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-19-173**
Fiscal Year	2019
Watershed	**Holden**
Town(s)	**West Boylston**
Acres	51.1
Nearest Road	River Street
Natural Heritage Atlas overlap?	Yes
Public Drinking Water Supply Watershed?:	Yes
Forest Types	Mixed oak; Mixed hardwoods; Oak/hardwood
Soils	Primarily Hinckley and Merrimac sandy loams along with Winooski very fine sandy loam.
Wetland Resources	There's a wetland associated with the southern end of the oxbow pond on the east side of the Rail Trail.
Vernal Pools	The oxbow pond on the east side of the Rail Trail is a functioning vernal pool and there is a cluster of small vernal pools on the west side of the Rail Trail.

NARRATIVES

General Description/Forest Composition/History:

The majority of the forest in this proposed sale area is a mixed oak stand with an overstory of red oak, black oak, white oak, white pine, red maple and scattered black cherry. The understory is dominated by advance regeneration comprised of white pine, oaks, red maple, hemlock, black cherry, sassafras and eastern hophornbeam. Shrubs are primarily lowbush blueberry, witch hazel, mountain laurel, shadbush and sheep laurel. Most of this stand east of the rail-trail was thinned in 1998 which has allowed the continued development of this understory.

West of the rail-trail is a mixed oak stand similar to that on the east side although with higher overstory stocking due to a lack of past logging. It too has an excellent understory of advance regeneration. North of this stand on the west side of the rail-trail is an area characterized by old meanderings of the Quinapoxet River. The mixed hardwood stands in this area are comprised of red oak, black cherry, red maple, white pine and white ash. The understory is dominated by American hornbeam. There is an oxbow pond on the east side of the rail-trail that was cut off from the Quinapoxet River by the construction of the railroad bed sometime in the 1800's.

A regeneration survey found adequate regeneration present in 58% of the plots with marginal regeneration present in an additional 17%. Only 3% of the plots had interfering levels of native shrubs, in this case, mountain laurel.

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 51 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 3% of the forest 41-60 years old, 27% 61-80 years old, 6% 81-100 years old and 63% more than 100 years old. The oldest stands are west of the rail-trail and originated in the 1890s make them about 120 years old.

This harvest will contribute as much as 17 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:

Given the excellent understory of advance regeneration, it should not be difficult to achieve the goal of creating a new age class on 1/3rd of this area. This will be accomplished by the removal of the overstory in patches that average about 1 acre with a maximum size of about 2 acres. These will be well distributed throughout the proposed area taking advantage of where the advance regeneration is best. Some partial cutting may occur between the openings on up to 1/3rd of the area focusing on the removal of trees of the poorest quality while maintaining species diversity.

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:

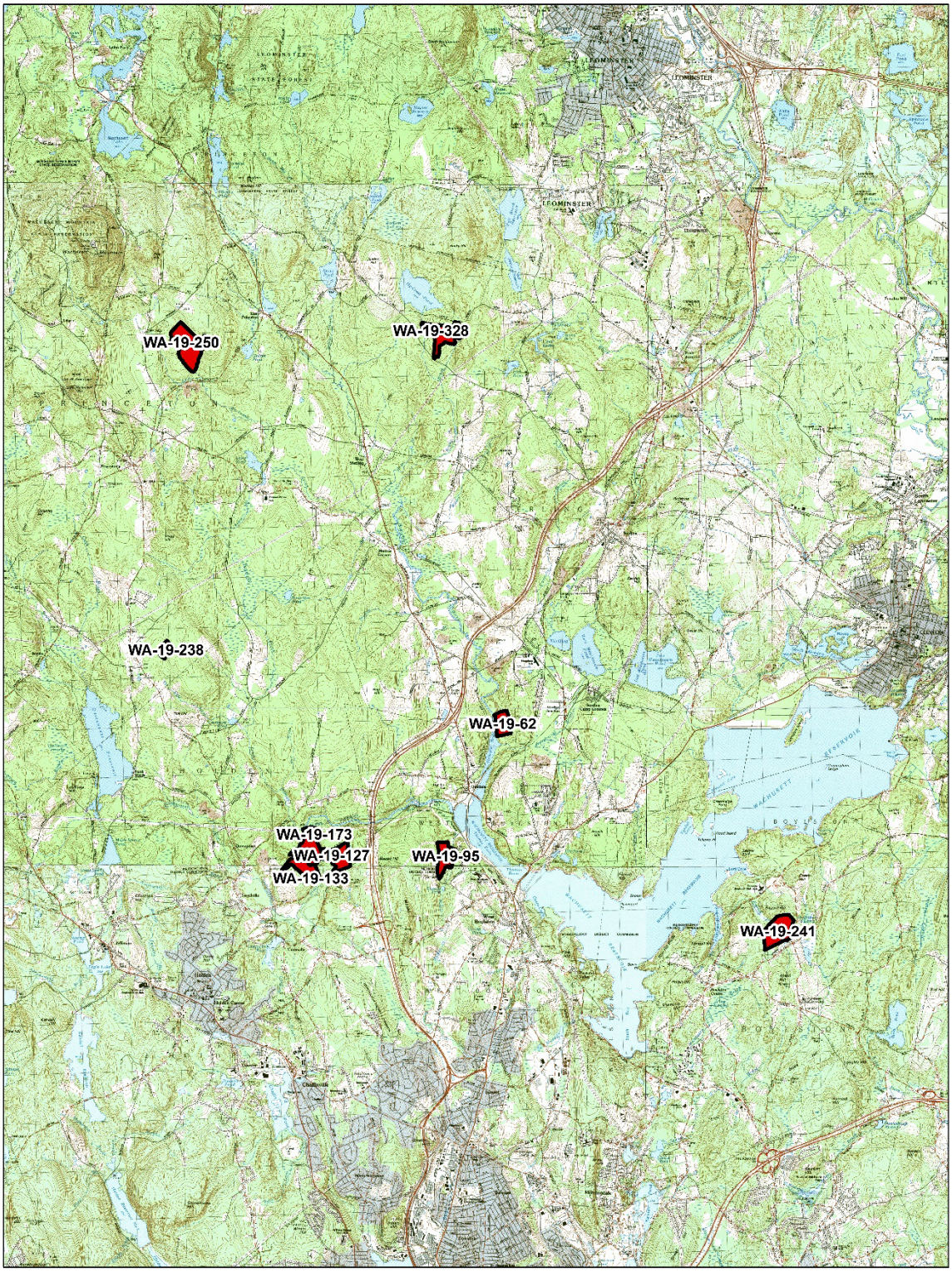
All DWSP Best Management Practices for wildlife management such as the protection and enhancement of wildlife habitat features will be an integral part of the silviculture and job layout. Diverse hard and soft mast species will be retained and the healthiest trees will be released to improve seed production,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

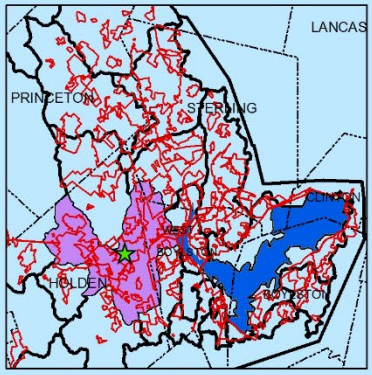
DCR - Wachusett Reservoir

Proposed Timber Sales FY 2019

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



DCR - Wachusett Reservoir
Timber Lot Proposal WA-19-173



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