

DCR-BOFF Forest Management Proposal

Project Name: Center Brook
Property Name: Savoy Mountain State Forest
Acres: 36
Forestry District: North Berkshire
Forester: Kevin Podkowka

Date Proposed: January 2025
Town(s): Savoy
Landscape Designation: Woodlands
Rec Complex/District: Mohawk Trail
FOTL/F&P Supervisor: Luke Labendz/Andrew Slowinski

GENERAL PROJECT DESCRIPTION

Acres	Overstory Forest Type	Understory Forest Type	Stand Description
36	Overstory: Norway Spruce and White Pine	Understory: Balsam Fir, Northern Hardwoods, Red Spruce, Norway Spruce, White Pine	White Pine and Norway Spruce Plantations with Advance Regeneration in the Understory .

Project Summary, Goals and Objectives:

Summary:

This project consists of 3 Norway spruce plantations totaling approximately 16 acres and a white pine plantation that is approximately 20 acres in size. The origins of these plantations are most likely the result of planting activities conducted by the Civilian Conservation Corps. Neither of the plantations are suited to the site as evidenced by very minimal regeneration of the same species as the overstory. Within the white pine plantations there is significant advance regeneration of northern hardwoods. Observed species include sugar maple, yellow birch, white ash, and black cherry. The advance regeneration within the Norway spruce plantations is primarily balsam fir with some pine, northern hardwoods, and red spruce.

Goals:

Improve Forest Resilience
Treat Exotic Vegetation If Present
Improve Biological and Structural Complexity/Diversity

Objectives:

Release the understory in both the white pine and Norway spruce plantations.
Recruit herbaceous vegetation and pioneer tree species within the white pine plantation.

Overstory vs Clearcut

From a silvicultural standpoint there is a very strong distinction between the removal of an overstory versus a clearcut. A clear cut is a regeneration technique designed to stimulate seed germination and sprouts from stumps or create conditions for planting. Overstory removals are specific to releasing regeneration that already exists. Clearcuts stimulate new regeneration, overstory removals keep the existing regeneration alive by lowering the height of the forest canopy to the level of the trees regenerating in the understory.

MASSACHUSETTS FOREST ACTION PLAN GOALS

The goals listed below are sourced from *DCR (Department of Conservation and Recreation) Bureau of Forest Fire Control and Forestry. 2020. MASSACHUSETTS STATE FOREST ACTION PLAN 2020*

- **Increase resistance and resilience of trees and forests to mitigate and adapt to the effects of climate change**
- **Manage forest ecosystem health and biodiversity**
- **Support and enhance forest economy**
- **Enhance the connection between forests and people**

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- **Maintain and enhance soil, water, and air resources**

CLIMATE CHANGE ADAPTATION STRATEGIES AND APPROACHES

The strategies and approaches listed below are sourced from the Response to the Report of the Climate Change Committee, 2024 and the Report of the Climate Forestry Committee: Recommendations for Climate-Oriented Forest Management Guidelines, 2024.

- **1: Sustain fundamental ecological functions.**
 - **2: Reduce the impact of biological stressors.**
 - **3: Reduce the risk and long-term impacts of severe disturbances.**
 - **4: Maintain or create refugia.**
 - **5: Maintain and enhance species and structural diversity.**
 - **6: Increase ecosystem redundancy across the landscape.**
 - **7: Promote landscape connectivity.**
 - **8: Maintain and enhance genetic diversity.**
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CLIMATE ADAPTATION

Action Type	Identified Issue	Action Description
Resilience	Plantations	The removal of the overstory in plantations of White Pine and Norway Spruce to favor native species better suited to each site.
Resistance	Red Spruce and Balsam Fir Regeneration	Under future climate change scenarios, the migration of a tree species is a function of conditions not being conducive to regeneration as opposed to conditions causing parent trees to die. Both red spruce and balsam fir are vulnerable, and regenerating the next age class is critical to ensuring that the Spruce-Fir Forest Ecosystem remains in the landscape.

Adaptive Management Strategies: The white pine plantations are not suited to the site, and the diversity of hardwood trees will be significantly improved, along with ground cover vegetation. Norway spruce is an exotic species that is not suited to the site and is being treated to release a dense native understory. Both plantations will benefit by having site-appropriate species released from the understory. From a larger area perspective, the resultant young forest will improve the diversity of age classes and improve physical complexity.

CLIMATE CHANGE CONSIDERATIONS

The Department of Conservation and Recreation, Division of State Parks and Recreation has determined that the decision to implement this project is consistent with EEA climate goals and guidelines and agency land management objectives.

Activities proposed	Carbon and climate change considerations
Full overstory removal, plantation conversion to native species. Example: Removal of a plantation overstory to release advanced regeneration of native species.	Long considered a critical practice on agency lands to improve biodiversity and forest resilience, the conversion of single-species conifer plantations to more diverse mixes of native species has recently been encouraged as a climate-smart practice by National Institute of Applied Climate Science and other climate adaptation experts.

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Described in Silviculture on Page 5	Tree monocultures, intensively managed throughout the world to produce much of the wood we all use, are highly vulnerable to the kinds of pest and disease impacts that are likely to worsen as climate changes. Conversion of monoculture plantations aligns with many climate-smart forestry practices highlighted in the CFC report, including but not limited to: • Improving resistance to pests and pathogens. • Increasing resiliency by promoting diversity of plant species. • Providing age class/structural diversity. • Improving conditions for a wide variety of local wildlife through the creation of temporary young forest habitat.
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SOILS AND TOPOGRAPHIC FEATURES

Acres	Soil Type	Drainage Characteristic
9.3	Pillsbury fine sandy loam, 0 to 8 percent slopes, very stony	Poorly drained soils, water table depth 0" - 12"
4.8	Berkshire-Marlow association, 15 to 45 percent slopes, extremely stony	Well drained, water table depth more than 80"
6.9	Peru-Marlow association, 3 to 15 percent slopes, extremely stony	Moderately well drained, water table depth 17" - 34"
14.7	Tunbridge-Lyman association, 3 to 15 percent slopes, extremely stony	Well drained, water table depth more than 80"

Average Slope Percent: 0-5%

General Aspect: South

Terrain Consistency: Variable

Terrain Position: Lower Slope

Description of Soils and Topographic Features: The project is located on a gradual slope, and waters within Center Brook and surrounding wetlands continue to drain south. Soils are generally stony sand loams with a high potential for rutting. Harvesting systems will utilize techniques such as slashing in trails, tracks, intensive rehabilitation, and seasonal timing to minimize negative impacts.

WETLAND FEATURES

	Present	Crossing	Work within Filter/Buffer
Wetlands:	Yes	Possible	N/A
Regulated Streams:	Yes	Possible	Possible
Non-Regulated Streams:	Possible	Possible	N/A
Vernal Pools:	No	N/A	N/A
Seeps:	Possible	Possible	N/A

Description of Wetland Features: Wetland features will be mapped, and appropriate protections taken during the layout and prescription phase of the project.

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CULTURAL RESOURCES

	Present	At Risk	Work Within Buffer
Stone Walls:	Yes	Possible	N/A
Foundation / Cellar Hole:	Possible	Possible	No
Well:	Possible	Possible	No
Structures:	No	N/A	N/A
Cemetery:	No	N/A	N/A
Other: N/A	No	N/A	N/A

Description of Cultural Resources: Currently, stone walls are the only cultural resource identified on site. During the marking and layout phase more rigorous surveys will be conducted.

NATURAL HERITAGE / WILDLIFE-HABITAT MANAGEMENT / OTHER RESOURCES

Natural Heritage Polygon: No

Natural Heritage Restrictions: No

Restrictions on Harvest Description: No restrictions were identified.

Wildlife Specific Management: Possible

Targeted Species: Specific wildlife species will be identified, and specific management actions will be taken under the direction of the DCR Wildlife Biologist.

Goals: Determined by the DCR Wildlife Biologist

State Forest Action Plan: Yes

ACEC: No

BIO Map2: Yes

State Wildlife Action Plan: Possible

Public Water Supply: No

Current Resource Management Plan: No

Additional Detail: Management in Woodlands is directed by the Landscape Designation document as Forest Resource Management plans are updated. Bio Map 2 identifies the area as critical natural landscape blocks, aquatic buffers, and forest core.

FOREST HEALTH / INVASIVE SPECIES

Forest Health Concern: Yes

Species Affected: American Beech, Numerous Others

Management Considerations: Increase the density and distribution of soft-mast species. Additionally, Berkshire County is host to 22 alien species of fauna and fungi. Some of these species have caused wide-spread damage such as emerald ash borer and butternut canker, while pests such as the black vine weevil generally cause aesthetic damage. Due to the impacts of climate change all pests are monitored for increases in range of occurrence, frequency of occurrence, and levels of damage. Beech Leaf Disease is the most novel of forest pathogens in this area and is spreading rapidly.

Plant Invasive Species Present: Possible

Species Present: Surveys and sampling will be conducted during the stand exam phase.

Management Considerations: Considerations and strategies are dependent on the species detected.

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Insect Invasive Species Present: Yes

Species Present: Emerald Ash Borer

Management Considerations: Cut mature white ash trees that are under attack, but still alive, to encourage sprouting. Bias white ash 10" dbh and less for retention. Standing dead white ash trees are evaluated on a case-by-case basis for either removal or retention.

INFRASTRUCTURE / RECREATION/ AESTHETICS

Access Road: Center Road

Condition: Paved

Existing Landing: Yes

Project Access and Landing Site: There are currently landings on-site in some of the plantations that will be used as appropriate.

Ownership: Town

Road Repair/Upgrade: No

Landing Repair/Upgrade: Yes

Existing Skid Trail Network: Possible

Pre-Harvest Repair/Upgrade: No

Skid Trail Network Description: There have been previous operations in the area and existing skid trails will be utilized as appropriate.

Shared Infrastructure: No

Road/Trail Names: N/A

Management Considerations: N/A

Infrastructure Present

Infrastructure	Present	Condition
Official Trail	No	N/A
Illegal Trail	No	N/A
Existing Trail Head	No	N/A
Recreation Facility	No	N/A

Recreation and Aesthetic Concerns/Opportunities: Improved opportunities for wildlife viewing in the immediate area are anticipated. From a larger forest perspective, the area will increase the amount of herbaceous vegetation and soft mast available for those species that utilize those types of forage.

SILVICULTURE

Acres	Silviculture Type	Silviculture Description
36	Overstory Removal	Remove the overstory of the existing plantations to release advance regeneration.

General Comments on Silviculture Proposed: Plantations have been identified as contributing to forest vulnerability under numerous climate change scenarios. The overstory removal of both the white pine and Norway spruce plantations will release the advance regeneration present in those areas. The major hard mast producing tree in this area of the forest is American beech. Beech leaf disease has been identified and is expanding. The loss of hard mast from beech will force many species of wildlife to rely more heavily on soft mast species. The highest producing soft mast species are generally sun-loving and require more open canopies. The removal of the white pine plantation will stimulate both the hardwood regeneration present and soft mast species such as choke cherry, pin cherry, black cherry, and blackberry.

PERMIT REQUIREMENTS / OPPORTUNITIES

Restrictions	Description
Seasonal Restrictions: Possible	Determined during the prescription and layout phase.
Equipment Restrictions: Possible	Determined during the prescription and layout phase.

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Recreation Restrictions: Possible	Determined during the prescription and layout phase.
Green Docket: Possible	If invasive species are identified within wetland or other resource buffers a Notice of Intent will be required prior to treatments.
In-kind Services: Yes	Release of apple trees, exotic vegetation control, mowing.

Potential Local Economic Benefits: The sale of forest products within the community helps underserved and rural economies in many ways. Road and trail improvements along with mowing services utilize local resources. Improvements to hunting, fishing, and wildlife viewing opportunities draw more sportsmen and enthusiasts to the area where they may buy food and other provisions from local sellers.

Attachments:

Locus Map

Project Map

Center Brook Forest Management Project

Savoy Mountain State Forest

Savoy, MA

LEGEND

- DCR Lands Boundary
- ▭ Center Brook Proposal

0 1,000 2,000 ft
1" = 2000'

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