Wachusett Harvest Proposal WA-20-257

Proposal Goals

The primary goal is to promote a resilient, diverse forest through the creation of canopy openings that allow young forest to develop, release established healthy young trees, and remove groups of poor quality trees.

Proposal Location

Starting at Bullard Road, follow along the shore of Snow Pond over to Pheasant Hollow Run, down to Sterling Road back to where it meets Bullard Road.

Total Acres: 20

General Description

	Overstory Type(s)	Acres
Dominant	White pine/oak	14
Secondary	White pine	3
Other	White pine/hardwood	2

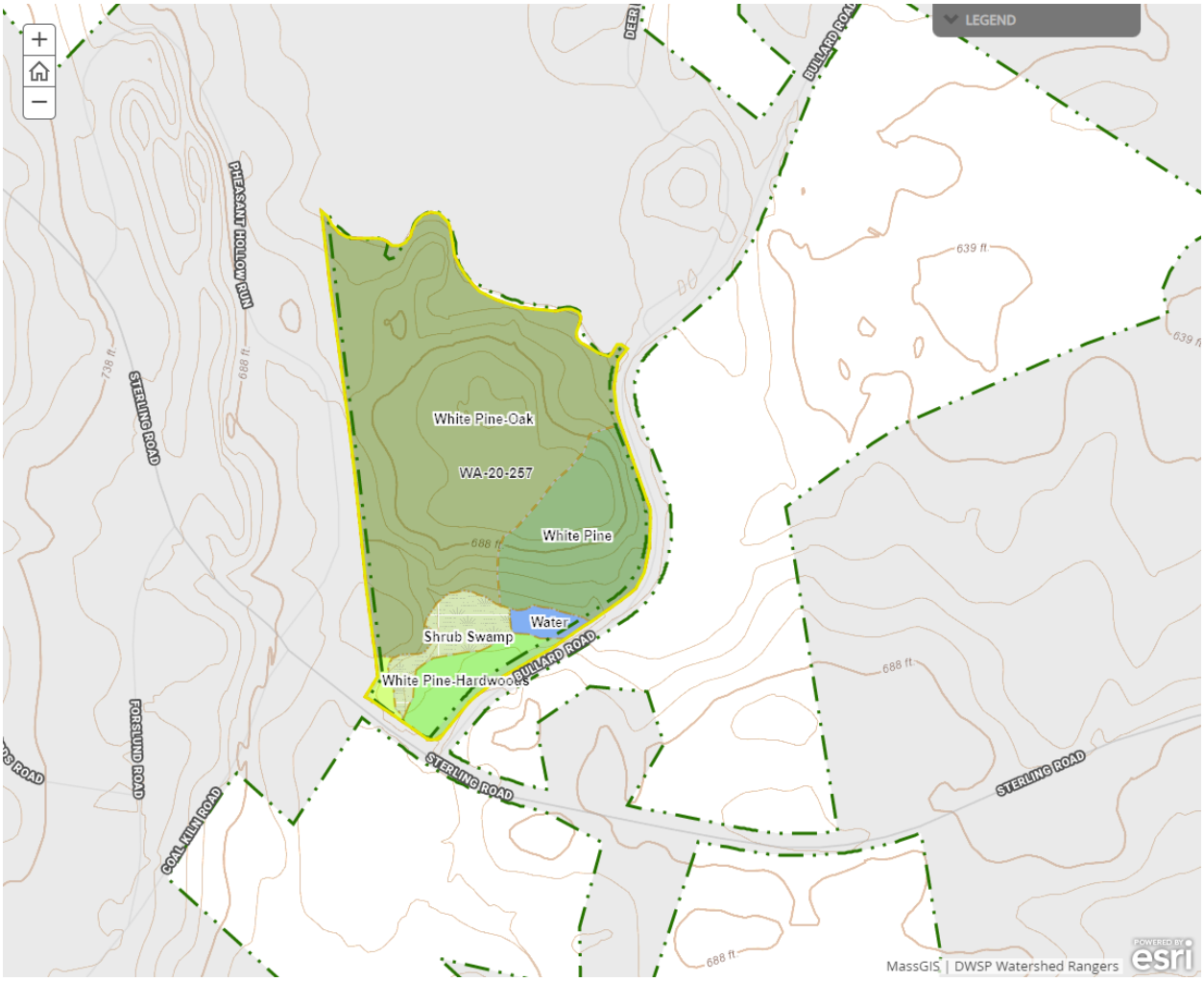
	Understory Type(s)
Dominant	Tree seedlings/saplings dominate site
Secondary	Mountain laurel prevalent

Description of forest composition/condition:

This forest is identified by it's flat topography that slopes down on all sides gradually. It is a well drained site with a potentially high water table as evidenced by the highbush blueberry. The dominant species is white pine and red oak followed by black birch, black cherry, black oak, sugar maple, red maple, striped maple, american beech, and paper birch. The sugar maples are on the southwestern slopes and not on the table top. The white pine is of the best vigor on the site and the oak is of decent quality, although smaller oaks are now dying back. Fortunately, white pine is regenerating well and is for the most part spread out throughout the lot. There is some mixing of oak regeneration on the site and areas with chestnut sprouts and hemlock regen. Mountain laurel is present in small veins and patches throughout the site and becomes thick on the northern slopes where the hemlock is thinning out leading down to Snow pond.
The age structure of the working unit is as follows: 12% (0-20 years old), 22% (21-40 years old), 11% (41-60 years old), 6% (61-80 years old), 12% (81-100 years old), 37% (>100 years old).

Assessment of Terrestrial Invasive Species:

Sampling found invasives present on 4% of the total plots in the working unit. Multiflora rose and bush honeysuckle were located in the Southeastern corner of the lot boxed in by Babcock brook, wetland and Bullard road. Hemlock woolly adelgid, hemlock scale and beech scale are present.

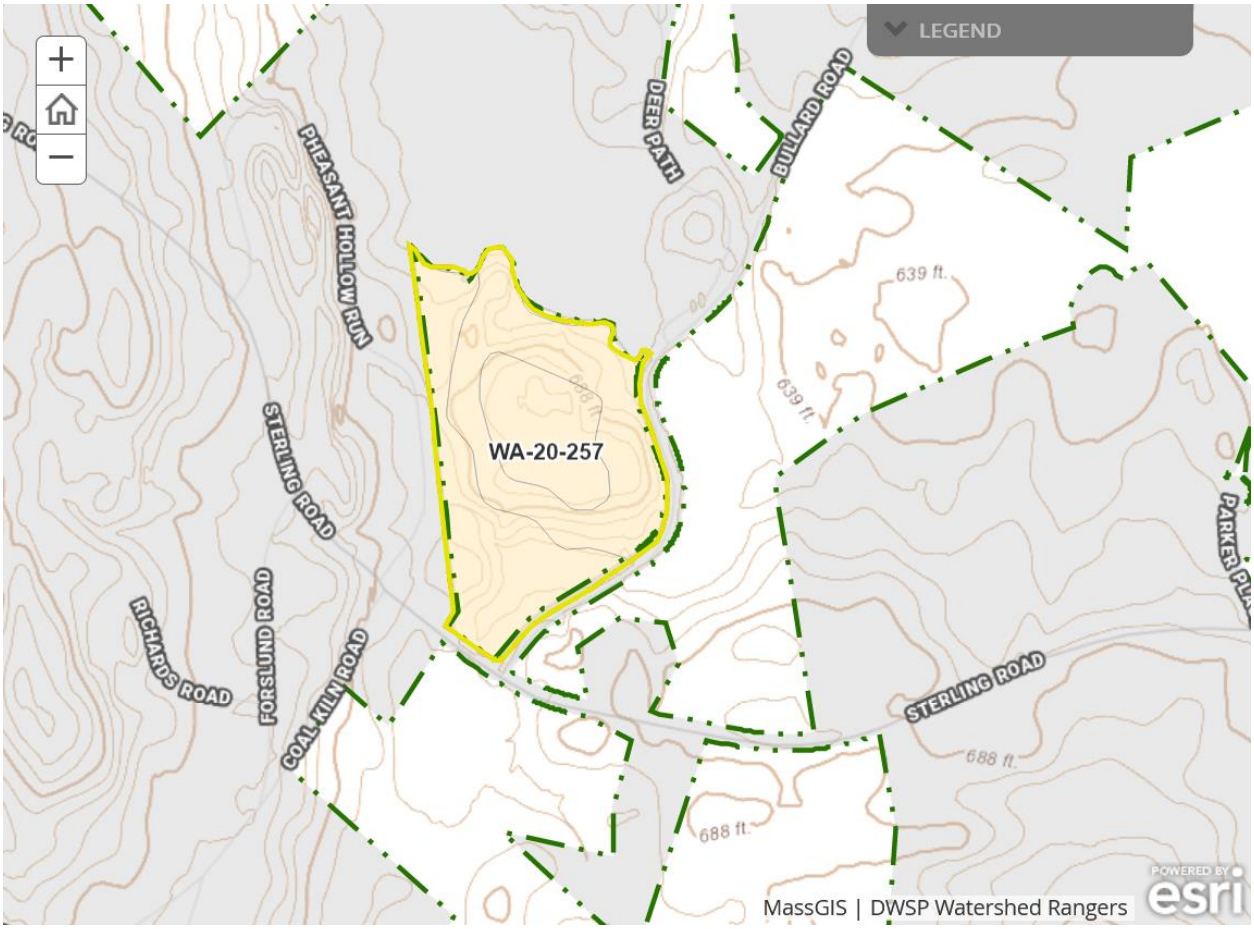


Soils

Drainage Class	%
Excessively Drained	100
Well Drained Thin	0
Well Drained Thick	0

Moderately Well Drained	0
Poorly to Very Poorly Drained	0

The primary soil in this portion of the working unit is the excessively drained Hinckley loamy sand, which is mapped as occurring on the hill as well as in the wetland and Babcock Brook. It's possible that other more poorly drained soil types exist as unmapped inclusions in these lower areas.

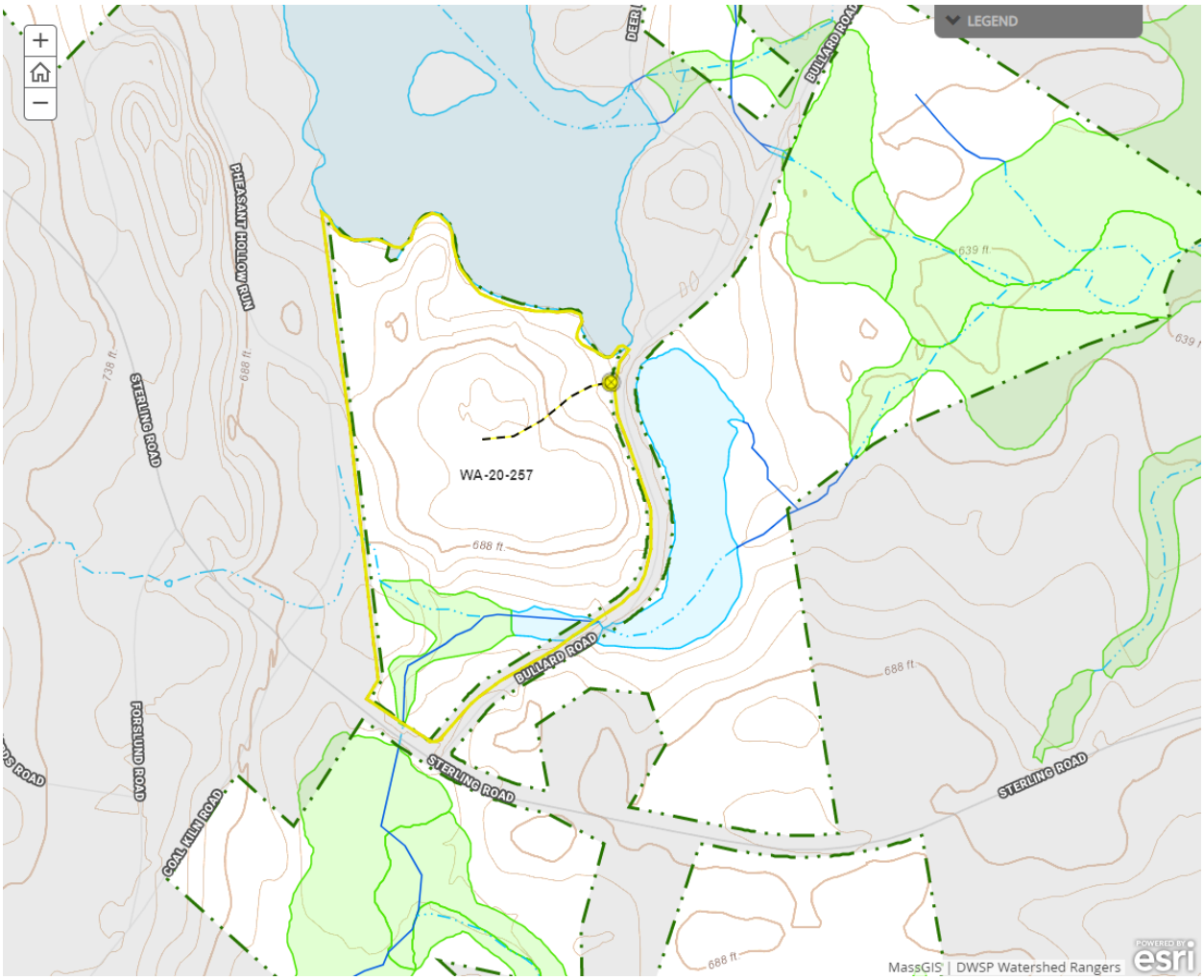


Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- Vernal pools present? - **None known**

- Seeps present? - **None known**
- Are stream crossings required? - **No**
- Are wetland crossings required? - **No**
- Is logging in filter strips planned? - **No**
- Is logging in wetlands planned? - **No**

Babcock Brook and associated wetlands cut through the southern portion of the lot. No work is proposed in those areas, and no crossings are proposed to access any areas cut off by those wetlands.



Silviculture

Acres in Intermediate cuts: **0**

Acres in prep/establishment cuts: **0**

Acres in Regeneration cuts: **7**

Average regen opening size: **1**

Maximum regen opening size: **2**

Description of advance regeneration in proposal area:

124 regeneration plots were taken in this lot. Species observed include hemlock, white pine, red oak, black oak, black birch, red maple, american chestnut, sugar maple, sassafras and black cherry. Oak was identified on 15% of manageable plots. 63% of manageable plots were either regenerated or had marginal regeneration. 30% showed no regen, with 6% being interferred. Deer browse was minimal.

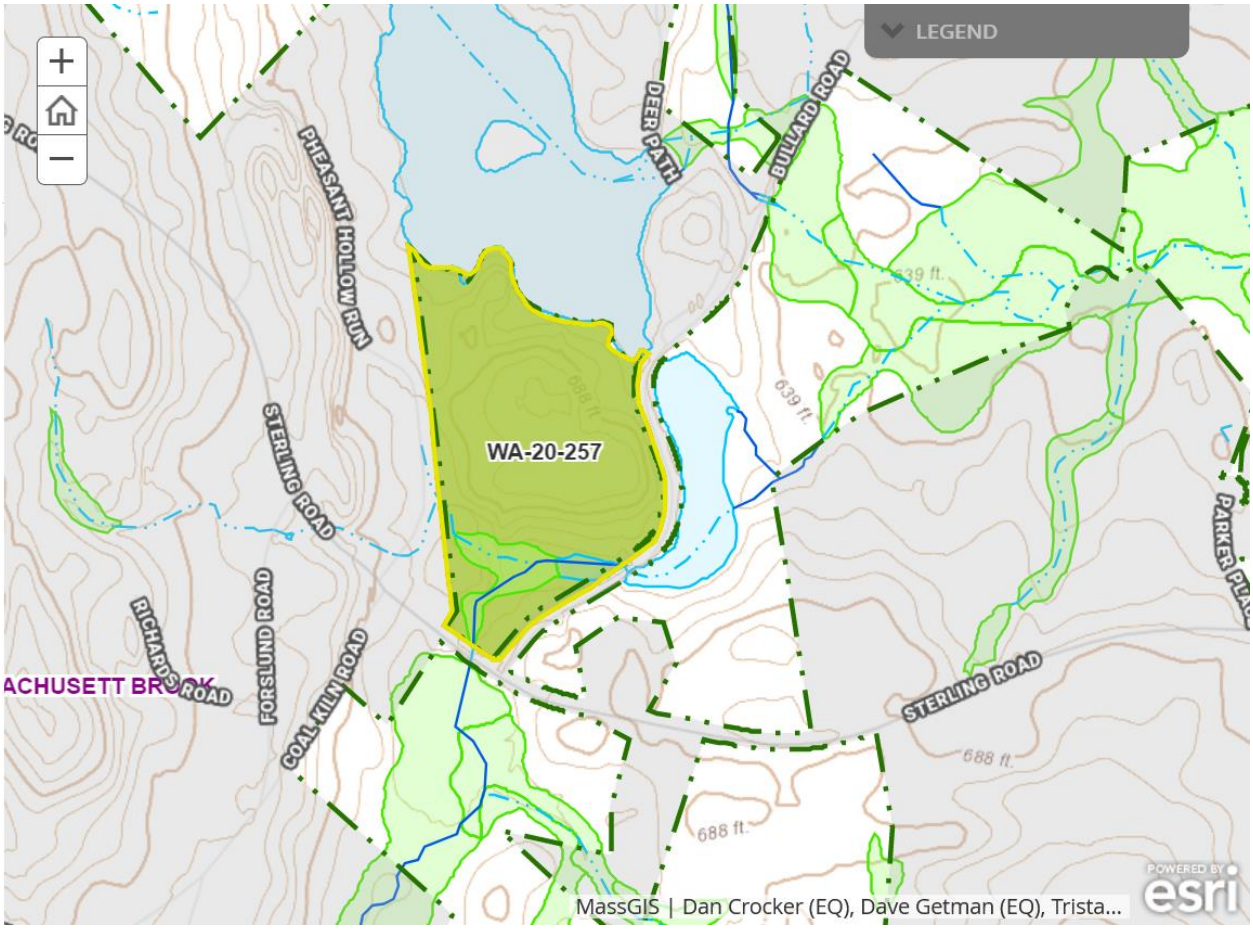
General comments on silviculture proposed:

The working unit contains good advance regeneration or marginal regeneration on over 60% of the plots. Therefore, openings will be made to release advance regeneration. About one third of the working unit will be opened to create a new age class. These openings will be spread throughout the working unit specifically targeting areas with good regeneration present. Good white pine regeneration will be especially targeted since this site does better with pine, although a mix of hardwoods including oak will be released as well. This operation will focus on making openings shaped to the topography where advance regeneration characteristics are desirable.

Subwatershed Analysis

Sub-watershed number	Total DCR-owned Acres	Acres Regenerated on DCR Land in the last 10 years	Acres Remaining for Regenerating Up to the 25% / 10 Year	Acres part of this proposal
20 (Wachusett Brook)	1123	55	225	20

The proposed level of cutting falls below the 25% threshold.



Harvesting Limitations

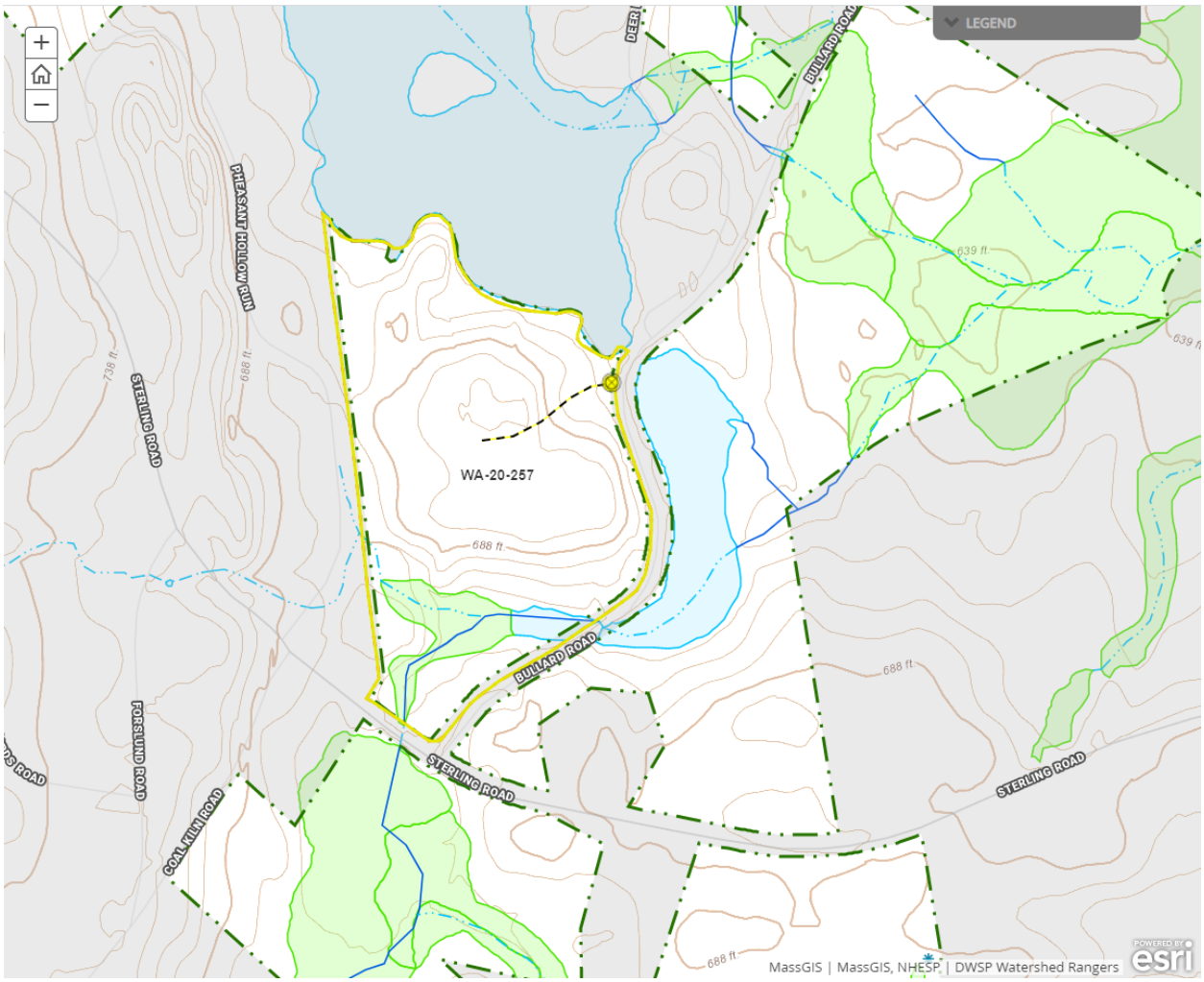
Forwarder required: **Yes**

Feller/processor required: **Yes**

Steep slopes present: **No**

Comments on harvesting limitations:

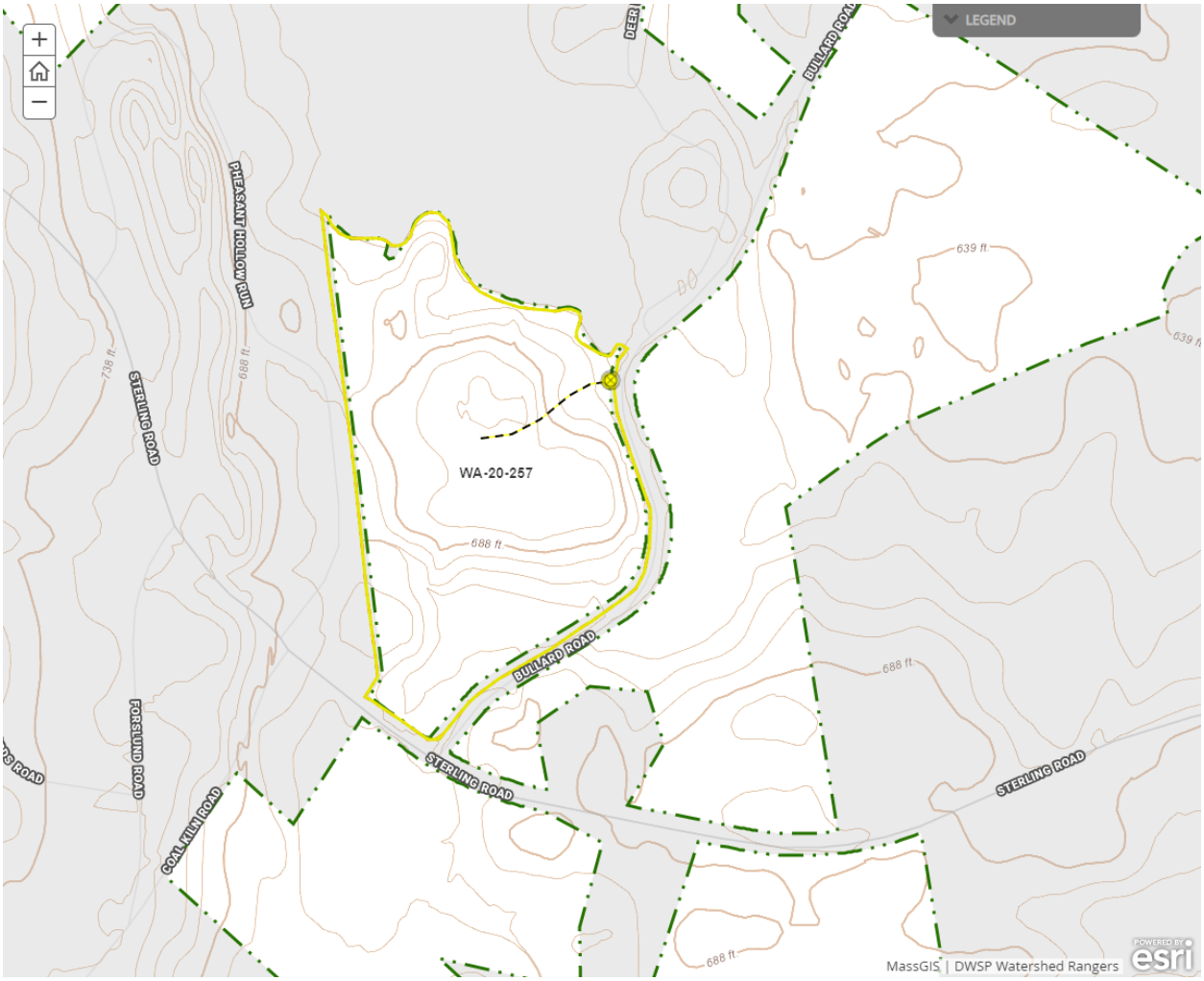
Releasing advance regeneration is the goal, so forwarders and processors will be required in order to aid in protecting the regeneration.



Cultural Resources

Comments on Cultural Resources:

This area has been assessed by the DCR Archaeologist for both known sites of cultural or archaeological importance as well as for potential use by pre-Contact Native Americans; none are known or documented, though the site is considered potentially sensitive for pre-Contact sites. DWSP will follow any additional recommendations from DCR's Archaeologist regarding protection of sensitive sites.



Wildlife Resources & Rare and Endangered Species

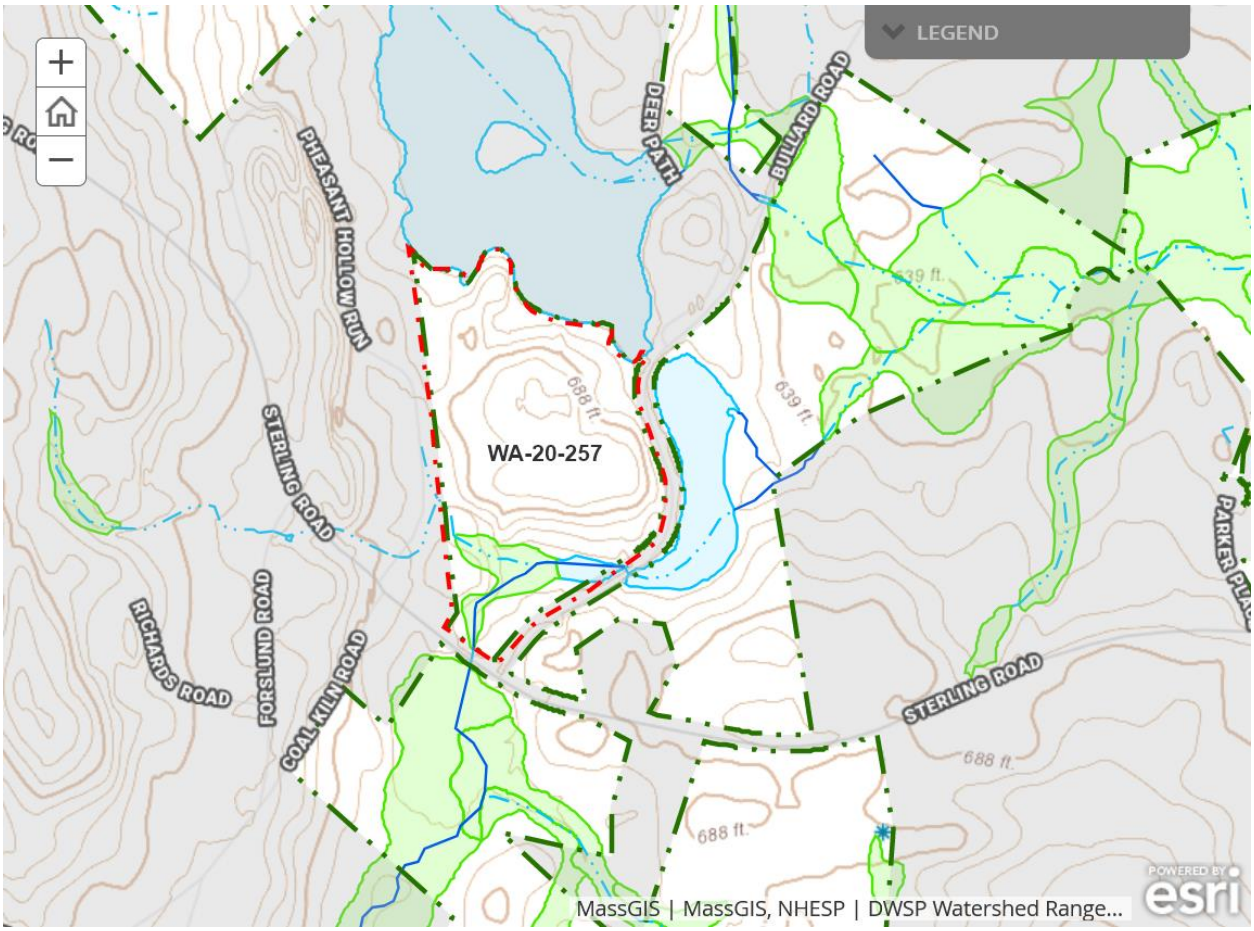
General Wildlife Comments:

There are some neat coves and nooks in the northern slopes leading down to Snow pond that are very thick with mountain laurel and closer to the shore sweet pepperbush, creating some very thick cover. There is some beaver activity along the shoreline of Snow pond.

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. Stick nests were observed and so they will be protected. Where they occur; streams, wetlands, seeps and vernal pools will be protected for water quality and wildlife habitat.

Comments on Rare Species/Habitats:

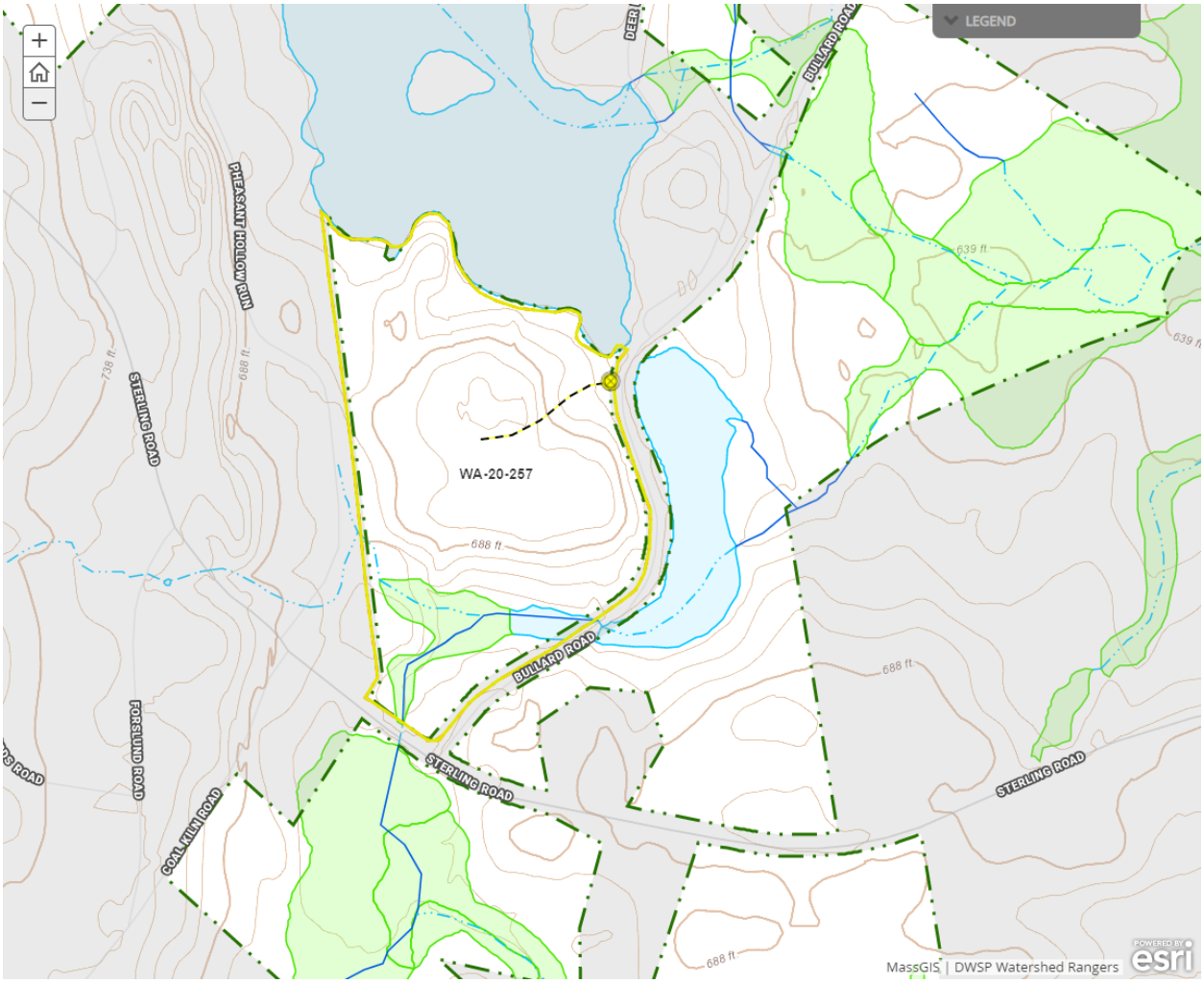
None known.



Environmental Quality Engineering

Comments on EQ Issues:

No stream crossings or other comments.



Forest Access Engineering

Gravel needed: Yes

Landing work needed: Yes

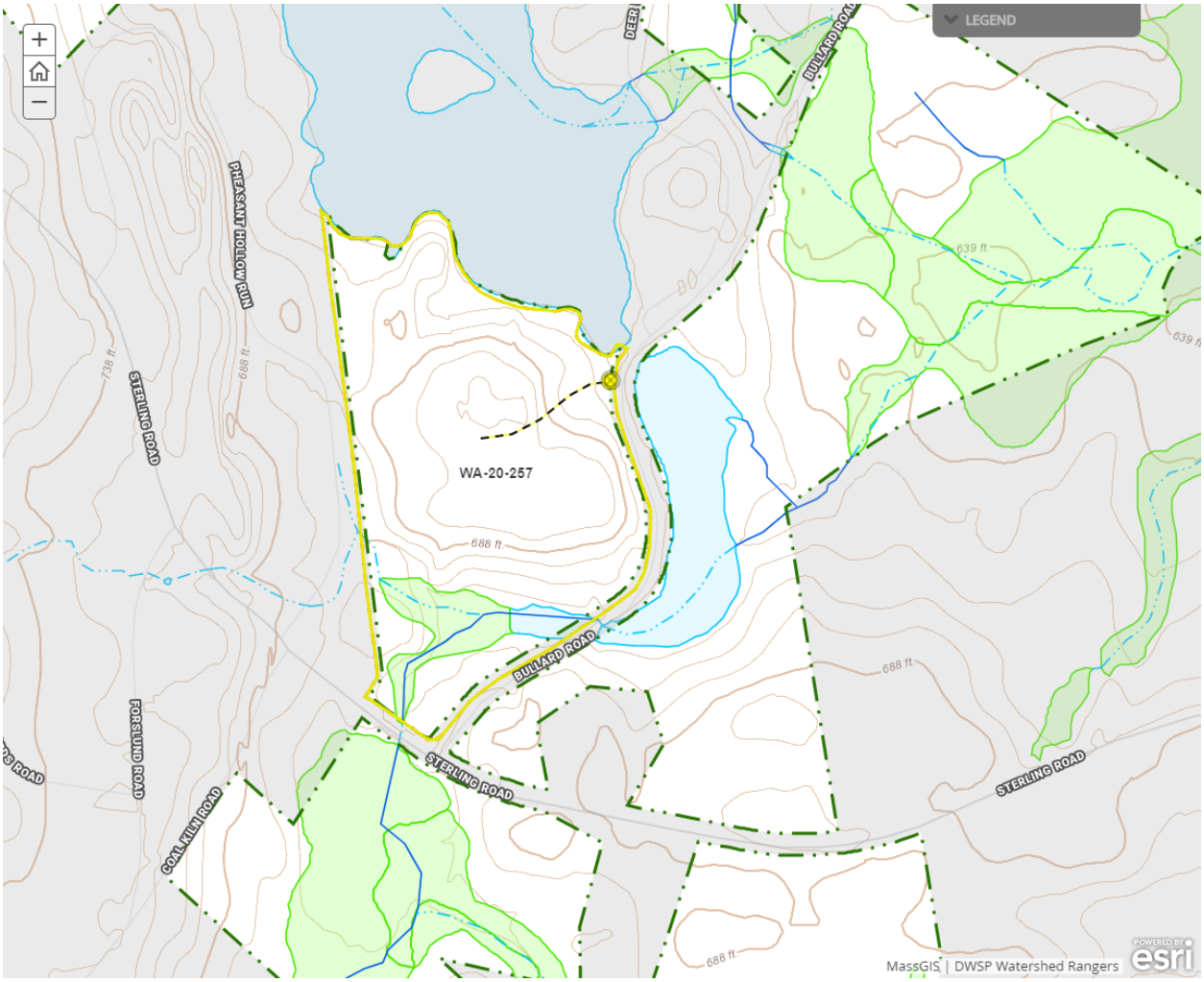
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

Further comment on access needs:

In order to access this lot there will need to be some dirt work to create a path into the lot. Some gravel might be needed to provide a solid base to the access.



DWSP FY 2020 Forestry Proposals – Master Legend for story maps