

Quabbin Harvest Proposal PT-22-4/5

Proposal Update, May 2024:

This forestry proposal was originally approved through the public process in 2021. At that time, salvage of the dead and dying oak was a component of the proposed management. However, salvage was not the primary objective driving the decision to implement forest management in this area and salvage of the dead and dying oak will no longer be part of this proposal. 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 remaining activities in this proposal align with EEA climate considerations developed from the recommendations in the report issued from the CFC. The proposal language and mapping below are preserved unchanged from that presented to the public in 2021 in ArcGIS Online story map format, but the reader should ignore references to salvage.

Proposal Goals

The southern and western section of this proposal is cleanup of a salvage cut that was not fully completed, with additional live unacceptable growing stock being included. The rest of the area is mainly oak or white pine hardwood stands proposed to receive our standard group selection harvest or a seed cut shelterwood harvest which will allow for diverse regeneration to become established and further release existing regeneration. Much of the dead oak that is still merchantable will be salvaged.

Proposal Location

This proposal has 2 separate sections, the northern which is on east side of Whitney Hill Road north of the trailer turn around and the southern section which is south of the turnaround. Northern section starts at a wall on east side of road, goes easterly to S13SQ which is currently being completed. Follows that cut boundary easterly and northerly to a point then proceeds northeasterly to a wetland/intermittent stream complex. Follows the wetland edge north till its just an ephemeral stream with PT-19-05 on the eastern side, then goes northwest along ephemeral/PT-19-05 to a walled square. This probable old pasture is included and then follows wall west to Whitney Hill Road then south to place of beginning.

Total Acres: 182



General Description

	Overstory Type(s)	Acres
Dominant	Oak, mixed - dry site	71
Secondary	Northern red oak	46
Other	White Pine - hardwoods	37

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

Description of forest composition/condition:

The whole proposed area was even-aged before the recent salvage harvest (S10SQ). Most of the overstory is 90-120 years old.

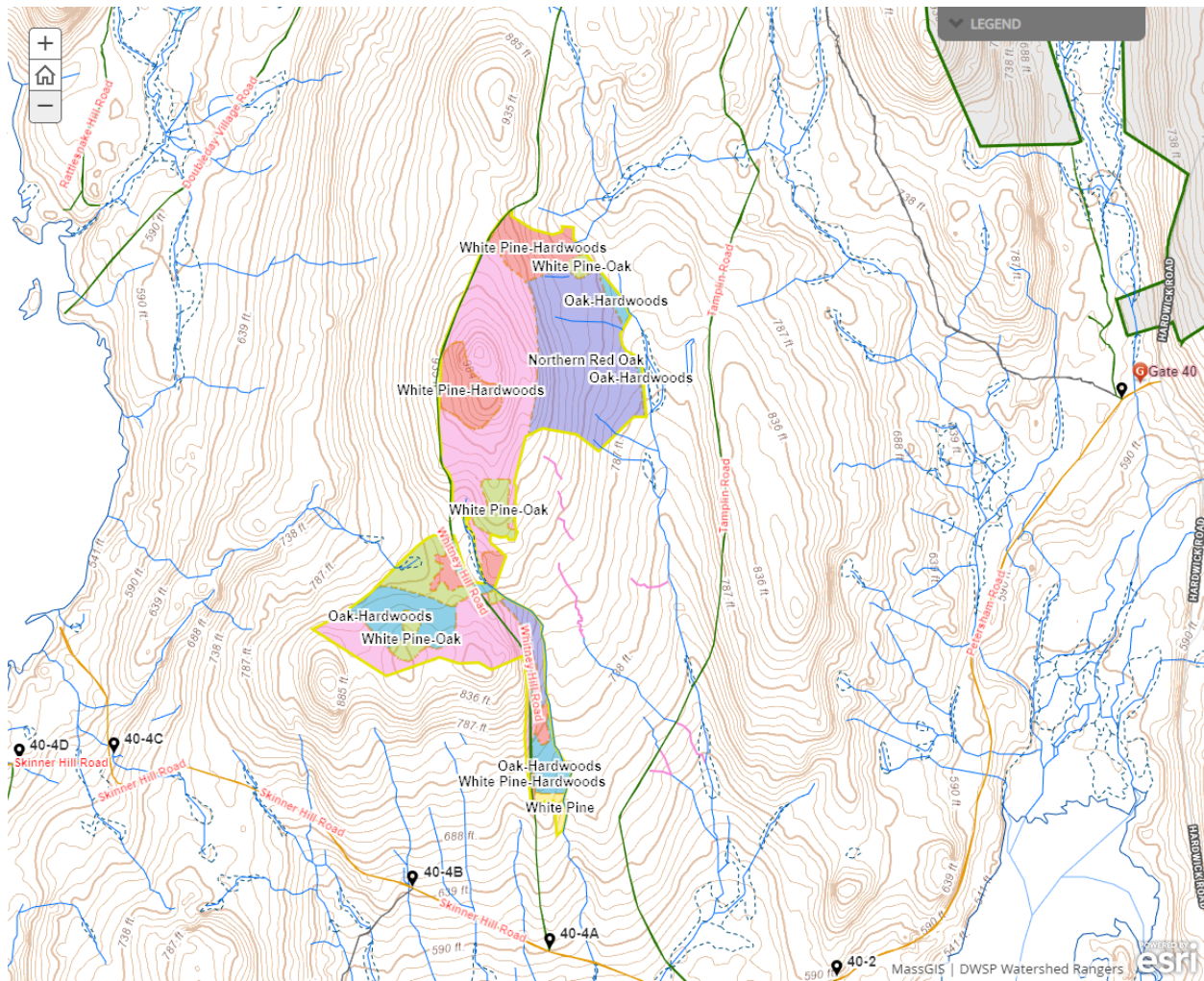
Southern section was mostly salvage harvested as lot S10SQ. This harvest was left incomplete with quite a bit of marked unacceptable growing stock (ugs) left uncut along with areas of live ugs skipped. In this portion there is also a stand of average white pine which had a shelterwood prep cut in 1983 (347) and a surrounding stand of maple/birch on wetter soils which was also cut at that time. The section east of Whitney Hill Road was also cut in 1983 (362a). The rest of this southern portion had a prep cut shelterwood in 1986 (461).

In the northern section, the southeastern corner, which is on a better site, had an irregular shelterwood seed cut completed in 2004 (3033). The northern end around the north landing was thinned in 1990 (561). It appears this harvest was not completed. The rest of this section has not been recently cut. The overstory on this whole section is well stocked, trees are losing vigor and some are starting to drop out. Gypsy moth was present during 2016-2020 and mortality of oaks is high along the southern edge; GM impact gradually decreases to north and west up the slopes. Emerald ash borer (EAB) started impacting ash in this stand last year and there is mortality from that and there has been a general decline in ash here over the years. The upper slopes tend to be drier with a lower site index. Areas that were not recently cut are over stocked and contain a lot of ugs.

Overstory species present in pine stands included white pine, red oak, black oak, red maple, black birch and white oak with widely scattered black cherry. The red oak type has had about 1/4 of the oak die. Also present are black and white oak, ash, red maple and black birch. Scattered yellow birch, black cherry and white birch are also here. The oak hardwood type is mainly on poorer drier sites though some goes down to the stream or wetlands and these tend to be pretty good sites. Besides red oak there is black and white oak, red maple, and black birch. White birch is scattered and is also declining partly from GM but probably also just old age as it isn't a long-lived species. White pine, black cherry, beech and hickory are also present.

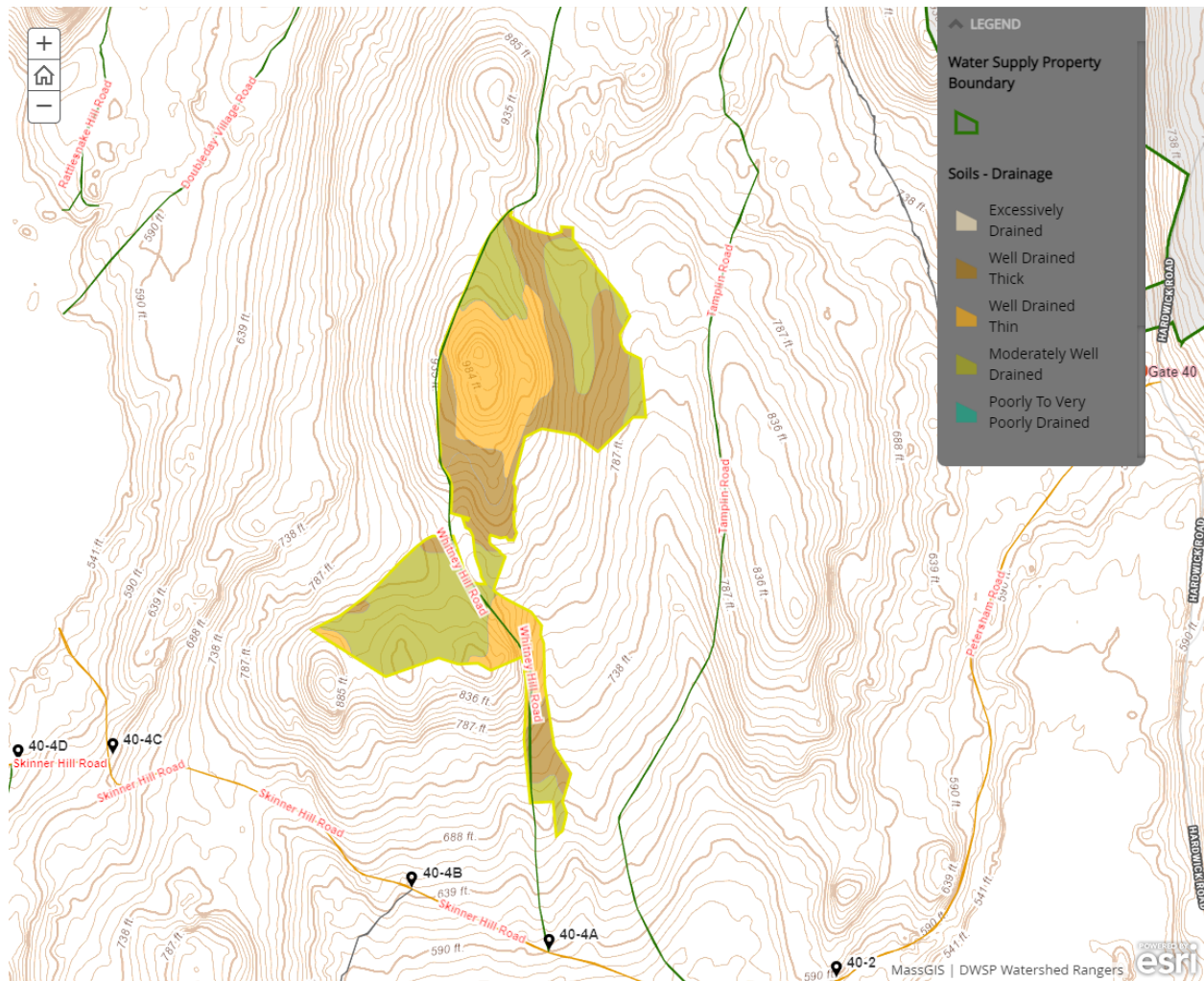
Assessment of Terrestrial Invasive Species:

Only invasive seen was scattered Japanese Barberry mainly along wetland on the east edge of proposal.



Soils

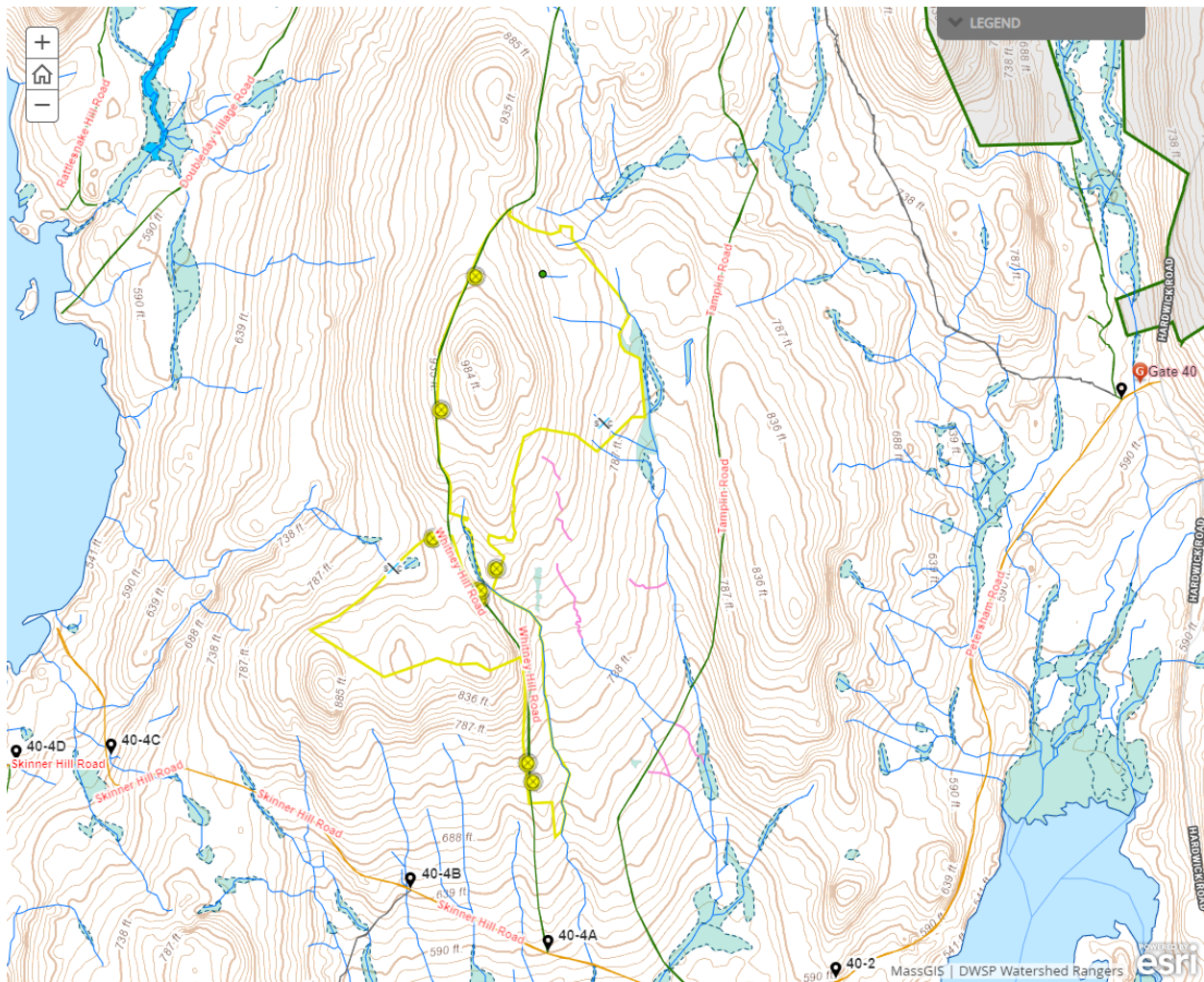
Drainage Class	%
Excessively Drained	0
Well Drained Thin	27
Well Drained Thick	73
Moderately Well Drained	0
Poorly to Very Poorly Drained	0



Wetlands

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

There is a small -- probably dug -- pool in a seep which drains into the large eastern wetland. It was checked this year and has no eggs or vegetation and was classified as not a pool.



Silviculture

Acres in Intermediate cuts: **90**

Acres in prep/establishment cuts: **40**

Acres in Regeneration cuts: **35**

Average regen opening size: **1**

Maximum regen opening size: **4.9**

Description of advance regeneration in proposal area:

Advance regeneration is established on most of the proposal but is not very diverse, mainly black birch, red maple and white pine. Oak, hickory, black cherry, beech and sugar maple are scattered on uplands and some yellow birch and hemlock are present along the wetlands. Regeneration is mostly in the sapling size with some pole sized particularly where there were larger openings created from past harvests. Seedlings are present throughout but are mainly non-vigorous due to being suppressed for so long. Moose and deer are common here and are one of the reasons for lack of diversity and prevalence of white pine and black birch which are not preferred browse. There is some oak and red maple seedlings and saplings surviving without too much browse so there is still hope for some to get past the browse height of moose. Most areas have over 1,000 seedlings/acre.

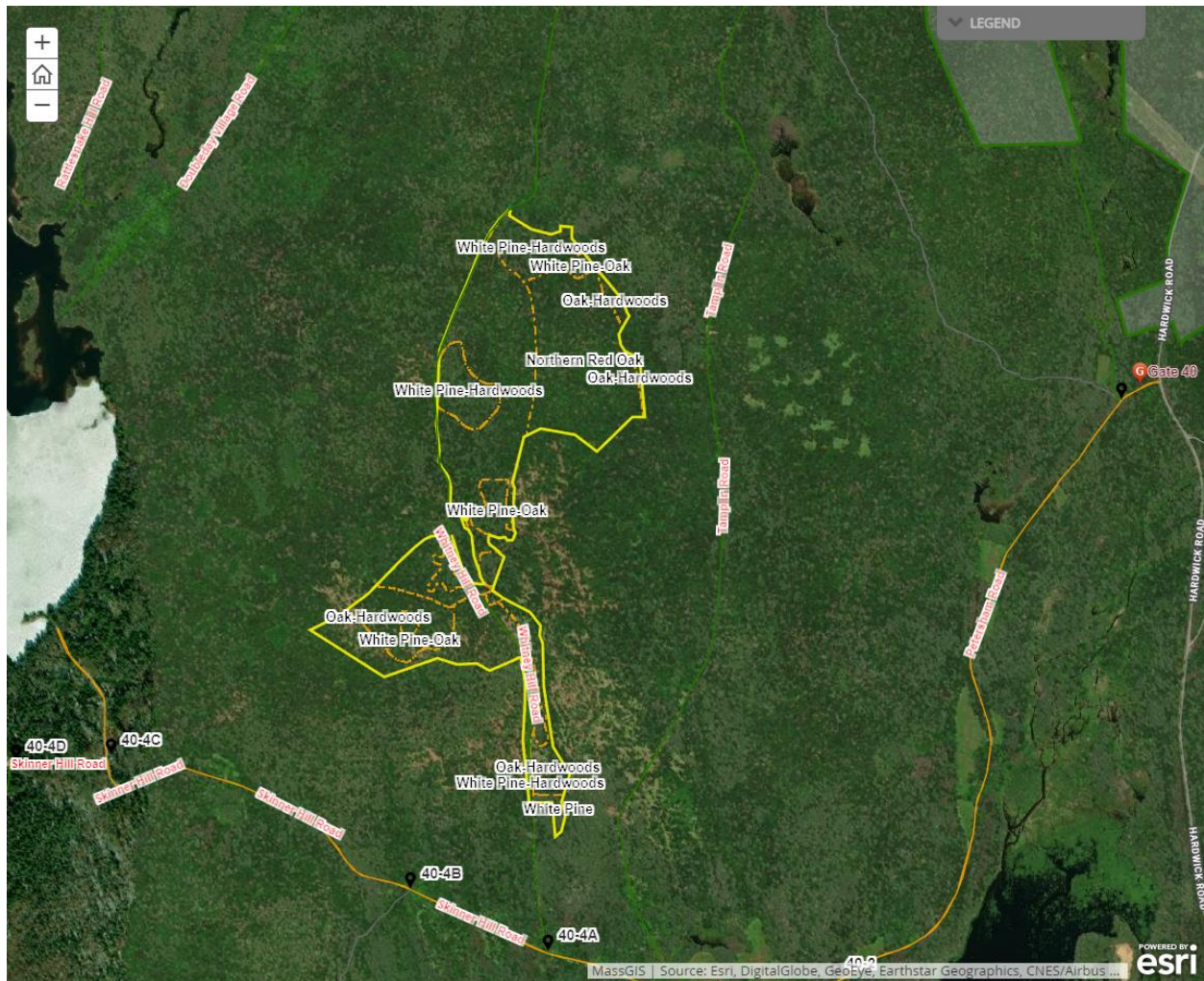
General comments on silviculture proposed:

The part of the proposal south of the main central landing/trailer turnaround was previously partially cut as lots S10SQ and S9NQ. S10SQ was left incomplete. A lot of TSI and the more challenging marked trees along the road were left as was scattered marked large dead sawlogs on both lots. Also, both lots were gypsy moth salvage harvests so not much live wood was marked. There are several areas of mostly live trees that were skipped within the salvage sales which contain mostly low-quality wood and should be harvested. There is both existing old blue paint (from the 2 lots mentioned) and some fresh blue and green paint in the proposal area. These trees plus additional wood will be included in the new lot. This section also has some oak that died after the original salvage marking, and there is a section of white pine just south of the turnaround which is included in this proposal. So, for this section the harvest will be additional salvage of gypsy moth killed trees, cleanup of previously marked and unmarked UGS (unacceptable growing stock) with additional mainly poorly formed and/or low vigor trees cut. Intent is to try and create more openings for diverse regeneration to have a better chance of successfully establishing. Openings here should be in the 1-3 acre range but due to the amount of mortality and past harvest they might not be as clearly defined as openings in a healthy stand. Opening sizes and retention will be as directed by guidelines in place at the time the lot is marked. Species cut other than the oak which is mostly dead will be red maple, black birch, white pine and ash (also salvage due to presence in stand of emerald ash borer (EAB)). Some healthy individuals of all species present will be retained to maintain and hopefully increase diversity. The stand of better- quality white pine will have a seed cut shelterwood and will have an irregular shelterwood look when done with small openings created due to oak mortality and portions on edges that have more red maple and black birch which will be mostly cut. The poor-quality white pine stand on the east side of road will all be harvested, creating one of the openings.

The northern portion has not had any cutting since early- to mid- '80s. Our standard small group selection silviculture will be used here with openings from 0.5 acre to maybe as large as 4.9 acres. Again, there is mortality here from GM and EAB and where there is still economic value these trees will be salvaged. GM impact was not as bad here as it was to the south. There are 3 stands of white pine, the better-quality portions will be treated similar to a seed cut shelterwood with openings from 1/4-1 acre in the poorer formed or sections with more hardwoods.

For all treatments openings will be placed as per our then current guidelines and will be located first in areas with more trees of low vigor or poor form or health. In areas partially cut these same categories will be targeted first. Additional large higher quality trees will then be included to create the desired condition. Retained trees, other than wildlife and structural trees mentioned below, will generally be the better formed, vigorous individuals of the range of species that are desired to be regenerated on the area. Attempt will be made to retain structure and select well rooted, wind-firm trees particularly in retained exposed groups in openings.

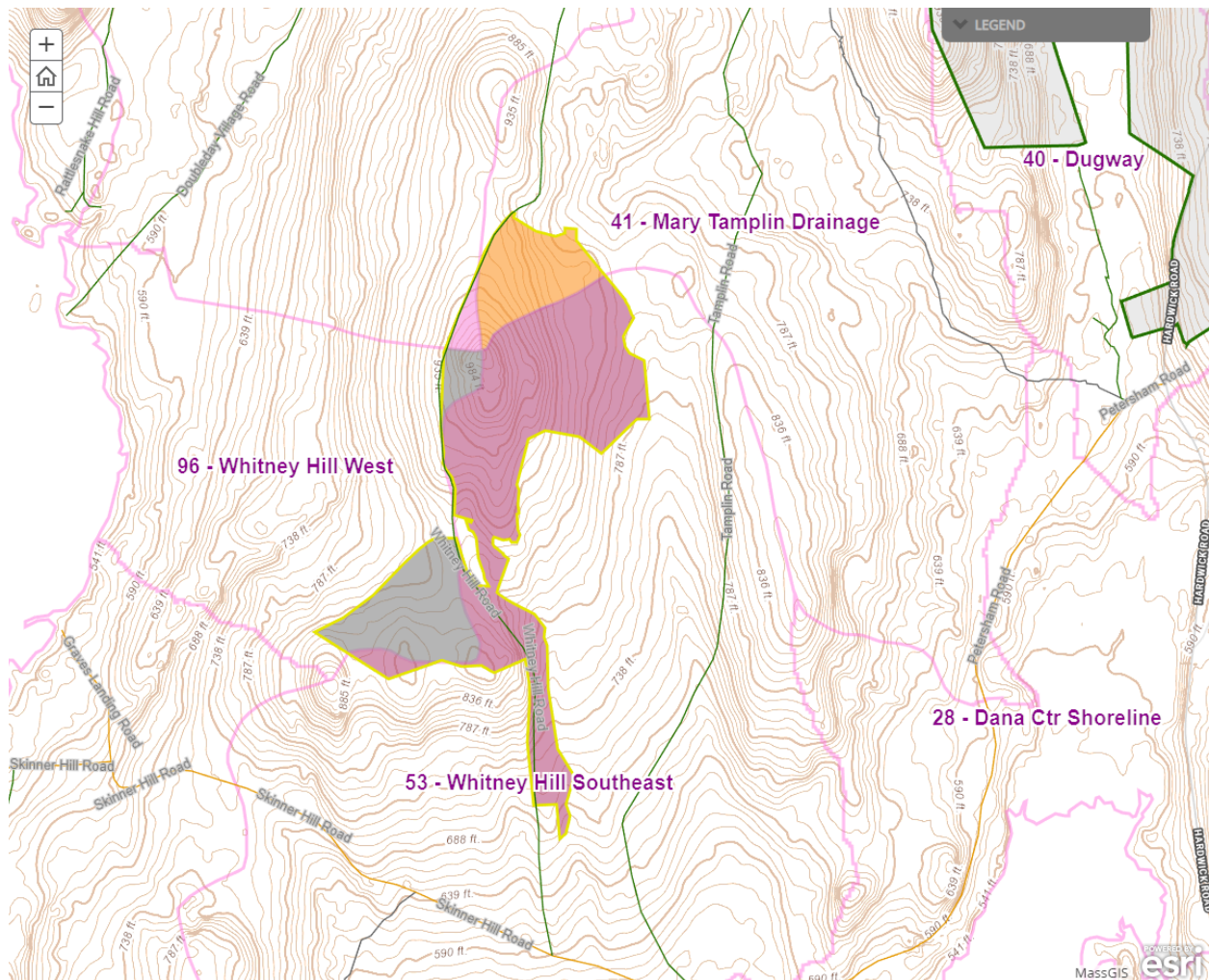
Scattered wildlife trees, standing dead, healthy individuals of all species present, and individuals with superior form and vigor will be retained throughout proposal to preserve habitat, maintain or increase diversity, improve overall stand health and vigor and retain some carbon storage and increase the growth rate (carbon sequestration) of the retained trees. One of the main silvicultural goals across the proposal is to diversify species and age structure by regenerating openings with free to grow regeneration, that should stay vigorous for at least 10 years. These openings should also encourage species that are better adapted to our changing climate to become established.



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
41 (Mary Tamplin)	746	6	181	26
53 (Whitney Hill Southeast)	1082	39	231	114
82 (East Branch Fever Brook)	5557	19	1371	4
96 (Whitney Hill West)	328	35	47	38

Proposed harvesting will not exceed the 25% threshold.



Harvesting Limitations

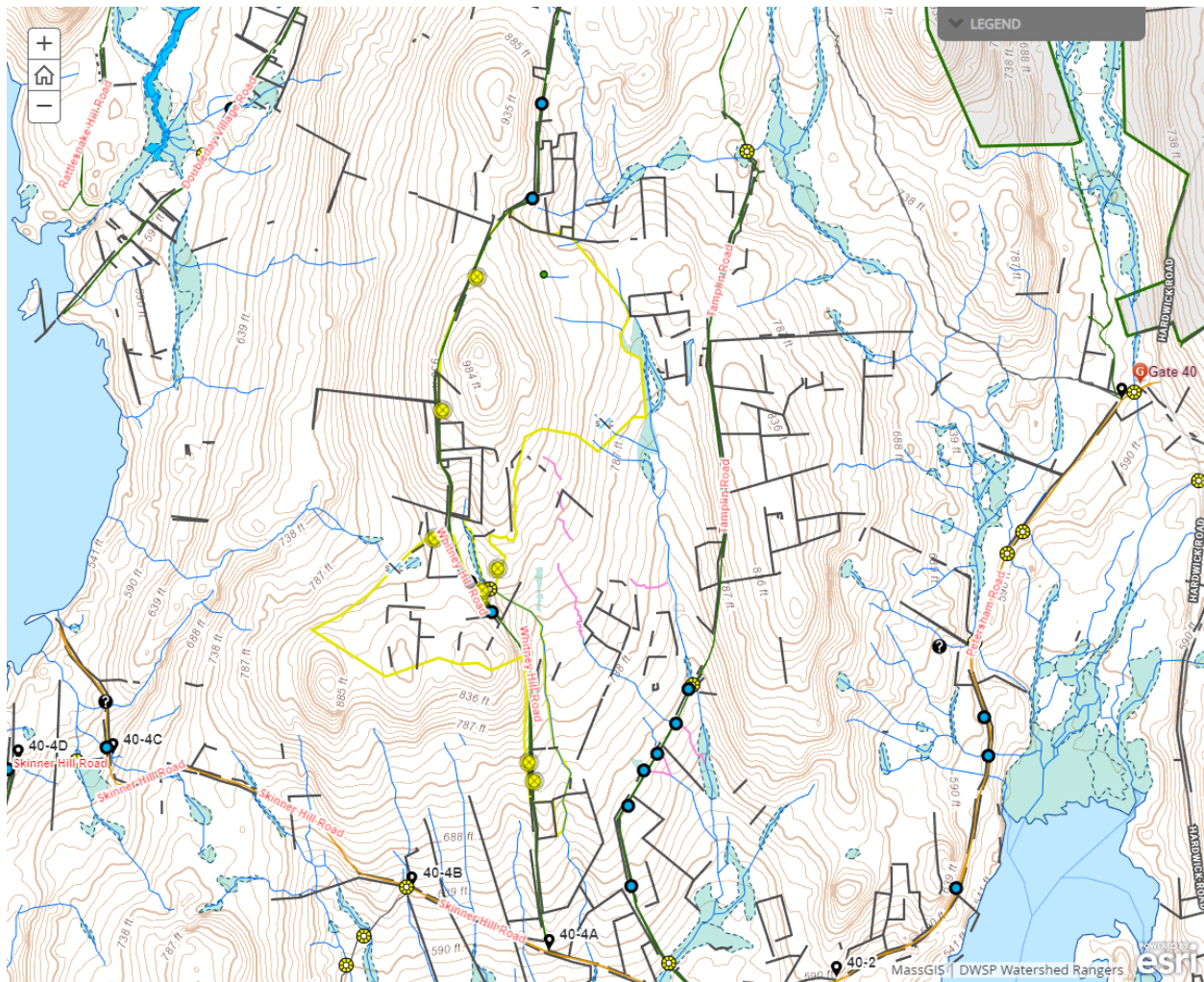
Forwarder required: **Yes**

Feller/processor required: **No**

Steep slopes present: **No**

Comments on harvesting limitations:

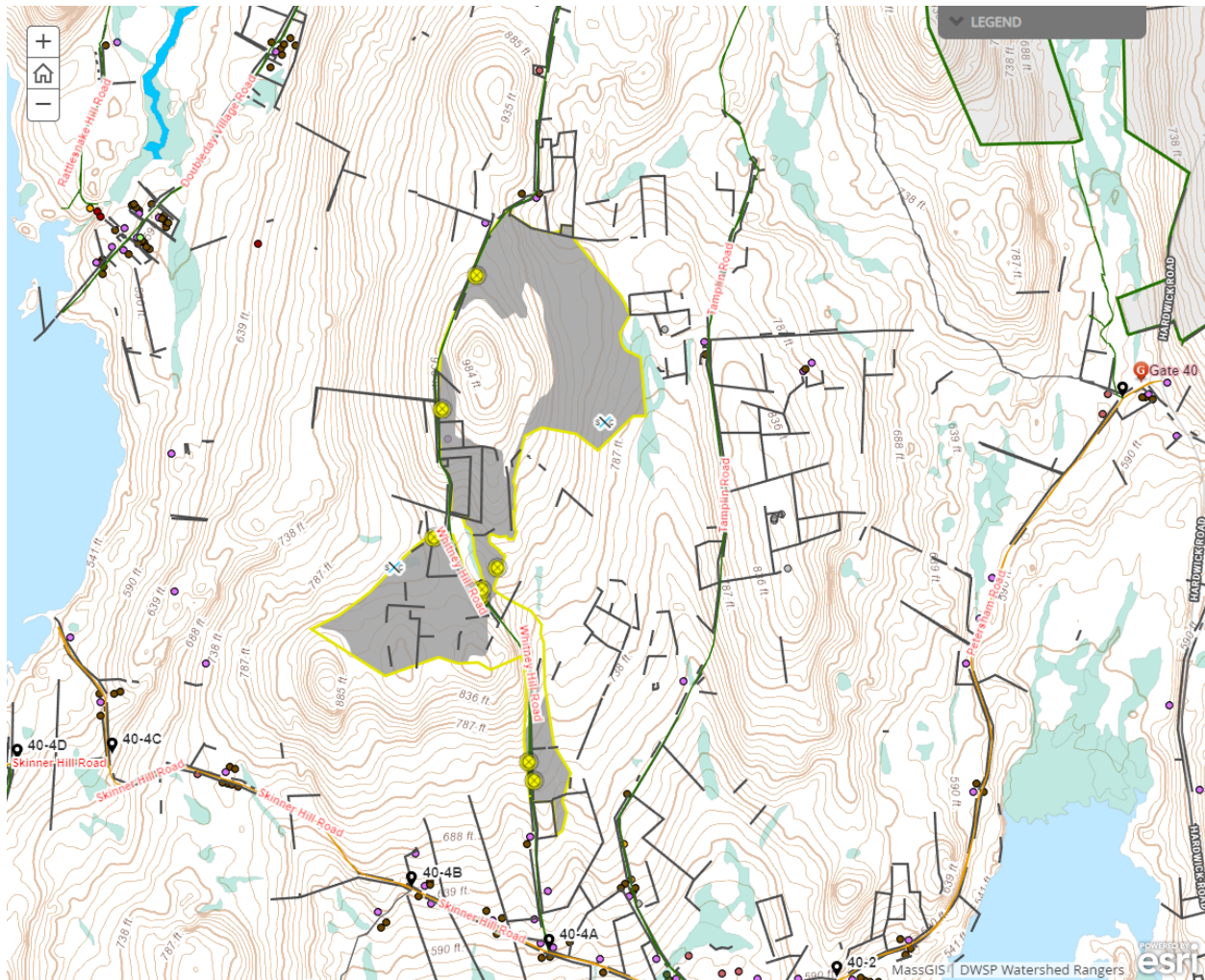
Due to the small, mostly roadside landings, and prevalence of stone walls and other cultural resources, a 6- or 8-wheel forwarder with tracks available will be required. Some trees will be cut within filter strip so a cable should also be available.



Cultural Resources

Comments on Cultural Resources:

Surface stone and irregular microtopography is prevalent throughout the whole lot. There is one cellar hole just off the road on the western portion of proposal and there is one just off the proposal east of the trailer turn-around/landing. No wells were found on the lot. There are numerous stone walls, particularly along Whitney Hill Road and the western portion of proposal.



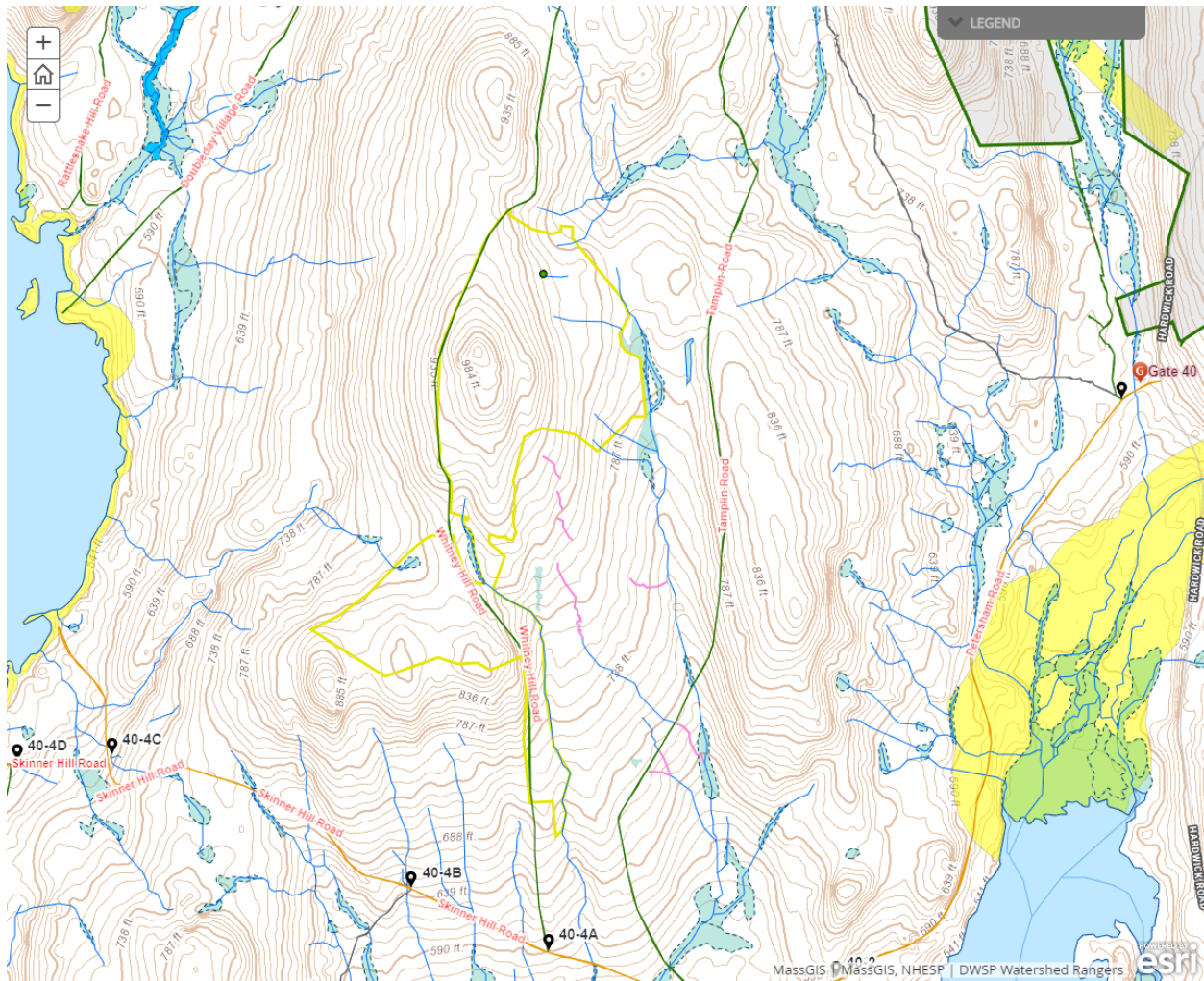
Wildlife Resources & Rare and Endangered Species

General Wildlife Comments:

Lots of sign of deer and moose and the logger on the abutting harvest has trail camera photos of 5 different moose using this area. Bear and turkey are known to use area and a woodcock was seen near the eastern wetland.

Comments on Rare Species/Habitats:

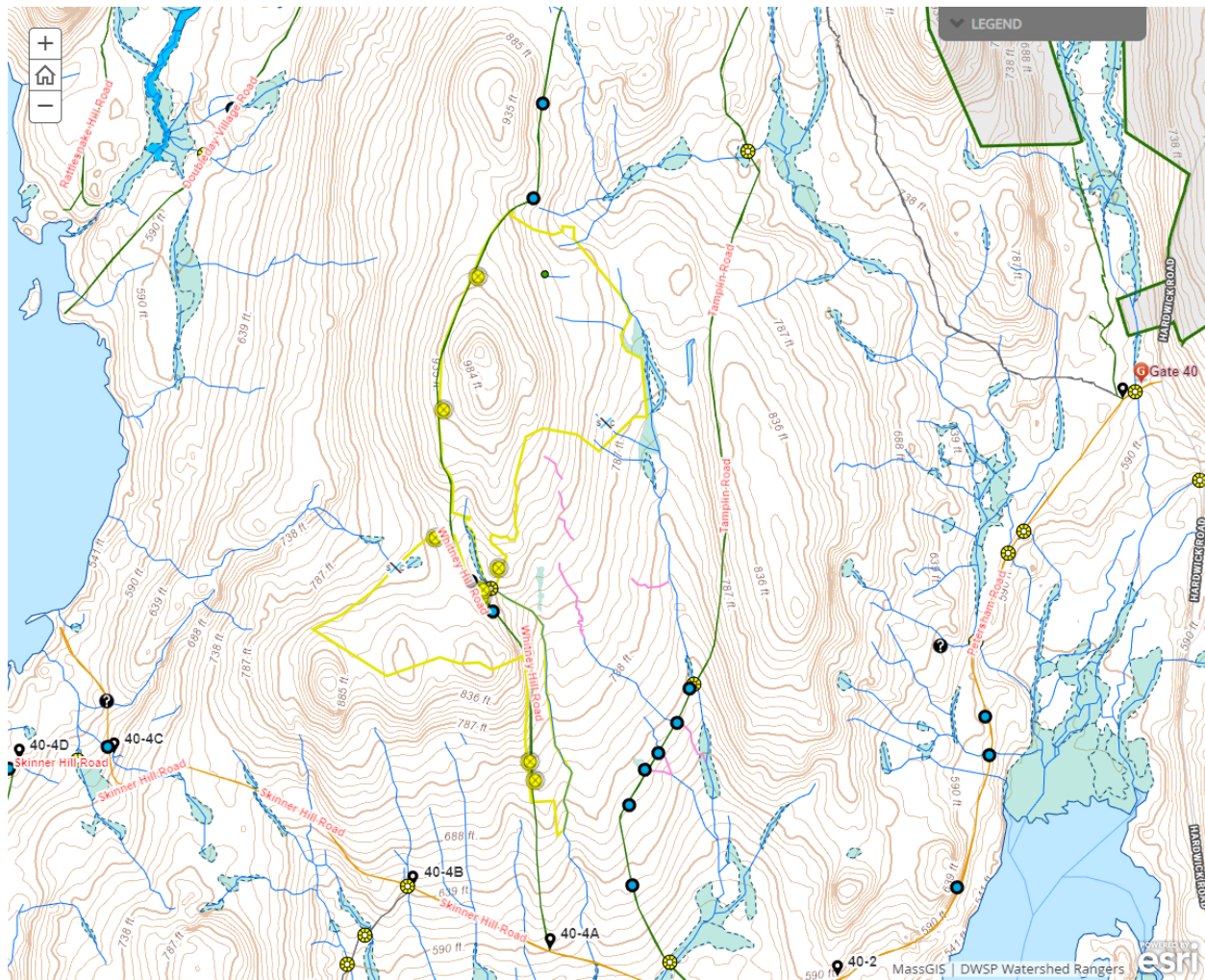
There is a small, probably dug, pool in a seep which drains into the large eastern wetland. It was checked this year and has no eggs or vegetation and was classified as not a pool. No other rare habitats or species observed. No NHESP habitats located within the proposal area.



Environmental Quality Engineering

Comments on EQ Issues:

There is a small wetland and 1 intermittent stream crossing both of which are only seasonally wet and have been crossed before. Bridging and other protection measures will be used as needed.



Forest Access Engineering

Gravel needed: Yes

Landing work needed: Yes

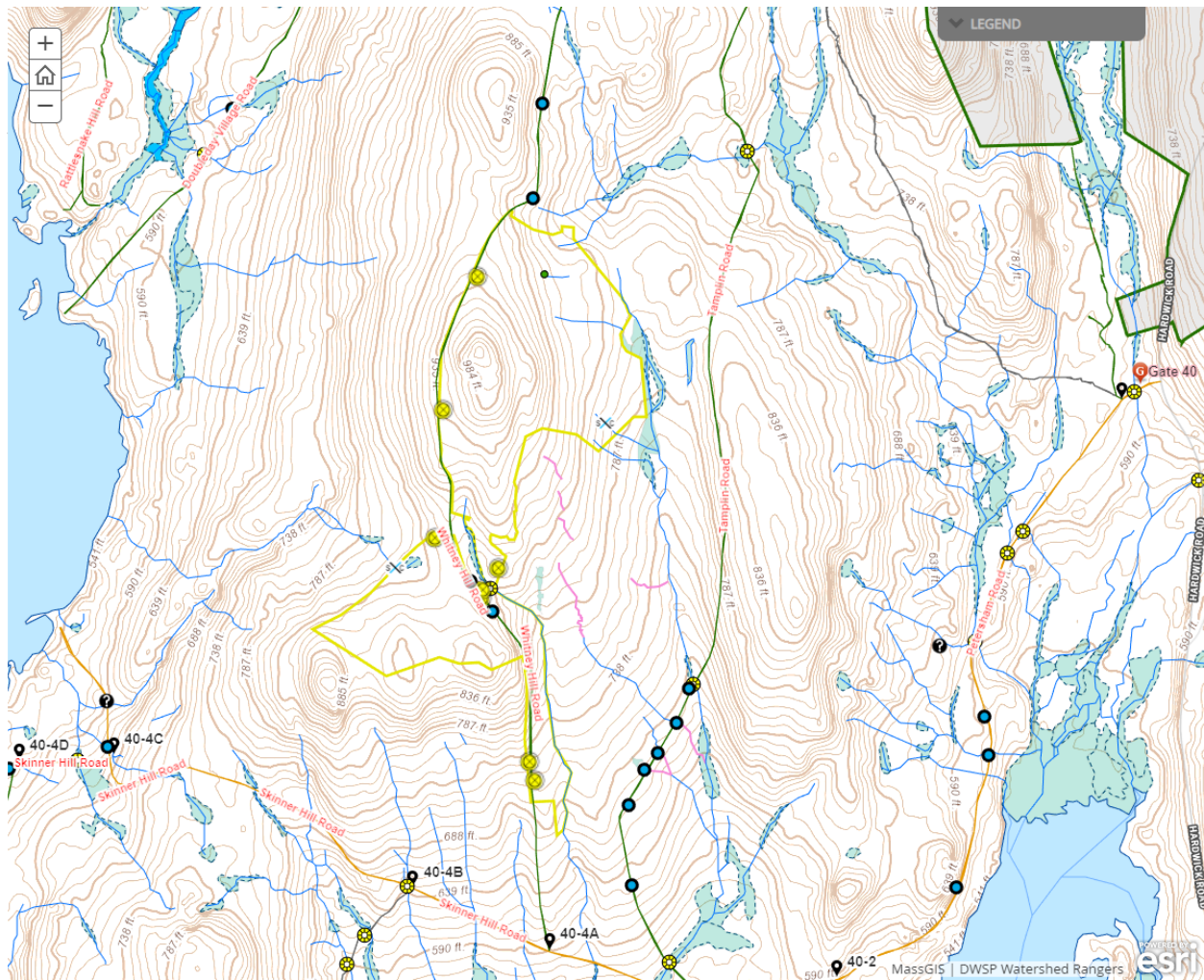
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: None

Further comment on access needs:

Whitney Hill Road needs general maintenance on the hill portion. Water bars in particular need to be improved along with ditch which is lacking on portions. The existing northern landing needs to be improved and enlarged preferably to allow for trailers to turn.



DWSP FY 2022 Forestry Proposals – Master Legend for story maps

