

# Quabbin Harvest Proposal HA-19-12

## *Proposal Update, May 2024:*

*This forestry proposal was originally approved through the public process in 2021. At that time, salvage of the dead and dying hemlock was a component of the proposed management. However, salvage was not the primary objective driving the decision to implement forest management in this area and salvage of the dead and dying hemlock will no longer be part of this proposal. 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 remaining activities in this proposal align with EEA climate considerations developed from the recommendations in the report issued from the CFC. The proposal language and mapping below are preserved unchanged from that presented to the public in 2021 in ArcGIS Online story map format, but the reader should ignore references to salvage.*

## Proposal Goals

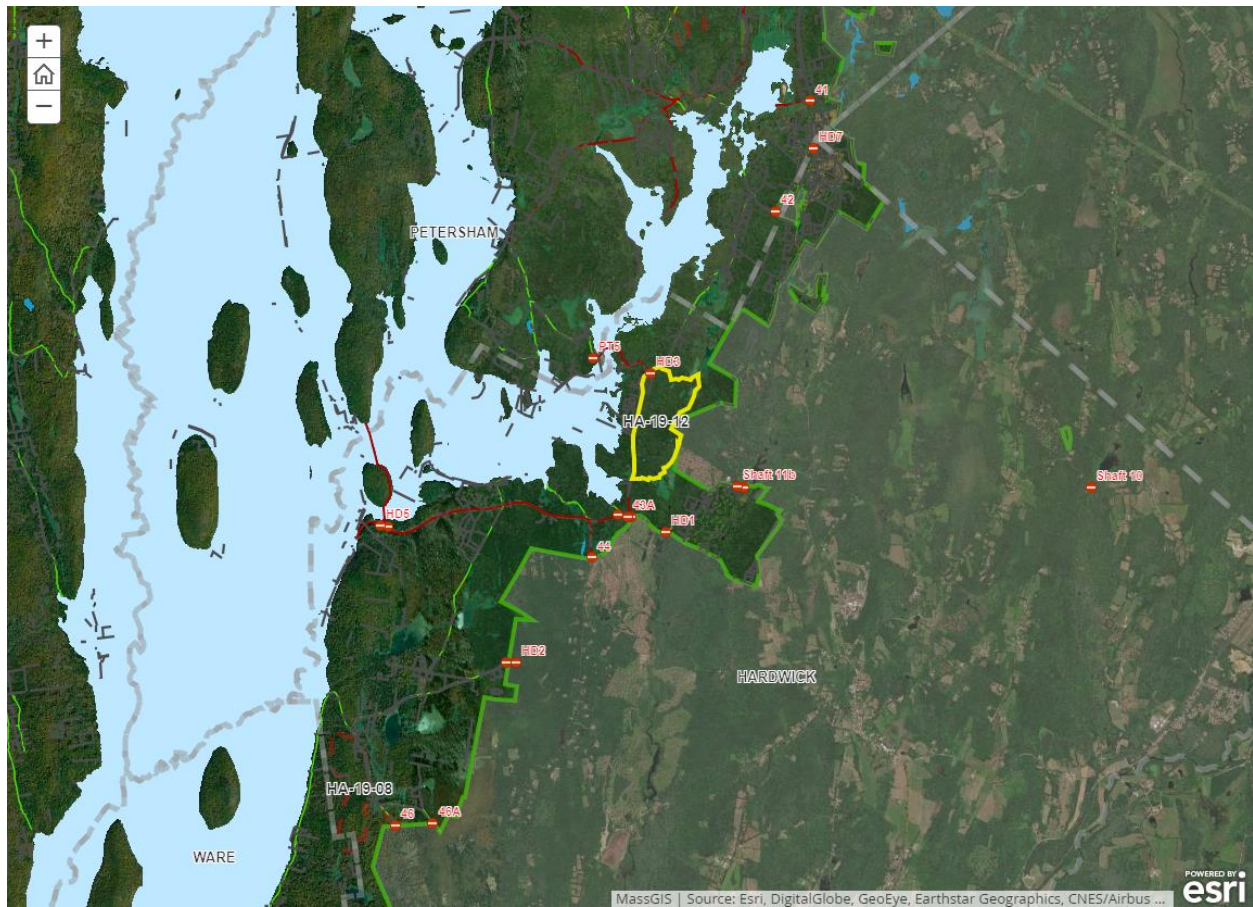
These stands are currently even-aged with some pockets of regeneration created from previous harvests. Understory has minimal species diversity and some of the previously established regeneration is declining from being overtopped by overstory for too long. Proposed harvest will release the regeneration that is still viable and should establish an understory with a more diverse species composition. The area will then have at least 3 age classes present.

## Proposal Location

This proposal in Hardwick is on the east side of Hell Huddle Rd about 1000' in from gate 43 (fishing area 3).

**Total Acres: 192**

**Previously Reviewed as HA-16-12**



## General Description

	Overstory Type(s)	Acres
<b>Dominant</b>	White pine/hemlock	82
<b>Secondary</b>	White pine/oak	63
<b>Secondary</b>	Oak, mixed - dry site	20

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

**Description of forest composition/condition:**

Previously treated stands of white pine, oak, and hemlock. Five different harvests over sections of the lot last 25 years. These harvests established regeneration on the ground as well as releasing dominants and co-dominants from competition. These stands originated from abandoned cut-over land, hurricane salvage and sprout land at the time of the taking. Parts of the lot were lumber company land and most likely were cut heavily for white pine leaving lower value hardwoods (at the time) which responded to the release. These larger red oaks were aged around 110 to 120 years at the time (1995?). Structure is currently dominated by older age classes, to meet our management goals this should be reduced by about 50%. Lot site is dry and supports oak/pine type very well. Hemlock was being impacted by insects (2015) and still has adelgid and probably scale. There has been a fair amount of hemlock mortality continuing since 2015, and white pine and oaks continue to exert dominance. Hemlock is becoming less of a major stand component. Steep slope (8 acres) and wetland areas (12 acres) will not be operated.



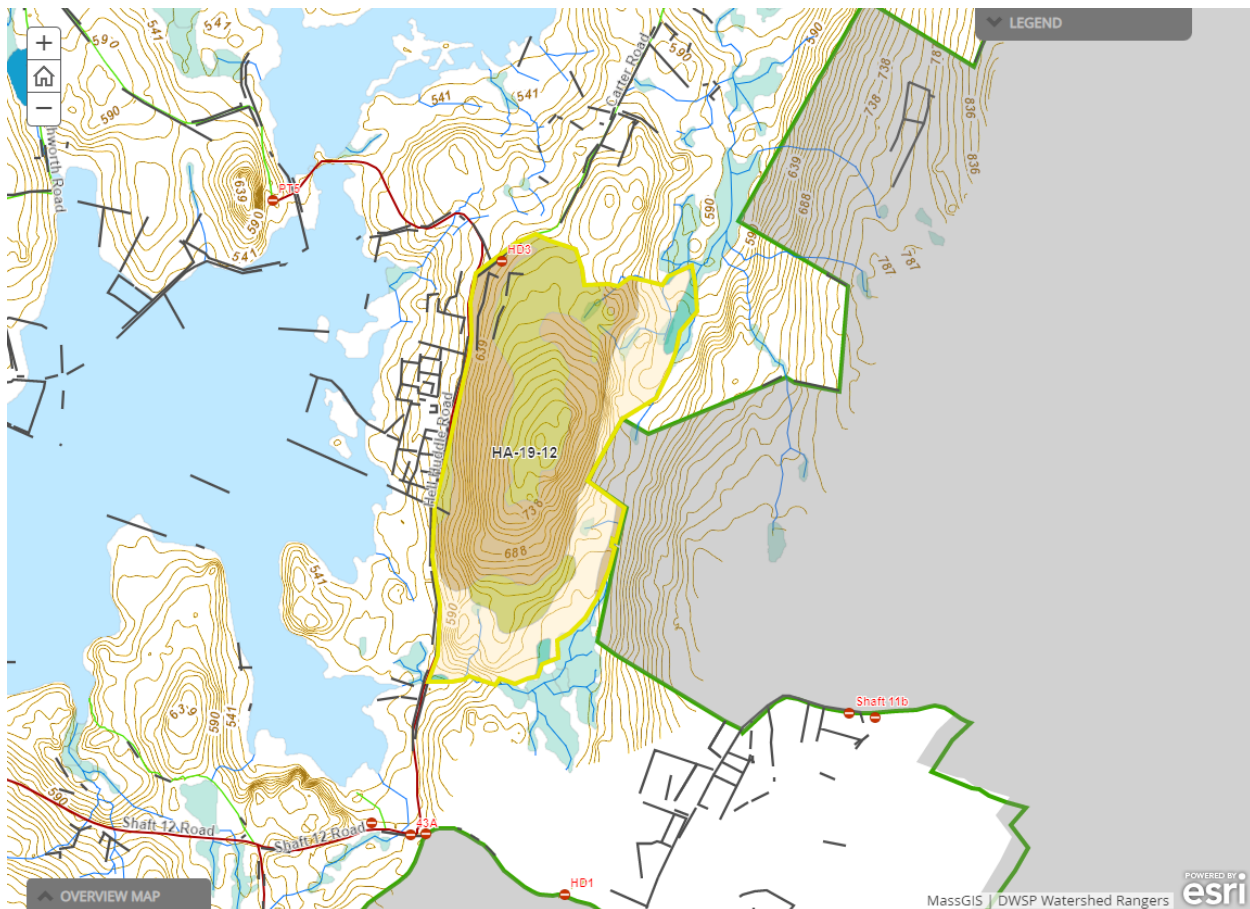
## Soils

Drainage Class	%
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<b>Excessively Drained</b>	27
<b>Well Drained Thin</b>	0
<b>Well Drained Thick</b>	41
<b>Moderately Well Drained</b>	29
<b>Poorly to Very Poorly Drained</b>	2

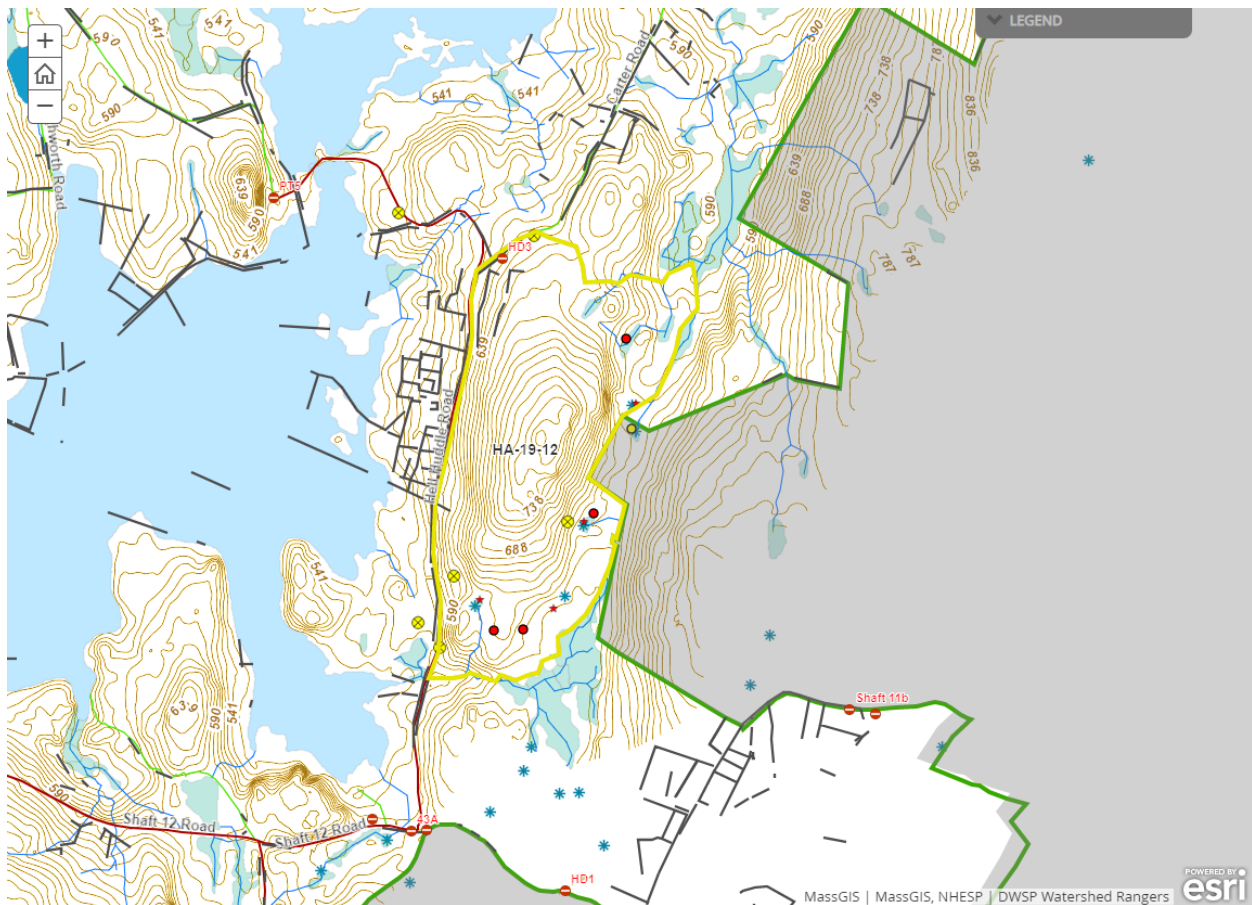
Montauk-Canton and Montauk-Scituate dominate the upper areas of the lot, thin on top deeper lower down at foot of the hill. Stony with high silt content. The low lying areas along streams and near the wetlands are Hinckley-Loamy sands excessively well drained but can be saturated depending on water table levels. The wetlands and pool features may be from Montauk material washing down into these areas over time. There are several outwash terraces in these areas. North side of the hill may have hard pan.



## Wetlands

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

Wetlands along east side drain south into a stream that crosses Hell Huddle ( gate 43 road) along the boundary in low area, saturated soils. North end small wooded wetland drain via channels to beaver pond in that area. Stream on the north end are ephemeral, intermittent. These crossings were bridged in the past. Small esker at edge of lot was accessed by crossing narrow wetland same area. The DCR verified and NHESP certified vernal pools will be appropriately buffered according to DWSP policy and [MA Forestry Best Management Practices](#).



## Silviculture

Acres in Intermediate cuts: **60**

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

Acres in Regeneration cuts: **60**

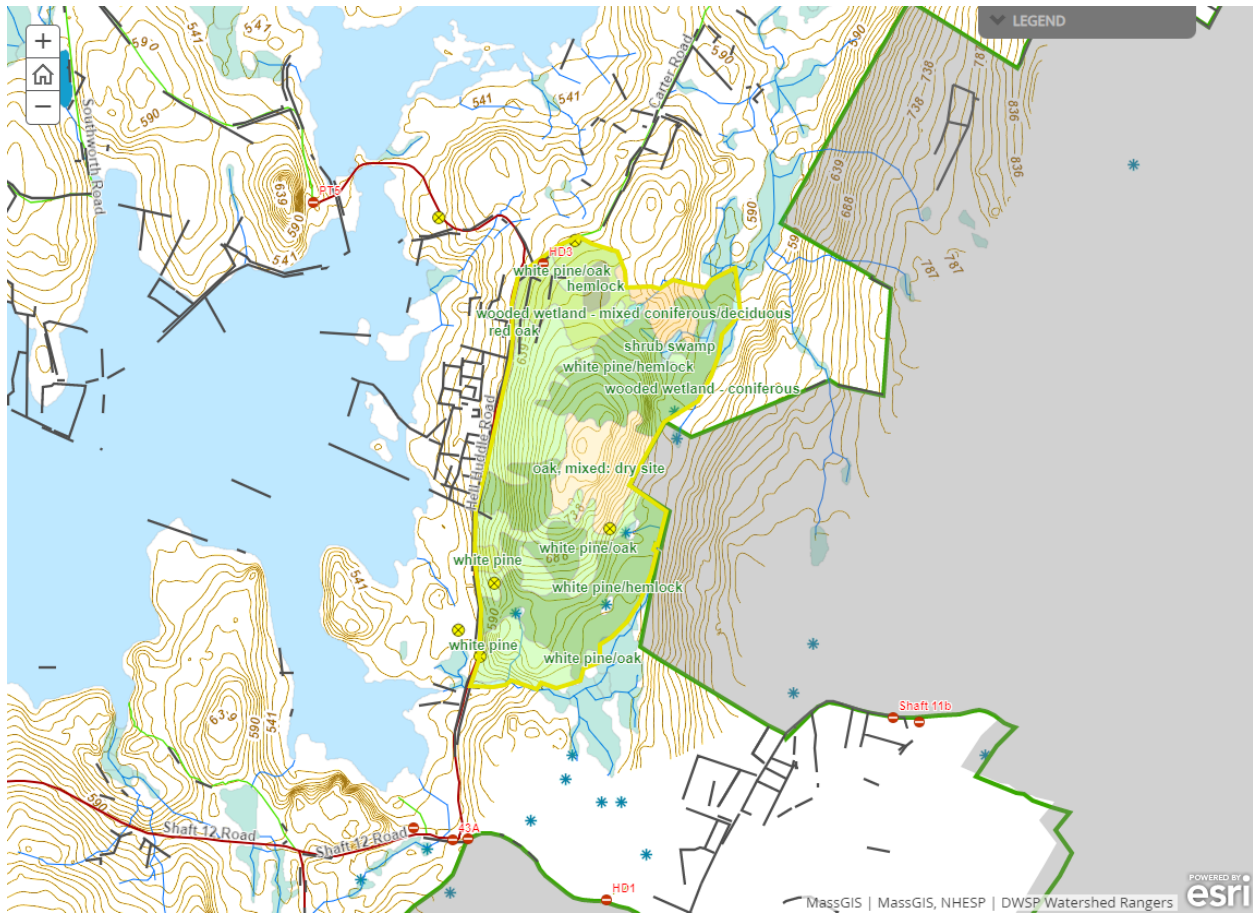
Average regen opening size: **0.75**

Maximum regen opening size: **2**

### Description of advance regeneration in proposal area:

### General comments on silviculture proposed:

A goal of this entry into lot is to regenerate another 1/3 of the lot, by releasing established advance regeneration, and removing overstory stocking to create gaps for new seedlings. Hemlocks are declining due to wooly adelgid as well as scale, and will be salvaged to create space for other species to seed in, there will be a large volume of dead hemlock, woody debris and snags on this lot. Larger white pine canopy will also be reduced to make space for younger trees, this will reduce potential wind throw volumes from storms. Individuals of all species present will be retained as seed sources. Harvest will be single tree up to 2 acre groups and will likely average about 3/4 acre. Openings will be irregular in shape dependant on terrain and material to be removed. The intermediate cutting will act as a prep cutting as it will open space for incidental regeneration, and create and merge with existing and new gaps, establishing regeneration which will need to be released in future harvests.

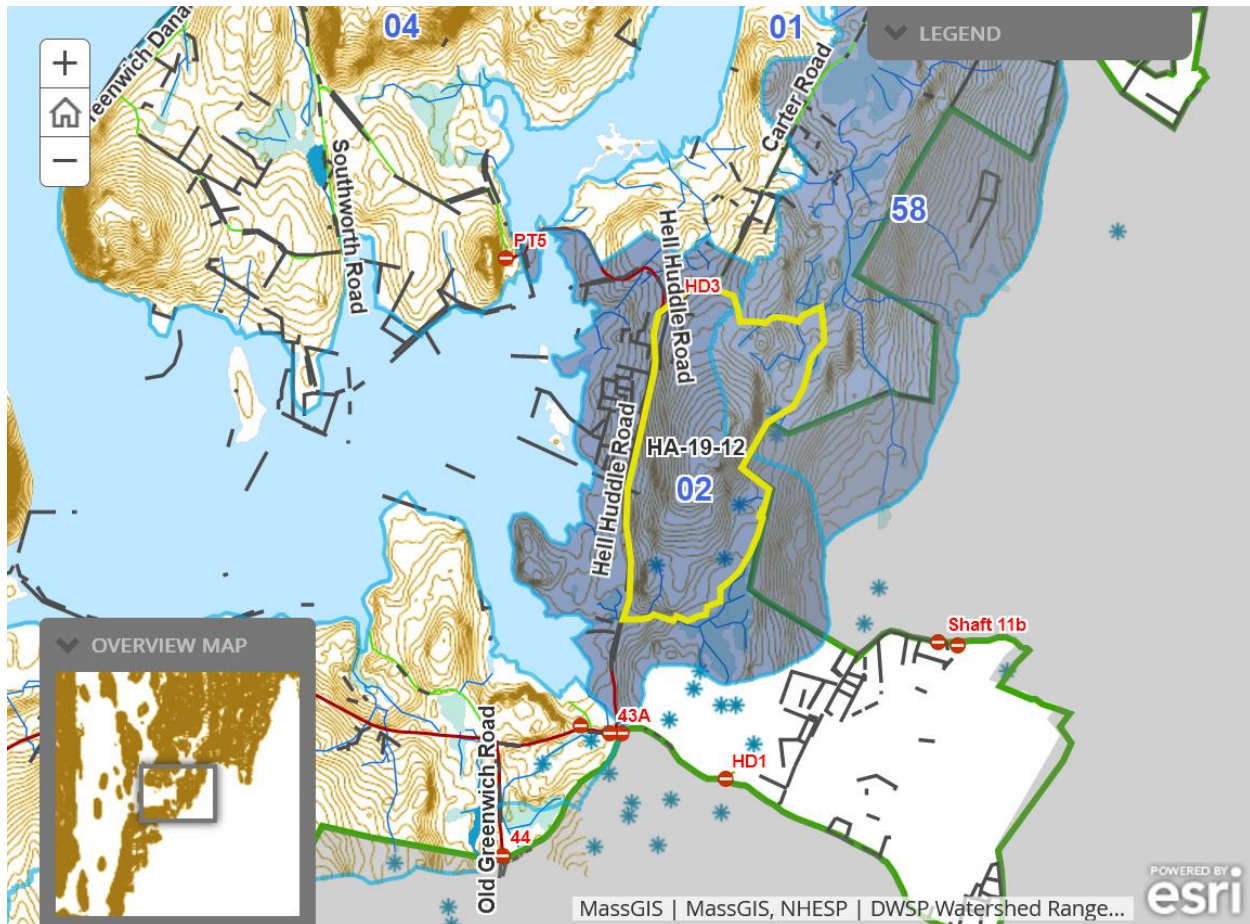


## Subwatershed Analysis

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
58	624.8	0	156.2	47.6
2	419.7	20	84.9	142.7

It is anticipated that less than 40 acres in subwatershed 2 will be in new openings after this harvest.





## Harvesting Limitations

Forwarder required: Yes

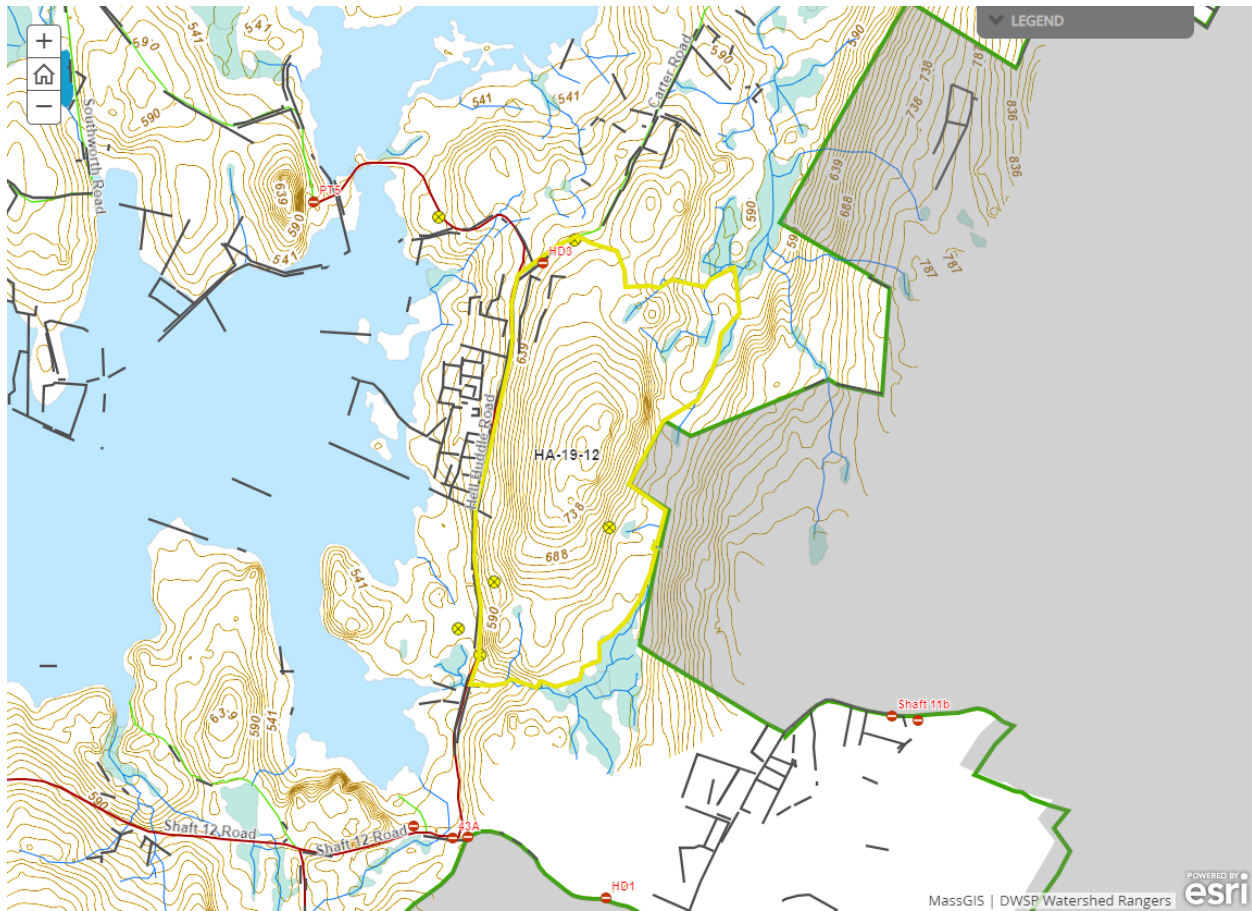
Feller/processor required: No

Steep slopes present: Yes

### Comments on harvesting limitations:

Past harvests have used forwarders to move material to landings along the gate 43 road (paved). Skidders will be allowed for pre-bunching in groups and cabling from filter strips. Steep areas are excluded from harvest. Landings on gate 43 road are not suited for skidders and have limited space. A skidder could be used to access the landing on Carter Road.

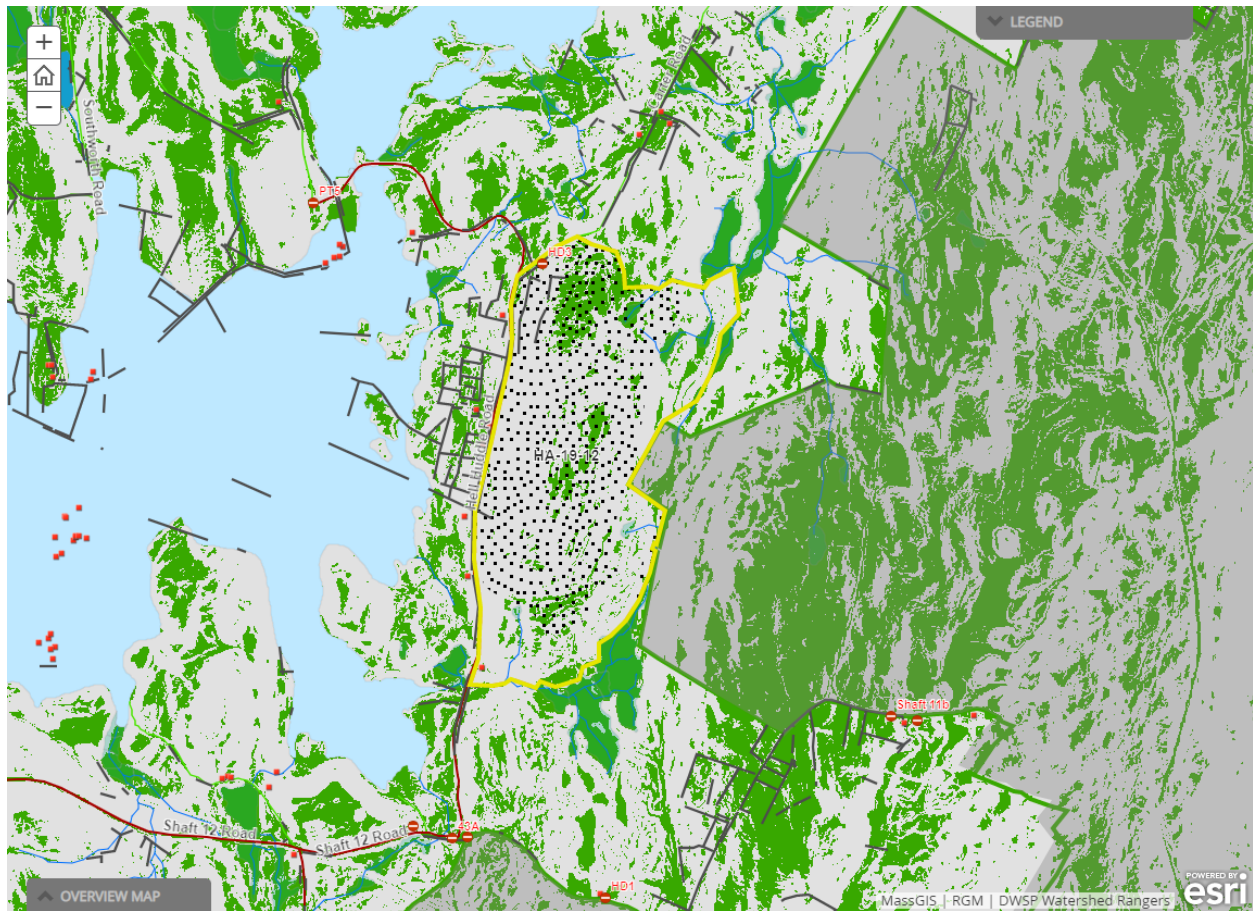




## Cultural Resources

### 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

### Comments on Unique or Unusual Sites or Habitat:

There are five DCR verified vernal pools. Vernal pools on the southeast side in the hemlock are cold sites and have often been frozen when the southern pond was open and a lot of singing going on. The wooded wetland in the northeast corner had beaver present when last logged and they dammed and flooded the skid road and raised the water level of the wetland which has caused many of the trees to die and blow over. This used to be a very dark, shaded wetland. There are now many Calla lilies present.

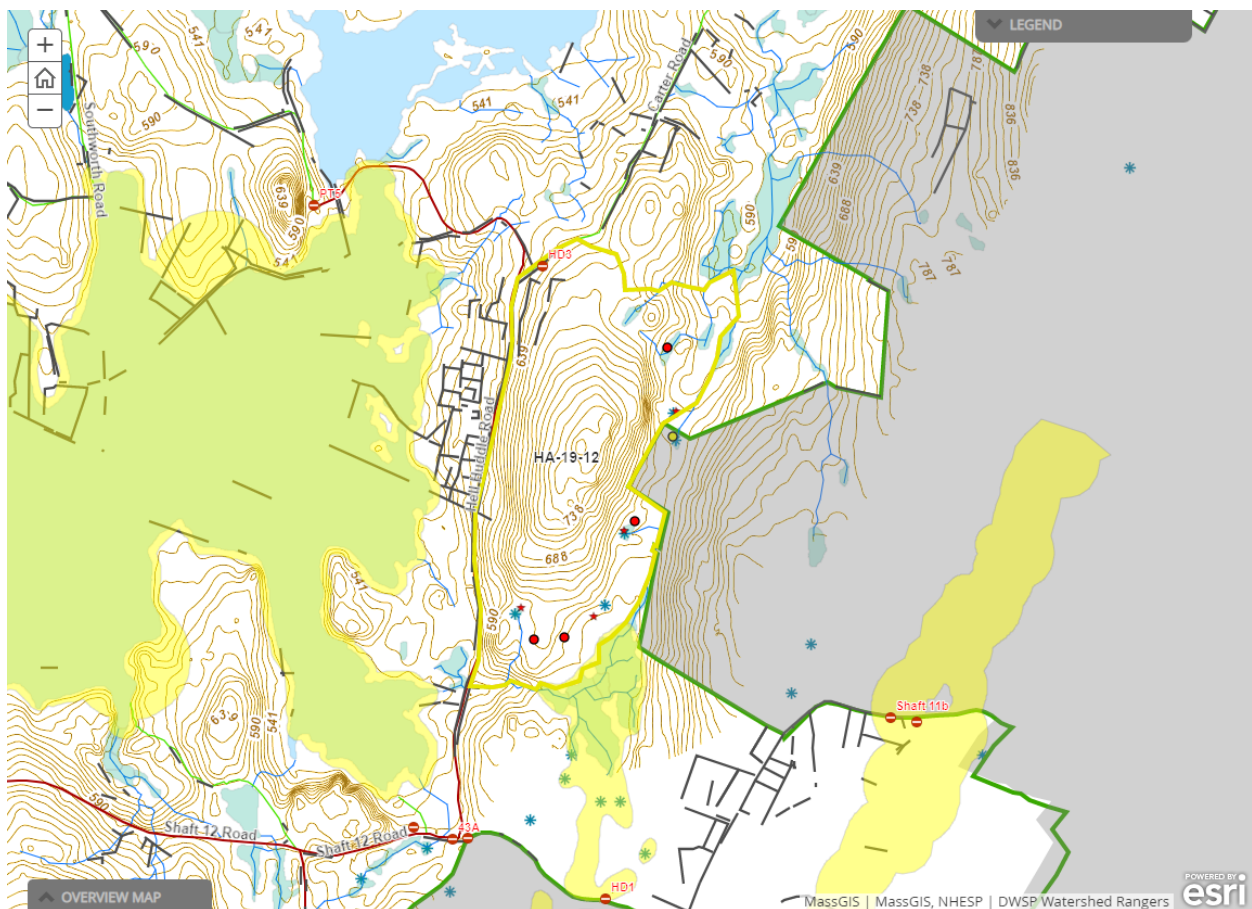
### General Wildlife Comments:

Crows have been seen and heard nesting in pines middle of the lot top of hill, Goshawk used lot to northwest of Carter Road. Otters seen in ponds and tracks in snow. Hemlock woolly adelgid is present and doing a job on the hemlocks, there will be a lot of snags and coarse woody debris on the lot. Also bear, bobcat, coyotes, and black racers have been seen here on past occasions.

The sand pit landing west of Hell Huddle, at the far end of the pit near the reservoir, was used by turtles nesting when it was kept clear of vegetation in the past.(As per proposal HA-16-12)

### Comments on Rare Species/Habitats:

Cavity trees and potential/existing nest trees will be retained if possible. NHESP has determined that certain state-listed sensitive species or habitats may exist within the northern section of 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 follow recommendations to protect these species during the proposed harvest.

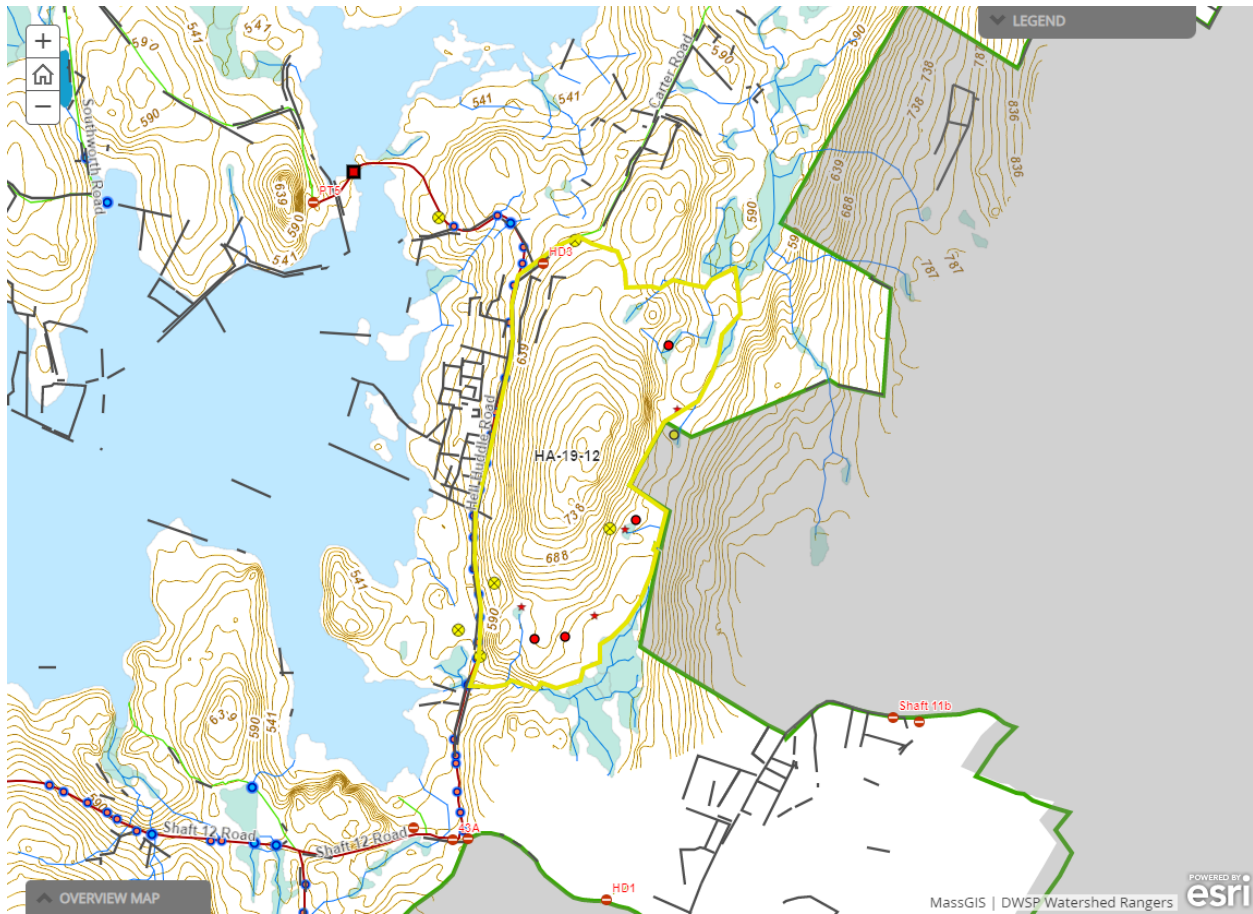


# Environmental Quality Engineering

### Comments on EQ Issues:

Small stream crossings on north end were bridged during past harvests. They drain small wetlands as shown. Western one should be able to be avoided this time. Both typically mostly dry up during dry spells. East side by ponds the water table varies with beaver activity.





## Forest Access Engineering

**Gravel needed:** No

**Landing work needed:** Yes

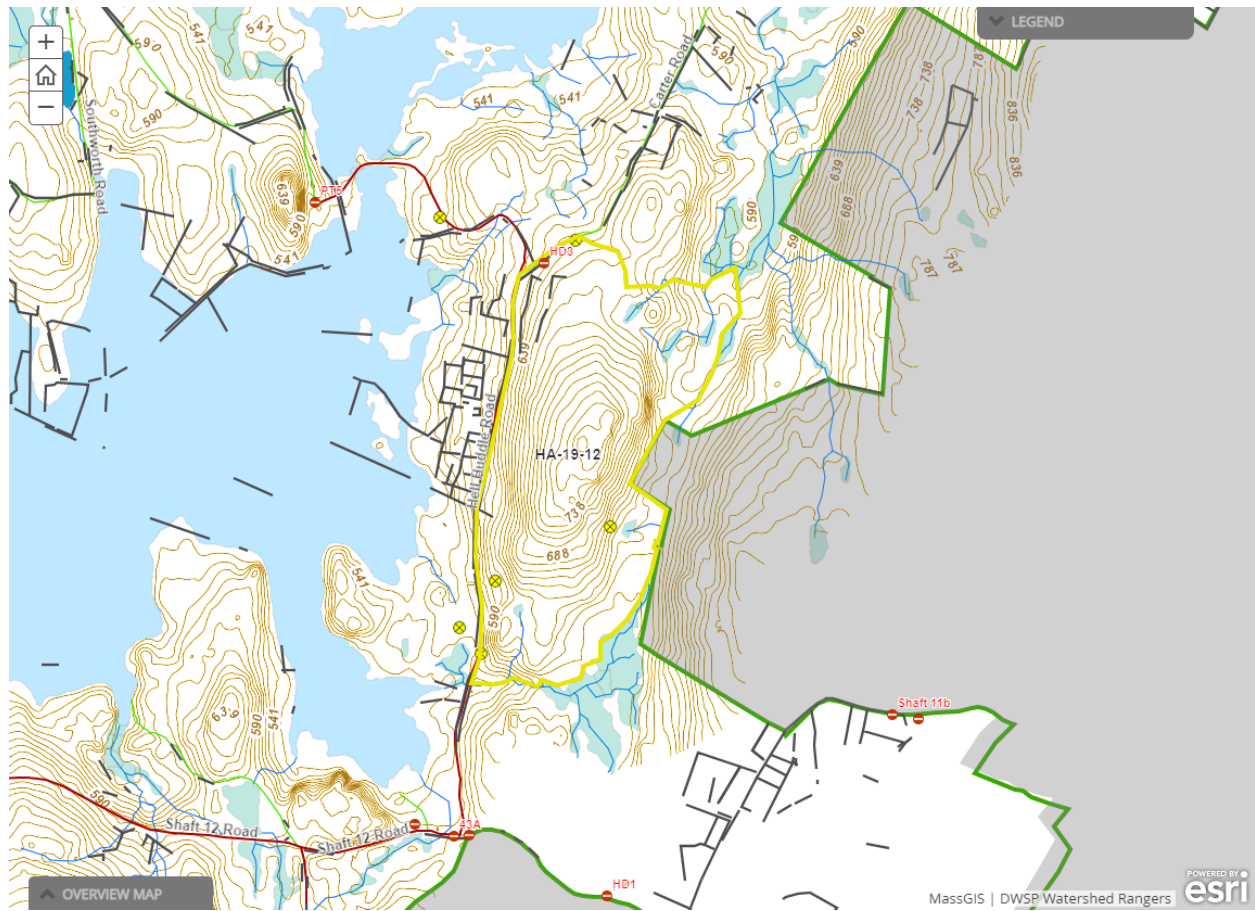
**Culverts needed:** No

**Work needed on permanent bridges:** Yes

**Beaver issue:** No

### Further comment on access needs:

Trailers have been allowed on Hell Huddle in the past and would use old sand pit and intersection with Carter road as landings. Would turn in field before fishing area. Brushing and mowing field and pit would be helpful. SIGNS NEED TO BE POSTED to make sure trucks do not go past field to horseshoe dam. Carter road could use regular maintenance so tri-axes could turn at old landing 1/4 mile up or so.



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

