

Wachusett Harvest Proposal WA-21-148

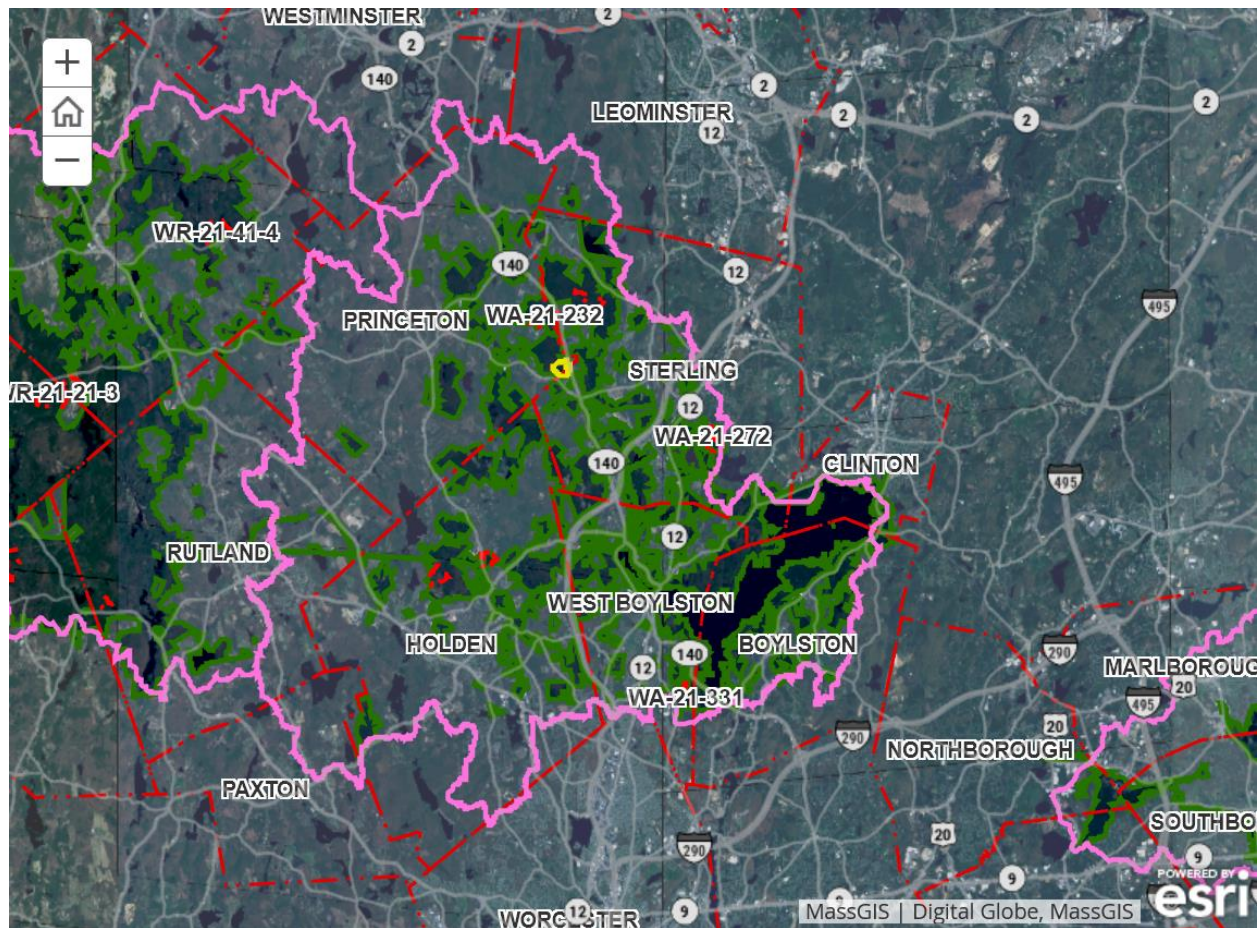
Proposal Goals

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. Good regeneration was found to be spread fairly evenly throughout the working unit. With this in mind we will look to create about 11 acres of openings which will release the regeneration and create a new age class on the desired 1/3rd of the area.

Proposal Location

This property is located west of Redemption Rock Trail at the Princeton/Sterling town line. This proposal area is bounded by Redemption Rock Trail (Route 140) to the east, a powerline to the north, a wetland to the west and East Wachusett Brook to the south.

Total Acres: 46



General Description

	Overstory Type(s)	Acres
Dominant	White pine/oak	21
Secondary	White pine/hardwood	9
Other	Oak, mixed - dry site	4

	Understory Type(s)
Dominant	Tree seedlings/saplings dominate site

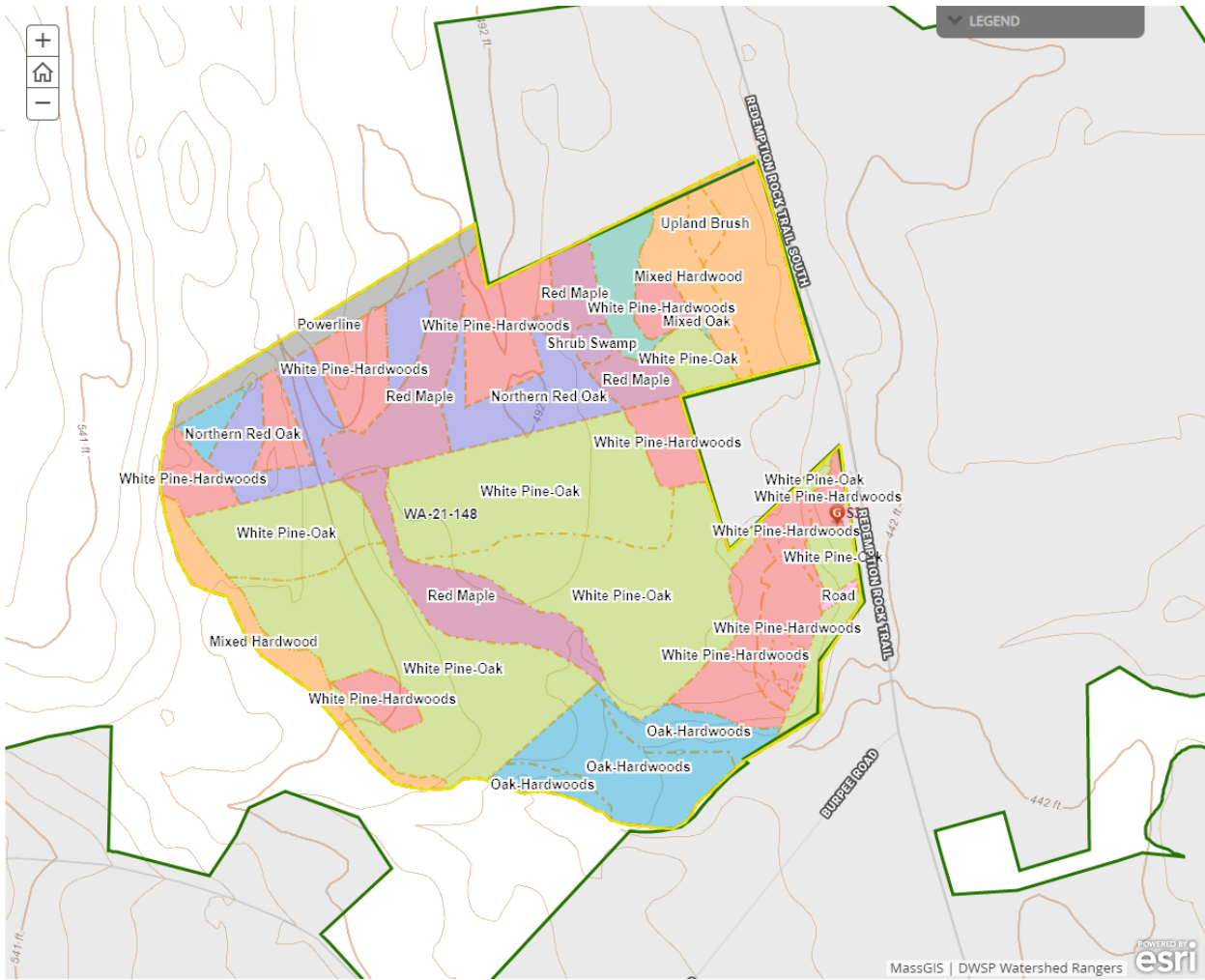
Secondary	Mountain laurel prevalent
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Description of forest composition/condition:

The working unit was acquired from different owners around 1992. This unit was harvested most recently in 2006 with the goal of creating 5 new regeneration patch openings totaling 4 acres in addition to 18 acres worth of thinning that created some disturbance within mountain laurel areas and brought in some sunlight. The thinning has resulted in good quality regeneration consisting of mostly white pine (which is ideal) and hardwoods including red maple, black birch, red oak, white oak, black oak, sassafras, American beech, black cherry and hemlock. The overstory is primarily comprised of good quality white pine along with smaller amounts of black oak, red oak, white oak, red maple, black birch and yellow birch. There are still some patches of witch-hazel and mountain laurel, along with some highbush blueberry occurring even on the higher ground of the working unit. Some boulder outcrops were noted, as was an old bridge over East Wachusett Brook made out of a telephone pole. The age structure is as follows; 10% 0-20 years old, 10% 21-40 years, 6% 41-60 years, 53% 61-80 years, 19% 81-100 years, 2% >100 years old.

Assessment of Terrestrial Invasive Species:

There were no invasives noted during regeneration plot sampling. One hundred and nine plots total were taken.

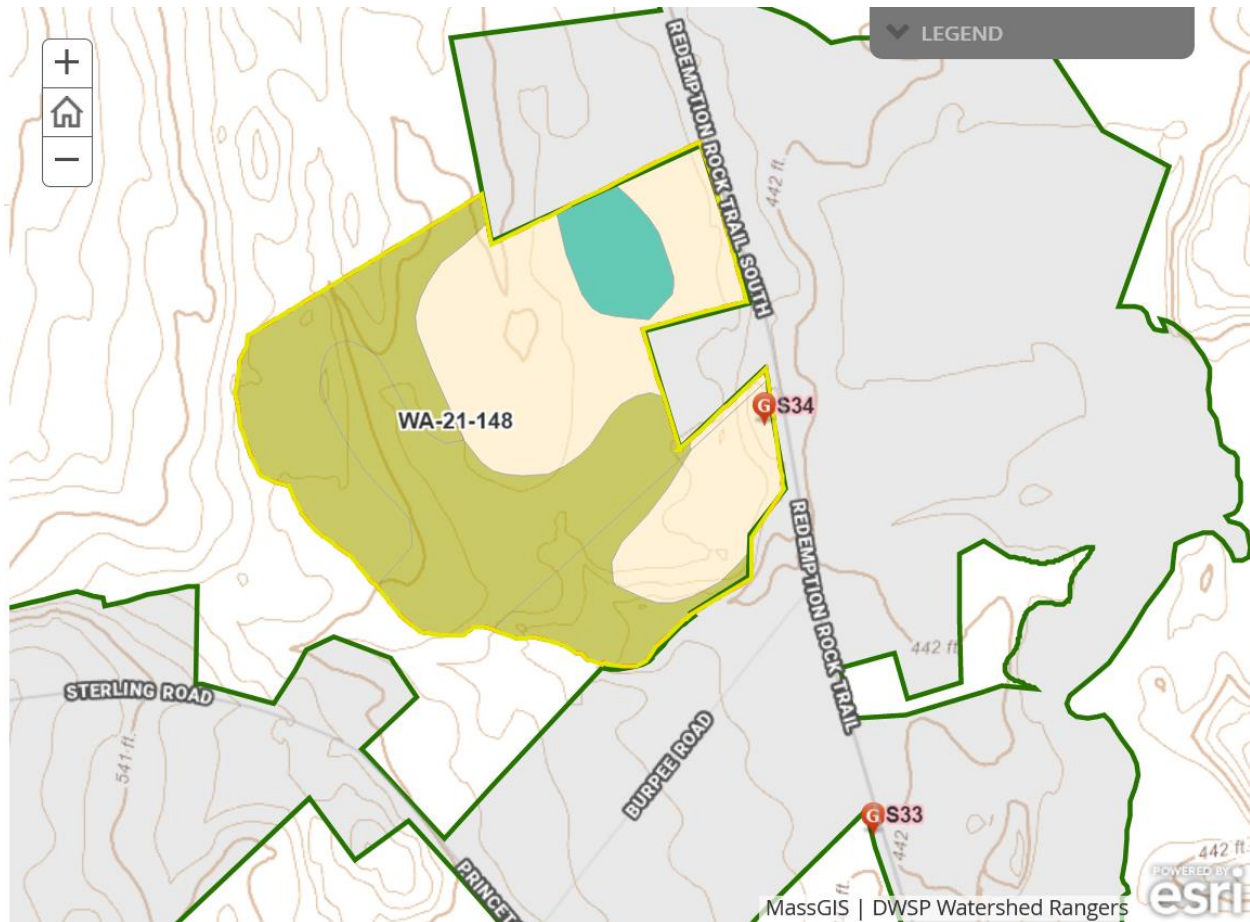


Soils

Drainage Class	%
Excessively Drained	42
Well Drained Thin	0
Well Drained Thick	19
Moderately Well Drained	35

Poorly to Very Poorly Drained	5
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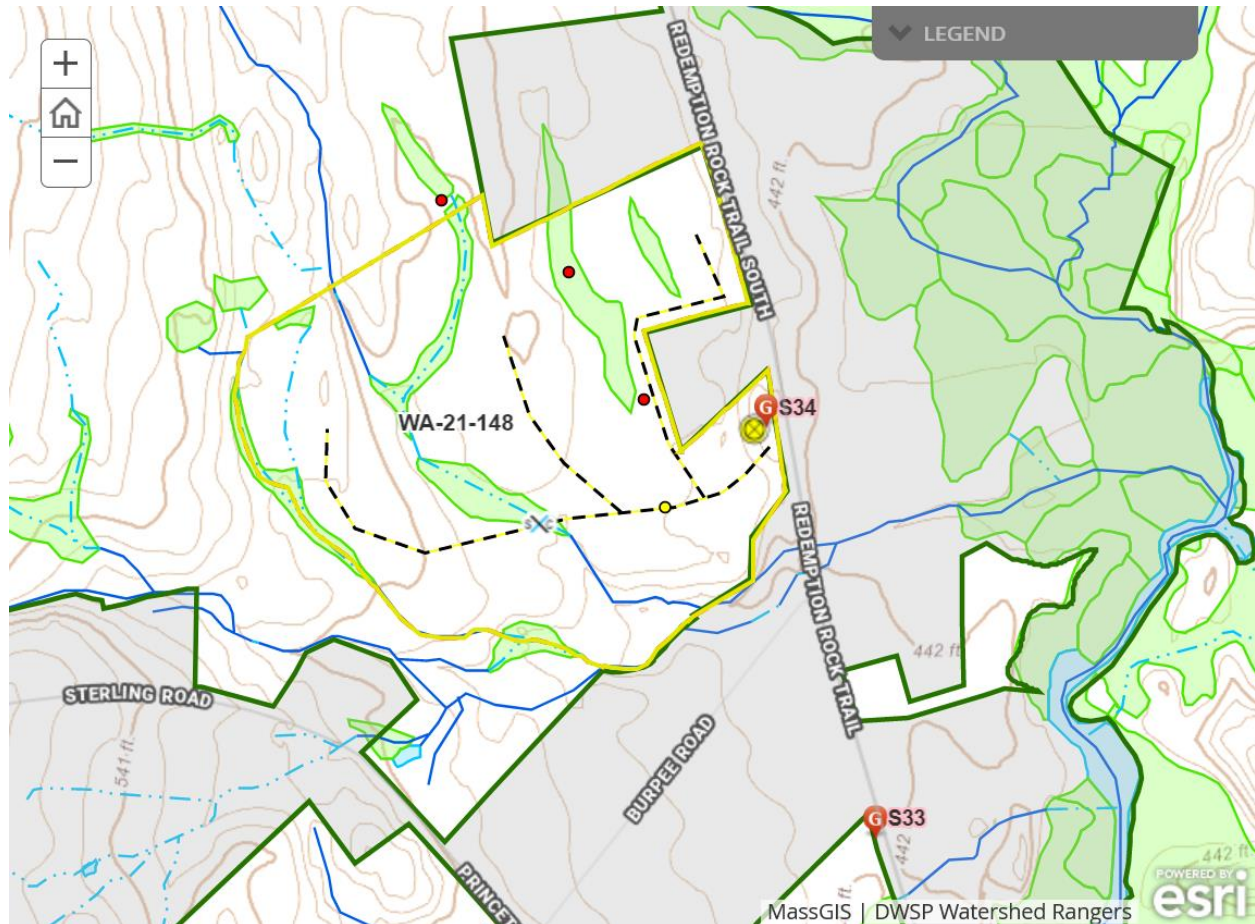
Hinckley Excessively drained soils made up 42% of the working unit. Followed by Moderately well drained Sudbury soils at 35%. Well-drained thick Montauk-Scituate-Canton soils cover 19% of the working unit and 5% of the working unit is a poorly drained Scarboro soil.



Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- Vernal pools present? - **Yes**
- Seeps present? - **None known**
- Are stream crossings required? - **Yes**
- Are wetland crossings required? - **Yes**
- Is logging in filter strips planned? - **No** ([Riparian Zone Mgt](#))
- Is logging in wetlands planned? - **No**

There are three verified vernal pools and one potential vernal pool within the proposal area. The stream crossing will be at a location previously used in 2006, and will be monitored by EQ.



Silviculture

Acres in Intermediate cuts: **0**

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

Acres in Regeneration cuts: **15**

Average regen opening size: **1**

Maximum regen opening size: **2**

Description of advance regeneration in proposal area:

Out of 109 sampling plots taken 57% were regenerated with another 20% having marginal regeneration. 14% were interfered with either mountain laurel or witch-hazel, while 9% had no regeneration. 57% of plots taken had oak present. The regenerated plots were spread throughout the working unit. The regeneration species sampled was discussed in the forest composition description.

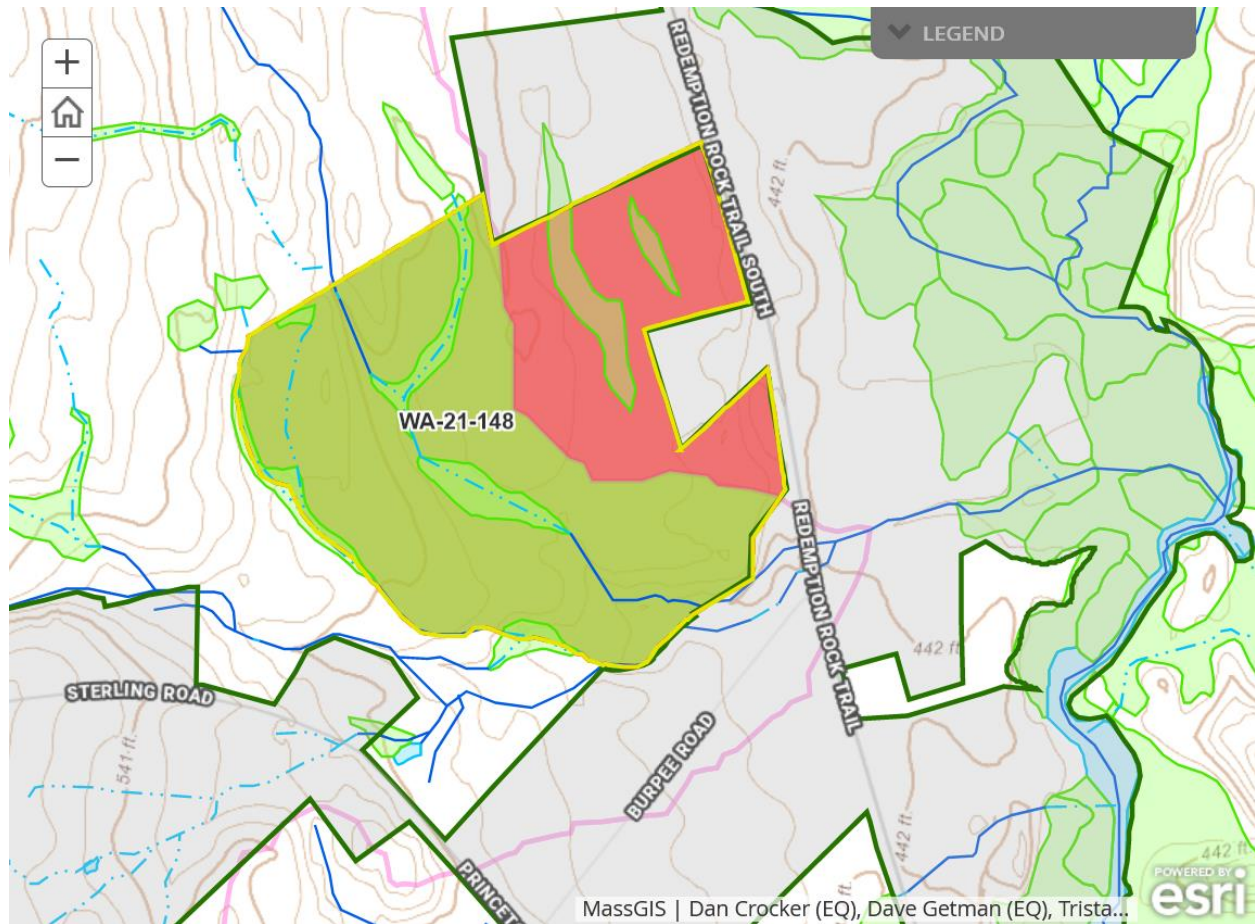
General comments on silviculture proposed:

This working unit has 46 manageable forested acres. Good regeneration was found to be spread fairly evenly throughout the working unit. There are already 4.7 acres of young forest resulting from the 2006 harvest. With this in mind we will look to create about 11 acres of openings which will release the regeneration and create a new age class on the desired 1/3rd (15 acres) of the area. The openings will be made using patch cuts averaging an acre in size. Regenerated areas will be targeted for release. Areas with interfering mountain laurel or witch-hazel are in pockets and might partially be included in some openings.



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	44	236	36
18 (Middle Stillwater/ Rocky/ Wilder Brook)	2189	62	485	17

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



Harvesting Limitations

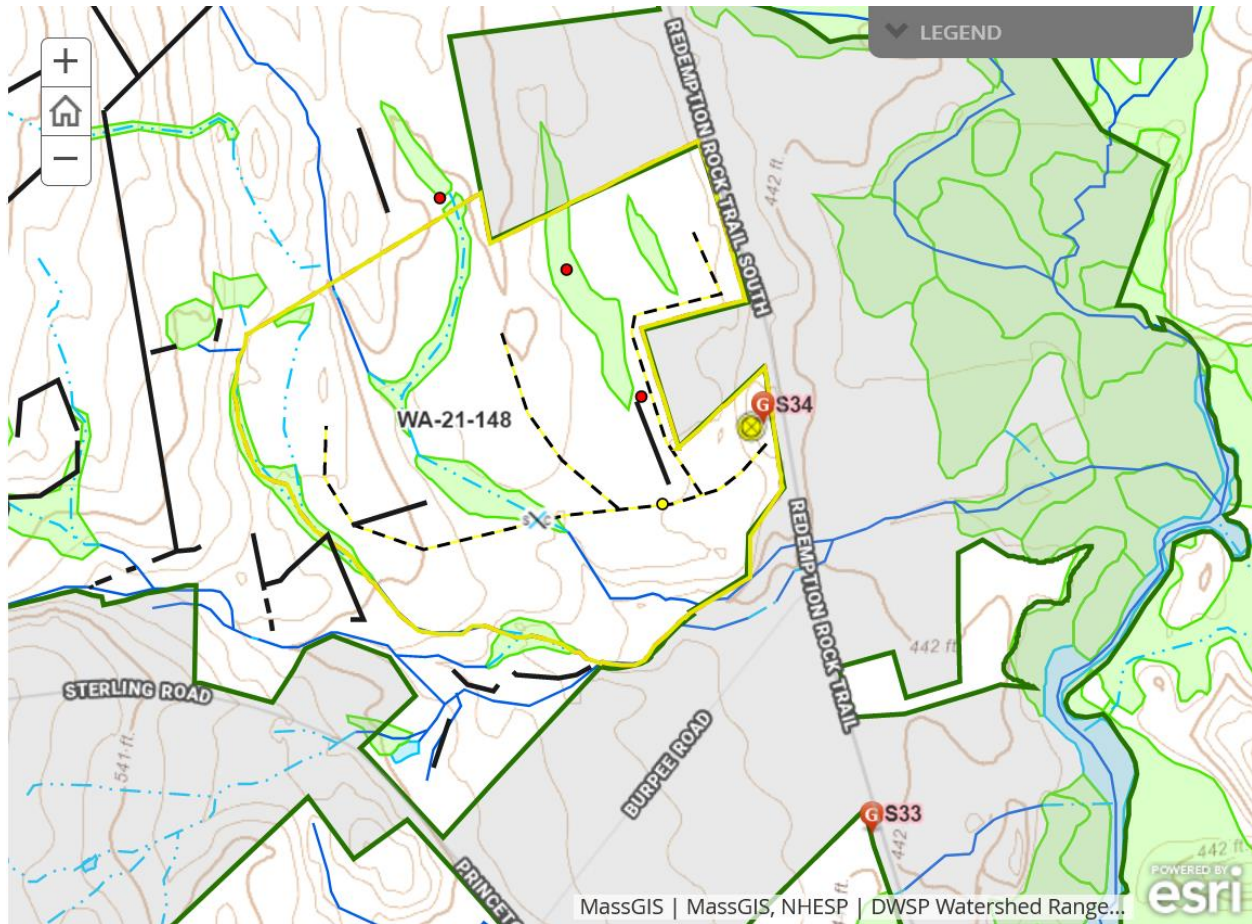
Forwarder required: **Yes**

Feller/processor required: **Yes**

Steep slopes present: **No**

Comments on harvesting limitations:

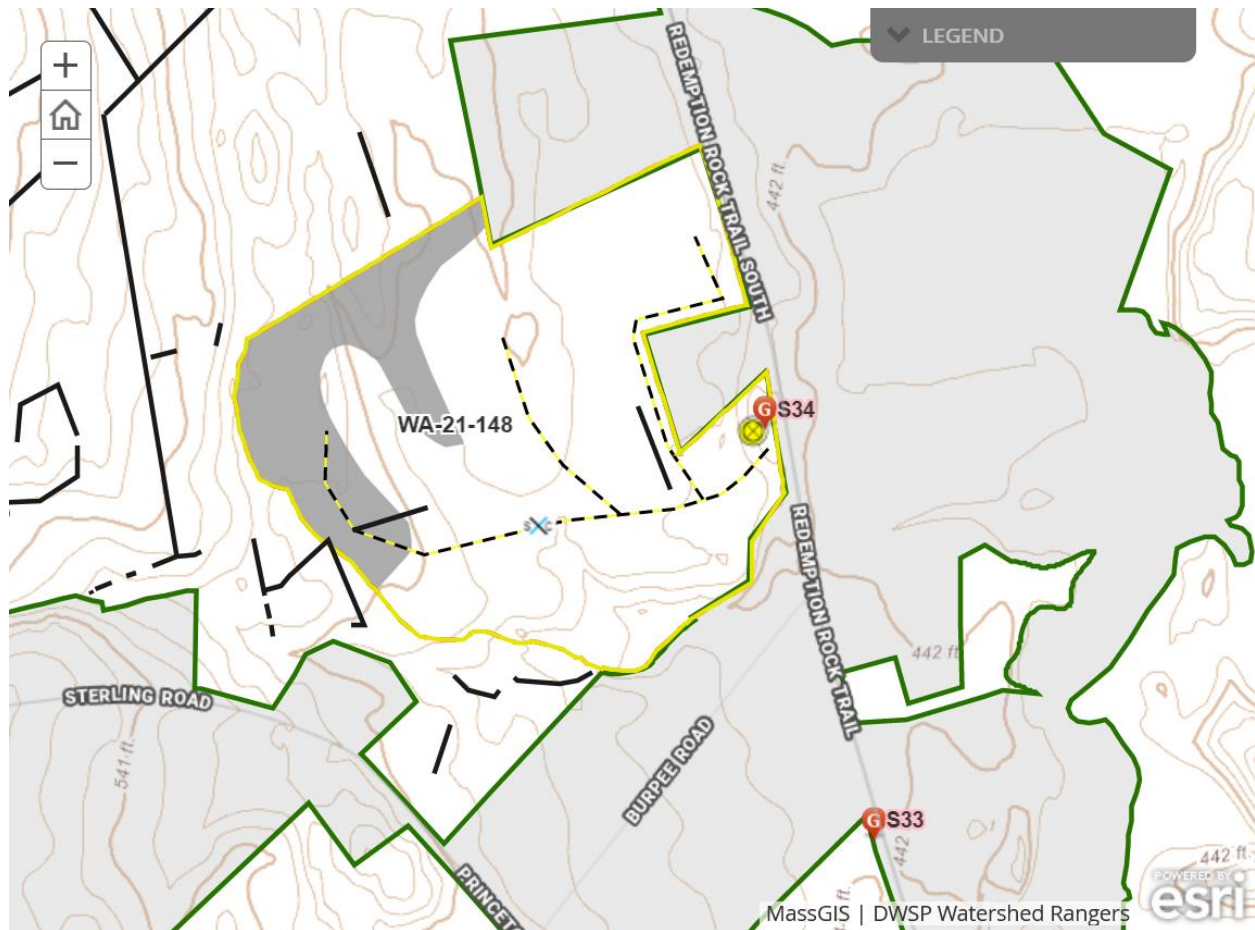
With patch openings being made and good regeneration present, the standard forwarder and processor operation will be utilized.



Cultural Resources

Comments on Cultural Resources:

No known cultural resources.



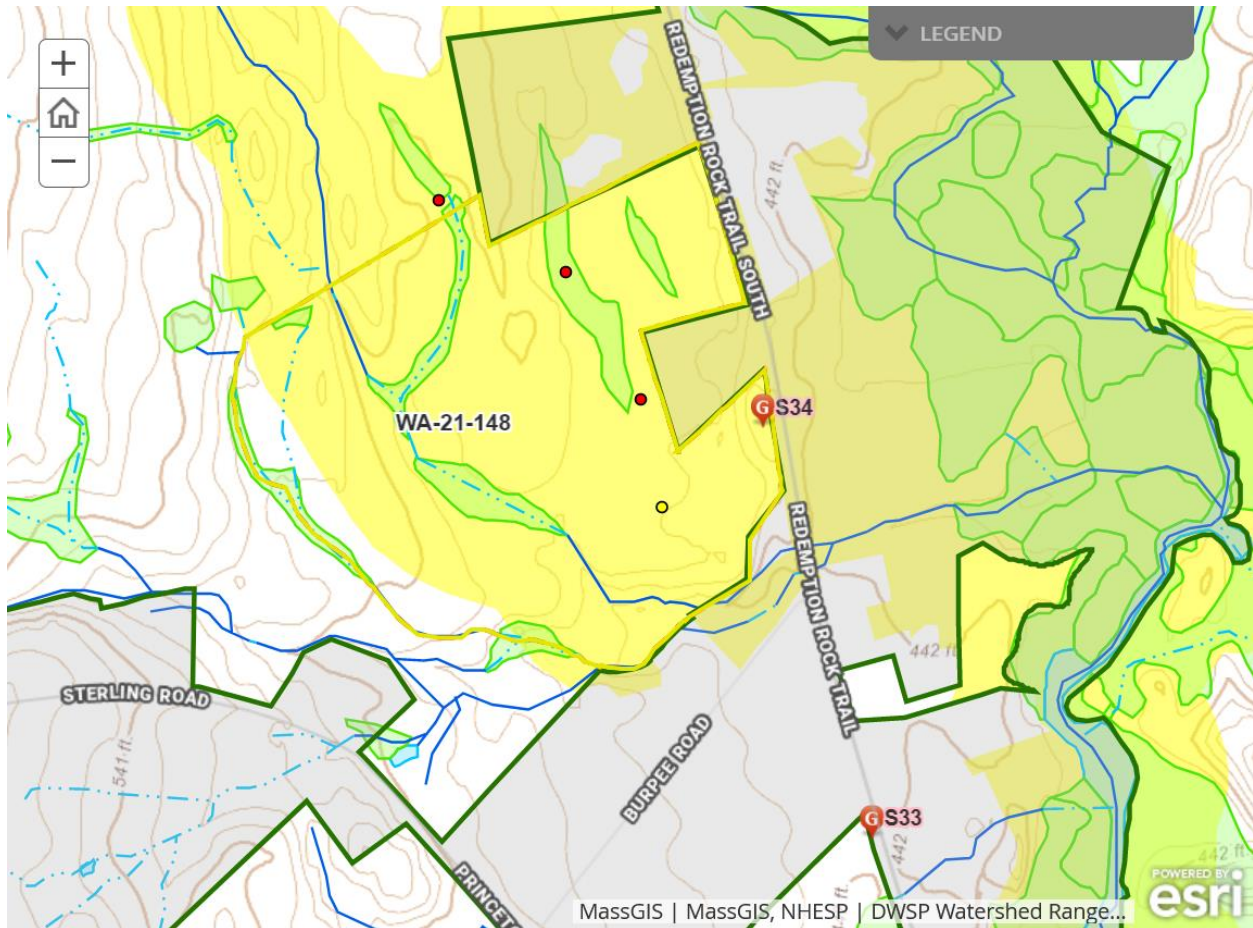
Wildlife Resources & Rare and Endangered Species

General Wildlife Comments:

There are three verified vernal pools in the lot, all appearing to be part of a larger wetland complex. All appropriate buffers will be followed for laying out of equipment travel roads.

Comments on Rare Species/Habitats:

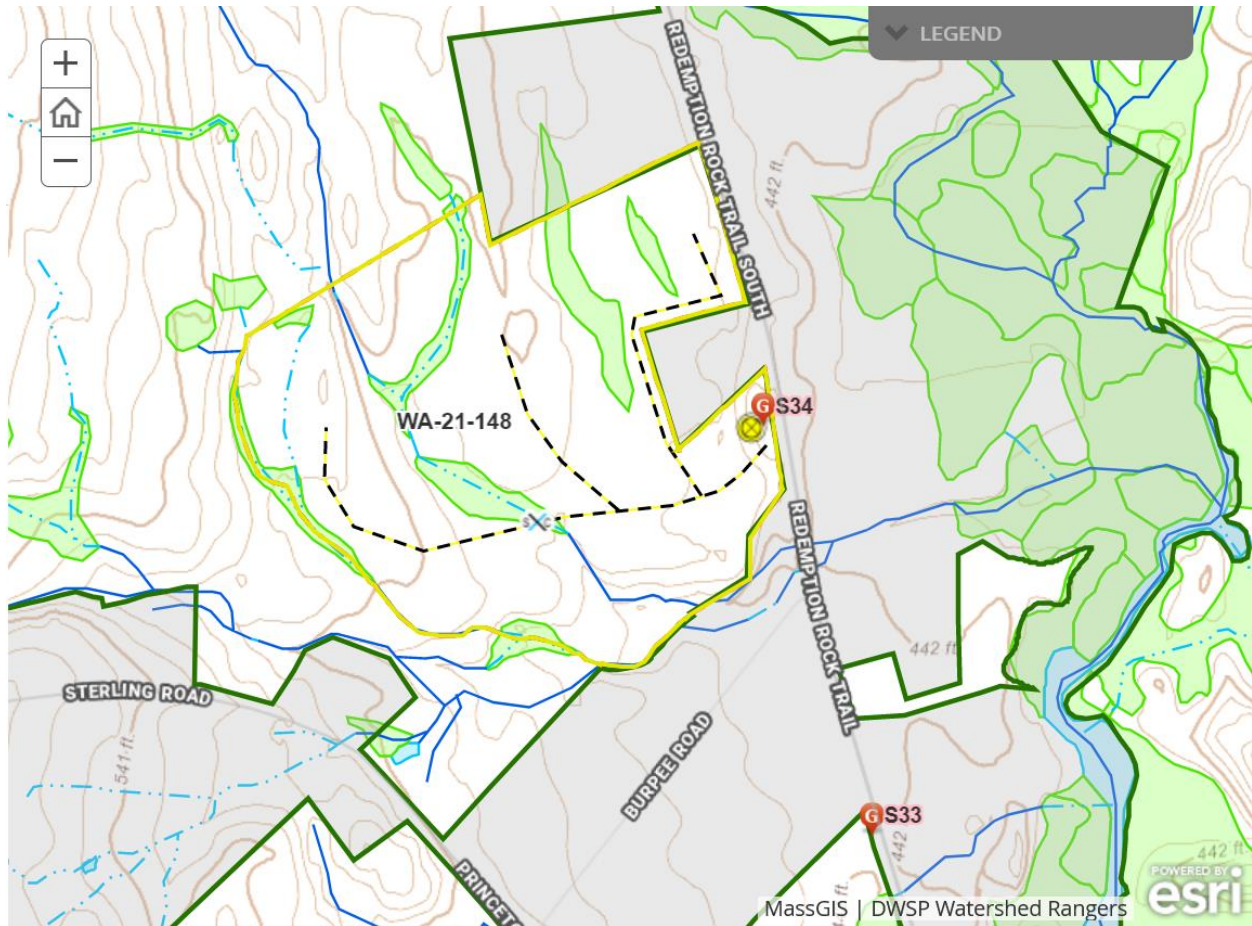
NHESP has determined that certain state-listed sensitive species or habitats may exist within the lot proposal area. To protect them from unnecessary disturbance, detailed information regarding affected species and their locations is not included in this report. DWSP will coordinate with NHESP and follow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



Environmental Quality Engineering

Comments on EQ Issues:

This crossing is proposed at the same location as was used in 2006. The site was walked on 04/07/20. The crossing was flagged in the field and a water quality sample was collected at the proposed crossing. EQ staff will collect water quality samples at the stream crossings. Background samples will be collected downstream from the proposed stream crossing prior to logging in order to establish baseline conditions, while downstream and upstream samples will be collected to measure the effects of ongoing logging operations, and after, to determine whether there are any measurable impacts.



Forest Access Engineering

Gravel needed: No

Landing work needed: No

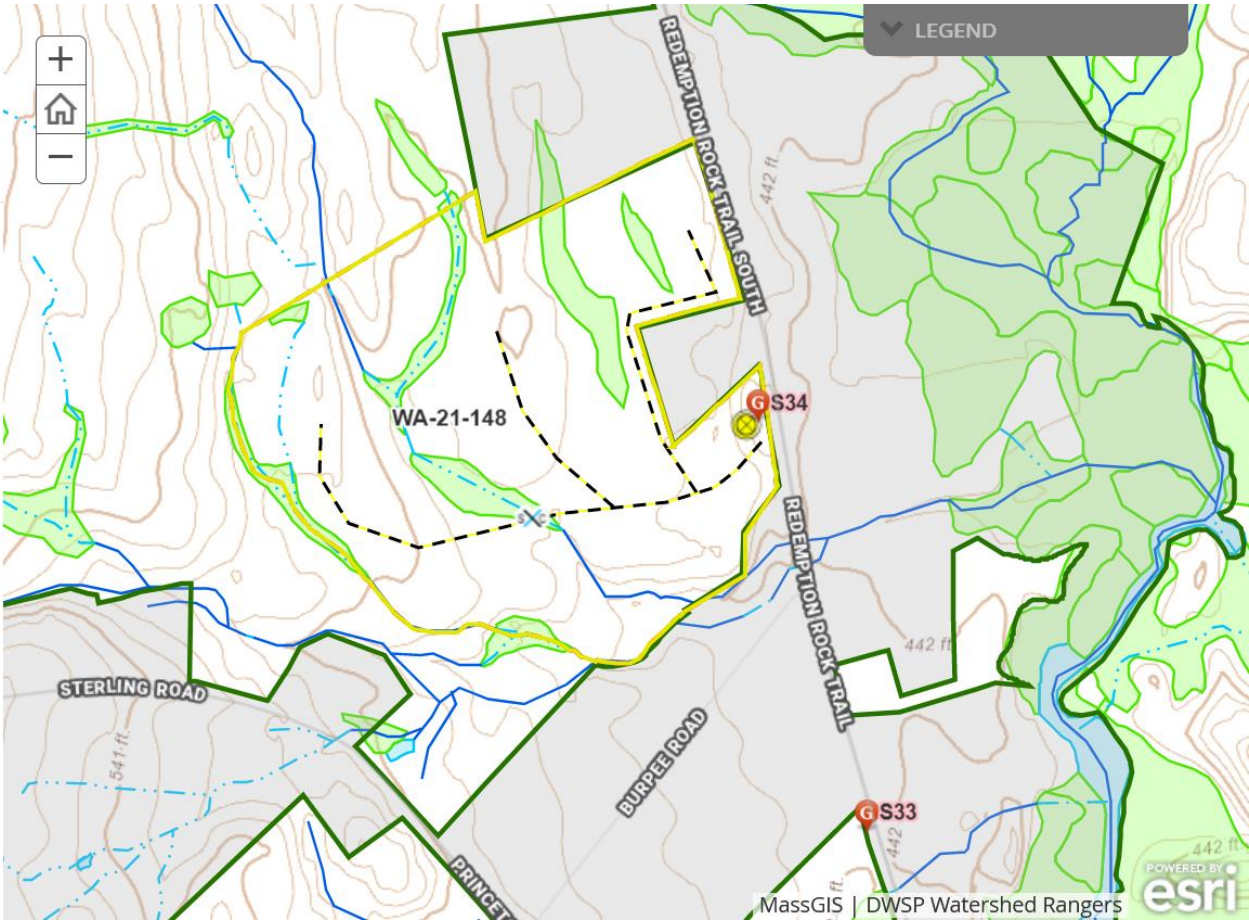
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

Further comment on access needs:

No engineering work is anticipated to be needed prior to harvest.



DWSP FY 2021 Forestry Proposals – Master Legend for story maps

