

Quabbin Harvest Proposal WR-19-20-3

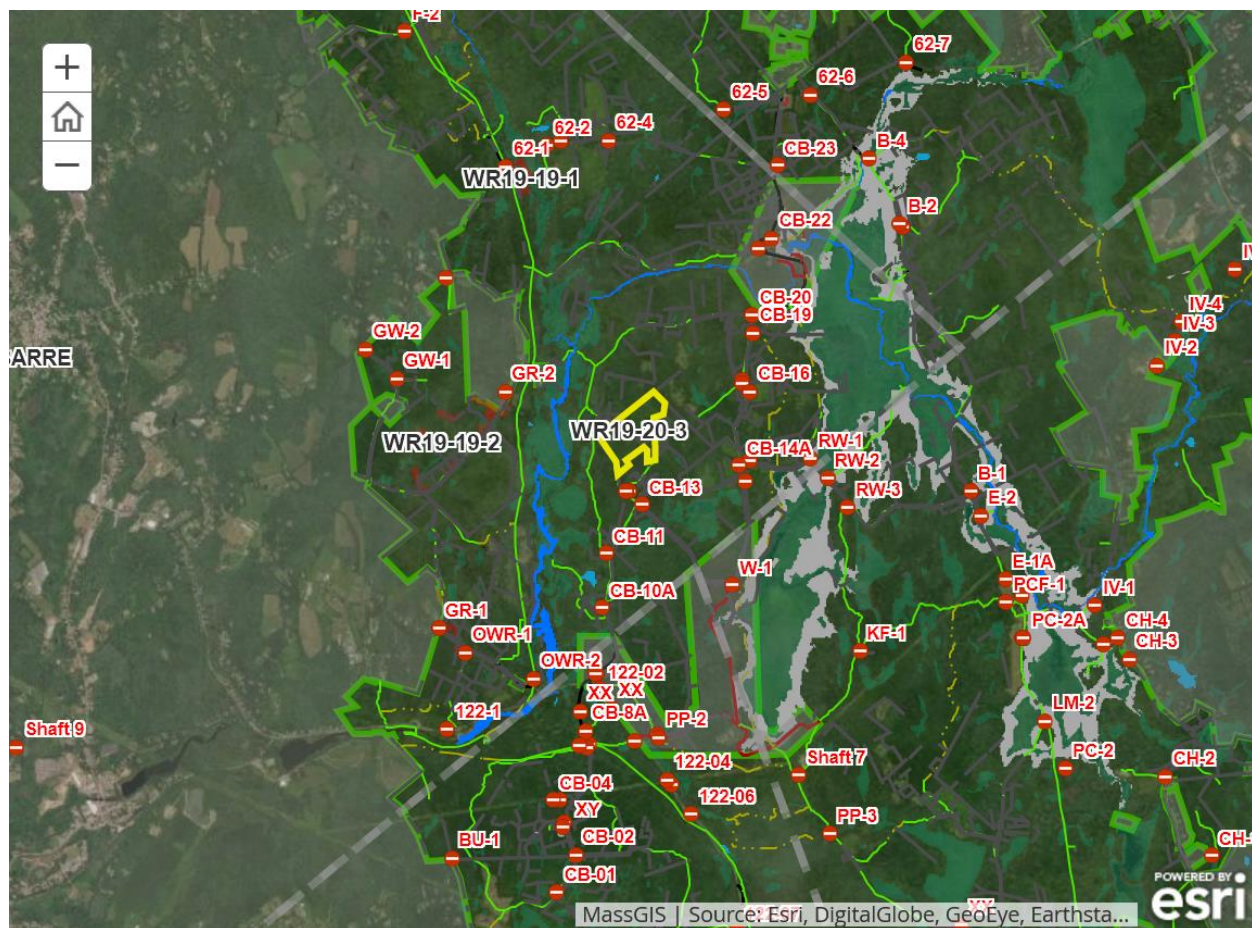
Proposal Goals

The goal of this proposal is to create a large (20 to 25 acres) patch of young forest. Young forest provides important habitat for many species of plants and animals and is generally in short supply in the forests of the northeast.

Proposal Location

This proposal is located on Harding Hill, and is part of the Young Forest Focus Area that was identified in the 2017 Quabbin/Ware Land Management Plan.

Total Acres: 48.4



General Description

	Overstory Type(s)	Acres
Dominant	White Pine/hardwood	33
Secondary	Oak/hardwood	12.4
Dominant	Norway Spruce	3

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

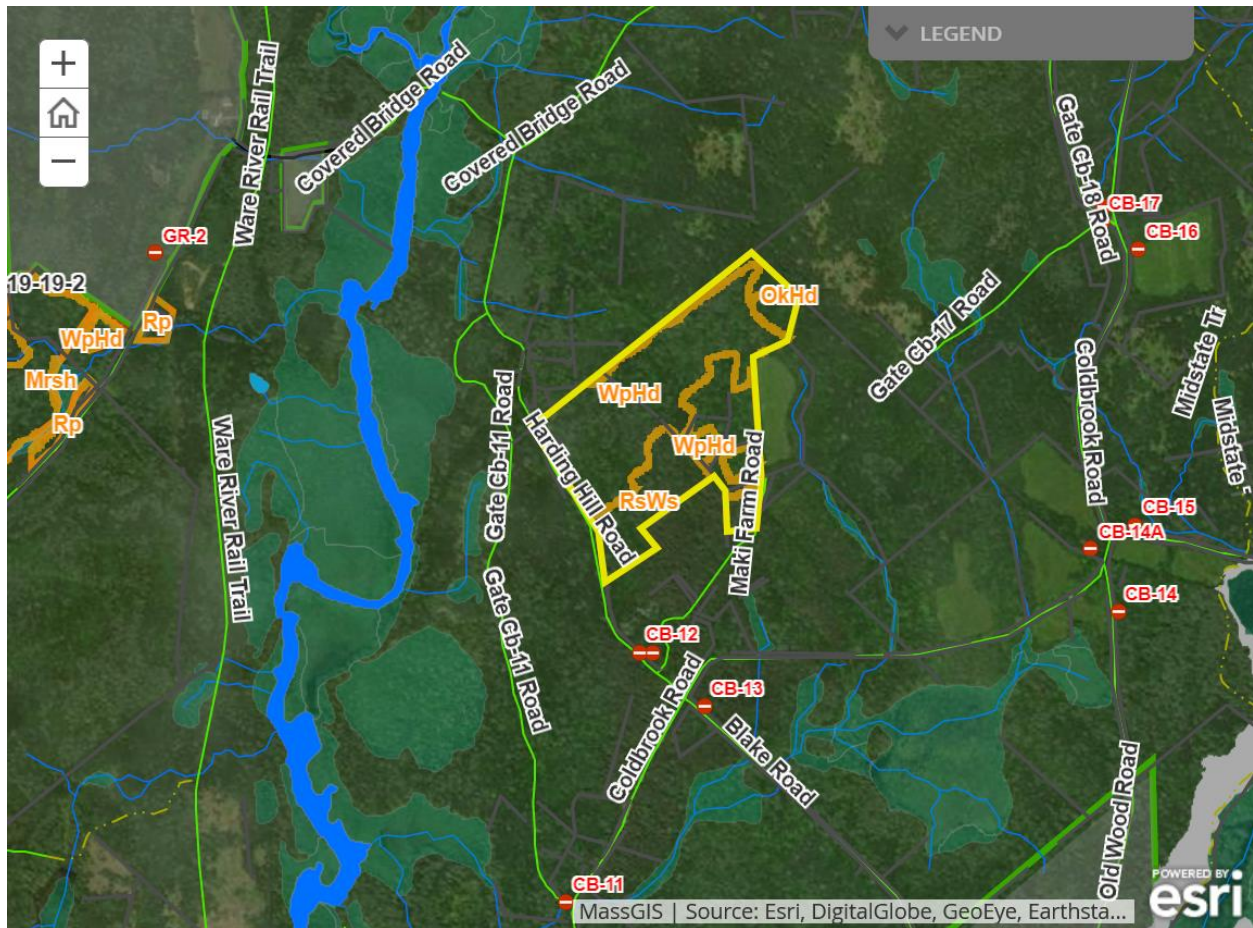
Description of forest composition/condition:

The entire lot is old pasture land. Some small rock outcroppings exist in the middle of the lot. A 4 acre field is located directly adjacent to the east of the lot. The field is mowed by DWSP staff. A portion of the field may be used as a landing.

The spruce stand was thinned in 1995 as part of lot 217. Larch was removed from the hardwood stand next to the mowed field at that time as well. Some cutting was done adjacent to Harding Hill Rd, that was prior to 1995. It appears that white pine was harvested, leaving scattered large diameter white pine with low quality pole sized hardwood underneath.

The white pine/hardwood stand is fully stocked and dominated by mature, sawlog size white pine of varying quality. The stand averages approximately 170 square feet of basal area per acre, approximately 70% of which is white pine. In general, the white pine northwest of the mowed field is good quality. The quality decreases as you move down slope. Red maple, white ash, and red oak are the dominant hardwoods that are present in the overstory and comprise roughly 25% of stand basal area. The red maple and ash are poor quality, while the red oak ranges from good quality to poor quality. Black cherry, black birch, aspen, sugar maple, paper birch, and white oak are also present in the overstory. There is a small patch of 10 or 15 mature pitch pines present in the central part of the lot, north of the spruce stand. Tree seedlings and saplings of many species are present throughout the stand. Species observed include red and white oak, red maple, red spruce, white pine, American beech, hickory, and hemlock.

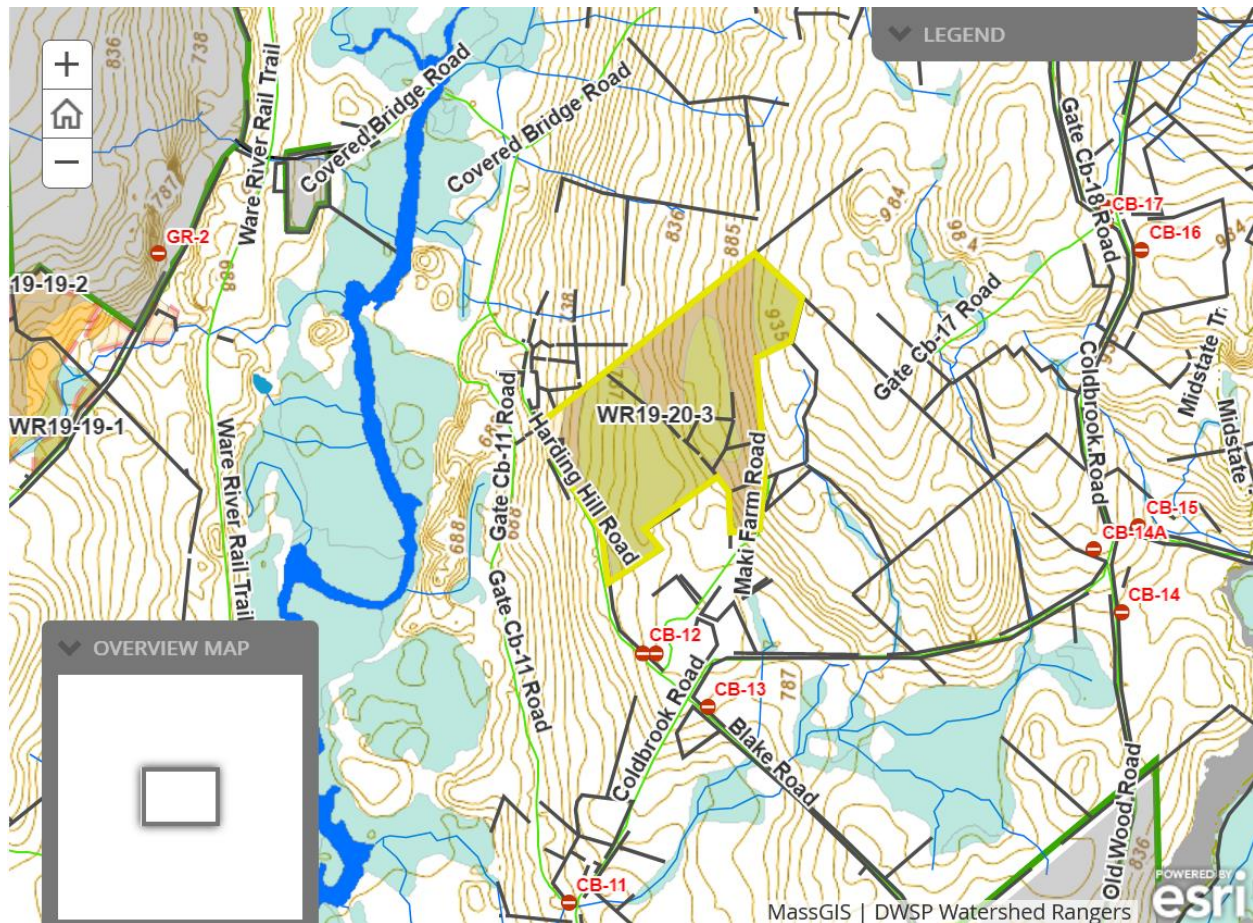
The oak hardwood stand is well stocked with an average of approximately 125 square feet of basal area per acre, approximately 20 square feet per acre of acceptable growing stock. Sawlog size red oak of variable quality is present throughout the stand. Low quality white ash, red maple, sugar maple, larch, black cherry, and American elm are also present in the overstory. Seedling and sapling size trees of multiple species are present throughout the stand. Species observed include sugar maple, black cherry, red maple, striped maple, red and white oak, Norway spruce, and black birch.



Soils

Drainage Class	%
Excessively Drained	2
Well Drained Thin	0
Well Drained Thick	38
Moderately Well Drained	60
Poorly to Very Poorly Drained	0

Soils present include: 910 C Woodbridge-Paxton (29.2 acres) which is moderately well drained, 902E Charlton-Paxton (18.3 acres) which is well drained, and 253 E Hinckley loamy sand (0.8 acres) which is excessively well drained.

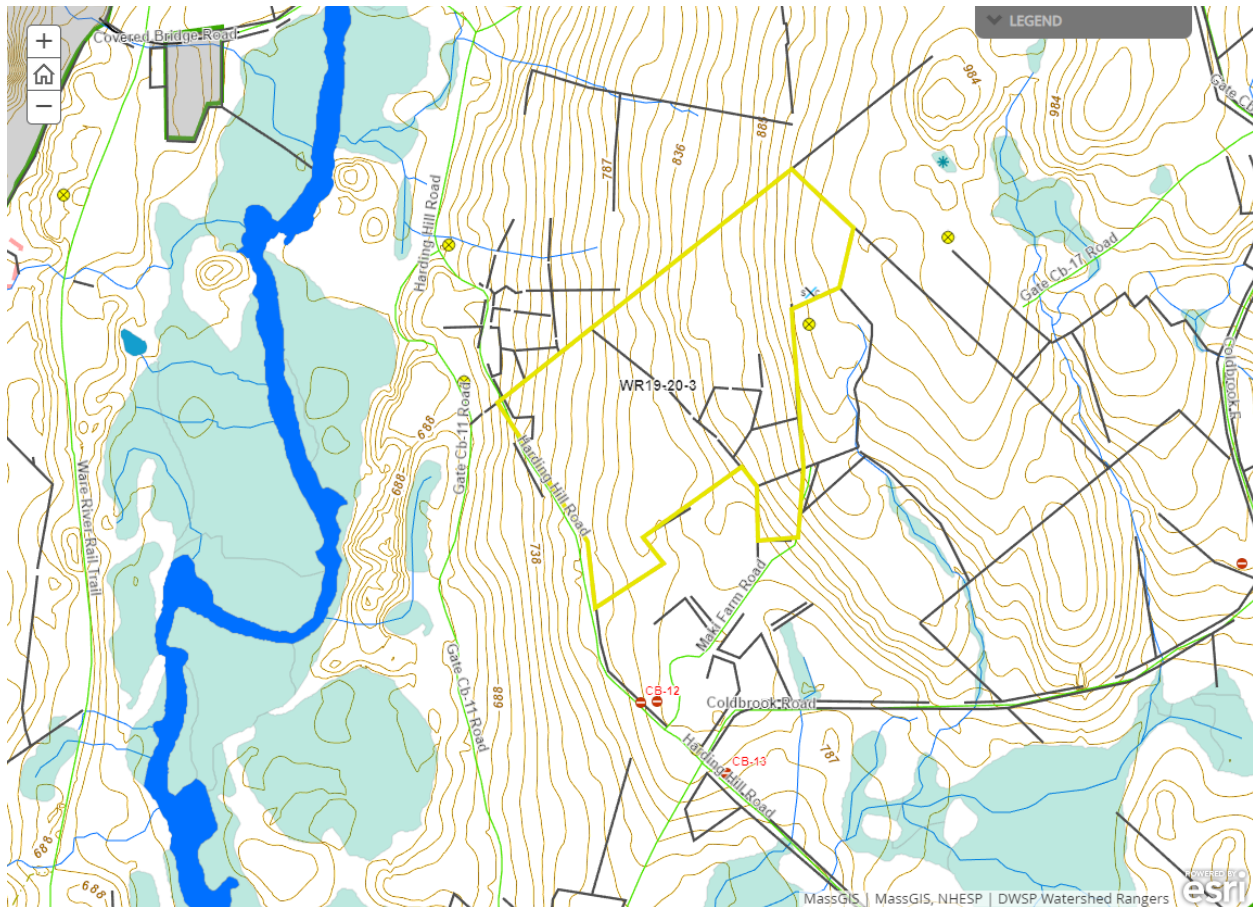


Wetlands

- **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
- **Is logging in wetlands planned?:** No

At least one seasonal stream will have to be crossed. It is just north of the edge of the mowed field. A good crossing spot has been located in the field. Several seasonal streams run

intermittently through the lot. There are several seeps present as well, particularly down the hill in the western part of the lot.



Silviculture

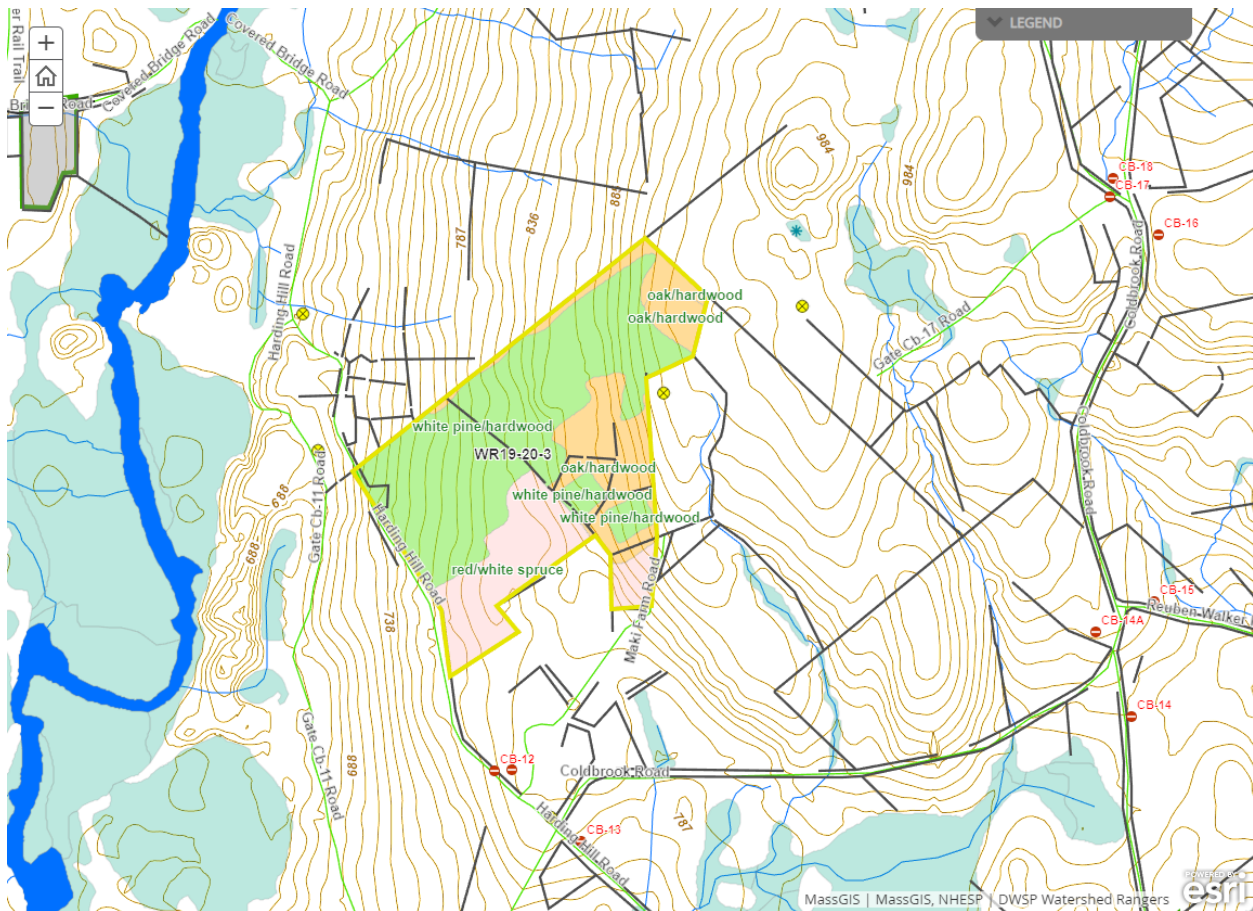
- Acres in Intermediate cuts: 0
- Acres in prep/establishment cuts: 0
- Acres in Regeneration cuts: 25
- Average regen opening size: 12
- Maximum regen opening size: 15

Description of advance regeneration in proposal area:

Tree seedlings and saplings of many species are abundant throughout the lot. Species observed include red and white oak, red maple, red spruce, white pine, American beech, hickory, hemlock, sugar maple, black cherry, striped maple, and black birch. Browse was light to medium throughout the lot.

General comments on silviculture proposed:

This lot is the first to be proposed as part of the Young Forest Focus Area in the Ware River Watershed. The objective on this lot is to establish large patches of young forest. The intent is to create 25 acres of young forest through two harvests conducted 3 years apart. The first harvest will be a clearcut of 10 to 15 acres adjacent to the mowed field. The second harvest will be a 10 to 15 acre clearcut adjacent to the initial cut 3 years later. Approval from the commissioner will be required. Individual or patches of overstory trees will not be retained for the sake of aesthetics. There are streams, seeps, stonewalls, and a possible vernal pool, as well as topography, that will lead to some overstory trees being retained in buffer and filter strips and some irregularity in the shape of the patches.

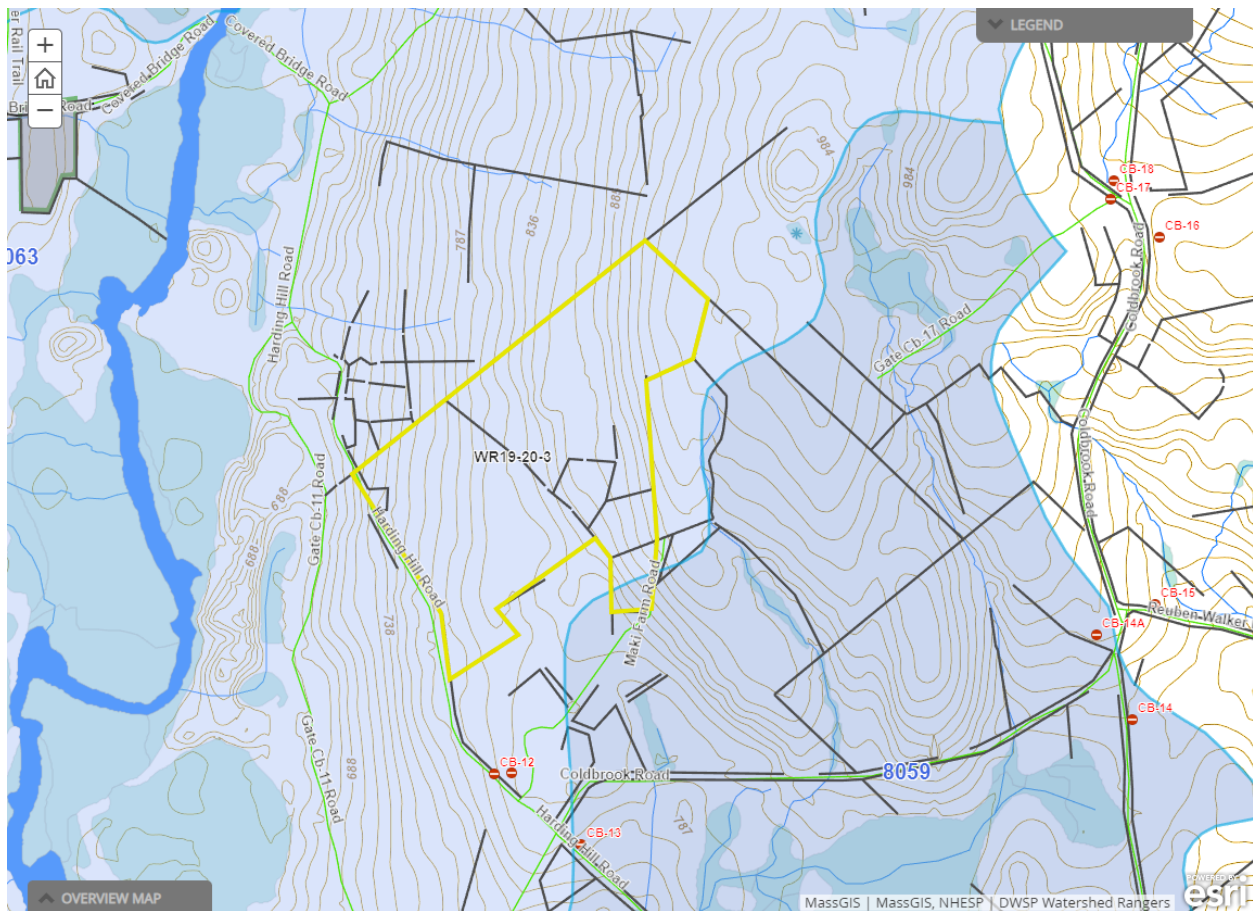


Subwatershed Analysis

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

8063	2816	80	624	47.6
8059	299	0	74	0.8

8063 - Ware - Proposal WR18-18-2 out to bid as lot 4396 in 3/18, 13.1 acres. Proposal WR18-28-03 approved with 20 acres of regeneration cuts proposed. Proposal WR16-3-1 approved with 17 acres of regeneration cuts proposed. Proposals Wr 19-19-1 and 2 submitted this year.



Harvesting Limitations

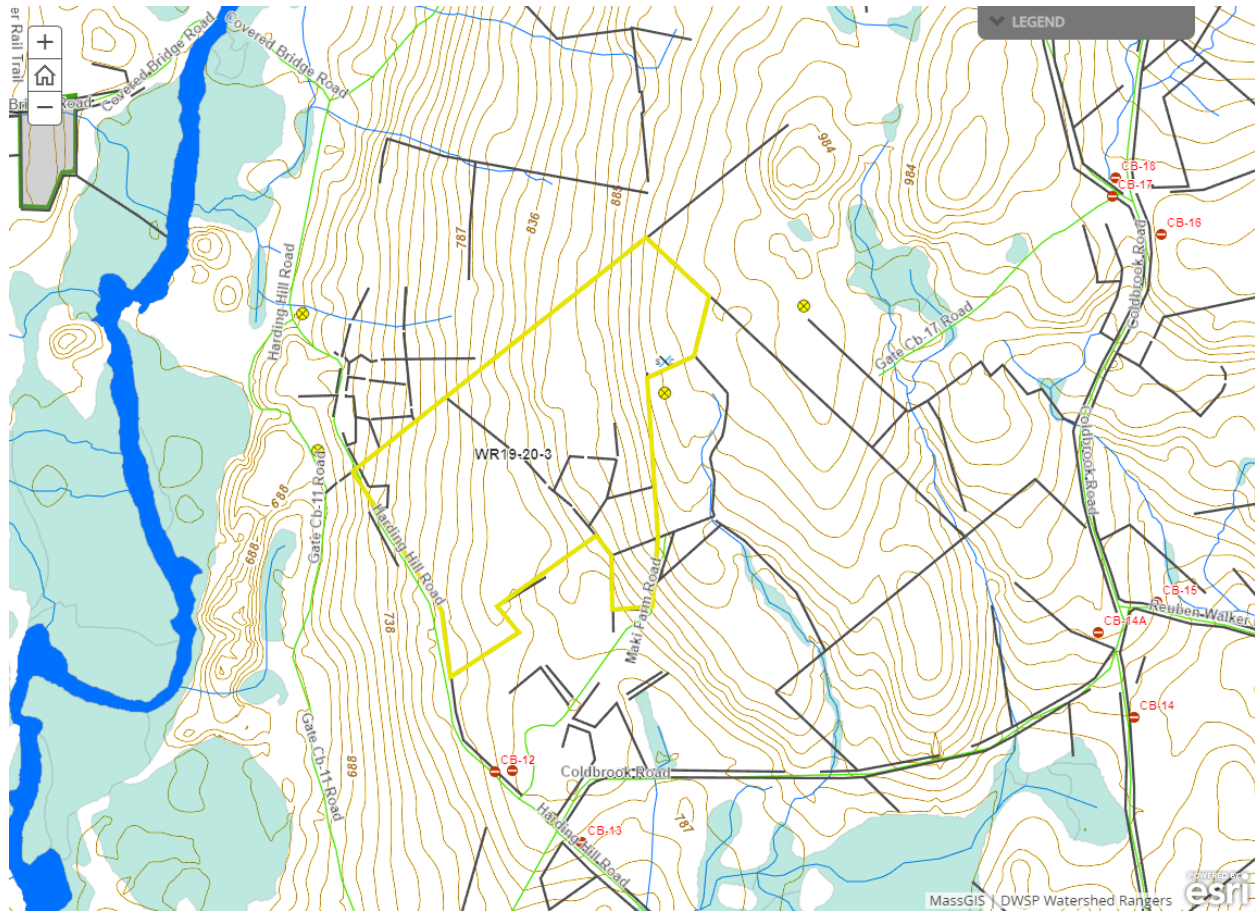
Forwarder required: No

Feller/processor required: No

Steep slopes present: Yes

Comments on harvesting limitations:

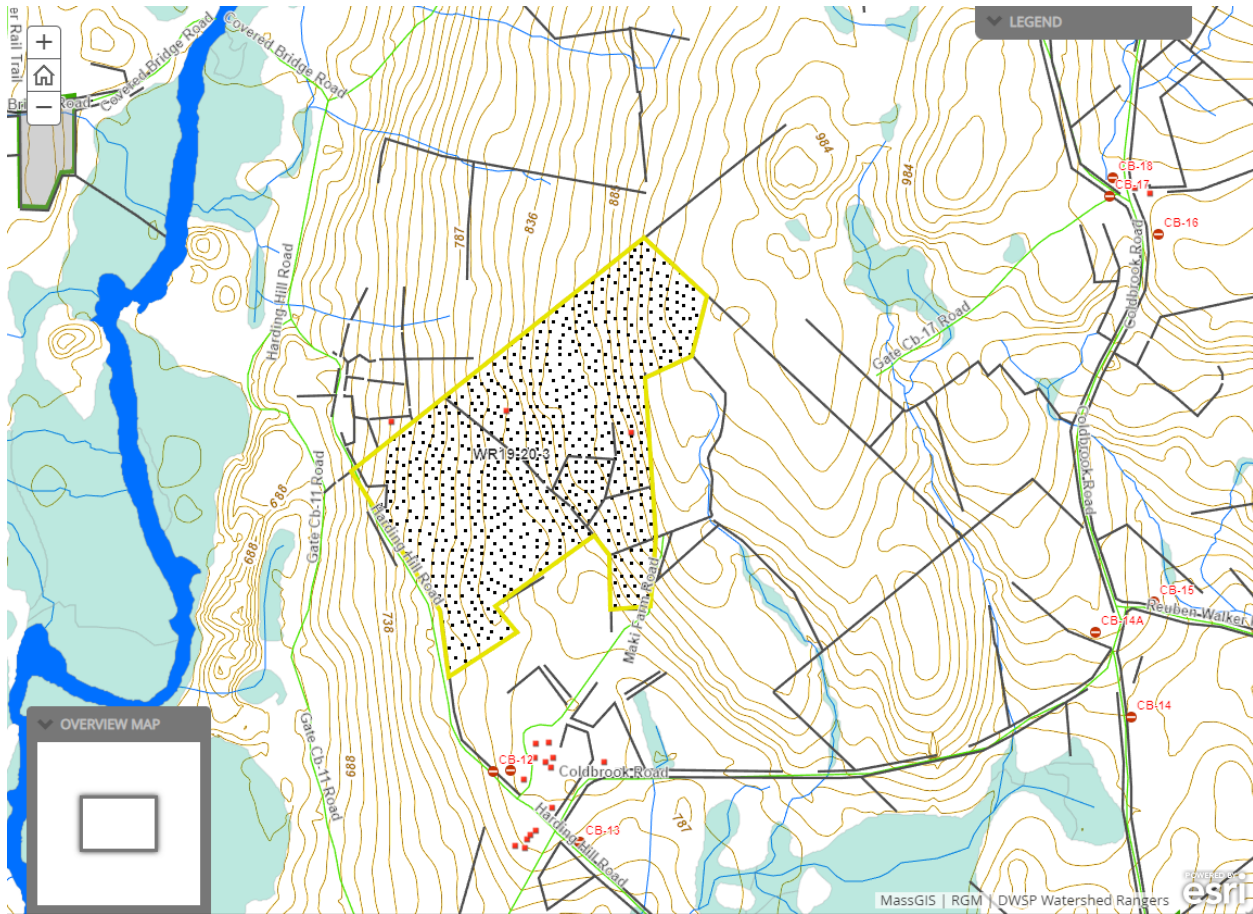
There are some bluffs and steep slopes on the lot. There are enough benches that most of the lot can be accessed.



Cultural Resources

Comments on Cultural Resources:

There is a possibly man-made dug well, probably for livestock, and drainage ditch. If the landing at 5 corners on Coldbrook Rd is used, there are several cellar holes/foundations in the area that will need to be avoided and protected. 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.



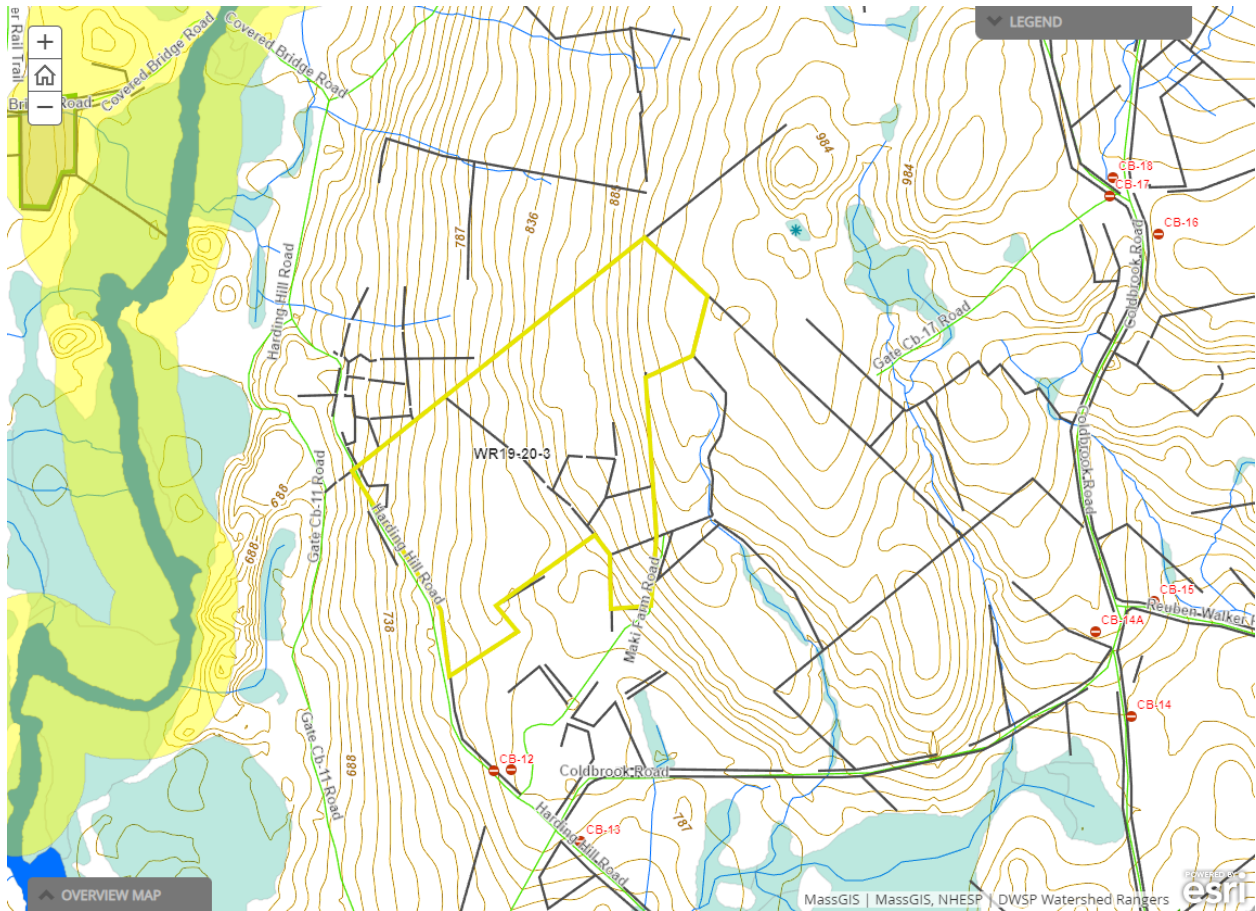
Wildlife Resources & Rare and Endangered Species

Comments on any unique or unusual sites or habitats on the lot:

This lot is the first to be proposed as part of the Young Forest Focus Area in the Ware River Watershed.

Comments on Rare Species/Habitats:

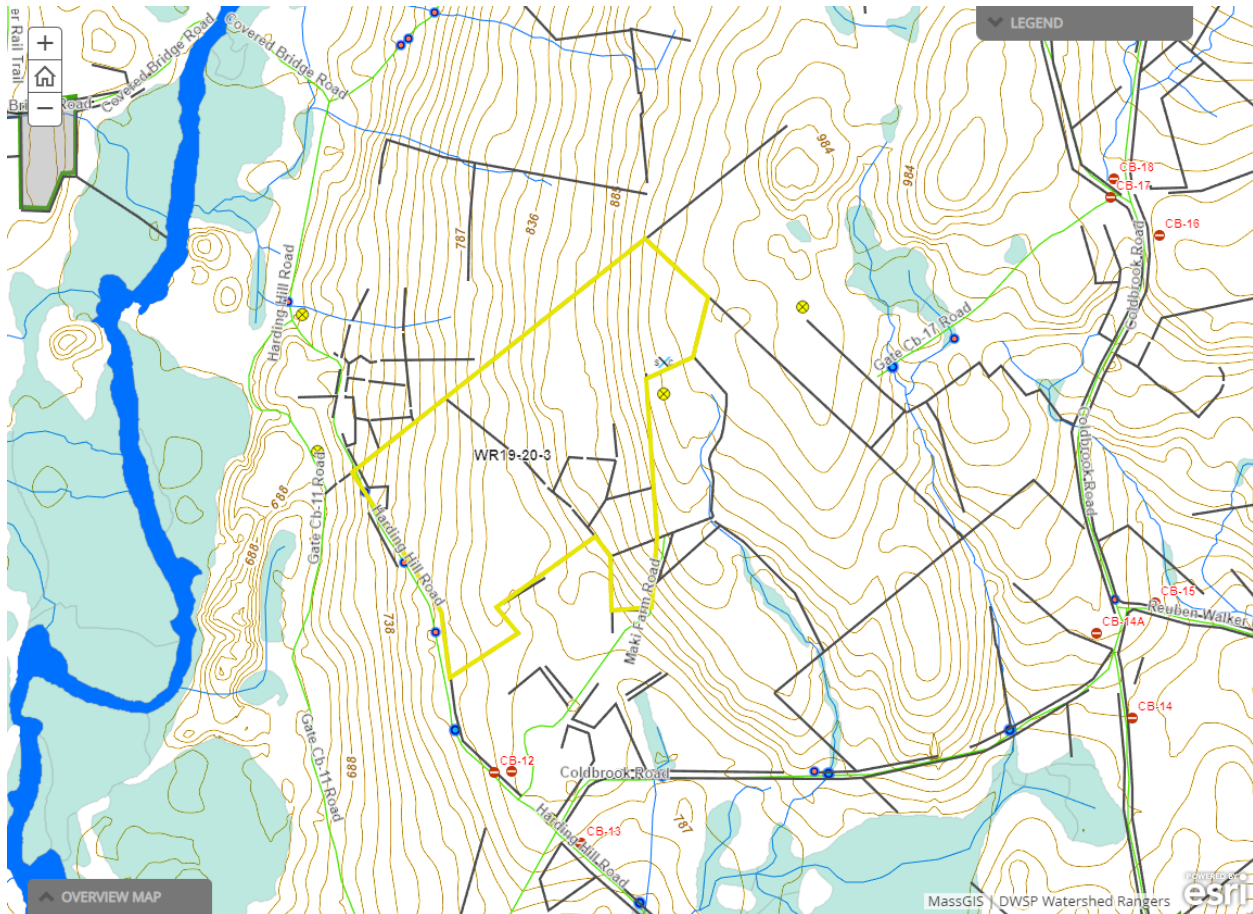
Cavity trees and potential/existing nest trees will be retained if possible. No rare species or habitats are listed for the proposal area. Should new evidence or rare species or habitats be found NHESP will be consulted for best practices.



Environmental Quality Engineering

Comments on EQ Issues:

No EQ crossings or EQ concerns.



Forest Access Engineering

Gravel needed: Yes

Landing work needed: Yes

Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

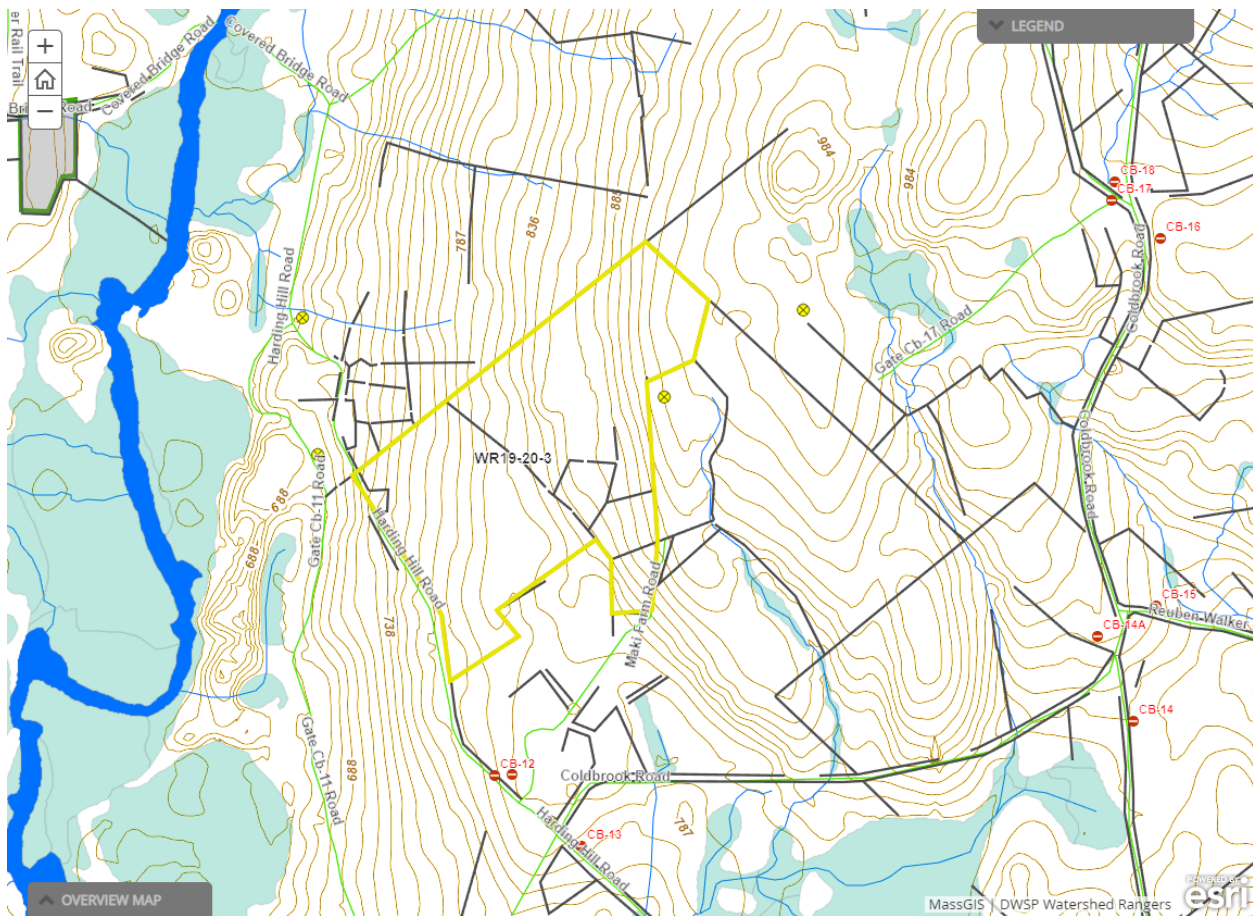
Further comment on access needs:

There are many options for landings in this area. The best landing location would be in the mowed field. That would require upgrading the road from the 5 corners to the field. Upgrading

the road would help with accessing the field for mowing, and would be helpful in future harvests in the Young Forest Focus Area. There is one stream crossing on that road that runs through a wet area that would need gravel. The road may need to be widened/straightened in a few spots. The portion of the road on the hill after the crossing and before the field would need some drainage work.

Harding Hill Road will need to be graded if the landing is going to be located there. The existing gravel pit should be mined to help with Harding Hill Road and the road to mowed field. The gravel pit could then be used as a landing for future harvests.

Other possible landing spots exist at the 5 corners and on the Dump Rd below Harding Hill Rd. The 5 corners landing would require the least road work, but it is the longest skid and there are cultural resources in that area that would need to be avoided. The Dump Rd landing would require Dump Rd to be graded and would involve having a skidder crossing on Harding Hill Rd.



DWSP FY 2019 Quabbin and Ware River Forestry Proposals – Master Legend for story maps

