## Massachusetts Department of Conservation and Recreation Bureau of Forest Fire Control and Forestry Forest Management Proposal Name: Cattle Barn Lot

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

Region:	West
<b>Recreation District:</b>	Lakes
Forest Management District:	South Berkshires
State Forest:	Mt. Washington State Forest – Intemann Lot
Closest Road:	Mt. Washington Road and East Street
Town	Mt. Washington
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## **Overview:**

The Cattle Barn Lot forest management project is located on the Intemann Lot, which is the northern parcel of Mt. Washington State Forest (see Locus Map) along Mt. Washington Road and East Street. It comprises approximately three hundred and sixty-two acres of northern hardwood, oak-hardwood, and plantation forests, as well as maintained fields.

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

- Emerald ash borer (EAB) is affecting ash trees in this area.
- Public safety concern and preventive maintenance due to declining/dead ash trees along Washington Mt. Road and East Street.
- Invasive plant species including Japanese barberry and multiflora rose have become established and pose concern for maintaining native forest conditions.
- Plantations of larch and white spruce are declining due to age and overcrowding.
- Field edges have been filling in, shrinking the total area of the maintained field.
- This project area offers an excellent opportunity to demonstrate and fulfill objectives for DCR Woodlands including maintaining and establishing diverse and resilient native forests, building upon past management, and maintenance of state property.

### The Cattle Barn Lot Forest Management Project endeavors to:

- Salvage and pre-salvage dead and dying white ash to capture their potential lost value, reduce safety concerns, and reduce future maintenance costs.
- Treat invasive species to prevent further spread and allow regeneration of native species.
- Demonstrate multi-age silvicultural systems including single-tree and group selection with salvaging ash as the main priority.

- Begin regeneration and transition of plantations to include native tree species.
- Reclaim field edges by clearing tree and shrub vegetation along stone walls.
- Demonstrate harvesting techniques and best management practices that protect forest productivity, recreation values, and soil and water resources.
- Fulfill management approaches for, and provide ecosystem services from Woodlands as directed by the Forest Futures Visioning Process (2010) and subsequent Management Guidelines (2012) including maintaining structural and species diversity, providing positive benefits to wildlife, and using silvicultural techniques to help forests adapt to climate change and enhance carbon stock management.

The Cattle Barn Lot Forest Management Project will result in two or more timber sale entries.

#### **Project Area Description:**

**Stand Information:** The proposed total project area consists of approximately 362 acres but each smaller, individual project is likely to vary in size from 75-150 ac. The final project acreage will vary as areas of steep slope, wetland, or poor access are excluded. The total area includes 10 acres of larch and white spruce plantation, 32 acres of maintained fields, and approximately 6 acres of wetlands. The larch plantations, known for their fall foliage colors, are not visible from roads or trails. Northern hardwood and oak-hardwood even-aged stands make up the remaining 314 acres of the project area; these are composed of a gradient of these forest types where composition and dominant species vary throughout. The dominant tree species that were observed during initial scouting of the area are white ash, red oak, maples, birches, black cherry, and American beech. Hemlock, white pine, hickories, hop-horn-beam and aspen were also present in lesser numbers.

During the silviculture prescription writing process these general forest types will be broken down into individual stands for administrative purposes based on topography, road and stonewall features, and species composition to assist in planning proper management decisions. Size classes in this project area range from medium to large diameter trees at high density levels. The understory is sparsely populated with native species, but has high amounts of Japanese barberry and multiflora rose.

**Previous Silvicultural Treatments:** The Commonwealth purchased 816 acres from the Intemann family in 1958-59 as part of the Mt. Washington State Forest. Much of the property had a history of clearing for agriculture and active forestry prior to Commonwealth ownership.

DCR records show four previous timber harvests in the proposed project area during state ownership, with the last harvest occurring in 1988. These harvests were commercial thinnings and occurred in the northern hardwood and oak-hardwood stands.

**Topography:** This proposed project area is in the central portion of the Intemann Lot of Mt. Washington State Forest, in the town of Mt. Washington. The project area is bound by Mt. Washington Road and East Street to the west, the state forest boundary to the north and south, and steep slopes to the east. Elevation within the project area ranges from approximately 1340 – 1680 feet and consists of gentle slopes, deep stream valleys, and portions of steep terrain. Along the eastern boundary of the project there may be isolated areas where slope exceeds 40% grade.

Drainage from this project area is entirely in the Housatonic River watershed basin, and consists of the headwaters for Karner Brook which flows north and east joining several other streams en route to the Housatonic. Portions of this stream form a deep gorge in the northern portion of the project area.

**Water Resources**: Several small wetlands along with multiple intermittent and perennial streams make up the headwaters of Karner Brook within the project area. As these features merge, they create a gorge as Karner brook exits the northern portion of the project area.

**Soil:** There are three 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 three types are listed below.

- LdE (238ac) Lanesboro Dummerston Association
- FwC (61ac) Fullam Lanesboro Association
- TmE (67ac) Taconic Macomber Association

Aesthetics and Recreation: The portions of this project adjacent to Mt. Washington Road and East Street are extremely visible and provide for views of forests, fields, and a relic barn.

Within the Intemann Lot of the Mt. Washington State Forest there is no formal recreation, accepted trails, or facilities. The area is open to all legal forms of passive recreation.

**Cultural Resources:** The historic features located within the project area will be protected from disturbance during operations and will be treated according to guidelines set forth in the "Bureau of Forestry – Cultural Resource Management Protection Standards & Guidelines". Known features include the relic cattle barn and potato storage building, and stone walls.

**Rare and Endangered Species:** According to the NHESP "Massachusetts Natural Heritage Atlas 13<sup>th</sup> Edition" the entire Mt. Washington State Forest is priority and estimated habitat. NHESP will be contacted for pre-review, restrictions, and/or recommendations prior to moving to the prescription development phase.

**Wildlife:** No rare animals or critical habitat were noted upon the initial site visit. Previously this portion of forest was reserved from hunting by DCR, however it is now considered open to all legal hunting.

<u>Sale Layout and Harvesting Limitations:</u> The Cattle Barn Lot will be divided into multiple timber sales.

**Project Access and Landing:** Truck access will be on existing forest roads accessed from Mt. Washington Road and East Street. Wood products will likely be transported north from the project area towards Route 41 and Route 23 in South Egremont. Landings used in previous harvests will be modified to accommodate current practices as needed.

**Skid Roads and Trails:** There are several forest roads located in the project area that will be used for transporting logs either by skidder, forwarder, and/or log truck. Skid trails will be located to avoid stream crossing and to account for slope and grade. Throughout the project area there are existing skid trail segments still visible from the previous harvests. These existing segments will be evaluated and connected as needed to gain access to necessary portions of the project area.

Wetland & Stream Crossings: All water features will be treated at or above the minimum standards set forth in "Massachusetts Forestry Best Management Practices Manual". There will be no timber management in the gorge area, regulated wetlands, or vernal pools if found (potential or certified). There is no anticipated need for any new regulated stream crossings in the project area and no anticipated wetland crossings. If a new stream crossing is needed it will be designed using standards of the "Massachusetts Forestry Best Management Practices Manual" and "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines".

All regulated streams, upland drainages, intermittent streams, seeps and wetlands, and vernal pool resources found within the active project area will be mapped and protected to standards of the "Massachusetts Forestry Best Management Practices Manual" as needed. There may be a small amount of harvesting, primarily of white ash, within filter strips and the outer parts of wetlands.

**Road and Trail Buffers:** As per the "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines", there will be a 50-foot buffer along the town roads where no more than 50% of live basal area will be harvested; and no slash will remain within 25 ft. of the road. The Massachusetts Slash Law will also be observed along roads and the State Forest boundary, and the entire sale area, as required. Coordination will occur during the prescription development phase with the Town of Mt. Washington Highway Dept and Tree Warden for marking hazard trees along the road.

**Equipment Limitations:** Currently there are no harvesting equipment limitations or restrictions. It will be determined upon completion of field work if any limitations or restrictions are necessary for this project.

**Excluded Areas:** The gorge along Karner Brook, wetlands, and vernal pools (if found) will be excluded from harvesting. Regulated streams within the project area will have marked filter strips restricting equipment access per the "Massachusetts Forestry Best Management Practices Manual". There may be additional portions of the project area removed from active management due to excessive slope or poor access. These exclusions will be documented and mapped within the Silvicultural Prescription and the Forest Cutting Plan.

**Site Restoration, Erosion and Sedimentation:** Unwanted movement of soil will be controlled by following recommendations in the "Massachusetts Forestry Best Management Practices Manual". All work will be limited to dry, frozen, or otherwise stable soil conditions.

Upon completion of harvest activity all forest roads, skid roads, and skid trails will be left in a stable state by grading and installing water bars as needed. All landings will be cleared of debris, graded, and seeded with "Berkshire Conservation Mix" and straw.

**Sensitive Public Issues:** Portions of this project are highly visible from the main road which accesses the town of Mt. Washington.

In-kind Services: Possible in-kind services to be attached to this project are:

- Chemical control of invasive species throughout the project area.
- Management of vegetation in fields and along field edges to ensure these important cultural landscapes and wildlife habitats do not revert to forest.
- Evaluation of other abandoned fields in the project area, that are now in sapling and small poletimber size classes, for field restoration.

<u>Silviculture</u>: Silvicultural practices in these stands will demonstrate single tree and group selection. The stands will be managed for a high level of structural, spatial, and species diversity.

**Goals**: Two primary goals of this project are to salvage/pre-salvage the white ash component of the project area and to treat the invasive species to allow tree seedlings of native species, and other native vegetation, to fill the gaps. This practice will help ensure a diverse and resilient forest as directed in the goals of the "Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines".

A secondary goal is to transition the small plantations to native forest types by starting the regeneration process. This will not involve a complete, immediate conversion of the culturally noteworthy larch plantations.

**Silviculture Methods:** Using single-tree and group selection methods while prioritizing the removal of white ash will begin to transition the predominantly even-aged northern hardwood and oak-hardwood stands to a more uneven-aged condition. Creating openings in the canopy ranging in size from a single tree crown to gaps up to 1/3 of an acre, based on current species composition, will provide for targeted creation of conditions that foster future forest growth.

Treatment of the plantations will consist of a two stage shelterwood, which will remove roughly 50-70 percent of the current trees in the first entry, followed by removal of most remaining plantation stock in a second entry 5-10 years later.

**Desired Future Conditions:** Ten years after this treatment it is anticipated that these stands will have greater diversity in tree size and structure. Although invasive species may still occur in the project area, native tree species will have become established and grown above them.

Anticipated Future Treatments: As noted above, the two-cut shelterwood sequence described above as part of this proposal constitutes the only immediate plans for future treatment. There are no other plans to harvest this project area again in the near future. This stand should be examined in approximately 5-10 years to evaluate the stands' responses to these treatments.

District Forester: \_

Date: 6 -11-21

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Regional Director: Do	n F Sacco
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# Intemann Lot - Mt. Washington State Forest Cattle Barn Lot - Locus Map

