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

Date Posted: June 30, 2021
End of Comment Period: August 14, 2021

Region:	**Central**
Recreation District:	**Central Highlands**
Forest Management District:	**Mid State**
State Forest:	**Lawton State Forest**
Closest Road:	**Townsend Road & Willis Road**
Town	**Athol, Massachusetts**

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Overview

Lawton State Forest consists of 365 acres and is located in Athol, Massachusetts. Access is from Willis Road, Townsend Road and Chestnut Hill Avenue. The property consists of two separate acquisitions. The first parcel was purchased in 1986 from the Lawton family and the last purchase was in 2001. The Lawton tract was owned by the Lawton family for over 200 years before the state took ownership. The acquisition was made possible in large part by the assistance of the Mount Grace Land Conservation Trust. The property was utilized as a dairy farm until the early 1900's. Beginning in the 1930's as a fundraiser for a Boy Scout project, the family began planting Christmas trees, primarily spruce (*Picea spp*.) and fir (*Abies spp*.) species, throughout the open fields on the property. Additional plantings included red pine (*Pinus resinosa*), eastern white pine (*Pinus strobus*), Scots pine (*Pinus sylvestris*) and Norway spruce (*Picea abies).* From 1950-1990, the family sold commercial Christmas trees and lumber sourced from the property. It was the first tree farm to enter the American Tree Farm system in Massachusetts and the second in all the United States.

This project is being proposed at this time because the plantations are at high risk of mortality from insect and disease. In addition, advance regeneration established through previous treatments may be adequate at this time for further release through a partial overstory removal or with a continuation of the shelterwood regeneration method.

Project Area Descriptions

Stand Information

Within the proposed 122.0 acre project area are pure even-aged stands of red pine, white pine and Norway spruce as well as areas containing a mixture of these species. Areas between the plantations

contain naturally seeded native tree species. Stand types will be delineated based on the results of a site specific forest stand exam to be conducted at a future date.

The dominant overstory species include red pine, eastern white pine, Norway spruce, Scots pine, northern red oak (*Quercus rubra)* and eastern hemlock (*Tsuga canadensis).* Other species include paper birch *(Betula papyrifera),* black birch (*Betula lenta),* red maple (*Acer rubrum)* and other mixed hardwood species. The condition of the plantations is fair to poor. Red pine quality is poor due to growth stagnation and what is assumed to be red pine scale (*Matsucoccus matsumurae).* White pine needle health is poor amongst the purer white pine stands due to growth stagnation and fungal activity on the needles.

In 2003, 90 thousand board feet (MBF) of red pine, white pine, and Norway spruce sawtimber and 120 cords of mixed softwood pulp were harvested on 35 acres within this proposed area. Besides this treatment there are no records of previous management except the general knowledge that sawtimber was cut and sold commercially by the Lawton family until 1990.

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

Aesthetic

All aesthetic considerations will be made to legal recreational users of the state forest. As mentioned in the DCR Management Guidelines for roads and trails, hazard trees will be harvested along the truck roads and skid trails. Harvester operation will be limited to times when ground conditions are stable. Directional felling to protect residual trees, wetland resource areas, woods roads, and trails will also be implemented.

Recreation

There are hiking trails and interior woods roads (previously farm roads) throughout the proposed area. Hiking, mountain biking, cross country skiing, snowshoeing, and hunting, among others, are potential uses of this state forest. Hiking and hunting are the primary uses of the proposed area. Fishing is common in the small ponds on the north side of Willis Road. The project area will be closed to the public during active harvesting hours for safety purposes. Hazard trees will be harvested within close proximity to roads and trails.

Wetland Resources

There are two small ponds and some anticipated wetland resource areas present within the proposed project area, including wetlands, intermittent streams, wet seeps, and perennial streams. In conjunction with the forest stand exam, all wetland resource areas will be mapped and delineated in the field. All Forestry Best Management Practices (BMPs) will be implemented within the project area. There will be no harvesting in wetlands.

Cultural Resources

There are many stone walls throughout this project area. These walls and any other cultural resource areas (stone piles, wells, etc.) will be mapped and brought to the attention of the DCR Archeologist for further review.

Rare and Endangered Species

A review of the Natural Heritage and Endangered Species Program (NHESP) atlas shows that there is no mapped Estimated or Priority habitat or certified vernal pools located within the project area. NHESP will review the project prior to any harvesting to determine if any limitations or modifications will be required. There are three potential vernal pools located within the proposed project area. These areas will be treated as certified vernal pools with the appropriate BMP's applied to protect the resource areas.

Wildlife

There are signs of several large and small mammal species utilizing this area as well as many bird species. Deer browse is not problematic for regeneration currently. As outlined in the DCR Management Guidelines, selected large trees will be reserved as wildlife trees. Snags, dead trees, and coarse woody debris (CWD) will be retained for habitat also. Browse for wildlife will be enhanced during the harvest and for many years after the harvest as regeneration becomes established. Mast-producing trees such as oak will be retained whenever possible.

Sale Layout and Harvesting Limitations

Sale layout will be developed using BMPs to minimize negative effects on the site. Any equipment limitations will be made based on the wood products to be harvested. This determination will be made while field work is being conducted for writing the silvicultural prescription.

An existing landing off Townsend Road will be re-utilized and the establishment of another landing off Willis Road will be created if needed. All pre-existing skid trails and roads were well planned, remain in stable condition, and will be utilized for this project. Secondary skid trails will be established when necessary to access the project area.

All wetland resource areas will be delineated in the field with paint to ensure no harvesting occurs in them. Filter strips will be delineated similarly around streams. Planning efforts will attempt to minimize the need or use for wetland and/or stream crossings. Buffer strips will be left along Townsend and Willis Road.

Skid trails will be properly stabilized to prevent erosion and sedimentation with the use of water bars, hay bale installation, slash or otherwise, where necessary. Roads and trails used within the project area will be regraded and stabilized. Access by ORVs will be restricted by additional access blockages.

Silviculture

Before development of the prescription for this project, an assessment will be made throughout the plantations using regeneration sampling techniques to determine the extent of acceptable advance regeneration. The intensity of the harvest will be adjusted based on the presence of regeneration, indicating a more intensive partial overstory removal where regeneration is ready to be released; and another shelterwood harvest, in areas where more regeneration needs to be secured. A partial overstory removal, or the cutting of the upper canopy trees, will be used to proactively salvage the declining plantations while simultaneously releasing the advance regeneration that has become established as a result of past forest management efforts. The goal of another shelterwood harvest at this time would be to increase the available light to the forest floor to aid in the partial release of

established advance regeneration or to encourage the establishment of regeneration where it might be absent.

Areas within the proposed project area that contain naturally seeded native trees will undergo a variable-density thinning across all size classes. The purpose of this treatment is to increase species diversity and vertical complexity which will create a more resilient forest condition.

In these ways, this treatment will fulfill the goals of maintaining diverse and resilient native and natural forests as outlined in the “DCR Management Guidelines” document.

References:

Commonwealth of Massachusetts. Department of Conservation and Recreation. Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines. March 2012.

District Forester: _____ **Date:** 6/15/21
Joelle Vautour

Field Operation Team Leader
Or District Manager
Or Park Supervisor: _____ **Date:** 6/15/21
Brad Gallant

Regional Director: _____ **Date:** 6/24/21
Jennifer Stowe

Management Forestry
Program Supervisor: _____ **Date:** 6/16/21

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

Project Map
Lawton State Forest - Willis Road North
Willis Road & Townsend Road - Athol, MA

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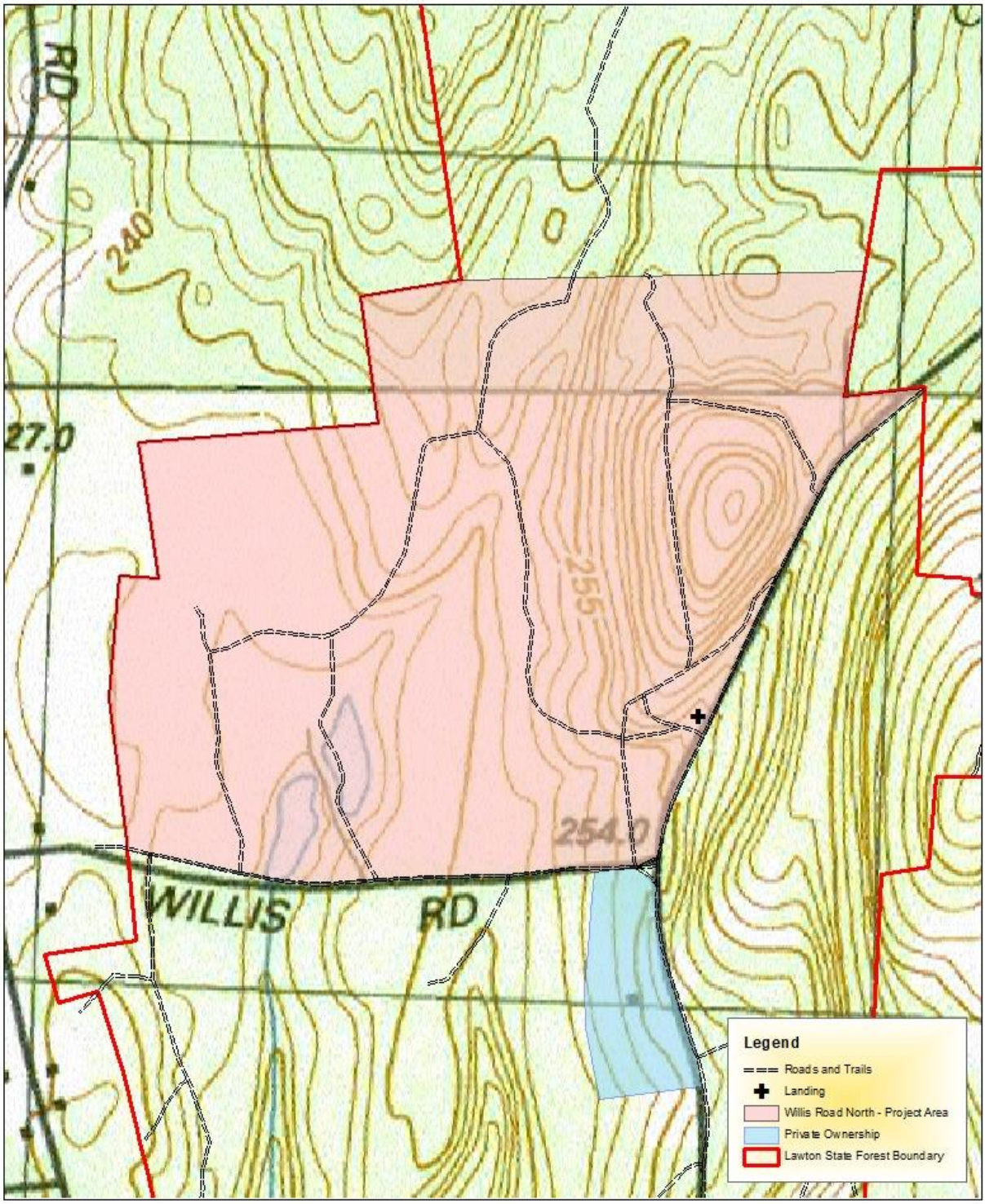
Feet



Map Prepared By: Joelle Vautour, DCR Forester - February 5, 2021

Locus Map
Lawton State Forest - Willis Road North
Willis Road & Townsend Road - Athol, MA

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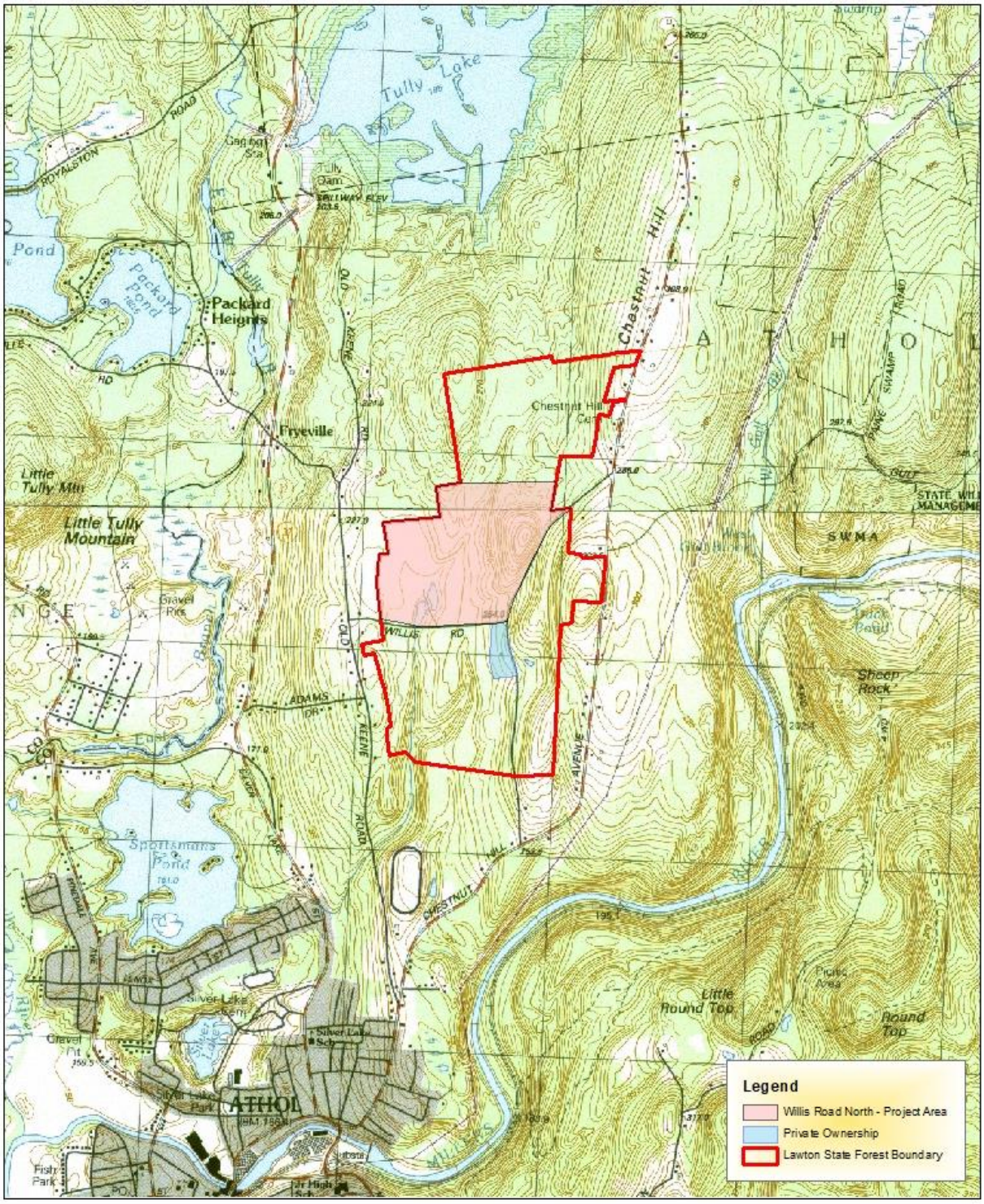
0 500 1,000 2,000 3,000 4,000 Feet



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