

**Massachusetts Department of Conservation and Recreation  
Bureau of Forest Fire Control and Forestry  
Forest Management Proposal  
Name: Townsend Home Fuel Wood-2016**

**Date Posted:** February 26, 2016  
**End of Comment Period:** April 10, 2016

**Region:** Central  
**Recreation District:** Central Highlands  
**Forest Management District:** Northeast  
**State Forest:** Townsend State Forest  
**Closest Roads:** Fessenden Hill Road, Townsend, MA, West Hill Road, Brookline, NH  
**Town:** Townsend, MA

**Contact Information:** Mike Waterman  
25 Shattuck Street  
Lowell, MA 01852  
978-937-9092 ext 109  
Michael.J.Waterman@state.ma.us

**Overview:**

This project is a continuation of the Townsend State Forest Fuel Break Project started in 2005. There was a catastrophic wildfire in the area in 1927, burning over 28 square miles in Massachusetts and New Hampshire. The area has "Type III Fire Regime"- an area that is prone to a fire every 35 to 100 years. It is a shaded fuel break to aid in fighting of possible wildfire; it also provides access and improved safety for the area. Prior to the fuel break project, access was extremely poor. The project will remove poor quality hardwoods within the fuel break along the woods road in the northeast section of Townsend State Forest (attached map "Unit A"), and thin poor quality trees along Fessenden Hill Road (attached map "Unit B").

The major objectives of this harvest are 1) continue work on the Townsend State Forest Fuel Break, 2) to provide homeowners and renters the opportunity to cut their own cordwood for heat, 3) improving species composition and quality by thinning poorly formed trees or trees with defects 4) increasing forest species diversity, 5) establish regeneration, and in other areas release regeneration which is already present.

One of the primary goals and objectives is to provide for fire fighter and public safety by continuing the work and enhancement of the fuel break, an approximate 100 foot wide strip centered on the woods roads which has been cleared leaving large trees to provide shade. The fuel break reduces the wildfire risk to the surrounding community, by providing a break in fuel continuity and giving forest fire fighters an area to safely fight forest fires. The fuel break is maintained by Forest Fire District 6 through mowing or burns, and various forest harvesting operations (only the Home Fuelwood Program has been used to date).

The Home Fuel Wood Program is meant to benefit local individuals and families, the trees to be harvested are smaller and are easily handled. The wood harvested is for personal use only and may not be resold or used for any commercial purposes. The method of removal is to cut and carry by hand cordwood to pickup trucks. No equipment other than chainsaws and pickup trucks (restricted to main roads) are allowed as part of this project. The period of removal is from October until the first good snow fall (4"+) that persists on the ground or until January whichever comes first. Due to the size of this project and limited time frame for homeowners to harvest wood this project will be conducted over 2 or 3 seasons.

## **Stand Description:**

The species present in the project areas are white pine and pitch pine (*Pinus strobus* and *Pinus rigida*); and hardwood trees consisting of red oak (*Quercus rubra*), chestnut oak (*Quercus prinus*), black oak (*Quercus velutina*), white oak (*Quercus alba*), scarlet oak (*Quercus coccinea*), hickories (*Carya spp.*), white ash (*Fraxinus americana*) and red maple (*Acer rubrum*). The size class of the trees is pole with a few larger sized trees in the area. The trees in this area are 80-90 years old, all growing after the 1927 fire. There is a rolling topography, slopes in the range of 3-8% with difficult areas avoided in this project.

The soils associated with this project are; Montauk fine sandy loam, Charlton-Hollis-Rock outcrop complex, Hollis-Rock outcrop-Charlton complex and Canton fine sandy loam, and vary from very stony to very bouldery. These are all well drained soils making this a dry site. The stand and tree vigor in the area is moderate because of the soils. The stocking level is medium.

The Fessenden Hill Road portion of the project is approximately 29 acres in size, and the northeast portion of the project is approximately 25 acres in size. The final area harvested as part of this project will be smaller because of terrain limitations, thickness of mountain laurel, setbacks due to wetlands, etc., and the program being aimed at non-professional homeowners conducting the work.

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

### **Aesthetic:**

In this program, tree utilization is extremely good; many cutters taking wood down to an inch or two. Residual slash is lopped low so it is not highly visible, especially after a full growing season. No slash is allowed within 20 feet of the woods roads. All of the work is done by hand with minimal aesthetic impact.

### **Recreation:**

The harvest area will be posted and a public walk given to increase public awareness of program activity in the area. There is minimal impact to recreational activity because the work is all by hand. Only the better maintained woods roads are used because the program is designed for homeowners or renters with pickup trucks. Woods roads are kept clear at all times for passage. There has been more hiking, mountain biking, skiing, hunting and snowshoeing activity since the inception of the fuel break project and its access improvements. Although prohibited in the Forest, there is significant all-terrain-vehicle use in the area (confined mainly to forest roads).

### **Wetlands:**

There are three wetlands located in the project area along Fessenden Hill Road, one certified vernal pool, and one potential vernal pool. There are no wetland resource areas located in the northeast part of this project. No cutting will be conducted in wetlands, or in or around certified and potential vernal pools. All cutting is done by hand, and vehicles are restricted to main roads only. All resource areas will be mapped and flagged in accordance with filing a MGL Chapter 132 Forest Cutting Plan for this project with the Massachusetts DCR Service Forestry Division along with simultaneous filing with the local conservation commission.

The Massachusetts Forestry Best Management Practices (BMP's) are required by law mitigate any site impact. Operations will cease if management forester, park supervisor, or designee determine that conditions warrant cessation of operations to minimize any impacts.

## **Cultural Resources:**

There are two known cellar hole/ foundations off the access roads outside of the harvest area. These areas will be mapped and flagged to protect their historical significance. No cutting will be allowed near these structures. Consultation with the Office of Cultural Resources will take place prior to preparing a written prescription for the project area in order to better document and preserve these structures for future generations.

## **Rare and Endangered Species**

Review of the Massachusetts Natural Heritage and Endangered Species Priority Habitat (NHESP) geographical information system data layer of the proposed project area shows no habitat for rare or endangered species present.

## **Wildlife**

Large sawlog size trees (18" DBH) with wildlife cavities, live snags and known nest trees shall be retained. Large (18" DBH) mast producers will be retained and released. The Department of Fish and Game/NHESP shall be informed and their recommendations followed as part of a written silviculture prescription for this project. There are deer present, but because of low numbers they will make minimal impact on regeneration. Moose, black bear, and bobcat have been seen in the general area.

The partial cutting associated with the Home Fuel Wood Program harvest described below is unlikely to have substantial impacts on wildlife. Wildlife species associated with mature forest habitat will likely continue to use these stands, and some will likely benefit from the food and cover resources provided in regenerating areas. As harvesting proceeds over time, the forest will include more young trees, but at the same time this forest will produce more mast (primarily acorns) as crowns of released trees expand. Also, these stands will remain structurally diverse through retention of wildlife trees and woody debris of various sizes and species.

While the Home Fuel Wood cutting planned for these stands will not create extensive patches of young forest habitat that are preferred by declining shrub land and young forest birds, these stands will still provide vibrant and relatively consistent wildlife habitat over time.

## **Sale Layout and Harvesting Limitations:**

The Home Fuel Wood Program is designed for homeowners and renters, so only better quality woods roads are used. Treatment areas will have numerous lots, with each lot yielding between 2-4 cords. The lots follow the easy access woods roads, and are "checker board" (alternating with gaps) in their layout. If they are next to each other, different color marking paint is used. The depth of the lots vary with the difficulty of removing the wood from 50' to 200' or more (i.e. open, flat, easier to work lots are deeper; lots with slopes, or tangle of undergrowth are shallow).

The fuel break in the north part of the project area is about 50 feet from the woods road. In this area removals will focus on poor quality, less vigorous trees, with the better quality trees left to provide shade, creating a "glen effect". Some of the harvest area is extremely thick with mountain laurel, which will limit the depth into which cutters can operate and will reduce the size of the harvest in this area.

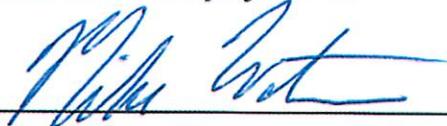
Woodlot access along the Fessenden Hill Road section of the project is much better due to road improvements and a similar harvest conducted in the mid 1980's. Removal of trees in this area will focus on poor quality, damaged or diseased trees and releasing regeneration already present.

Because the Home Fuel Wood Program involves cutting and carrying wood by hand, and pickup trucks are restricted to main roads, there is minimal need for erosion or sedimentation management, as soils are not generally disturbed. If conditions became marginal, operations will be suspended until they improve.

**Silviculture:**

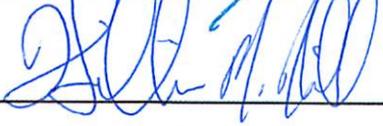
An improvement cut will be used to remove trees with poor form or having defects resulting from insect attack, disease, rot, etc. Better formed and healthier trees will be favored for retention, improving health, vigor, and quality of the trees after the harvest. In the fire break to the north better quality trees are released by thinning around them which promotes crown growth, mast production, leading to quicker diameter growth of the remaining stems while simultaneously stimulating regeneration of the forest. The area along Fessenden Hill Road will benefit by removing poor quality, less vigorous trees and releasing regeneration already established.

This project will increase complexity (species and size classes) of the surrounding forest structure, with the added benefit of increasing the number of species in the shrub, and herbaceous layers benefitting various wildlife species. Removing these trees will improve safety for recreational users by harvesting trees that may become a threat to public safety. Lastly, thinning these trees will allow sunlight to the forest floor which increases the opportunity for regeneration in the project area.

District Forester:  Date: 2/9/2016

Field Operations Team Leader  
Or Park Supervisor:  Date: 2-11-16

Regional Director:  Date: 2/10/16

Management Forestry  
Program Supervisor:  Date: 2/16/16

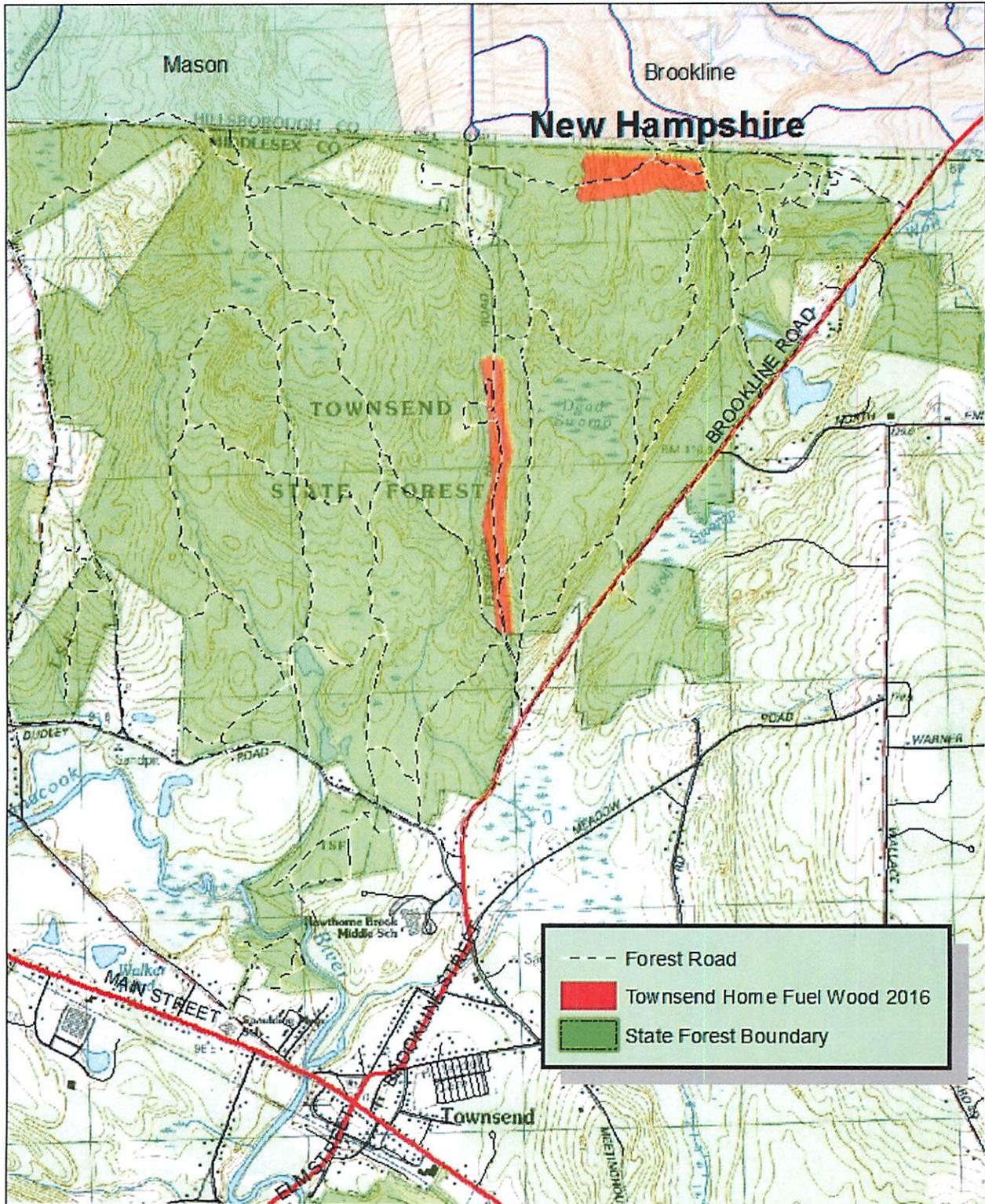
Attached: Topographic map showing project details. Locus map showing project location within regional context.



# Townsend Home Fuel Wood 2016 Locus Map

## Townsend State Forest

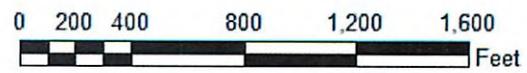
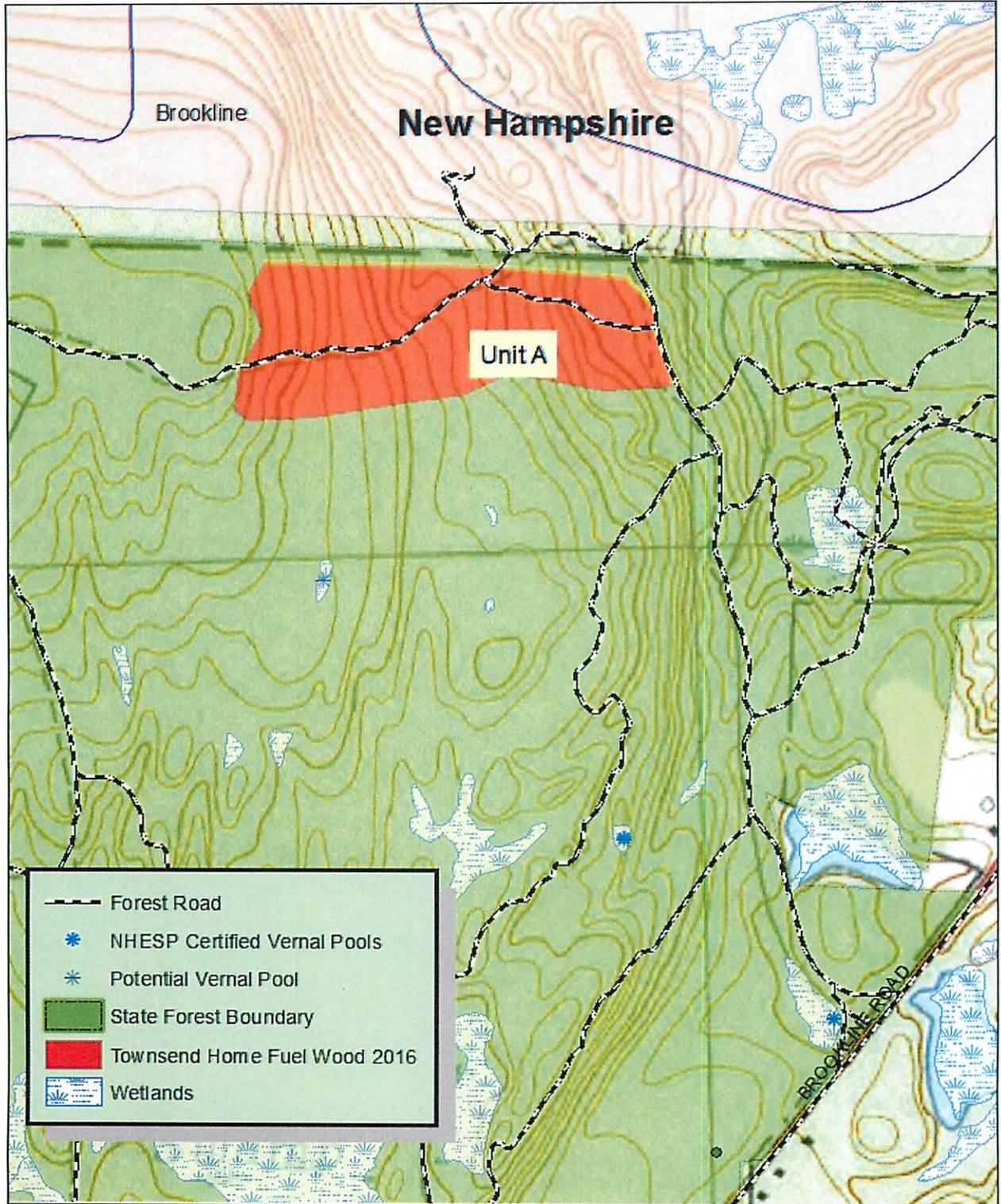
### Townsend, MA



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