

DCR-BOFF Forest Management Proposal

Project Name: Old Turnpike Road	Date Proposed: 3/23/2022
Property Name: Townsend State Forest	Town(s): Townsend
Acres: 112	Landscape Designation: Woodland
Forestry District: Northeast	Rec Complex/District: Central Highlands
Forester: Waterman	FOTL/F&P Supervisor: Gallant/Amadon

MASSACHUSETTS FOREST ACTION PLAN GOALS

* 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

GENERAL LOT DESCRIPTION

Acres	Forest Type		Stand Description
80	Overstory: White Pine	Understory: White Pine, Oak	This a White Pine plantation established in the 1930's and treated on two prior occasions. The overstory structure consists of White Pine and Oaks with variable advanced White Pine and mixed hardwoods in the understory.
26	Overstory: White Pine/Mixed Hardwood	Understory: Mixed Hardwoods, White Pine, Hemlock	This stand consists of naturally regenerated White Pine and mixed hardwood trees with variable White Pine and hardwood regeneration scattered throughout the stand. There are a few small wetlands that occur within this stand where natural process' will be allowed to dictate forest structure and composition.
6	Overstory: Red Pine	Understory: White Pine, oak	The overstory of this stand is primarily Red Pine with scattered White Pine and mixed hardwoods found throughout. Part of the stand was damaged by the 2008 ice-storm resulting in many broken tops and dead trees. The understory consists primarily of White Pine with scattered hardwoods.

Description of Project Area: The forest stands are those that were deliberately established by the Civilian Conservation Corps or grew up naturally following agricultural abandonment. The project area can best be described as gently sloping terrain with a generally south-westerly aspect. Previous forestry projects have created conditions for advanced regeneration to be present throughout most of the project area.

SOILS AND TOPOGRAPHIC FEATURES

Acres	Soil Type	Drainage Characteristic
56	Hinckley Loamy Sand	Excessively drained loamy sand derived from glacial till.
34	Deerfield Loamy Fine Sand	Deep moderately drained loamy fine sand formed from glacial till.
13	Canton Fine Sandy Loam	Deep well drained sandy loam underlain by sandy glacial till.
3	Freetown Muck	Very deep, very poorly drained organic muck formed in deep decomposed organic material.

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4	Sudbury Fine Sandy Loam	Very deep moderately well and somewhat poorly drained sandy loam on outwash plains.
2	Scarboro Mucky Fine Sand	Very deep, very poorly drained mucky fine sand in sandy glacial deposits.

Average Slope Percent:0-5%	Terrain Consistency: Variable
General Aspect: South	Terrain Position: Flatland
Description of Soils and Topographic Features: The soils in the project area are generally of low to moderate productivity due to drainage characteristics and formation from glacial till. The terrain generally slopes to the south and south-west.	

WETLAND FEATURES

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

Description of Wetland Features: There are several wetland areas, intermittent streams and two certified vernal pools found in the project area. No work will be done within those resources outside of the use of existing forest roads. Stream crossings from previous projects will be reused where necessary.

CULTURAL RESOURCES

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

Description of Cultural Resources: The project area is located adjacent to the Civilian Conservation Camp that was in Townsend up until the 1940's. No work is proposed near the old camp site. Existing stone walls are discontinuous with ample room for equipment to navigate around.

NATURAL HERITAGE / WILDLIFE-HABITAT MANAGEMENT / OTHER RESOURCES

Natural Heritage Polygon: No	Natural Heritage Restrictions: No
Restrictions on Harvest Description: None anticipated	

Wildlife Specific Management: No	Targeted Species: All
Goals: Maintain and enhance habitat for native species already present. Regenerate oaks where possible.	

Additional Habitat Management: Yes	Habitat Type: Oak-Pine Forest Type
Goals: : Provide habitat for native species found in upland hardwood forest types by increasing browse and mast production. Provide thermal cover by encouraging softwood regeneration throughout project area.	

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Retain cavity trees and snags throughout area for use by wildlife and future coarse woody material recruitment. Encourage Oak regeneration throughout project area for wildlife. Create, maintain, and enhance vertical and horizontal structure to benefit wildlife.

State Forest Action Plan: Yes	State Wildlife Action Plan: Yes
ACEC: Yes	Public Water Supply: No
BIO Map2: Yes	Current Resource Management Plan: Possible
Additional Detail: The project area is located within the Squannassit Area of Critical Environmental Concern. Project area is in the transitional hardwood-pine forest type that provides valuable habitat for wildlife. Maintaining and regenerating Oak species in the forest type will help provide critical habitat for wildlife species.	

FOREST HEALTH / INVASIVE SPECIES

Forest Health Concern: Possible	Species Affected: Red Pine, White Pine, Oaks
Management Considerations: Risk to Red Pine due to Red Pine scale. Risk to White Pine due to Bast Scale and Calpicopsis Canker. Spongy Moth defoliation of Oak species	

Plant Invasive Species Present: Yes	Species Present: Glossy Buckthorn, Asiatic Bittersweet
Management Considerations: Small populations of these plants are found along the abandoned railroad bed adjacent to the project area.	

Insect Invasive Species Present: Possible	Species Present: Red Pine Scale, Spongy Moth.
Management Considerations: Red Pine susceptible to scale infestation experience rapid decline and mortality. Repeated defoliation by Spongy Moths can lead to mortality of valuable hardwood species.	

CLIMATE ADAPTATION AND CARBON CONSIDERATIONS

Action Type	Identified Issue	Action Description
Resilience	Pine Plantations	Silvicultural treatments that convert monotypic forest types to a diverse forest type of native plant species.
Resistance	Oak Forest Types	Silvicultural treatments that maintain and expand opportunities for Oak recruitment across the project area.

Adaptive Management Strategies: Promote a diversity of tree species and age classes across the project area that is currently lacking for resiliency to climate change, provide carbon sequestration in young trees and carbon storage in legacy trees.

INFRASTRUCUTRE / RECREATION/ AESTHETICS

Access Road: Old Turnpike Road	Ownership: Town owned and maintained
Condition: Excellent	Road Repair/Upgrade: No
Existing Landing: Yes	Landing Repair/Upgrade: Yes
Project Access and Landing Site: Landing used during previous treatments will be reused.	

Existing Skid Trail Network: Yes	Pre-Harvest Repair/Upgrade: No
Skid Trail Network Description: Existing skid trails will be reused.	

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Shared Infrastructure: No	Road/Trail Names: No official trail names
Management Considerations: Repair existing roads within project area as needed for forestry, fire control and recreational users.	

Official Trail Present: Yes	Condition: Fair to Good
Illegal Trail Present: Yes	Condition: Poor-block illegal trails
Existing Trail Head: No	Condition: NA
Recreation Facility: No	Condition: NA
Recreation and Aesthetic Concerns/Opportunities: Use site enhancements to repair and improve existing infrastructure. Cut all dead trees along forest roads and trails for public safety. Install gate at landing entrance to prevent illegal access and dumping.	

SILVICULTURE

Acres	Silviculture Type	Silviculture Description
106	Irregular Shelterwood	Openings up to 1 acre will be installed across the project area to release existing advance regeneration, create conditions favorable for tree regeneration where currently lacking, and thin remaining trees to increase vigor and diameter increment.
6	Shelterwood with reserves	This will be the final removal cut of the Red Pine overstory releasing advanced regeneration established during previous projects while reserving oaks and large pines for wildlife benefits. Several Red Pine per acre will be left to become snags for wildlife habitat.

General Comments on Silviculture Proposed: Project is intended to build upon prior forestry projects by releasing advanced regeneration where possible to create two distinct age classes. Create conditions favorable for seedling establishment where regeneration is lacking along with retention of legacy hardwood trees and pine across the project area for wildlife and future coarse woody material recruitment.

PERMIT REQUIREMENTS / OPPORTUNITIES

	Description
Seasonal Restrictions: No	No restrictions anticipated at this time.
Equipment Restrictions: No	No restrictions anticipated at this time.
Recreation Restrictions: Yes	Area will be closed to recreation during operational hours.
Green Docket: No	No permitting requirements anticipated outside of Chapter 132 Forest Cutting Plan
In-kind Services: Yes	Stone and gravel installation off Old Turnpike Road. Gate installation at landing site to prevent illegal access and dumping.

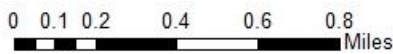
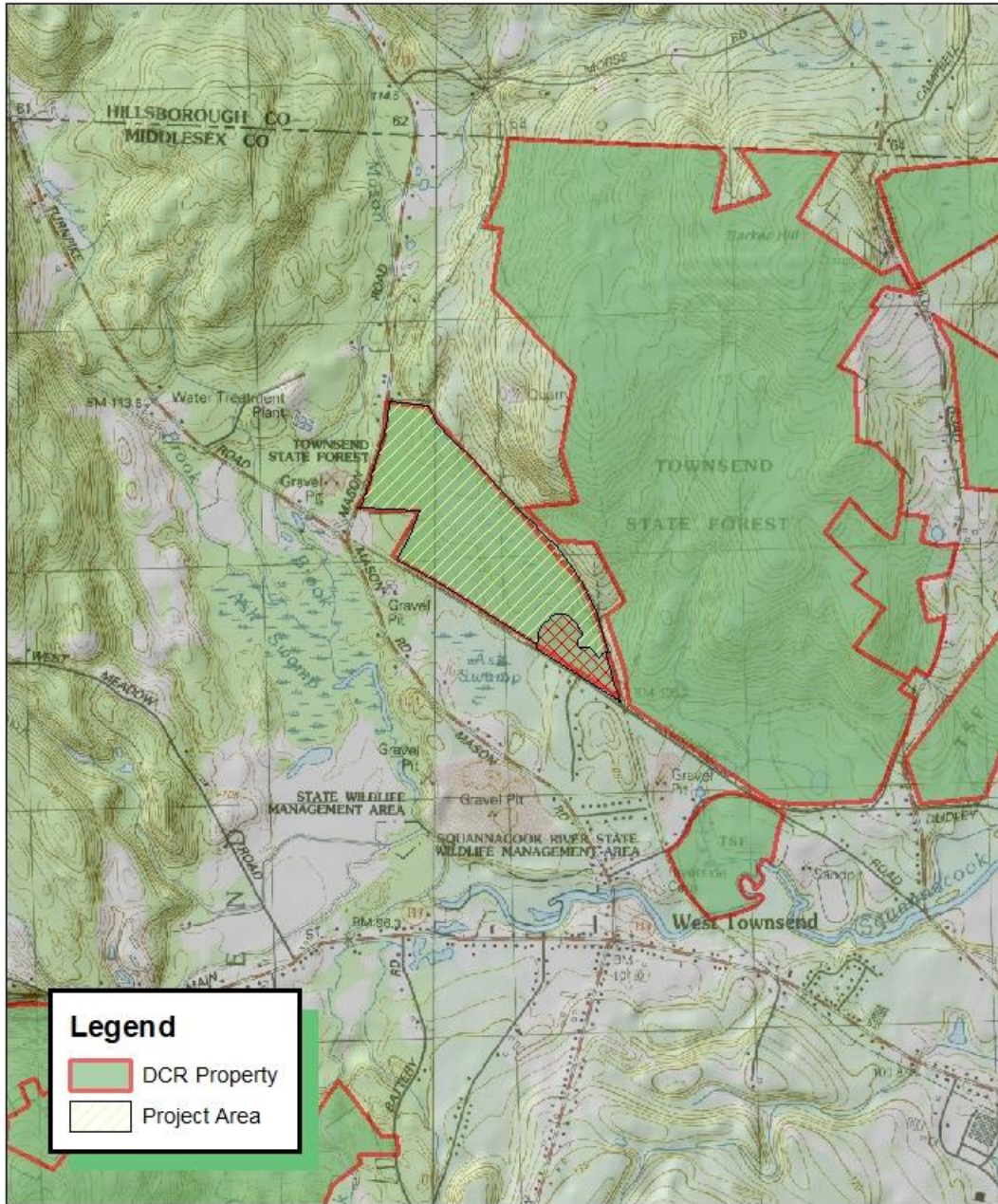
Potential Local Economic Benefits: Strong local markets for firewood exist and can offset the use of fossil fuels for home heating. Employment of local contractors to benefit rural communities and payments to towns from the Forest Products Trust Fund is expected. Repair and maintenance of forest roads and trails will benefit Park Operations, Fire Control, and recreational users.

Attachments:

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Locus Map
Proposal Map

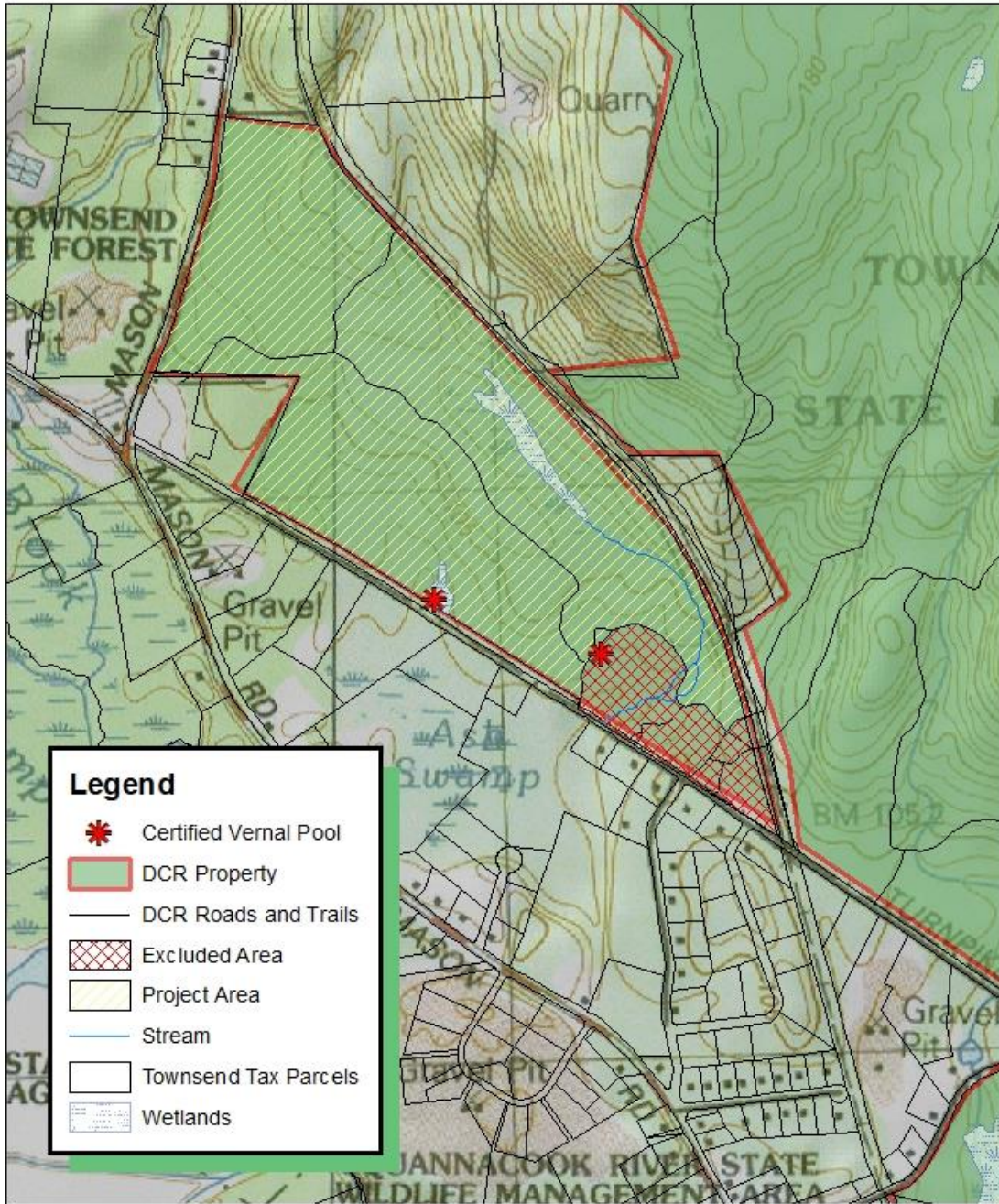
Old Turnpike Road Project Locus Map Townsend State Forest



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Old Turnpike Road Project Detail Map Townsend State Forest



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