Massachusetts Department of Conservation and Recreation
Division of Water Supply Protection, Office of Watershed Management
Forest Management Project Proposal Summary

Site Information

Proposal Summary Item	Item Information/Description
Lot Proposal ID	**WA-19-133**
Fiscal Year	2019
Watershed	**Wachusett**
Town(s)	**Holden**
Acres	44.1
Nearest Road	River Street
Natural Heritage Atlas overlap?	Yes
Public Drinking Water Supply Watershed?:	Yes
Forest Types	White pine/oak, Northern Red oak, Mixed hardwoods
Soils	Primarily Hinckley and Merrimac sandy loams with a little poorly drained Limerick silt loam near the river.
Wetland Resources	There's a wetland in the north end of this area at the toe of a steep slope.
Vernal Pools	There are no known vernal pools.

NARRATIVES

General Description/Forest Composition/History:

The overstory is primarily comprised of red oak, white pine, white oak, black oak, red maple. There is also some hemlock scattered throughout with more on the slopes nearer to the Quinapoxet River. The hemlock is infested with the hemlock wooly adelgid and there is some mortality as a result. Most of this area was previously harvested in 1996 with the goal of encouraging the establishment of young trees. This was largely successful. A regeneration survey shows that there is adequate regeneration in 52% of the plots along with marginal regeneration on another 22%. This advance regeneration is comprised primarily of white pine, red oak and black birch along with hemlock and red maple. Interfering levels of mountain laurel and witch-hazel were found in 7% of the plots.

The age structure of this working unit is as follows: 0% 0-20 years old, 0% 21-40 years, 0% 41-60 years, 11% 61-80 years, 28% 81-100 years and 61% >100 years old. The oldest stands originated in about 1892 making them 126 years old.

Site Selection:

The ideal watershed protection forest is one which best serves the function of the land as a producer of high quality drinking water in both short- and long-term. This forest must be vigorous and diverse in tree species and ages, be actively accumulating biomass and actively regenerating. Such a forest will be ideally suited to be resilient to and quickly recover from small- and large-scale disturbances such as diseases, insect infestations, ice storms and hurricanes.

This area was selected for management because of the lack of age diversity both in these 44 acres as well as in the 2,462 DCR-owned acres from which water flows into the Quinapoxet River and ultimately into the Wachusett Reservoir. There is no young forest with 11% 61-80 years old, 28% 81-100 years old and 61% more than 100 years old. The oldest stands originated in about 1892 making them about 126 years old.

This harvest will contribute as much as 15 acres or 33% of young forest towards the ideal protection forest which would have at least 3 distinct age classes of trees distributed throughout this sale area.

Silvicultural Objectives:

Openings in the overstory will be made in order to release the advance regeneration. Given that the advance regeneration is well distributed throughout this area, so will the openings be well distributed. Opportunities will be sought where good regeneration coincides with hemlock that is infested with hemlock wooly adlegid. Otherwise, no extra effort will be made to remove hemlock other than the typical removal of trees of poor vigor in the up to 15 acres of intermediate cutting.

Cultural Resources:

This area will be assessed by the DCR Archeologist for both known sites of cultural or archeological importance as well as for potential use by pre-Contact Native Americans.

Wildlife/Rare or Endangered Species:

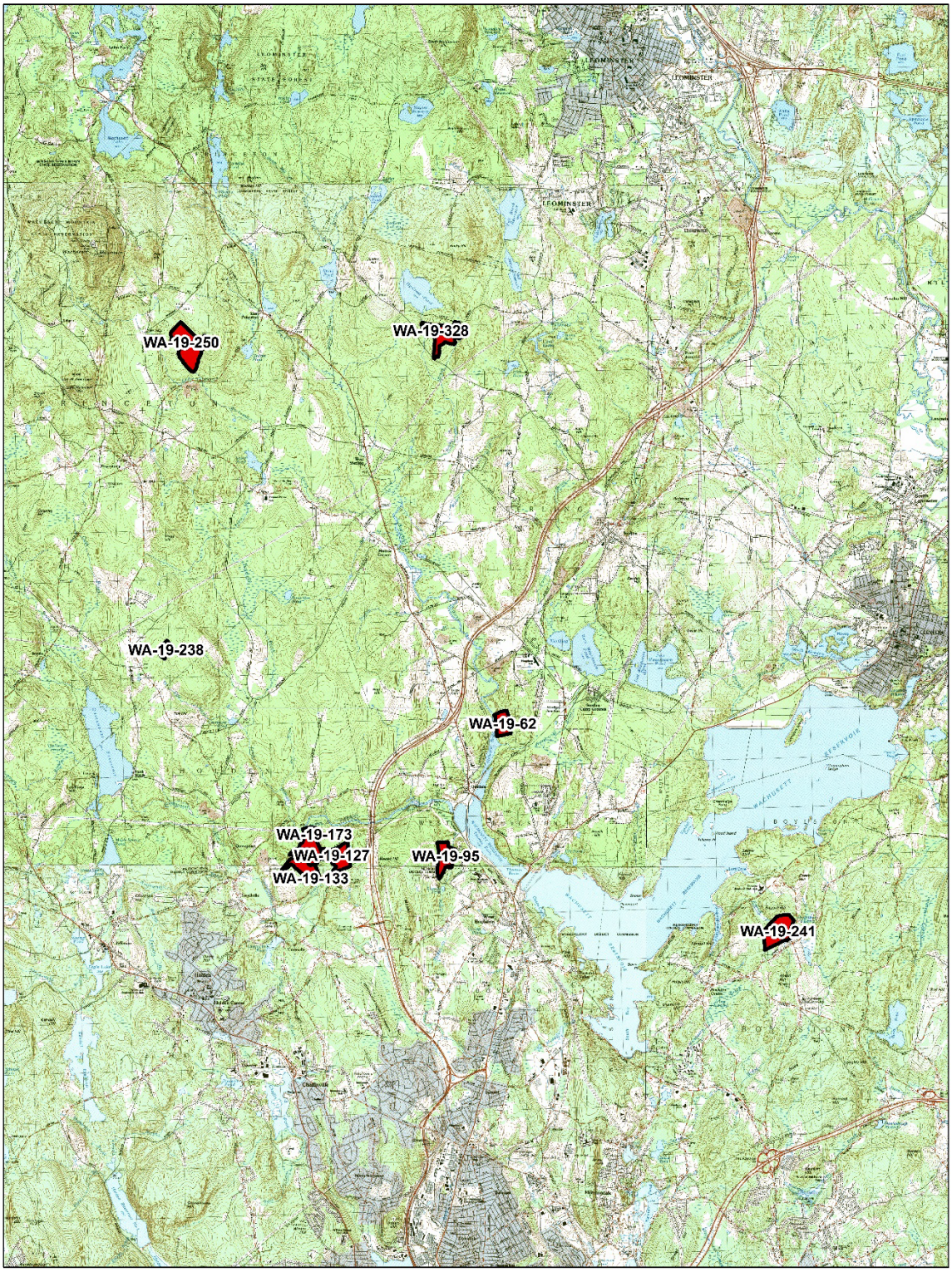
All DWSP Best Management Practices for wildlife management such as the protection and enhancement of wildlife habitat features will be an integral part of the silviculture and job layout. Diverse hard and soft mast species will be retained and the healthiest trees will be released to improve seed production, which will promote tree seedlings and food for wildlife. Large snags, den trees, logs and nest trees will be retained whenever possible as valuable habitat. No stick nests were observed, but if they are identified in the further steps of this process they will be protected. Where they occur; streams, wetlands, seeps and vernal pools will be protected for water quality and wildlife habitat.

The Natural Heritage and Endangered Species Program have determined that certain state-listed sensitive species or habitats may exist within the lot proposal area associated with the Quinapoxet River. To protect them from unnecessary disturbance, detailed information regarding affected species and their locations is not included in this report. DWSP will coordinate with NHESP and follow recommendations to protect these species during the proposed activity.

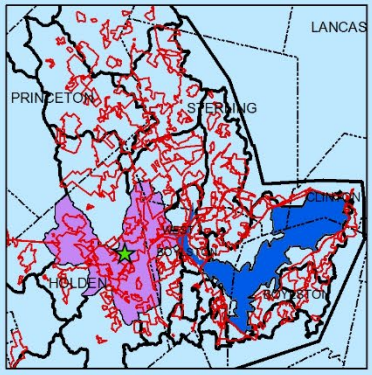
DCR - Wachusett Reservoir

Proposed Timber Sales FY 2019

Locus Map (Scale 1:72,000 - 1 inch =6,000 feet)



DCR - Wachusett Reservoir
Timber Lot Proposal WA-19-133



N
W E
S

1 inch = 300 feet

Outline of Proposed Area (Working Unit)
DCR Property Lines w/wo walls
Stone walls
Streams
Wetlands
Vernal Pools-Verified
Vernal Pools-Potential
Landing/s
NHESP Priority Habitats (semi-transparent)
DCR Gate/s

0 180 360 720 Feet

NHESP PH #1383

Quinapoxet River

Central Mass Rail Trail Parking Lot