

Quabbin Harvest Proposal PR-20-19

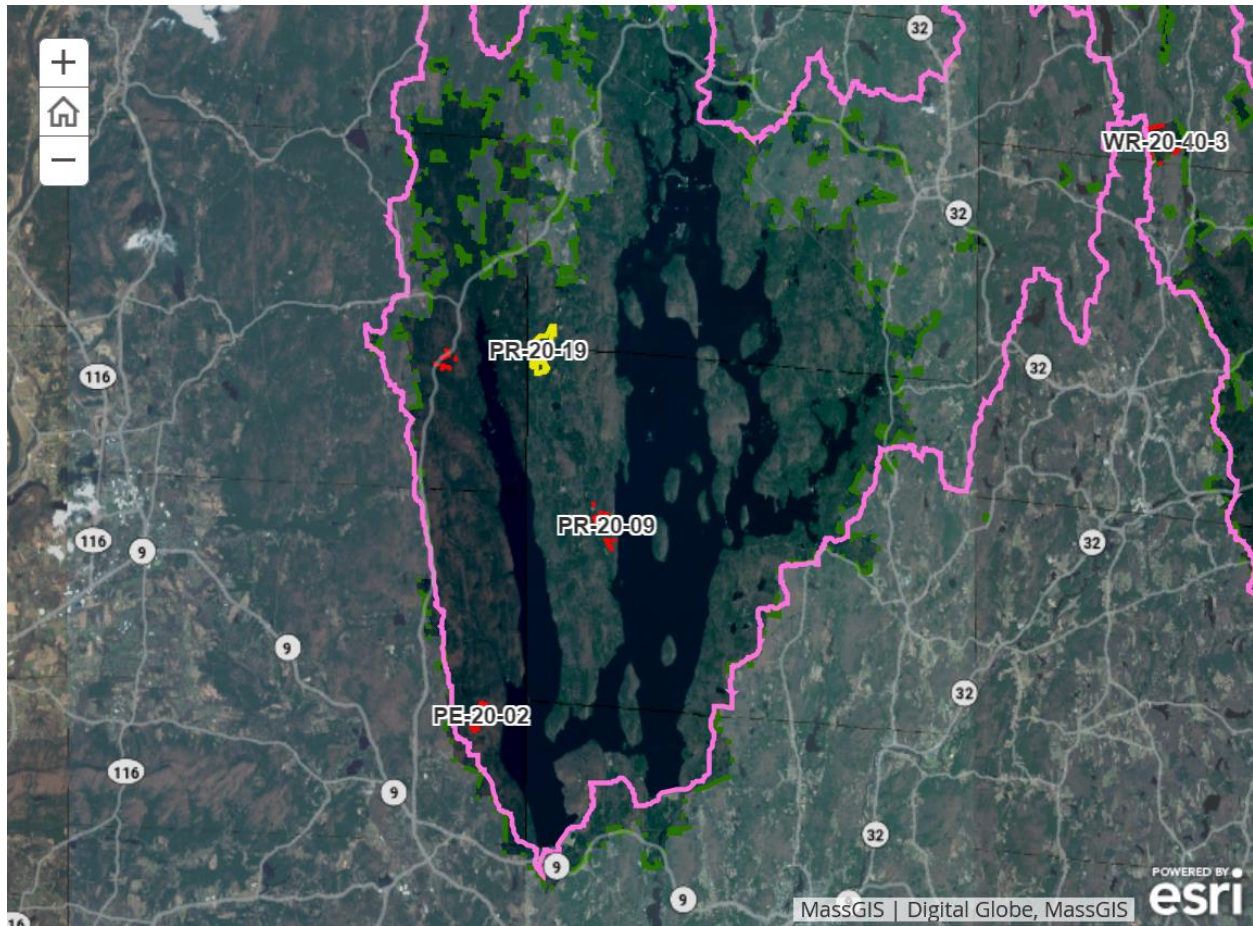
Proposal Goals

The area has been selected to continue fostering diversity of forest composition. The northern half has well established regeneration that would benefit from additional light blocked by overstory competition. The southern half has sparse understory and would benefit from development of a regeneration layer. Both sections have small inholdings of red pine in poor health that should be removed.

Proposal Location

The proposal is located between Fish Hill Road and Barnes Road along the west side of North Prescott Road (Gate 20). It is bounded on the south and west by Dickey Brook, and north by a watershed divide.

Total Acres: 154



General Description

	Overstory Type(s)	Acres
Dominant	White pine/hardwood	121
Secondary	Northern hardwoods	30
Secondary	Red pine	3

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

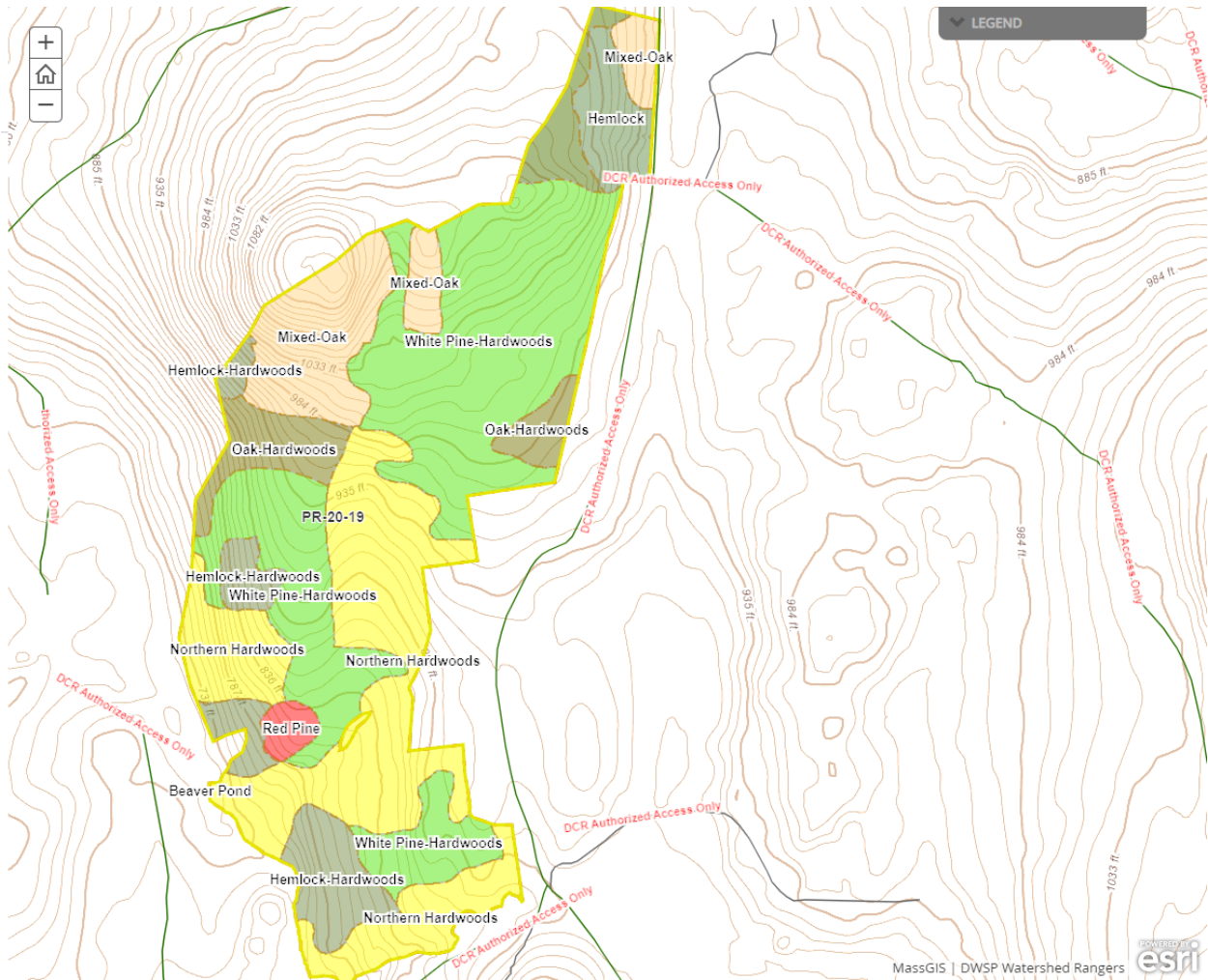
Description of forest composition/condition:

The northern three quarters of the proposal area overlaps (and extends a little further north and west) a summer 2000 seed prep harvest. That harvest created a two age structure composed of overstory white pine and mixed hardwood (red maple, birch, ash, oak, and cherry). Most of the understory is black birch saplings/poles. Overstory timber quality is quite variable ranging from average to low-quality white pine and average to better quality hardwood. A small inholding (2 acres) of red pine covers the southerly tip of the 2000 harvest area.

Two main forest types encompass the southern quarter. High canopy white pine/hardwood covers the upper slope. Descending, cover transitions to high canopy red oak/northern hardwood. In addition, the lower slope has a mid-canopy of hemlock. Little understory exists due to a generally closed canopy. Black birch sapling/poles are found in small gaps from a 1977 thinning. The section is also home to quarter acre red pine plantation.

Assessment of Terrestrial Invasive Species:

Generally speaking, field observation has lead to the conclusion that the highest concentrations of invasives are found in and around remains of old homesteads and water resources. To the east, much of the proposal abuts arable soil areas historically used for row crops by former residents. The central part of the proposal area is home to a few intermittent brooks that have varying densities of Japanese barberry and honeysuckle within/alongside them. There is at least one known location of Asiatic Bittersweet and multiflora rose near an intermittent brook at the north end of the area.

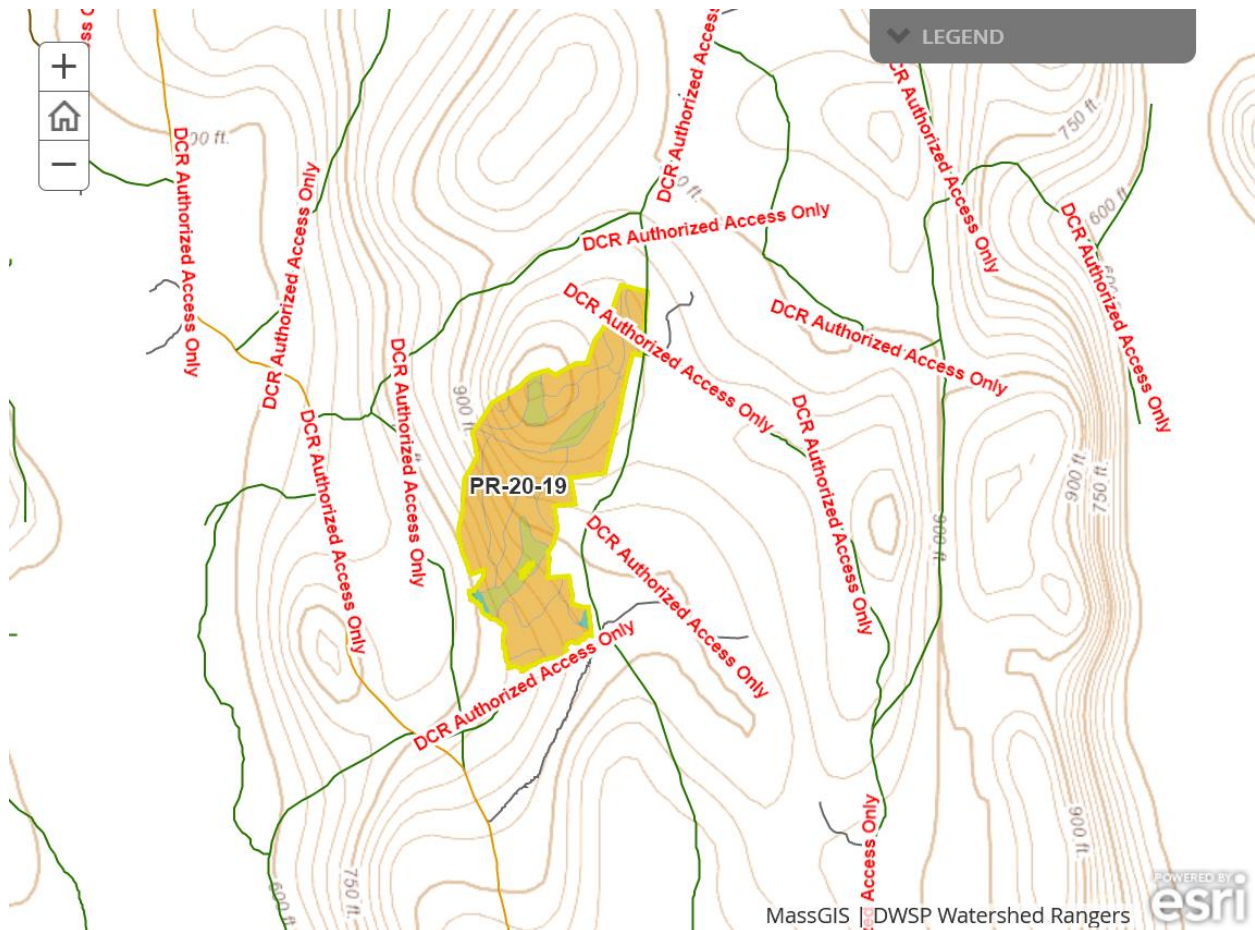


Soils

Drainage Class	%
Excessively Drained	0
Well Drained Thin	0
Well Drained Thick	85
Moderately Well Drained	10

Poorly to Very Poorly Drained	5
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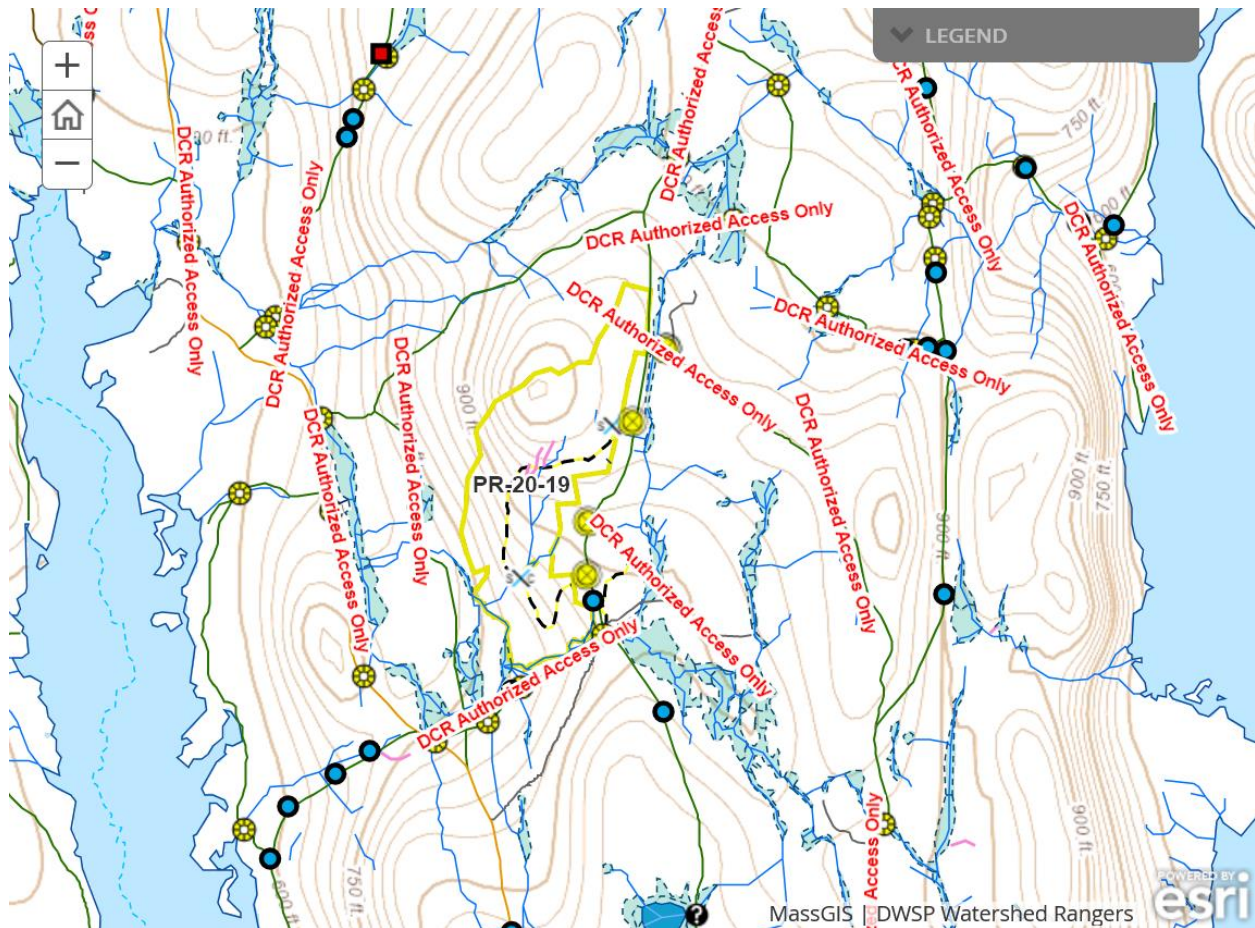
The rocky Canton-Chatfield-Hollis soil series encompass most of the area. Moderately well drained portions are covered by a stony Scituate fine sandy loam. Poorly drained soils are split between Ridgebury gravelly loam and Whitman stony mucky loam.



Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- Vernal pools present? - **No**
- Seeps present? - **Yes**
- Are stream crossings required? - **Yes**
- Are wetland crossings required? - **No**
- Is logging in filter strips planned? - **Yes** ([Riparian Zone Mgt](#))
- Is logging in wetlands planned? - **No**

There will be no more than two stream crossings. Hopefully this will drop to one with the possible relocation of a main skid road. Both crossings would be over intermittent water courses.



Silviculture

Acres in Intermediate cuts: **0**

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

Acres in Regeneration cuts: **25**

Average regen opening size: **1**

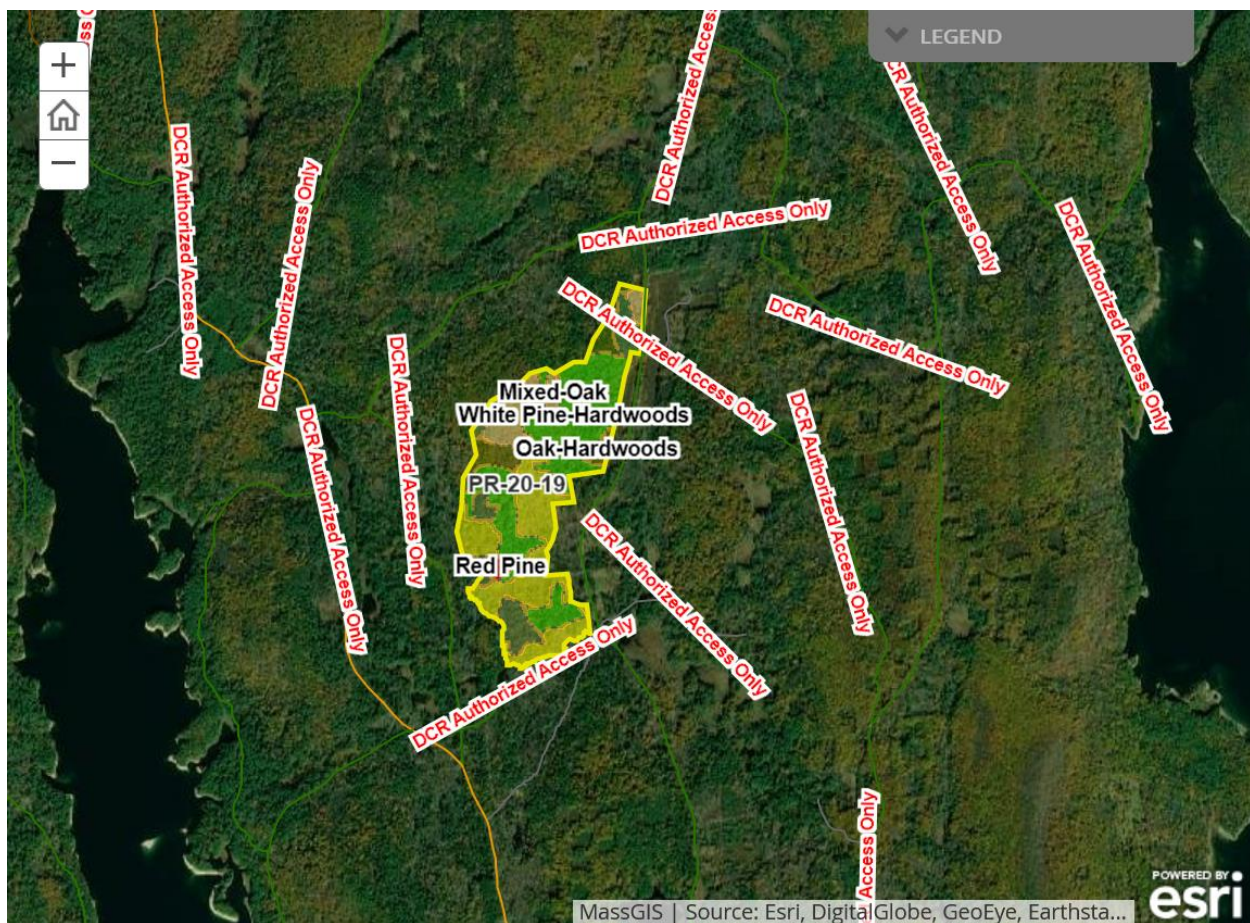
Maximum regen opening size: **4.5**

Description of advance regeneration in proposal area:

The northern three quarters has dense sapling/pole black birch, red maple, white pine, ash and cherry. Generally, regeneration is light in the southern quarter, although the southeast portion does have a dense broadcast of sugar maple seedlings that are worthy of release. The remainder of the south quarter has small gaps of mainly black birch sapling/poles.

General comments on silviculture proposed:

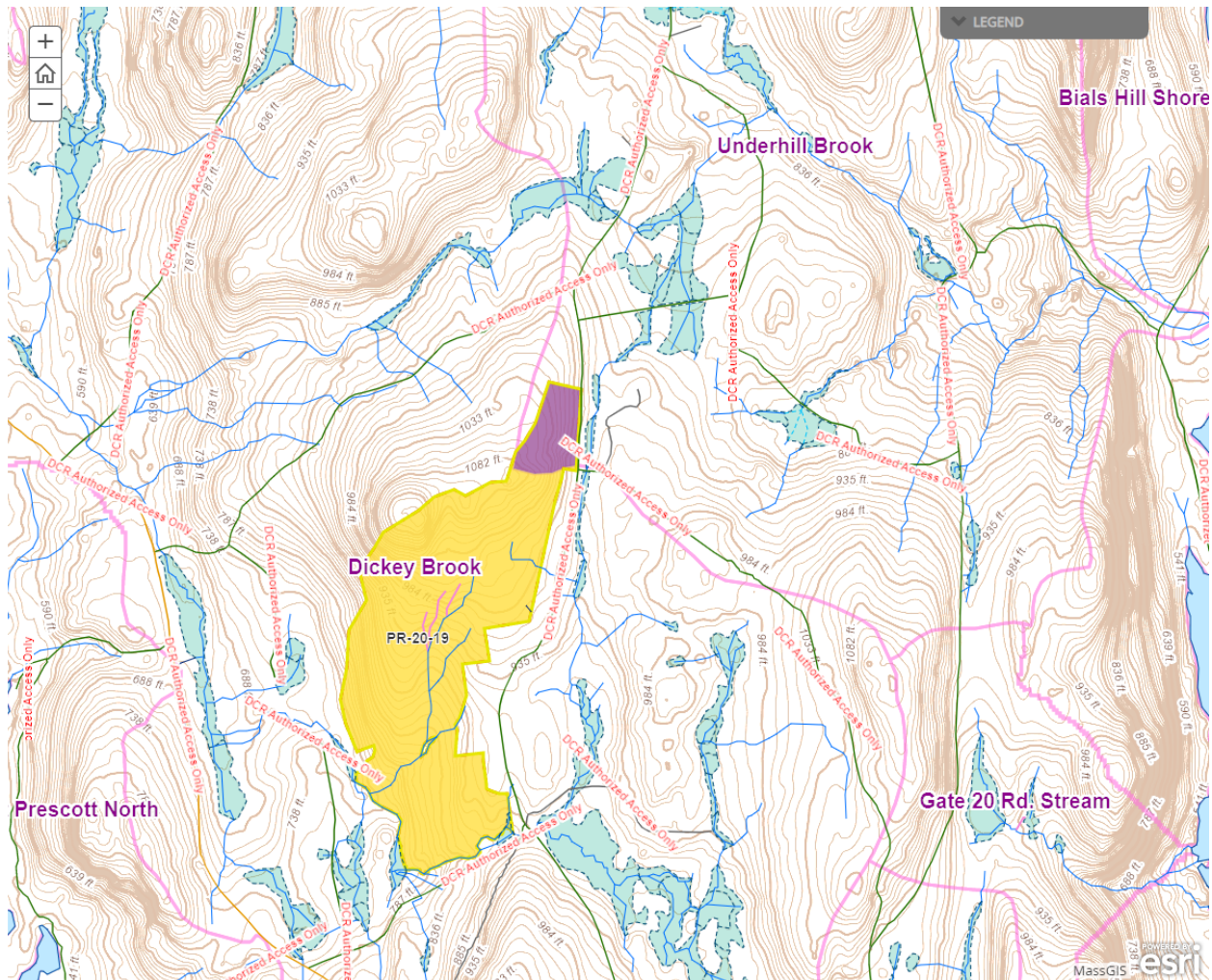
Broadly, the primary goal is to foster young forest development. It will be achieved by creating canopy openings that allow young forest to develop unencumbered by direct overstory shade. Some openings may favor the well established pole-sized regeneration that has been developing since the 2000 harvest. Other openings will likely be placed to remove the small red pine inholds paving the way for native trees to colonize these plantations. Additional priorities for opening placement are areas of poor quality overstory and/or advance regeneration.



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
57 (Dickey)	2779	55	640	145
45 (Underhill)	1365	58	283	9

The proposed acreage of regeneration cuts falls below the 25% threshold.



Harvesting Limitations

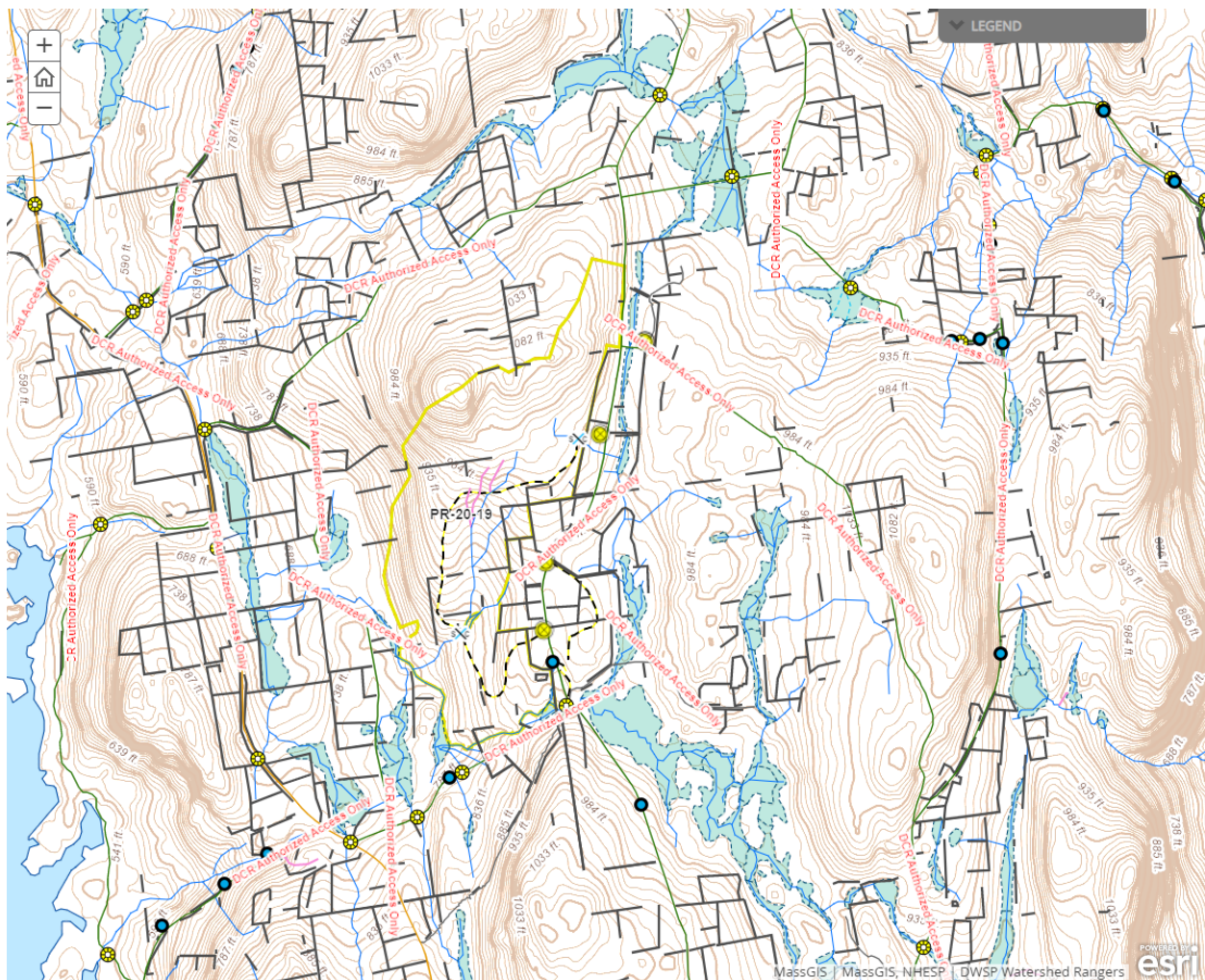
Forwarder required: **No**

Feller/processor required: **No**

Steep slopes present: **No**

Comments on harvesting limitations:

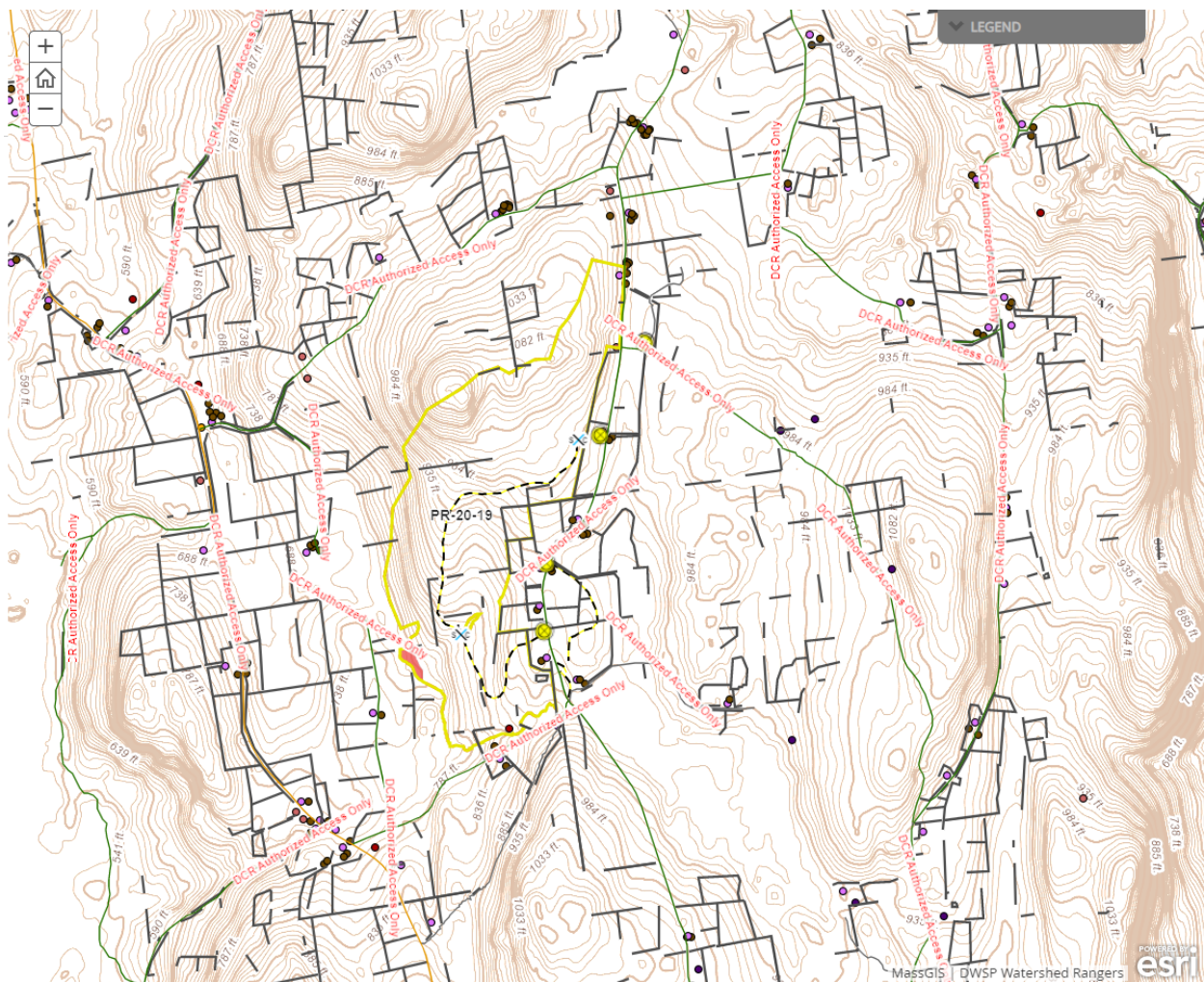
The proposal area may end up as two separate projects with different harvesting systems. The northern half may need a chipping operation to reasonably handle the significant stocking of poor quality timber. This would have to be weighed against existing pulp markets and potential impacts to cultural resources, namely stone wall.



Cultural Resources

Comments on Cultural Resources:

There is a cellar hole in the very northeast corner of the area (along the gate 20 road). The very southeast corner of the area is home to a stone wall dam likely associated with an old mill on Barnes Road. All foundations located near harvest operations will be flagged and protected. Stone walls will be flagged and avoided as much as possible. Existing barways will be used where feasible and harvest layout will protect walls as much as possible. If applicable DWSP will follow any additional recommendations from DCR's Archeologist regarding protection of sensitive sites.



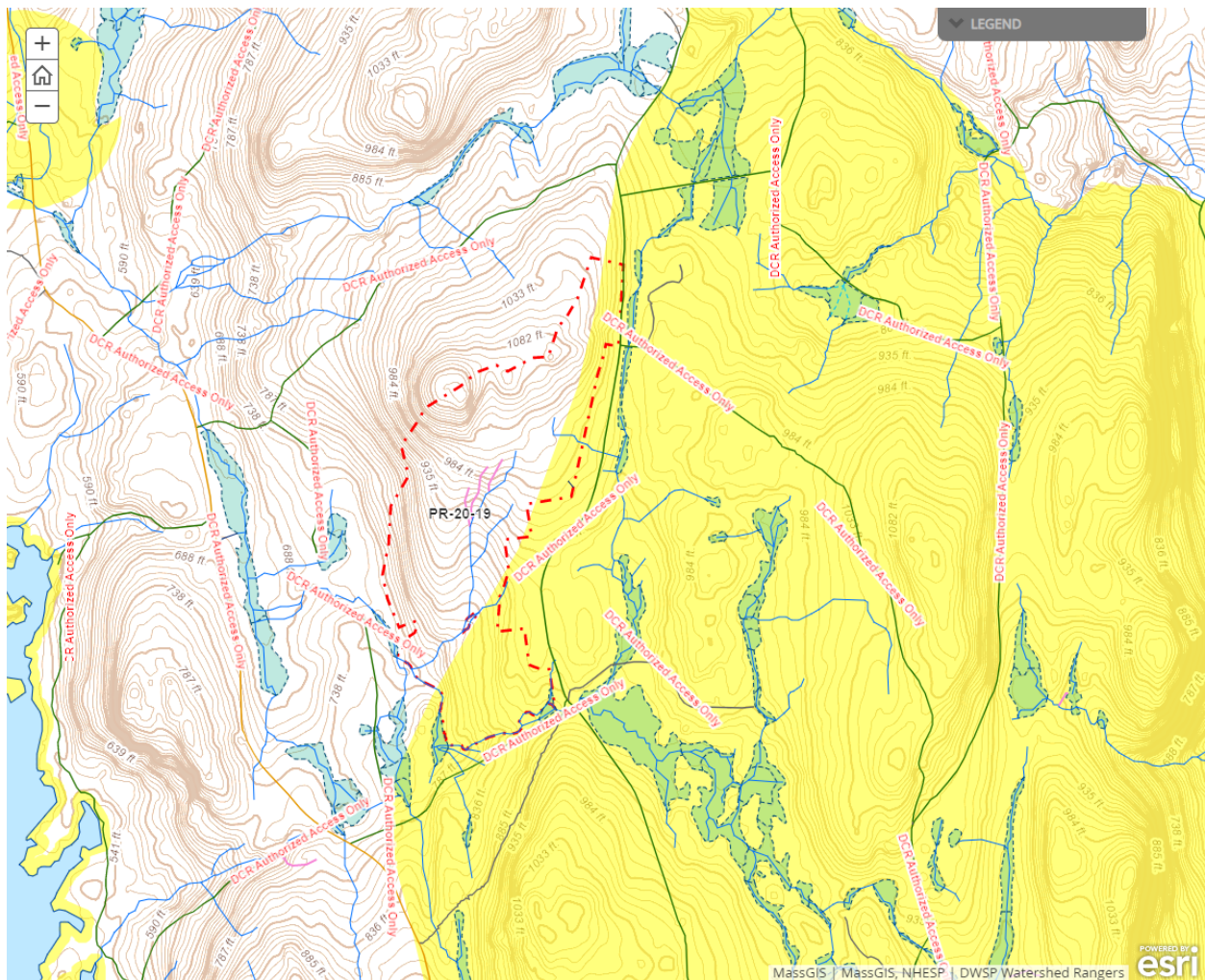
Wildlife Resources & Rare and Endangered Species

General Wildlife Comments:

No vernal pools.

Comments on Rare Species/Habitats:

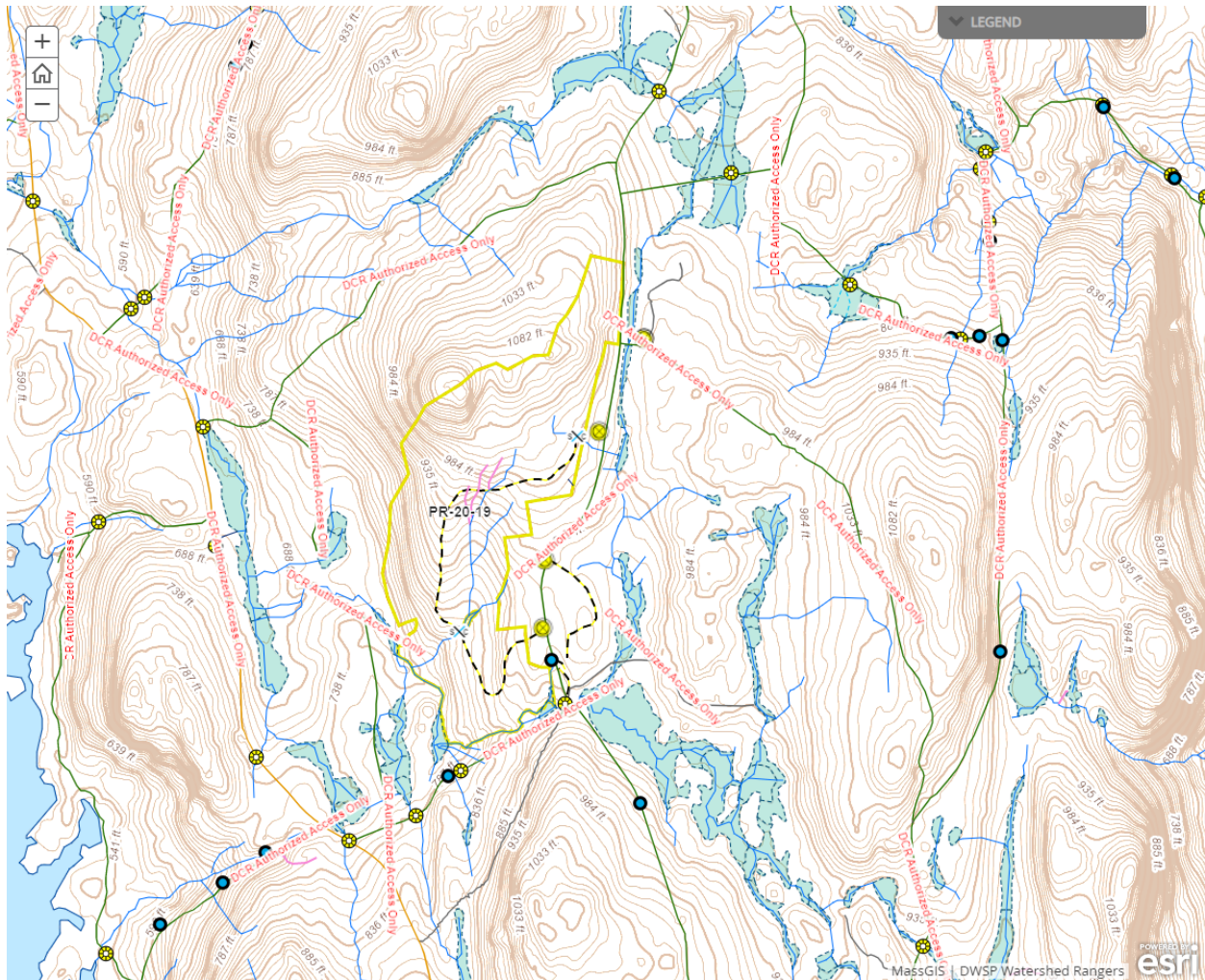
NHESP has determined that certain state-listed sensitive species or habitats may exist within the lot proposal area. To protect them from unnecessary disturbance, detailed information regarding affected species and their locations is not included in this report. DWSP will coordinate with NHESP and follow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



Environmental Quality Engineering

Comments on EQ Issues:

No stream crossings will be monitored here as they are dry much of the year.



Forest Access Engineering

Gravel needed: Yes

Landing work needed: Yes

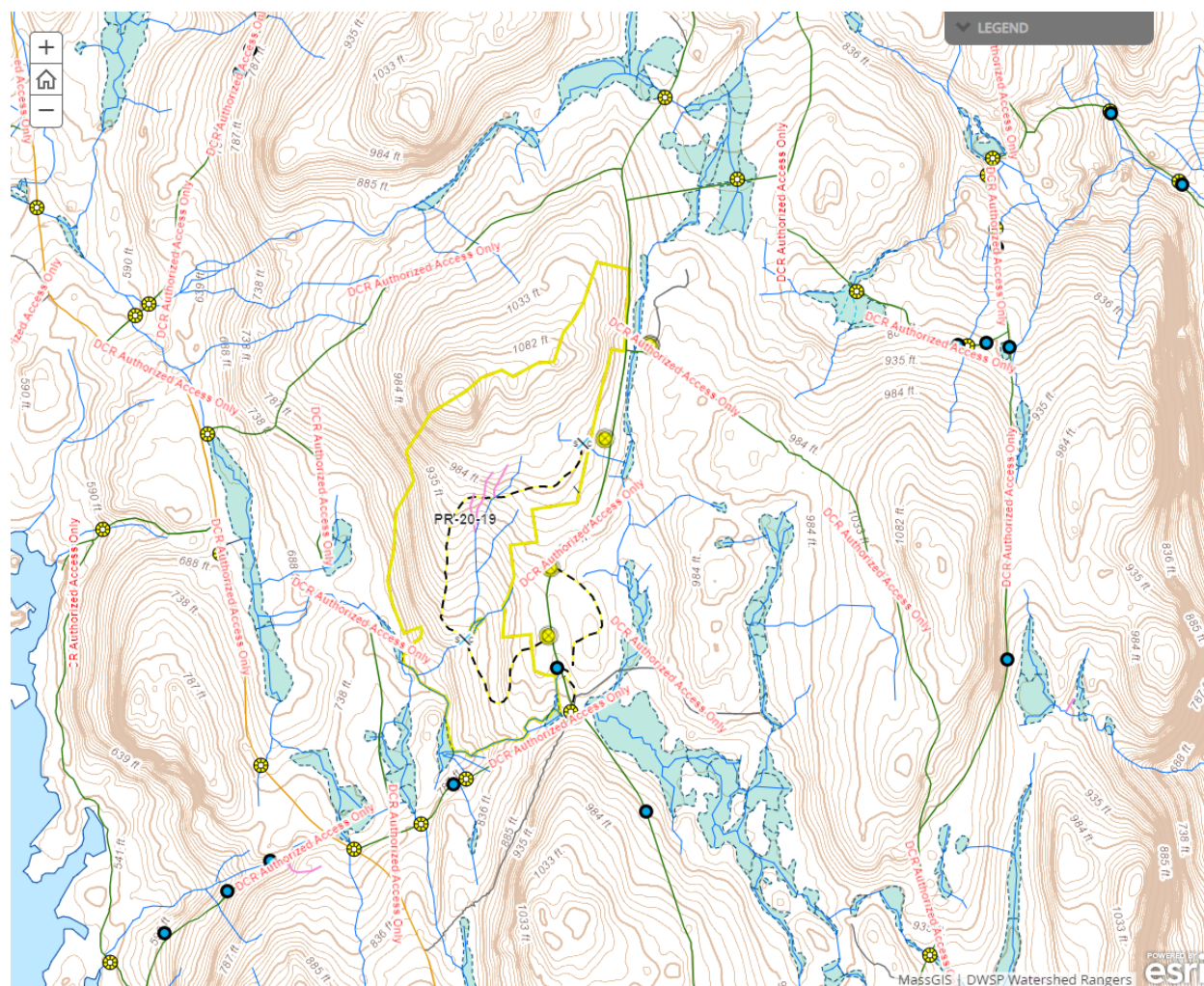
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

Further comment on access needs:

Landings may need gravel to support trucks.



DWSP FY 2020 Forestry Proposals – Master Legend for story maps

