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-26-14-B**
Fiscal Year	2026
Watershed	Quabbin
Town(s)	New Salem
Forester	Derek Beard
Estimated Acres by Treatment Type	Approximately 12 acres of regeneration openings. Openings will range in size from 0.5 to 5 acres.
Total Proposal Acres	*45*
Block	Prescott
Compartment and/or Working Unit	14
Location and Boundary Description	Located 3.75 miles from gate 17 (Cooleyville Rd), the project area is bounded to the south by Herman Powers Rd (intersection 17-8), to the west by gate 17 road, to the north by stone wall and hydric soils and to the east by wetland complex associated with the south branch of Dickey Brook.
Previous Proposal?	No
Project Goals and Summary Description	The project will increase structural diversity of this even age tall watershed forest. Harvesting trees to create small openings in the overstory while leaving forested areas in between relatively undisturbed will create more diverse vertical and age structure than currently exists. It will also provide the light conditions necessary to establish and grow young trees of diverse species that will someday replace the current canopy. A slash wall exclosure surrounding one of the openings will be constructed during the harvest operation to exclude browse by deer and moose. A forest with a diverse species composition and structure should bolster forest resiliency in the face of climate change.

Forest Cover Types and Acreages

Overstory Forest Types	Acres
White Pine- Hardwood	37
Red Oak	6
White Pine	2

Understory Cover Types and Relative Importance

Understory Cover Type	**Relative area covered** (Dominant, Secondary, Minor, None)
Tree seedlings and saplings	Dominant
Mountain laurel	None

Understory Cover Type	Relative area covered (Dominant, Secondary, Minor, None)
Mesic site - witch hazel, highbush blueberry	Secondary
Dry site -Huckleberry, blueberry	Secondary
Mesic site - cinnamon fern, mixed hardwood	Minor
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 overstory is white pine (30%) along with white pine/hardwood (red maple and black birch) (30%) and white pine/oak (red and oak) (25%). During colonial times, much of the present watershed land, particularly along main roads, was cultivated while remote areas were either pasture or young woodlot. After becoming a public water supply most of these cultivated areas became softwood plantations compliments of the Civilian Conservation Corp (CCC) while remote areas naturally regenerated and/or continued developing into their current composition. The area's eastern half was thinned in the 1970s, 80s; juxtaposed to one thinning of the softwood plantations along gate 17 road in the early 2000s. This thinning mostly focused on removing non-native red pine. Stocking widely ranges between a high of 260 square feet per acre within former plantations and 40 in small gaps created during the 1970s and 80s thinning. The average basal area is 145 square feet per acre.
Advance Regeneration description	Much of the understory (80%) is a monoculture of sapling/small poles size black birch followed by white pine (15%). Earlier in the regeneration phase, pine distribution was evenly split or greater than birch. 50 years on, the birch has out competed the pine leaving it in a suppressed condition or dead.
Terrestrial Invasive Plants description	Besides one honeysuckle sighting, Japanese barberry was most frequently identified during field assessment and appeared to be concentrated within mesic formally cultivated (arable) locales and or within/along seeps/intermittent brooks.

Description of Wetland Resources Present

Resource Type	Description of resources present
Wetlands	The area is home to deep marsh and forested wetland. Wetland bounds the area to the east.
Streams	All water courses are intermittent. This is less the case for flowage from the deep marsh which is periodically used by beaver.
Vernal pools	Yes; 2 verified and 3 recently scouted.
Seeps	Yes

Description of Soils by Hydric Class

Soil Hydric Classes	% of area	Soil series and any further comments
Excessively Drained	0	
Well-drained Thin	0	

Soil Hydric Classes	% of area	Soil series and any further comments
Well-drained thick	100	Millsite-Woodstock complex, Canton fine sandy loam
Moderately well-drained	0	
Poorly to very poorly drained	0	

Proposed Silvicultural Activities

Topic	Description
Site Selection and Silvicultural Objectives	The area has been selected to address a lack of vertical structure and regeneration diversity. The objective is to spur a new forest age class encompassing a diversity of native species. Throughout New England and beyond for many decades, regenerating dvierse tree species after a harvest has been difficult for a variety of reasons. . Deer and moose herbivory directly affect what species survive to become young forest. At a small scale, this project will act as a regeneration diversity experiment through the construction of a slash wall. The wall will envelop one harvest opening, controlling the browse variable, which will hopefully lead to a more diverse young forest. For comparison purposes, the remaining harvest openings will be available to moose and deer.
Silviculture Prescription	A series of harvest openings, meshed with the landscape, will allow full sunlight to penetrate the forest floor triggering vigorous regeneration development. Over time this should create some landscape scale vertical structure diversity. The harder part of the goal is maintaining and/or increasing the diversity of regeneration that will eventually become young forest. To that end an approximately 10 foot high by 20-foot-wide slash wall will be constructed around an approximately 5 acre opening sited on well drained soils in the southwestern corner of the proposal area. Seven or 8 more unobstructed openings, ranging between 0.5 to 2 acres, will be sited within the area allowing for regeneration diversity comparisons. Trees left in openings will have unique characteristic(s)/values like wildlife habitat, exceptional size or form. These legacy trees contribute to post-harvest forest complexity. To build a slashwall, slash, an unmerchantable byproduct (treetops/woody debris) of commercial forest management, is mounded creating, what to deer and moose, is an impenetrable wall. For generations, deer and moose have significantly impacted New England flora and young forests. Excluding deer and moose from part of a regenerating forest should offer a glimpse into a young forest composition that was more common when deer and moose populations were significantly lower. The expected result is a good distribution of oak (red, white and black), hemlock and other preferred browse species like black cherry within the exclosure. For comparison, the project will also include non-slash wall openings where deer and moose will be free to browse the regeneration that establishes after the harvest.

General Climate Change Considerations:

This silvicultural approach aims to enhance forest resilience by diversifying both structure and species composition within a predominantly even-aged, white pine–oak–hardwood forest typical of the Quabbin watershed. Promoting a diverse and structurally complex forest will be better able to withstand and adapt to disturbances like storms, drought, pests, and invasive species. Oak, a shade-intolerant and drought-tolerant tree well-suited to a warming climate, is a key regeneration target. By fostering multiple species and age classes across this management unit, the harvest supports long-term watershed forest function and protection under changing climate conditions.

DWSP has determined that the decision to implement this project is consistent with EEA climate goals and guidelines and agency land management objectives. 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
Regeneration Patch Harvest	Patch cutting is a regeneration technique that straddles the boundary between classic even-aged and uneven-aged forest management systems. Foresters select appropriate areas ('patches' or 'groups') covering a portion of the stand to harvest rather than removing the entire stand and then return periodically to repeat the process in other portions of the stand. In using patch cutting there is no final regeneration cut. Patch size and shape are determined by many different factors including overstory condition, desired species composition in the regeneration layer, other desirable herbaceous and woody vegetation, location, stand re-entry period, etc. Harvesting in patches aligns with many **climate-smart forestry practices**: • Increasing **structural diversity** improves resiliency by reducing the impact of age/size related disturbances. • Extending regeneration periods minimizes short term impacts to groundwater and nutrient cycling. • Partial stand overstory removals more closely align with **natural disturbance patterns**. • More **carbon is left on the landscape** for longer periods, and within-patch live tree, snag, and coarse debris retention allow for development of old forest characteristics. • Can also be used as opportunities to increase the stocking of **future climate adapted species, current climate imperiled species**, or other types of desirable vegetation.

Proposed Activity	Alignment of Activity with Climate Oriented Strategies and Recommendations
Slash wall construction	Slash walls are barriers built with on-site harvesting debris to **enclose and protect areas of tree regeneration** (natural or planted) from browsing and herbivory by deer and moose. Opportunities: • **No high carbon footprint materials** needed such as plastic or metal fencing. • Resulting piles of large diameter dead material are beneficial to many species of wildlife. • **No maintenance** required and never need to be removed as they decay on-site over time. • **Carbon retained longer on the landscape** as piles decompose more slowly than scattered material. • Maintain and improve the density and/or occurrence of desired species already regenerating on-site. • Adjust and/or alter composition to species that may be more adapted to anticipated **future climate conditions.**
Additional Comments	

Equipment and Access Constraints and Considerations

Constraint Topic	Description and Considerations
Proposed Equipment requirements	Forwarder will be required to build slash wall.
Proposed wetland or stream crossings	One possible stream crossing using a temporary skid bridge.
Further wetland comments	
Vernal Pools	The project area contains 2 previously located verified pools and 3 newly scouted potential pools.
Access improvements needed	The landing is planned at the intersection of Herman Powers Road and Aiken Road. However, below road surface ledge or boulder at intersection of gate 17 Road and Herman Powers Road (17-8) prevents tractor-trailer from making turn onto Herman Powers.
Other EQ issues	None.
In-kind Services	Slashwall construction
Other Access Concerns (parking, trails, etc.)	

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
27	1054	7.6	255	2
57	2779	37	658	43

Additional comments on Subwatershed analysis:

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.

Cultural Resources Description and proposed protection measures

Cultural Resource	Description and proposed protection measures
Historical features present; comments regarding protection	Flagging and/or paint will be used to identify and buffer two wells, several borrow pits and an agricultural/drainage ditch.
Description of site characteristics in relation to Ancient sites modeling or other verified evidence	Although the slope is mild the area would be considered upland relative to the pre-reservoir landscape. Surface stone is scattered and microtopography is moderate.

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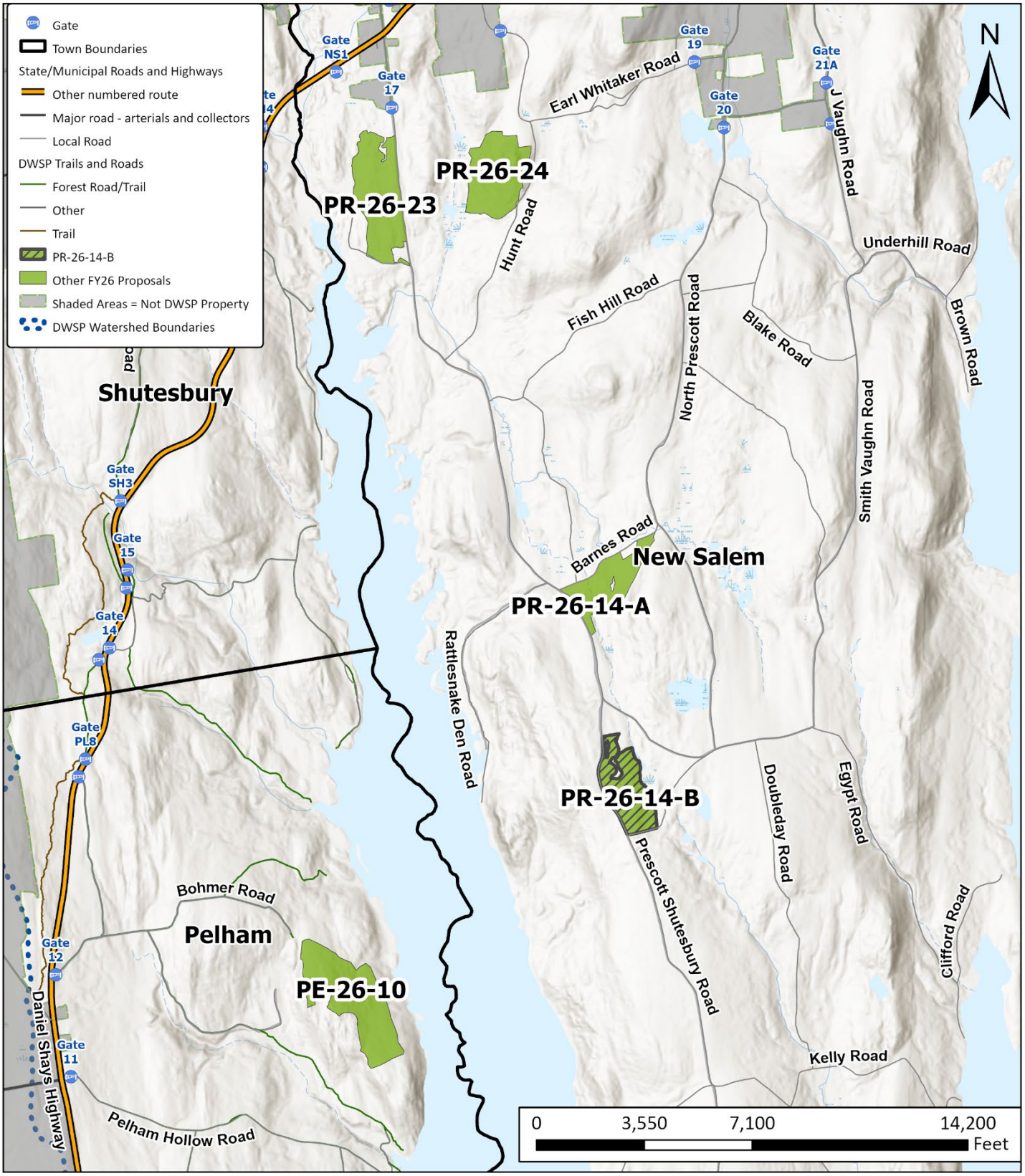
PR-26-14B -- Locus Map



1 inch equals 4,000 feet

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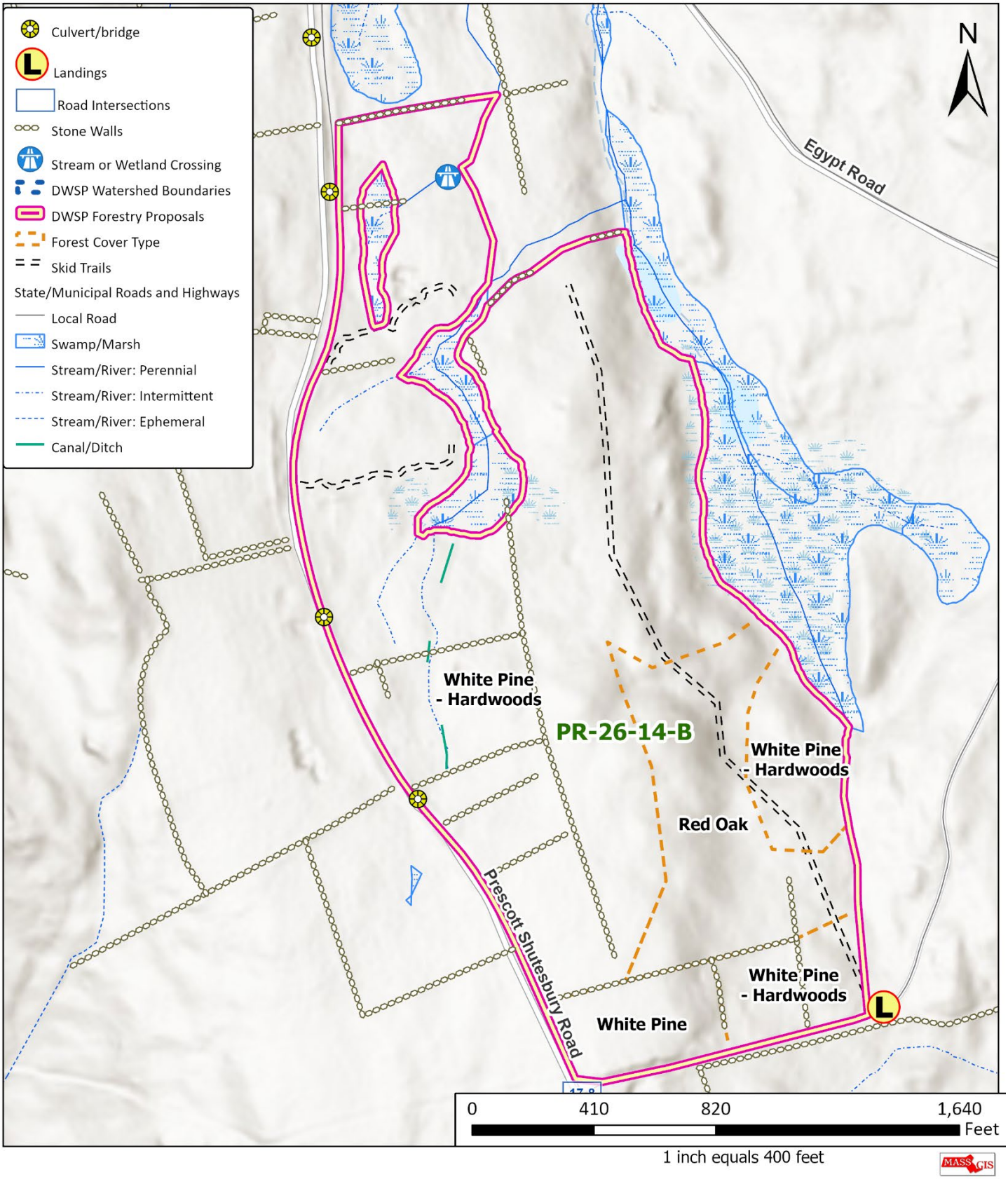
PR-26-14B -- Stand Map



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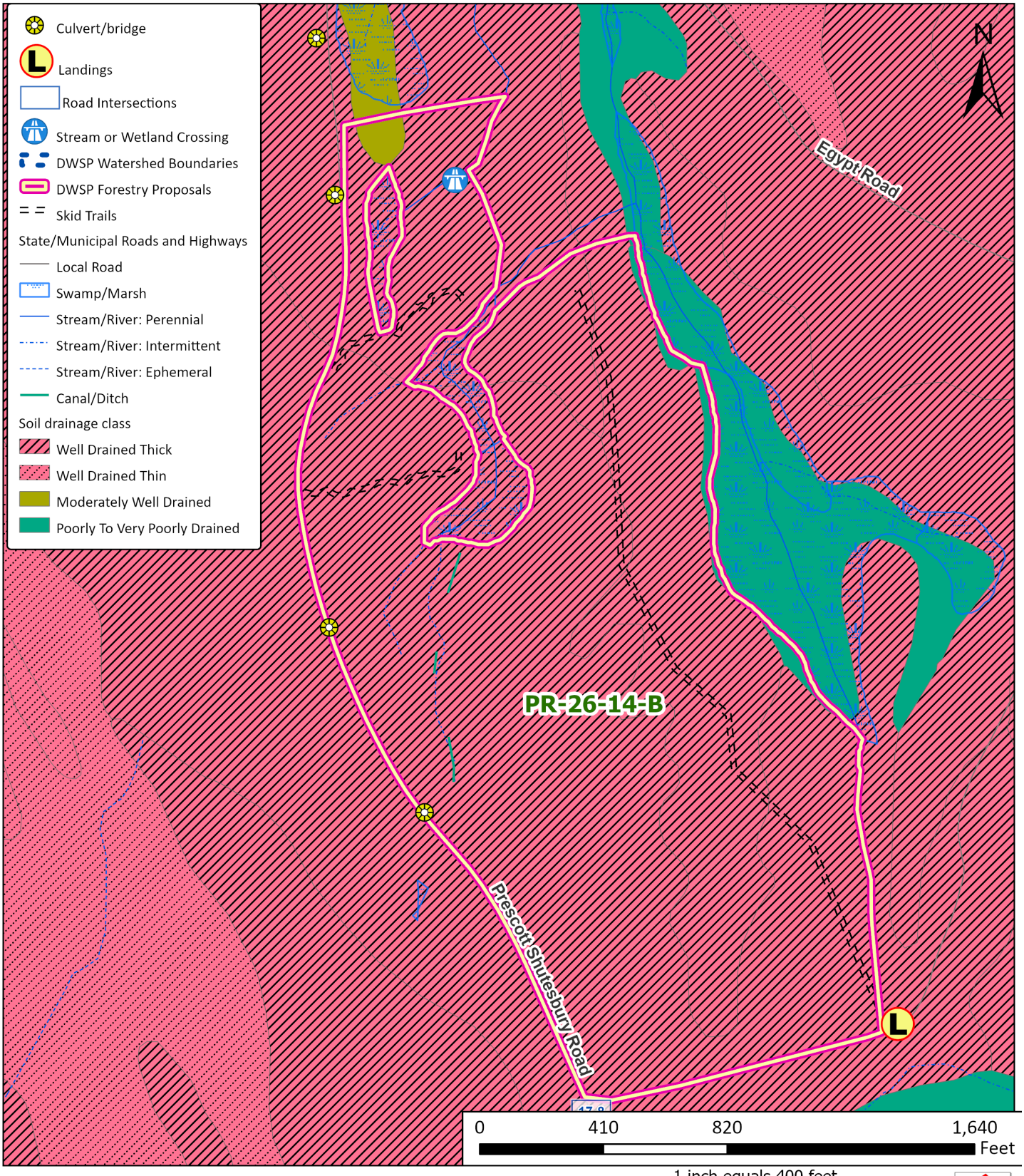
PR-26-14B -- Soil Drainage Classes



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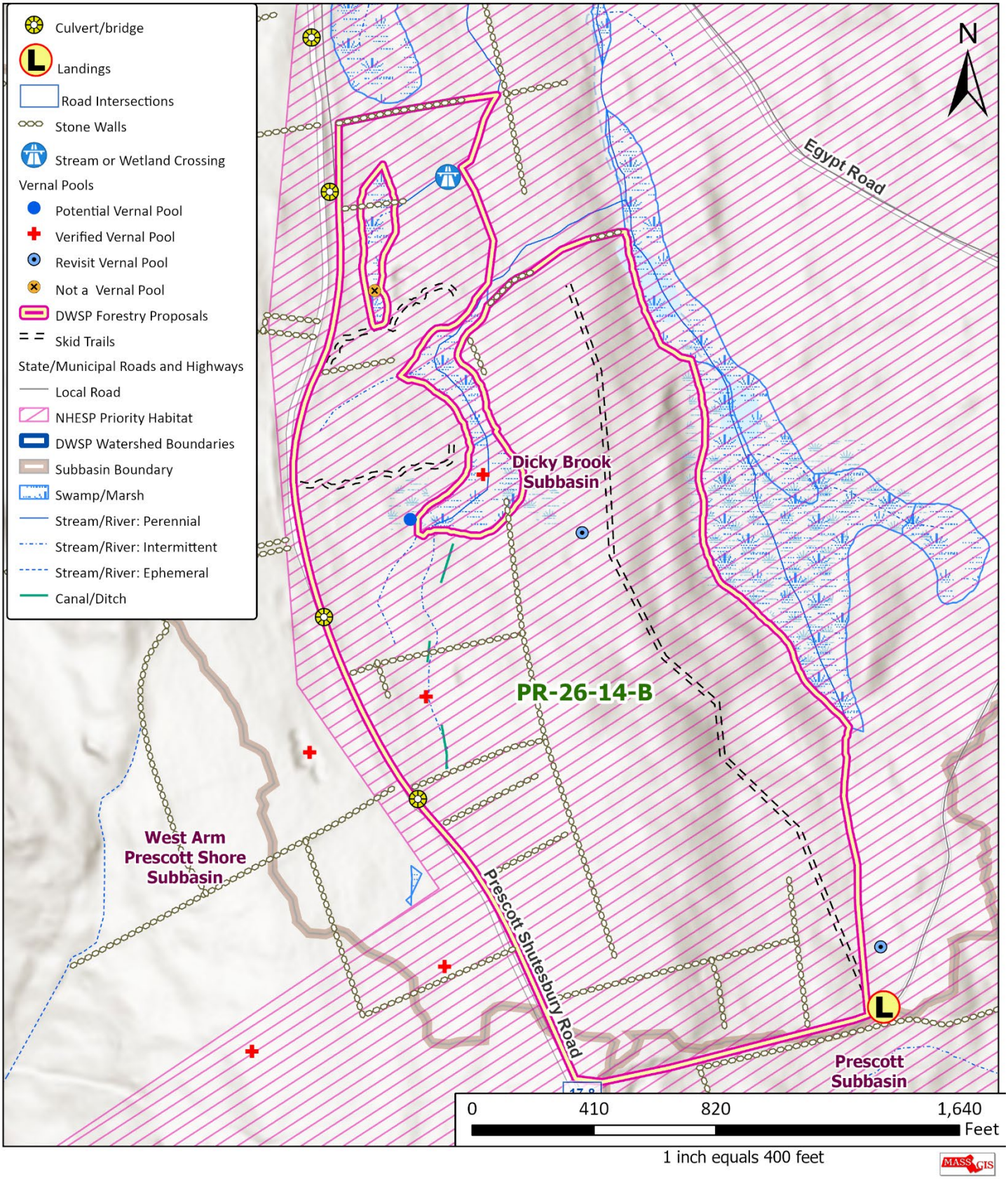
PR-26-14B -- Wetlands and Wildlife Resources



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PR-26-14B -- Cultural Resources and Landscape Characteristics