# 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	NS-26-06			
Fiscal Year	2026			
Watershed	Quabbin			
Town(s)	New Salem			
Forester	Richard G MacLean			
Estimated Acres by	18 acres in regeneration openings, 12 acres in thinning/single tree selection			
Treatment Type				
<b>Total Proposal Acres</b>	88			
Block	New Salem			
Compartment and/or	06			
Working Unit				
Location and Boundary	The proposed area is located at the intersection of Rockwell Hill Road and Macedonia			
Description	Road southwest to a change in forest type and a buried cable right of way.			
Previous Proposal?	None			
Project Goals and	This project seeks to increase forest resiliency by addressing forest regeneration			
Summary Description	interference by mountain laurel, and creating the conditions to allow establishment of			
	new regeneration.			

#### **Forest Cover Types and Acreages**

Overstory Forest Types	Acres
White pine - Oak	32
Oak - Hardwoods	31
Hemlock - Hardwoods	24

#### **Understory Cover Types and Relative Importance**

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

#### **Forest Vegetation Description**

#### **Vegetation Topic Description General Description**, The proposed area can be delineated into four stands. Stands 1, 2, and 3 are being proposed for management, while stand 4 is a wooded wetland and will not be managed at this time. **Forest Composition,** Stand History, and Stand 1 is a 32-acre white pine/oak stand. The composition of the overstory is 49 % northern **Harvest History** red oak, 22 % eastern white pine, 5 % eastern hemlock, with minor amounts of red maple, white and black oak, and American beech. Most of the beech in this stand was badly damaged by beech bark disease, evidence of beech leaf disease wasn't observed in the leaf litter, but it's known to be present very nearby is likely already present. This stand averages 121 (90-17) square feet per acre basal area and is dominated by overstory oak and alternating areas of distributed and dense overstory eastern white pine. There is an average of one standing snag every two acres. The eastern side of this stand was thinned in 1982, and the south and southwest of the stand received shelterwood prep cuts in 1973 and 1989 that did not receive follow up treatment. There are a few tenth to quarter acre gaps from these treatments which have regenerated to large sapling sized black birch and red maple. Stand 2 is a 31-acre oak – hardwoods stand. Composition of the overstory in Stand 2 is 56 % northern red oak, 16 % black birch, 10 % yellow birch, 6 % red maple, with minor amounts of American beech, white oak, black cherry, paper birch, and eastern hemlock. Most of the beech in this stand was badly damaged by beech bark disease, evidence of beech leaf disease wasn't observed in the leaf litter, but it's known to be present very nearby and is likely already present. The stand averages 116 (80-180) square ft per acre basal area and is dominated by large spreading oak crowns. There is an average of 1.4 standing snags per acre. This stand received thinning in 1981, a salvage harvest on a small portion in the middle in 1989, and then a four-acre opening in the south in 1992. Where these treatments resulted in regeneration it is dominated by large sapling/small pole sized red maple and black birch, except in the four-acre opening where there are scattered northern red oak saplings, and some yellow birch around drainages. Stand 3 is a 24-acre hemlock – hardwoods stand. The overstory composition in Stand 3 is 46 % northern red oak, 41 % eastern hemlock, 5 % black birch, with minor amounts of eastern white pine, red maple, black and white oak, and paper and yellow birch. This stand averages 138 (80 – 200) square feet per acre basal area and is dominated by overstory hemlock and northern red oak canopies. The majority of this stand was treated in the same 1982 thinning that Stand 1 received. The canopy is still mostly intact in this stand. Stand 4 is a 0.8-acre wooded wetland. The overstory here is dominated by northern red oak, but also contains white ash (in rapid decline from emerald ash borer), yellow birch, and red

maple.

Vegetation Topic	Description
Advance Regeneration description	The understory character of Stand 1 was categorized as either little to no regeneration (53 %) or interfered (47 %). In the areas characterized by little to no regeneration a third of that condition was in scattered mountain laurel patches, followed by small amounts of American beech, eastern white pine, or red maple. The remainder of the stand is covered in dense tall mountain laurel thickets which are impeding tree regeneration from establishing. In the northwest corner there is a 3 acre thicket of dense mountain laurel beneath the canopy.  In Stand 2 the understory was characterized as either in monoculture regen (31 %), without tree regeneration (23 %), established saplings (15 %), interfered (8 %), marginally containing tree regeneration, unmanageable (8 %), or heavily browsed (8 %). The areas of monoculture regeneration were half in black birch or split between red maple and American beech. Areas without regeneration all contained small mountain laurel thickets. Established sapling areas were dominated by black birch regeneration. In interfered plots, mountain laurel was the interfering vegetation except furthest to the west were witch hazel picked up with the more enriched soils. The unmanageable plots fell in small seasonal wetlands. Areas which were heavily browsed contained browsed red and striped maple regeneration.
Terrestrial Invasive Plants description	In Stand 3, 83 % of the area had little to no regeneration. When regeneration was present it was American beech with browse damage. The remaining area is evenly split between areas of heavy browse damage containing damage striped maple, and areas where mountain laurel is growing thick enough to interfere with regeneration. There was little to no hemlock regeneration observed, and what was found was heavily browsed down. Approximately a third of the stand is a forested seasonal wetland.  North Macedonia Road has known recent populations of Japanese stiltgrass ( <i>Microstegium vimineum</i> ), but invasive species were not observed in the interior of the proposed area.  Before harvesting coordination with DWSP Natural Resources will be pursued to reduce the
	potential for spreading stiltgrass.

#### **Description of Wetland Resources Present**

Resource Type	Description of resources present			
Wetlands	There is an acre of wooded wetland in the eastern corner of the area. There are small			
	streamside wetlands in the east to southeast as the slope increases. Management is			
	not planned in wetlands.			
Streams	There are a series of intermittent streams in the east and southeast of the proposed			
	area. To the north the proposal is bounded by a perennial stream, and much of the			
	cable right of way at the southern/eastern boundary is now an intermittent stream.			
	No stream crossings will be necessary.			
Vernal pools	There aren't any known vernal pools within or adjacent to the proposed area and no			
	potential vernal pools were observed while sampling.			
Seeps	One seep was observed in the eastern portion of the proposed area, it drains into the			
	intermittent stream complex and wooded wetland.			

#### **Description of Soils by Hydric Class**

	Soil Hydric Classes	% of area	Soil series and any further comments
Ī	Excessively Drained	0	

Soil Hydric Classes	% of area	Soil series and any further comments		
Well-drained Thin	0			
Well-drained thick	82	Well-drained thick soils are split between Henniker sandy loam and		
		Chichester fine sandy loam		
Moderately well-drained	4	Metacomet fine sandy loam, located at the corner of Rockwell and		
		Macedonia Roads		
Poorly to very poorly drained	3	Pillsbury stony sandy loam, located at and around the wooded wetland		
		in the eastern corner.		

#### **Proposed Silvicultural Activities**

Topic	Description		
Site Selection and	This area was selected for silvicultural treatment because of a combination of largely even		
Silvicultural	aged overstory, little tree regeneration, little regeneration diversity, large areas of interfering		
Objectives	vegetation. In the event of a large-scale wind disturbance of the forest canopy, much of the		
	area would see long delays in regenerating.		

### **Topic Description** Silviculture Stand 1. The desired future condition is a stand with increased age diversity, and a decrease **Prescription** in areas of dense mountain laurel. To accomplish this, ten acres of regeneration openings (ranging from one to two) will be created. Retention trees inside the openings will favor healthy seed producing trees and their location will be focused on areas of dense mountain laurel. Harvesters will be required to mechanically treat the mountain laurel. By opening the overstory after knocking back the mountain laurel a window of opportunity will be created for tree regeneration while the slow growing mountain laurel recovers. If staff time and resources allow it, the mountain laurel within the slash wall area will be precut to force resprouting under a closed canopy and further exhaust mountain laurel resources prior to harvest. A third of the stand will be retained as a third age class. Stand 2. With the existing age diversity of this stand the desired future condition of the stand is to further expand on this diversity and establish a third age class. To accomplish that goal, group regeneration silviculture will be applied. Eight acres of regeneration openings will range one half to two acres in size and be collocated with previous openings to either further release those openings or take advantage of their shorter heights to maximize light in the new openings. Where possible, some thinning/tending of the sapling sized past openings will be done during this treatment. Stand 3. Given the relatively healthy overstory hemlock, the desired future condition of this stand is relatively similar to its current composition, but with more opportunities for shade tolerant regeneration, slightly more growing space for healthy overstory hemlock, and reduced mountain laurel thickets. To accomplish this condition the stand will be treated with single-tree selection/intermediate thinning. This lower intensity of harvest will create regeneration opportunities with enough light for shade tolerant hemlock. The healthiest hemlock will receive light tending/release to provide more light and resources for resisting hemlock woolly adelgid. Where harvesting allows, mechanical treatment of dense mountain laurel thickets will be required. The seasonal wetland areas will not be harvested. Stand 4, the wooded wetland, is not proposed for treatment at this time. The density of intermittent streams and wetland make harvest too challenging. As the dying ash creates gaps in the forest canopy opportunities for new regeneration to establish will be created. The resulting regeneration will likely favor mid to shade tolerant and browse resistant/resilient species. The result will likely be low in diversity and not regenerate the existing canopy but will at least create a new age cohort available to grow into the forest canopy.

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	
<u></u>		
General/other Climate Change	This silvicultural approach aims to enhance long-term forest resilience by	
Considerations	increasing regeneration potential and structural diversity while reducing regeneration interference from mountain laurel. Climate-informed considerations include expanding species and structural diversity, favoring native species with traits adaptable to future conditions (e.g., drought tolerance, pest resistance), and avoiding canopy openings that could stress moisture-sensitive understory species like hemlock. The proposed silviculture methods align with principles of climate-smart forestry, ensuring the forest maintains productive capacity, biodiversity, and ecosystem functions.	

**Equipment and Access Constraints and Considerations** 

Constraint Topic	Description and Considerations			
Constraint Topic	Description and considerations			
Proposed Equipment	None.			
requirements				
Proposed wetland or	No wetland or stream crossings are proposed.			
stream crossings				
Further wetland				
comments				
Vernal Pools	There are no known vernal pools, and no potential pools were observed during sampling.			
Access improvements	Road work is needed on West Main Street inside the DCR gate to improve drainage.			
needed				
Other EQ issues				
In-kind Services				
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 subwatershed	Total DCR-owned acres remaining for regenerating up to the 25% per 10 year limit for this subwatershed	Acres in this sub-watershed that are part of this proposed lot
Upper Hop Brook	642	0	161	85
Sibley	1082	0	271	3

Additional comments on Subwatershed analysis:

Wildlife/Habitat	Observations and Considerations
Natural Heritage	No
<b>Priority Habitats?</b>	
State Listed species	None known
present:	
Rare Natural	None known
Communities:	
General Wildlife	No unusual wildlife sightings were recorded during the lot visit. No stick nests were observed.
Comments	The abundant mountain laurel is likely a sign of past browse pressure. Since those areas are
	devoid of tree regeneration, it's hard to assess current browse pressure. In the eastern
	portion of the proposed area there is abundant evidence of more recent browse pressure as
	striped maple becomes more present in the lower slopes.

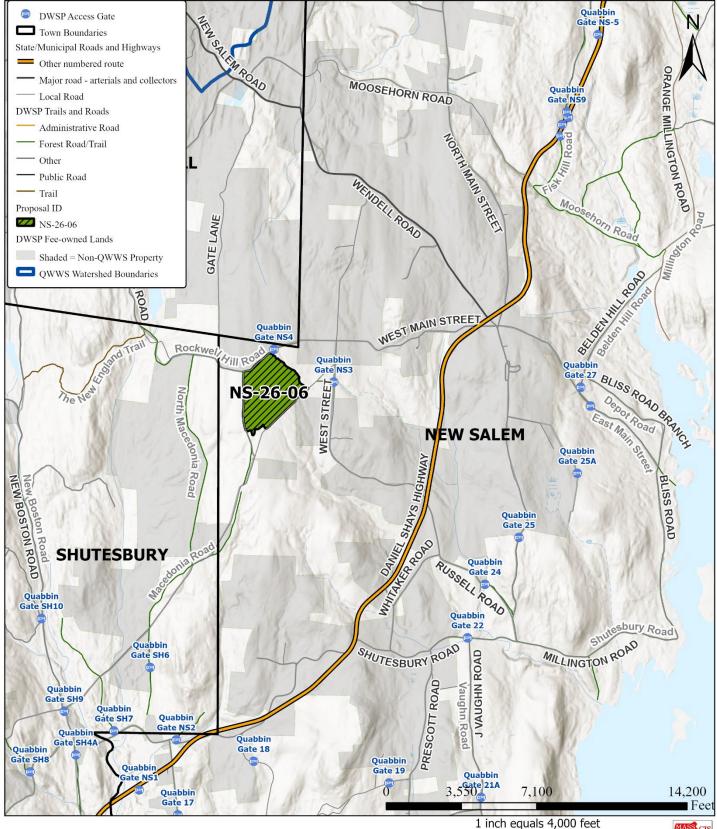
**Cultural Resources Description and proposed protection measures** 

Cultural Resource	Description and proposed protection measures
Historical features present; comments regarding protection	Stone walls are present in the southwest portion of the proposed area. There is a wide barway allowing access that will be utilized during operations. Walls will be mapped, flagged, and protected during harvesting. At the time of the taking, the area was owned by the New England Box Company and the heirs of William Spooner. No foundations or wells are known to be present within the proposed area. The 1938 aerial photos show the proposed area was heavily forested at the time of the taking.
Description of site characteristics in relation to Ancient sites modeling or other verified evidence	

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## **NS-26-06 -- Locus Map**

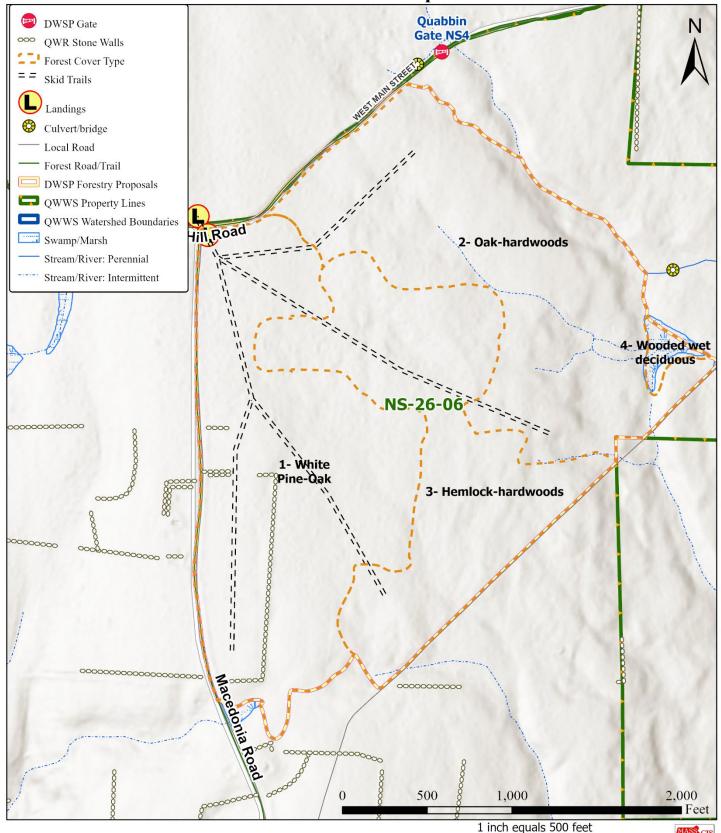




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**NS-26-06** -- Stand Map

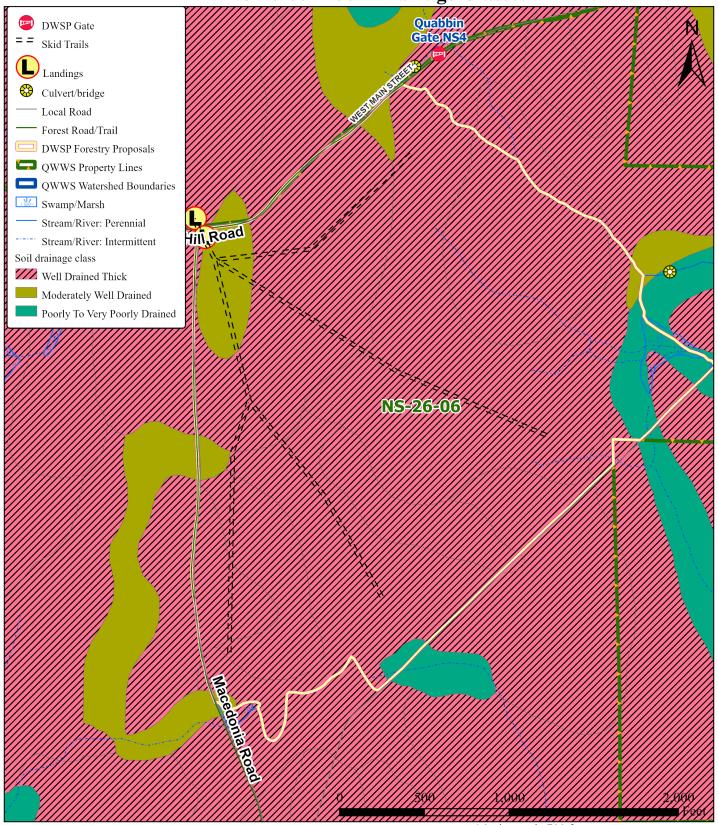




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# **NS-26-06 -- Soil Drainage Classes**



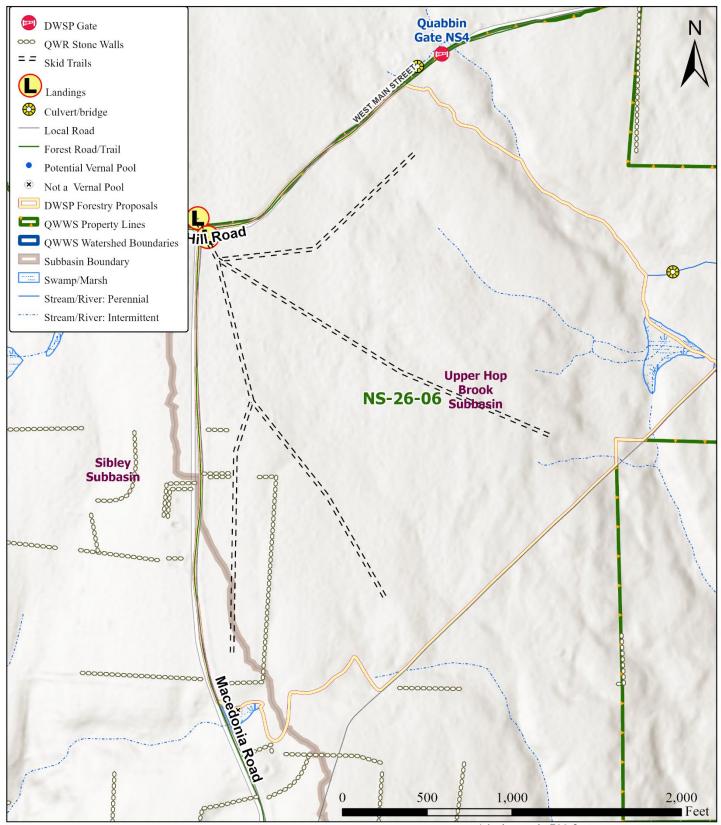




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# NS-26-06 -- Wetlands and Wildlife Resources





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# NS-26-06 -- Cultural Resources and Landscape Characteristics

