

**Massachusetts Department of Conservation and Recreation
Bureau of Forest Fire Control and Forestry
Forest Management Proposal
Name: Tannery Road**

Date Posted: February 26, 2016

End of Comment Period: April 10, 2016

Region:	West
Recreation District:	Mountain
Forest Management District:	Northern Berkshires
State Forest:	Savoy Mountain State Forest
Closest Road:	Tannery Road
Town	Savoy

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Overview:

The proposed project area is located on the northern portion of Mount Savoy State Forest along Tannery Road and bounded by Ross Brook to the southeast. The sale contains 19 +/- acres of Norway spruce plantations and 82 +/- acres of northern hardwoods.

Conditions that led to selecting the area for active management

- The hardwood stands within the area at a point in their development to begin moving them from an even-aged to an uneven aged condition
- The growth of the abutting Norway spruce plantations has stagnated, and are showing signs of root disease
- The project will provide the opportunity to repair the Ross Brook crossing along the Balanced Rock Trail.
- Capture anticipated financial losses due to emerald ash borer (EAB)
- Provide the opportunity to fulfill MA DCR objectives for Woodland Zones.

Goals and Objectives of Tannery Road Sale

- Install gaps in the canopy and increase existing openings in order to encourage a new age class
- Improve wildlife habitat, specifically browse and cover
- Improve recreational experiences primarily associated with hunting and wildlife viewing

- Improve road and trail access
- Increase biological diversity by introducing more complexity into existing stands
- Improve the distribution of early successional habitat and younger age classes
- Increase the native softwood components within the hardwood stands
- Increase the distribution and density of sugar maple to combat sugar maple decline
- Recover the anticipated financial losses associated with the emerald ash borer (EAB)
- Fulfill management approaches for Woodlands as directed by the Forest Futures Visioning Process (2010)
- Demonstrate harvesting techniques and best management practices that protect forest resources

Stand Description:

Species Composition

Norway Spruce Plantations: Composed of 5 different plantations totaling 19 +/- acres they are even-aged stands with little or no understory or ground cover, save the areas with canopy gaps. The canopy gaps have been caused by weather events, and have been colonized by native hardwoods, native softwoods, and Norway spruce regeneration. These sites are lowest categories of the site productivity complex analysis developed in 2012. The plantations are in decline, overstocked for site conditions, and showing evidence of root disease and windthrow. Based on low productivity and current stand conditions, even-aged techniques that retain portions of the existing canopy may be most appropriate.

Northern Hardwoods: These stands are approximately 82 +/- acres in size, and are even-aged. The density of trees in these stands ranges from approximately 110 ft²/acre - 140 ft²/acre of basal area.

Those species associated with the northern hardwoods in these stands are primarily American beech, red maple, sugar maple, yellow birch, white ash, and white birch. There is also small white pine plantation, as well as, red spruce and eastern hemlock inclusions.

The stands are healthy and would be considered young mature. They are in the highest tiers of the productivity analysis developed in 2012, have the deep soils, and are vigorously growing. Since the area is considered productive, movement towards uneven-aged conditions may be most appropriate.

Groundcover in the hardwood stands consists mainly of ferns, *Lycopodium spp.*, and periwinkle. Other components that are expected to occur include wood sorrel, *Rubus spp.*, striped maple, pin cherry, *Impatiens spp.*, etc.

Previous Silviculture Activity

The hardwoods stands and Norway spruce plantations demonstrate typical land-use patterns consistent with the northeast. The presence of periwinkle indicates that at one point the area may

have had homesteads that cleared areas for firewood and livestock, and after the homesteads were abandoned the area reforested naturally. More recently, the young mature; even-aged hardwoods indicate that the land was cutover at some point within the last 100 years and again was again left to reforested naturally. The fact that the area had been completely deforested within the same time frame as the efforts by the Civilian Conservation Corps to perform reforestation work, likely drove the decision install the Norway spruce plantations in the 1930's. Since that time active harvesting has occurred on Mount Savoy State Forest, and surrounding private lands.

Topography and Soils

The primary soil associations included within the project area are Peru-Marlow – 80%, and Lyman-Tunbridge – 11%. The Peru-Marlow series are found on slopes of 3% - 15%, while the Lyman-Tunbridge is found on those slopes between 15% and 60%. These soil associations are very similar in texture (sandy loam), both are extremely stony, share the same parent materials (granite, mica, schist, phyllite), are located within the same climate (31" – 95"/year precipitation; 27°F – 52°F), are set among hilly and/or mountainous terrain, and have site indices between 50 and 67 depending on species and microsite. The major difference between the associations are in soil depth; with the Peru-Marlow exceeding 65", and the Lyman-Tunbridge presenting bedrock between 18" and 28". For the sale area, in particular, slopes rarely exceed 25%, with a majority being between 5% and 15%.

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

Aesthetics

The 3 primary roads/trails that will be impacted by the harvest include: Balanced Rock Trail, Tannery Road, and Lewis Hill Snowmobile Trail. Though none of these are designated scenic byways, maintaining the visual experience for the users of these roads and trails is a high priority. In order to ensure that this occurs, slash management guidelines outlined in the 2013 2nd Edition of the Massachusetts Forestry Best Management Practices Manual will be followed. Additionally, marking techniques designed to limit visual impacts will be employed.

Recreation

There are a number of resource based recreational activities that forest users participate in throughout the sale area, and include: snowmobiling, hiking, biking, hunting, fishing, and wildlife viewing. The purpose of this project is to have either no impact or improve the experiences of users and visitors to the forest. None of the activities associated with harvesting are anticipated to restrict known, legal, recreation.

Wetlands

The amount and extent of wetlands present within the project are not thoroughly identified until the stand exams are conducted and timber marking has concluded. Currently 1 intermittent stream crossing is anticipated, there is 1 certified vernal pool within the sale area, and the southeastern boundary of the sale area is bounded by Ross Brook. If

additional wetlands such as non-certified vernal pools, additional intermittent streams, upland wetlands, etc. are encountered; standards outlined in the most recent edition (currently 2013 2nd edition) Massachusetts Forestry Best Practices Manual will be followed as they relate to harvesting requirements, filter strips, water bars, slash management, etc.

Cultural Resources

A stone wall has been identified near the white pine plantation along Tannery Road, and more are expected to occur. Stone walls and cellar holes are to be protected from damage due to harvesting. If a stone wall does need to be crossed it will be done at a designated crossing, and rehabilitated to the condition it was in prior to harvesting. Additional cultural resource protection measures may be necessary once the area is cross referenced with the master site file for the Commonwealth of Massachusetts.

Listed Species

The Massachusetts Natural Heritage Atlas, 13th Edition, was referenced for this project. There are no known or identified priority habitats of rare species or estimated habitats of rare species occurring in the project area. Additionally, no listed plants are known to occur within the project area.

Wildlife

Species

The wildlife occurring in this area is typical of a northern hardwood forest. Observed species include black-capped chickadee, white-tail deer, blue jay, and common crow. Other species expected to occur are black bear, moose, various songbirds, ruffed grouse, snowshoe hare, raccoon, various fur bearers, grey squirrel, red squirrel, various raptors, and other small mammals such as bats and rodents. Additionally various reptiles and amphibians are expected to occur in the area since there is a perennial stream bounding the sale area.

Snags and Retained Live Trees

Snags will be retained on-site provided that they do not pose a hazard to humans during or after operations. Live trees that appear to be a den or nest site either currently or in the recent past will also be retained. Beech that have evidence of bear foraging, or are in excess of 14" in diameter and showing no signs of beech bark complex and in good health, will not be designated for removal. Finally, white ash that is of superior health and vigor, and 12" – 16" in diameter, will be retained for wildlife use and a potential seed source.

Sale Layout and Harvesting Limitations:

Infrastructure

Landings will be selected based on a number of factors to include existing vegetation, slope, access by haul vehicles, wetland proximity, etc. During harvesting operations excess slash building up at the landing will be evenly distributed back through the sale area within the skid trails. Prior to the conclusion of the sale, all landings will be cleared of any debris that will inhibit seeding to grasses and forbs.

Primary skid roads will be identified following the stand exam, and confirmed upon the completion of timber marking. Existing skid trails or agricultural trails will be utilized when possible. Skidding will occur along contours, and sharp pitch or grade changes by skidding equipment will be avoided. Skid trails that experience excessive disturbance will be rehabilitated prior to the conclusion of the sale, and any areas that are utilized along the Balanced Rock Trail or Lewis Hill Snowmobile Trail will be, at minimum, returned to the condition that they were in prior to sale activities.

Harvesting Equipment

There will be no restrictions on the type and use of harvesting equipment used on the sale. All equipment and activities will comply with the most recent version of the Massachusetts Forestry Best Management Practices manual, currently the 2013 2nd Edition.

Areas Excluded From Harvesting

Any areas that are identified as having cultural significance will be excluded from the sale area, as well as areas that are considered sensitive and will be negatively impacted for a prolonged period post-harvest. Currently, no such areas have been identified but may present themselves during the stand exam and/or marking phases of the project.

Erosion and Sediment Control

The unwanted movement of soil and sediment across the landscape will be minimized by following the most recent edition of the Massachusetts Forestry Best practice Manual, currently the 2013 2nd Edition. Additionally, repairing the crossing at the intersection of Balanced Rock Trail and Ross Brook should reduce sedimentation occurring due to the exposed bank.

In-Kind Services

Improvements currently identified with this sale include: culvert replacement at the intersection of Balanced Rock Trail and Ross Brook, upgrades to Tannery Road to facilitate hauling, and wildlife opening maintenance mowing. Other items may be

identified between the project proposal and bid solicitations, and will be evaluated on a case-by-case basis.

Proximity to Forest Reserves

There are no Forest Reserves near the project area.

Silviculture:

Norway Spruce



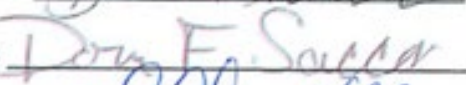

Due to root disease, windthrow, stagnation, and low productivity silvicultural treatments will focus on removing the plantations in phases in order to promote the recruitment of native hardwood and softwood. The timing of the phased removals will also allow for an uneven-aged condition to develop within the stand.

- Methods: A 3-3 row thinning will be conducted within each of the Norway spruce plantations, which is a technique that alternates between removing 3 rows and leaving 3 rows. This technique will allow sufficient sunlight for native tree recruitment between silvicultural entries while providing a buffer for the residual stand. In the absence of clearly defined rows an area 30' wide between the boles of residual trees will be used, as most of these plantations used a 10' spacing between rows at establishment.
- Future Silvicultural Entries: Future entries will focus on the removal of the remaining Norway spruce, encouraging native tree recruitment, and thinning/gap installation of the newly recruited native trees. Herbicide application to control the recruitment of beech within the open areas may be required to ensure the recruitment of desirable growing stock.
- Desired Future Conditions: The desired future condition of the Norway spruce stands is to become mixed hardwood and softwood stands of native vegetation. The former plantations will be uneven-aged, health, vigorous, fully stocked, and have both vertical and horizontal complexity. It is also desirable to be able to absorb these plantations into the surrounding hardwood stand once they display the appropriate characteristics to do so.

Northern Hardwoods

Uneven-aged silvicultural techniques will be used to start moving the stand away from the current even-aged condition. Thinning will be used in areas that are not selected as gaps to improve the quality and health of the residual stand by freeing-up resources that were otherwise being utilized by inferior stock. During operations most white ash and diseased beech will be biased for cutting while sugar maple; disease free beech over 14" in diameter, and superior white ash between 14" and 16" in diameter will be biased for leaving.

- Methods: 1/3 acre openings will be installed systematically across the northern hardwood stands in preparation for an expanding-gap irregular shelterwood. In between gaps the area will be thinned to a range of densities to include no thinning at all in spots.
- Future Silvicultural Treatments: Future treatment should include expanding on installed gaps, and thinning for continued improvement in quality and quantity of desirable tree species. Herbicide application to control beech regeneration may also be required in order to ensure a diversity of desirable growing stock in the gaps and/or expanding gaps.
- Desired Future Condition: The desired future condition for this stand is a healthy, vigorous, fully stocked stand free of insect and disease issues. The stand will be comprised of less than 30% beech, have a diverse mix of desirable growing stock, as well as a diverse understory. Noxious weed issues will be minimal, and the stand will be well diversified in ages so as to include early successional stages in certain areas of the stand and old growth characteristics in others.

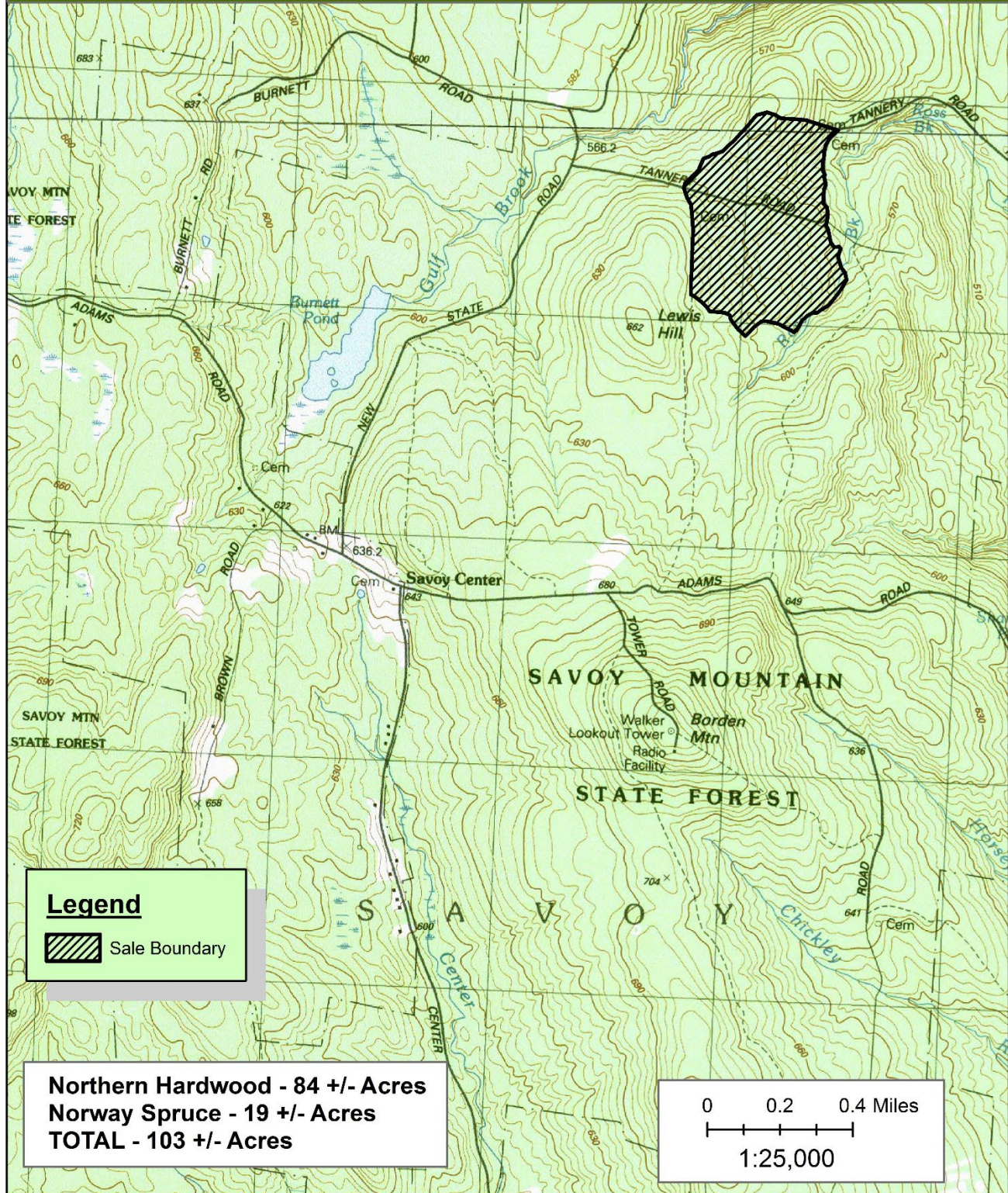
District Forester:		Date:	<u>2/8/16</u>
Field Operations Team Leader Or Park Supervisor:		Date:	<u>2-8-16</u>
^{Interim} Regional Director:		Date:	<u>2/8/16</u>
Management Forestry Program Supervisor:		Date:	<u>2/16/2016</u>

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



TANNERY ROAD TIMBER SALE

Locus Map





TANNERY ROAD TIMBER SALE

Proposed Sale Map

