

Wachusett Harvest Proposal WA-21-331

Proposal Goals

The primary goal is to promote a resilient, diverse forest through the creation of canopy openings that allow young forest to develop, release established healthy young trees, and remove groups of poor quality trees. The goal will be to establish a new age class on 1/3rd of this working unit by the removal of the overstory in patches. These openings will be distributed throughout the area, taking advantage of the advance regeneration.

Proposal Location

This proposal is located on the eastern side of Hartwell Street in West Boylston. Starting at Hartwell Street head south along the stonewall for 900 feet then due east for about 350 feet to the far side of the high tension powerline. Follow the powerline southeasterly for about 1900 feet, then due west about 1300 feet. This is where the property line turns northerly along a fence for 1700 feet, then turns northwesterly for about 400 feet back to Hartwell Street.

Total Acres: 48

General Description

	Overstory Type(s)	Acres
Dominant	Oak, mixed - dry site	18
Secondary	White pine/oak	8
Other	White pine/hardwood	7

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

Description of forest composition/condition:

This working unit was acquired in 2014 from CLT Park LLC. About 80% of this working unit was defined as pasture around 1900, with the remaining southern portion a woodland area. In the 1938 hurricane assessment map some scattered damage was found adjacent to this unit. The site is characterized by its variety of forest types, topography and number of easements that run through or along it. The northwestern portion of the working unit is along and beside a ridge and dominated by white pine and pitch pine with pine/hardwood understory. The southern portion of the working unit is mostly flat on the east side with a westerly facing slope on the west side and has a pretty uniform mixed oak stand with a good amount of white pine regeneration along with pockets of witch-hazel and mountain laurel. Gypsy moth was noted in the mixed oak stand. The northeasterly area has a heavier red maple regeneration component with both white pine and red maple in the overstory. Running in a north/south direction through the working unit is a young stand of white pine and hardwoods where an existing powerline easement is. Also found in this working unit was black cherry, red oak, black oak, white oak, American beech, sassafras, paper birch, white ash, gray birch and black birch. The working unit is in the Asian longhorned beetle regulated area with several hundred acres of full host removal being completed within the past ten years all around this working unit. The age structure of this area is as follows; 33% 0-20 years old, 2% 21-40 years old, 3% 41-60 years old, 3% 61-80 years old, 52% 81-100 years old and 7% >100 years old.

Assessment of Terrestrial Invasive Species:

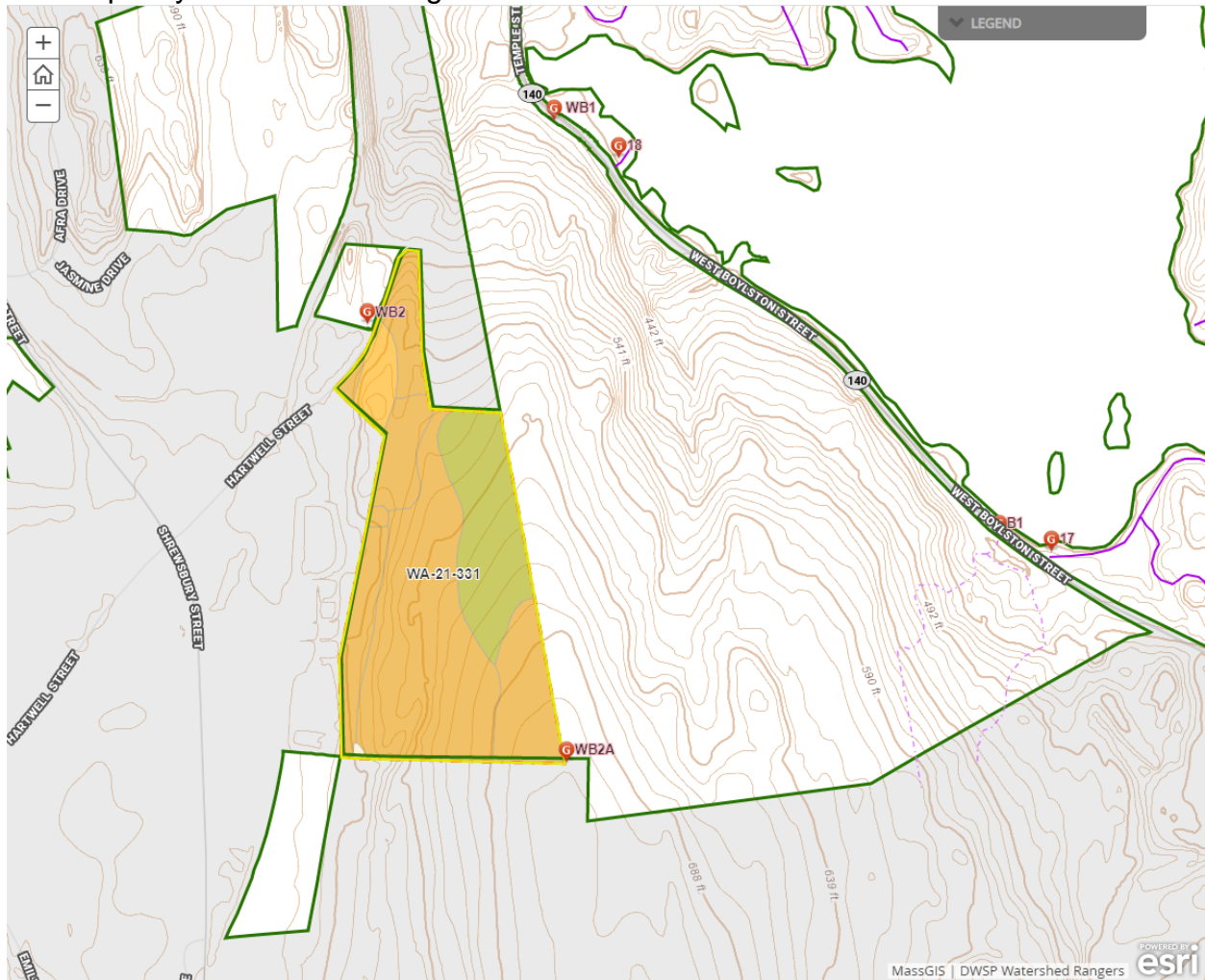
Sampling found 2 plots with invasives present out of 79 total plots taken. Bittersweet was found in both plots which were in the powerline easement.

Soils

Drainage Class	%
Excessively Drained	0
Well Drained Thin	5
Well Drained Thick	68
Moderately Well Drained	21
Poorly to Very Poorly Drained	6

Chatfield-Hollis-Rock was found in the northwestern portion of the working unit. The majority of the working unit is made up of Paxton or Canton Well-drained thick soils,

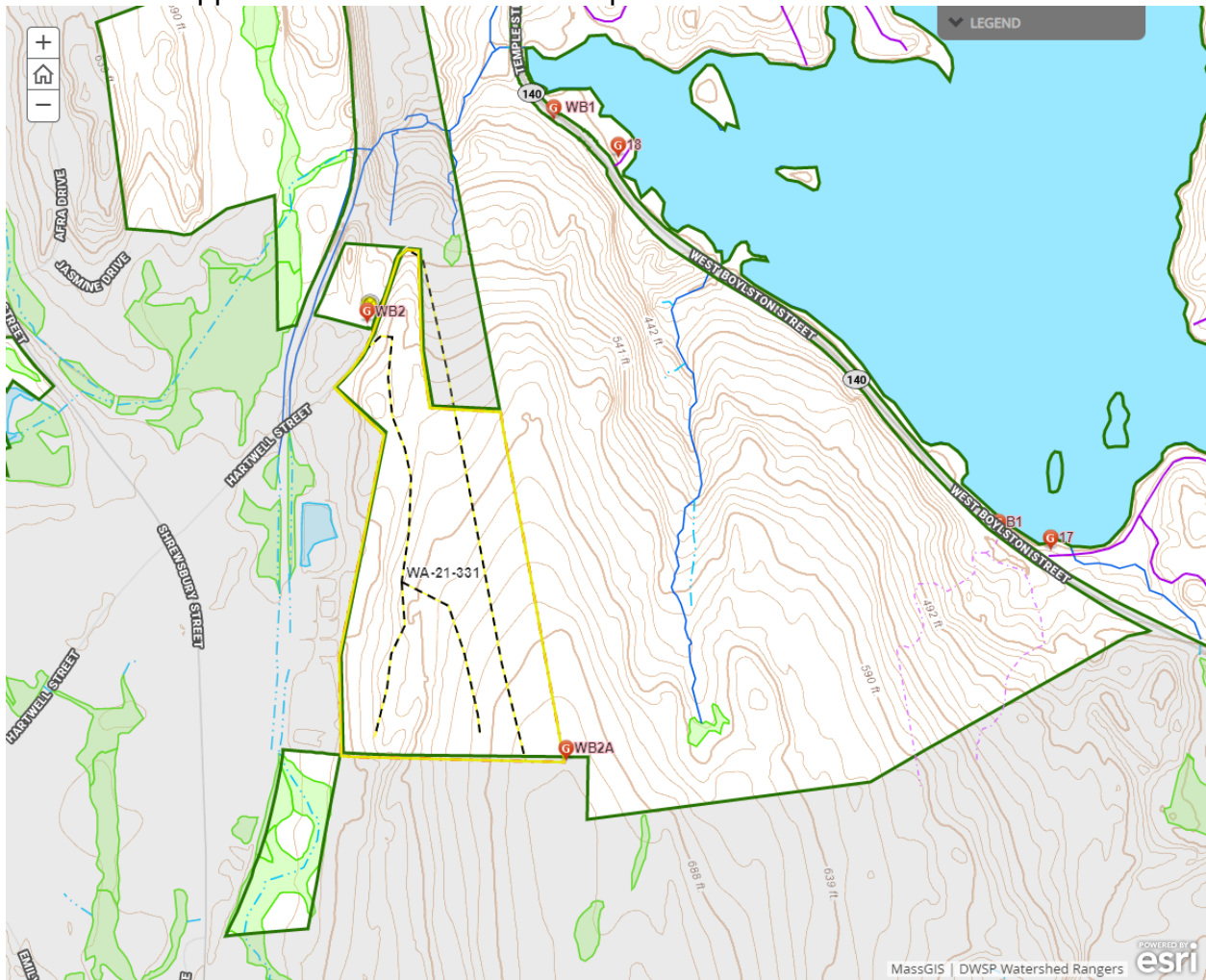
with moderately well-drained Woodbridge and Sudbury making up 21%. Udorthents make up only 6% of the working unit.



Wetlands

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

There are a couple man-made ditches on this site that were used to drain the flat hilltop. There are also two large exposed wells on site. There are maybe one or two small isolated unmapped wetlands on the eastern portion of the lot.



Silviculture

- Acres in Intermediate cuts: **0**
- Acres in prep/establishment cuts: **0**
- Acres in Regeneration cuts: **12**
- Average regen opening size: **1**
- Maximum regen opening size: **2**

Description of advance regeneration in proposal area:

The regeneration is comprised of white pine, red maple, hickory, black birch, red oak, white oak, gray birch, and black oak. Sampling found there was adequate regeneration on 61% of the plots with marginal regeneration on 15 percent of the plots. Mountain laurel or witch-hazel was found interfering on 12% of the plots and no regeneration was found on 12% of plots taken. Adequate regeneration was found throughout the working unit. Herbivory does not appear to be an issue on this lot.

General comments on silviculture proposed:

The goal will be to establish a new age class on 1/3rd (12 acres) of this working unit by the removal of the overstory in patches. These openings will be distributed throughout the area, taking advantage of the advance regeneration. However, it is unlikely a full 16 acres of openings can be made considering DWSP restrictions and requirements for the average size of openings, the maximum size of openings and the minimum distance between openings. There are also areas that have a high red maple density which will be avoided due to the working unit being within the Asian Longhorned Beetle regulated area. Areas with interfering mountain laurel or witch-hazel are generally isolated pockets and can be worked around or made a small part of an opening if needed.

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
8 (Muddy Brook)	124	2	29	48

The proposed level of cutting falls below the 25% threshold.

Harvesting Limitations

Forwarder required: **Yes**

Feller/processor required: **Yes**

Steep slopes present: **No**

Comments on harvesting limitations:

With good regeneration on site a feller/processor and forwarding will be required.

Cultural Resources

Comments on Cultural Resources:

There are two large diameter open wells on the site.

Wildlife Resources & Rare and Endangered Species

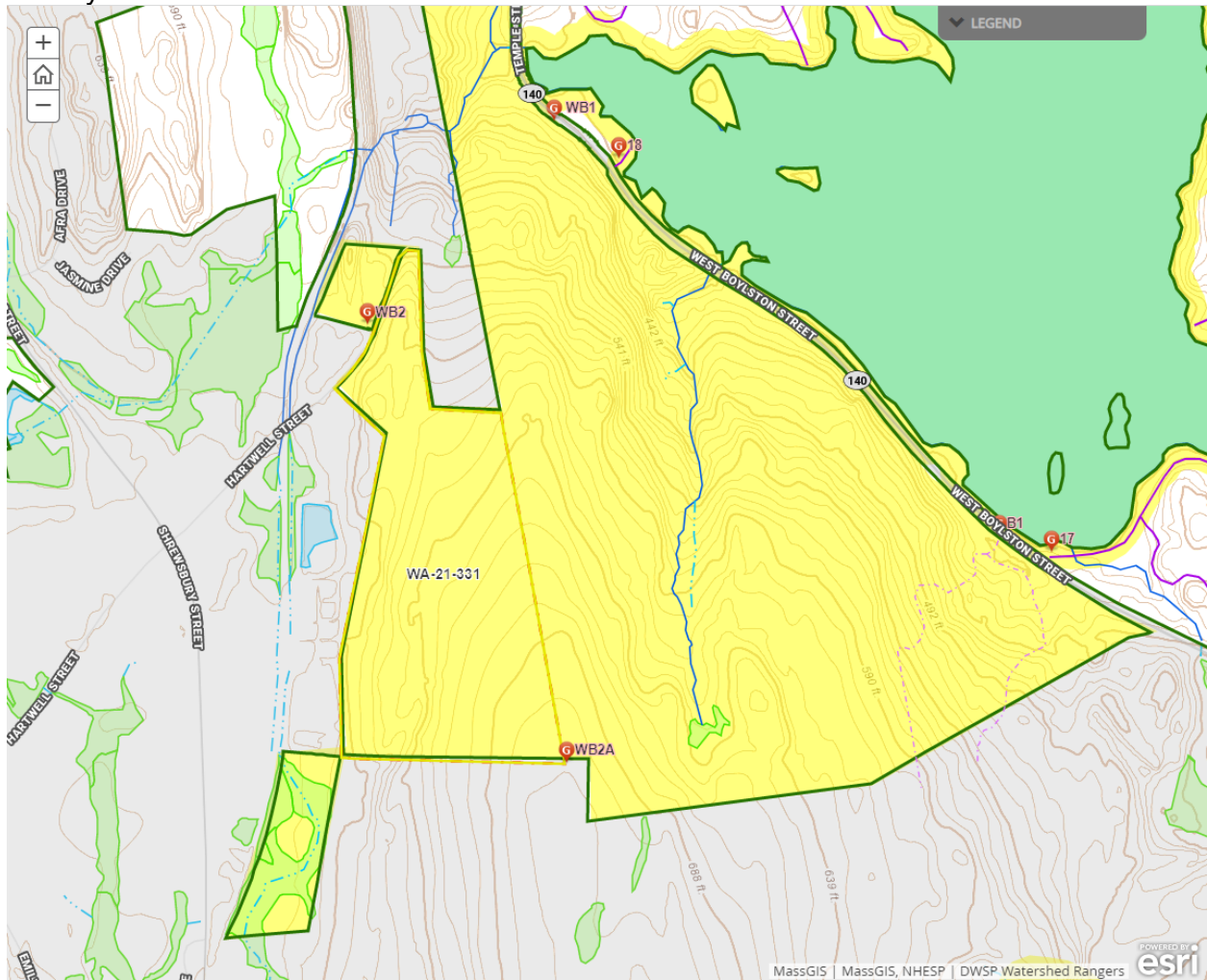
General Wildlife Comments:

Deer activity appeared moderately high based on presence of notable deer trails, pellets and some browse. The forest lot and adjacent areas contain edge habitat (powerlines, roads) that provide abundant food and cover for deer. Stick nests were also noted.

Comments on Rare Species/Habitats:

Though habitat maps are not yet finalized and made public, NHESP has records of certain state-listed sensitive species 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 wherever

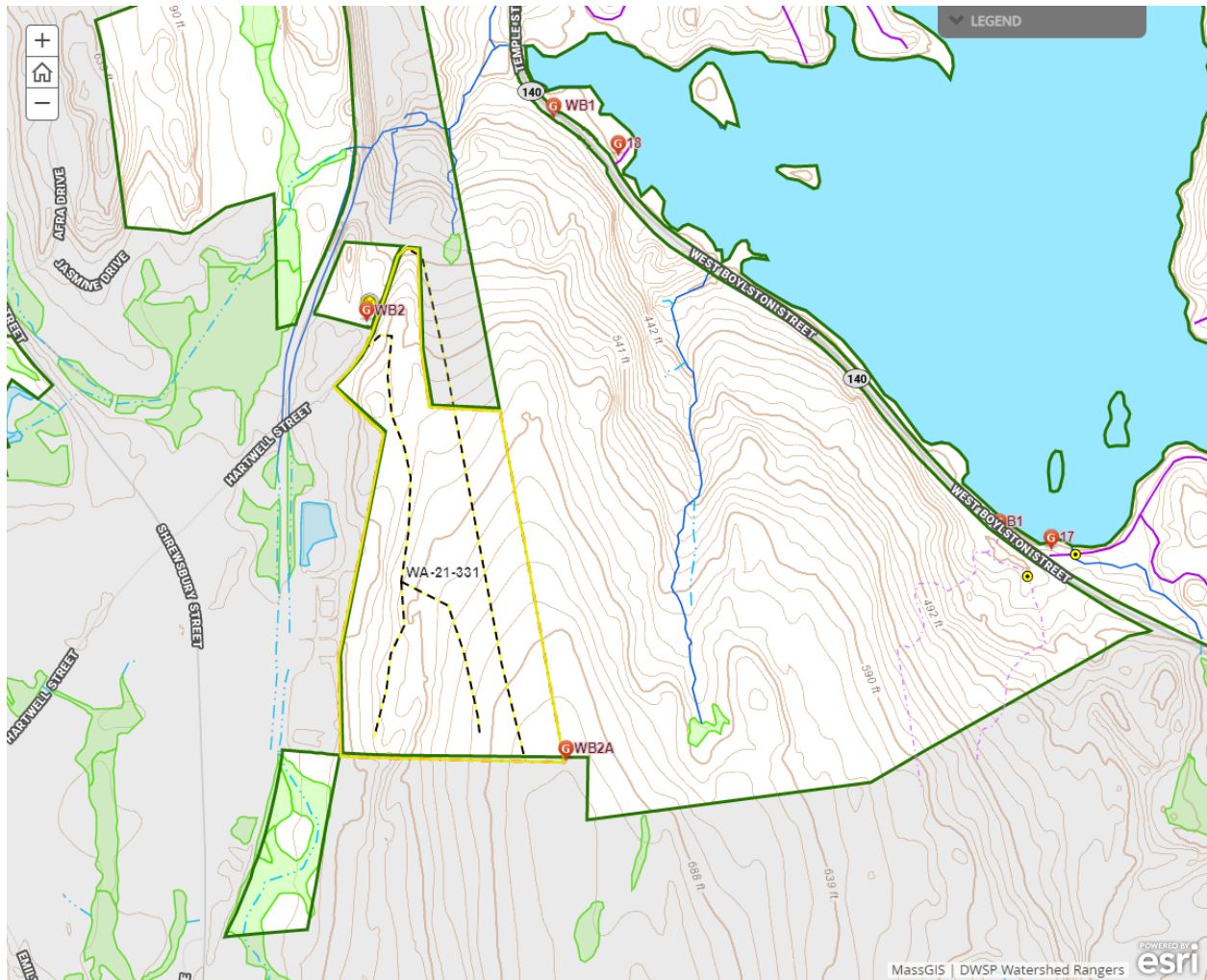
necessary follow recommendations to protect these species during the proposed activity.



Environmental Quality Engineering

Comments on EQ Issues:

No stream crossings or EQ comments.



Forest Access Engineering

Gravel needed: No

Landing work needed: No

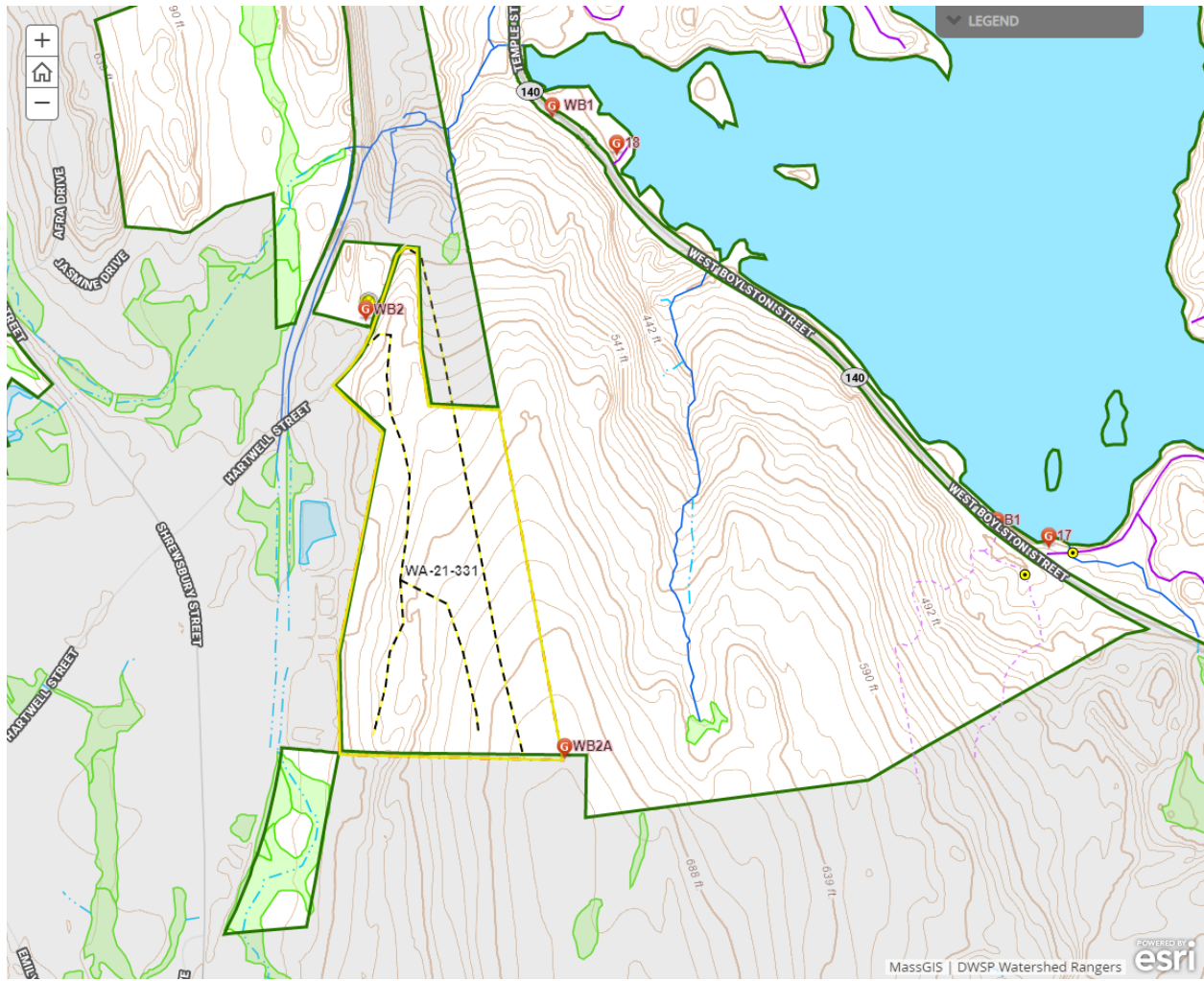
Culverts needed: No

Work needed on permanent bridges: No

















Beaver issue: No

Further comment on access needs:

No engineering work is anticipated to be needed prior to harvest.



DWSP FY 2021 Forestry Proposals – Master Legend for story maps

<p>DWSP Gates</p>  <hr/> <p>Landings</p>  <hr/> <p>Crossings</p> <p>Xng</p>  Stream Crossing	<p>QWWS Watershed Boundaries</p>  <hr/> <p>Vernal Pools</p> <p>Status</p> <ul style="list-style-type: none"> ● Not a vernal pool ● Potential vernal pool ● DCR verified vernal pool <p>Streams - Quabbin</p> <p>FType</p> <ul style="list-style-type: none"> — Coastline/Shoreline — Stream/River - - - - - Swamp/Marsh - - - - - Submerged Stream — Artificial Path — Canal/Ditch - - - - - Pipeline — Dam/Weir — Connector — Unknown — Other <p>Water Bodies - Quabbin</p> <p>FType</p> <ul style="list-style-type: none"> Reservoir Lake/Pond Stream/River Swamp/Marsh <p>Streams - Ware River</p> <p>FType</p> <ul style="list-style-type: none"> Stream/River Canal/Ditch <p>Water Bodies - Ware River</p> <p>FType</p> <ul style="list-style-type: none"> Reservoir Lake/Pond Stream/River Swamp/Marsh Other <p>Streams - Wachusett</p> <p>EQ_Stream_Type</p> <ul style="list-style-type: none"> — Aqueduct - - - - - Ditch/Canal - - - - - Intermittent Stream — Perennial Stream <p>Waterbodies - Wachusett</p> <p>EQ_Wetland_Type</p> <ul style="list-style-type: none"> Reservoir Lake, Pond, Wide River, Impoundment Wetland, Marsh, Swamp, Bog <p>NHESP Priority Habitats</p>  <hr/> <p>NHESP Certified Vernal Pools</p> <p>NHESP Certified Vernal Pools</p> 	<p>Forest Cover Type - Filled</p> <p>CoverTypeFull</p> <ul style="list-style-type: none"> White Pine-Hardwoods Oak-Hardwoods White Pine-Oak WetHard Mixed Hardwood White Pine Grasses and Forbs White Pine-Hemlock Mixed Oak Northern Red Oak Red Maple Powerline WetMixed Error - Not DWSP Red Pine Shrub Swamp Upland Brush Northern Hardwood Road Beaver Pond Hemlock Hemlock-Hardwoods Mixed-Oak Norway Spruce Pitch Pine WetCon Abandoned Orchard Black Birch-Hardwoods Gravel Pit Northern Hardwoods Pitch Pine-Oak Water Oak, Mixed White pine - oak Mixed hardwoods Hemlock - hardwoods White pine - hardwoods Black Birch-Hardwood Field, mowed Oak - hardwoods Abandoned Field Beaver Meadow Chestnut Oak Heath Mixed hardwood White pine/hardwoods <p>Forest Cover Type - Outline</p> 	<p>SubWatersheds (QWWS-filled)</p> <p>Subwatershed Name</p> <ul style="list-style-type: none"> ASNEBUMSKIT BROOK Barre Falls Belchertown Shoreline Blackington Swamp Cadwell Creek Cunningham East Br. Fever Brook East Prescott North Fed. Forest Stream Gate 20 Rd. Stream Gate 52 Shoreline Gates Brook Gibbs Brook Josslin Juckett Hill East MIDDLE STILLWATER/ROCKY/WILDER BROOK Mary Tamplin Drainage Middle Br. Swift Lower Moosehorn Brook NORTH STILLWATER/KEYES BROOK Northeast Shoreline Parker Prescott Brook Quabbin Park East RES. SHORELINE EAST Sherer Rd. North TROUT BROOK Thurston Brook Underhill Brook WACHUSETT BROOK Ware West Prescott Middle West Prescott North West Prescott South Whitney Hill Southeast Whitney Hill West Other <p>Subwatersheds (WA-outline)</p>  <hr/> <p>Subwatersheds (QWR-outline)</p>  <hr/> <p>Subwatersheds</p> 	<p>Forestry Proposal Boundaries</p>  <hr/> <p>Towns</p>  <hr/> <p>Water Supply Property Boundary</p>  <hr/> <p>Proposed Skid Trails</p>  <hr/> <p>Stone Walls - WA</p>  <hr/> <p>StoneWalls - QWR</p>  <hr/> <p>Stony Soils</p> <p>Stoniness</p> <ul style="list-style-type: none"> extremely stony very stony <hr/> <p>Soils - Drainage</p> <p>Drainage Class</p> <ul style="list-style-type: none"> Excessively Drained Well Drained Thick Well Drained Thin Moderately Well Drained Poorly To Very Poorly Drained <hr/> <p>Quabbin and Ware River Cultural Resources Inventory (Public view)</p> <p>Type</p> <ul style="list-style-type: none"> ○ No Value/Blank ● Agrarian ● Cellar Hole ● Civic ● Commercial ● Industrial ● Military ● Other ● Residential ● Shed ● Unknown <hr/> <p>QWWS Percent Slope</p> <ul style="list-style-type: none"> 0 - 7 > 7
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