Massachusetts Department of Conservation and Recreation

Division of Water Supply Protection, Office of Watershed Management

Forest Management Project Proposal Summary for Public Comment

Location, goals, and summary of proposed forest management.

Proposal Summary Item	Item Information/Description
Lot Proposal ID	**PR-26-24**
Fiscal Year	2026
Watershed	Quabbin
Town(s)	New Salem
Forester	Derek Beard
Estimated Acres by Treatment Type	56 acres of preparatory thinning
Total Proposal Acres	56
Block	Prescott
Compartment and/or Working Unit	24
Location and Boundary Description	The proposal area is located half a mile inside gate 18 (Hunt Rd.) southwest of intersection 18-1. It's bounded by stone wall and steep slope to the north, Hunt Road to the east, a Dickey Brook tributary to the south and riparian area along the north branch of Dickey Brook to the west. A hilltop located in the area's northeast creates sloping topography mostly to the west and south.
Previous Proposal?	No
Project Goals and Summary Description	The present overstory is crowded, even aged, tall and losing vigor. Its dense condition along with climate change is presenting signs of stress. A harvest to prepare the site for regeneration would bolster resilience by reducing crowding and triggering vigorous regeneration which is largely absent. The area may be incorporated into a larger prescribed fire unit intended to promote oak regeneration.

Forest Cover Types and Acreages

Overstory Forest Types	Acres
Hemlock-Hardwood	26
White Pine-Oak	11
Oak Mixed	16
White Pine-Hardwood	3

Understory Cover Types and Relative Importance

Understory Cover Type	**Relative area covered** (Dominant, Secondary, Minor, None)
Tree seedlings and saplings	Dominant
Mountain laurel	None
Mesic site - witch hazel, highbush blueberry	Minor
Dry site -Huckleberry, blueberry	Secondary
Mesic site - cinnamon fern, mixed hardwood	Minor

Understory Cover Type	Relative area covered (Dominant, Secondary, Minor, None)
Hayscented fern	Minor
Invasive shrubs/vines	Minor
Other	

Forest Vegetation Description

Vegetation Topic	Description
General Description, Forest Composition, Stand History, and Harvest History	The dominant forest overstory (roughly 50%) is fully stocked saw timber/large pole size hemlock, red oak and other hardwood (black birch/red maple) that covers the area's mid/lower west slope. Average stocking is around 200 square feet of basal area per acre. Hemlock condition is bleak due to persistent Adelgid outbreaks leaving the trees crown depleted and/or dead. Thankfully, the 2015/16 Spongy moth infestation only caused minor mortality to the area's oak. Moving to the southwest and south facing slopes, dominant forest cover transitions to saw timber/ pole size mixed oak and hardwood; about 35% of the area's overstory. The remaining cover is composed of saw timber/pole size white pine and hardwood on the less prominent east and north facing slopes. The area's lack of vertical structure diversity is offset by an abutting 9 acres of mixed hardwood poles (north of area) (some of which bleeds into the area's northeast corner); the result of a 1994 red pine plantation removal. Other documented management is a 1965 thinning along the toe of the area's west slope.
Advance Regeneration description	None where hemlock is dominant. Suppressed (unacceptable) white pine and black birch saplings under oak and/or white pine overstory.
Terrestrial Invasive Plants description	Minor Japanese barberry in area's northwest corner. The north branch of Dickey Brook is heavily impacted by Glossy Buckthorn. Post harvest monitoring will be warranted to detect any invasion into the proposal area's lower west slope.

Description of Wetland Resources Present

Resource Type	Description of resources present
Wetlands	Beaver enhanced wetland abuts the area to the west (north branch of Dicky Brook)
Streams	There are no streams within the area, but it's bounded to the south and west by two: one flows from a sizable wetland and the other acts more like a wetland due to long term beaver activity.
Vernal pools	None known
Seeps	None known

Description of Soils by Hydric Class

Soil Hydric Classes	% of area	Soil series and any further comments
Excessively Drained	0	
Well-drained Thin	30	Chatfield-Hollis complex, rocky
Well-drained thick	55	Montauk fine sandy loam, very stony; Chatfield-Canton complex, rocky
Moderately well-drained	15	Scituate fine sandy loam, very stony
Poorly to very poorly drained	0	

Proposed Silvicultural Activities

Topic	Description
Site Selection and Silvicultural Objectives	The goal of the proposal is to begin a transition to a forest with more vertical structure and species diversity. Although the hemlock has exhibited strong resistance to a generational adelgid infestation, the onset of mortality is settling in. An additional project intent is preparing the area as a potential prescribed burn unit where fire is used as a complimentary tool to encourage oak regeneration.
Silviculture Prescription	Most of the area will experience a preparatory harvest that will spur regeneration while maintaining compositional overstory that provides a local seed source. Specifically, the harvest will primarily target trees in the suppressed and mid-canopy crown classes followed by ones in the co-dominant and dominant crown classes with poorer form. The healthiest dominant hemlock will remain and contribute to a progressively more complex forest structure if they succumb to hemlock woolly adelgid. Post harvest, stocking will be between 60 and 90 square feet of basal area per acre, allowing sufficient ground light to spur regeneration while maintaining overstory composition that functions as a local regeneration seed source. Additionally, in the event the area becomes a prescribed burn unit, the stocking level is well matched for low intensity fire to stimulate oak regeneration.

Climate Change Considerations: DWSP has determined that the decision to implement this project is consistent with EEA climate goals and guidelines and agency land management objectives. Carbon and climate change considerations specific to the activities proposed for this project are discussed below.

Proposed Activity	Alignment of Activity with Climate Oriented Strategies and Recommendations
Diffuse overstory removal, partial cut, late rotation regeneration related.	Partial cutting via single trees or small groups in a mature stand can advance a variety of management objectives as well as **climate-smart practices**. Single tree or very small group removals, if used exclusively and repeatedly, will perpetuate an **uneven-aged stand condition** with a species mix shifted towards higher shade tolerance. However, this type of harvest can also serve within an even-aged system to establish regeneration of species of lower shade tolerance under a partial canopy for subsequent release using larger group or patch cuts (irregular shelterwood) or complete-stand overstory removals. Advantages of partial overstory removals include, but not limited to: • Partial cutting **retains carbon on the landscape** for extended periods while regeneration develops. • Reducing competition for resources improves growth and **carbon sequestration** rates on residual trees. • Promotion of a diversity of age classes enhances overall forest **resiliency**. • Maintenance of continuous forest corridors provides for wildlife habitat. • As part of a regeneration system this method can be used to help guide species diversity towards more **future-adapted mixes**.
General/other Climate Change Considerations	This silvicultural approach is designed to enhance forest resilience by addressing structural uniformity, regeneration deficits, and climate-related stress in an even-aged forest dominated by hemlock, oak, and mixed hardwoods. The proposed harvest represents a multi-step, climate-informed strategy to shift the forest toward greater species and structural diversity, stimulate vigorous regeneration, and create conditions suitable for the reintroduction of fire.

Equipment and Access Constraints and Considerations

Constraint Topic	Description and Considerations
Proposed Equipment requirements	If possible, whole tree harvesting may be preferable in order to reduce fuel load in the event the area becomes a prescribed burn unit.
Proposed wetland or stream crossings	None planned
Further wetland comments	Appropriate BMPs will be applied along wetland and stream riparian corridors.
Vernal Pools	n/a
Access improvements needed	May need gravel for landing stabilization. A culvert may need to be installed for seasonal seep that flows onto Hunt Road a few hundred feet inside gate 18.
Other EQ issues	None
In-kind Services	None

Constraint Topic	Description and Considerations
Other Access Concerns (parking, trails, etc.)	DWSP will survey and treat invasives currently impacting landing area prior to operations and in line with the invasive species management plan.

Subwatershed Analysis

Sub-Watershed number/name	Total DCR-owned acres in this sub-watershed	Acres regenerated on DCR land in the last 10 years in this sub-watershed	Total DCR-owned acres remaining for regenerating up to the 25% per 10 year limit for this sub-watershed	Acres in this sub-watershed that are part of this proposed lot
57	2779	37	658	56

Additional comments on Subwatershed analysis: None

Wildlife and Habitat Observations and Considerations

Wildlife/Habitat	Observations and Considerations
Natural Heritage Priority Habitats?	Yes
State Listed species present:	NHESP has determined that certain state-listed sensitive species or habitats may exist within 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 activity.
Rare Natural Communities:	None known
General Wildlife Comments	Live and dead high value snags (trees 16” dbh or larger) will be retained for habitat. No unusual wildlife or stick nests were detected during reviews.

Cultural Resources Description and proposed protection measures

Cultural Resource	Description and proposed protection measures
Historical features present; comments regarding protection	The area contains many features pointing to Euro-American settlement such as stone wall (with numerous barways), wells, agricultural ditching and livestock cistern (just beyond area’s west boundary). It’s also home to quarried granite posts marking the boundary between the unincorporated town of Prescott and New Salem. These features are mapped and will be flagged for protection prior to timber harvesting.
Description of site characteristics in relation to Ancient sites modeling or other verified evidence	Moderate to steep slope with scattered rock outcrops best characterizes the area’s topographic profile.

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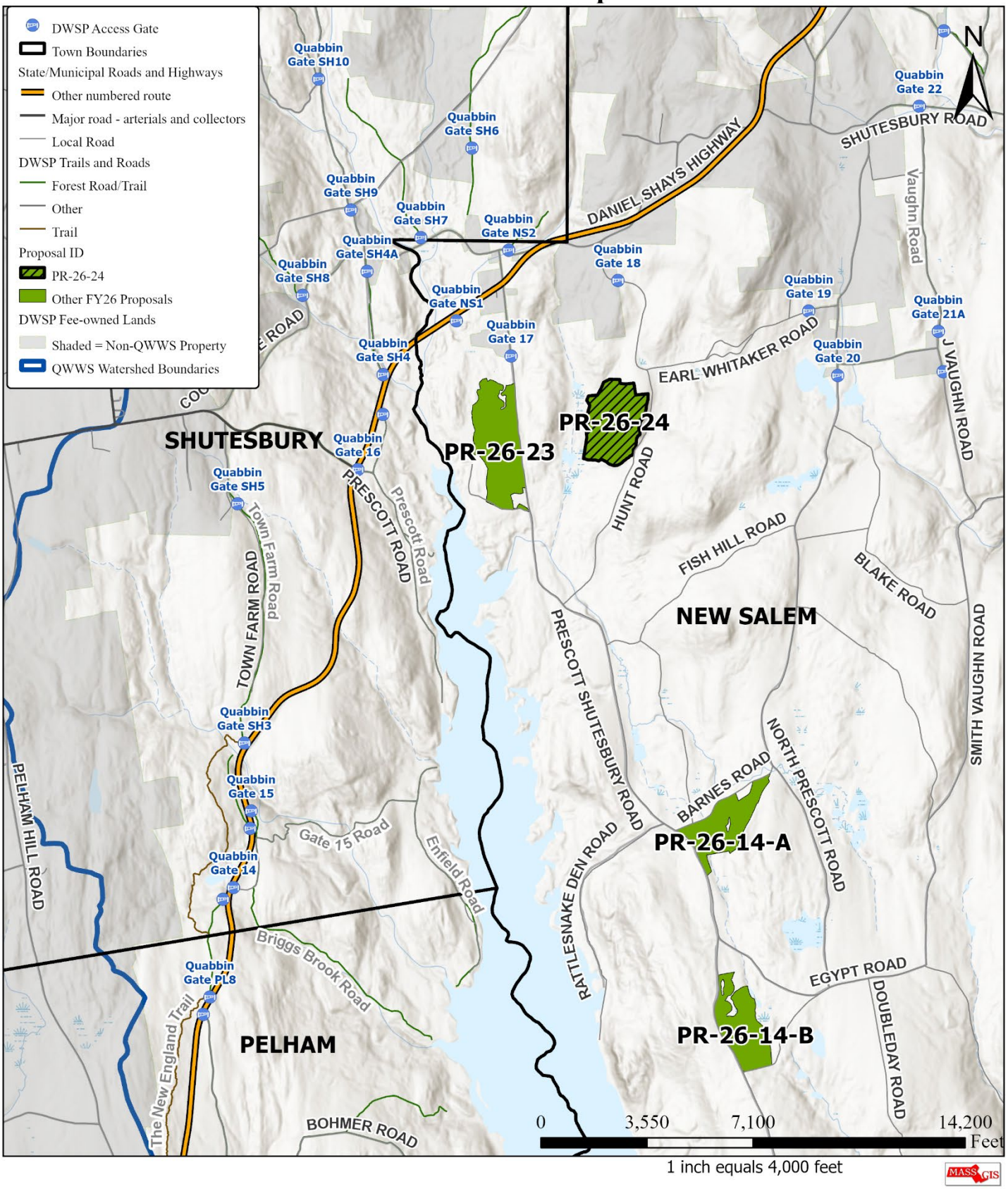
PR-26-24 -- Locus Map



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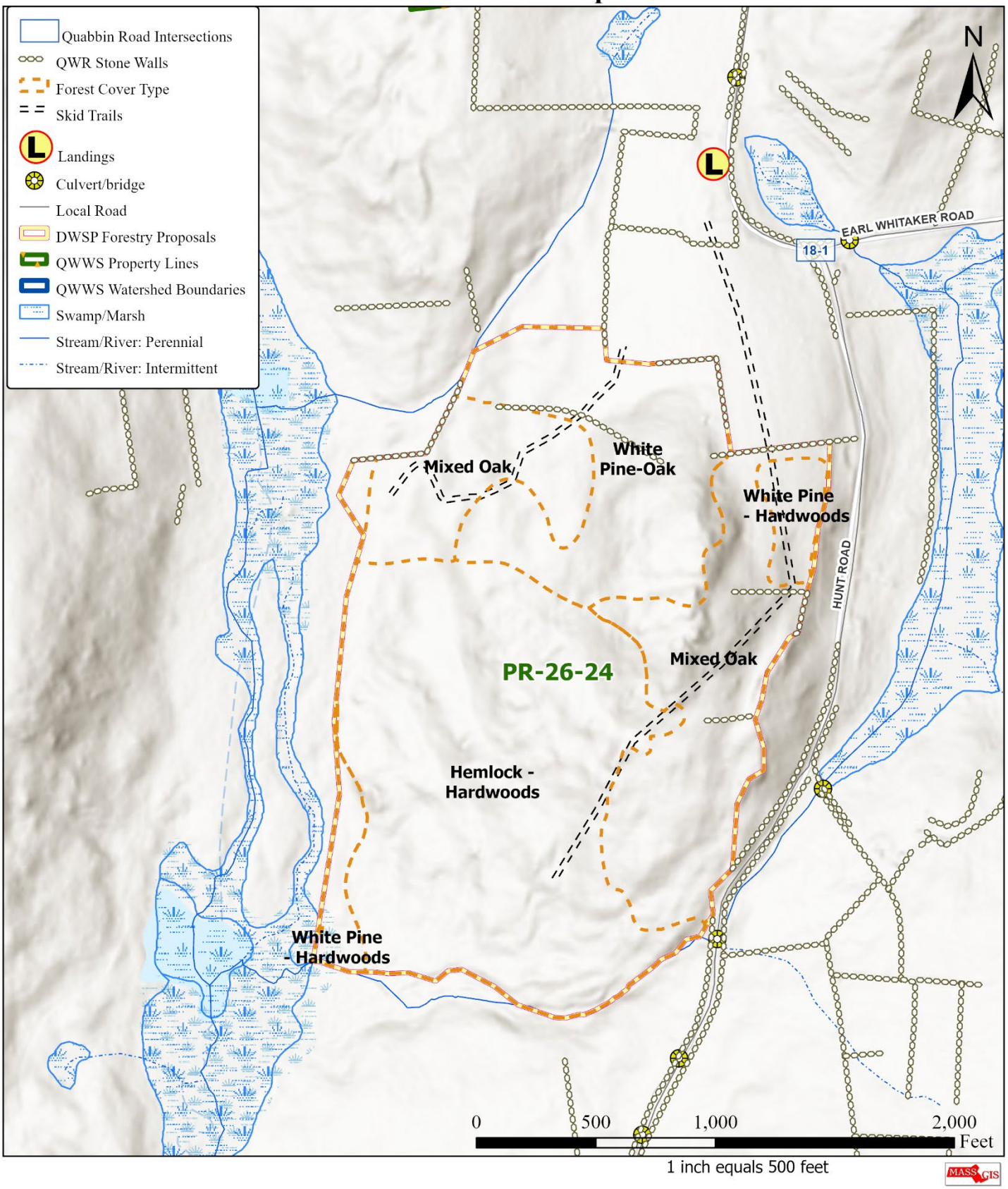
PR-26-24 -- Stand Map



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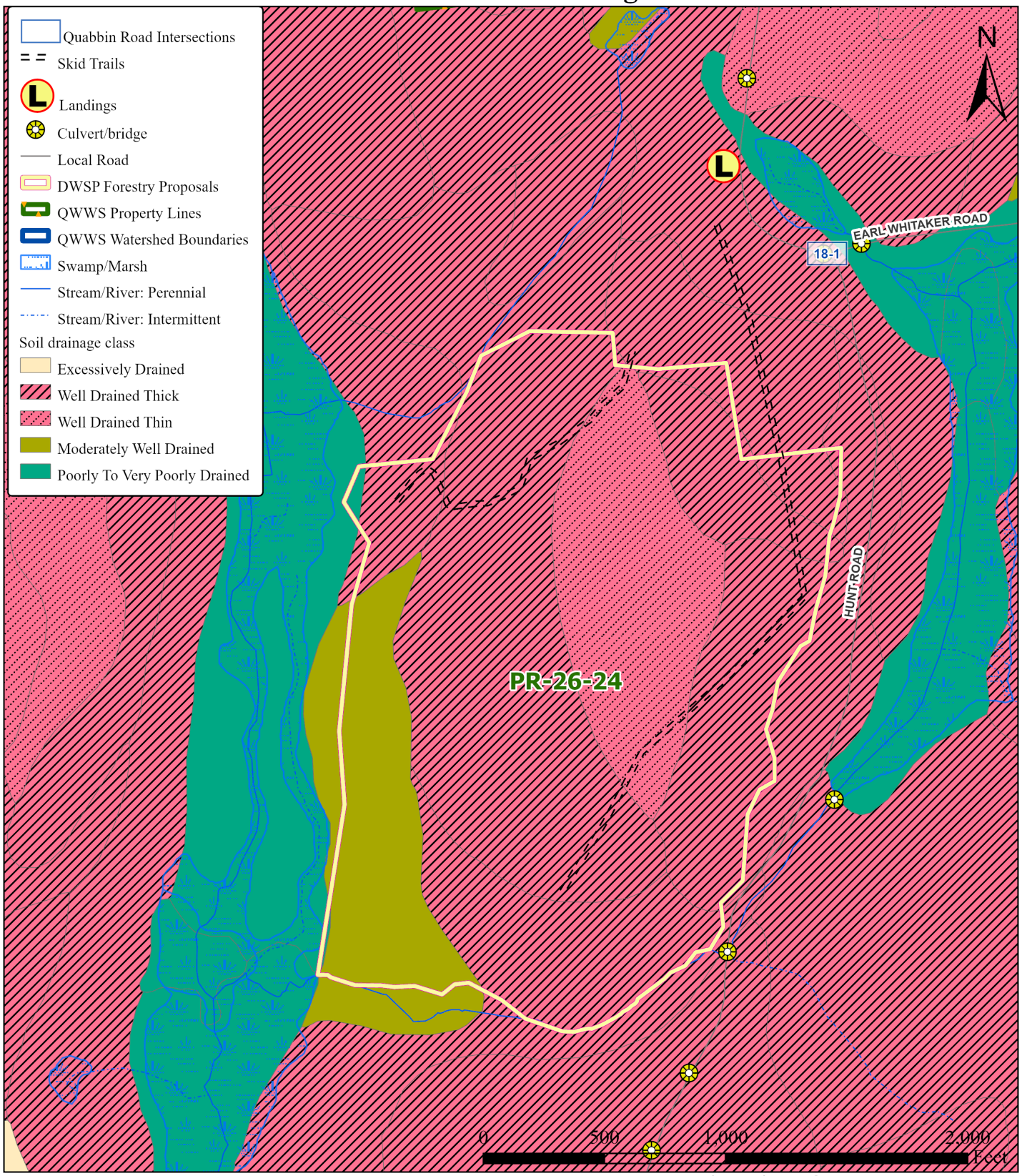
PR-26-24 -- Soil Drainage Classes



1 inch equals 500 feet

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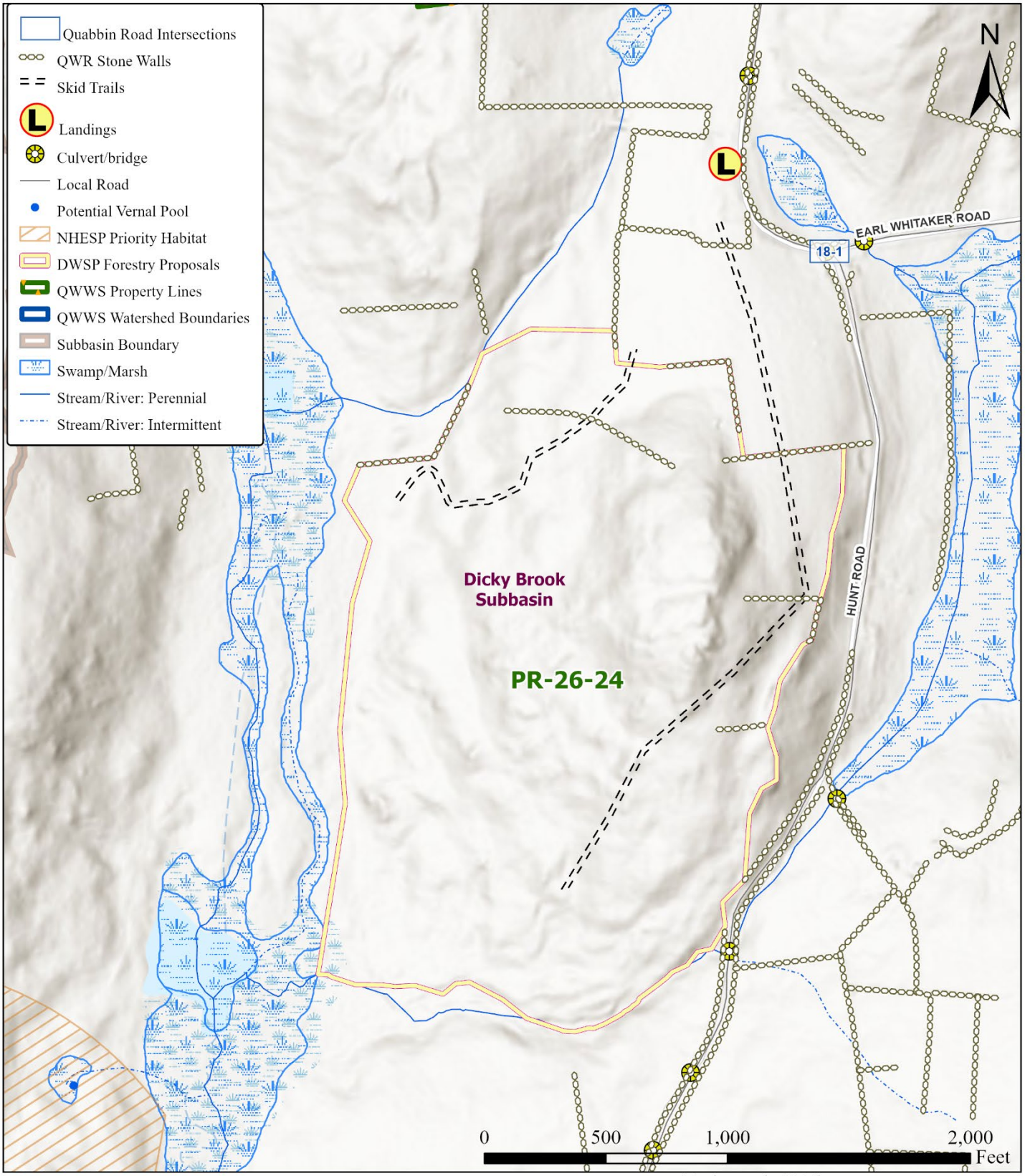
PR-26-24 -- Wetlands and Wildlife Resources



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PR-26-24 -- Cultural Resources and Landscape Characteristics