

# Wachusett Harvest Proposal WA-22-59

## *Proposal Update, May 2024:*

*This forestry proposal was originally approved through the public process in 2021. 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 2021 in ArcGIS Online Story Map format.*

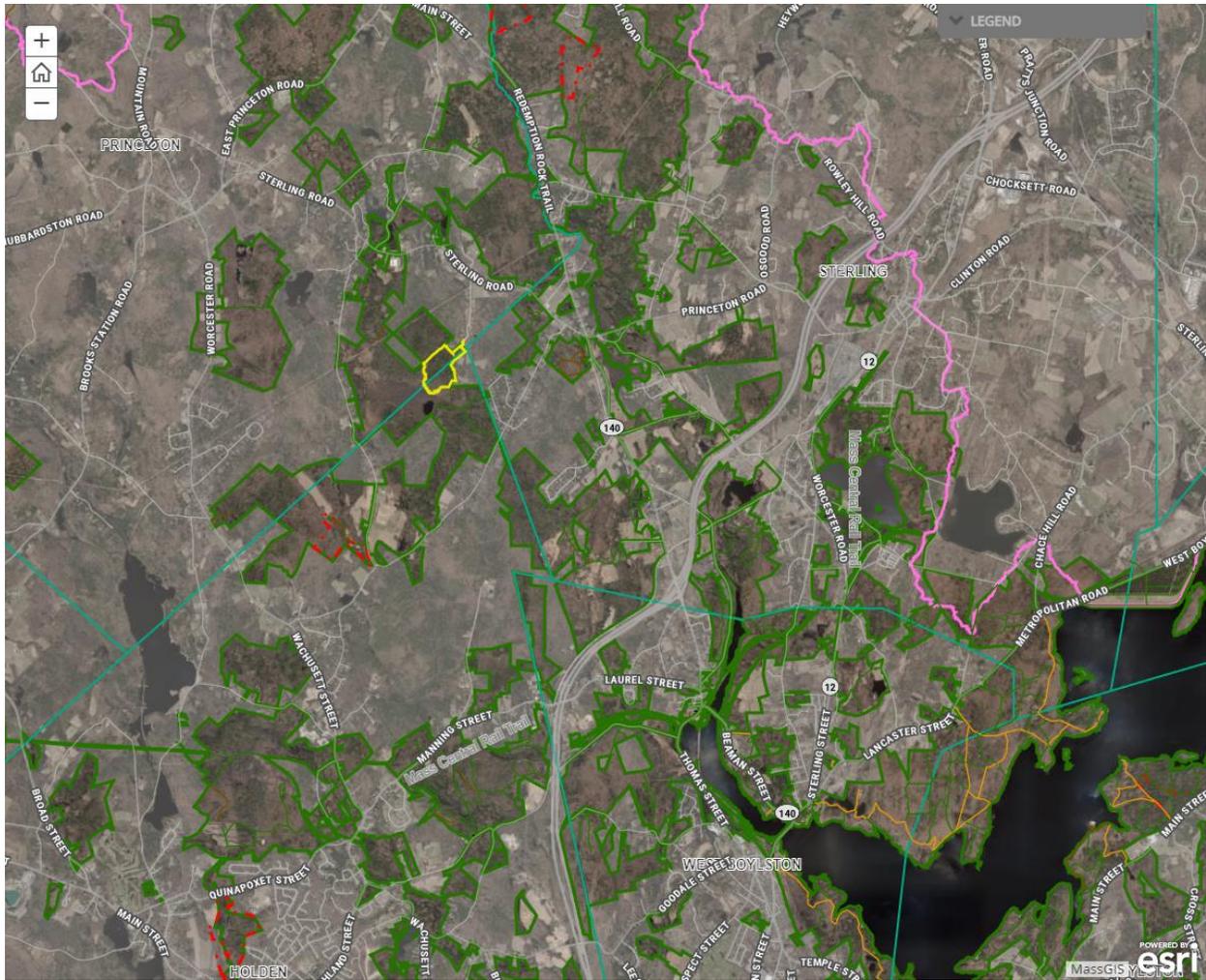
## **Proposal Goals**

The primary goal will be initiating a preparatory cut to manage the mountain laurel currently preventing regeneration from establishing. The secondary goal will be releasing advanced regeneration that resulted from a previous preparatory cut.

## **Proposal Location**

Beginning at Esty Road, heading southwest and then northwest along the property line to the DWSP Israel lot. Thence, southwesterly along the Israel lot for about 2,500 feet at which point the working unit heads due south for about 900 feet to the Poutwater pond area. The unit follows the Poutwater pond area easterly for about 1000 feet. At which point the working unit heads northerly against private properties for about 2000 feet where it rejoins Esty Road.

**Total Acres: 50**



## General Description

	Overstory Type(s)	Acres
<b>Dominant</b>	Oak - hardwoods	34
<b>Secondary</b>	White pine - oak	17
<b>Other</b>	Red maple -wet	1

	Understory Type(s)
<b>Dominant</b>	Mountain laurel prevalent
<b>Secondary</b>	Tree seedlings/saplings dominate site

**Description of forest composition/condition:**

This working unit is characterized by its overwhelming amount of mountain laurel in the understory. The forest is comprised of the following tree species; red oak, white oak, black oak, white pine, black birch, black cherry, red maple, paper birch and yellow birch. Both the mature oak and white pine are of good vigor. The understory is predominantly mountain laurel with far lesser amounts of tree saplings, witch-hazel, highbush and lowbush blueberry.

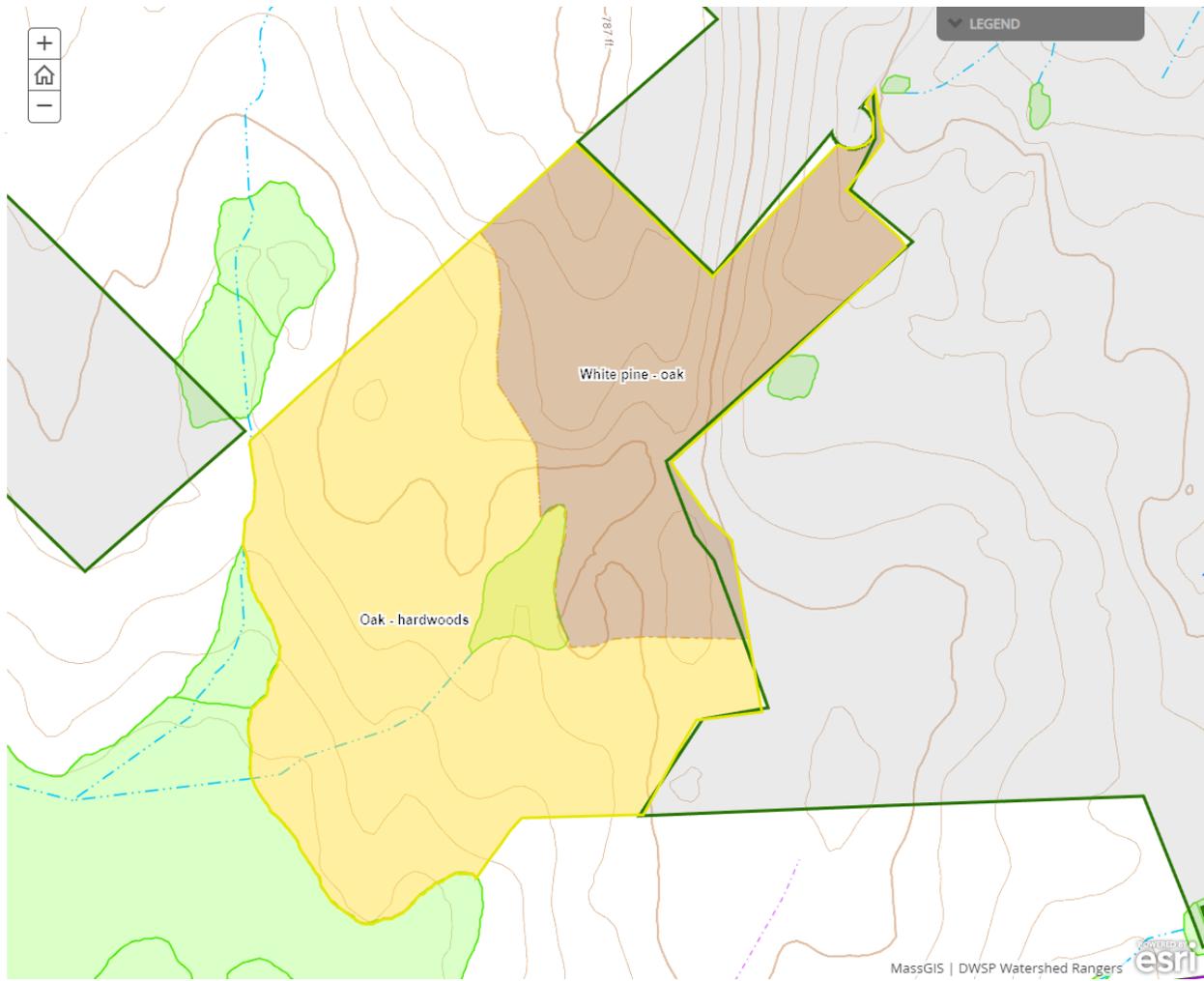
The western half of this working unit was worked in 2007, where some openings and thinning occurred. Also, 3 blocks of about 2 acres each were heavily cut. The goal was to damage the mountain laurel sufficiently while opening the overstory to encourage the establishment of regeneration. This was successful and there is now good advance regeneration in these areas that were previously dominated by mountain laurel. The areas that were not worked in the western half and the eastern half are almost entirely oak or white pine and oak with large swaths of mountain laurel underneath.

The southeast section of the working unit has a large concentration of exposed rock and boulders. There are also some small groups of dead white pines that appear to be from lightning strikes.

The age structure of the working unit is as follows: 7% (0-20 years old) 0% (21-40 years old) 0% (41-60 years old) 28% (61-80 years old) 0% (81-100 years old) 65% (>100 years old).

**Assessment of Terrestrial Invasive Species:**

Sampling found no invasives present in 46 plots taken. The reconnaissance hike also found no invasives. It is a somewhat dry site.



## Soils

<b>Drainage Class</b>	<b>%</b>
<b>Excessively Drained</b>	8
<b>Well Drained Thin</b>	1
<b>Well Drained Thick</b>	69
<b>Moderately Well Drained</b>	20
<b>Poorly to Very Poorly Drained</b>	2

The site is made up of predominately Well drained thick Canton and Montauk-Scituate-Canton Soils, followed by moderately well drained Woodbridge-Paxton soils.

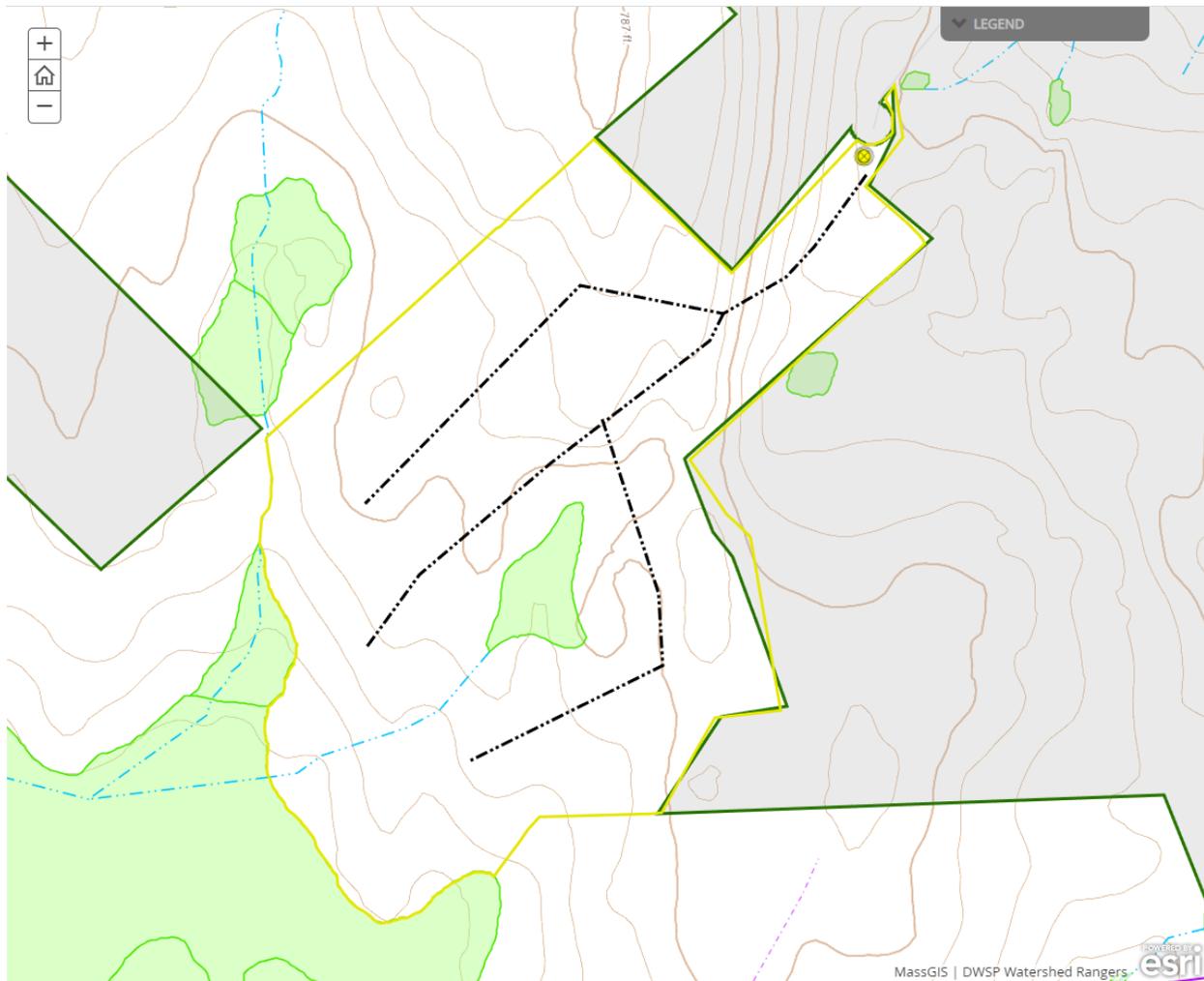
(The gap in the map results from incomplete GIS soils mapping coverage in this area.)



## Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- 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 two GIS mapped streams that are small intermittent channels and hard to locate in the field.



## Silviculture

Acres in Intermediate cuts: **0**

Acres in prep/establishment cuts: **17**

Acres in Regeneration cuts: **13**

Average regen opening size: **1**

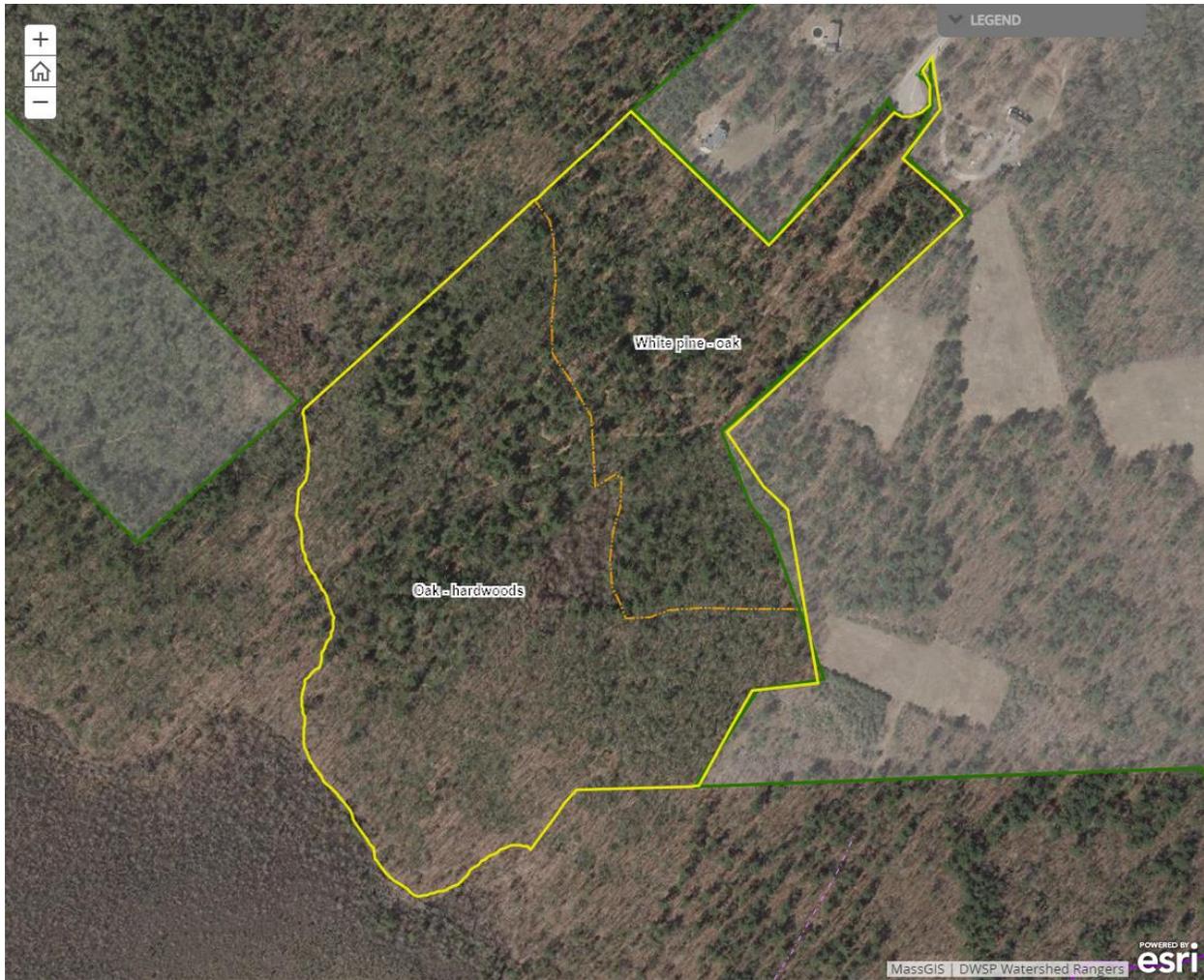
Maximum regen opening size: **2**

**Description of advance regeneration in proposal area:**

In the western half of the working unit 46 plots were taken and 59% of them were interfered with mountain laurel. Only 26% of the plots were considered regenerated with only 22% having oak present. 2/3rds of the regenerated plots are within the 3 blocks that were heavily cut in 2007. The eastern half of the working unit has such tremendous amounts of mountain laurel that taking plots would be a formidable task and it was determined plots were not needed to accurately determine the makeup of the area.

**General comments on silviculture proposed:**

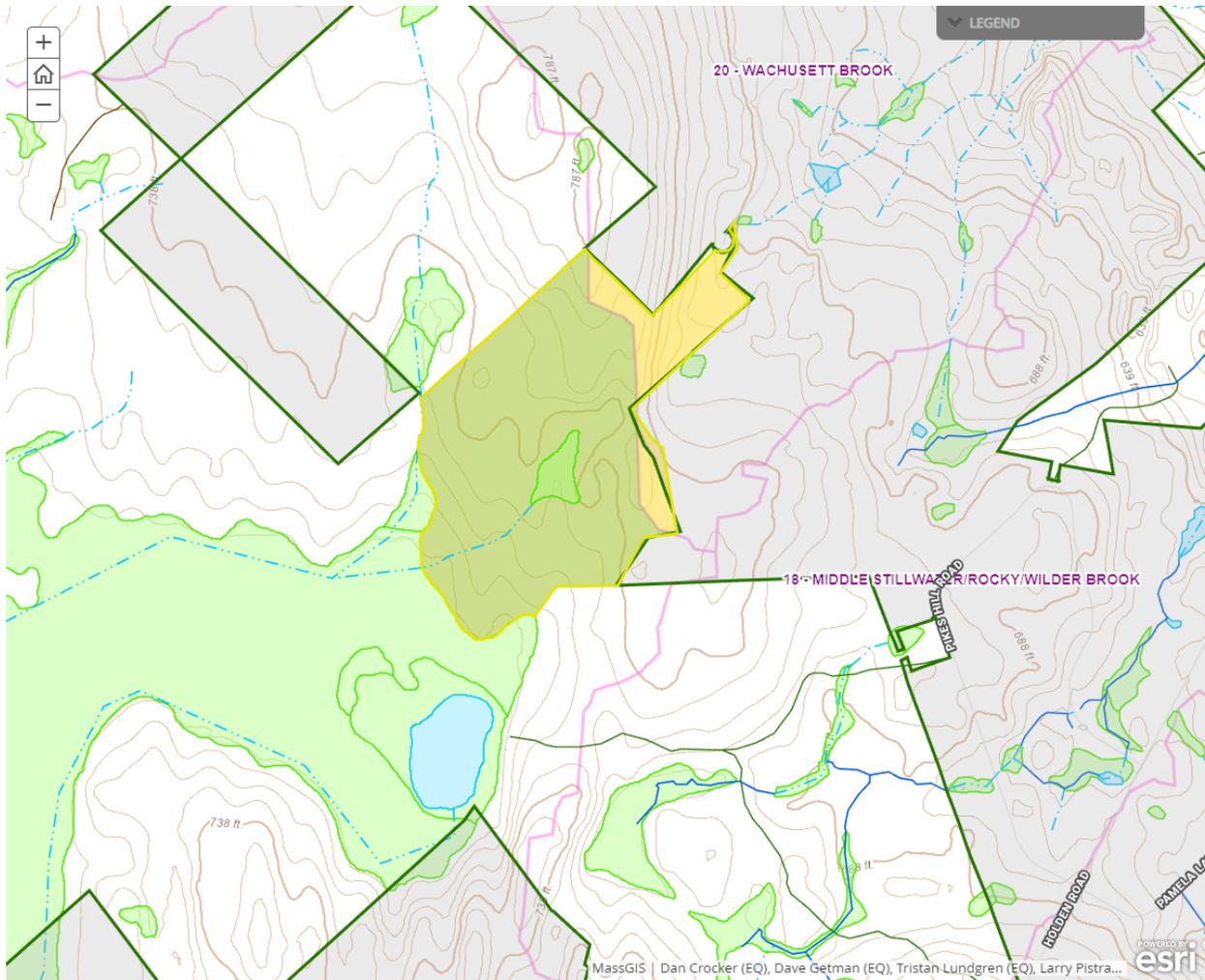
Given the tremendous amounts of mountain laurel in the working unit, a preparatory cut, designed to damage the mountain laurel and encourage the establishment of regeneration will be implemented on up to 17 acres in the area mountain laurel is found to be interfering. More basal area will be left than traditional openings in this area but less basal area than a typical thinning which would only encourage the regrowth of mountain laurel. A great focus will need to be paid on the harvester cutting and crushing the mountain laurel and disturbing the soil throughout the site for seed to germinate and be able to outcompete the regrowth of the mountain laurel. Up to another 13 acres of openings may be made only where advance regeneration is suitable (focusing first on the prep work that occurred in 2007) to help achieve the goal of 3 age classes.



## 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
15 (Trout Brook)	1058	55	1003	35
20 (Wachusett Brook)	1046	44	1002	7

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



## Harvesting Limitations

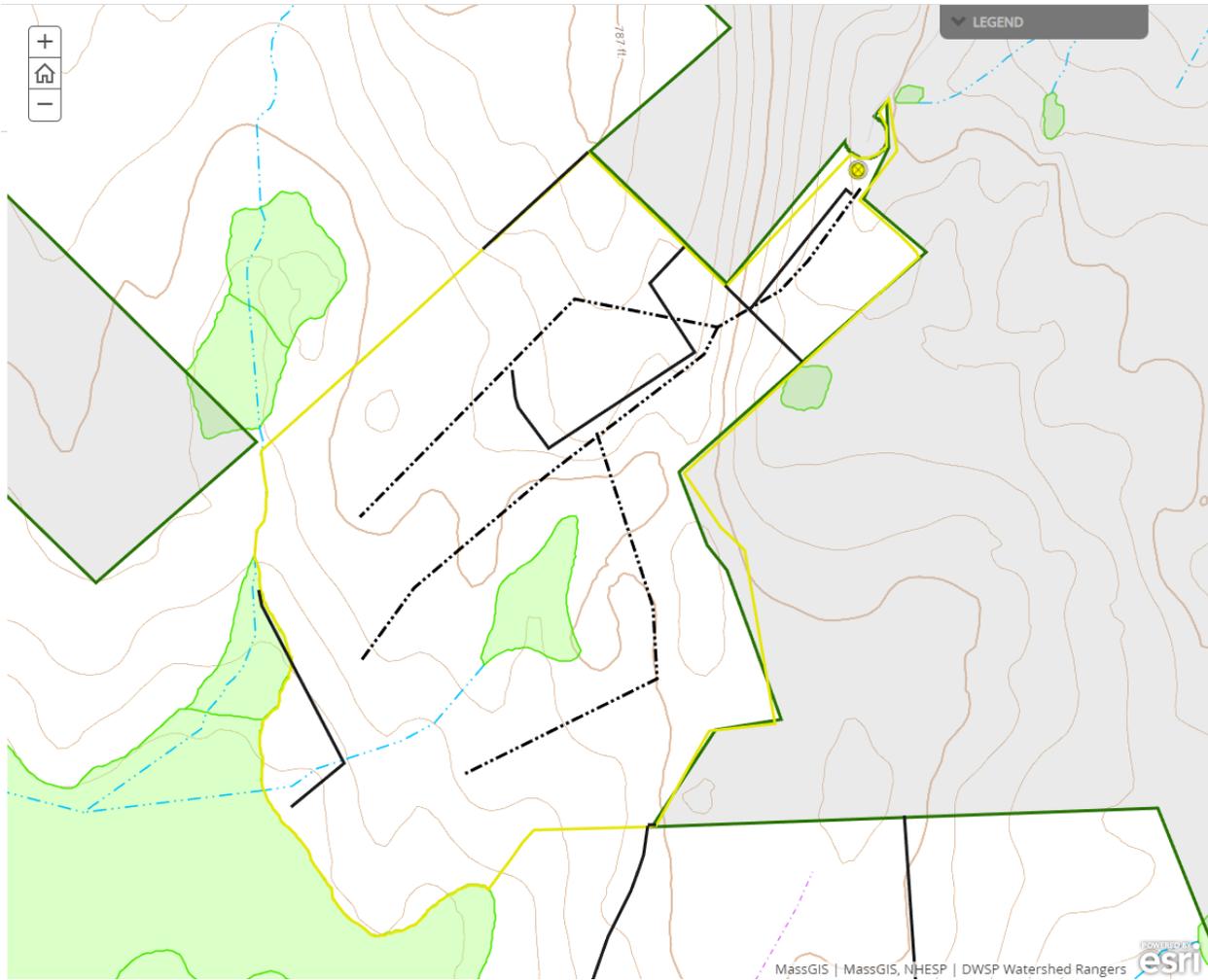
Forwarder required: **Yes**

Feller/processor required: **Yes**

Steep slopes present: **No**

### Comments on harvesting limitations:

Due to some areas having advanced regeneration that we want to release, a forwarder & processor will be required. There also might potentially be some harvesting limitations in small areas due to the exposed rock and boulders.

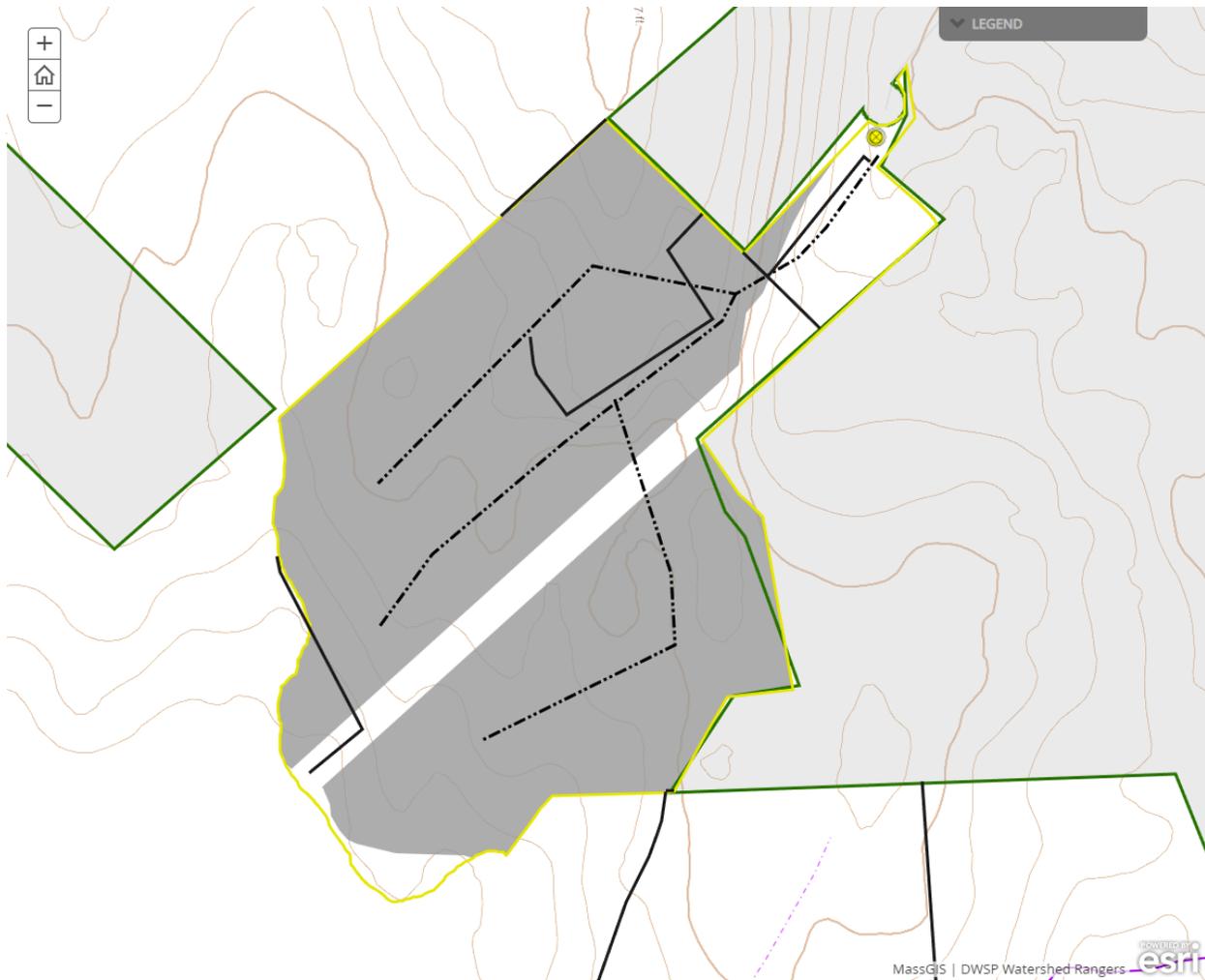


## Cultural Resources

### Comments on Cultural Resources:

No historic cultural resources present other than stone walls. Surface stone is prevalent.

(The gap in the map results from incomplete GIS soils mapping coverage in this area.)



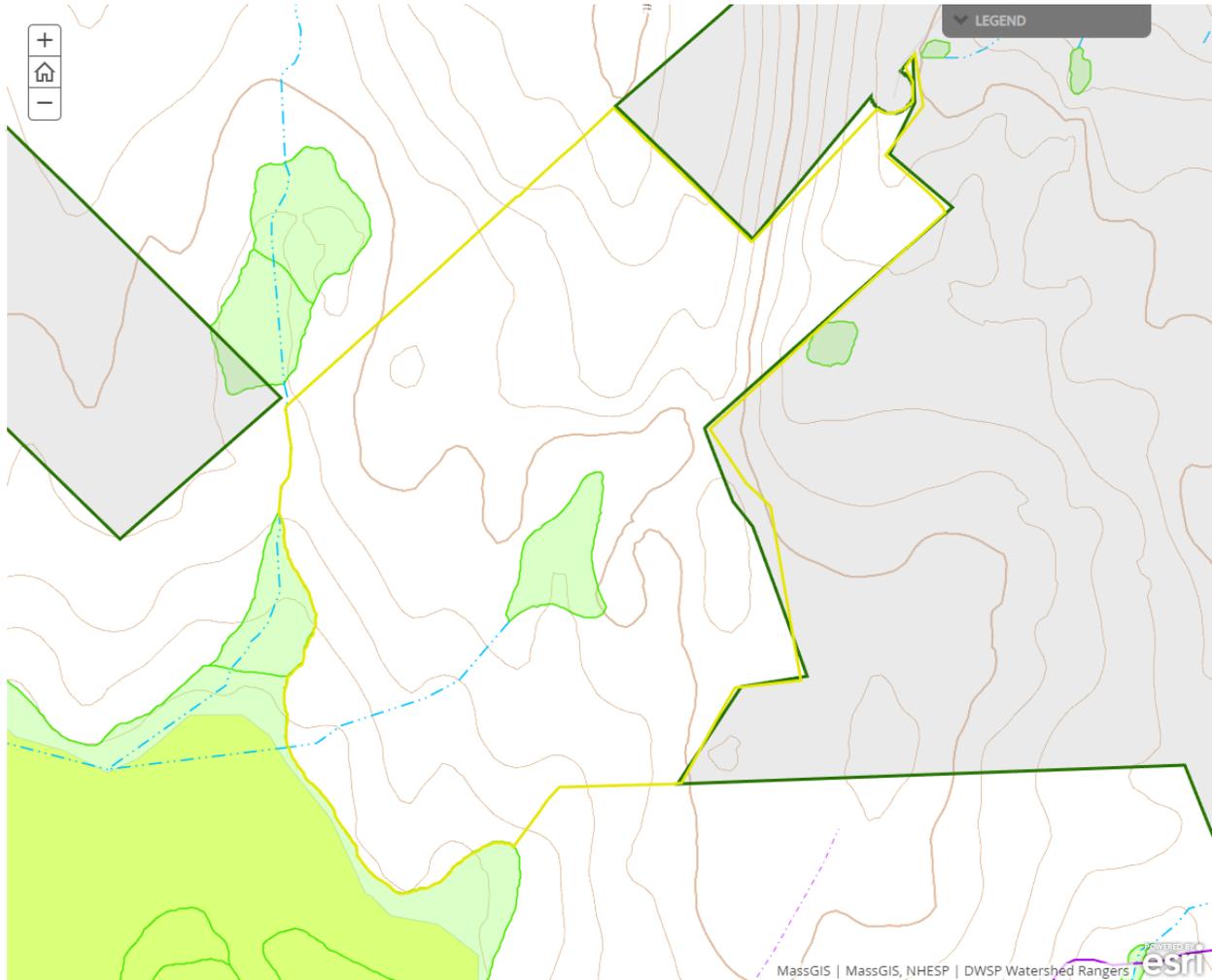
## Wildlife Resources & Rare and Endangered Species

### General Wildlife Comments:

No unusual wildlife observed; old stick nests noted were inactive, but active ones noted during lot layout will be protected. All DWSP Best Management Practices for wildlife management such as the protection and enhancement of wildlife habitat features will be an integral part of the silviculture and job layout. Diverse hard and soft mast species will be retained and the healthiest trees will be released to improve seed production, which will promote tree seedlings and food for wildlife. Large snags, den trees, logs and nest trees will be retained whenever possible as valuable habitat. Where they occur, streams, wetlands, seeps and vernal pools will be protected for water quality and wildlife habitat.

### Comments on Rare Species/Habitats:

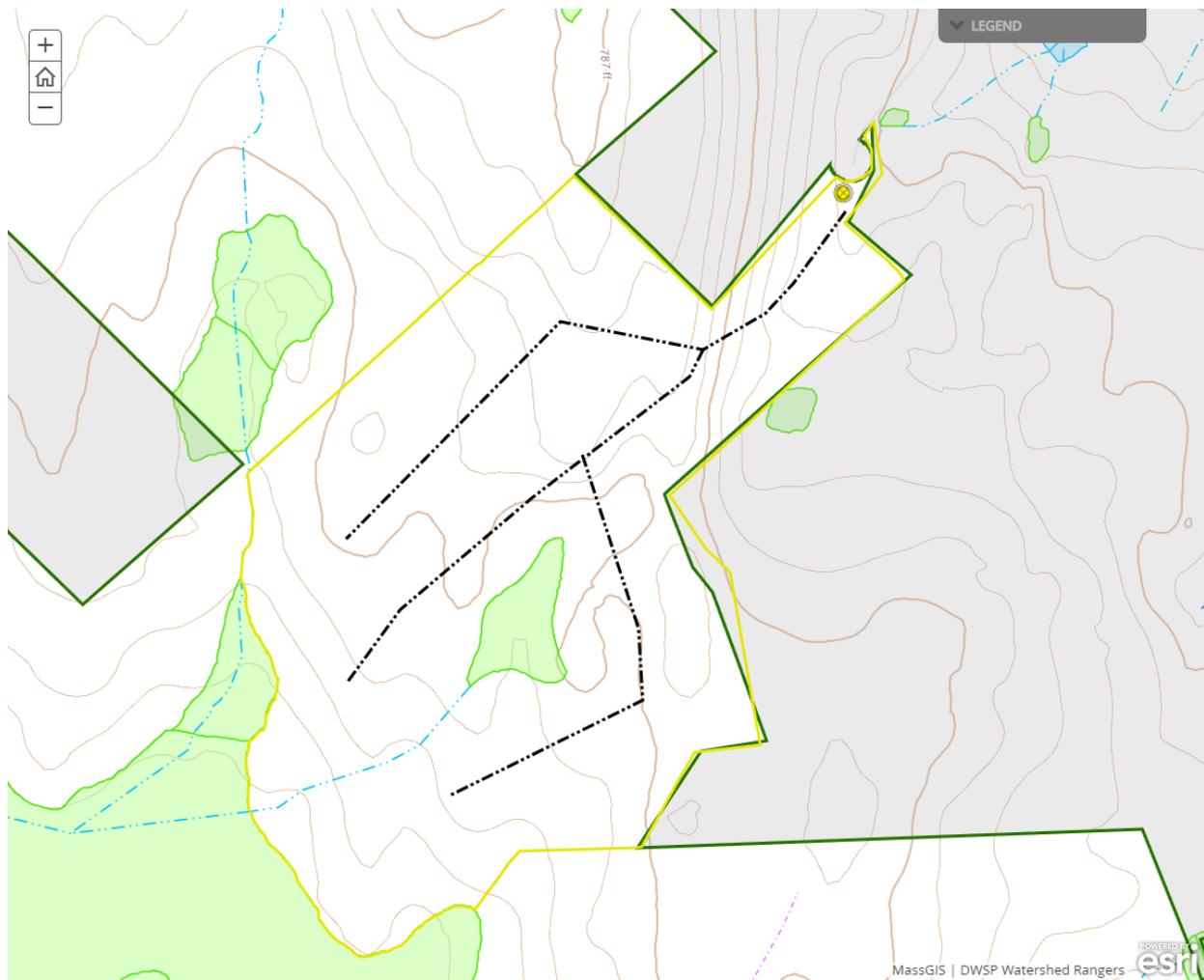
None known; no NHESP Priority Habitats.



## Environmental Quality Engineering

### Comments on EQ Issues:

There are no stream crossings.



## Forest Access Engineering

**Gravel needed:** No

**Landing work needed:** No

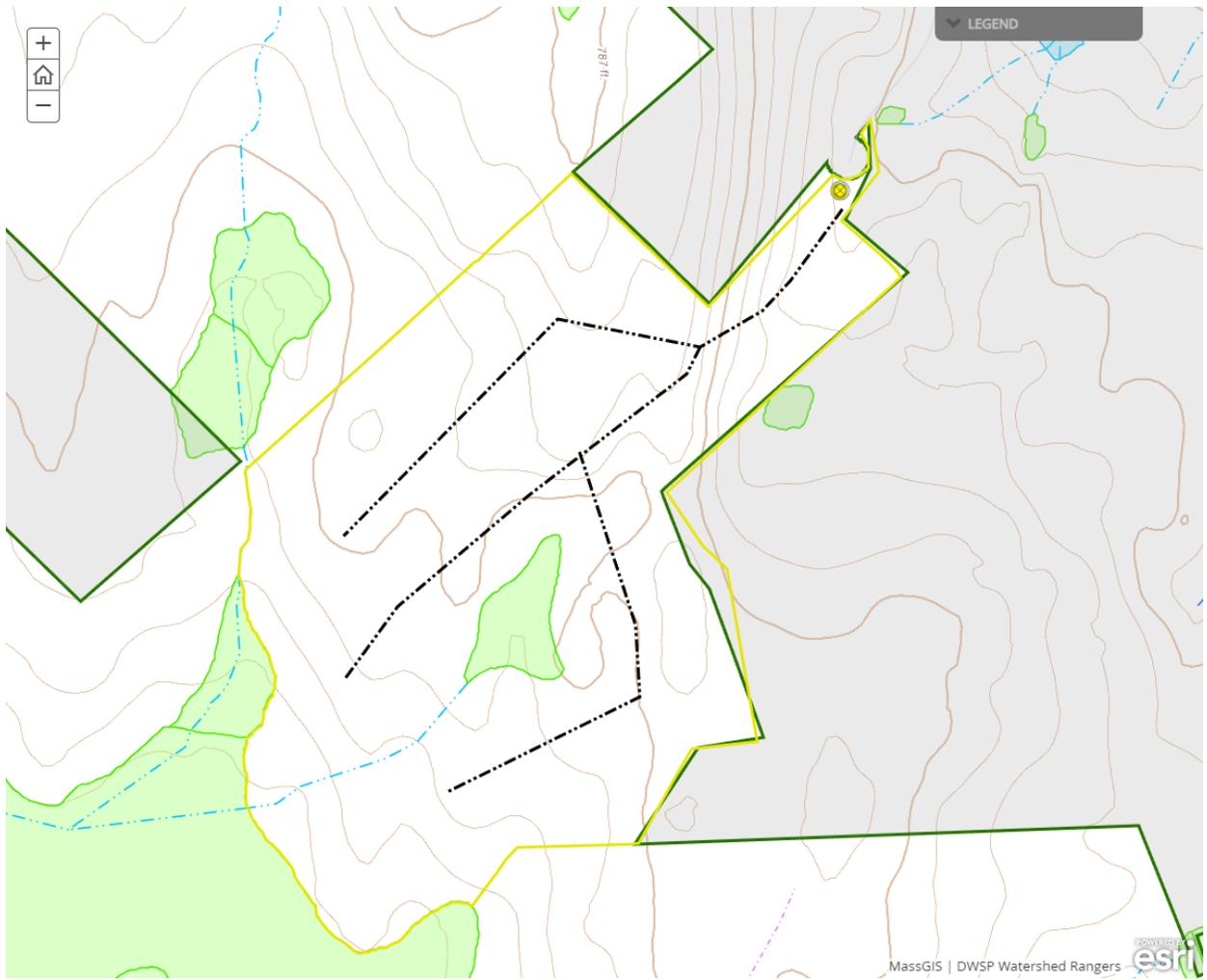
**Culverts needed:** No

**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 2022 Forestry Proposals – Master Legend for story maps

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