however, as mentioned above, intermittent streams and a small forested wetland within the project area. These water features as well as any additional features found of the above types will be buffered and protected according to the "Massachusetts Forestry Best Management Practices Manual" and "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines".

Wildlife: No rare animals or critical habitat were noted upon the initial site visit. Over the past 20 years there have been several forestry operations located on both DCR and adjacent private property including clearcuts, seed tree, shelterwood, and selection harvests. Within the state forest several small plantations were removed around 2005 creating early successional habitat, followed in 2015 by a heavy regeneration harvest on private land adjacent to the project area. As these previously harvested areas progress through natural succession their early successional habitat value is slowly being lost. The clearcutting of five acres of the red pine-red maple-aspen stand will replace some of this habitat loss.

Sale Layout and Harvesting Limitations:

Project Access: Access to the proposed project area will be from Beulah Land Road in the town of Blandford. This project is anticipated to utilize two existing roadside landings; however, a landing further off the road may be established based on operational needs.

Skid Road and Trails: All main forwarder trails will be designated during the timber marking of the project area by the forester. Existing trails will be utilized if possible and new trails will be laid out as directed in the "Massachusetts Forestry Best Management Practices Manual" and "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines".

Wetland & Stream Crossings: There are two anticipated stream/wetland crossings within this project area and every effort will be made to avoid additional stream and wetland crossings if more water features are found that cannot be worked around. All regulated water features found in the area will, at minimum, follow the guidelines of the "Massachusetts Forestry Best Management Practices Manual".

Road and Trail Buffers: All hazard trees within one tree length of Beulah Land Road will be cut and felled. All large 'legacy' trees (≥30 inches) found along the roadside will be left, regardless of quality, as long as they pose no threat to safety. Due to previous windthrow of Norway spruce into the road, only native softwood and hardwood species will be left within the roadside buffer.

Equipment Limitations: This project may require a cut-to-length harvester and forwarder within the Norway spruce plantations. There are no anticipated equipment limitations in the remainder of the project area. To prevent possible root damage to the residual Norway spruce, winter logging will be required in these stands.

Site Restoration: Upon completion of activity in the project area all roads, forwarder roads, and forwarder trails will be left in a stable state by grading and installing water bars following the guidelines of the "Massachusetts Forestry Best Management Practices Manual". All landings will be cleared of debris, graded, and seeded with "Berkshire Conservation Mix", then mulched with straw to both minimize soil erosion and retain conservation mix seed on site for germination.

Potential In-kind Services:

- Equipment time and materials to maintain/restore roads and trails within Chester-Blandford State Forest.
- Installation of a gate on Sanderson Brook Road, which would allow for full closure of roads within the state forest to prevent damage during rainy seasons. These gates are not intended to be closed year round.
- Vegetation Maintenance for the Sanderson Brook Falls vista.

Silviculture:

The goals of this project are to continue the process of converting the non-native and off site plantations to native tree species, extend the early successional habitat located within and adjacent to the project area, create conditions for the retention of healthy hemlock, promote the growth and regeneration of red oak, and capture the value of white ash in jeopardy from EAB.

- Norway spruce (4 ac.): This stand was treated in 2003 with a shelterwood harvest; since then much of the remaining overstory has fallen due to windthrow. The original intent of the silviculture has been met, as currently there is a fully-stocked stand of native hardwood, white pine, hemlock and scattered Norway spruce in the sapling/pole size class. This project will remove the remaining Norway spruce from the edges of the plantation, leaving the regeneration in the center undisturbed.
- Norway spruce (8 ac.): Stocking within these un-thinned plantations is extremely high and there is a high rate of mortality in the lower canopy classes due to overcrowding and age. As with the stand above a two-stage shelterwood system will be used, removing approximately 50-60% of the live trees to begin conversion to native species. This is possible due to the overall good health of the overstory Norway spruce; and there is currently no evidence of root rot. Winter harvesting will be required to prevent root damage.
- Red pine-red maple-aspen (8.7 ac.): The species composition and location of this stand offer an opportunity to expand and continue the early successional habitat created adjacent to the state forest. Up to five acres will be clearcut with the remaining acreage being thinned to variable residual densities depending on local conditions.
- Hemlock (5.5 ac.): This small stand of dense hemlock will be retained with minimal understory and crown thinning to promote the health of dominant hemlocks. This effort is intended to help the residual trees fend off the effects of HWA and hemlock looper while retaining the dense hemlock cover.
- Oak-hemlock (47.4 ac.) & oak-hardwoods (32.7 ac.): Much of these stands had been harvested in 1989 and they have partially regenerated. These stands are a mosaic of species

composition and stocking levels (density) creating an opportunity to retain and enhance desirable portions while regenerating others. Using irregular shelterwood techniques enables adjusting removals based on conditions, as they change throughout the stand. These stands will be managed for a high level of tree and understory plant species diversity. Forest management efforts will also be aimed at creating and maintaining vertical (tree heights and layers of vegetation) and horizontal (closely juxtaposed patches of larger trees next to patches of medium and patches of smaller trees, and coarse woody debris) stand complexity.

Anticipated Future Treatments: Evaluation of harvest goals should be conducted in roughly five years. This should include verifying desirable regeneration within the plantations, clearcut, and irregular shelterwood portions; as well as checking the health of residual hemlock trees. The plantations and irregular shelterwood areas should be evaluated in approximately 10-15 years for re-entry. It is anticipated that the next silvicultural treatment will be to remove the remaining Norway spruce and expand/create new overstory openings to further regenerate the oak-hardwood and oak-hemlock stands.

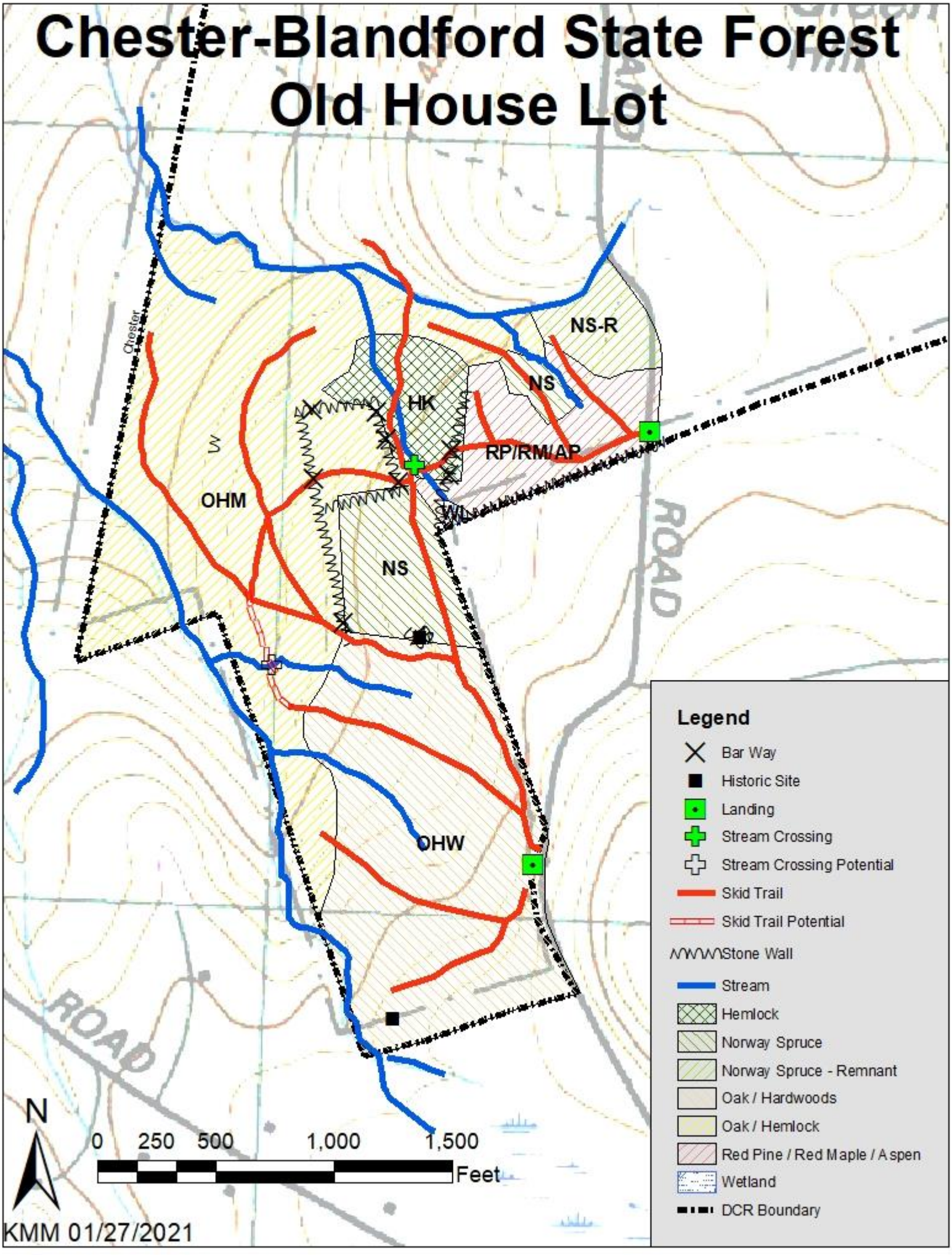
District Forester: _____ **Date:** 6/11/21

Field Operations Team Leader
Or Park Supervisor: Robert Mu **Date:** 6/11/21

Regional Director: Dom F. Sacco **Date:** 6/14/21

Management Forestry
Program Supervisor: _____ **Date:** 6/16/21

Attached: Topographic map showing project details. Locus map showing project location within regional context.


Chester-Blandford State Forest
Old House Lot
NS-R
NS
HK
RP/RM/AP
OHM
NS
OHW
ROAD
ROAD
Chester
Legend
Bar Way
Historic Site
Landing
Stream Crossing
Stream Crossing Potential
Skid Trail
Skid Trail Potential
Stone Wall
Stream
Hemlock
Norway Spruce
Norway Spruce - Remnant
Oak / Hardwoods
Oak / Hemlock
Red Pine / Red Maple / Aspen
Wetland
DCR Boundary
N
0 250 500 1,000 1,500
Feet
KMM 01/27/2021

Chester-Blandford State Forest
Old House Lot - Locus Map