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-19-62**
Fiscal Year	2019
Watershed	**Wachusett**
Town(s)	**Sterling**
Acres	29.9
Nearest Road	Prescott Street
Natural Heritage Atlas overlap?	Yes
Public Drinking Water Supply Watershed?:	Yes
Forest Types	Mixed oak; Oak/hardwood; White pine/oak
Soils	Primarily Hinckley sandy loam along with some Paxton fine sandy loam, very stony.
Wetland Resources	The Stillwater Basin of the Wachusett Reservoir forms the western border of this proposed sale area.
Vernal Pools	There are no known vernal pools.

NARRATIVES

General Description/Forest Composition/History:

The overstory is a fairly standard dry-site mix of black, red and white oaks along with white pine and the occasional hickory and red maple. There is more white pine in the lower elevations, especially in the southwestern quadrant of this area. A fire several decades ago, probably caused by a fisherman on the Stillwater Basin shoreline, spread most of the way up this west-facing slope. There are many trees with fire-scars that persist to the present day. There is decent advance regeneration especially in the southern half of the area. The regeneration is comprised of white pine, red oak, white oak, black oak, red maple, hickory and eastern hophornbeam. The understory also has native shrubs such as maple-leaved viburnum (showing signs of deer browse), huckleberry, lowbush blueberry and mountain laurel. There is also witch-hazel at lower elevations. The mountain laurel is scattered in much of the area but reaches a density that interferes with the ability of young trees to become established in the northwest quadrant from about mid-slope down to the bottom of the hill at the Stillwater Basin. Sampling found that there is adequate advance regeneration on 51% of the plots with marginal regeneration on 21% of the plots. Mountain laurel was at interfering levels on 21% of the plots. Oak regeneration was found on 67% of the plots.

The age structure of this area is as follows; 0% 0-20 years old, 5% 21-40 years, 0% 41-60 years, 61% 61-80 years, 7% 81-100 years and 27% >100 years old. The oldest stands originated in about 1900 making them 118 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 29.9 acres as well as in the 600 DCR-owned acres from which water flows into the Stillwater Basin of the Wachusett Reservoir. There is no young forest with 5% of the forest 21-40 years old, 61% 61-80 years old, 7% 81-100 years old and 27% more than 100 years old. This harvest will contribute as much as 10 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:

The goal will be to establish young forest on up to 10 acres in this area by the removal of the overstory in patches. These will be as well distributed throughout the area as possible taking advantage of the advance regeneration. Some thinning may occur between the openings primarily aimed at removing the trees of poorest health. These are likely to be some of the badly fire-scarred trees.

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:

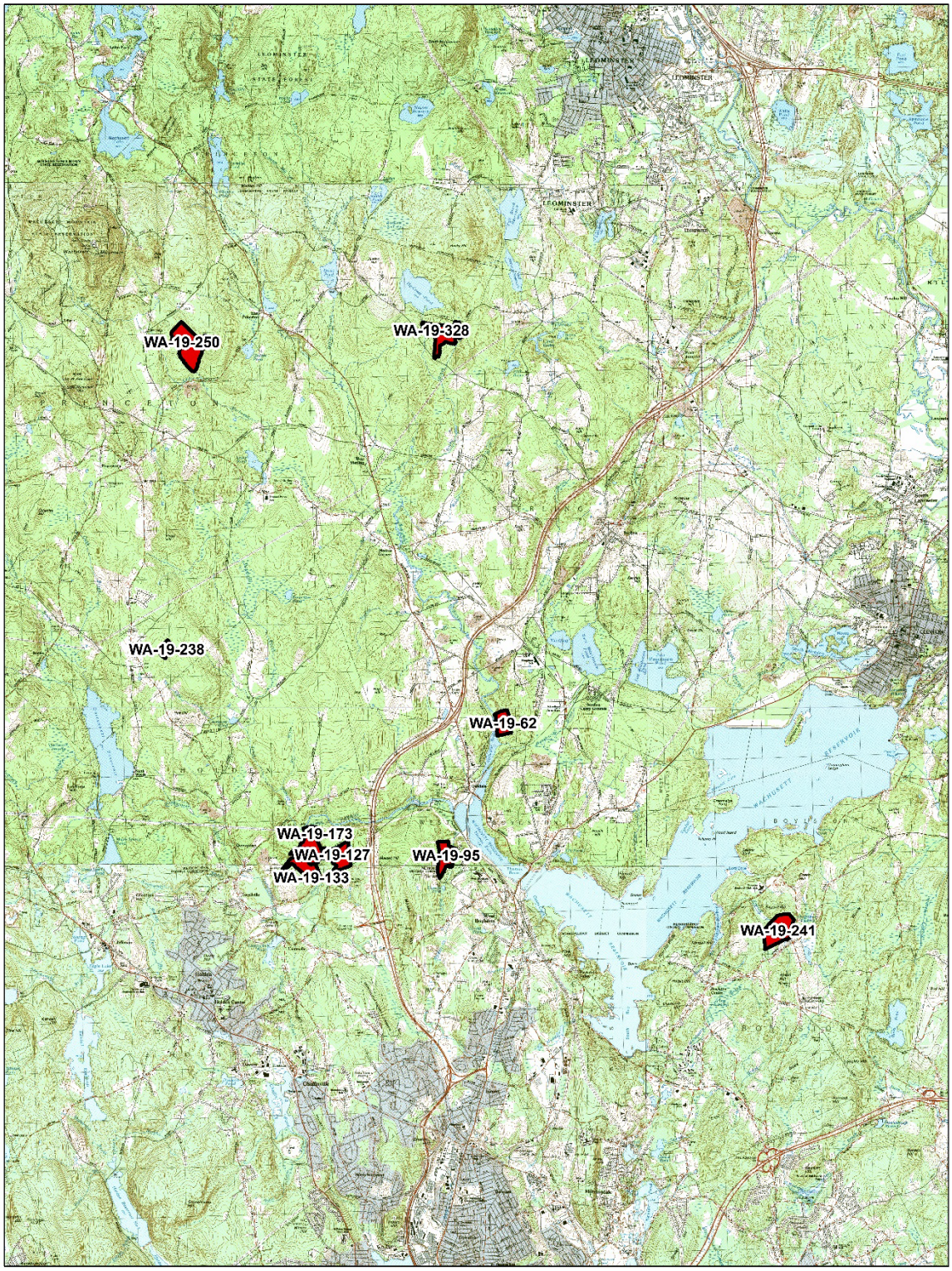
All DWSP Best Management Practices for wildlife management such as the protection and enhancement of wildlife habitat features will be an integral part of the silviculture and job layout. Diverse hard and soft mast species will be retained and the healthiest trees will be released to improve seed production, 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. 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-19-62

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