

# Wachusett Harvest Proposal WA-21-141/248

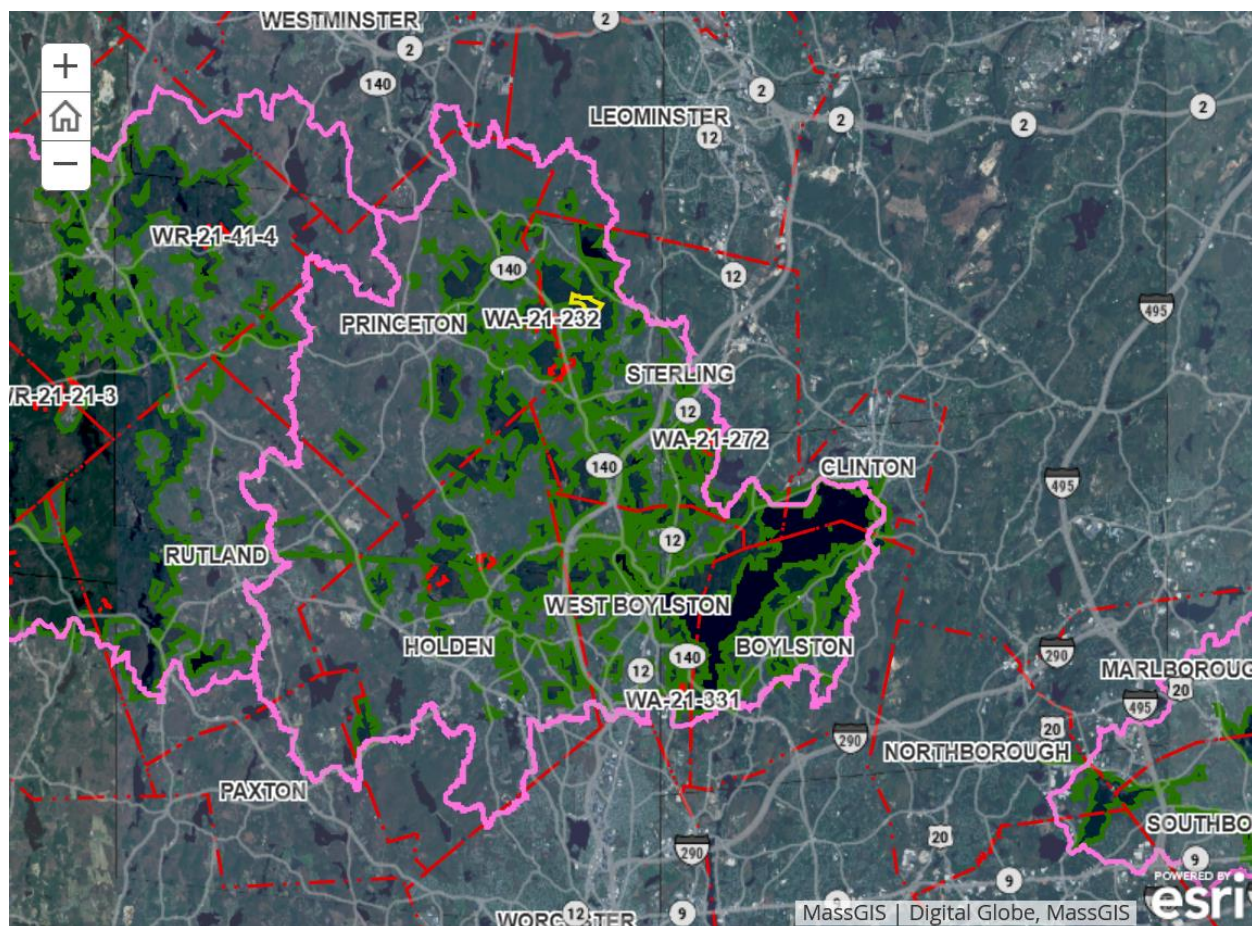
## Proposal Goals

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. With good advance regeneration present, openings will be made in this white pine dominated forest.

## Proposal Location

This proposal is located south of Justice Hill Road in Sterling. Nearly all of this area is bound by interior stone walls with the exceptions of the east side which is bound by a power line and a short piece of the south side which is bound by a short stretch of an intermittent stream.

**Total Acres: 73** An FY21 Forest Harvest Proposal



## General Description

	Overstory Type(s)	Acres
<b>Dominant</b>	White pine/oak	35
<b>Secondary</b>	White pine/hardwood	14
<b>Other</b>	Mixed hardwoods	11

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

<b>Secondary</b>	Mesic site - witch hazel, highbush blueberry
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**Description of forest composition/condition:**

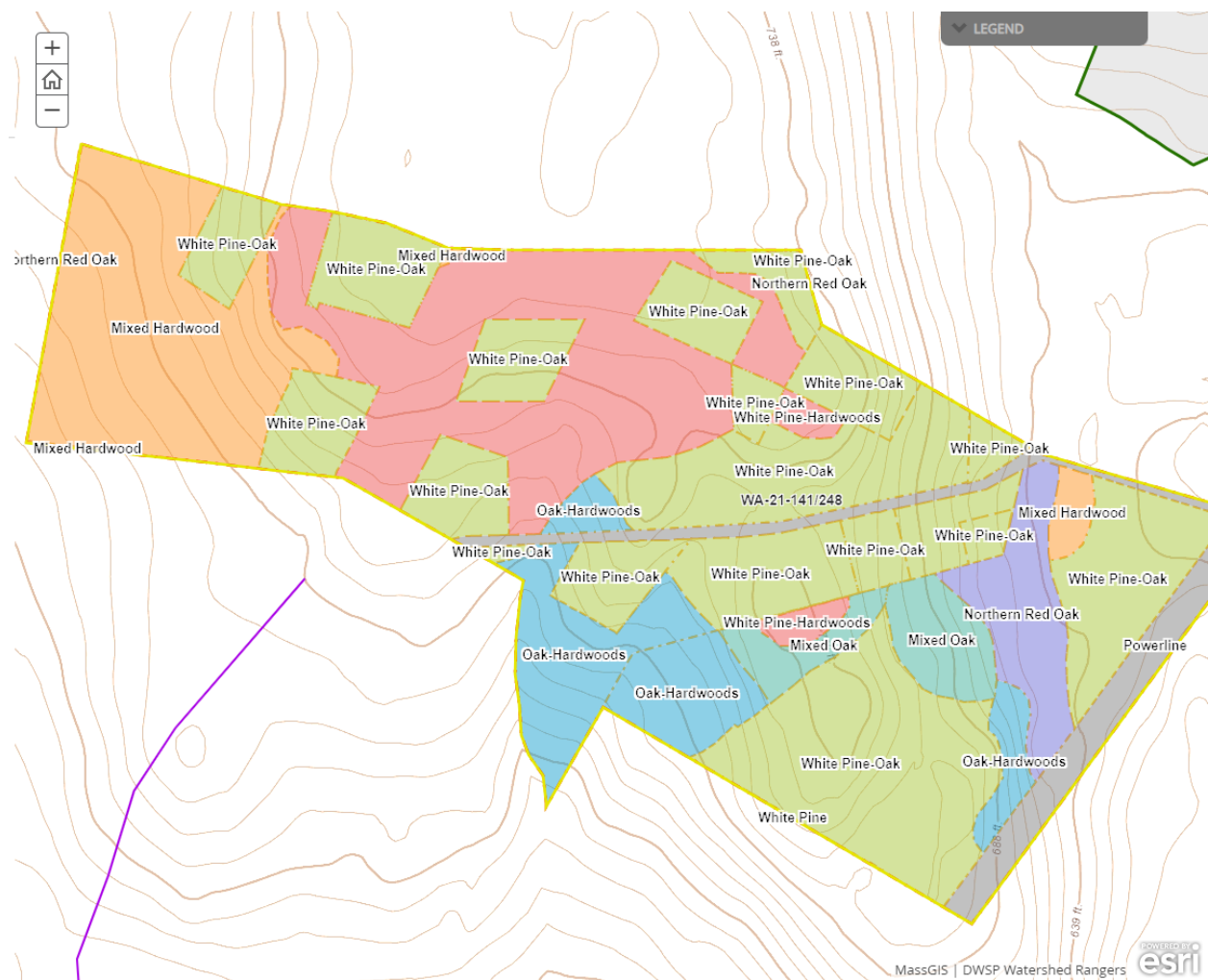
This proposed lot is the remnants of two previously reviewed proposed lots, WA-10-141 and WA-17-248. WA-10-141 was marked and sold as Lot #5248 in 2014 and was operated from June to November of 2016. Work only occurred in the portion of the lot south of the stone wall that divides this area in half. No cutting occurred in the 22 acres north of the wall. WA-17-248 was marked and sold as Lot 5264 in 2016 and was operated in May and June of 2017. Work primarily occurred in the north and north-central part of this area. Within the 51 acres in the south and southeast side of the lot, 3 of 9 overstory removal areas were completed. Since the remaining portions of these two lots directly abut each other, it seemed reasonable to combine them into one new operation.

Here's the description for WA-17-248: This working unit is part of the large Davis Farm property that was acquired in 1996. This specific piece of the Davis Farm is known as the Stuart Pasture and as is typical for abandoned pastures as it is dominated by low quality white pine. A timber sale in the early 1990s seems to have removed the best quality pines and left the trees with multi-stemmed crowns. Along with white pine, the overstory is dominated by black birch, red oak, red maple and black cherry. Paper birch and bigtooth aspen are found as well and are especially prevalent in the western part of the area. The logging in the early 1990s has led to a well developed midstory of black birch, red maple, red oak and paper birch poles. There is good advance regeneration present as well and is comprised of red oak, red maple, white pine, white oak, hickory, black cherry and white ash. Sampling found adequate regeneration in 66% of the plots with marginal regeneration in 17% of the plots. Oak regeneration was present in 75% of the plots.

The description for WA-10-141 is similar as it has a similar history as a former pasture and was logged prior to MDC acquisition leading to good advance regeneration. In general, the quality of the white pine is better than in the other area and there is some very good quality red oak on the northeast facing slope. The age structure of this combined area is as follows; 6%, 0-20 years old; 0%, 21-40 years; 0%, 41-60 years; 41%, 61-80 years; 53%, 81-100 years and 0%, >100 years old.

**Assessment of Terrestrial Invasive Species:**

When sampling occurred in 2009 and 2016 in these two areas, no invasivespecies were found.



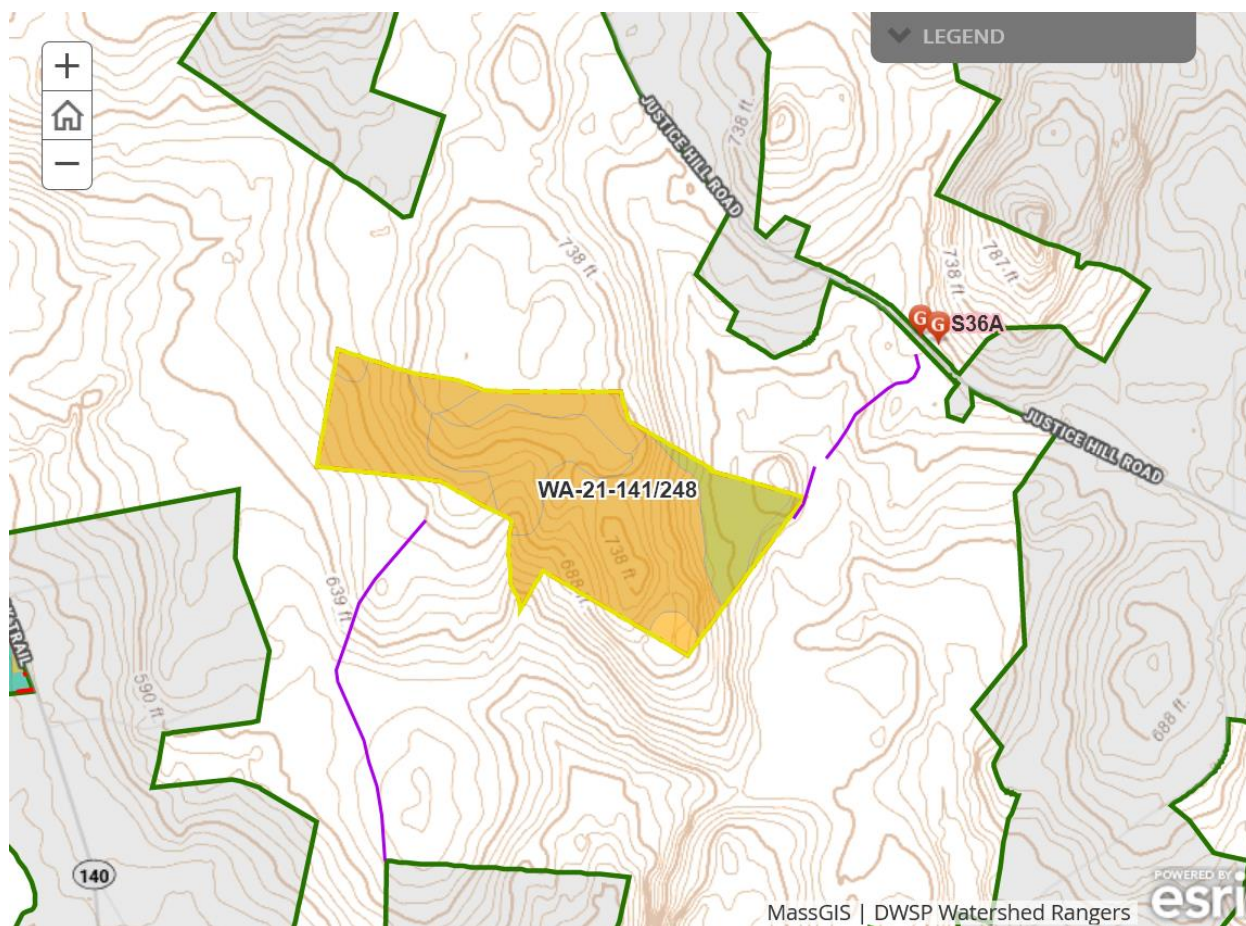
Soils

Drainage Class	%
Excessively Drained	0
Well Drained Thin	0
Well Drained Thick	88



Moderately Well Drained	12
Poorly to Very Poorly Drained	0

The well drained thick soil is the Paxton fine sandy loam. The moderately well drained soil on the base of the hill in the eastern corner of this area is the Woodbridge fine sandy loam.

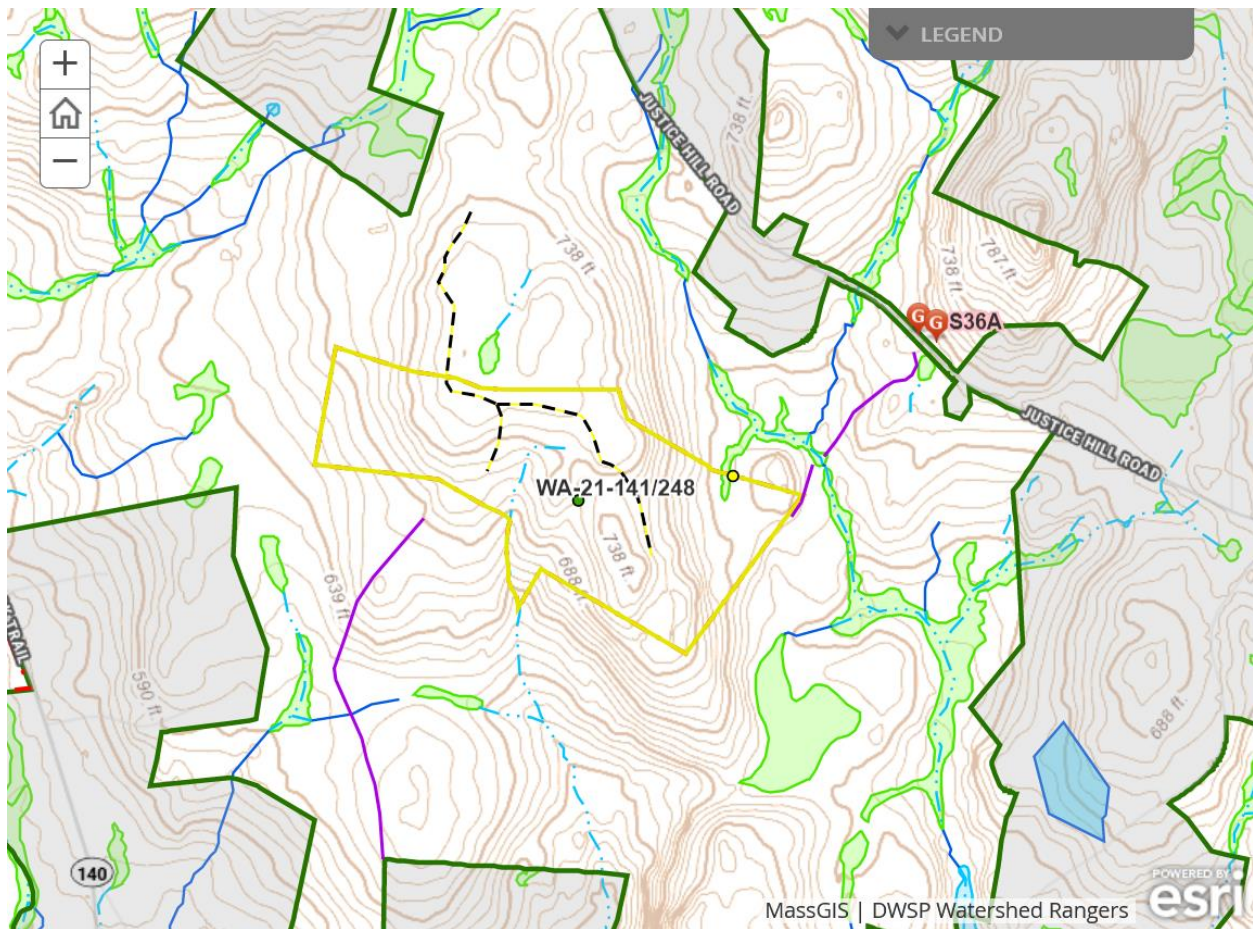


## Wetlands

- 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** ([Riparian Zone Mgt](#))
- Is logging in wetlands planned? - **No**

A small intermittent stream originates in the central part of this area and flows south.



## Silviculture

Acres in Intermediate cuts: **0**

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

Acres in Regeneration cuts: **16**

Average regen opening size: **1**

Maximum regen opening size: 2

**Description of advance regeneration in proposal area:**

There is good advance regeneration present throughout this area comprised of red oak, red maple, white pine, white oak, hickory, black cherry and white ash.

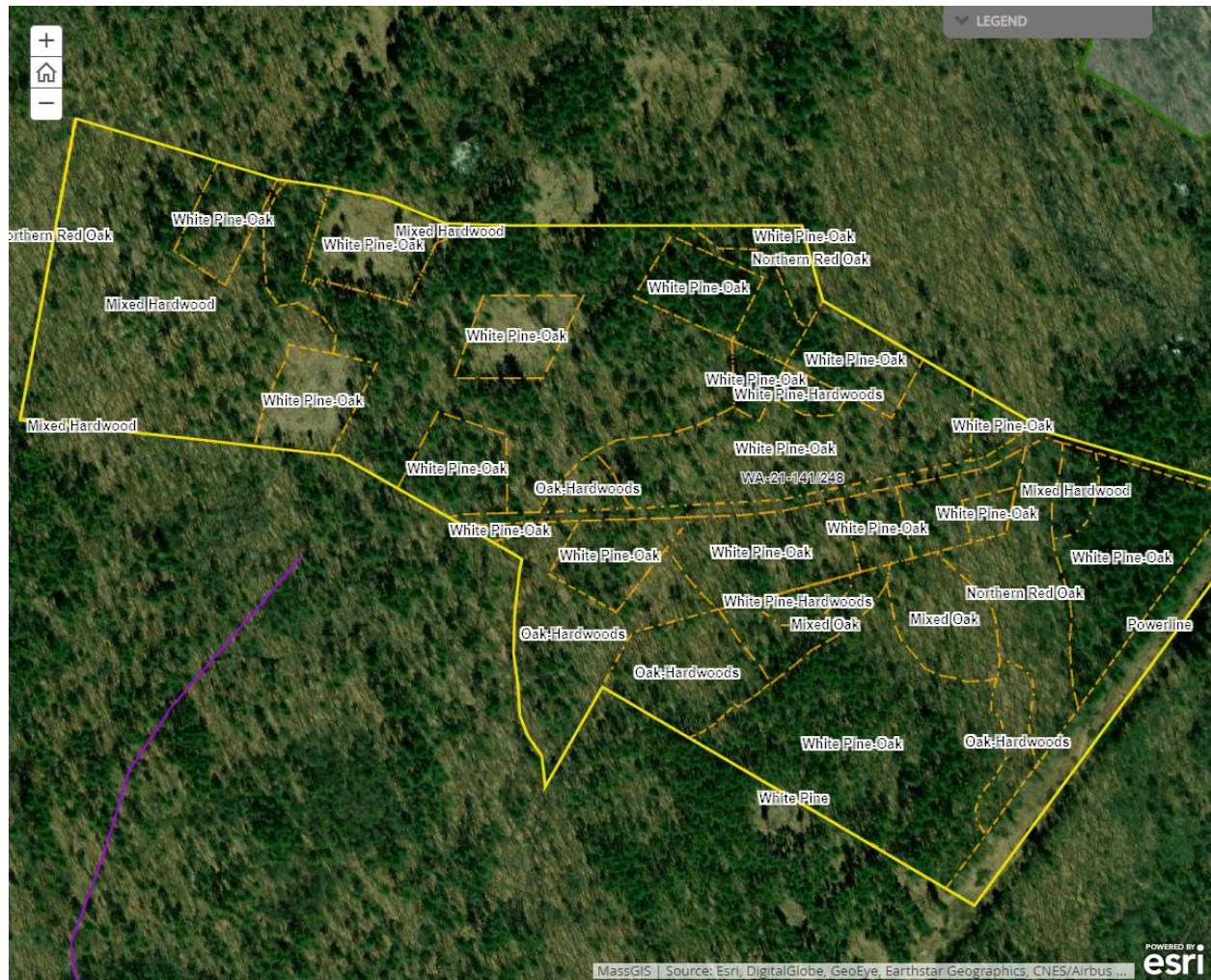
**General comments on silviculture proposed:**

The plan for the remainder of Lot 5264 (WA-17-248) is to complete the harvesting of the overstory openings that remain.

There are 9 openings ranging in size from 1/3rd to 1.5 acres that total 8.6 acres. Three openings totalling 4.7 acres were cut in 2017. Following this operation there will be 13.3 acres (8.6+4.7) of young forest in these 51 acres which is 26% of the area.

Lot 5248 was proposed for FY 2010 and the intent was to create overstory openings in the typical size range from about 1/5th to 2 acres in size in order to release advance regeneration resulting in a new young age cohort on up to 1/3rd of the area. When this lot was finally marked and sold in 2014 we were under silvicultural restrictions coming out of the moratorium that resulted in the STAC report and our response in the "From Here Forward" document. This temporary restriction limited all overstory openings to less than 1/2 acre. This restriction was lifted in time for the FY 2015 round of lot proposals. Given how faded the marking paint is in this area is, the prudent course is to mark all-new openings in these 22 acres. As was the original intent for this area, the advance regeneration will be released by removing the overstory in patches that range up to 2 acres in size. Up to 7 acres of openings will be created resulting in young forest present on 33% of the area.



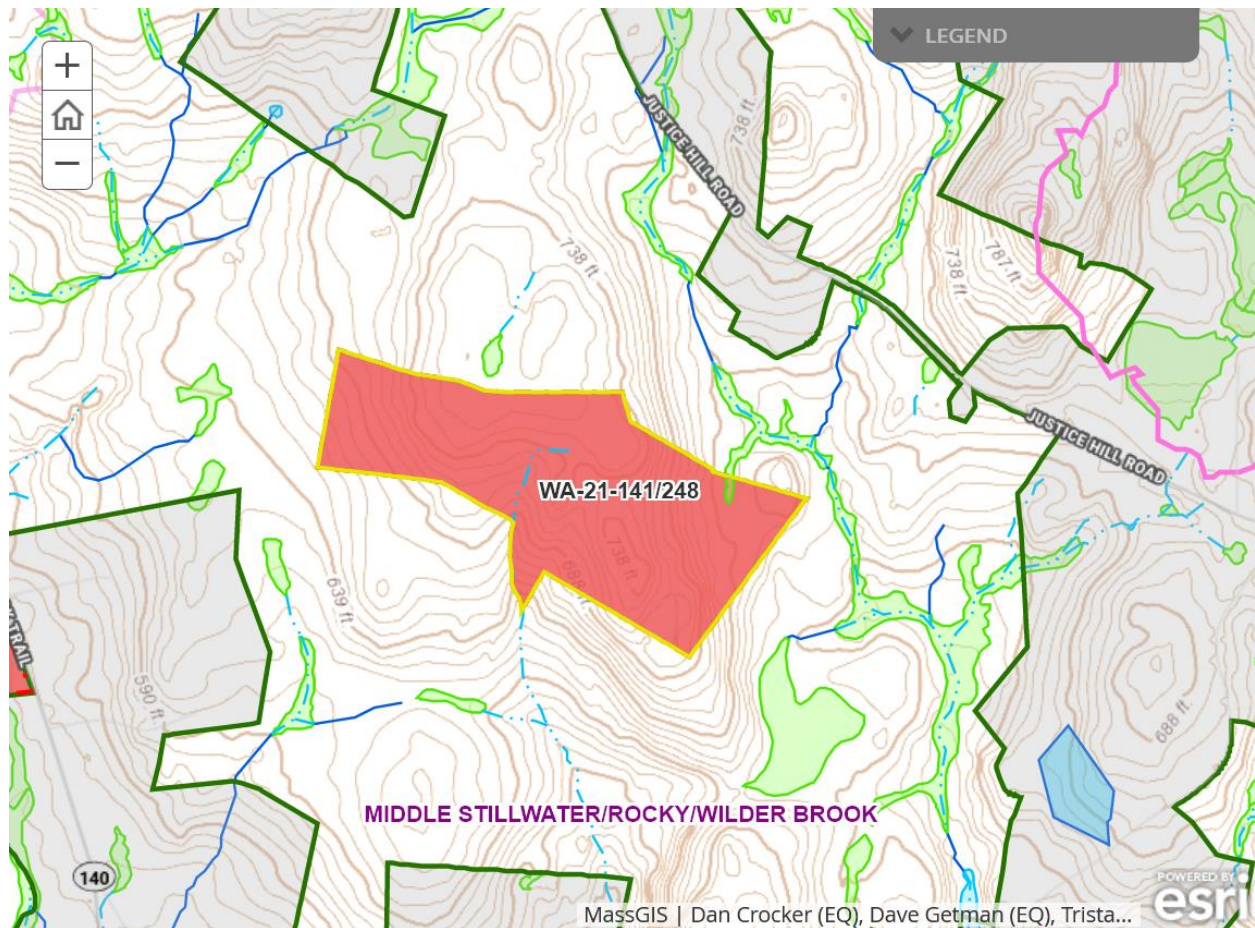


## Subwatershed Analysis

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
18 (Middle Stillwater/ Rocky/ Wilder Brook)	2189	62	485	75

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





## Harvesting Limitations

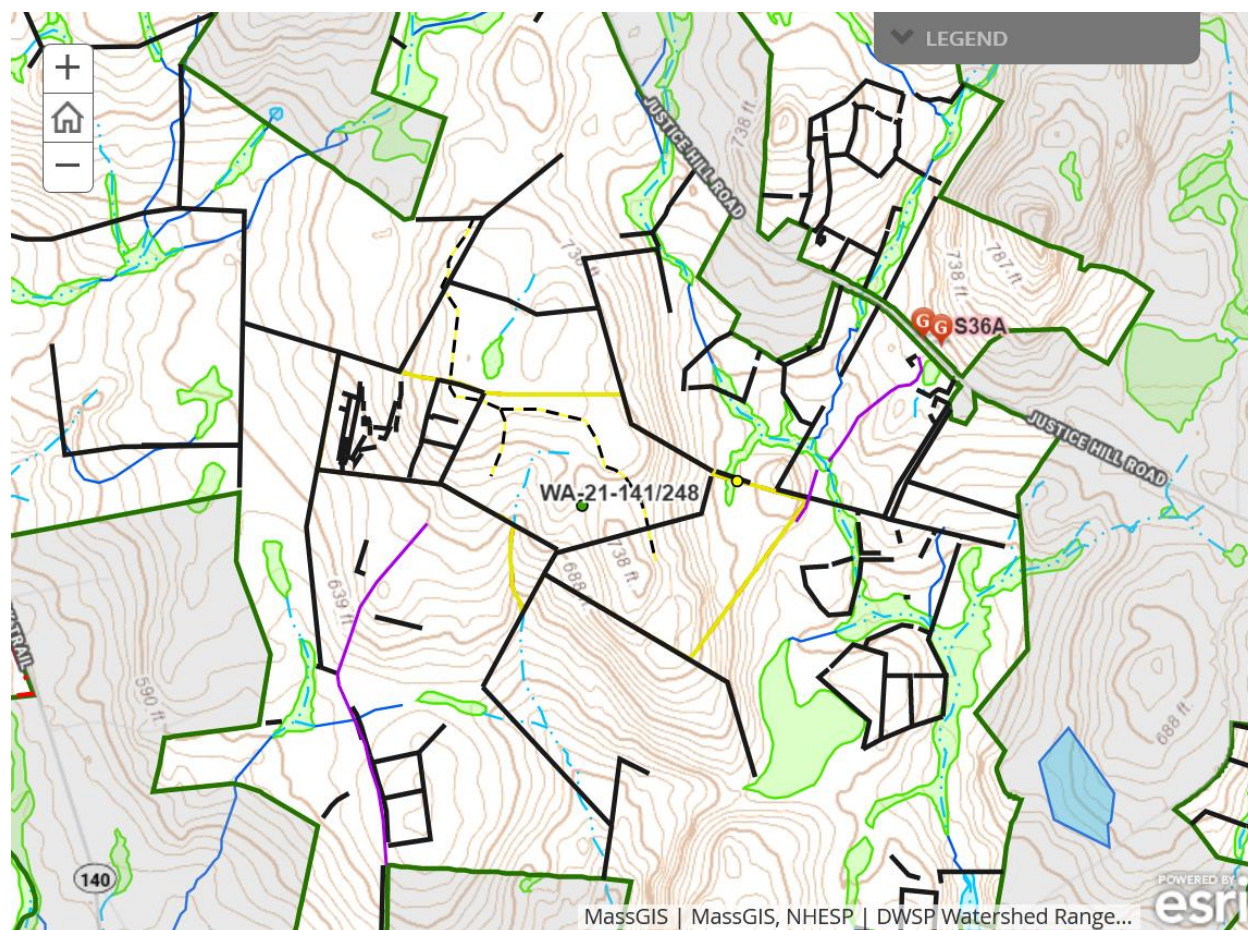
Forwarder required: **Yes**

Feller/processor required: **Yes**

Steep slopes present: **No**

### Comments on harvesting limitations:

Cut-to-length harvesting will be required to protect as much of the advance regeneration as possible.

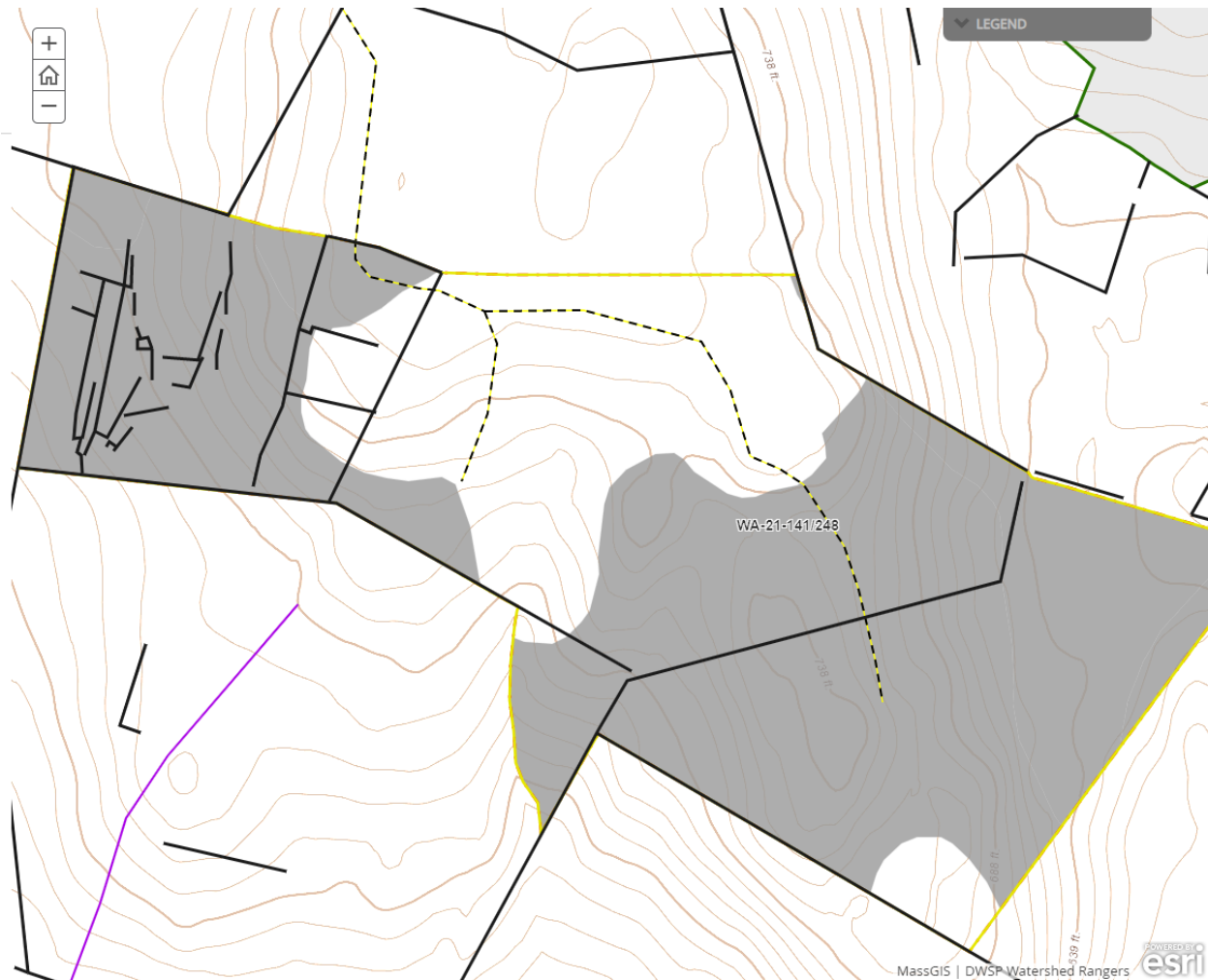


## Cultural Resources

### Comments on Cultural Resources:

WA-17-248 was deemed to be "Potentially Sensitive" due to the "bizarre assemblage" of stone walls and a cellar hole in the far western corner of the area. There is no plan to harvest trees in the area of these walls.





## Wildlife Resources & Rare and Endangered Species

### General Wildlife Comments:

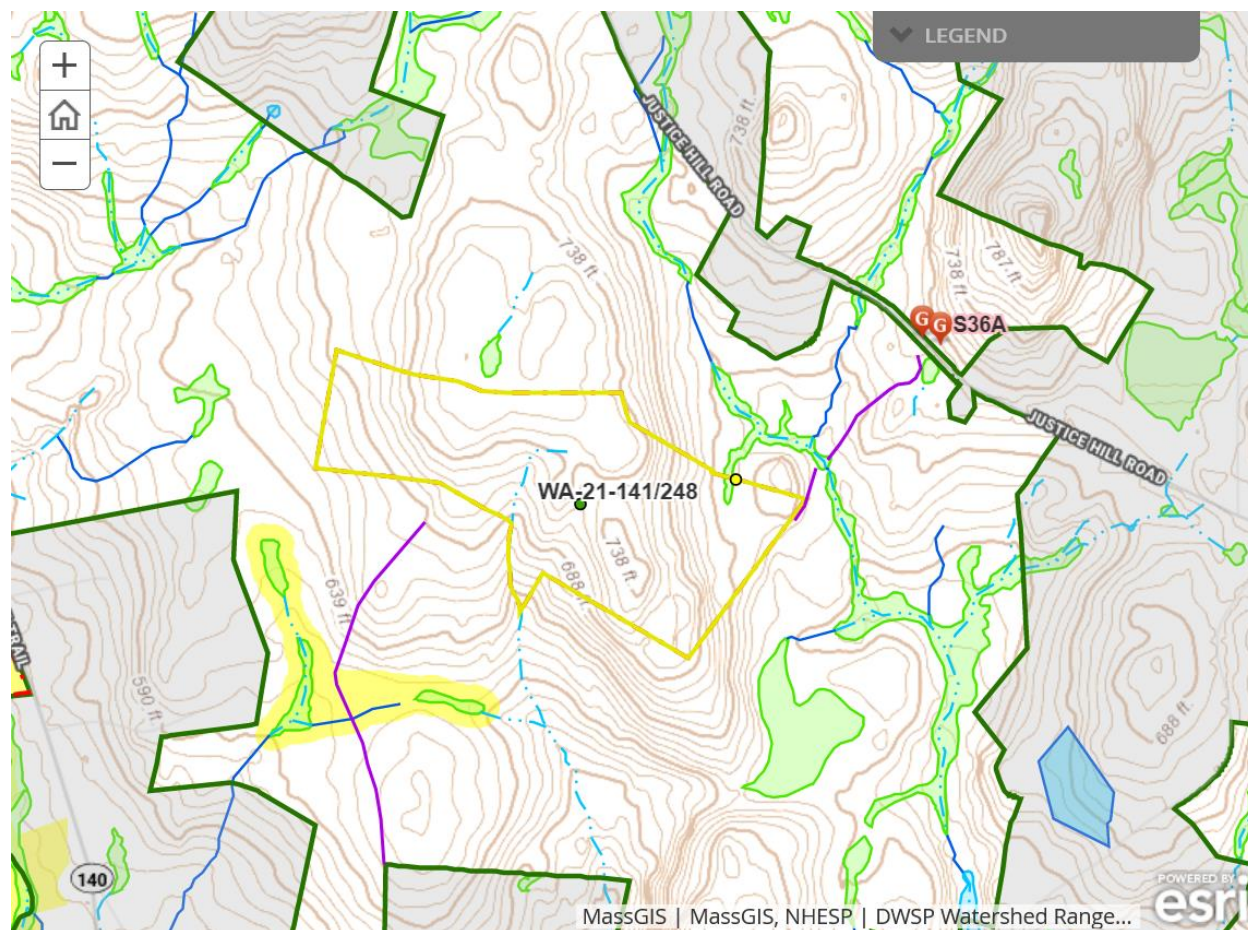
Moose sign is routinely found on this hill; browse impacts do not appear to be significant at this time. No verified vernal pools in the lot area.

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:**

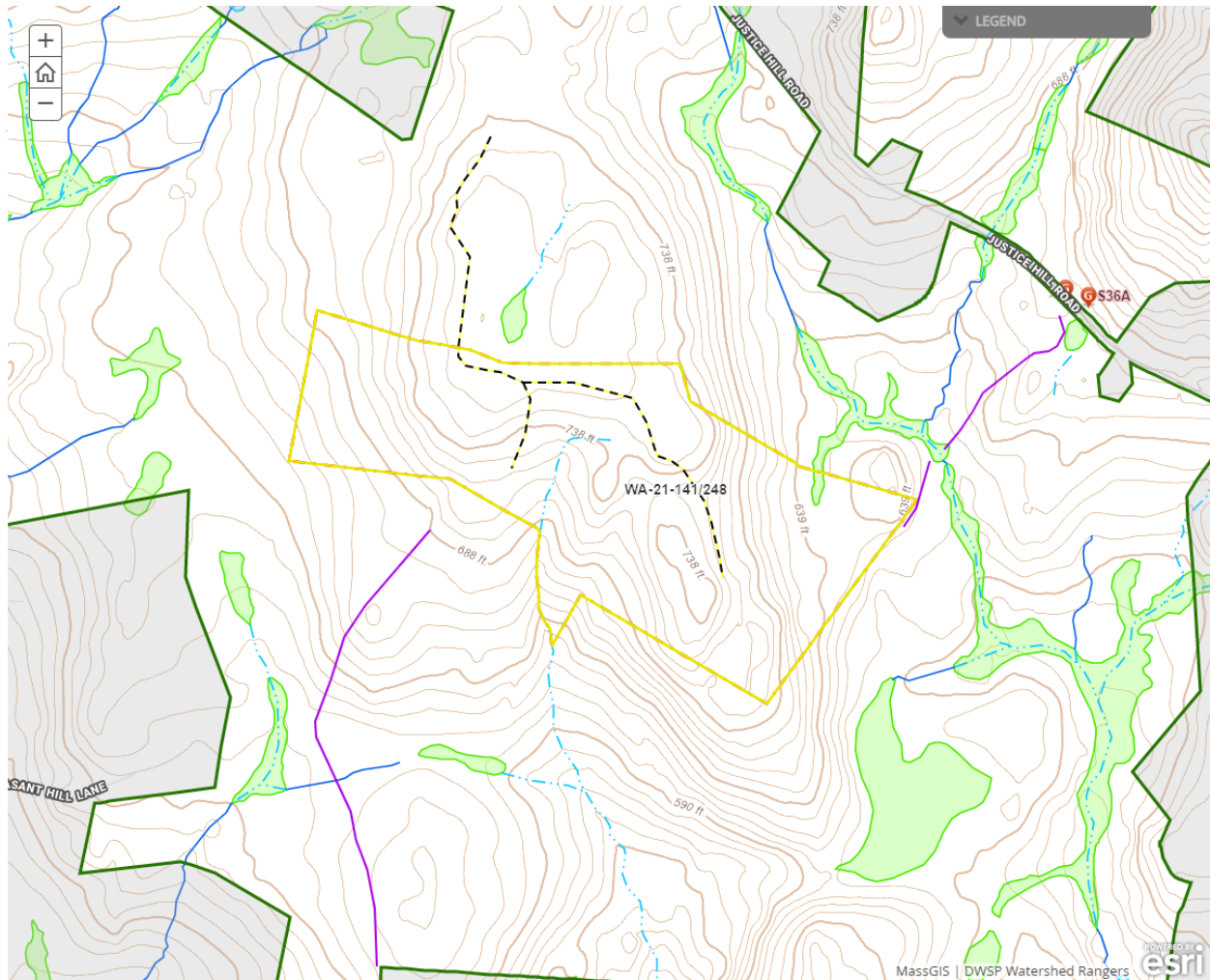
None known.



## Environmental Quality Engineering

**Comments on EQ Issues:**

There are no stream crossings or EQ comments.



## Forest Access Engineering

**Gravel needed:** No

**Landing work needed:** No

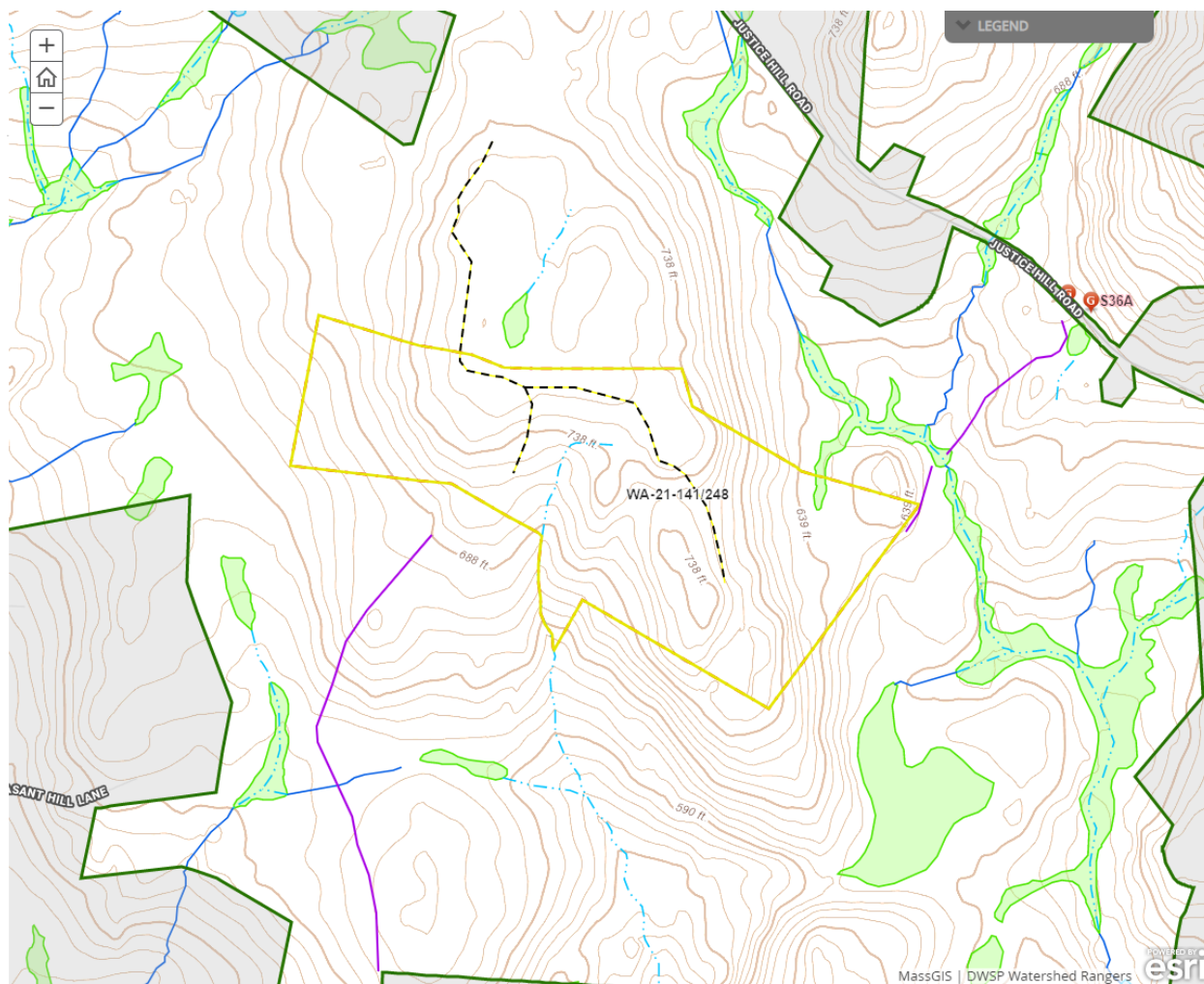
**Culverts needed:** No

**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

