

Ware River Harvest Proposal WR-21-21-3

Proposal Update, May 2024:

This forestry proposal was originally approved through the public process in 2020. 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 2020 in ArcGIS Online Story Map format.

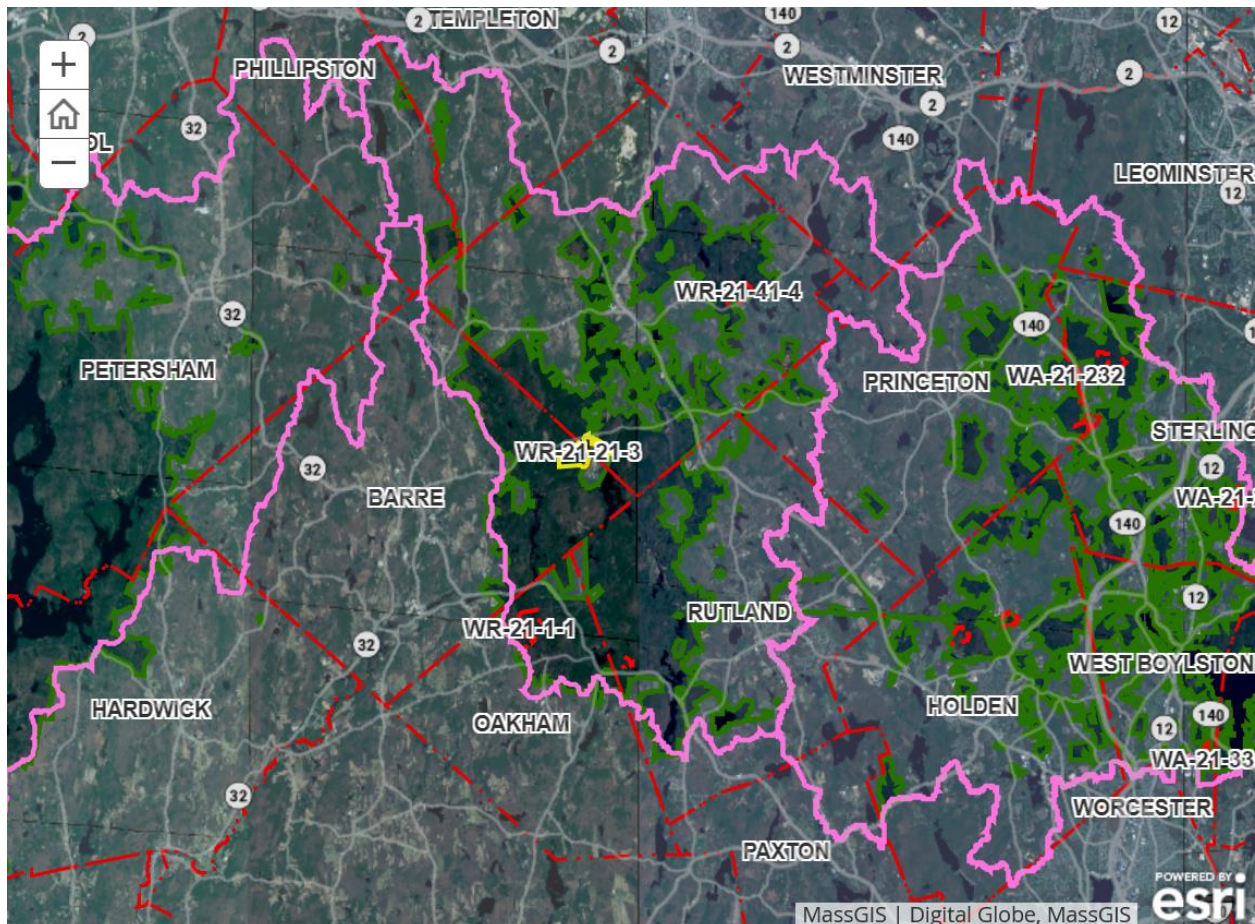
Proposal Goals

The goal for this proposal is to make the forest more diverse and resilient. It will reduce the amount of mature, old field white pine and replace it with patches of young forest of diverse species.

Proposal Location

This lot is located in Barre and Hubbardston along Coldbrook Road at the entrance of Barre Falls Dam.

Total Acres: 219



General Description

	Overstory Type(s)	Acres
Dominant	White pine/hardwood	116
Secondary	White pine/hemlock	20
Other	Oak/hardwood	19

Secondary

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

Description of forest composition/condition:

A white pine/hardwood and a white pine/hemlock stand cover most of the lot west of Coldbrook Road. They are dominated by low to medium quality, sawlog size white pine. There is approximately 160 square feet of basal area. Red oak, some of it good quality, red maple, hemlock, white oak, black oak, and black cherry are also found in the overstory. There is plenty of regeneration, although browse by deer and moose is heavy in spots. Regeneration species include white pine, red maple, hemlock, red, white, and black oak, black, white, and yellow birch, aspen, American beech, and musclewood. Several harvests occurred in this stand in the past. Lot 4293 was a 7-acre shelterwood north of Stone Road completed in 2002. The small groups are now dominated by black birch. Lot 4287 consisted two regeneration cuts of 9.0 acres and 3.3 acres completed in 2001, both north of Stone Road. These openings have regenerated well with a diverse mix of native tree species. Lot 251 was a 10.5 acre regeneration cut south of Stone Road that was completed in 1981. It has also regenerated nicely with a diverse mix of native tree species.

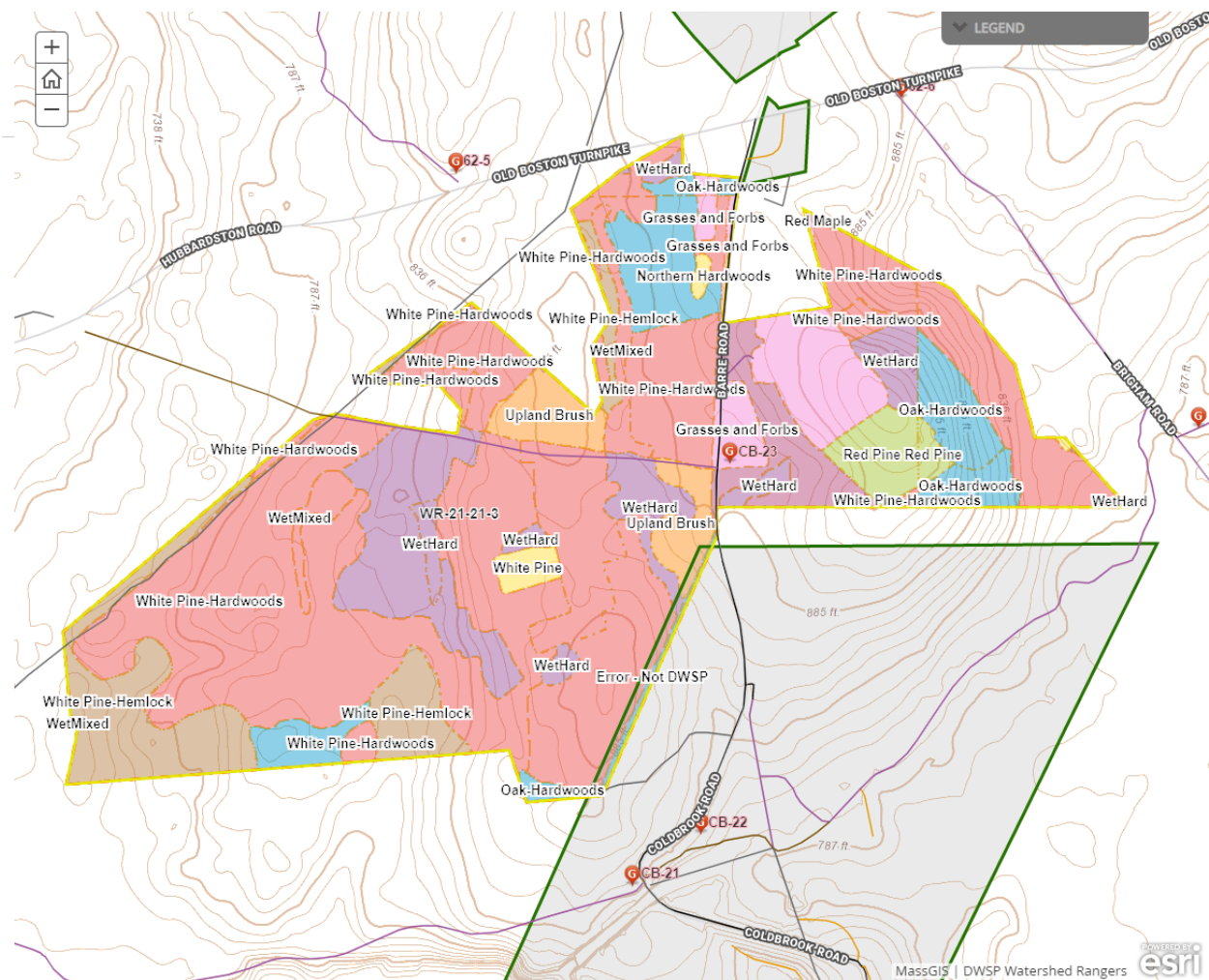
There is also an oak/hardwood stand west of Coldbrook Road. It is dominated by medium quality red, black, white, and scarlet oak. There are approximately 120 square feet of basal area per acre. Red maple, white pine, hemlock, black cherry, American beech, and aspen are also present in the overstory. Sugar maple and shagbark hickory overstory trees are found along Stone Road, particularly near the cellar holes, but don't make up a large part of the forest beyond. Regeneration is abundant and diverse. Species

present include hemlock, white pine, yellow, black, and paper birch, red and black oak, red maple, aspen, and American beech.

The area east of Coldbrook Road is dominated by hay fields. The areas in between fields are hardwood stands that are dominated by red maple, black cherry, white ash, and black oak. White pine, aspen, American elm, and red oak are also present in the overstory. Apple trees are present in the understory, but are in rough shape. There are two small sugar maple stands, one in the southeast corner near the Army Corps boundary line and one in the very northern tip of this portion of the lot. There is also a poor quality patch of white pine in the northeast corner. Native species are dominated by invasive shrub species, particularly near Coldbrook Road, in between hay fields.

Assessment of Terrestrial Invasive Species:

Invasive species are present throughout the lot, but are particularly dense along Stone Rd and around the hay field east of Coldbrook Road. Buckthorn is most prevalent. It has completely taken over the middle landing on Stone Road. Bittersweet, honeysuckle, burning bush, and barberry were also observed.



Soils

Drainage Class	%
Excessively Drained	1
Well Drained Thin	0
Well Drained Thick	46
Moderately Well Drained	53
Poorly to Very Poorly Drained	0

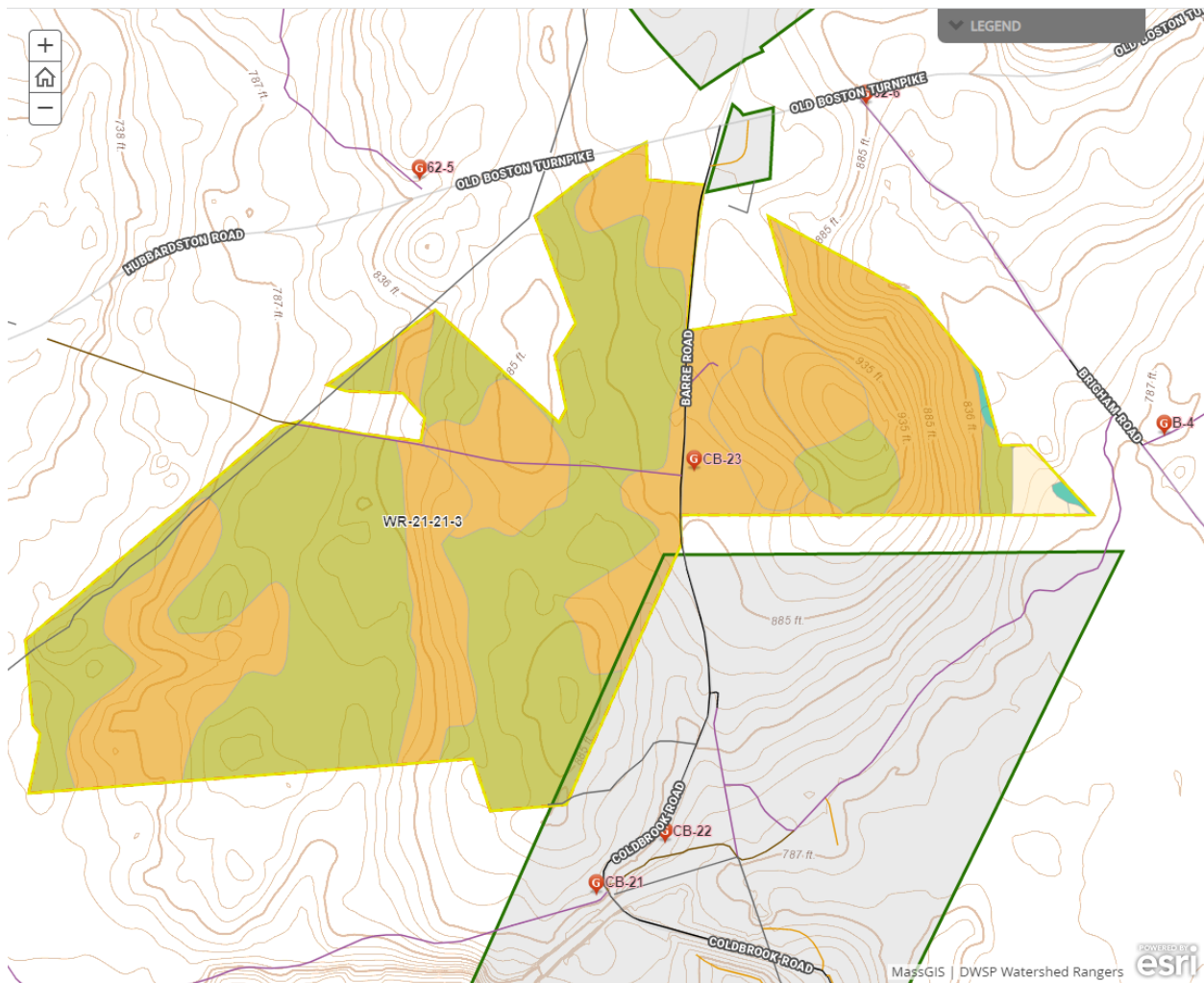
910C - Woodbridge-Paxton association - moderately well drained - 115 acres

902E - Charlton-Paxton association - well drained thick - 55 acres

305B - Paxton fine sandy loam - well drained thick - 39 acres

305C - Paxton fine sandy loam - well drained thick - 6 acres

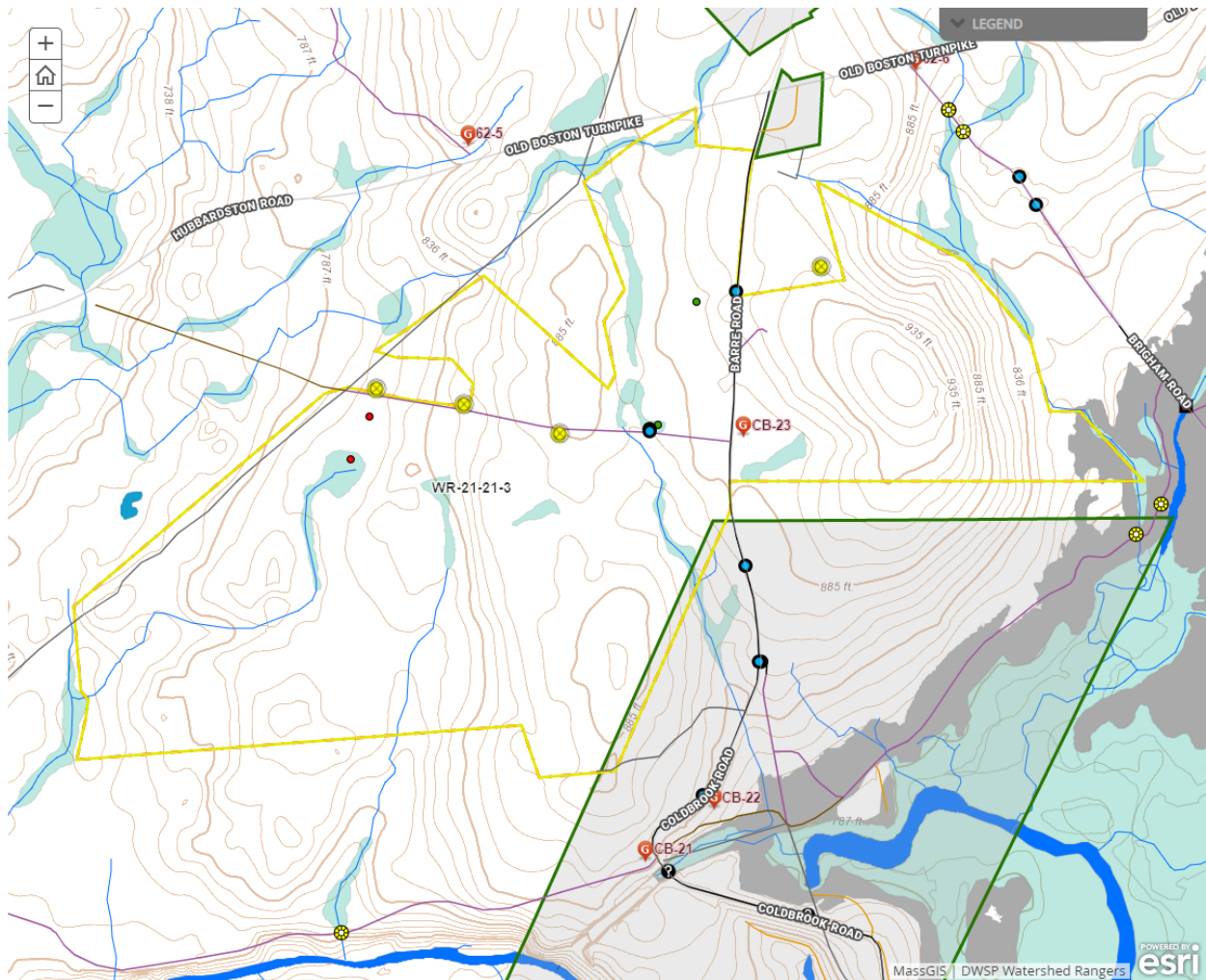
253C - Hinckley loamy sand - excessively drained - 2 acres



Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- Vernal pools present? - **Yes**
- Seeps present? - **None known**
- Are stream crossings required? - **Yes**
- Are wetland crossings required? - **No**
- Is logging in filter strips planned? - **Yes**
- Is logging in wetlands planned? - **No**

Several forested wetland and streams are present. All crossings are culverted along Stone Road.



Silviculture

Acres in Intermediate cuts: **0**

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

Acres in Regeneration cuts: **30**

Average regen opening size: **2**

Maximum regen opening size: **5**

Description of advance regeneration in proposal area:

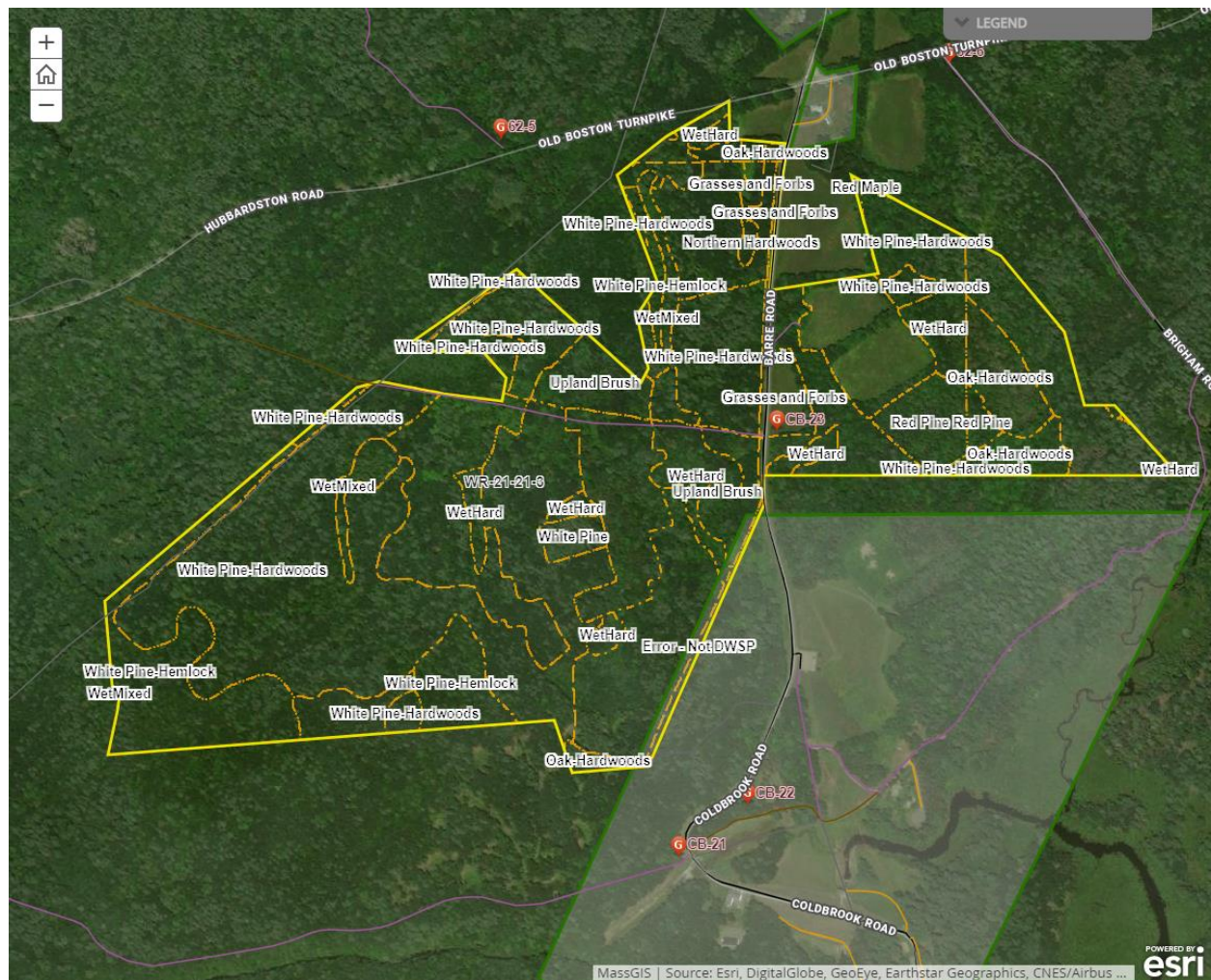
There is plenty of regeneration, although browse by deer and moose is heavy in spots. Regeneration species include white pine, red maple, hemlock, red, white, and black oak, black, white, and yellow birch, aspen, American beech, and muscledwood.

General comments on silviculture proposed:

White pine/hardwood and white pine/hemlock stands: Regeneration openings that were established as part of harvests 251 in 1981, 4287 in 2001, and 4293 in 2002 will be expanded where possible. New regeneration openings will be established where they do not exist in areas with the poorest quality overstory white pine and best existing regeneration. Openings of different sizes and shapes will be established, generally ranging in size from 1 to 5 acres. At least one group, possibly two groups, of 2 to 5 acres will be established. The average opening size will be approximately 2 acres. Approximately 30% of the stand area will be in openings. In all groups snags will be retained wherever possible and 5 to 10 square feet of basal area per acre of live trees will also be left. Live retention trees will either have unique wildlife characteristics, such as large cavities, or will be well formed and vigorous white pine or hardwood.

Oak/hardwood stand: Establish up to five groups 1/2 to 2 acres in size with total acreage at 5 acres. Groups will be targeted to the areas with the poorest quality stems. Some improvement cutting will be done along skid trails that access groups.

Hardwood Stand Around Fields: Removing trees along stone walls and in groups in between the existing fields along Coldbrook Road would enhance wildlife habitat value in this area. This would have to be done carefully in order to protect existing stone walls and other cultural resources, and to mitigate the potential aesthetic impact. Invasive shrub species, particularly honeysuckle, bittersweet, and buckthorn are heavy in this area and would need to be controlled.



Subwatershed Analysis

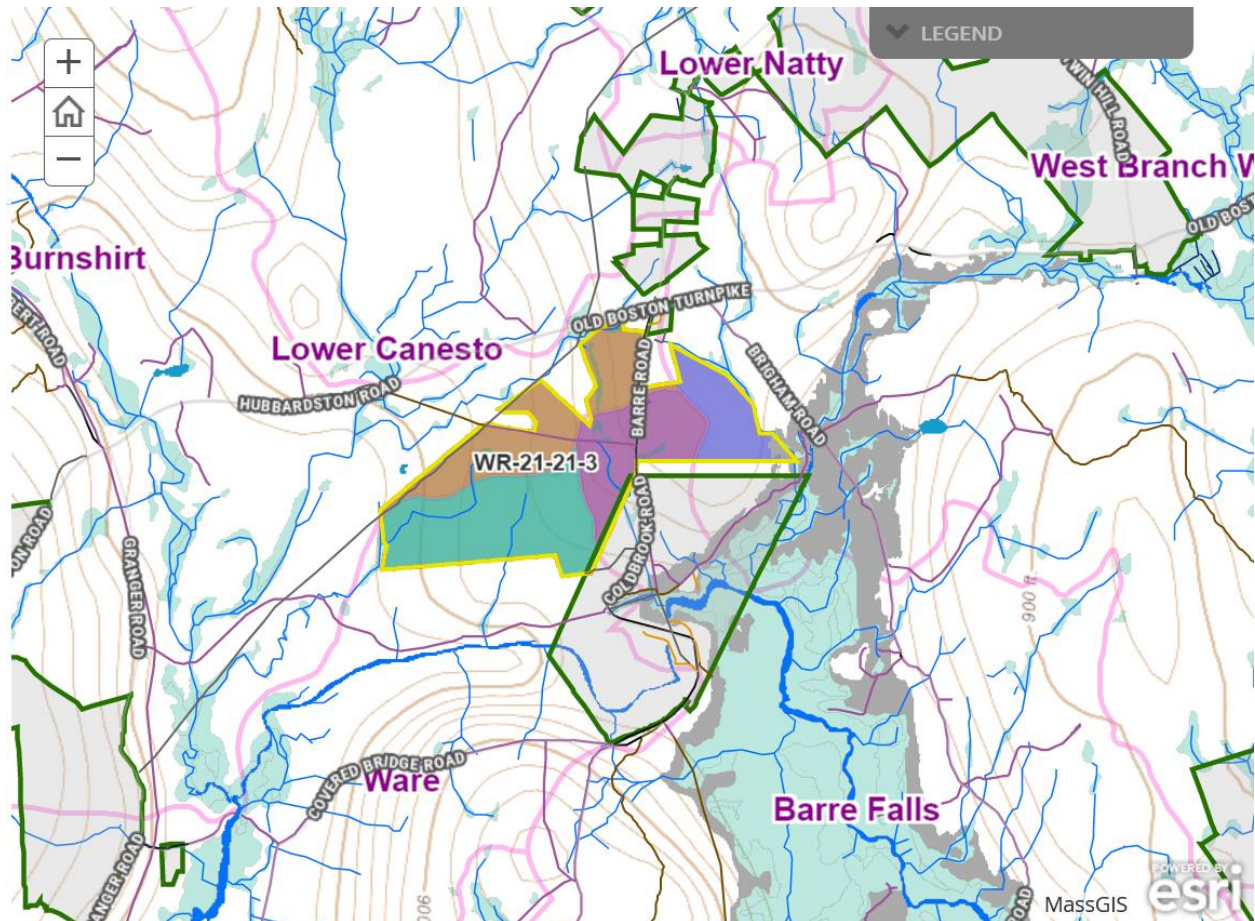
Sub-watershed number	Total DCR-owned Acres	Acres Regenerated on DCR Land in the last 10 years	Acres Remaining for Regenerating Up to the 25% / 10 Year	Acres part of this proposal
8039 (West Branch Ware River)	1927	0	1927	30
8042 (West Branch Ware River)	3930	124	858	48
8058 (Burnshirt River)	2119	82	447	63
8063 (Ware River Intake)	2713	41	637	79

8039 - West Branch Ware Subdistrict - 30 acres

8042 - Barre Falls Subdistrict - 48 acres

8058 - Burnshirt Subdistrict - 63 acres

8063 - Ware River Intake Subdistrict - 79 acres



Harvesting Limitations

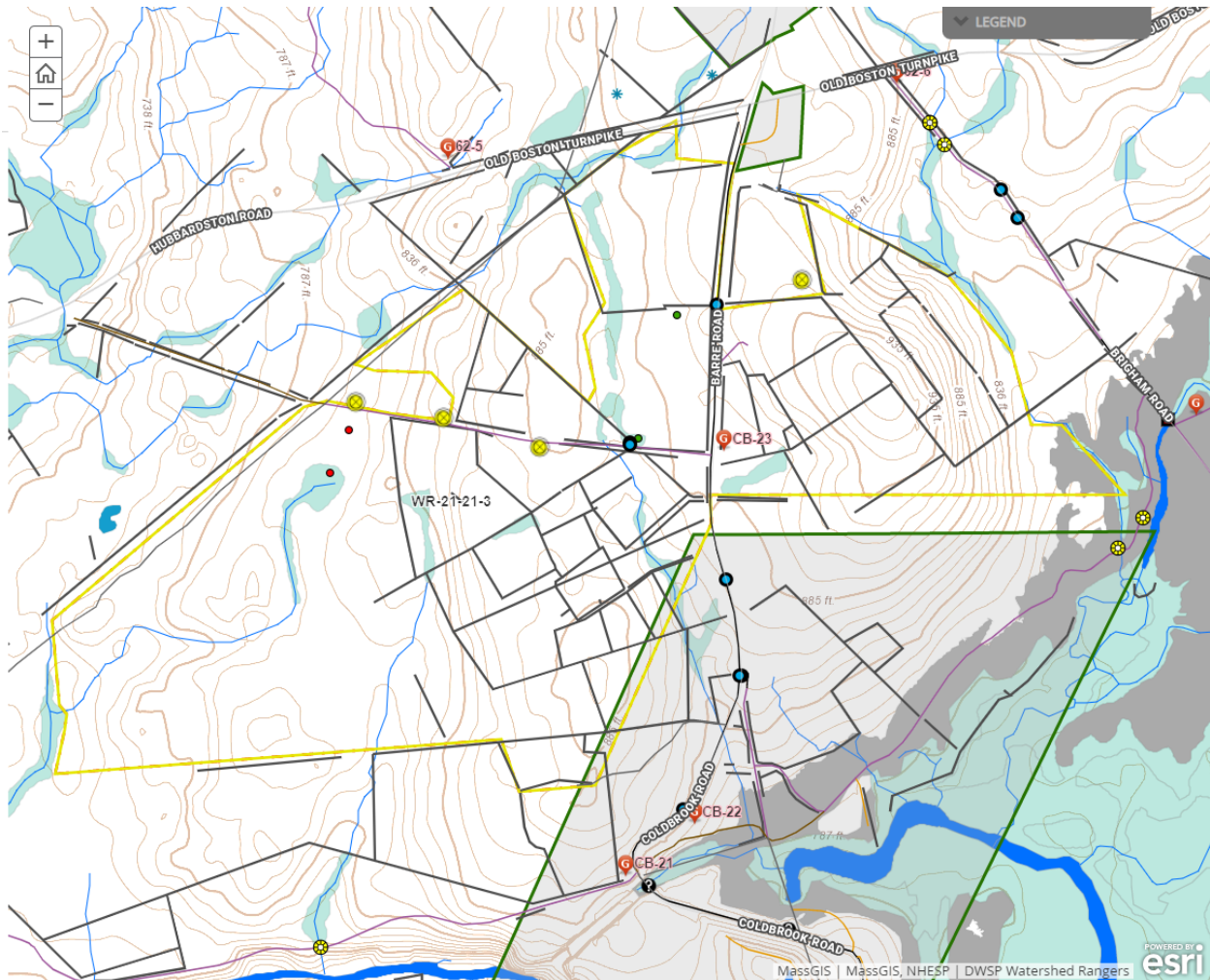
Forwarder required: **No**

Feller/processor required: **No**

Steep slopes present: **No**

Comments on harvesting limitations:

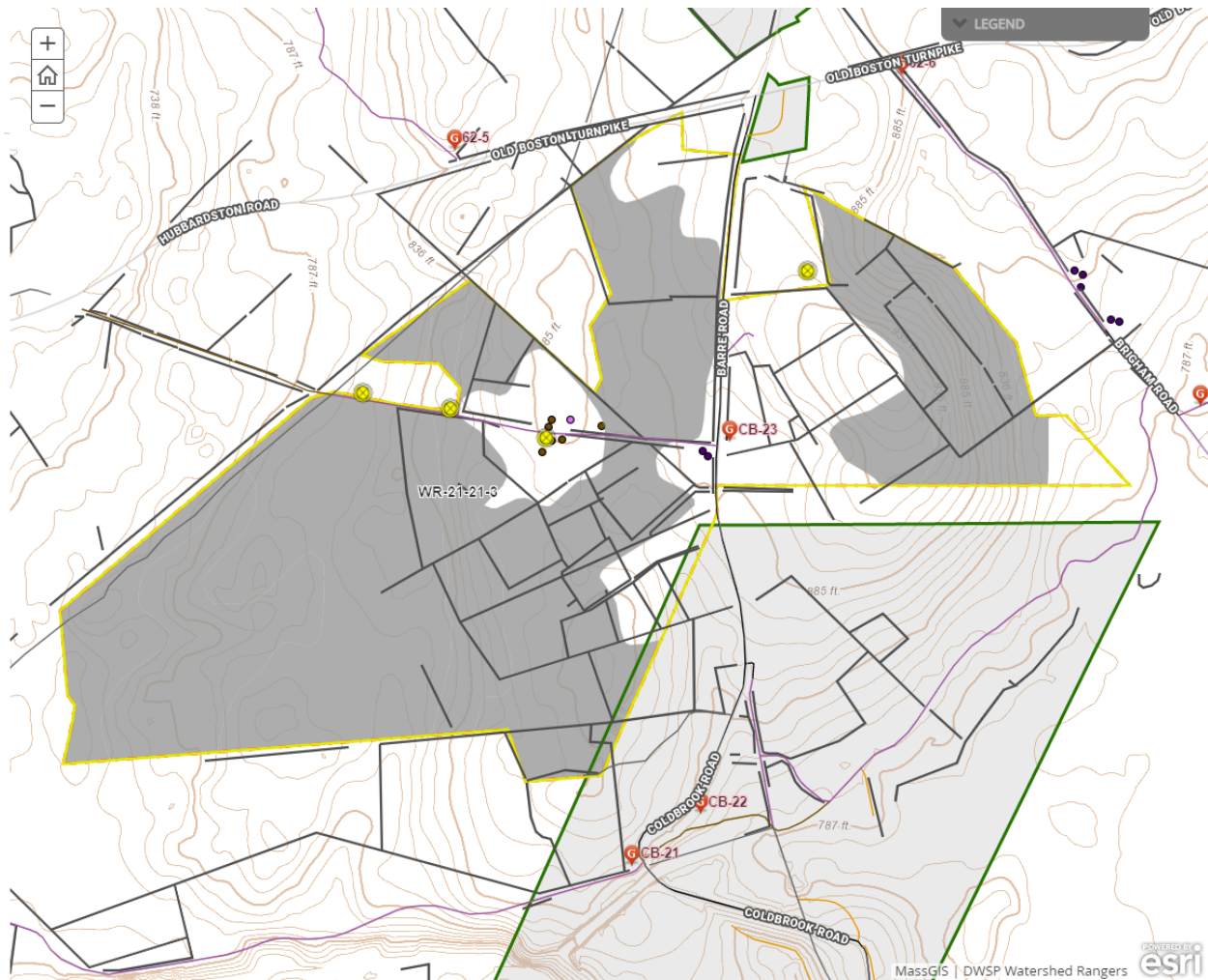
No restrictions on harvesting equipment are proposed for this lot.



Cultural Resources

Comments on Cultural Resources:

There are multiple large and small cellar hole/foundations along Stone Road. Some include cement. There are also wells in that area. These features have been mapped, and will be buffered during harvesting operations. Stone walls are also prevalent. They will be protected as much as possible. Many have already been crossed during past harvest operations.



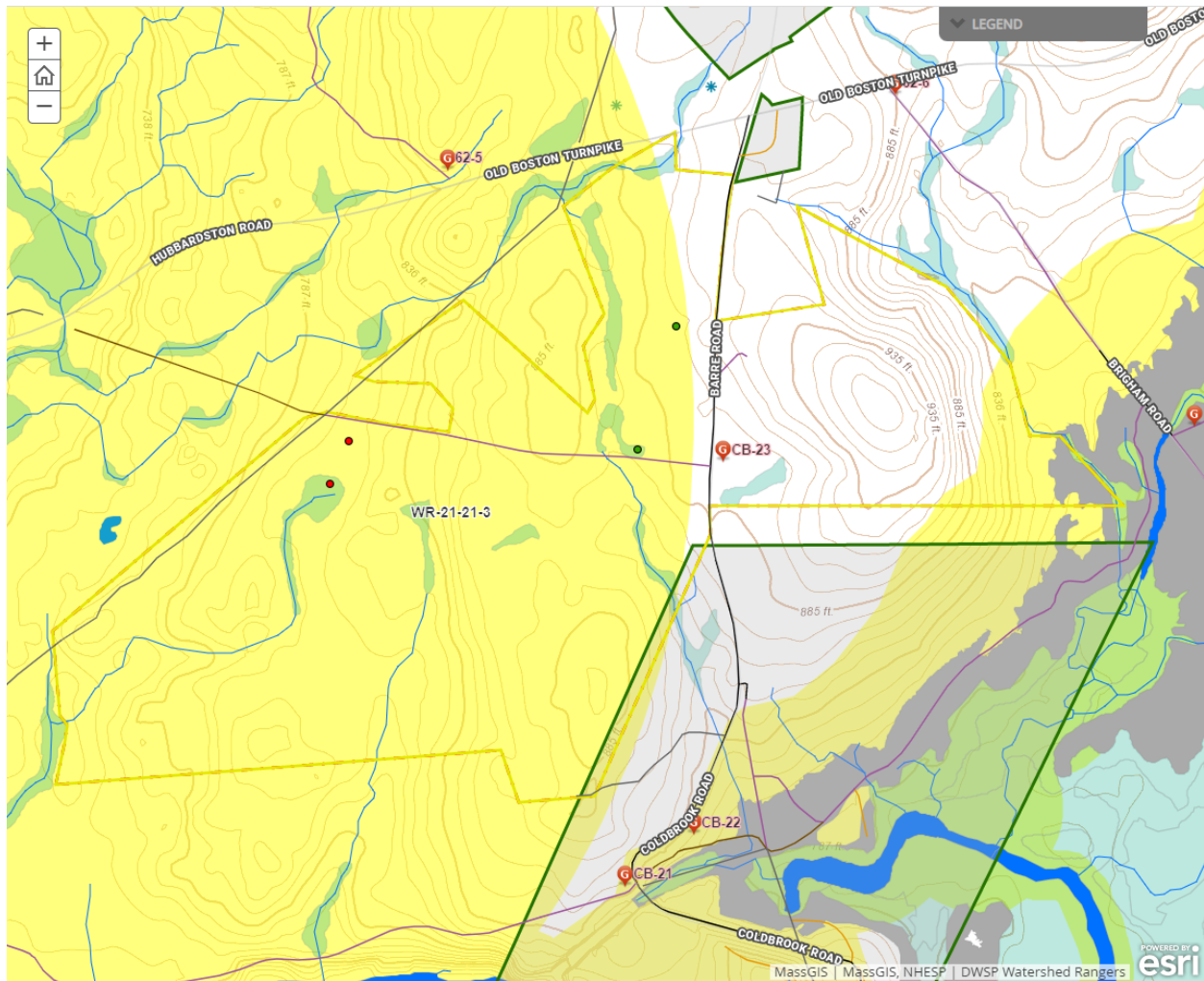
Wildlife Resources & Rare and Endangered Species

General Wildlife Comments:

Woodcock were observed in the old cut south of the hay fields on the east side of Coldbrook Road.

Comments on Rare Species/Habitats:

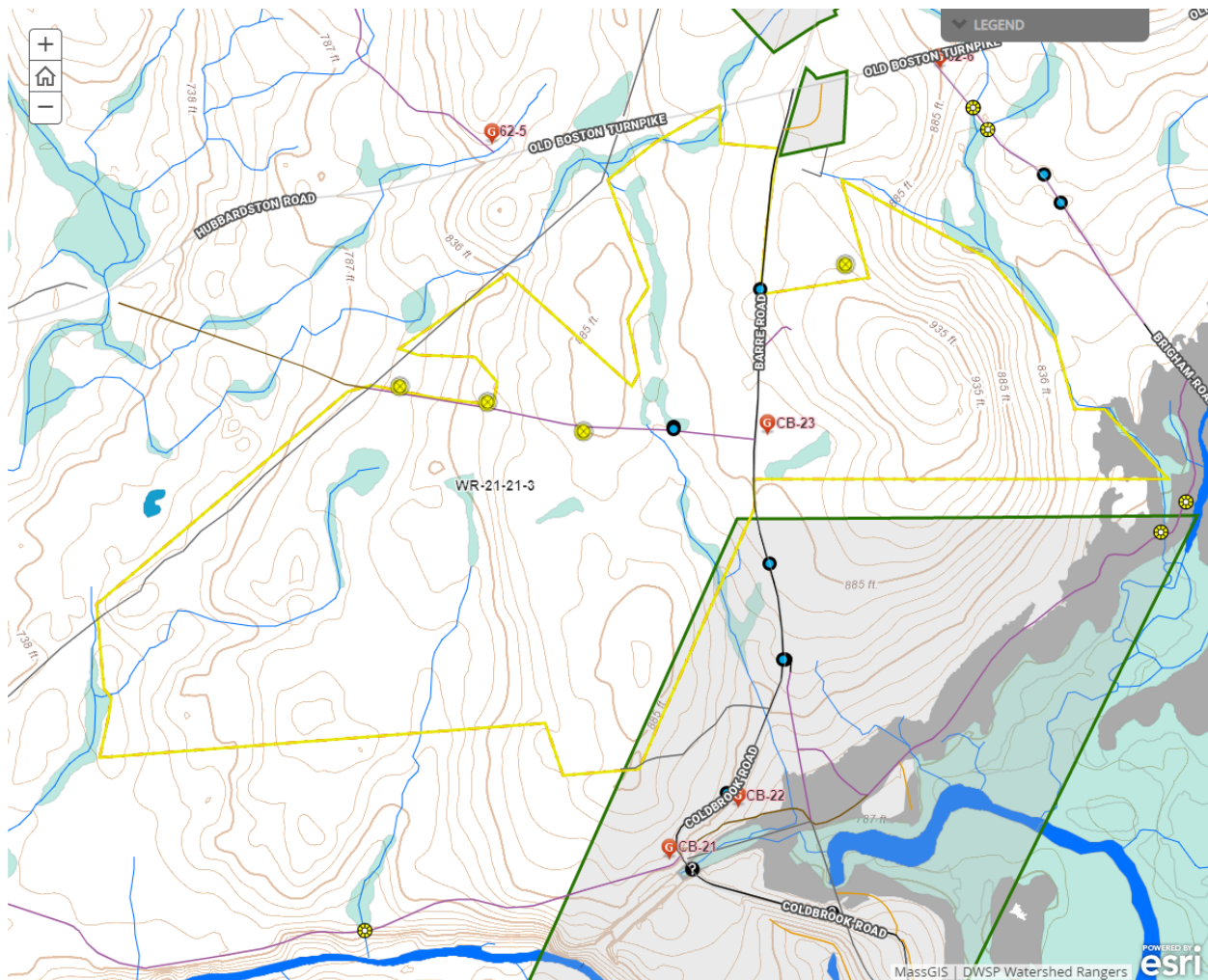
The very eastern tip of the proposal is in a NHESP bubble. Harvesting activities will not be conducted in that section since it is one of the areas with a lot of sugar maple. DWSP will coordinate with NHESP as necessary and follow any recommendations to protect rare species during the proposed activity.



Environmental Quality Engineering

Comments on EQ Issues:

No stream crossings or EQ comments.



Forest Access Engineering

Gravel needed: Yes

Landing work needed: No

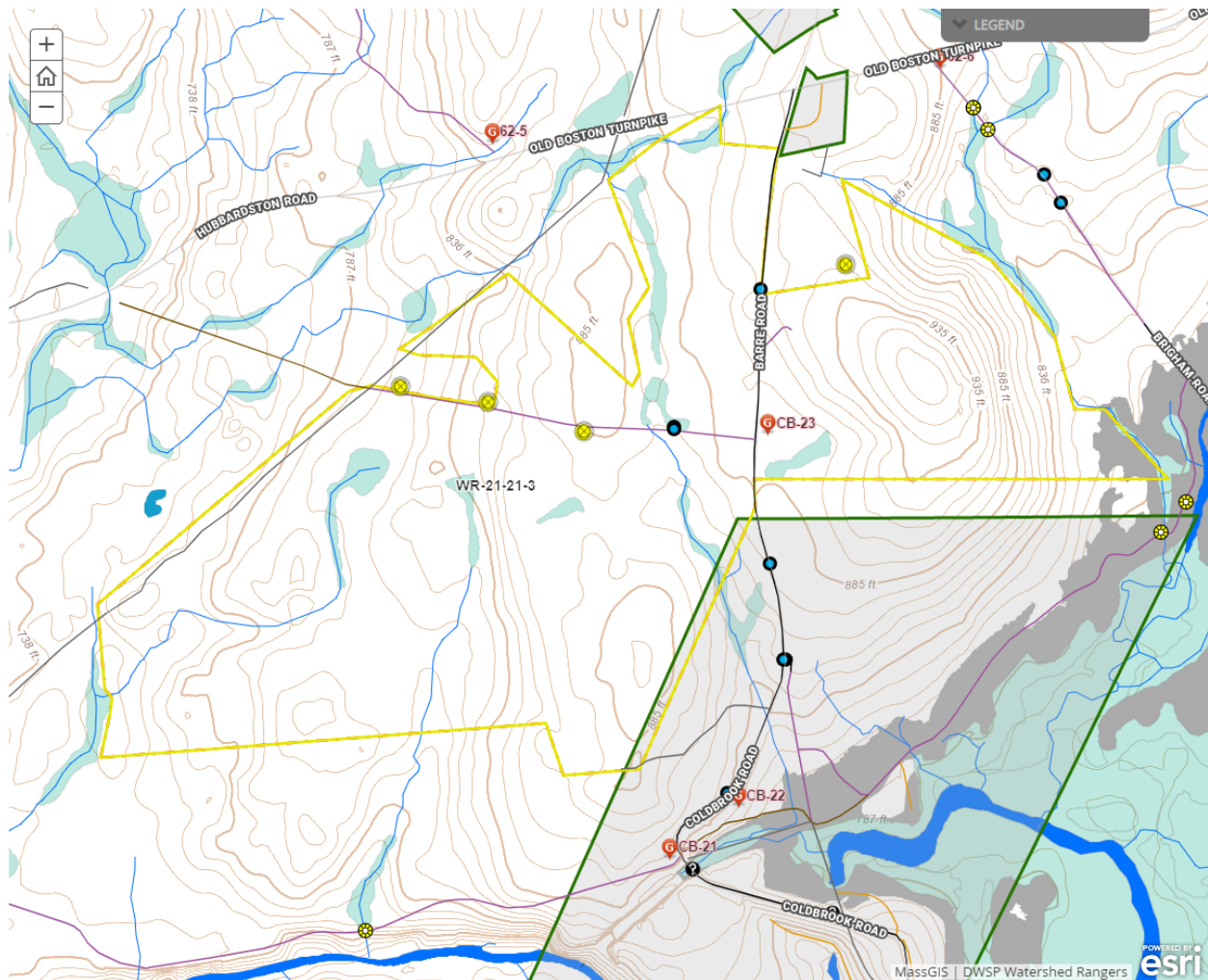
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

Further comment on access needs:

Stone Road needs gravel. The gate may have to be relocated to allow a truck to swing in from Coldbrook Road. The small parking lot in front of the gate will need to be closed during the harvest to allow truck access.



DWSP FY 2021 Forestry Proposals – Master Legend for story maps

