

Ware River Harvest Proposal WR-23-7-1

Proposal Update, May 2024:

This forestry proposal was originally approved through the public process in 2022. 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 2022 in ArcGIS Online Story Map format.

Proposal Goals

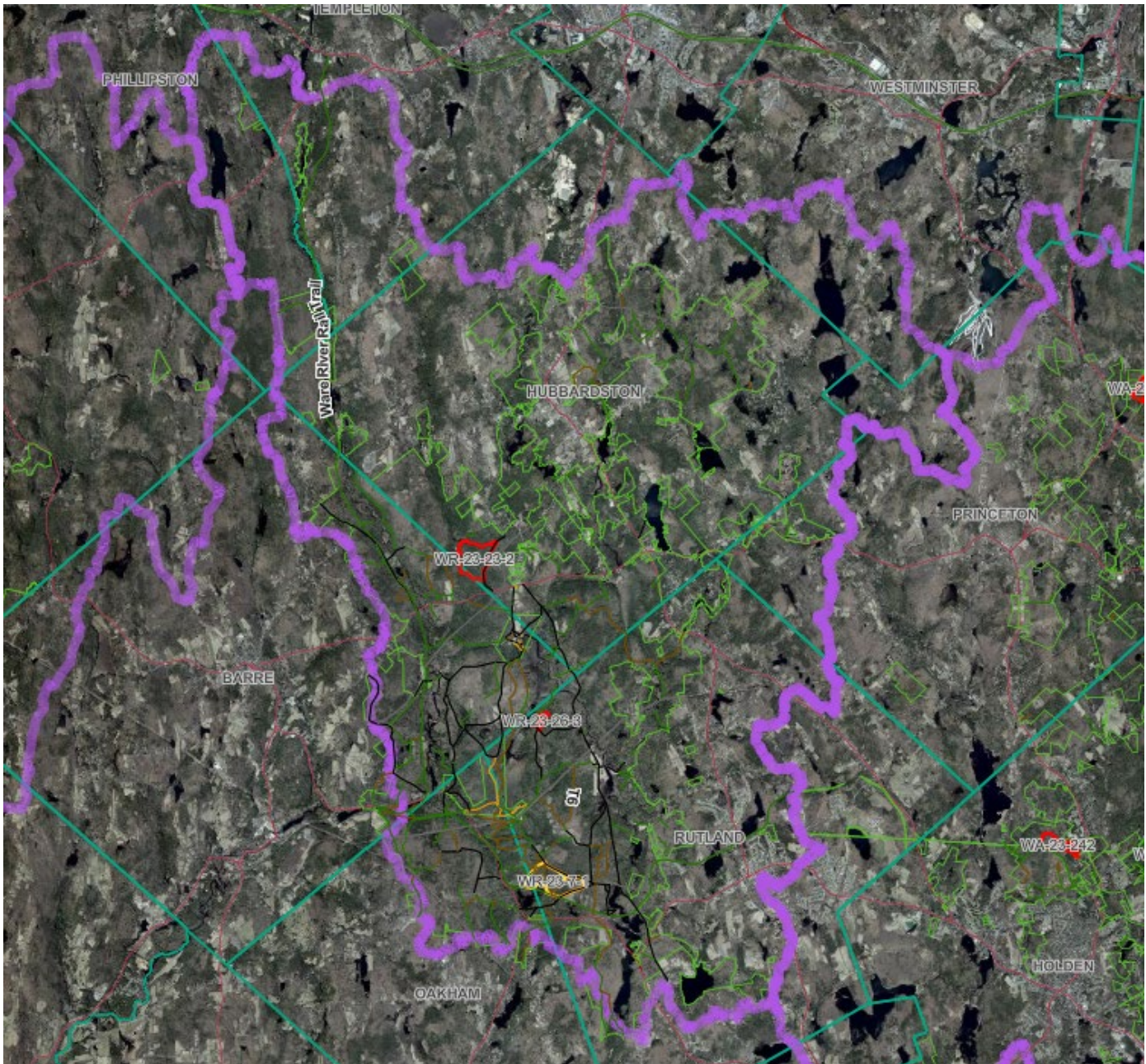
The goal of this proposal is to expand the pitch pine/oak barrens on Whitehall Road. This type of habitat supports many threatened and endangered species.

Proposal Location

(Yellow highlighted polygon in the map) This proposal is located mostly in the town of Rutland, except for 7 acres in the southwestern corner which are in Oakham. It is bordered to the south by the Mass Central Rail Trail (MCRT), to the east by Whitehall Road, and to the north by Pine Plains Road. The western edge runs south from Pine Plains Road to the MCRT at Muddy Pond.

Total Acres: 162

Figure 1. Watershed Locus, WR-23-7-1.



General Description

Overstory Type(s)	Acres
White pine - oak	74
Mixed oak, dry site	55
Red pine	23
	Understory Type(s)
Dominant	Dry site - blueberry/huckleberry
Secondary	Tree seedlings/saplings dominate site

Description of forest composition/condition:

The 1938 aerial photos show this area was mostly young forest at that time. The red pine section adjacent to Whitehall Road had already been planted. There were some small open fields totaling approximately 6 acres in the eastern tip of the lot between Whitehall Road and Pine Plains Road in what is now a mixed oak/white pine oak stand. The lot is generally flat, particularly to the north and east. There is some rolling terrain and slopes up to 30% to the south adjacent to the MCRT and Muddy Pond. The section of this lot located east of the unnamed brook that bisects the lot was previously proposed as WR-17-07-1 but was never implemented.

White pine/oak - This stand is located west of the un-named brook and wetlands that bisect the lot, along Pine Plains Road. Lot #181 was a 20 acre thinning in the eastern part of the stand along the un-named brook that bisects the lot. It was completed in 1991. Lot 4367 consisted of four regeneration openings, including two in this stand. A 4.6 acre and a 1.6 acre opening adjacent to Pine Plains Road were completed in 2008 as part of that harvest. They have regenerated well to sapling sized white pine, mixed oaks, red maple, black cherry, and pitch pine. The stand is fully stocked, averaging approximately 145 square feet of basal area per acre. Sawlog size white pine of average quality dominate the overstory. Red, white, and black oak is consistently present through most of this stand, averaging approximately 30 square feet of basal area per acre. The oak component generally increases to the south and west as the stand transitions to the mixed oak stand along the MCRT. Oak quality is generally average to poor, with some good quality dominant stems present. The oaks were affected by the Spongy Moth outbreak in 2018/2019. Some scattered mortality is present. Pitch pine is also consistently present throughout the stand, averaging approximately 15 square feet of basal area per acre. Pitch pine is generally a larger component of the stand to the east. Low quality red maple is also present in the overstory. Regeneration is consistently present throughout the stand. Regeneration consists of red maple, white pine, mixed oak, black birch and eastern hemlock saplings. Mid story red maple and eastern hemlock poles are present in some areas as well. Low bush blueberry is present throughout the stand.

Mixed Oak - There are two separate stands that are dominated by oak on this lot. The first is approximately 24 acres and is located in the eastern edge of the lot between Whitehall Rd and Pine Plains Rd. This stand transitions from white pine/oak adjacent to the red pine stand to more oak/hardwood dominated up hill towards Pine Plains Rd. It is overstocked with approximately 120 ft² BA/acre, with approximately 40 ft² BA/acre of acceptable growing stock. This stand is generally younger than the other oak stand. The dominant stems are small sawlogs. The white pine quality is low to fair. Oak quality is fair to good. Low quality red maple and black cherry are also present. Regeneration present is white pine, red maple, and oak. Spongy Moth mortality is present but scattered. The second oak stand is located in the southwestern portion of the lot,

adjacent to the MCRT and Muddy Pond, and is approximately 30 acres in size. This stand is stocked, averaging approximately 90 square feet of basal area per acre. Large sawlog sized red, white and black oak stems of generally good quality dominate the stand. Spongy Moth mortality is light and scattered. Sawlog sized white pine is also present, particularly to the north and east of the stand, and adjacent to Muddy Pond. White pine quality is mixed with some oversized low quality stems present adjacent to Muddy Pond and better quality stems scattered throughout the stand. Red maple, black cherry, aspen, and eastern hemlock are also present in the overstory. Regeneration is consistently present throughout the stand. Regeneration consists of red maple, white pine, mixed oak, black, cherry, black birch and eastern hemlock saplings. Low bush blueberry is present throughout the stand.

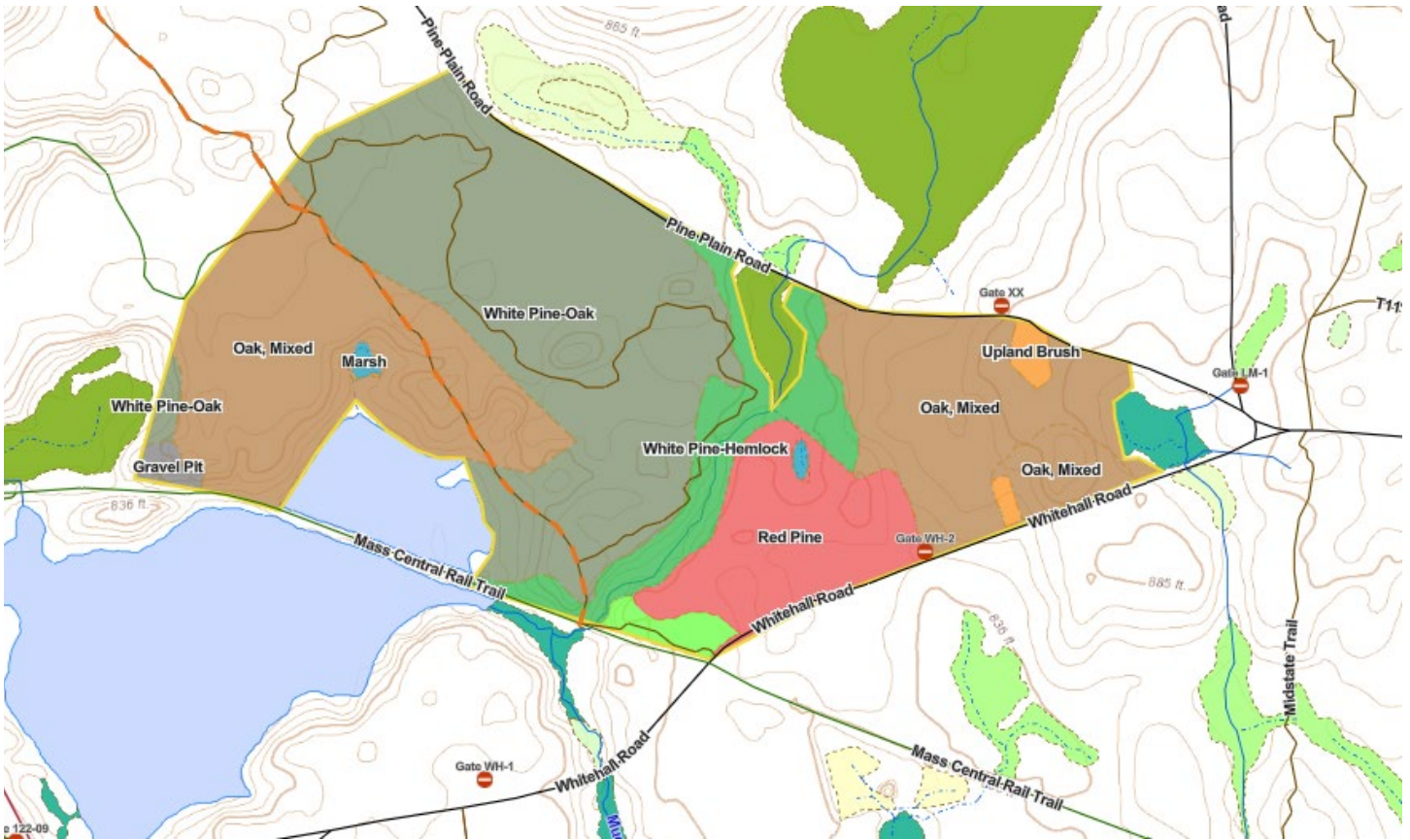
Red pine - This is a planted red pine stand that has been harvested in at least twice. Most of the residual red pine stems have died. The overstory red pine that is still alive is mature and good quality. This stand was part of harvest lot #175, a shelterwood cut that removed 60 - 70 ft² basal area/acre of mostly low value red and white pine, and was completed in 6/92. The stand was revisited in 1998 as part of harvest lot #264, a seed tree cut, that removed approximately 60 ft² basal area/acre of sawlog red and white pine, leaving approximately 20 -30 ft² basal are/acre of mostly good quality healthy saw log size red pine. The stand now is two aged, with approximately 10 ft² basal are/acre of overstory good quality red pine. The sub canopy consists of low quality white pine, hemlock, and advanced regeneration hardwoods. Pitch pine is present in the area. Approximately 40 ft² BA/acre of the white pine is 5 - 12 inches dbh.

Highbush and low bush blueberry, juniper, raspberry, blackberry, and hawthorn are present. This site is considered suitable for conversion to pitch pine/white oak barren.

Assessment of Terrestrial Invasive Species:

Glossy buckthorn and invasive honeysuckle are present, particularly in the eastern portion of the lot along Pine Plains Road and Whitehall Road.

Figure 2. Forest cover types, WR-23-7-1.



Soils

Drainage Class	%
Excessively Drained	79
Well Drained Thin	0
Well Drained Thick	0
Moderately Well Drained	18
Poorly to Very Poorly Drained	7

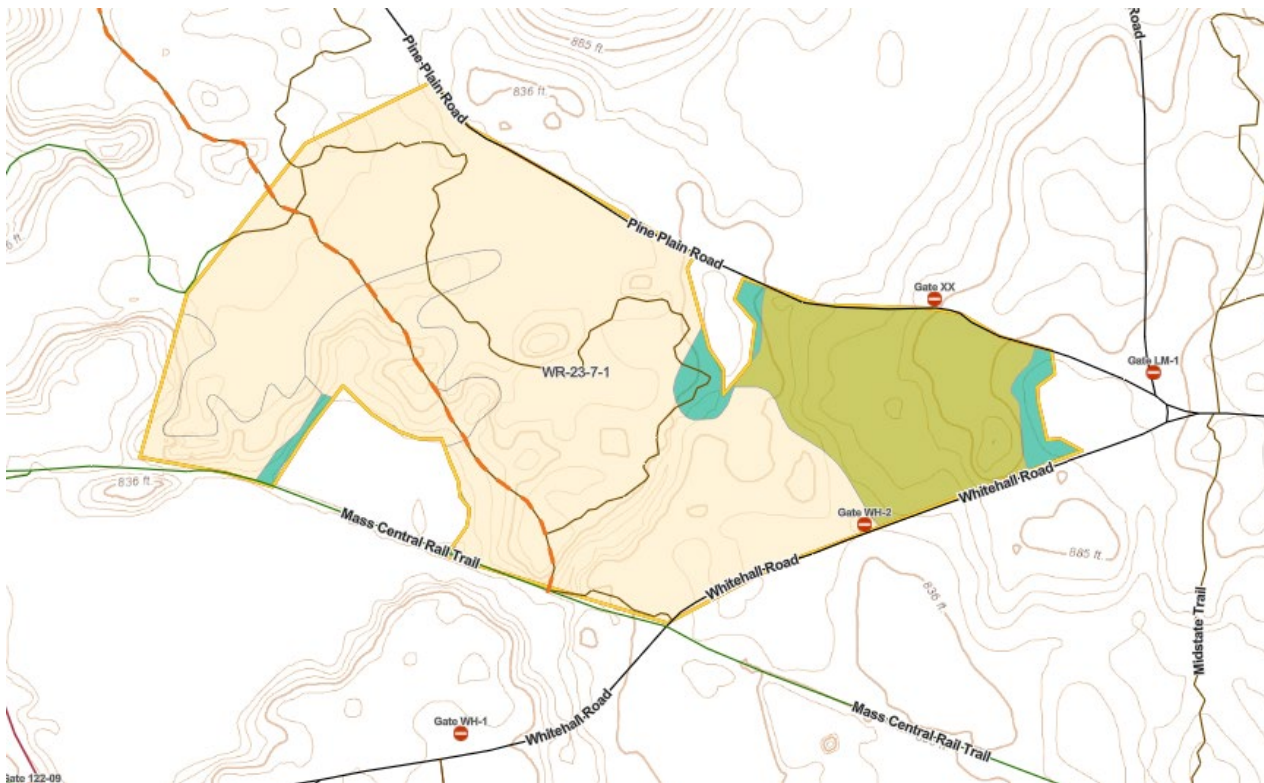
254B - Merrimac fine sandy loam - Excessively well drained - 106 acres

927C - Montauk-Scituate-Canton association - Moderately well drained - 29 acres in the eastern corner of the proposal

253D - Hinckley loamy sand - Excessively well drained - 14 acres north of Muddy Pond

253E - Hinckley loamy sand - Excessively well drained - 7 acres in the northwest corner of the proposal.

Figure 3. Soil classes, WR-23-7-1.

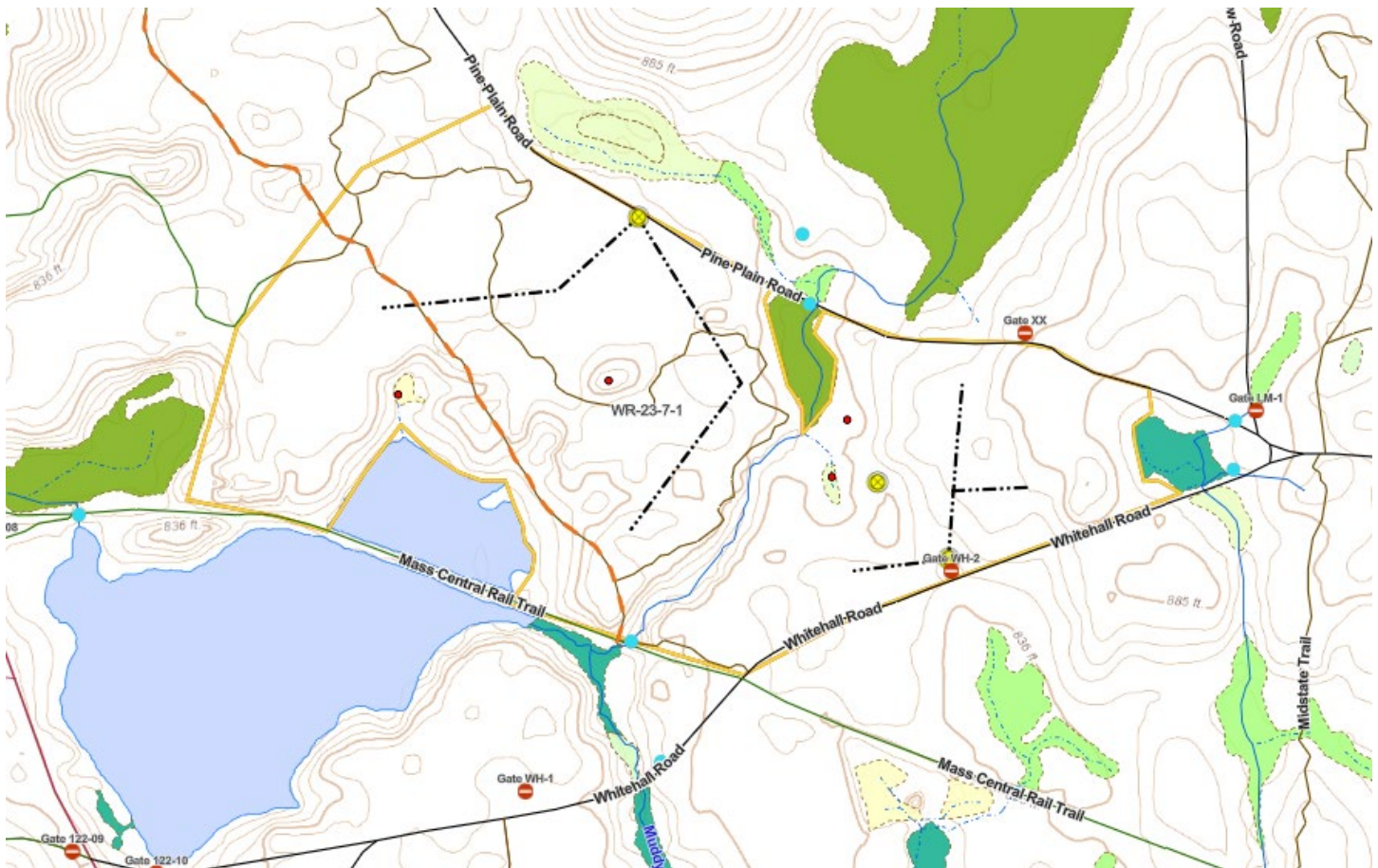


Wetlands

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

The proposal borders on Muddy Pond. An unnamed stream runs southerly through the middle of the proposal and drains to Muddy Pond. There are 4 verified vernal pools within the proposal area.

Figure 4. Wetland resources, WR-23-7-1.



Silviculture

Acres in Intermediate cuts: *

Acres in prep/establishment cuts: *

Acres in Regeneration cuts: *

Average regen opening size: *

Maximum regen opening size: *

(The entire proposal, apart from wetland buffers, will be restored to an open pitch pine-oak barrens, so typical silviculture categories do not apply.)*

Description of advance regeneration in proposal area:

White pine/oak stand - Regeneration consists of red maple, white pine, mixed oak, black birch and eastern hemlock saplings. Mid-story red maple and eastern hemlock poles are present in some areas as well.

Mixed oak stand - Regeneration consists of red maple, white pine, mixed oak, black, cherry, black birch and eastern hemlock saplings. Red pine stand - The sub-canopy consists of low quality white pine, hemlock, and advanced regeneration hardwoods.

General comments on silviculture proposed:

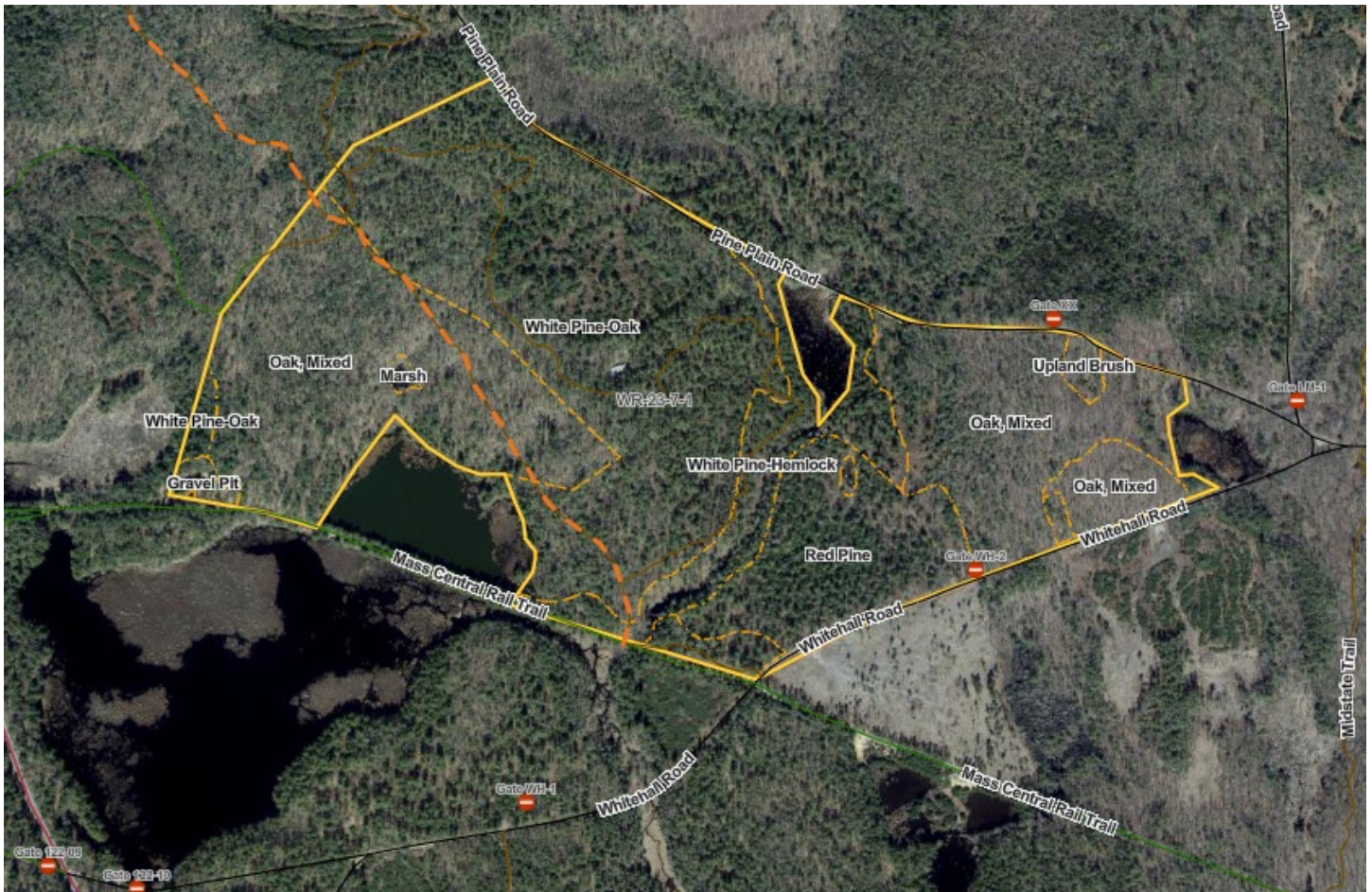
This area was designated as a barrens focus area in DWSP's 2017 Land Management Plan. The silvicultural objective of this proposal is to expand the pitch pine/oak barrens area that is east of Whitehall Road. This type of community is relatively open with scattered overstory pitch pine and oaks. In the white pine/oak and mixed oak stands, where the desired overstory trees are abundant, an average of approximately 10-30 square feet of basal area per acre of overstory trees will be retained. All pitch pine will be retained where feasible, and large-crowned healthy white oaks will be favored. Some large-crowned healthy red and black oaks will also be retained, particularly where white oak and pitch pine are not available. All other trees over five feet tall will be removed. There are plenty of desirable overstory trees to retain throughout most of the proposal area, except in the red pine stand. In that stand, healthy large-crowned sub-canopy oaks, particularly white oaks will be retained where feasible. All other trees greater than five feet tall will be removed. It is DWSP's intention to use a combination of mechanical mowing and prescribed fire in the future to keep this area relatively open post harvest and restore in to functioning barrens habitat.

The openings created by lot 4367 have regenerated well to a mix of tree and shrub species. These areas may need to be mowed in order to make them available to prescribed fire.

Climate Change considerations:

This project continues to build ecosystem redundancy through the creation of additional occurrences and the expansion of inland barrens habitat. The area will provide a refugium for at-risk species and natural communities (pitch pine – oak barrens).

Figure 5. Orthophoto and cover types, WR-23-7-1.



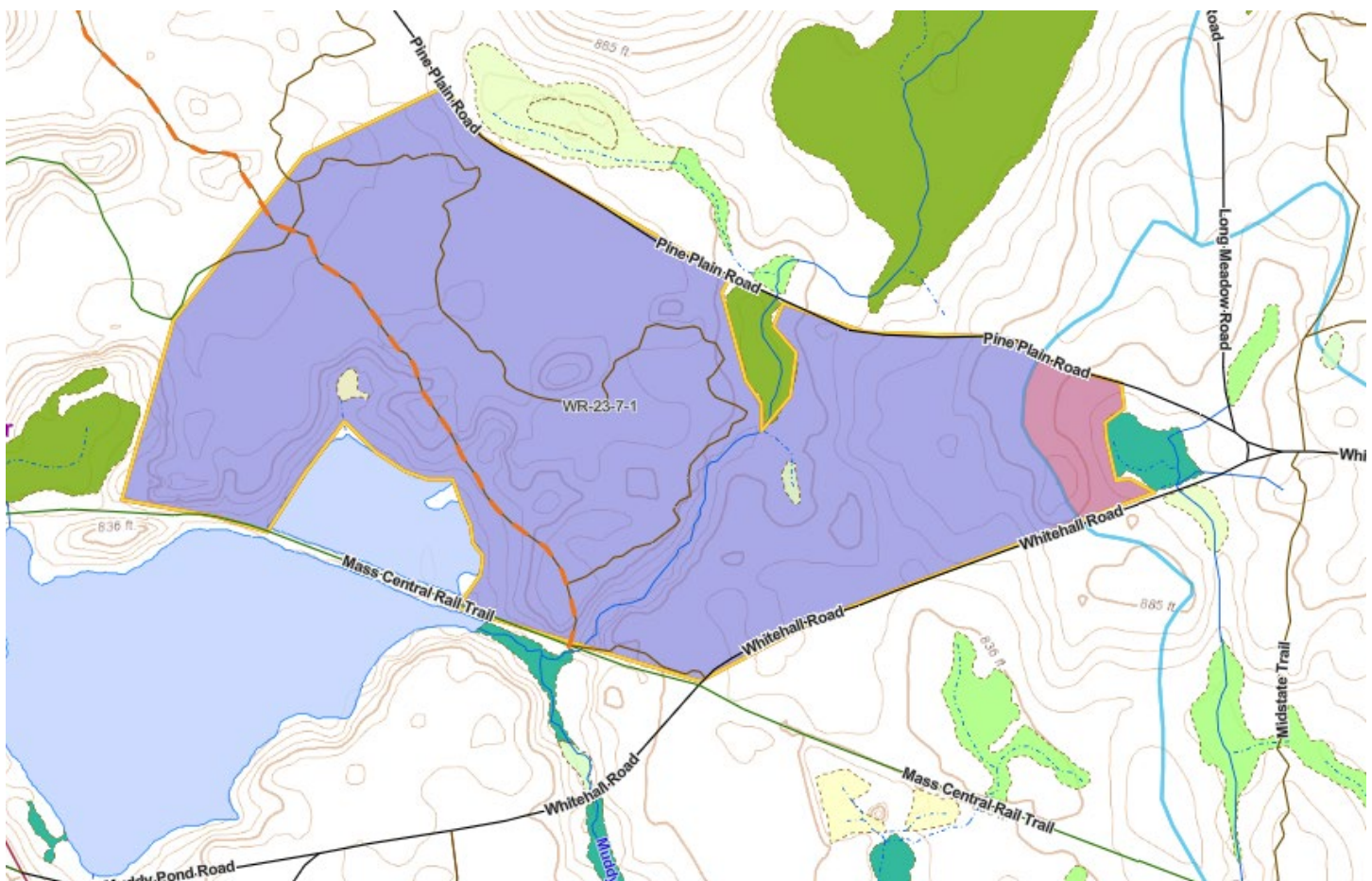
Subwatershed Analysis

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
8061 (Parker Brook)	3133	62	721	156
8021 (Rutland State Park)	2012	8	495	6

8061 - Parker - Lot # 4405 (proposal WR-21-8-2) covers 23 acres and has been sold but has not been started yet. There are 20 acres in proposal WR-22-2-1, 17 acres in proposal WR-22-2-2, 8 acres in proposal WR-20-4-1, 11 acres in proposal WR-20-8-2, and 5 acres in proposal WR-16-3-1 in this subwatershed. The 46 acres in proposal WR-17-7-1 (which was never marked) in this subwatershed are also within this proposal.

8021 - Rutland State Park - No current proposals or sold lots within this subwatershed.

Figure 6. Subwatersheds, WR-23-7-1.



Equipment

Forwarder required: **No**

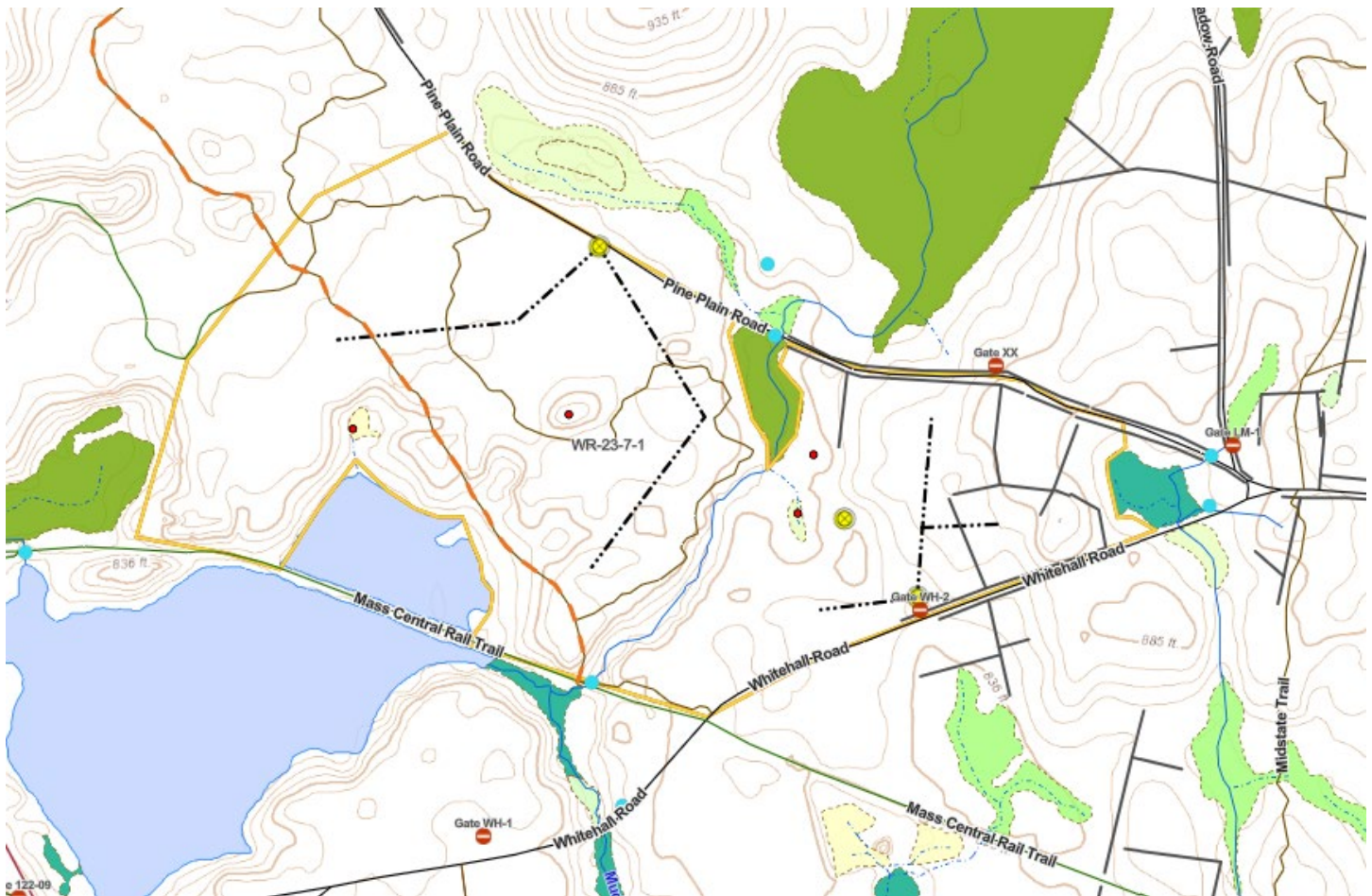
Feller/processor required: **No**

Steep slopes present: **Yes**

Comments on harvesting limitations:

No specific equipment requirements. The southwestern portion of the lot does contain some slopes that exceed 20% as the lot slopes down toward Muddy Pond and the MCRT.

Figure 7. Harvesting limitations, WR-23-7-1.

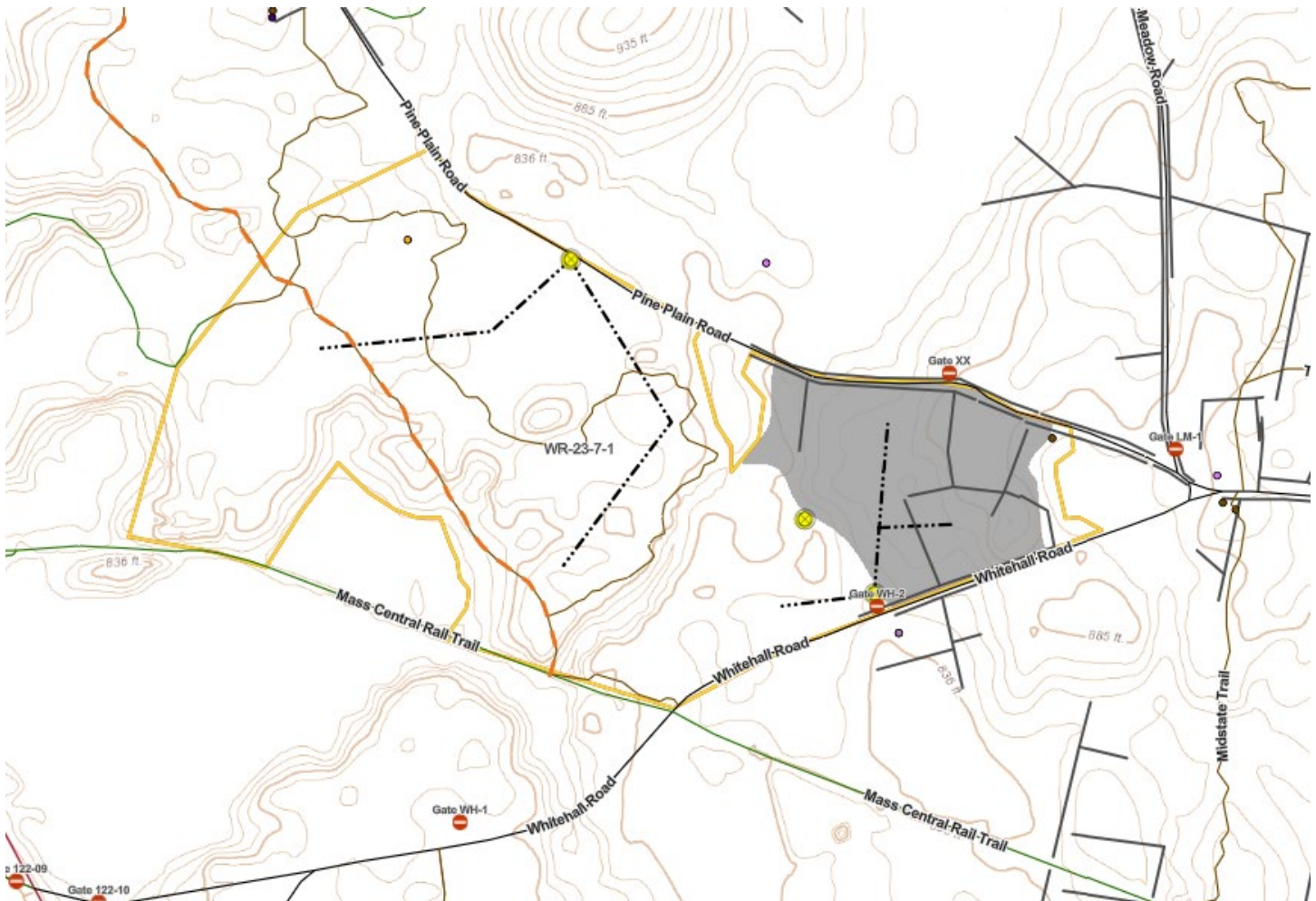


Cultural Resources

Comments on Cultural Resources:

Stonewalls are present, particularly in the eastern portion of the lot adjacent to Whitehall Road and Pine Plains Road. Stone walls will be protected as much as possible. A possible cellar hole exists west of the access road from Whitehall Road and will be protected. A historic horse racetrack is located in the northwest portion of the lot. It is visible on Lidar but hard to distinguish on the ground, but efforts will be made to identify, avoid, and minimize impacts to the extent possible. Past harvesting has occurred in that area.

Figure 8. Stony and Extremely stony soils, WR-23-7-1.



Wildlife Resources & Rare and Endangered Species

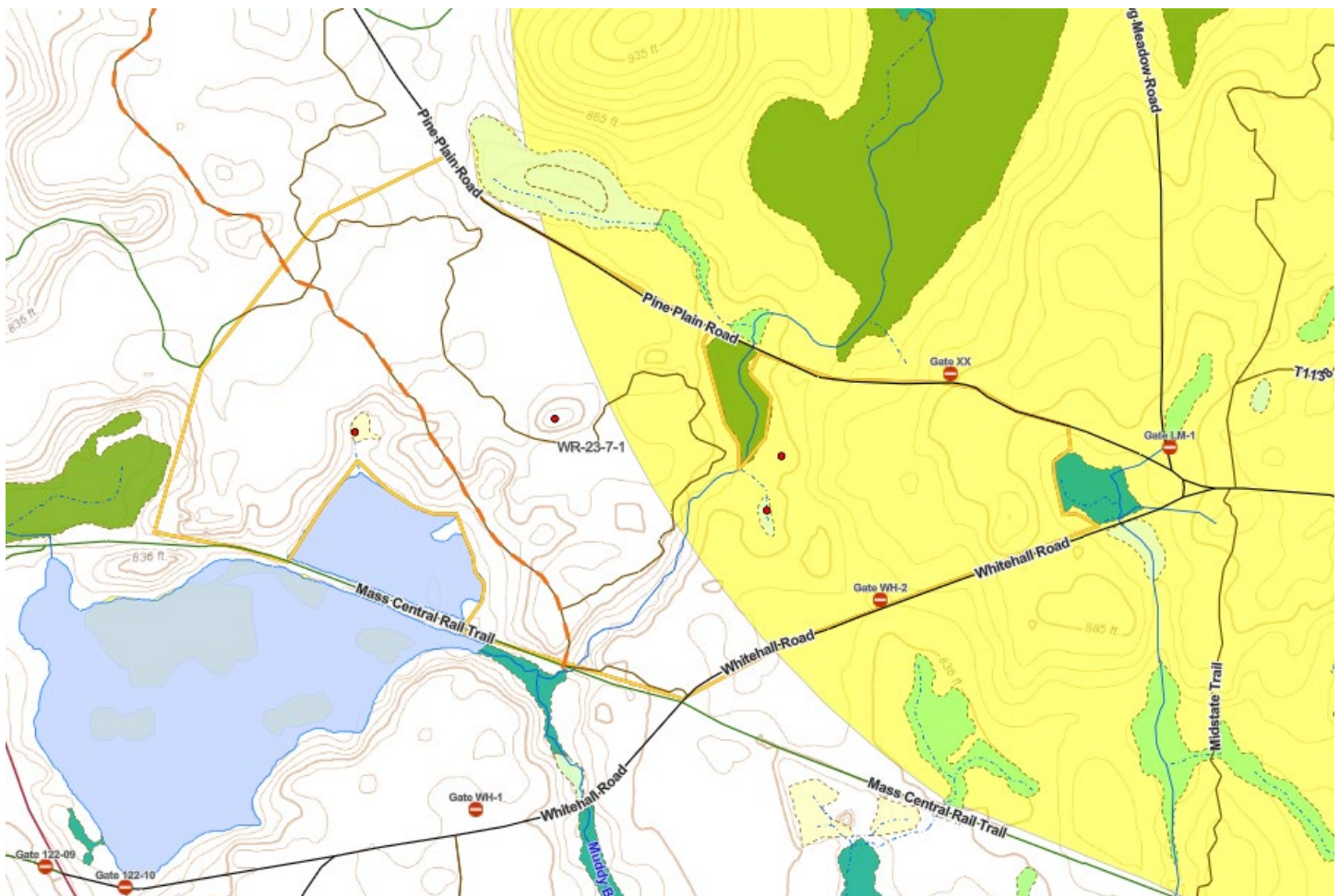
General Wildlife Comments:

Moose and deer sign and browse were observed on the lot, but regeneration levels indicate browse pressure is low.

Comments on Rare Species/Habitats:

The NHESP Priority Habitat map indicates Eastern Whip-poor-will habitat over portion of the site. A state listed invertebrate utilizes the bog habitat in the northeast corner of the lot, but no impacts are expected from this activity.

Figure 9. NHESP Priority habitat overlay, WR-23-7-1.

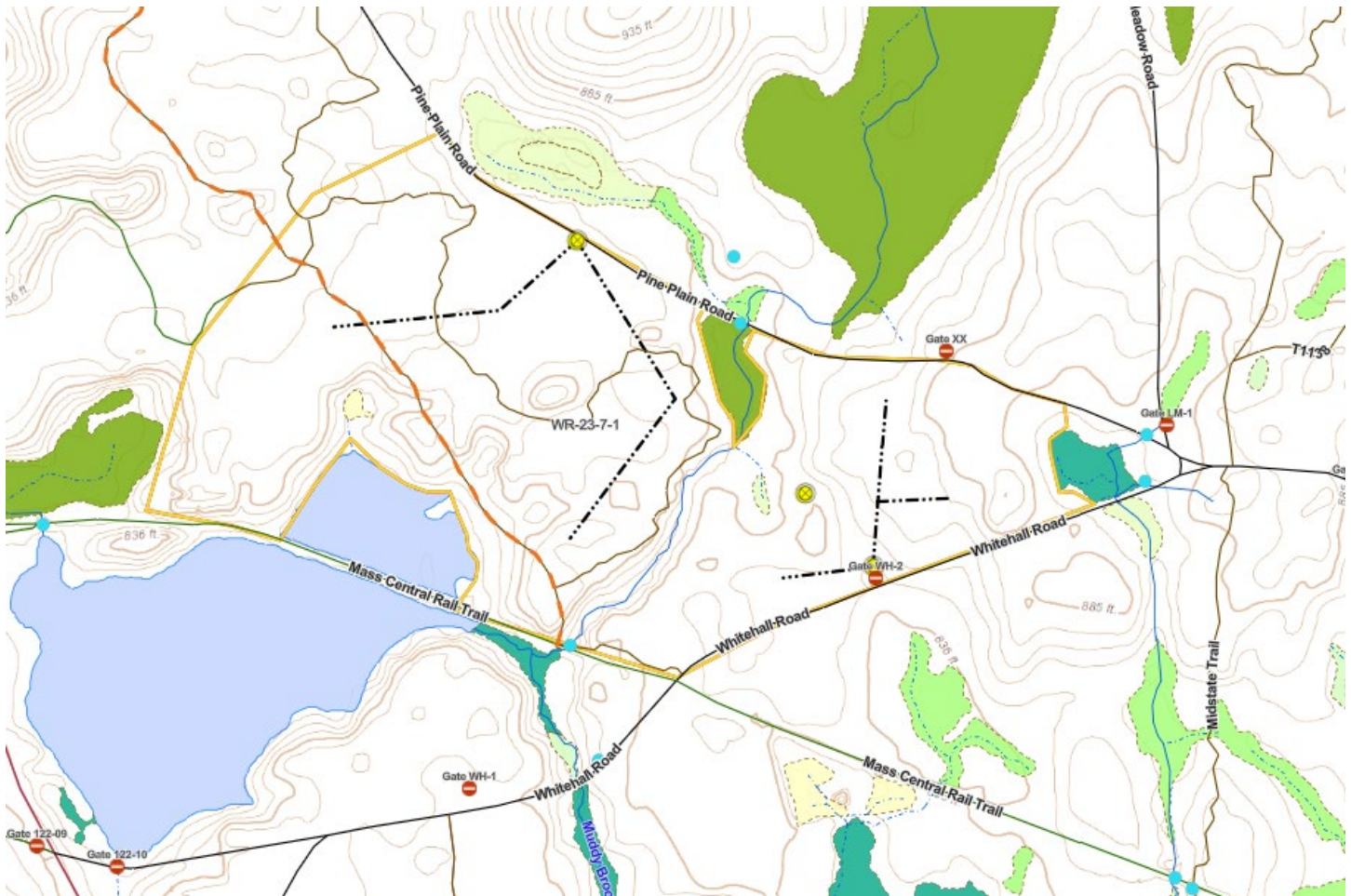


Environmental Quality Engineering

Comments on EQ Issues:

No crossings are planned.

Figure 10. Access planning, WR-23-7-1.



Forest Access Engineering

Gravel needed: Yes and No

Landing work needed: No

Culverts needed: No

Work needed on permanent bridges: No

Beaver issue: No

Further comment on access needs:

At the time of the proposal Whitehall Road and Pine Plains Road both needed gravel and grading to get rid of large potholes; some of this work may have been accomplished since then.

Figure 11. DWSP FY 2023 Forestry Proposals – Master Legend for story maps

