

# Quabbin Harvest Proposal HA-19-08

**Gravel needed:** Yes

**Landing work needed:** Yes

**Culverts needed:** Yes

**Work needed on permanent bridges:** No

**Beaver issue:** No

## Further comment on access needs:

A landing suitable for a chipping operation needs to be constructed to the south of Gays Hill. Gravel may be needed for parts of the access road as well as for the landing.

The culvert under the unnamed access road is broken in the center and crushed on the east end, and needs to be replaced for use during the harvest. A larger diameter culvert may be desirable to reduce backup of water on the west side. This work may require a Notice of Intent and Request for Determination to the New Salem Conservation Commission.



## General Description

	Overstory Type(s)	Acres
<b>Dominant</b>	Oak/hardwood	31.8
<b>Secondary</b>	Northern red oak	30.5
<b>Secondary</b>	White pine/oak	29.4

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

### Description of forest composition/condition:

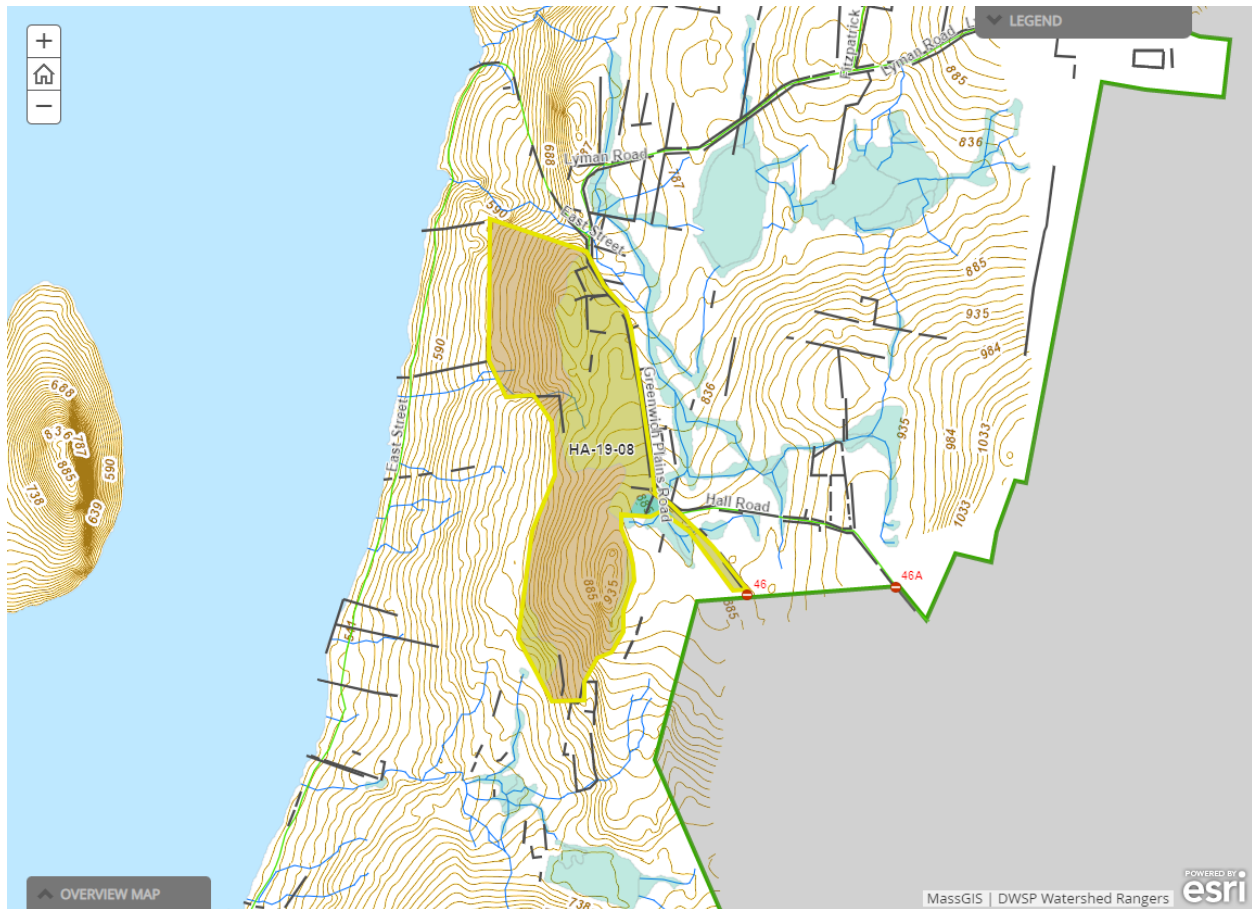
This is a white pine/mixed-oak lot on a former chestnut site, with concentrations of pine on the northwest slope and west of the existing landing opposite G46A road. The central part of the lot on the flat along G46 road is mixed-oak with occasional overstory pine. The principal species are white pine, and red, black and white oak. Other species present include red maple, hickory, cherry, red pine, hemlock, beech, and yellow, black and white birch. Three separate sales covering most of the lot were conducted during the 1990's. Lot #734 treated the south end of the lot in 1995, lot #704 the north end in 1995, and lot #622A treated the main body of the lot along G46 road in 1993. Each sale established regeneration through prep cutting and small group selections. Residual basal area averages 110 for mixed-oak and 150 for white pine. Oak averages 70'+ in total height and white pine 80'+. A codominant black oak cored for analysis measured 15" and 87 years (2015?) at breast height and showed declining growth for the past 45 years. Overall stand quality and vigor are fair for oak and good for white pine, with occasional superior phenotypes. Regeneration response following past treatment was good, with adequate to high levels of well distributed 10-20 year-old white pine and mixed hardwoods in most locations. Huckleberry is common in the understory above a herbaceous layer of several species of ferns and club mosses.



<b>Drainage Class</b>	<b>%</b>
<b>Excessively Drained</b>	0
<b>Well Drained Thin</b>	0
<b>Well Drained Thick</b>	60
<b>Moderately Well Drained</b>	39
<b>Poorly to Very Poorly Drained</b>	1



Extremely stony glacial tills with surface boulders on steep west slopes. Moderate rating on Web Soil Survey for harvest equipment operability. Hydric inclusion and small forested wetland in center of the lot. Shrub swamp on muck soils opposite G46A road. Soils present are Montauk-Canton association, Montauk-Scituate-Canton association and small area of Bucksport and Wonsqueak mucks.

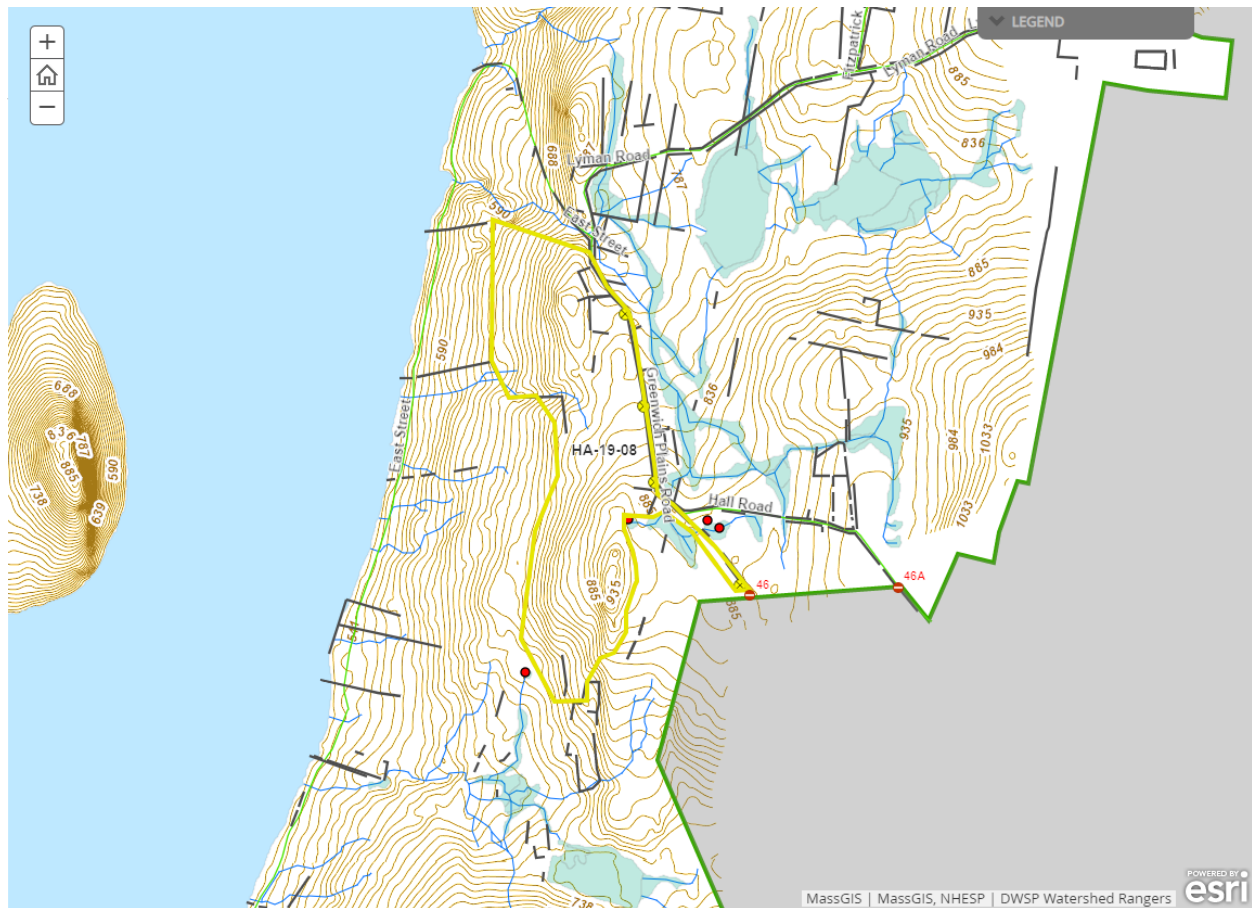


## Wetlands

- Wetlands present? - **Yes**
- Streams present? - **Yes**
- Vernal pools present? - **Yes**
- Seeps present? - **Yes**
- Are stream crossings required? - **No**
- Are wetland crossings required? - **No**
- Is logging in filter strips planned? - **Yes**
- Is logging in wetlands planned? - **No**

Small saddle-like depression with seep on flat in center of lot; forested, with spicebush and fern understory. The shrub swamp has an inlet and an outlet that are seasonal and culverted under

G46 road. There is a vernal pool just outside of the lot boundary under high forest canopy northwest of the shrub swamp. The DCR verified vernal pool will be appropriately buffered according to DWSP policy and [MA Forestry Best Management Practices](#).



## Silviculture

Acres in Intermediate cuts: **20**

Acres in prep/establishment cuts: **15**

Acres in Regeneration cuts: **35**

Average regen opening size: **1**

Maximum regen opening size: **2**

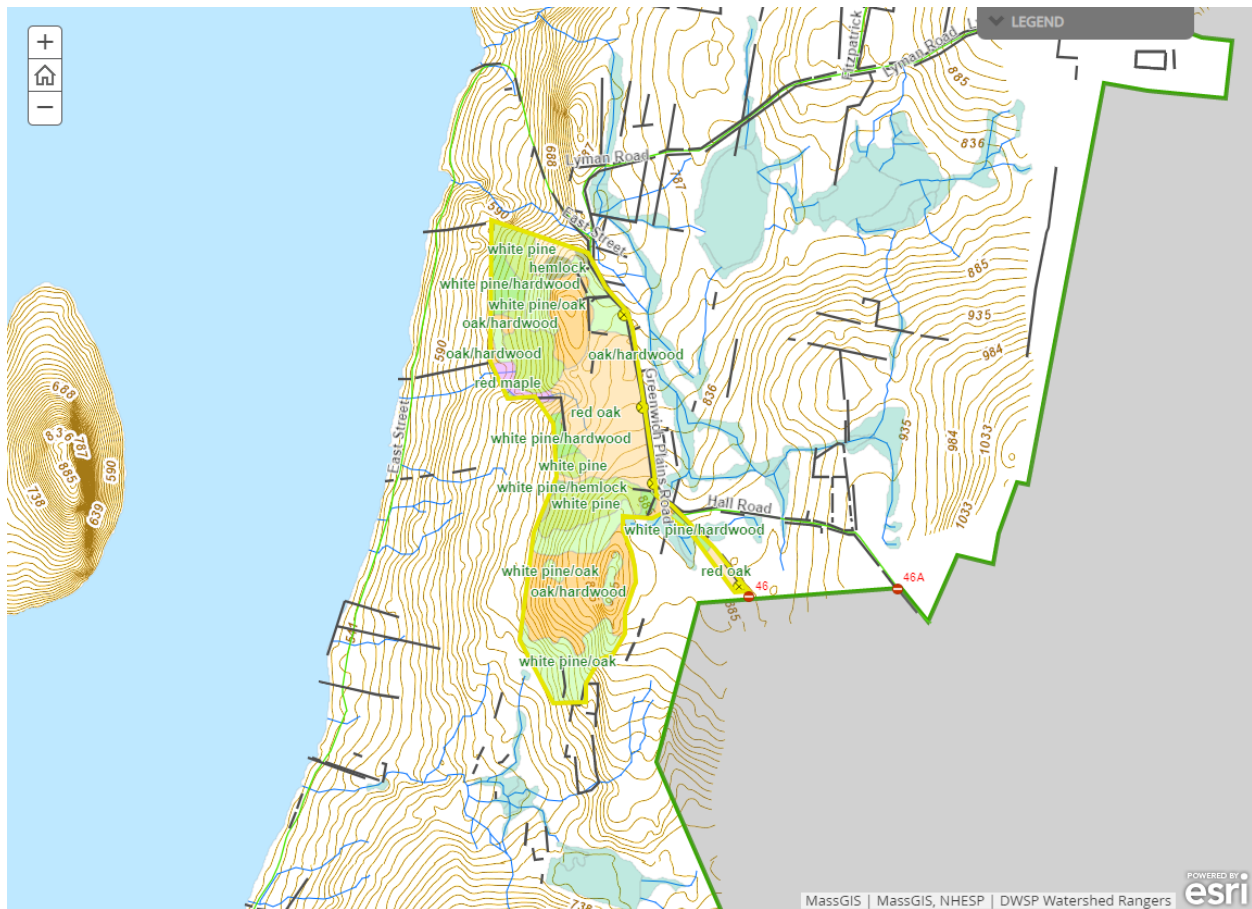
## Description of advance regeneration in proposal area:

Regeneration response following past treatment was good, with adequate to high levels of well distributed 10-20 year-old white pine and mixed hardwoods (mainly BB, RM) in most locations.

Huckleberry is common in the understory above a herbaceous layer of several species of ferns and club mosses. Light to moderate deer and moose browse present, browse levels not expected to be excessive but may limit diversity.

### General comments on silviculture proposed:

Continue the development of uneven-aged structure started during previous entries by enlarging existing small openings and establishing new group selections from 1/4-2 acres. Trees of poor quality and low vigor will be selected for removal and will determine the placement of group openings. Intermediate cuts along forest transit roads and around opening edges. Sections of pine type that have smaller, better quality evenly spaced stems will have a prep cut. Target the removal of 30%-35% of basal area.



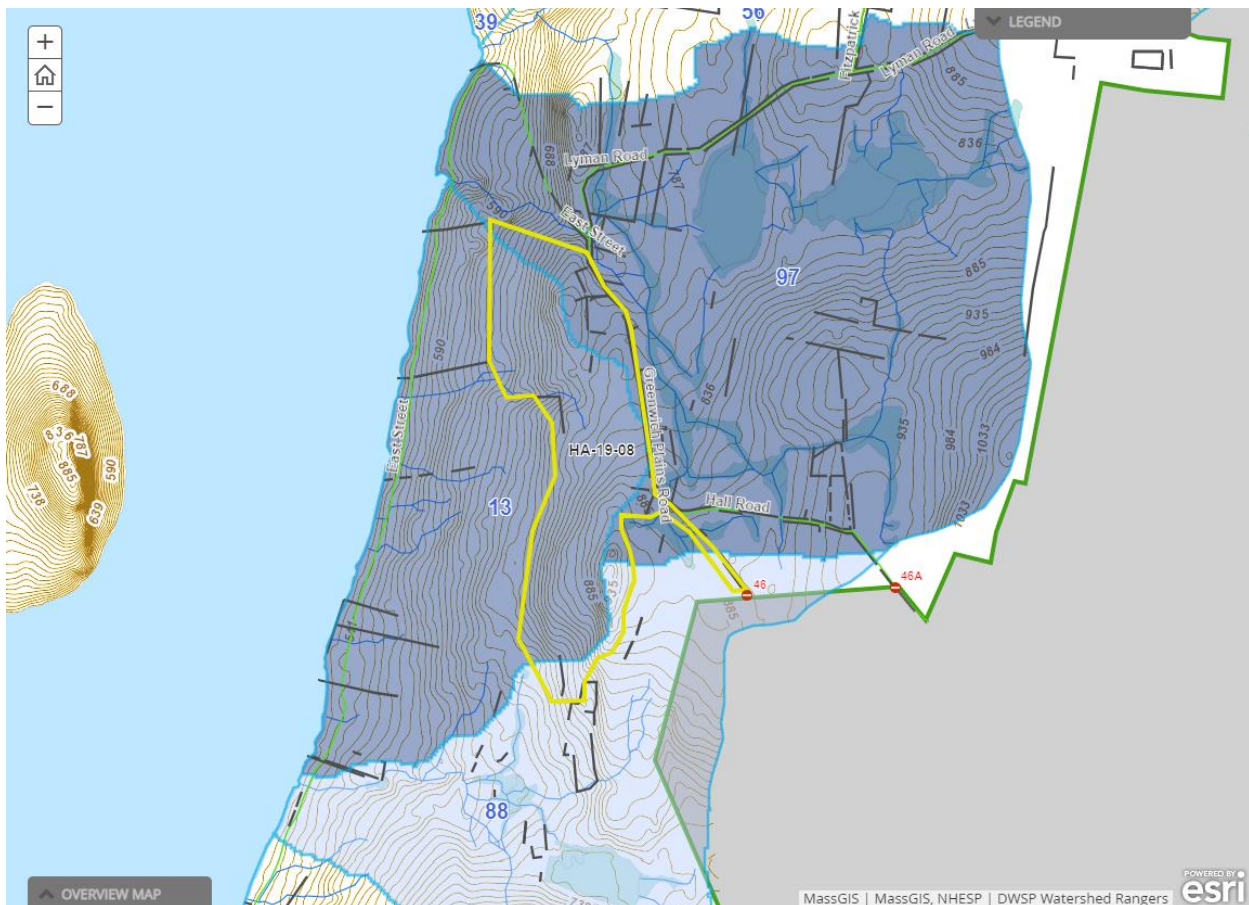
### Subwatershed Analysis

Sub-watershed number	Total DCR-owned Acres	Acres Regenerated on DCR Land in the last 10 years	Acres Remaining for Regenerating	Acres part of this proposal



			Up to the 25% / 10 Year	
13	293	13.4	59.9	91
97	604.4	31.9	119.2	27.7
88	352	25.5	62.5	11.6

Note most of the proposal is in 13 which is sub-shed along eastern shore along East St. which has had numerous harvests over last 20 years but all are fully regenerated and stable now. The proposed 35 acres of regeneration cuts falls below the 25% threshold. Most of the acreage regenerated last 10 years was lot 1038 which will drop out in 2019. Openings in subwatershed 13 are expected to not exceed 23 acres and will be well distributed.



## Harvesting Limitations

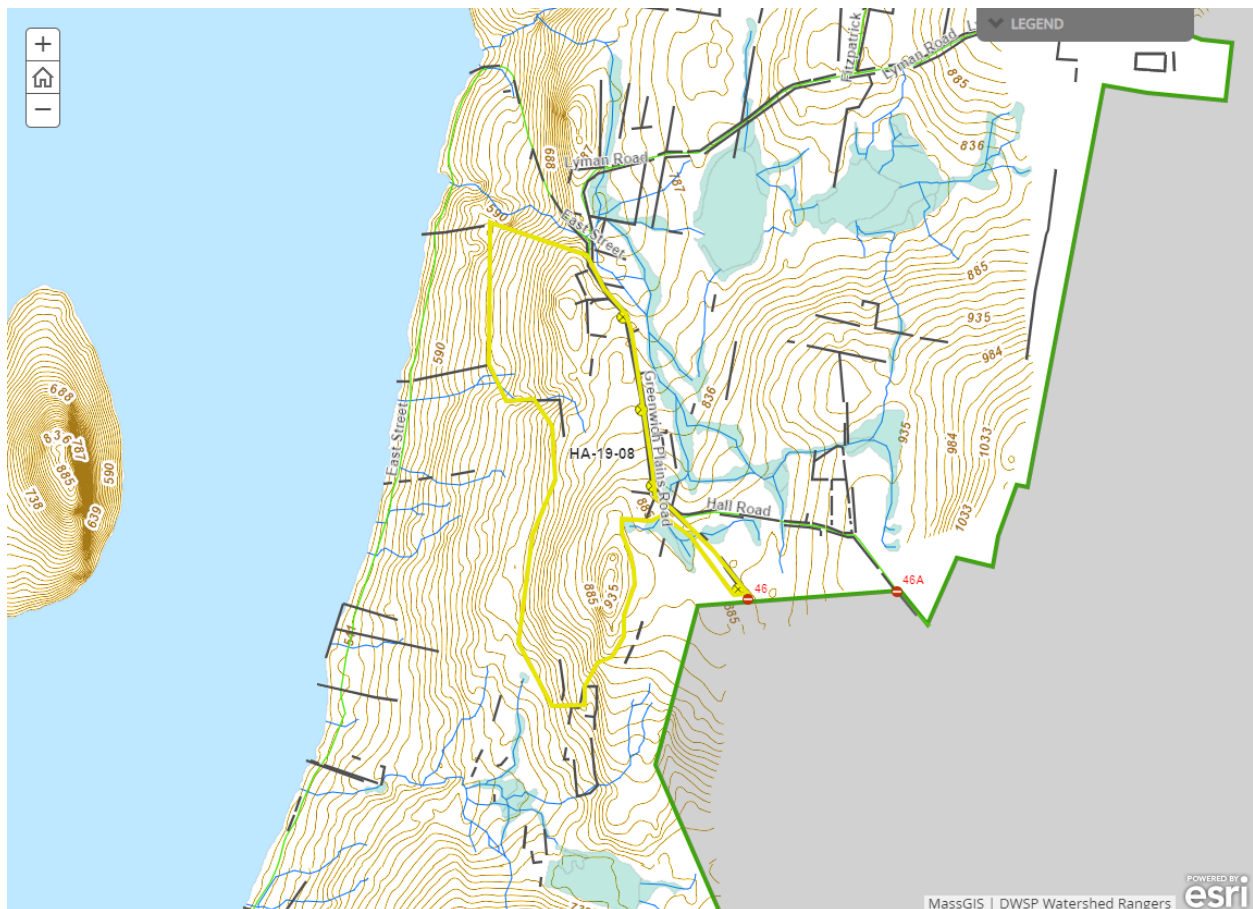
Forwarder required: **No**

Feller/processor required: **No**

Steep slopes present: **No**

### Comments on harvesting limitations:

Existing landings and established forwarder/skid roads allow access throughout, but steep slopes with surface boulders will limit the use of processors. May require a forwarder depending on how openings and skid trails are laid out.

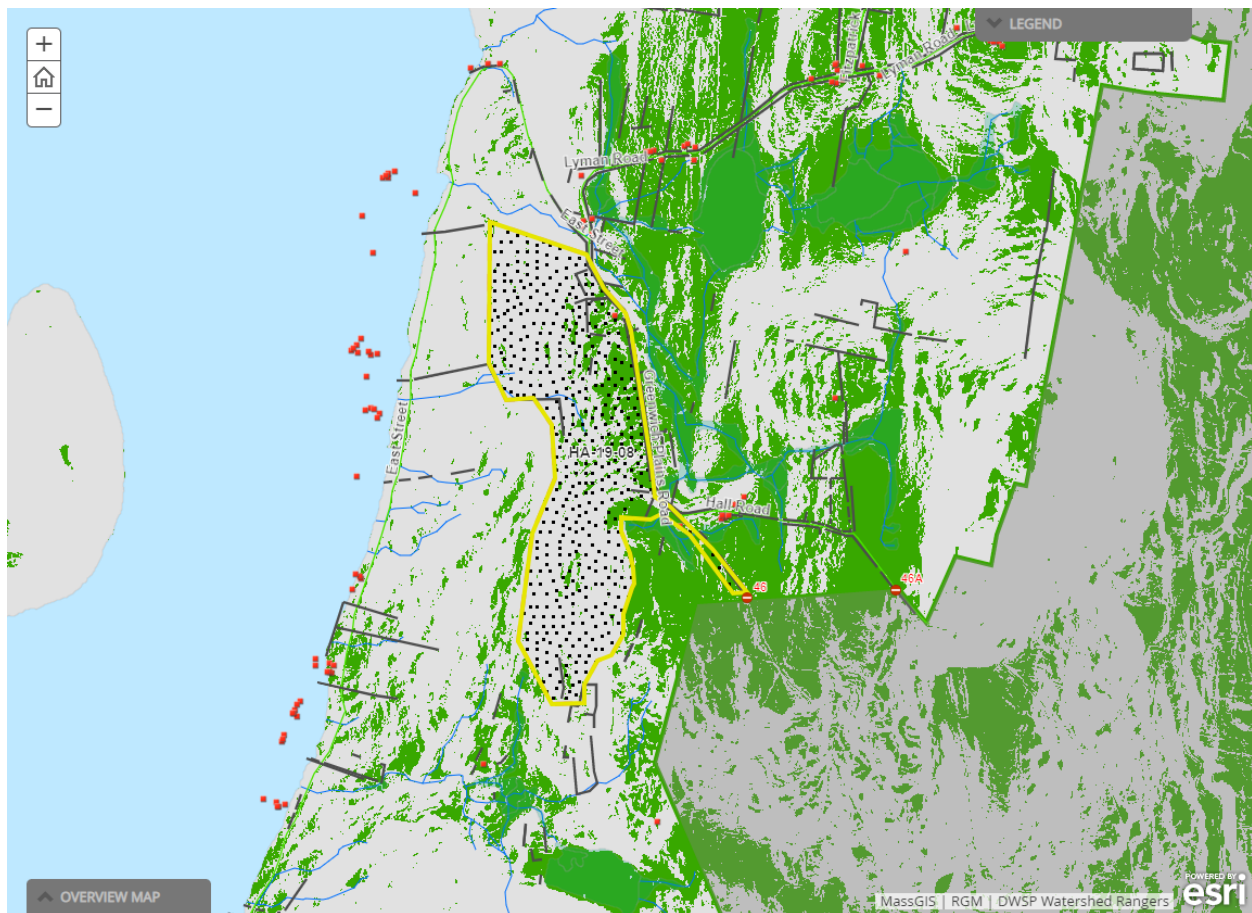




## Cultural Resources

### Comments on Cultural Resources:

This lot contains the foundations of the homes of Orman C Marvell (14.11) and Charles Cornwell (14.1), as well as the foundations of the home, barn and outbuildings of Harry Kurwacz (4.04). All foundations located near harvest operations will be flagged and protected. Stone walls will be flagged and avoided as much as possible. 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.



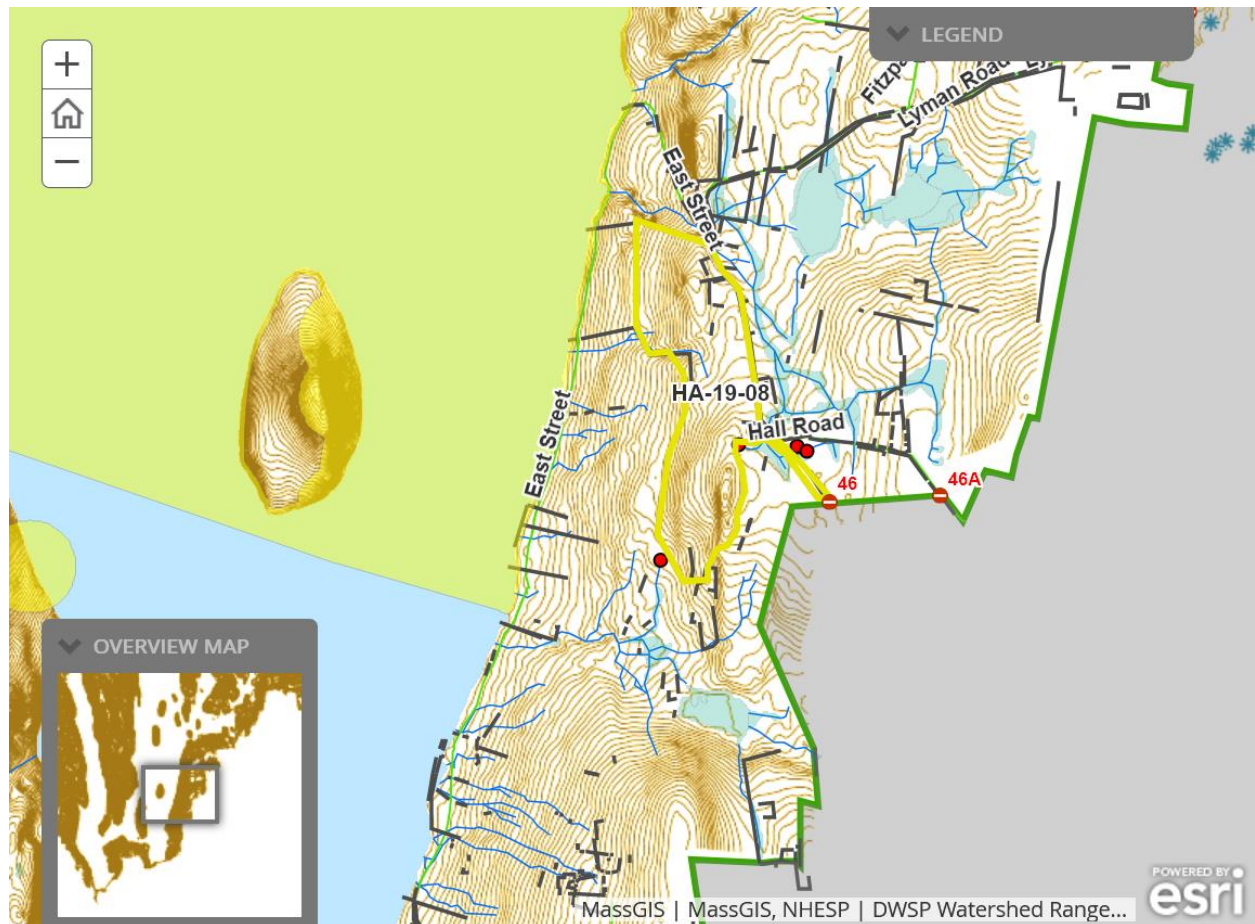
## Wildlife Resources & Rare and Endangered Species

### General Wildlife Comments:

Have seen moose and bear in this compartment. Good regeneration response to previous prep cutting with sustainable level of browse.

**Comments on Rare Species/Habitats:**

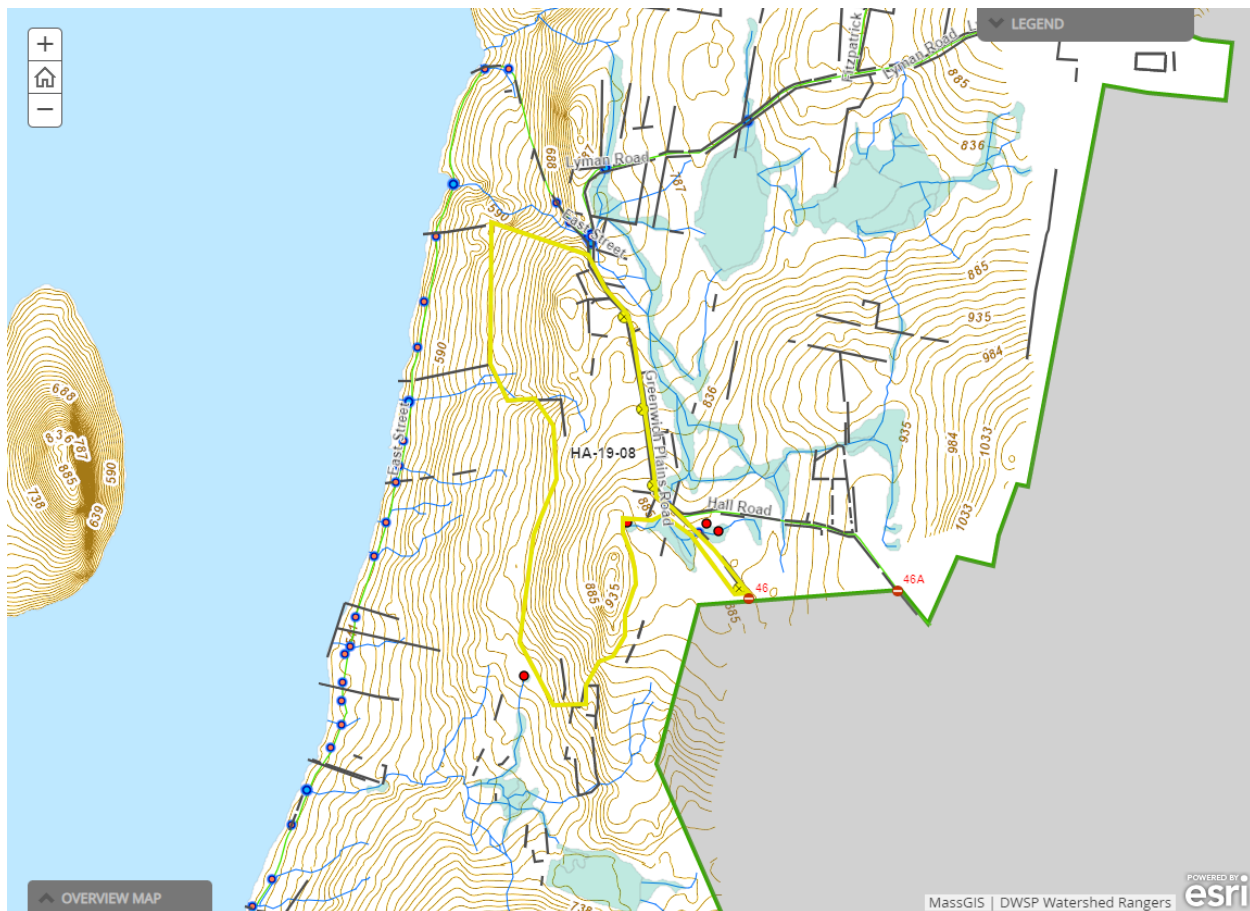
None known.



## Environmental Quality Engineering

**Comments on EQ Issues:**

No stream crossings.



## Forest Access Engineering

**Gravel needed:** No

**Landing work needed:** No

**Culverts needed:** No

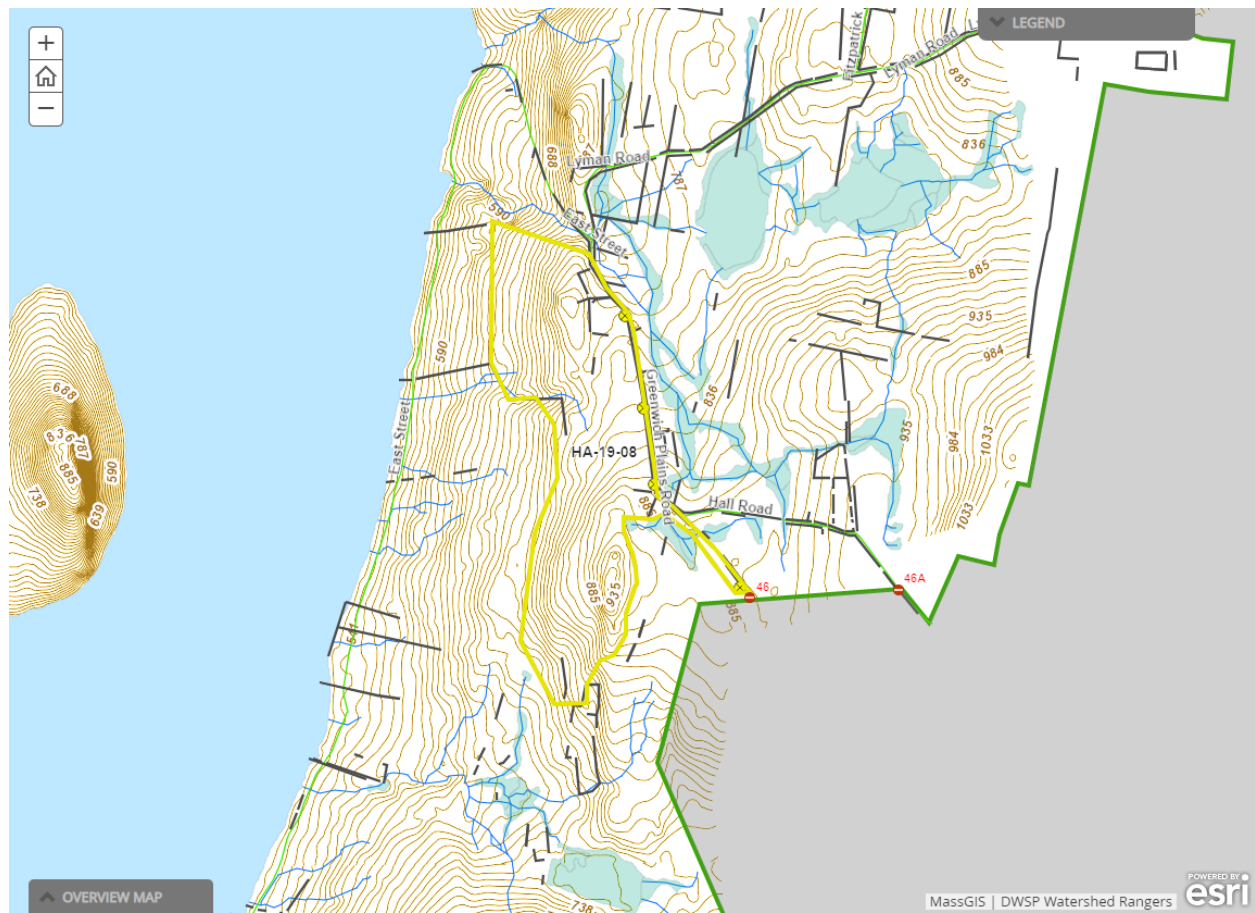
**Work needed on permanent bridges:** Yes

**Beaver issue:** No

**Further comment on access needs:**

No engineering work will be needed prior to the harvest.





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

