

**Massachusetts Department of Conservation and Recreation
Bureau of Forest Fire Control and Forestry
Forest Management Proposal
Name: Washington Mountain Norway Spruce Removal**

Date Posted: March 15, 2019

End of Comment Period: April 29, 2019

Region: West

Recreation District: Lakes

Forest Management District: Central Berkshires

State Forest: October Mountain State Forest

Closest Road: Washington Mt. Road (aka Pittsfield Road)

Town: Washington

Contact Information: Kristopher Massini
740 South Street
PO Box 1433
Pittsfield, MA 01202
(413) 442-8929 ext.121
Kris.Massini@state.ma.us

Overview:

The Washington Mt. Norway Spruce Removal Forest Management project is located on October Mountain State Forest adjacent to Washington Mt Road near the intersection of West Branch Rd. It comprises of approximately fifteen acres of declining non-native Norway spruce plantation with small amounts of native red spruce, white pine and northern hardwoods dispersed throughout. Currently this plantation is in decline from root rot fungus (*Armillaria* spp.) and is suffering from continuous wind damage.

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

- Portions of the Norway spruce plantation are in decline and suffering from a root rot fungus (*Armillaria* spp.).
- Public safety concerns of spruce blowing down across publically traveled roads and trails (Washington Mt. Road and the Appalachian Trail.).
- The current mix of native species adjacent and within this stand present an opportunity to convert this stand to a native mixed-wood stand consisting of white pine, red spruce, hemlock and northern hardwoods.
- Further decline in the present Norway spruce overstory will result in continued loss of economic value.
- This project area offers an excellent opportunity to demonstrate and fulfill objectives for DCR Woodlands including the restoration of a native forest ecosystems.

The Washington Mt Norway Spruce Removal Forest Management Project proposes to:

- Remove an overstory of mature non-native Norway spruce to establish an understory of native tree species with small amounts of Norway spruce.

- Remove/reduce the costs and safety concerns of damaged or declining Norway spruce along traveled roads and trails.
- Demonstrate a shelterwood harvest of a red spruce/northern hardwood stand with an emphasis on regeneration of native red spruce and northern hardwoods.
- Demonstrate harvesting techniques and best management practices that protect forest productivity, soil and water resources.
- Fulfill management approaches for Woodlands as directed by the Forest Futures Visioning Process (2010) and subsequent Management Guidelines (2012) including the restoration of a native forest ecosystem.

Stand Description:

Stand Information: The project area consists of approximately 15 acres of Norway spruce plantation which was established in 1938. In 1960 this stand received a release treatment to remove competition from native hardwoods. Within this stand the dominant tree species that were observed are Norway spruce (*Picea abies*) with small amounts of red spruce, (*Picea rubens*) white pine (*Pinus strobus*), sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), black birch (*Betula lenta*), white birch (*Betula papyrifera*), white ash (*Fraxinus americana*), black cherry (*Prunus serotina*), American beech (*Fagus grandifolia*) and quaking aspen (*Populus tremuloides*). These native species are more prevalent along the edges of the plantation and make up the surrounding forest stands. The Norway spruce present in the stand is of mature sawtimber size and been in a state of decline over the past 10 years. Within the plantation there are areas of high mortality and/or wind throw that have become heavily stocked with regeneration of white, pine, hemlock, red spruce and hardwoods such as black cherry, yellow birch and sugar maple. Portions of the plantation that are undisturbed have a thick duff layer that is prohibiting regeneration.

Topography: This proposed project area is located near the top of Washington Mt. at an elevation of approximately 2000 feet. This portion of the forest that is generally flat, with little change in topography. The slopes within the stand do not exceed 10% and there are no major water features present except for a small roadside wetland adjacent to Washington Mt. Road.

Soil: The soils on this site are of the Pillsbury and Peru-Marlow Association. These associations generally have very deep soils that are moderately to poorly drained, moderately to extremely stony soil on slightly sloping areas. Both soils have a moderate productivity for forest growth, slight erosion hazard, and slight to severe equipment limitations. (Excerpts from "Soil Survey of Berkshire County Massachusetts", NRCS 1988)

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

Recreation and Aesthetics: The Appalachian Trail traverses through the western portion of the project area in two segments totaling approximately 600'. Following guidelines set forth in the "Memorandum of Understanding Guidance Document for the Appalachian National Scenic Trail in the Commonwealth of Massachusetts" established in 2003 coordination between DCR and the Appalachian Mountain Club Berkshire Chapter will be sought for project planning within the both the primary and secondary zones of the "Appalachian Trail Corridor". It is anticipated that the AT will be crossed at two points.

There are no other formal trails or recreational within this project area. The project area is also open to all legal passive recreation activities that are allowed on DCR properties.

Streams and Wetlands: There is a small wetland (<0.25 acre) located adjacent to Washington Mt. Road and a second wetland (<0.1 acre) located along the western edge of the

project area that will be protected with filter strips as directed in the “Massachusetts Forestry Best Management Practices Manual” and “Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines”. A small intermittent stream connects these wetlands and a second intermittent stream originates at a drainage culvert and travels through the southern portion of the stand. Both of these intermittent streams will have a 50 foot filter strip as per “Massachusetts Forestry Best Management Practices Manual”..

There are no mapped certified or potential vernal pools by NHESP located in this project area. Outside of the project area to the west and south are wetlands which flow into the Sandwash Reservoir, these will not be impacted during this project. Any and all other water features found within the project area during implementation will be protected as well.

Cultural Resources: There are existing stone walls on the southern boundary and portions of western boundary of the plantation; these will not be affected by the project. Any additional stone walls, foundations or other historic features will be protected to the standards outlined in the “Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines”.

Rare and Endangered Species: According to the NHESP 2017 mapping there is no priority habitat for rare species located within the proposed harvest area. Care will be taken to properly report and address the needs and recommendations for any state-listed rare plant, wildlife species or priority natural community.

Wildlife: There is currently not an abundance of wildlife evident due to the uniformity (low structural and species diversity) of the plantation. There is currently a large number of snags and a high volume of coarse woody debris due to the deteriorating Norway spruce providing habitat for species who use these features.

Sale Layout and Harvesting Limitations:

Project Access: Access to the proposed project area will be from Washington Mt. Rd in the town of Washington. This project is anticipated to utilize a roadside landing; however a landing 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 Crossing: There is two anticipated stream crossing within this project area and every effort will be made to avoid additional stream and wetland crossings if more water features are found. 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 (dead, dying or of comprised structure) within one tree length of the Washington Mt. Road will be cut and felled. All large ‘legacy’ trees (30+ inches) found on the roadside will be left regardless of quality as long as they pose no threat to safety. Due to previous wind throw of Norway spruce into the road only native softwood and hardwood species will be left within the roadside buffer. Removing hazard trees in the within the roadside aesthetic buffer may reduce the residual basal area below 50% in some areas.

Equipment Limitations: This project will require a cut-to-length harvester and forwarder for the protection of existing understory regeneration and landing limitations.

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 or frozen soil conditions.

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 clear 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.

Silviculture: Due to the current condition, species composition, susceptibility to root rot and wind throw, even-aged silviculture will be utilized during this project. Management of this plantation will convert the Norway spruce to a native mixed-wood stand. As the exotic softwood trees die they continue to create a public safety issue for people using the state forest for recreation, and result in the agency having to spend public funds to remove standing dead hazard trees. Proactively harvesting the planted trees while they still have market value will reduce costs for the Commonwealth, provide economic value for in-kind services, and foster better control of types of regeneration established.

Silvicultural Methods: The first step of a two stage shelterwood will be conducted in this plantation. This partial overstory harvest will be designed to promote the regeneration of red spruce, white pine and the associated northern hardwoods ensuring the creation of a mixed wood stand. The overstory will be reduced by approximately 65-80% by removing Norway spruce. Native overstory trees will be left throughout the project area to act as the overstory and provide seed for regeneration. Advanced red spruce regeneration will be protected throughout the harvest.

Anticipated Future Treatments: This area should be examined in approximately 5 years to ensure the advanced regeneration has survived and additional regeneration has become established and is of desired species. In approximately 10 years a shelterwood overstory removal may be conducted.

District Forester: [Signature]

Date: 01/03/19

Field Operations Team Leader
Or Park Supervisor: [Signature]

Date: 1/03/19

Regional Director: [Signature]

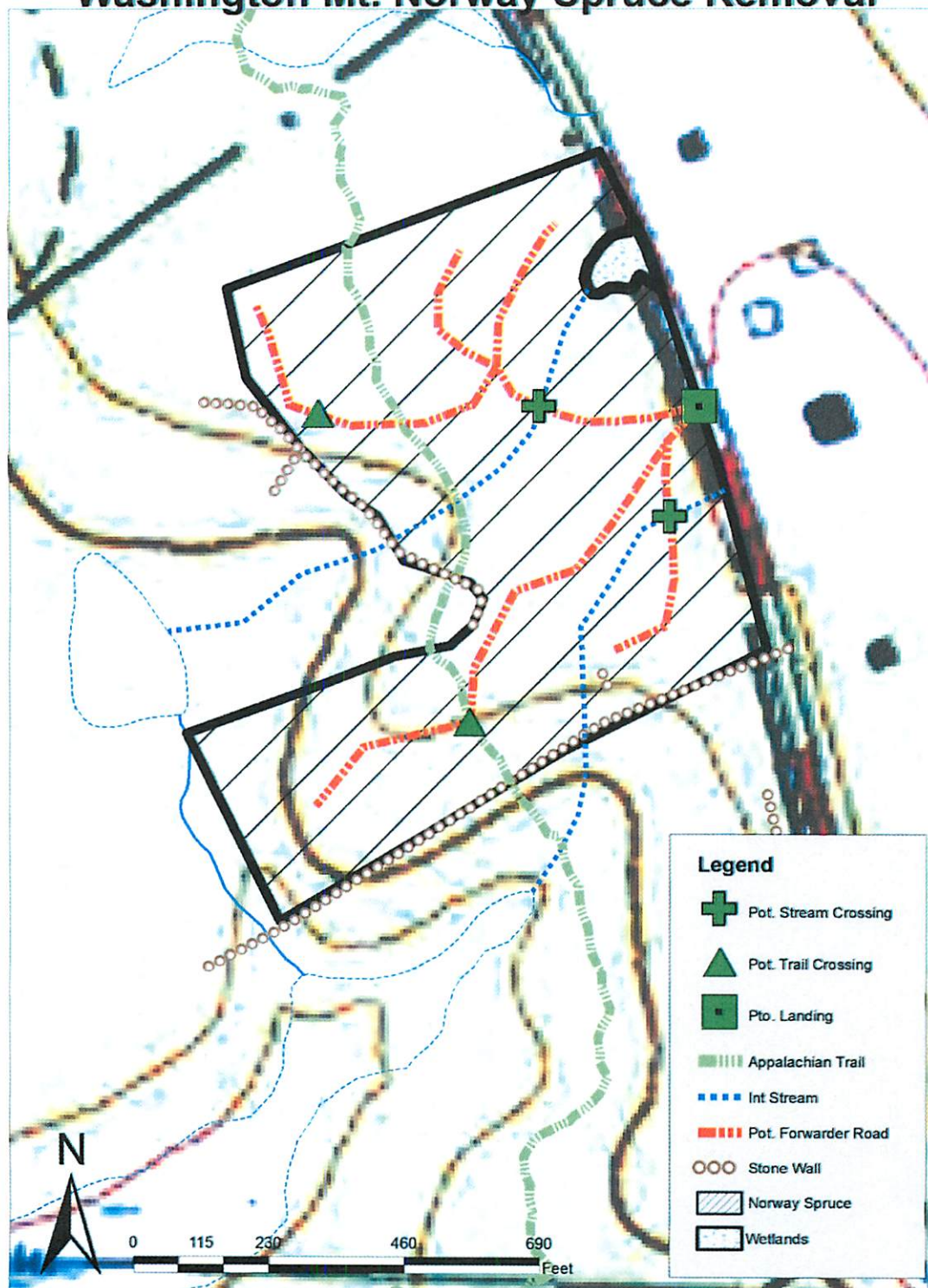
Date: 1/3/19

Management Forestry
Program Supervisor: [Signature]

Date: 2/1/2019

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

October Mountain State Forest Washington Mt. Norway Spruce Removal



KMM 02/12/2019

