Wachusett Harvest Proposal WA-23-295

Proposal Update, May 2024:

This forestry proposal was originally approved through the public process in 2022. The project was 'paused' along with most other state lands forestry projects as part of the EEA Forests as Climate Solutions Initiative. Following the close of the work of the Climate Forestry Committee, DWSP determined the activities in this proposal align with EEA climate considerations developed from the recommendations in the CFC report. The proposal language and mapping below are preserved unchanged from that presented to the public in 2022 in ArcGIS Online Story Map format.

Proposal Goals

The primary goal is to continue the diversification of forest age structure and complexity that was initiated with forest management operations that started back in the early 1980s. The encouragement of white pine regeneration will continue as white pine is well suited to thrive and compete on this excessively-drained soil. The primary goal is to promote a resilient, diverse and vigorously growing forest by creating openings throughout the lot taking advantage of the advance regeneration in the rocky hilltop areas.

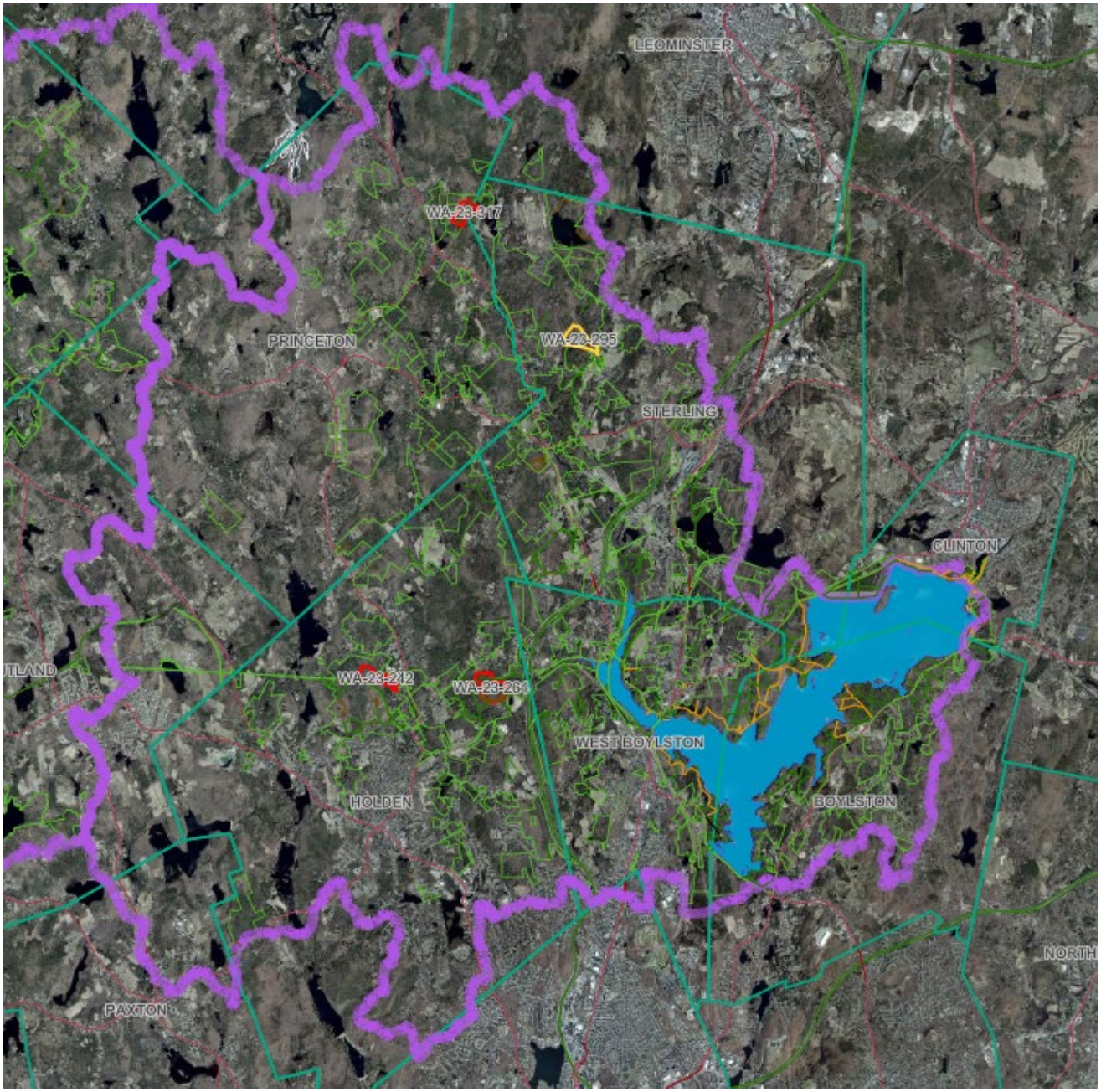
The secondary goal will be to thin the areas with interfering mountain laurel, creating a space for tree seedlings to take root.

Proposal Location

(Yellow highlighted polygon in the map) Beginning at a corner in the southwest portion of the working unit and heading northerly along a stream for about 550 feet where it meets and follows a powerline northeasterly for about 1300 feet. Thence it follows a stonewall line southeasterly for about 2700 feet where the boundary turns southerly very briefly along a slope next to a pond and then turns westerly for about 2600 feet.

Total Acres: 65

Figure 1. Watershed Locus, WA-23-295.



General Description

Overstory Type(s)	Acres
White pine - oak	40
Mixed oak	15
Oak - hardwoods	10

	Understory Type(s)
Dominant	Tree seedlings/saplings dominate site
Secondary	Mesic site - witch hazel, highbush blueberry

Description of forest composition/condition:

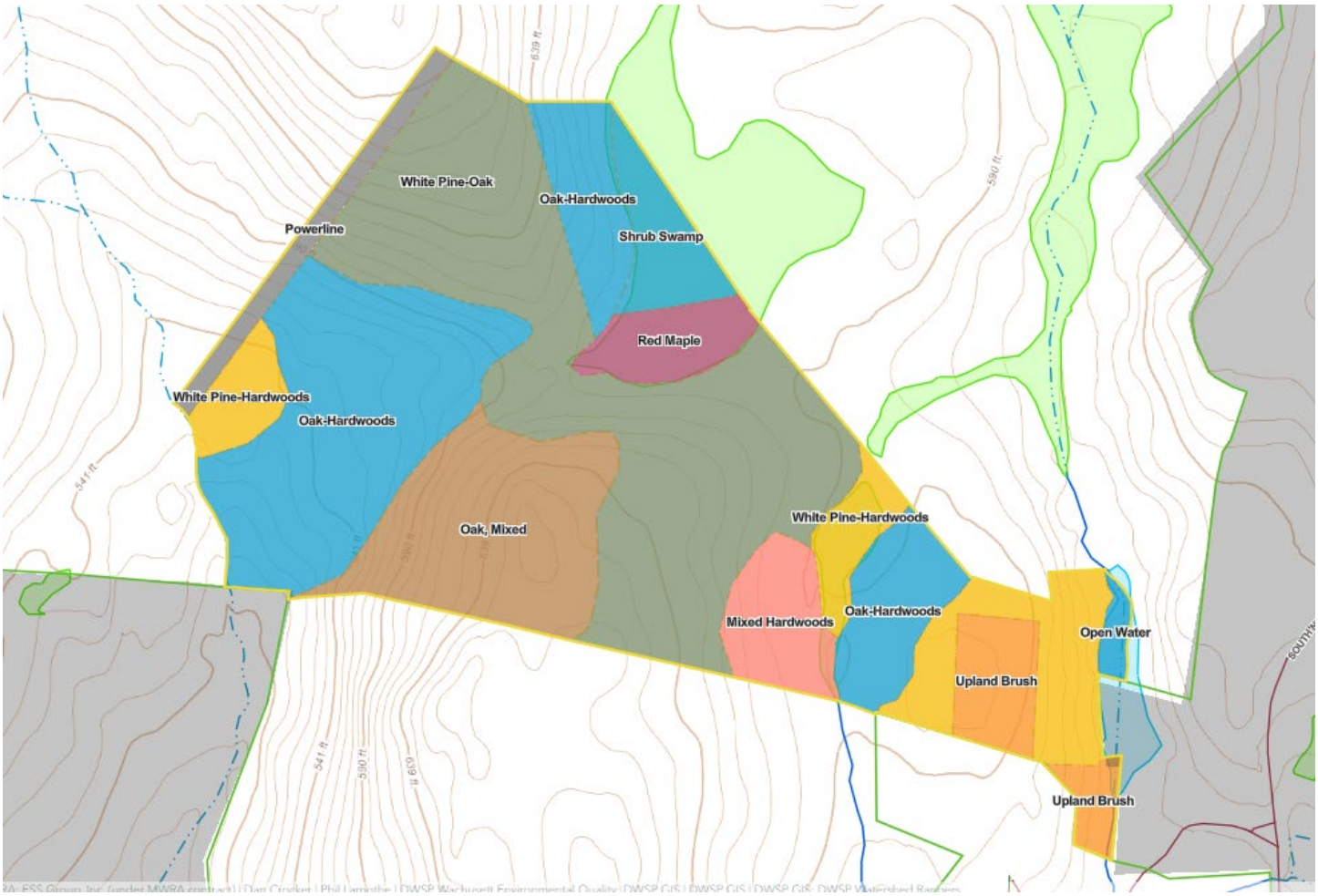
This forest can be characterized by its mix of rocky hill tops, unique wetland areas and evidence of past land usage. This property was acquired in 2000 and has had no forestry work done since it was purchased. However, there have been recent harvests all around this working unit (both DWSP and private) and the results suggest a harvest will result in a strong diverse young forest. The main tree species of this working unit are white pine, red oak white oak, red maple and black oak with lesser amounts of yellow birch, sassafras, hemlock, black birch, and hickory in the overstory. The best regeneration in the working unit is located on several rocky hilltops where regeneration is currently good enough to release. There is a smattering of mountain laurel and witch hazel in these areas and some taller black birch just beyond regen size that was released in a prior harvest evidenced by hardwood stumps in the northwest region. There are also some pine stumps in the lower elevation eastern region which is covered with mountain laurel and hemlock. The large red maple wetland in the northern section is surrounded by thick sweet pepperbush and mountain laurel. Overall, the wetter soils have more mountain laurel and witch-hazel. The far eastern portion of the working unit is covered with old cabins, housewares, vehicles and an outdoor pool from a previous summer camp.

The age structure is as follows: 5%, 0-20 years old; 4%, 21-40 years old; 0%, 41-60 years old; 14%, 61-80 years old; 27%, 81-100 years old; 50%, >100 years old.

Assessment of Terrestrial Invasive Species:

The small cabin area has invasives associated with it and it also runs downslope towards the pond. Consisting mostly of autumn olive and bittersweet, this area will be avoided during the harvest as much of it has no trees or is too close to the pond and or cabins.

Figure 2. Forest cover types, WA-23-295.

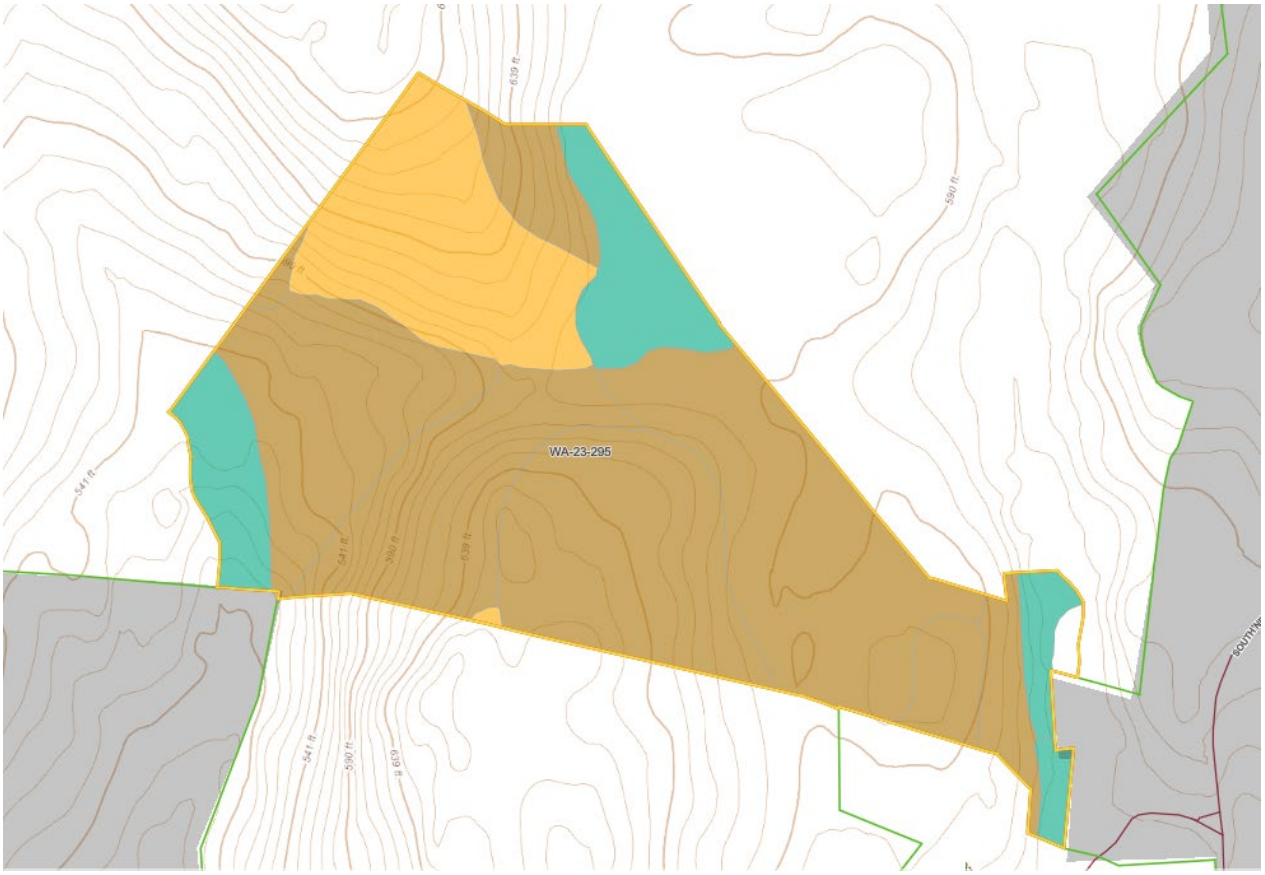

White Pine-Oak
Oak-Hardwoods
Powerline
Shrub Swamp
Red Maple
White Pine-Hardwoods
Oak-Hardwoods
Oak, Mixed
White Pine-Hardwoods
Mixed Hardwoods
Oak-Hardwoods
Open Water
Upland Brush
Upland Brush
639 ft
590 ft
541 ft

Soils

Drainage Class	%
Excessively Drained	0
Well Drained Thin	16
Well Drained Thick	70
Moderately Well Drained	0
Poorly to Very Poorly Drained	14

Well drained thin Chatfield-Hollis-Rock are found on the rocky hilltops of this unit. Well drained thick Canton makes up almost seventy percent of the working unit with Paxton making up a small percentage. The remaining soils are found in the wetter areas and consist of Freetown, Ridgebury, Whitman and Walpole soils.

Figure 3. Soil classes, WA-23-295.

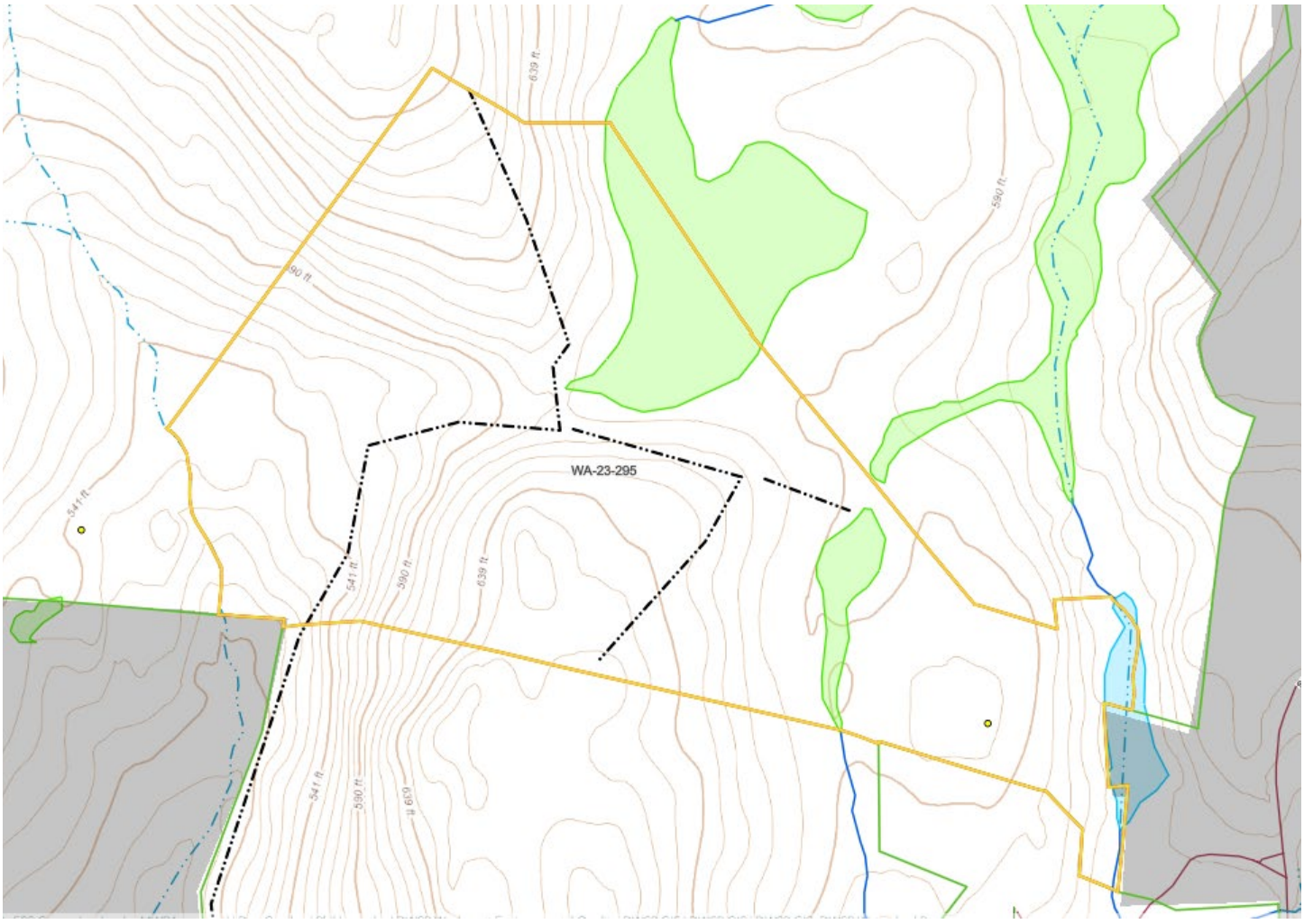


Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- Vernal pools present? - **No**
- Seeps present? - **No**
- 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**

There is a beautiful wetland in the northern end of this unit surrounded by thick mountain laurel and sweet pepperbush. There is also a narrow band of wetland running north south on the eastern end of the working unit that has some interesting natural features.

Figure 4. Wetland resources, WA-23-295.



Silviculture

Acres in Intermediate cuts: **0**
Acres in prep/establishment cuts: **5**
Acres in Regeneration cuts: **21**
Average regen opening size: **1**
Maximum regen opening size: **2**

Description of advance regeneration in proposal area:

Fifty percent of all plots taken in the working unit were found regenerated, with another fourteen percent with marginal regeneration. Species observed include red maple, red oak, hickory, black cherry, white oak, white pine, hemlock, black birch, black oak, yellow birch, sassafras, striped maple and American chestnut. The majority of regenerated plots were taken on the rocky hilltops, while the interfered plots were in the wetter soil areas. Browse isn't an issue as this unit gets good hunting pressure.

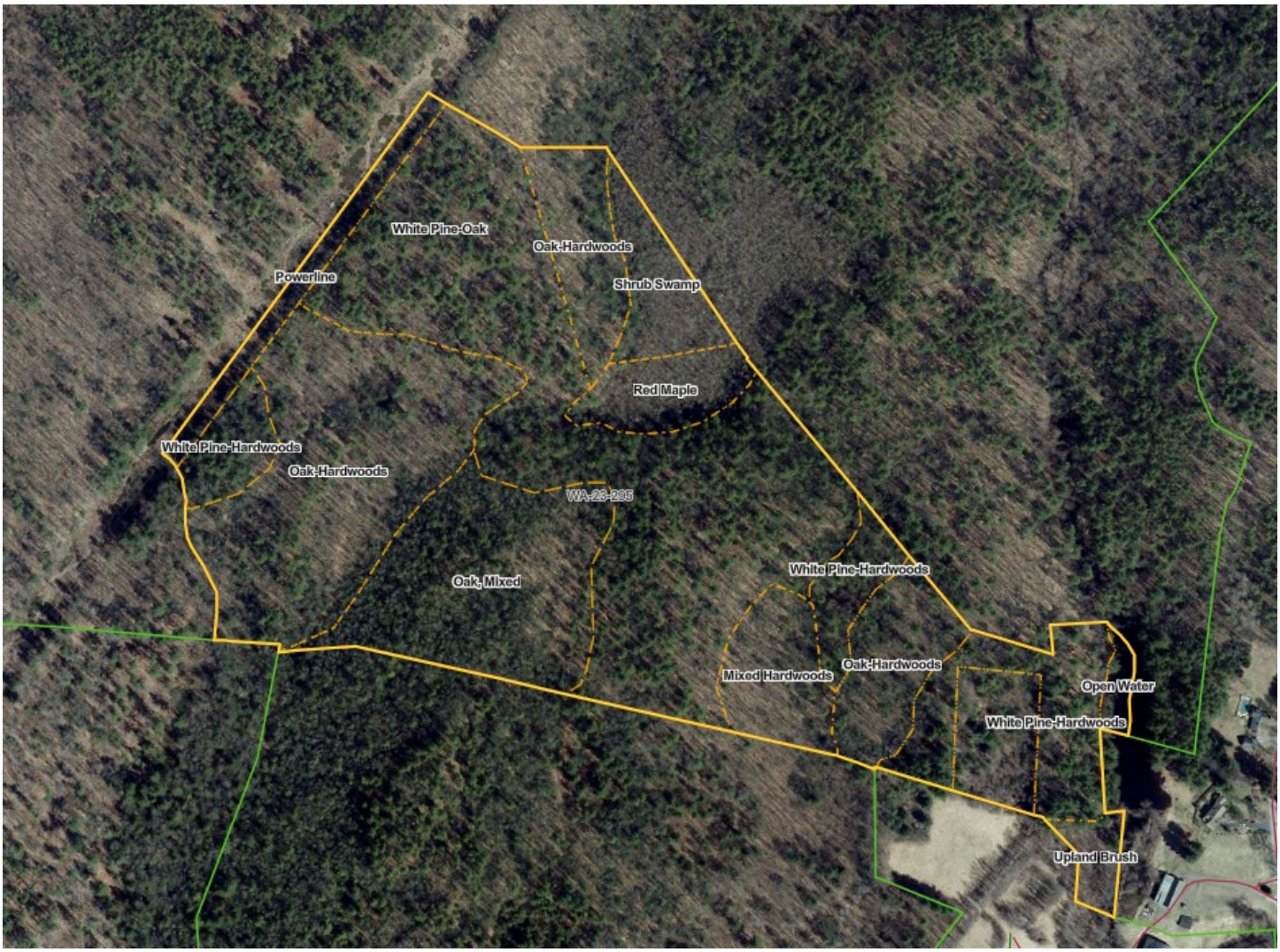
General comments on silviculture proposed:

Regeneration openings will occur on one third of the acres within this working unit. This will move the unit towards the goal of having three age classes. Openings will be targeted at areas with the best regeneration, mostly around the rocky hilltops. Approximately another five acres will have a prep cut in order to damage and clear some thick mountain laurel and witch-hazel areas and allow a diverse array of tree seedlings to fill the space. The mountain laurel and witch-hazel areas are generally found on the wetter soils of this particular working unit.

Climate Change considerations:

Typical silviculture in this proposal designed to sustain fundamental ecological processes, reduce the risks of impacts from severe disturbances, and enhance species and structural/habitat diversity.

Figure 5. Orthophoto and cover types, WA-23-295.

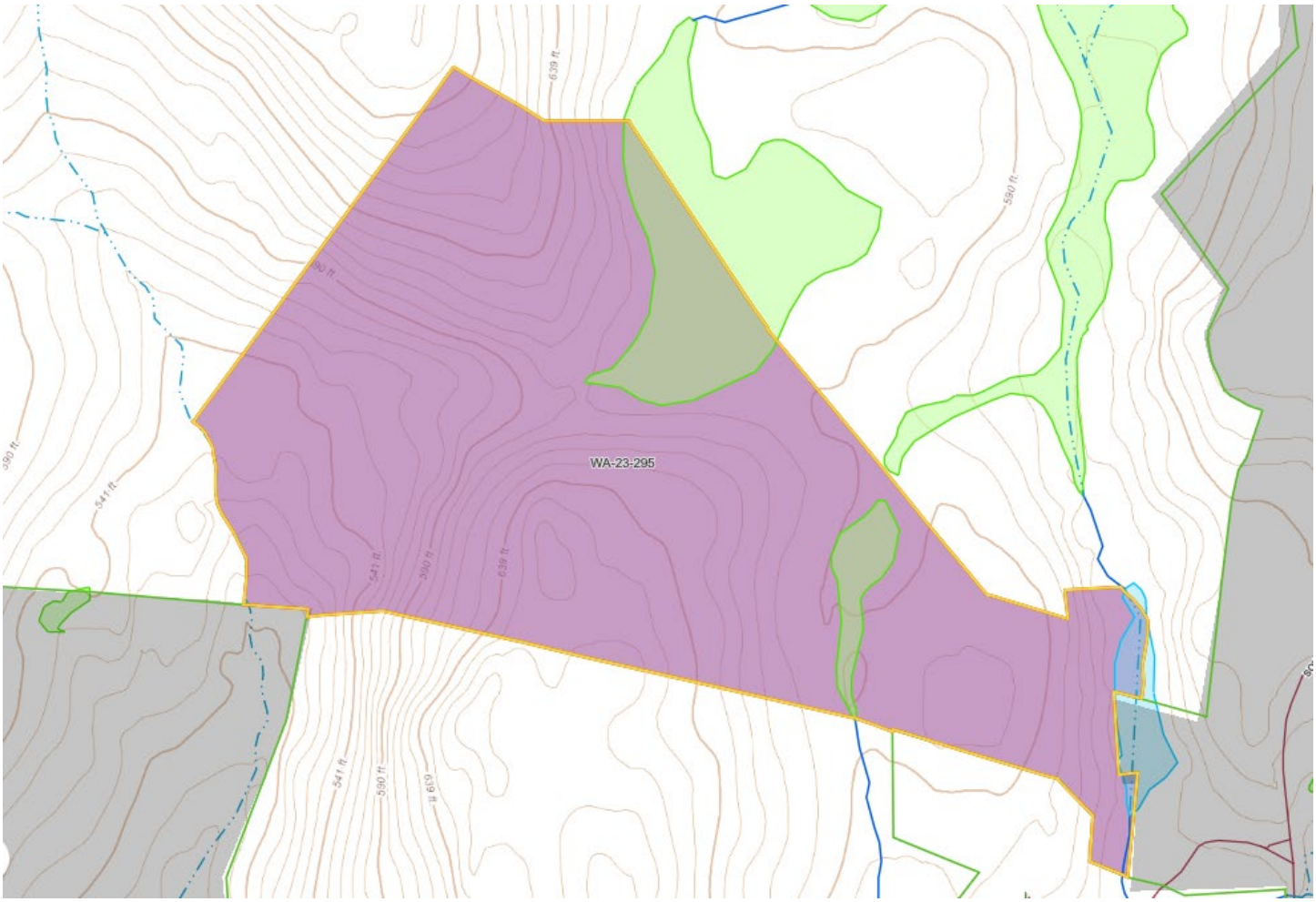


Subwatershed Analysis

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)	709	44	133	65

The proposed harvest removals will not exceed the 25%/10-year threshold in this subwatershed.

Figure 6. Subwatersheds, WA-23-295.



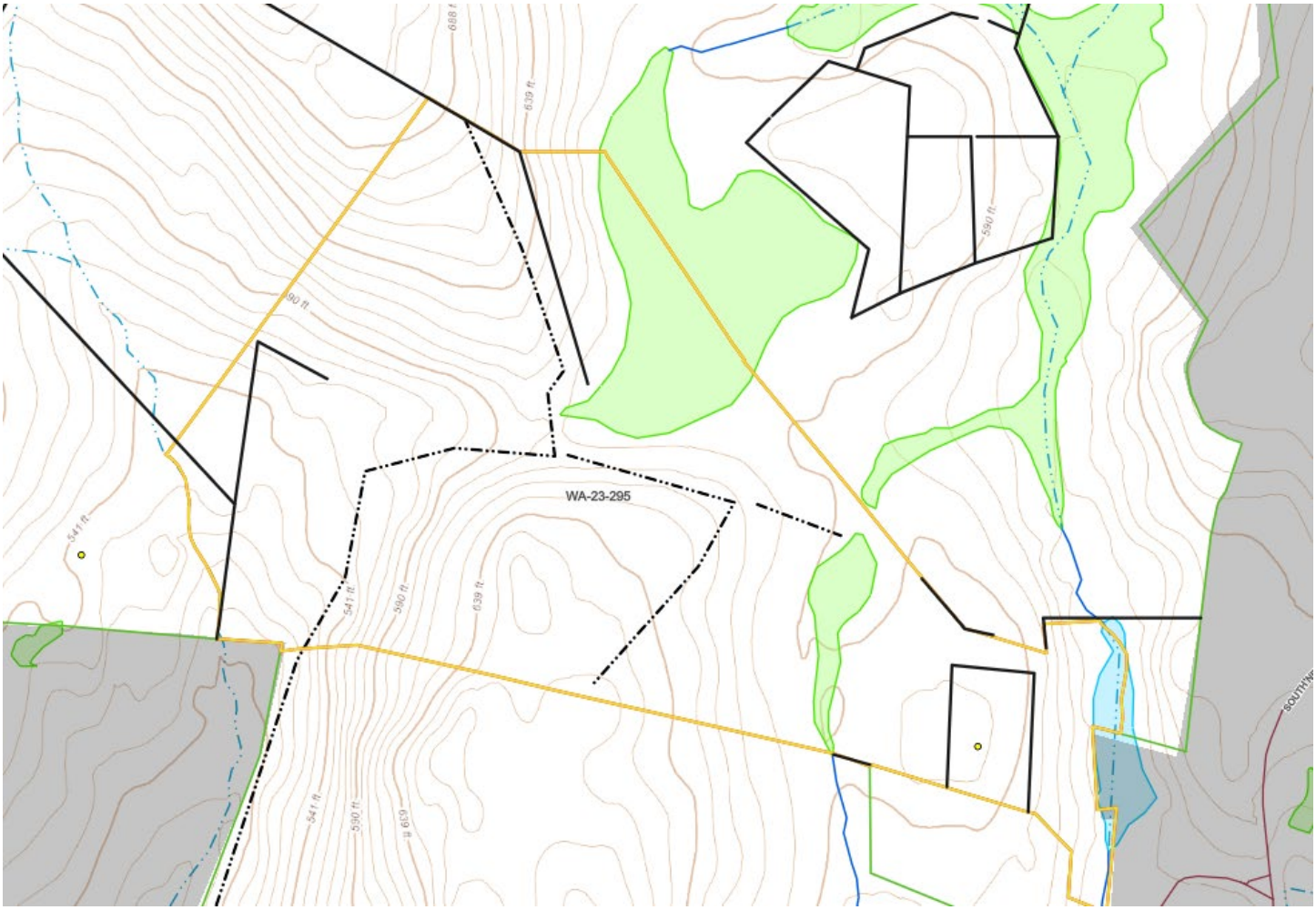
Equipment

Forwarder required: **Yes**
Feller/processor required: **Yes**
Steep slopes present: **No**

Comments on harvesting limitations:

Because advance regeneration is going to be released, a forwarder and processor will be required.

Figure 7. Harvesting limitations, WA-23-295.



Cultural Resources

Comments on Cultural Resources:

The foundations and well are associated with the previous landowner's summer camp at the eastern end of the proposal area. DCR will follow recommendations from the DCR archaeologist to minimize ground impacts to the skid/forwarder roads.

Figure 8. Stony and Extremely stony soils, WA-23-295.

Wildlife Resources & Rare and Endangered Species

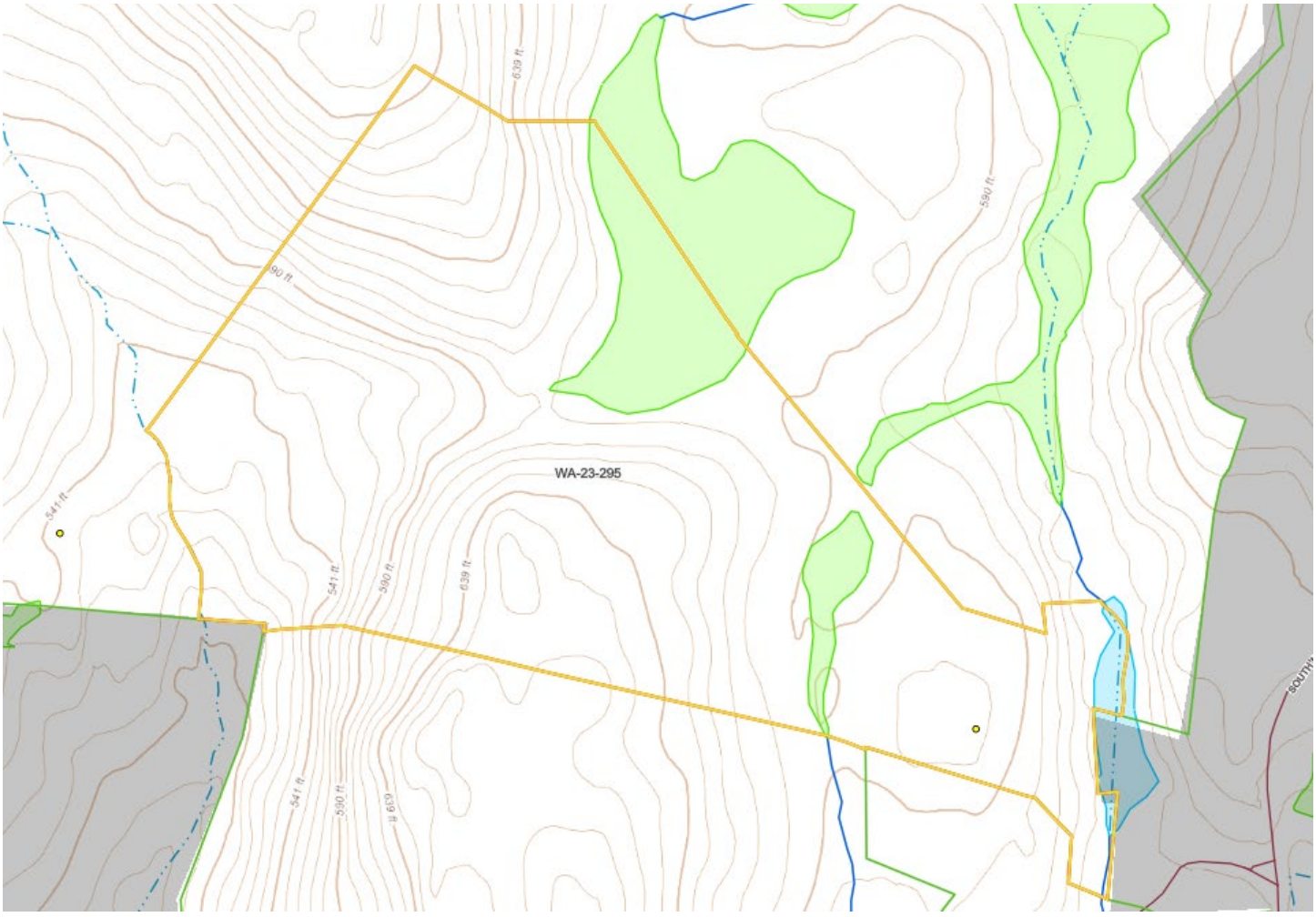
General Wildlife Comments:

There is a beautiful wetland in the northern section with very thick mountain laurel and sweet pepperbush surrounding it; salamander and wood frogs are using it for breeding but it is not a vernal pool. There is also a narrow band of wetland in the eastern portion of the unit that has some unique land features. On reconnaissance last October I noted hundreds of ducks using the small pond on the eastern edge of the unit and an old duck nest.

Comments on Rare Species/Habitats:

None.

Figure 9. NHESP Priority habitat overlay, WA-23-295.

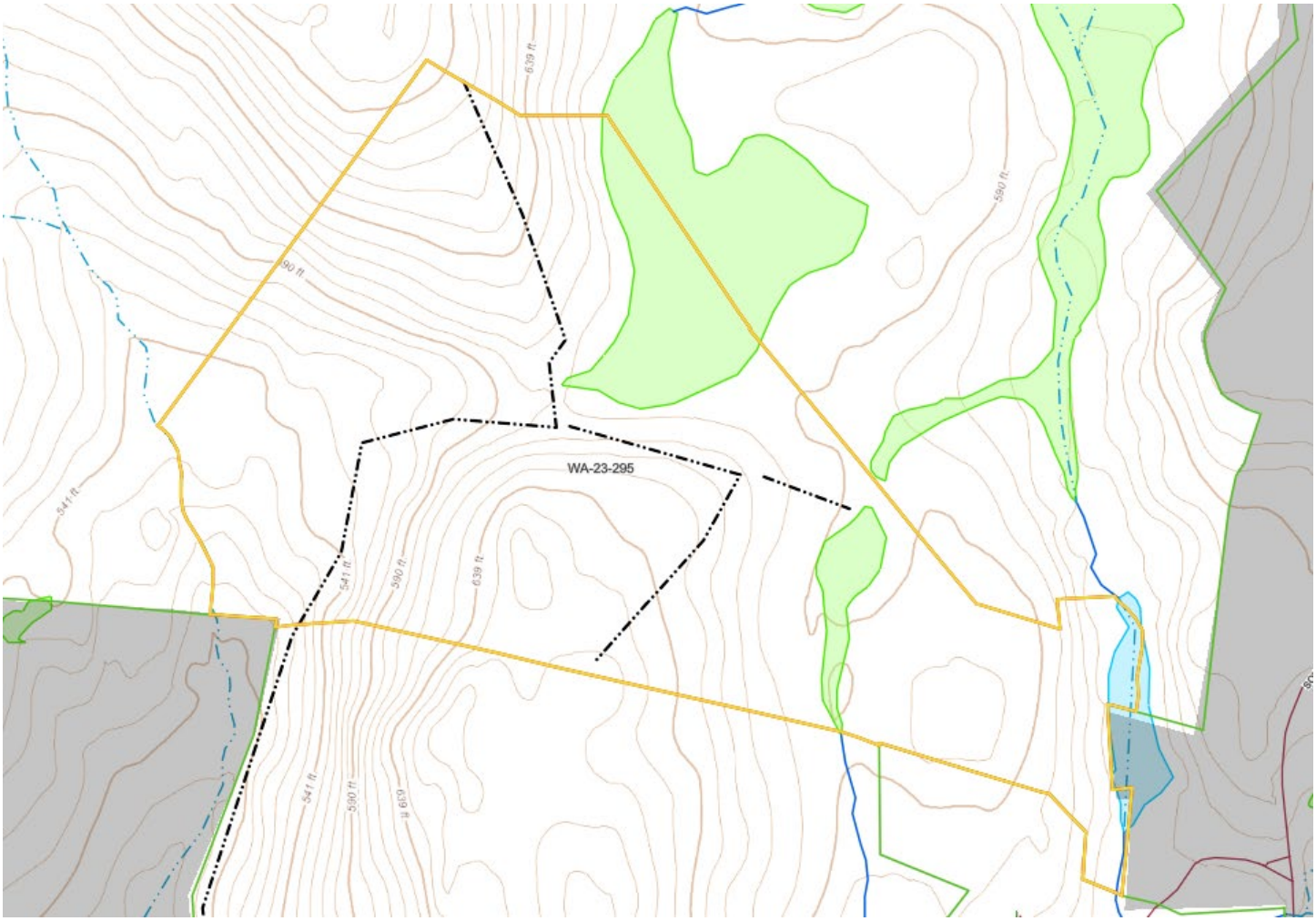


Environmental Quality Engineering

Comments on EQ Issues:

No crossings or EQ concerns.

Figure 10. Access planning, WA-23-295.



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 access issues. Landing on Beaman Road has been used for two previous projects.

Figure 11. DWSP FY 2023 Forestry Proposals – Master Legend for story maps