Quabbin Harvest Proposal WR-19-19-02

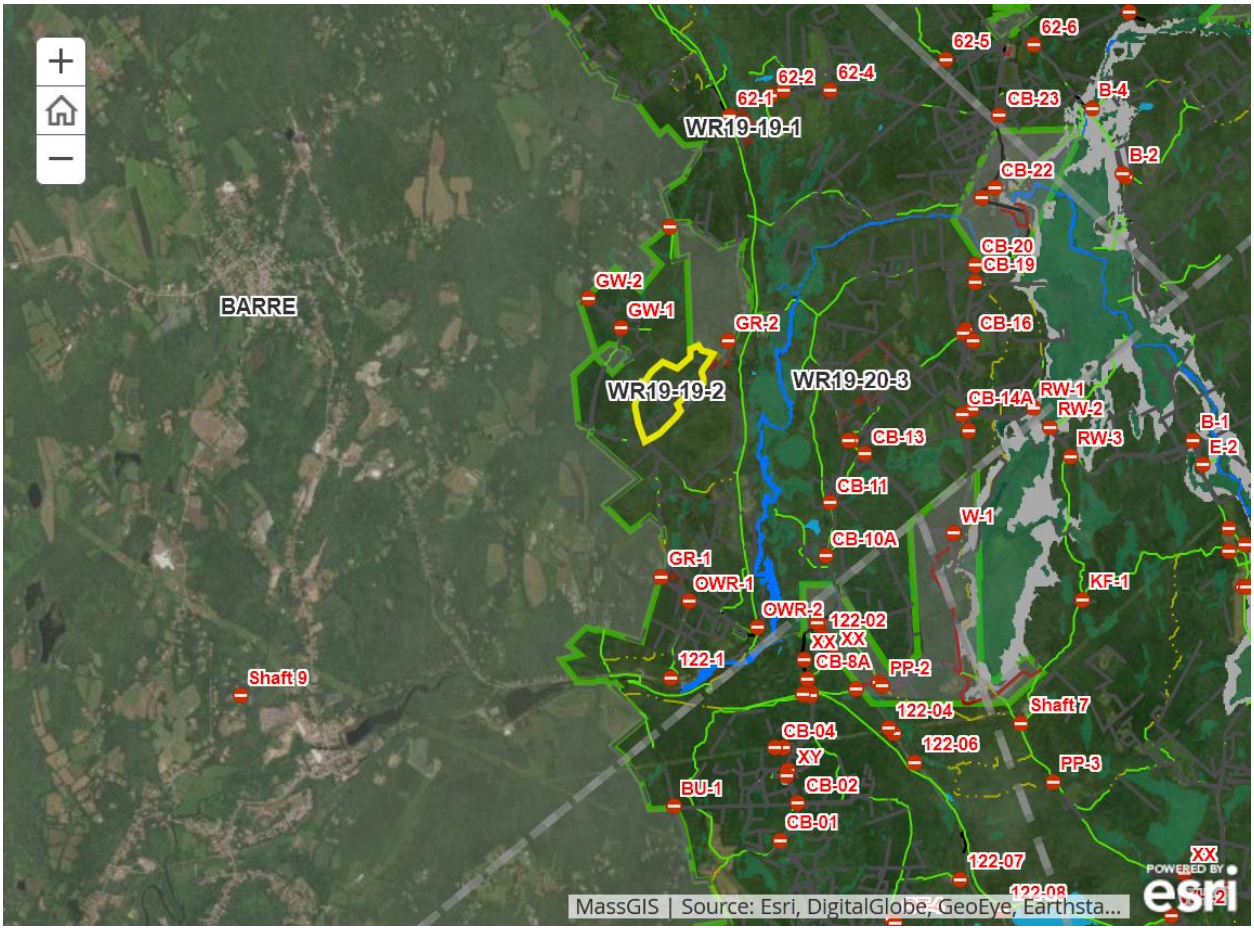
Proposal Goals

This area is dominated by large, low quality, "old field" white pine. These stands are even aged and have little species diversity in the overstory. Removing patches of overstory white pine will create a new age class of seedlings/saplings with a more diverse species composition.

Proposal Location

This proposal is located northwest of Granger Rd where it intersects with Adams Rd.

Total Acres: 63.5



General Description

	Overstory Type(s)	Acres
Dominant	White Pine/hardwood	42
Secondary	White pine/hemlock	15.5
Dominant	Oak/hardwood	6

	Understory Type(s)

Dominant	Tree seedlings/saplings dominate site

Description of forest composition/condition:

Much of the site, with the exception of what is directly adjacent to Granger Rd, is difficult to access due to a stream that bisects the lot and bluff/rock outcroppings that are present. There is no record of a past harvest in that part of the lot. An old powerlines right of way is still evident parallelling the stream. The power lines and poles have been removed.

The white pine/hardwood stand is fully stocked with approximately 170 square feet of basal area per acre, with approximately 50 square feet per acre in acceptable growing stock. The quality is poor, especially adjacent to Granger Rd, but there are some small patches of good quality pine in the northern part of the lot. Poor quality red maple, black cherry, yellow birch, and hemlock are also present in the overstory. Good quality red and white oak are also present. A few overstory red pine stems were observed by Granger Rd. The understory is well stocked with diverse tree seedlings and saplings through most of the stand. Black birch, red maple, hemlock, American beech, yellow birch, striped maple, white and red oak, and white ash were observed. There are some areas with less than adequate regeneration. This occurs generally where the white pine overstory is particularly dense, or where there is more of an overstory hemlock component.

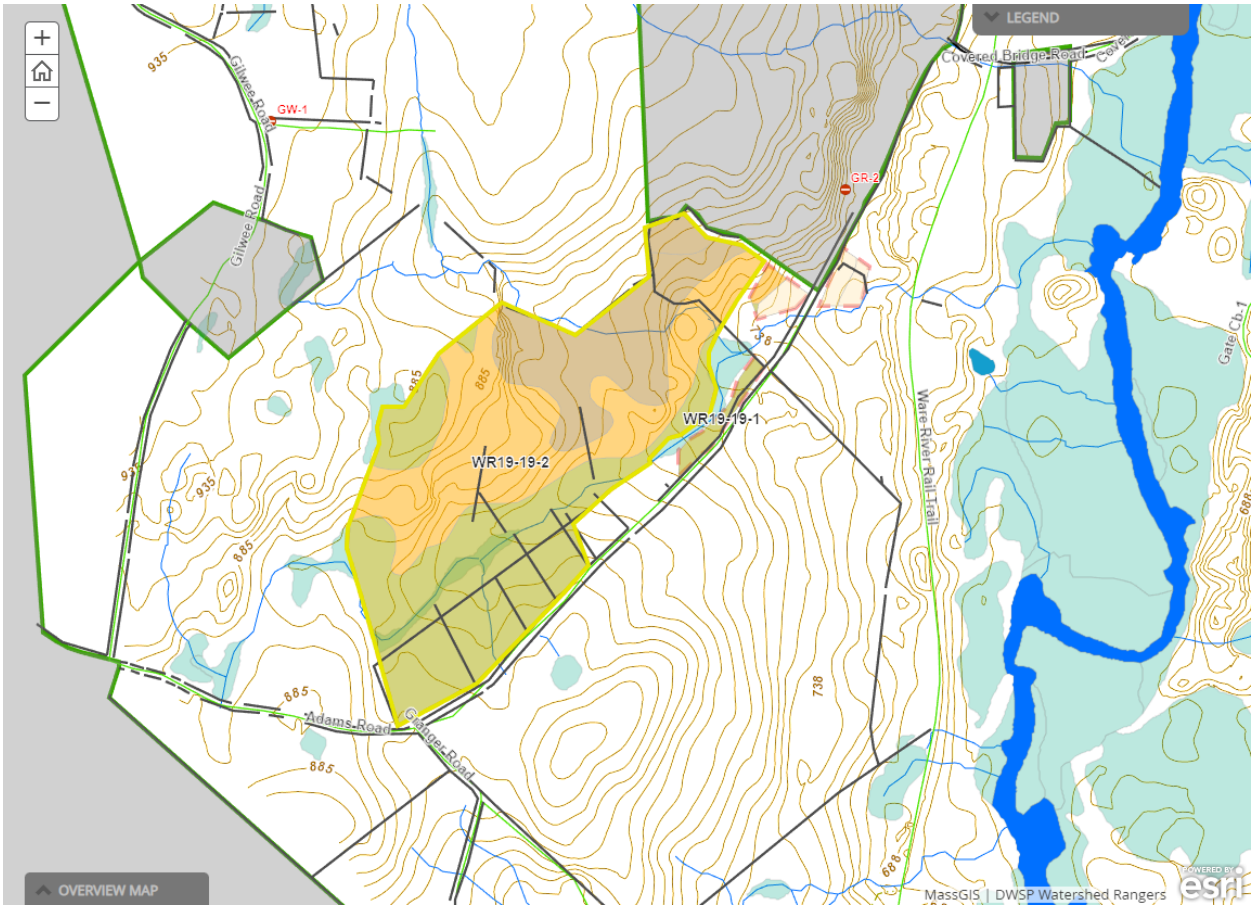
The white pine-hemlock stand is fully stocked with approximately 170 square feet of basal area per acre, with approximately 45 square feet per acre in acceptable growing stock. Parts of this stand are very heavy to hemlock, with very little regeneration underneath. The hemlock is relatively good quality. White pine quality is poor. Red oak is present throughout the stand and is good quality. Poor quality red maple and black birch are also present in the overstory. Seedling and sapling size regeneration, where it is present, consists of hemlock, red maple, black birch and white pine.

The oak hardwood stand is stocked with 95 square feet of basal area per acre, with approximately 45 square feet per acre of acceptable growing stock. Good quality, sawlog size red oak comprises approximately 50% of the basal area. The remainder is comprised of poor quality sawlog size black cherry, white oak, red maple, and white pine. Regeneration is plentiful and diverse, consisting of seedling and sapling size hemlock, red maple, white pine, red oak, and black birch.

Soils

Drainage Class	%
Excessively Drained	0
Well Drained Thin	0
Well Drained Thick	56
Moderately Well Drained	44
Poorly to Very Poorly Drained	0

Soils present include: 910 C Woodbridge-Paxton (27.9 acres) which is moderately well drained and 925E Charlton-Chatfield-Hollis (21.6 acres) 926 C Charlton-Chatfield (12.7 acres) and 902 E Charlton-Paxton (1.2 acres) which are well drained.



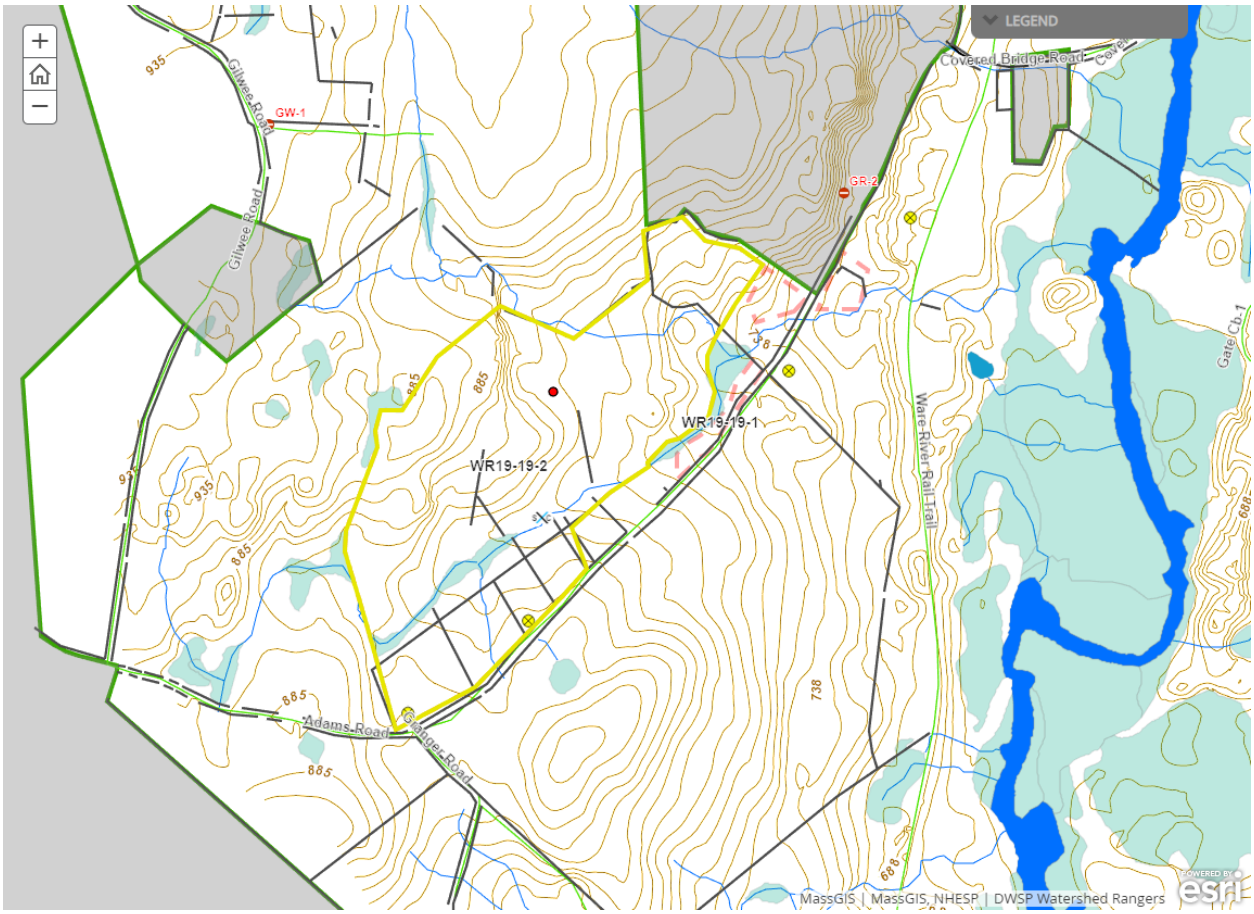
Wetlands

- **Wetlands present?:** Yes
- **Streams present?**: Yes
- **Vernal pools present?:** Yes
- **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

A stream and associated wetlands parallel the road and will need to be crossed to access the majority of the lot. A good spot for a stream crossing has been located in the field. A seasonal

intermittent stream in the southwestern corner of the lot may also have to be crossed to access the southwestern corner unless a second landing is built in that corner.

A DCR verified vernal pool is present in the central part of the lot. The pool will be buffered according to DWSP policies and Massachusetts Forestry Best Management Practices.



Silviculture

- **Acres in Intermediate cuts:** 0
- **Acres in prep/establishment cuts:** 0
- **Acres in Regeneration cuts:** 20
- **Average regen opening size:** 1.5
- **Maximum regen opening size:** 5

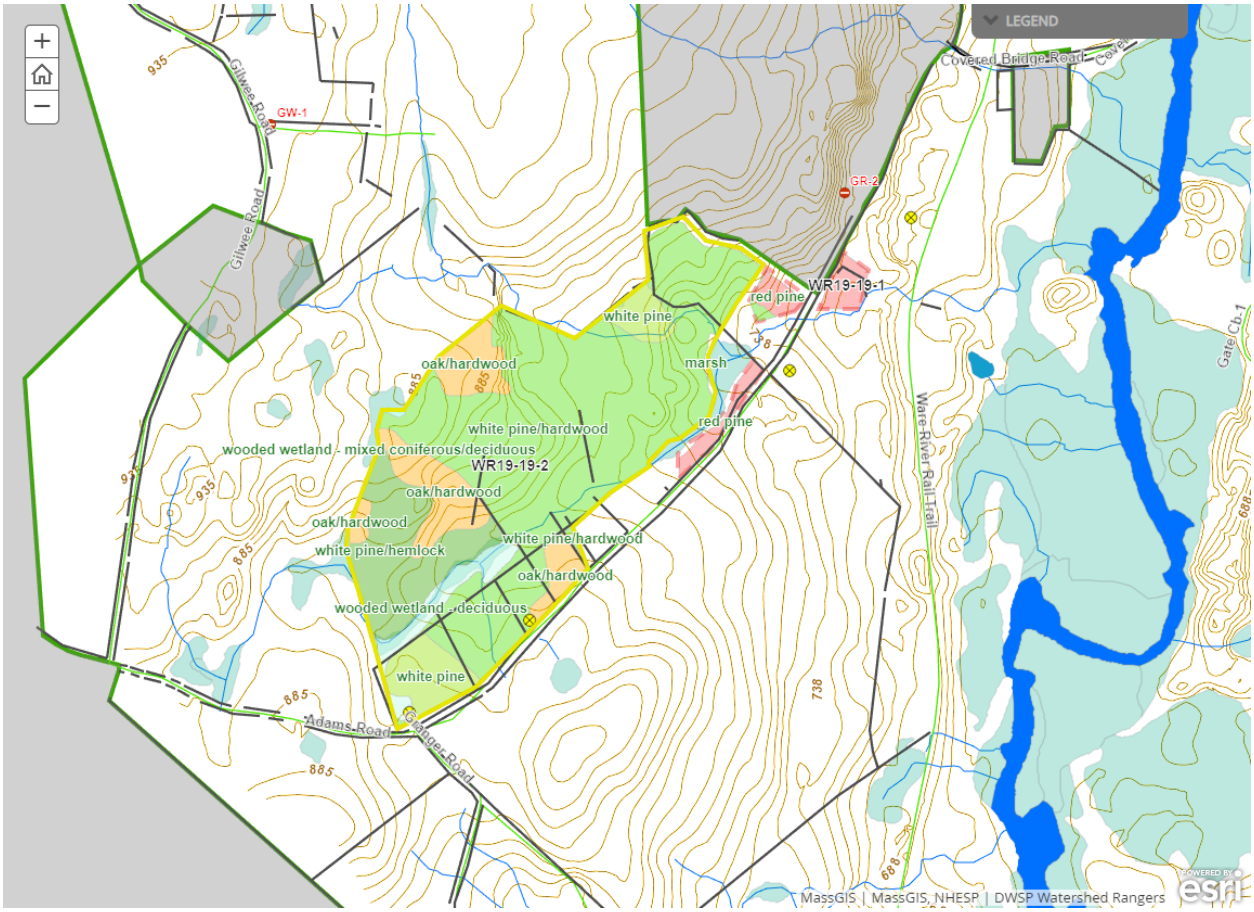
Description of advance regeneration in proposal area:

The understory is dominated by sapling and pole sized trees of many species. Red and white oak, white pine, hemlock, black birch, red maple, and black cherry were all observed. The regeneration is distributed throughout the stands. Browse was present but light, as these stands are all adjacent to frequently travelled roads.

General comments on silviculture proposed:

Within the white pine stands, 5 to 10 openings will be established, totaling 10 to 15 acres. The openings will be targeted to areas that are dominated by poorer quality white pine, and where diverse regeneration is present. One up to 5 acre opening will be established in the white pine hardwood stand. Another 2 to 2.5 acre opening will be established in the low quality white pine in the southwestern corner of the lot adjacent to Granger Rd. Several 0.5 to 1 acre openings will also be created. 5 square feet of basal area per acre of overstory trees will be retained for aesthetic purposes. In general, retention trees will be better quality hardwood where possible.

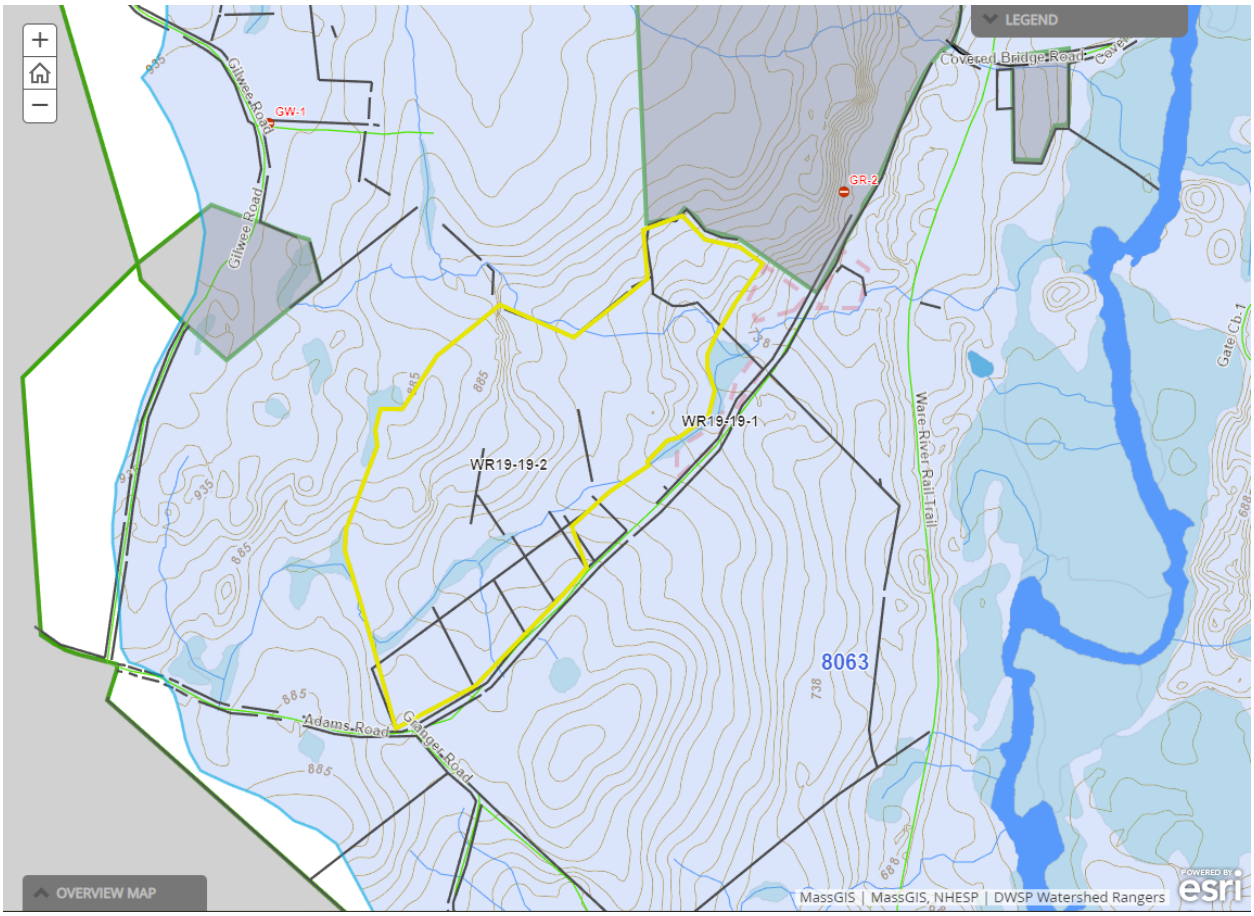
Within the oak hardwood stand, two 0.5 to 1 acre openings will be created targeting low quality hardwoods.



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	63.5

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 WR 19-20-3 submitted this year.



Harvesting Limitations

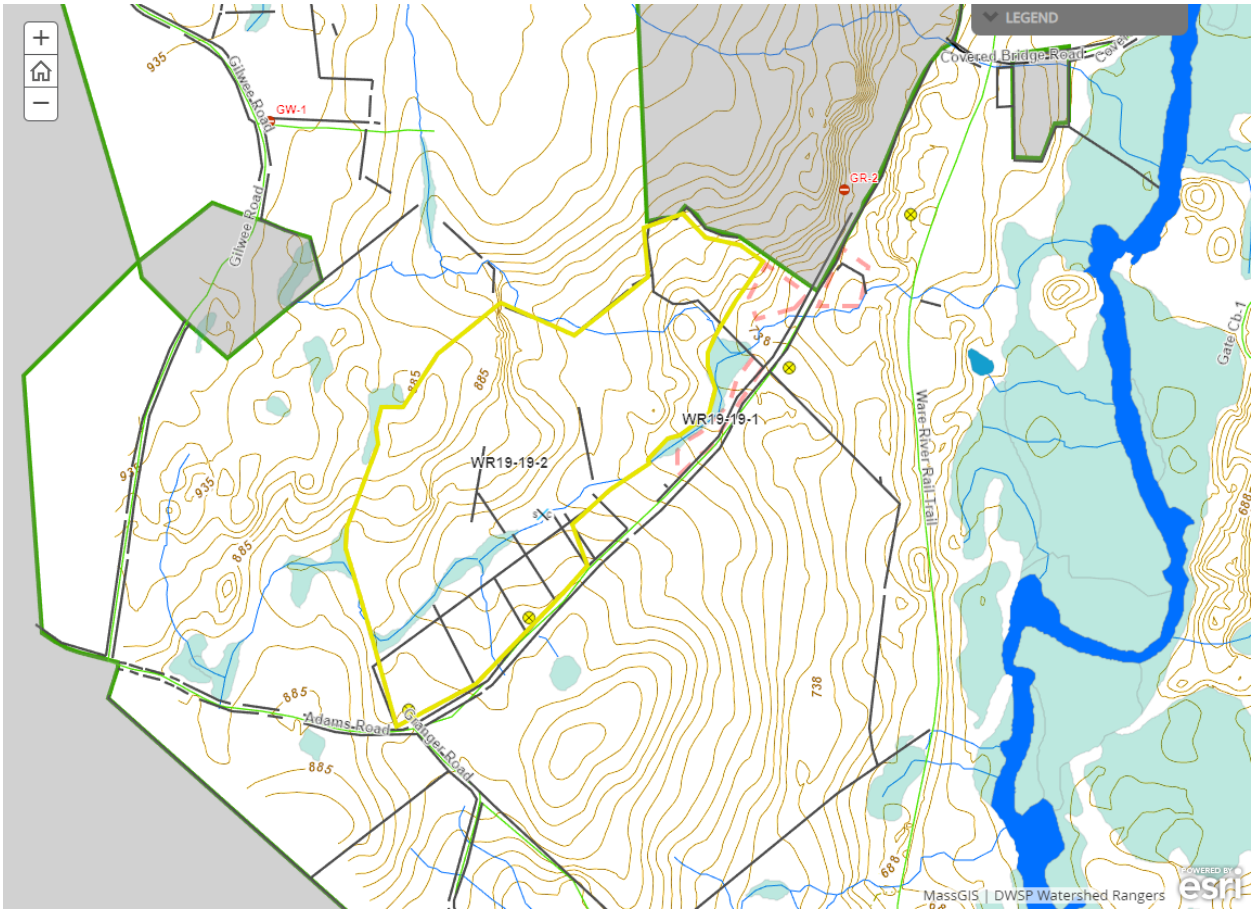
Forwarder required: No

Feller/processor required: No

Steep slopes present: Yes

Comments on harvesting limitations:

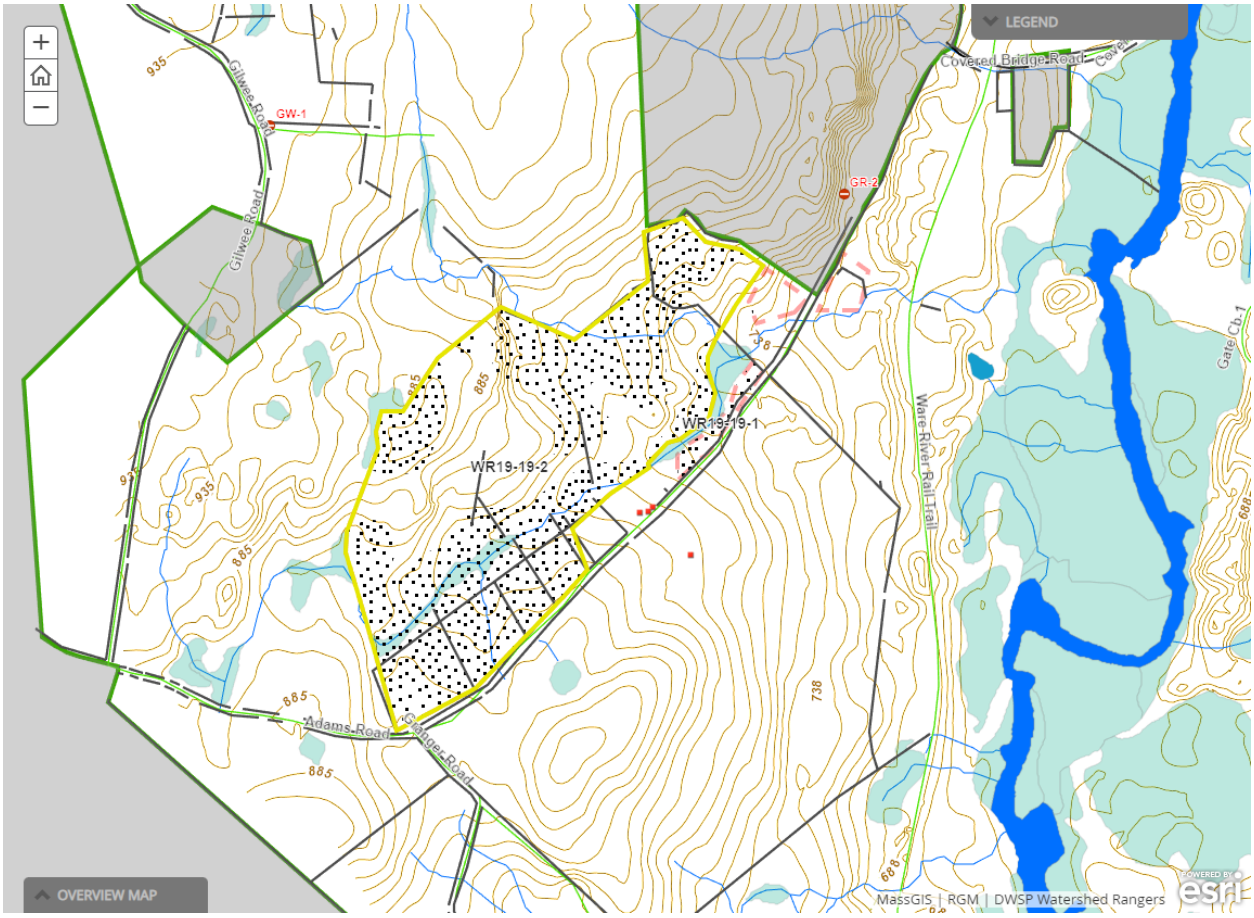
There are some bluffs and steep slopes on the lot. There are enough benches that most of the lot can be accessed.



Cultural Resources

Comments on Cultural Resources:

Stone walls are present within the lot, but no foundations or cellar holes are known. 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. Microtopography and surface stone are prevalent, reducing the likelihood of historic settlement.



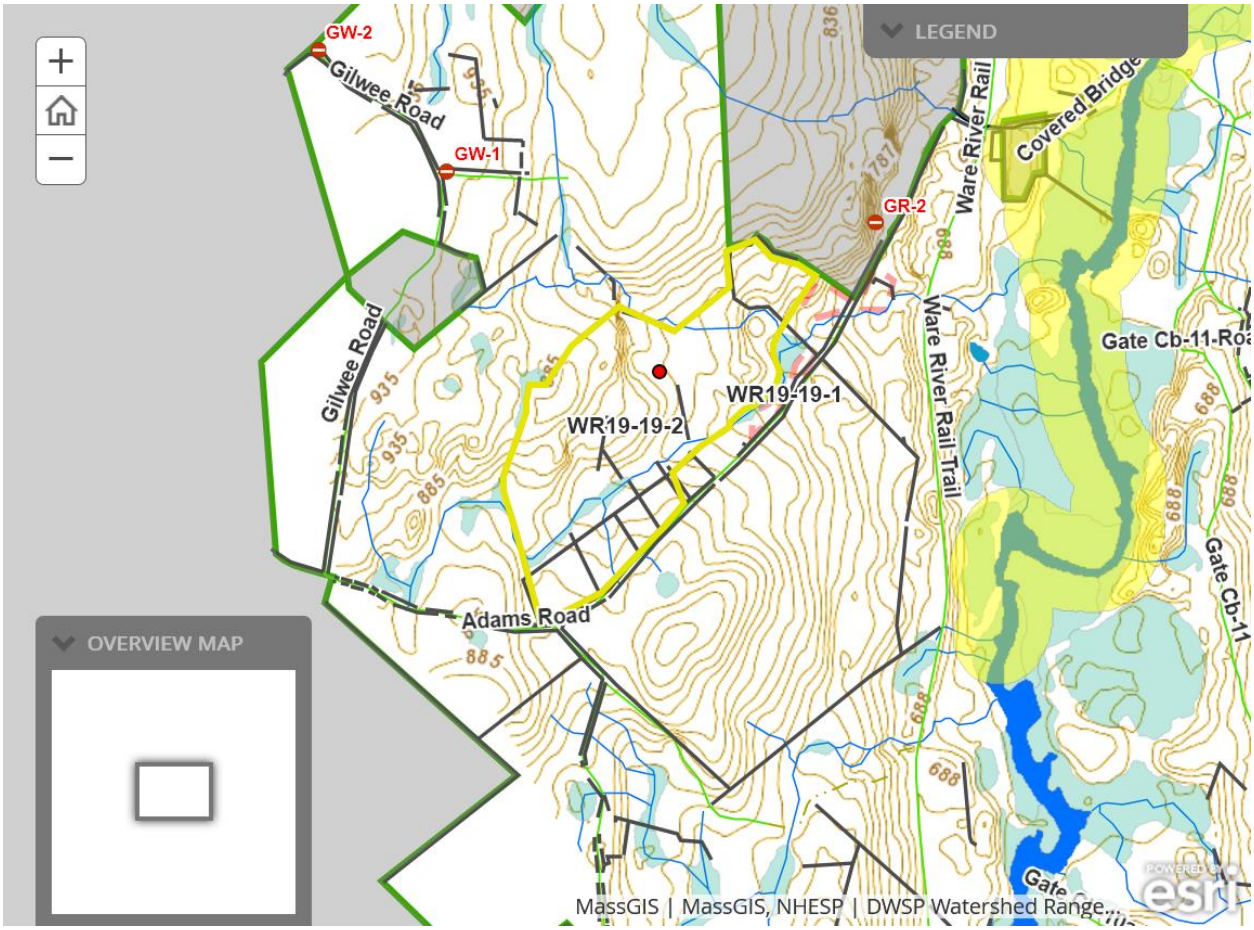
Wildlife Resources & Rare and Endangered Species

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

Bluffs and rock outcroppings are present on the lot.

General wildlife comments:

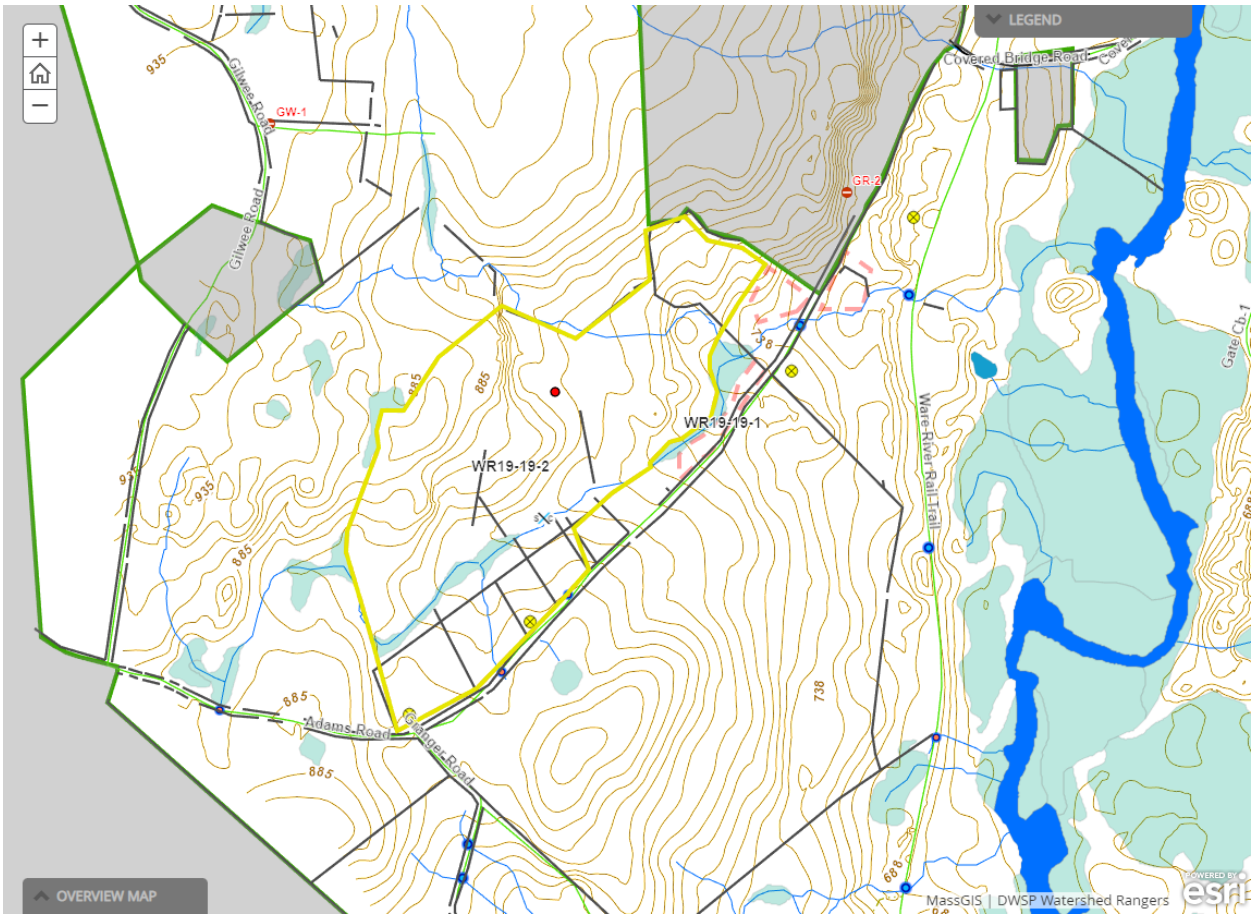
Cavity trees and potential/existing nest trees will be retained where possible. No rare species or habitats are listed within the proposed lot. Should new evidence of rare species or habitat be found NHESP will be consulted for appropriate best practices. One DCR verified vernal pool is present within the lot area.



Environmental Quality Engineering

Comments on EQ Issues:

The stream located on the proposed lot will be sampled for turbidity at three locations; upstream of the crossing, at the crossing and far downstream. Sampling will be conducted prior to active logging work to establish baseline, during logging work and post work for 12 months.



Forest Access Engineering

Gravel needed: No

Landing work needed: No

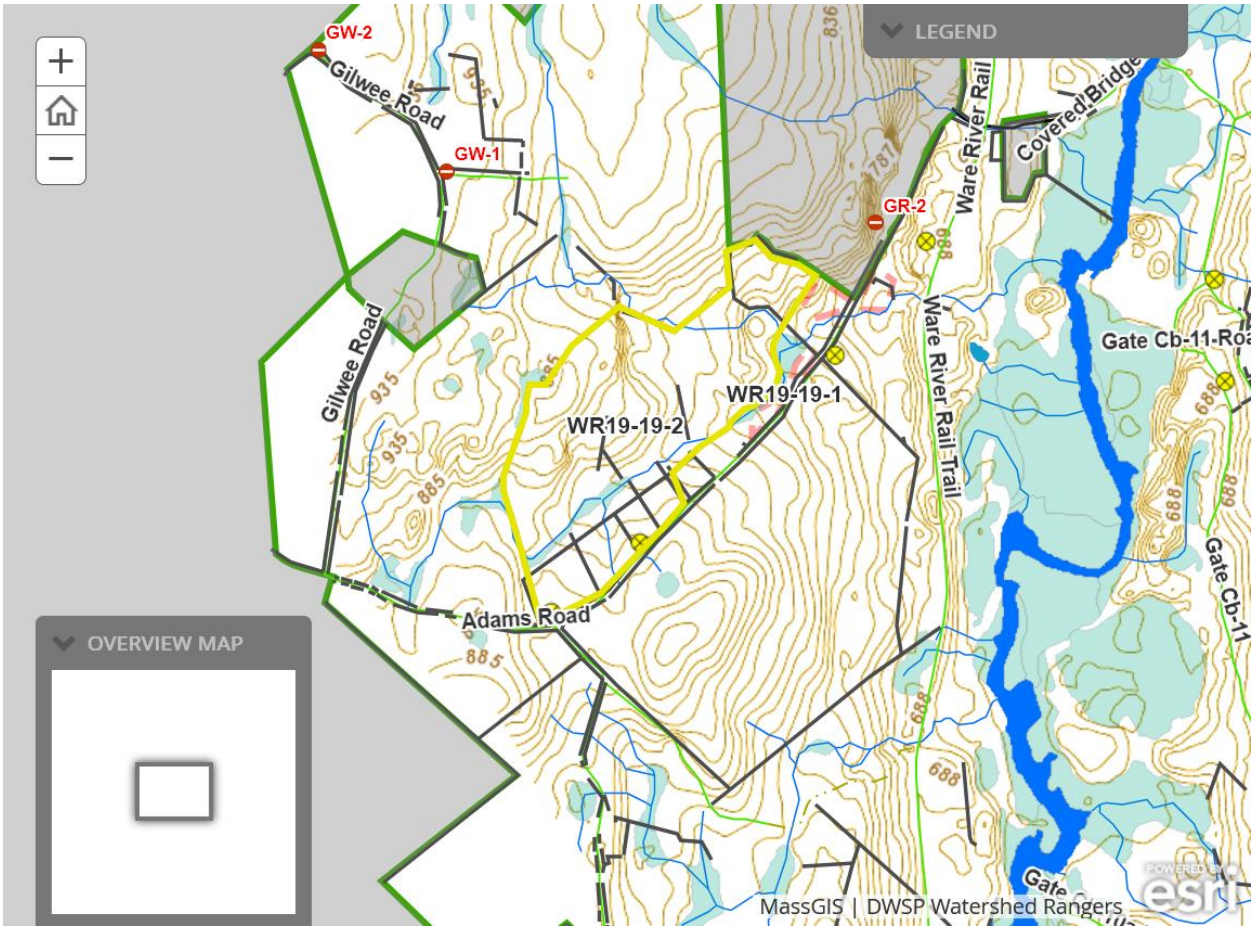
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

Further comment on access needs:

None.


LEGEND
GW-2
GW-1
GR-2
Gilwee Road
Gilwee Road
Ware River Rail
Ware River Rail Trail
Covered Bridge
Gate Cb-11-Roa
Gate Cb-11
WR19-19-1
WR19-19-2
Adams Road
OVERVIEW MAP
MassGIS | DWSP Watershed Rangers
esri

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