

Quabbin Harvest Proposal HA-22-4

Proposal Update, March 2025:

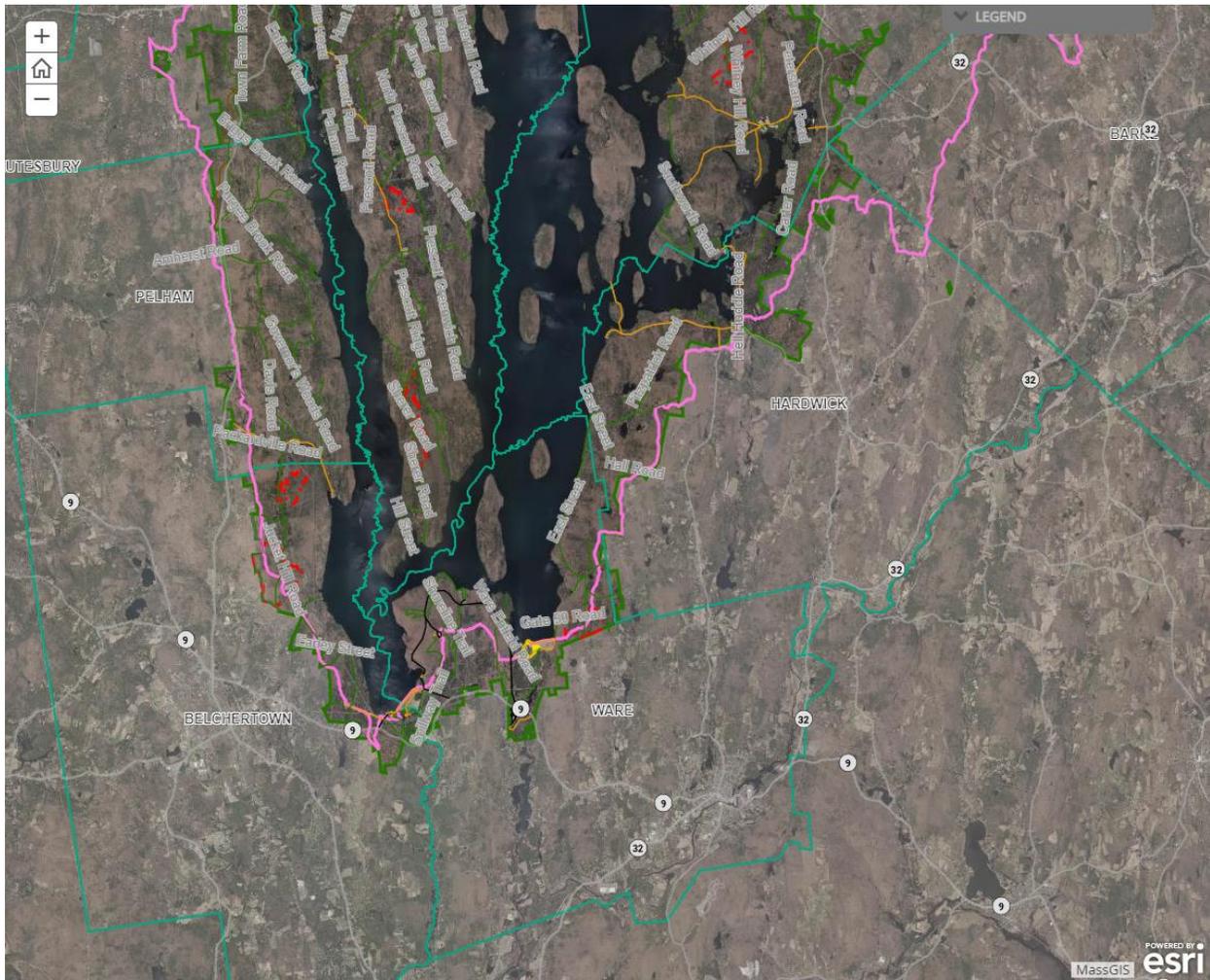
*This forestry proposal was originally approved through the public process in 2021. The project was 'paused' along with most other state lands forestry projects as part of the EEA Forests as Climate Solutions Initiative. After the completion of the work of the Climate Forestry Committee (CFC) and further development of EEA-wide policy, DWSP reviewed all previously approved projects within those frameworks. **This proposal as originally written was found to meet the recommendations of the CFC and EEA-wide policy and is now proceeding.** 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

This is an even-aged stand of white pine/oak and oak/hardwoods on a dry site that is proposed to be modified to an open oak barren to be managed with prescribed fire shortly after logging is completed and periodically thereafter as needed to maintain the desired condition. Forestry is working closely with NR and NHESP to improve habitat for multiple endangered species that require this type of habitat to survive.

Proposal Location

Wooded area east of Goodnough Dike Road and north of the lower road (wooded area NE of road intersection and west of the mowed areas of dike).



Total Acres: 29

General Description

	Overstory Type(s)	Acres
Dominant	White Pine - oak	16
Secondary	Oak - hardwoods	11
Other	Red pine	2

	Understory Type(s)
Dominant	Tree seedlings/saplings dominate site
Secondary	Dry site - blueberry/huckleberry

Description of forest composition/condition:

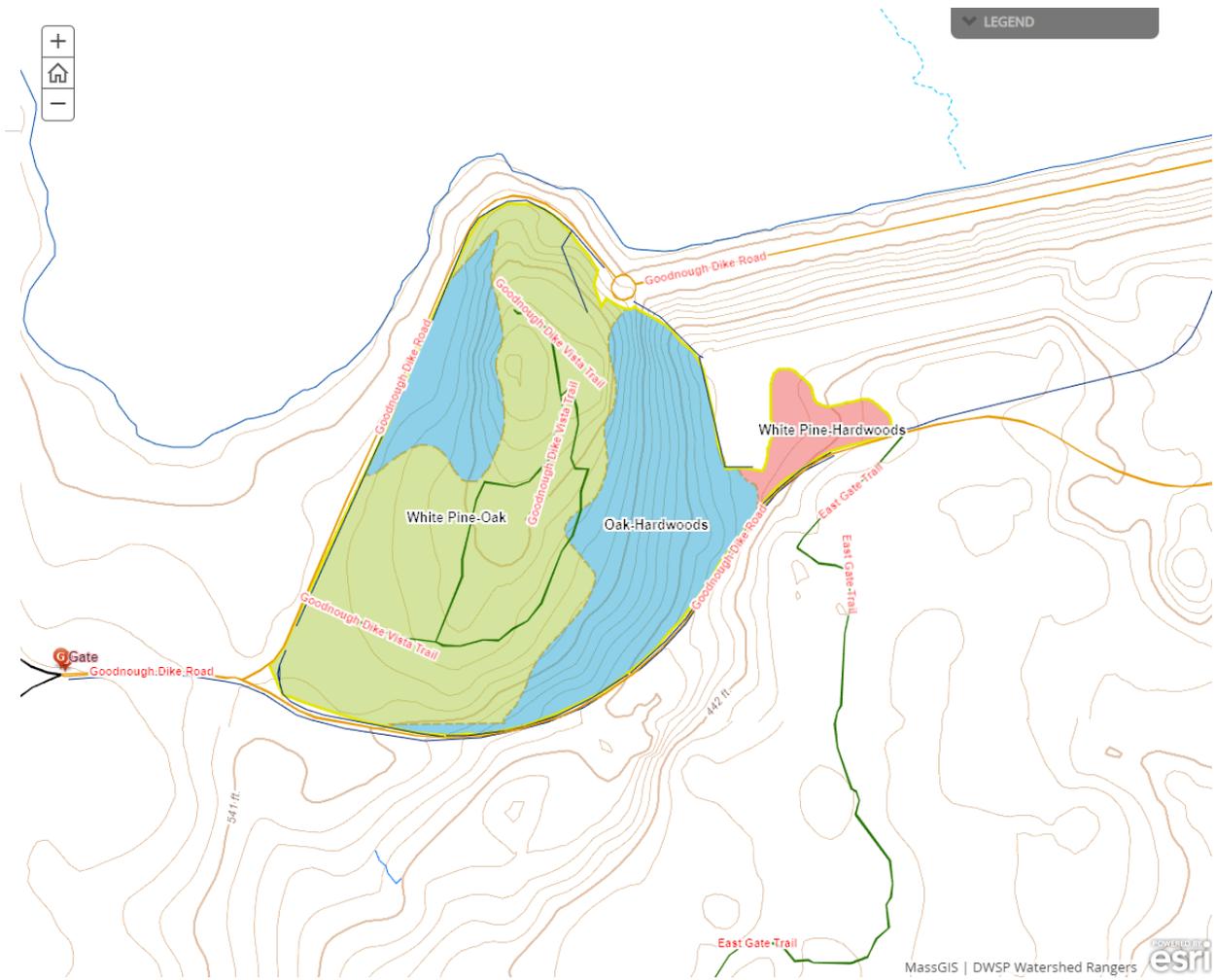
Proposal is on a dry pine/oak flat that drops off to some ledge and steep rocky ground that slopes towards Goodnough Dike.

The only recent harvest on proposal area was 15.6 acres thinned in 1985. Some of this harvest was likely for salvage of gypsy moth impacted trees. Some small openings were established in this cut and regeneration was stimulated throughout the area but most is now stagnant and some of the white pine is dropping out. The whole proposal is currently well stocked and even-aged. Gypsy moth impacted the whole area from 2015-2020 resulting in only scattered oak mortality though. Other than the gypsy moth impact the stands are healthy and fairly vigorous considering the site.

The area is mostly white pine/oak with white pine, red pine, red, black, scarlet and white oak, red maple and black birch with some scattered black cherry and white birch. North of the landing and to the east, where the terrain drops off, the pine drops out leaving only the hardwoods. At the base of the dike, on the flat, there is an isolated pocket of white and red pine with some hardwoods, that due to the amount of edge and exposure are mainly poorly formed.

Assessment of Terrestrial Invasive Species:

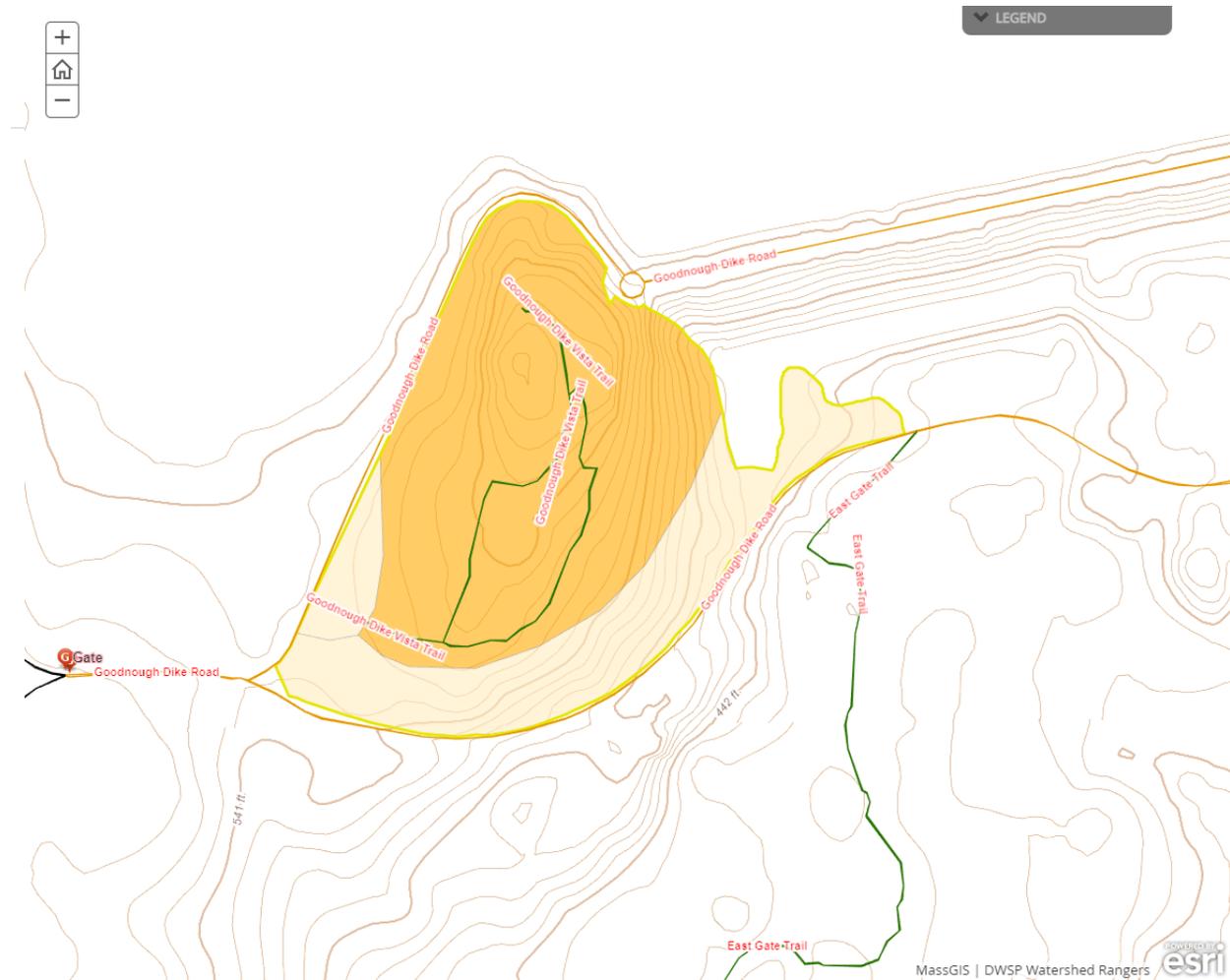
Some invasives present including Asiatic bittersweet, honeysuckle, porcelain-berry, and multiflora rose. These were located mainly near the road and in the stand of red/white pine in SE corner. Some treatment has been done by NR in conjunction with endangered plant habitat management.



Soils

Drainage Class	%
Excessively Drained	34
Well Drained Thin	66
Well Drained Thick	0
Moderately Well Drained	0
Poorly to Very Poorly Drained	0

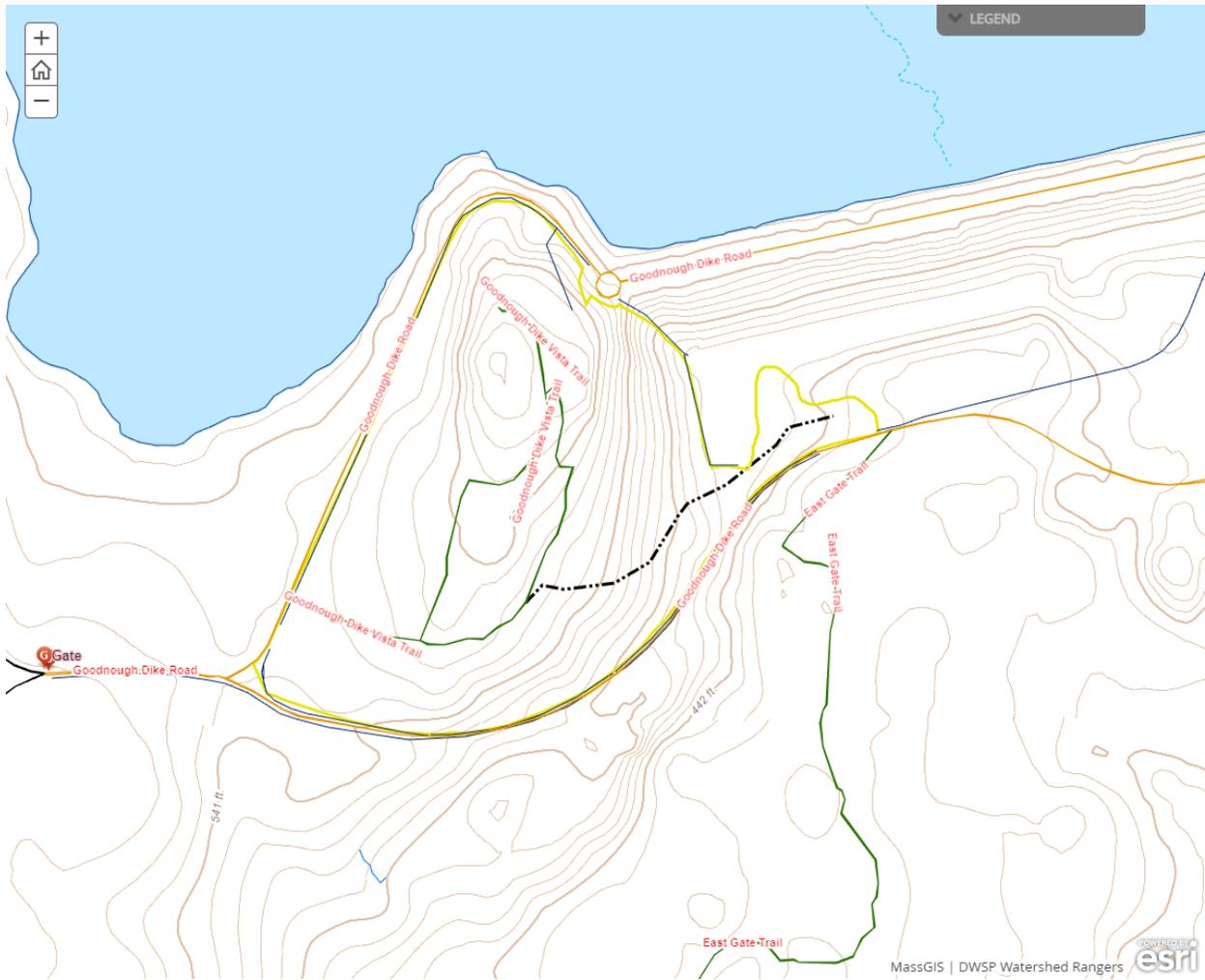
Mainly well drained 103E Charlton-Hollis-Rock outcrop complex; eastern and southern flat is excessively drained 253E Hinckley loamy sand.



Wetlands

- Wetlands present? - **No**
- Streams present? - **No**
- Vernal pools present? - **No**
- Seeps present? - **No**
- 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**

None known, site is all well to excessively drained.



Silviculture

Acres in Intermediate cuts: 0

Acres in prep/establishment cuts: 27

Acres in Regeneration cuts: 0

Average regen opening size: 1

Maximum regen opening size: 2

Description of advance regeneration in proposal area:

Regeneration is moderately diverse and well distributed. Regeneration is mainly in the seedling and sapling size classes and includes white pine and red maple with black birch, red, black and white oak and hickory. The past harvest was a while ago and fairly low intensity, so much of regeneration is stagnant now and some of the white pine is dying out. Area is surrounded by trails open to public and a loop trail goes through the upper flat area so there is regular human presence here which helps keep herbivores moving so browse impact is light. Moose rarely travel through here but deer do use the area. Most areas have over 1,000 seedlings/acre.

General comments on silviculture proposed:

Note this treatment's goal is to improve habitat for several endangered species by creating an open oak barren. Standard silviculture doesn't apply here and if treatment is successful and maintained the normal natural succession and regrowth of tree species will be altered. Goal is to remove all the white pine, red maple and other hardwoods other than the oaks and any hickory, basswood or sugar maple. Only the better formed, vigorous oaks would be retained along with any healthy hickory, basswood, sugar maple and pitch pine that might be present. Targeted density of retained overstory is 50% canopy cover. A whole tree chipping operation will be required so that as little as possible woody debris is left on the forest floor. Typically 1-2 years post-harvest stump sprouts other than oak and any invasives would be treated with herbicides, and 3-5 years post-harvest the area would have a controlled burn to control white pine and any remaining hardwoods other than oak. The fire also helps create conditions to initiate and stimulate growth of a range of fire dependent endangered plants and improve the habitat for the species that depend on them. Fire would be reintroduced on the site periodically, as needed (typically 8-10 yrs.) to maintain the habitat. The residual oak basal area will be reduced to 40-60 sq. ft. per acre and with the varying amount of other hardwood and pine there might be open areas up to around 2 acres created within this.

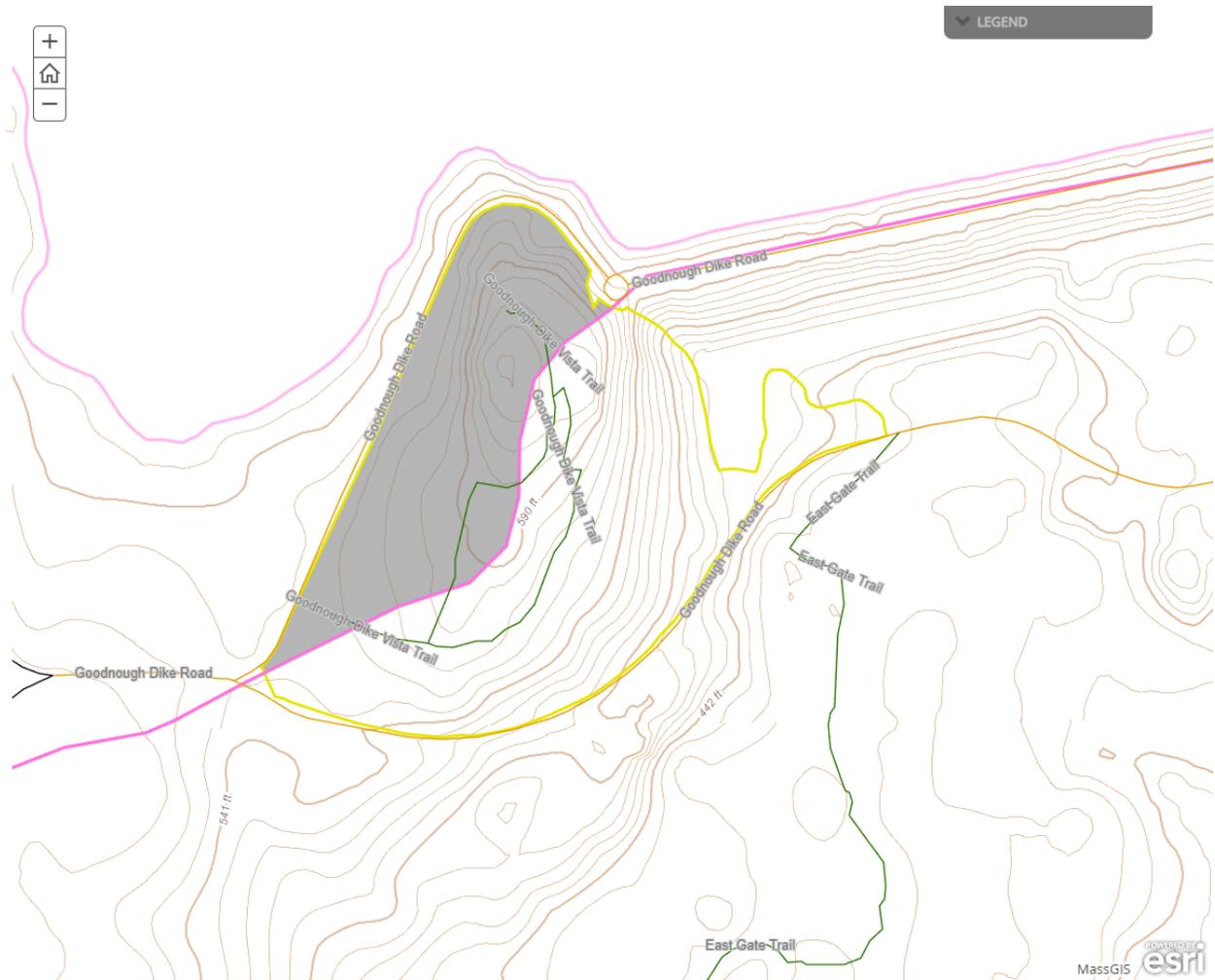
There is about 2.2 acres on the hill side by the dike that are very steep and rocky with exposed ledge and bedrock outcrop. These sections are inoperable and won't be treated unless it's decided to remove some of the undesirable species by hand. Due to the slope and proximity to the dike and erosion concerns, this will be carefully considered before undertaking. There is an additional 2.9 acres of steep ground on this hill side will be hard to harvest. Only one location for a skid trail down the slope has been identified and is mapped. Besides the steepness of slope and rockiness, proximity to the lower Dike Road and an old concrete drainage ditch which runs from the top of dike along the tree line all the way to and along the wooded flat at the base of the dike make harvesting this section difficult.



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
72 (Quabbin Park East)	325	12	69	11
Off-watershed	-	-	-	18

Only 11.15 acres of this proposal are on the watershed. The acres remaining to harvest in the sub-watershed far exceeds this so there is no way to exceed the 25% limit.



Harvesting Limitations

Forwarder required: **No**

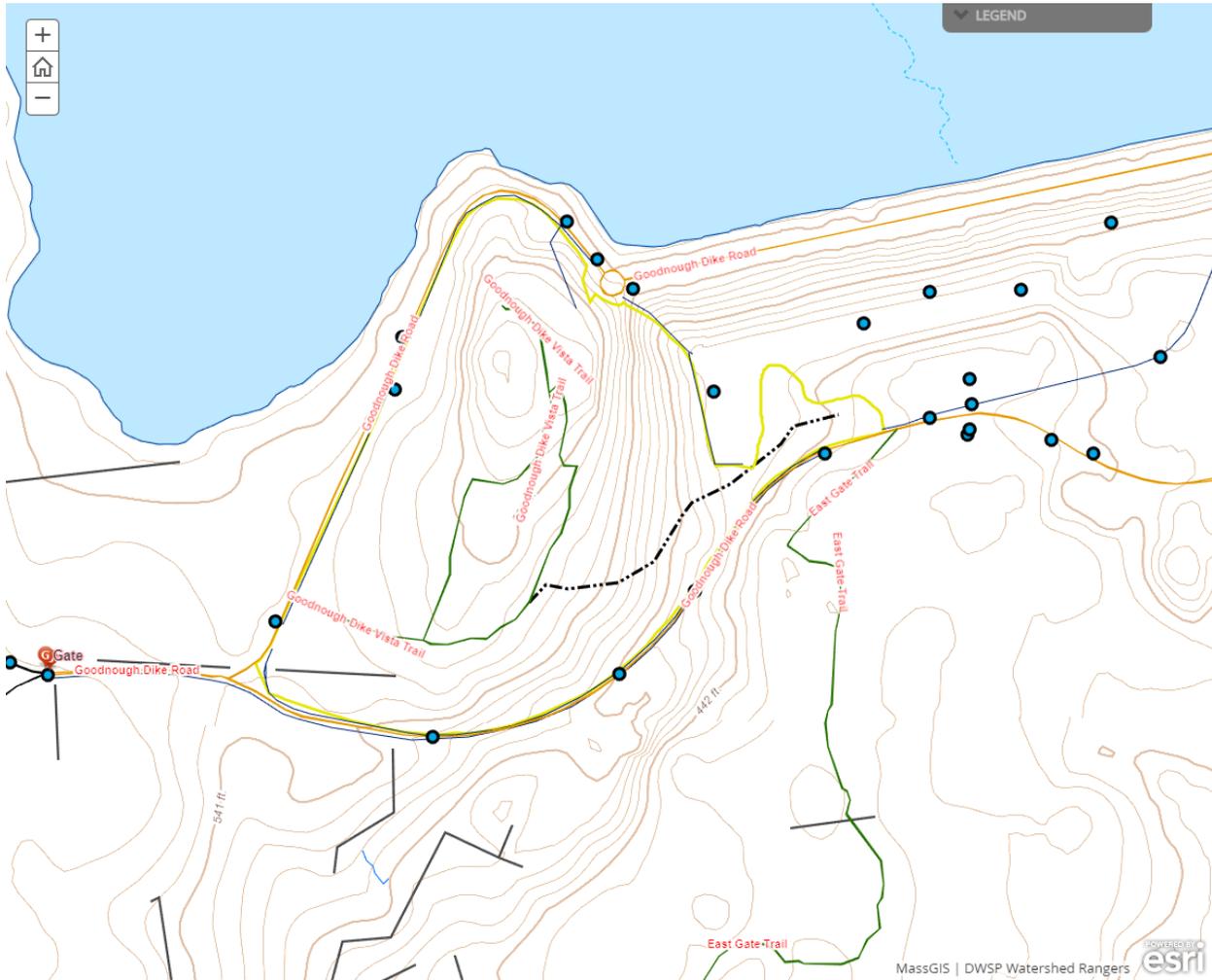
Feller/processor required: **No**

Steep slopes present: **Yes**

Comments on harvesting limitations:

A whole tree chipping operation is preferred by NHESP ecologists to create desirable habitat and to create conditions favorable for future fire management. Landing area will be cleaned of chips and other woody debris removed from the site at end of job. There is a steep hillside towards Goodnough Dike with 2 mapped steep and rocky areas that are inoperable. There is also a large,

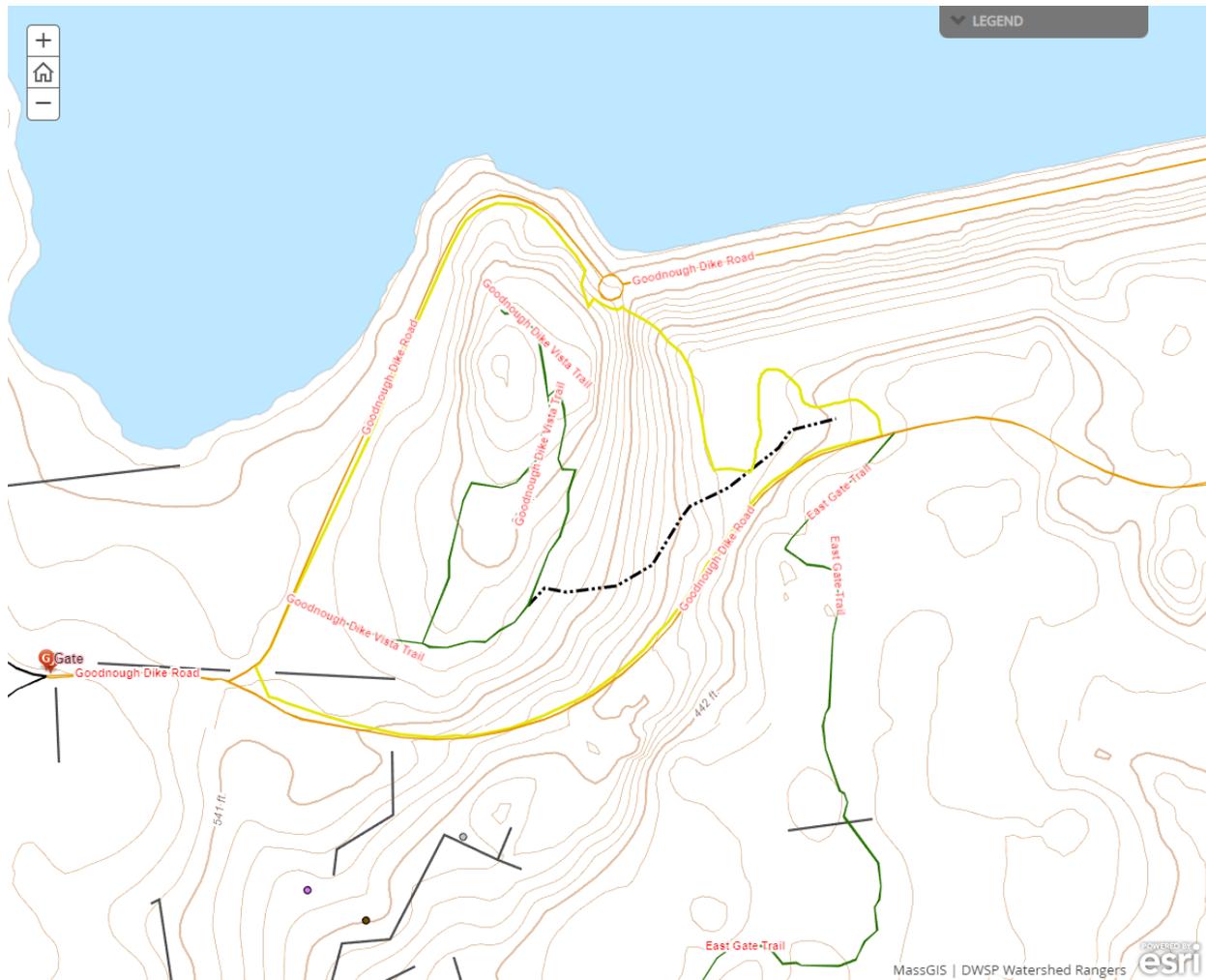
split bedrock outcrop here. Any skid trails through this steep section will require water bars at least every 100'.



Cultural Resources

Comments on Cultural Resources:

Area is adjacent to the reservoir and surface soils have most likely been heavily impacted by past farming and later by the reservoir construction. No known historic features. Most of the eastern half of lot is steep and rocky.



Wildlife Resources & Rare and Endangered Species

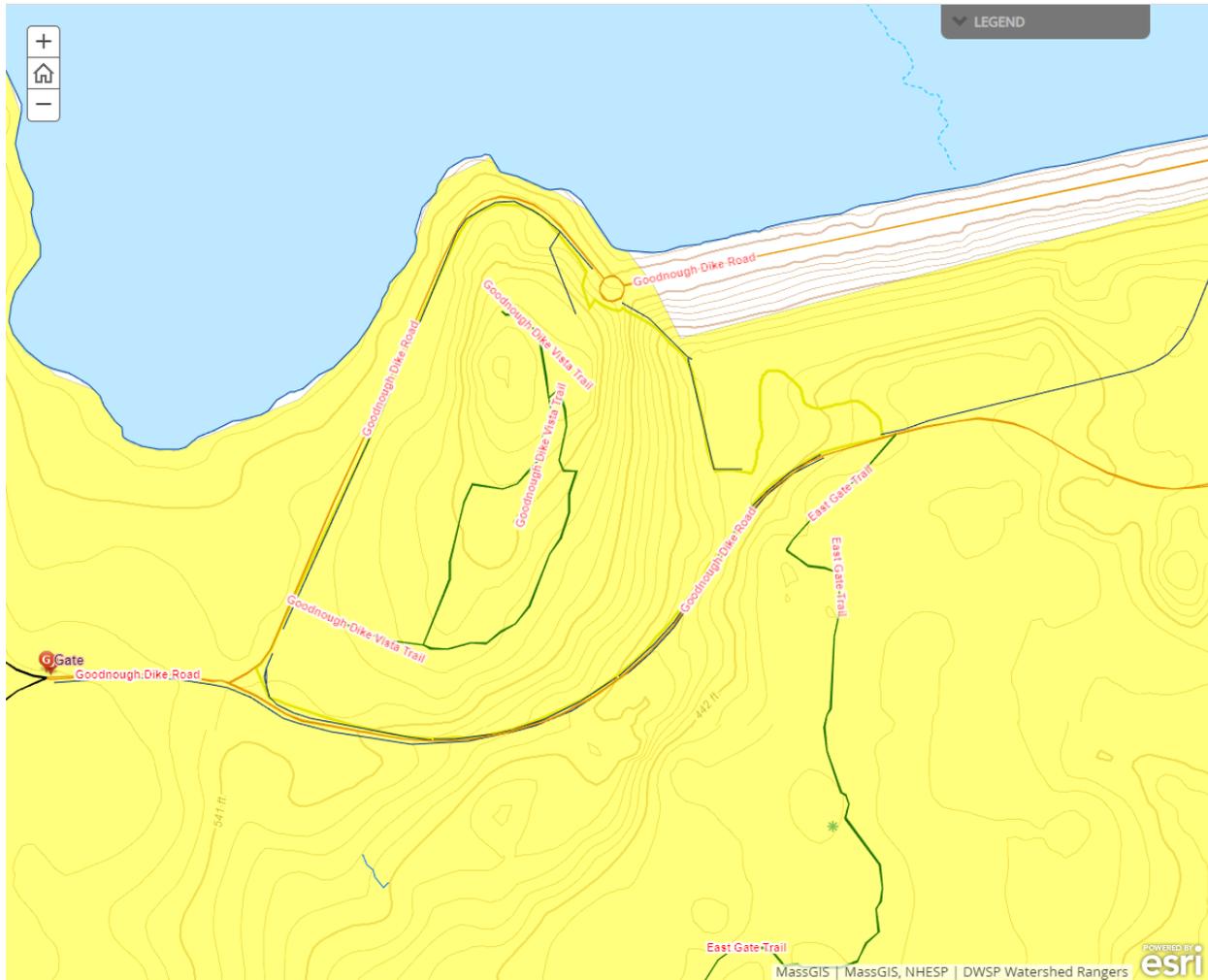
General Wildlife Comments:

Moose, deer, turkey and bald eagle are a few of the species seen on the site. Moose mainly just pass through but deer are common and at least moderate browse is expected. This impact could be counter productive to one of the goals which is to maintain oak, especially scrub oak, on the site but will be beneficial in controlling other hardwoods.

Comments on Rare Species/Habitats:

Main objective of cut is to improve and create oak barren habitat, remnants of which still persist.

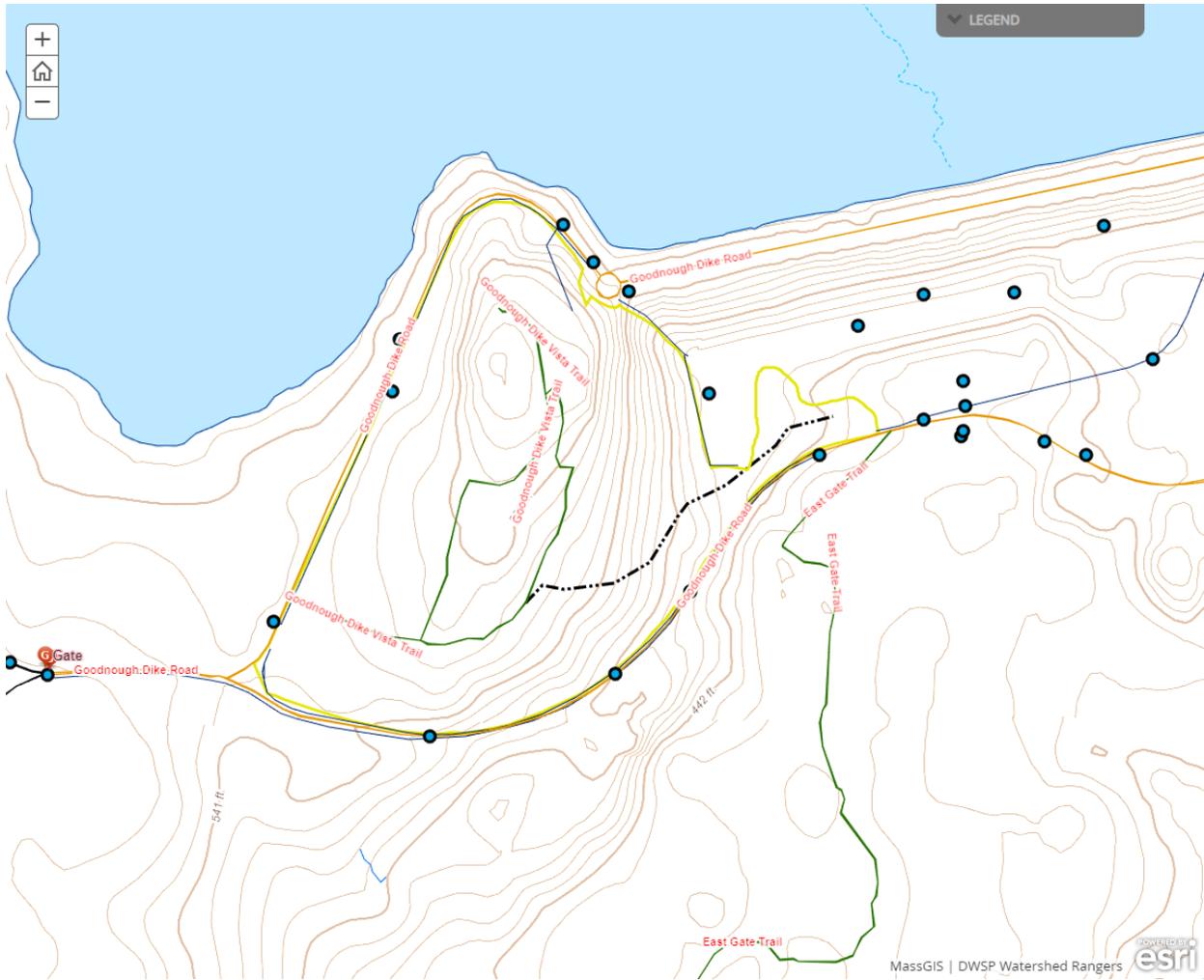
NHESP has determined that certain state-listed sensitive species and habitats exist within the lot proposal area. To protect them from unnecessary disturbance, detailed information regarding species and their locations is not included in this report. DWSP is coordinating with NHESP and will follow recommendations to protect these species during the proposed activity.



Environmental Quality Engineering

Comments on EQ Issues:

No wetlands or streams exist on site. There are multiple culverts that drain roadside water into reservoir. Spill kits will be required to be on site during harvesting operations and a DCR spill trailer may be moved on site while logging is taking place.



Forest Access Engineering

Gravel needed: Yes

Landing work needed: Yes

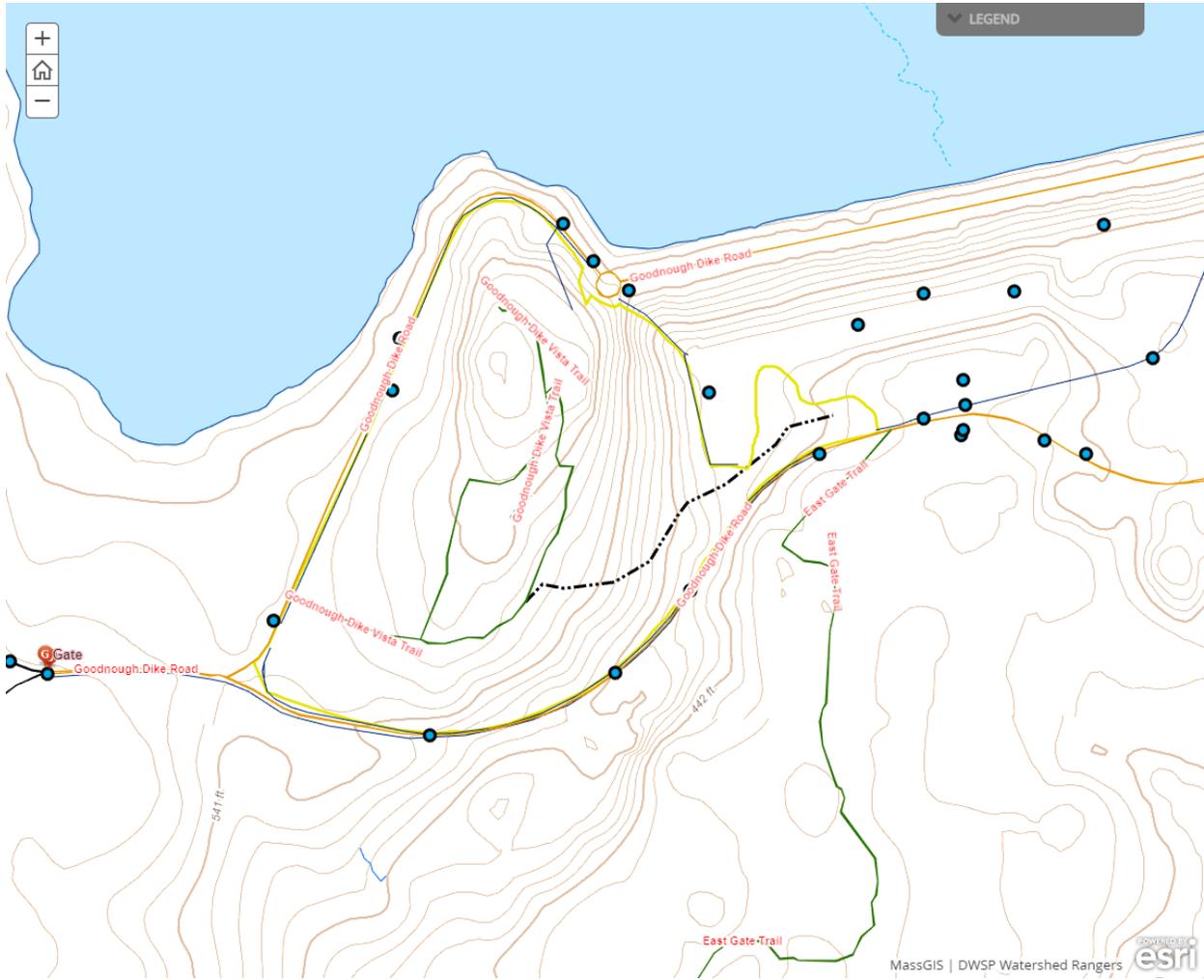
Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: None

Further comment on access needs:

Access is through high security gate 50A. One or 2 of the bollards will need to be removed to allow trailer access to site. A landing suitable for a chipping operation will be established just NE of the junction of upper and lower Goodnough Dike Road; gravel may be needed to protect the edge of the paved Dike Road.



DWSP FY 2022 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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