FY-15 forestry project proposals

Commonwealth of Massachusetts Department of Conservation and Recreation Division of Water Supply Protection

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The main set a set



Guiding principle: most resilient watershed cover is a diverse forest

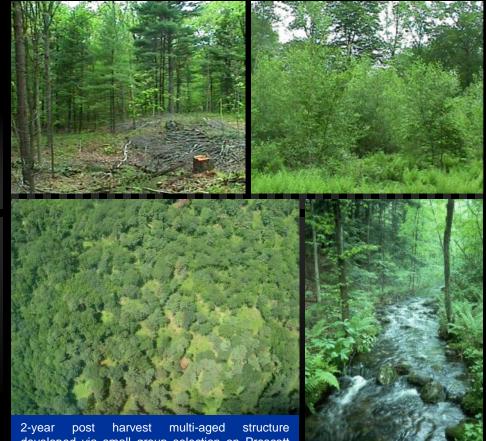
- ✓ Vigorous and diverse
- ✓ <u>Actively reproducing</u>
- Deliberately patterned
- ✓ Resistant and resilient





How does DWSP build resistance/resilience? Principles of sustainable watershed silviculture

- Increase diversity by cutting openings that will meet silvicultural objectives
- Cut less than 25% of any subwatershed in any given 10 year mgt period
- Retain filter strips along water and engineer a separation between water and roads
 - Work to control the impacts of deer, moose, and invasive plants on tree regeneration
 - Monitor, improve, and repeat



2-year post harvest multi-aged structure developed via small group selection on Prescott Peninsula



Recent Refinements in DWSP Forestry

- Improvements in public information, via internet postings and signage
- *Revised openings in regeneration harvests*, via adjustments to size, shape, and distribution
- Green retention, retaining live individuals or aggregated groups for visual softening
- Enhanced monitoring of timber harvest effects, building on existing water quality monitoring to focus more intensively on quantifying the effects of existing cutting practices on water resources
- Photo points used to document management activities and changes in the forest over time.



Ware River Regeneration Monitoring 2013

 Average stems /acre = 3981 (>1')
 Average stems over 4.5' /acre = 2077





Summary of silviculture

Target low quality poor vigor standsIrregular shaped openingsMaximum opening size of about 0.5 acreLeave the biggest and best formed trees in the openings



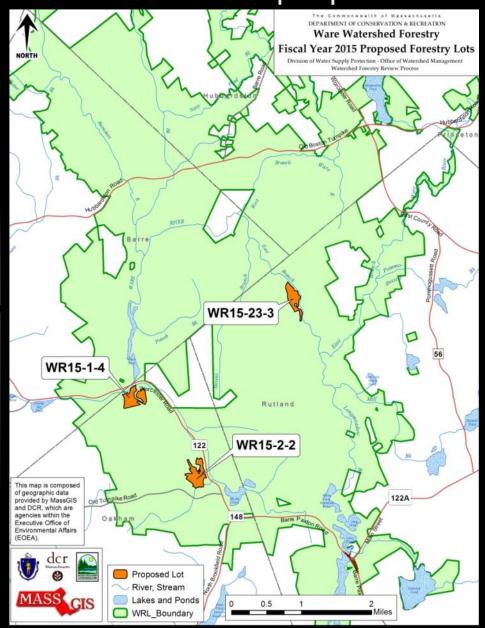
Regeneration Openings Summary

- Less than 25% of each lot will be cut for regeneration openings.
- Some additional area will be thinned.
- Total area in
 regeneration openings for these 3 proposals
 will be less than 30
 acres, much less than
 1% of our forest.





Ware River Lot proposals



dcr

Massachusetts

Coldbrook Road proposal

- ✓ 40 acres
- ✓ oak pine forest type
- Harvest small groups up to 1/3 acre
- Some thinning between groups
- Low vigor, poorly formed stems will be targeted
- Part of the area contains rare species habitat
- ✓ Input?



FY2015 Proposed Forestry Project WR-15-1-4

Supply Protection - Office of Watershed Management

Ware River Reservation Proposed Forestry Lot Review

8	Landing Site	*	Protected Bird Site	\sim	Stream	Ware River Reservation
	DCR Gate	•	NHESP Certified Vernal Pools	10-	Wetland	P
0	Barway		Potential Vernal Pool	B	Surface Water	A S arenny
~	Major State Route	0	NHESP Priority Habitats of Rare Sp		Watershed Boundary	2.5 8 3
~	Town Paved & Gravel Road		Foundation/Cellar Hole			2 Martin
0	All-Weather Access Road	~	Stone Wall			0 0
Nan ^d	Seasonal Access Road	4	CFI Plot			122
N	Cart road		Rare Plant			1224
~	Proposed Skid Trail		Vegetation Type			TOC)
	Proposed Forestry Lot		Reservation Boundary			122
		100	2,039	100		4,000 Feet



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Date: 6/24/20

Marsh Lane road proposal

- ✓ 44 acres
- oak pine forest type
- Harvest small groups up to 1/3 acre
- Some thinning between groups
- Low vigor, poorly formed stems will be targeted
- Part of the area contains rare species habitat
- Input?



Department of Conservation - Division of Water Supply Protection - Office of Watershed Management FY2015 Proposed Forestry Project WR-15-2-2

Ware River Reservation Proposed Forestry Lot Review

8	Landing Site	*	Protected Bird Site	\sim	Stream	Locus Map: Ware River Reservation
	DCR Gate	۲	NHESP Certified Vernal Pools	No.	Wetland	Y
0	Barway		Potential Vernal Pool	B	Surface Water	A & areany
~	Major State Route	0	NHESP Priority Habitats of Rare Species	0	Watershed Boundary	2.5 8 35
\sim	Town Paved & Gravel Road		Foundation/Cellar Hole			A MARK
~	All-Weather Access Road	N	Stone Wall			0 3
Can Stand	Seasonal Access Road	4	CFI Plot			122 1 (36
·********	Cart road	٠	Rare Plant			1224
~	Proposed Skid Trail		Vegetation Type			Tre)
	Proposed Forestry Lot		Reservation Boundary			
	10	00	2,000	200		4.000 Feet



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Elm Street proposal

- ✓ 34 acres
- White Pine hardwood / spruce – larch plantation forest types
- Harvest small groups up to 1/3 acre
- Some thinning between groups
- Low vigor, poorly formed stems will be targeted
- ✓ Input?

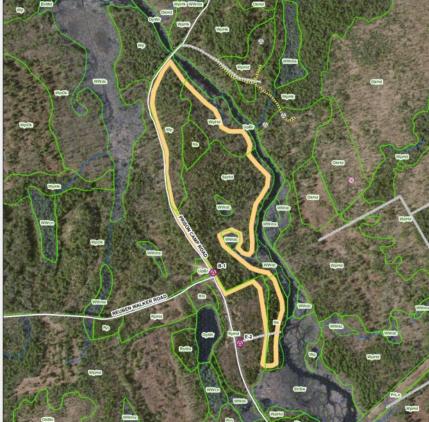


FY2015 Proposed Forestry Project WR-15-23-3

Department of Conservation - Division of Water Supply Protection - Office of Watershed Management

Ware River Reservation Proposed Forestry Lot Review

8	Landing Site	*	Protected Bird Site	~		Stream		s Map: Reservation
0	DCR Gate	۲	NHESP Certified Vernal F	Pools	i.	Wetland	1.	1
0	Barway		Potential Vernal Pool	5	3	Surface Water	4 5 0	Teal has
\sim	Major State Route	0	NHESP Priority Habitats	of Rare Species 🤇	D	Watershed Boundary	RAE	\$35
\sim	Town Paved & Gravel Road		Foundation/Cellar Hole				2 3	Ala
\sim	All-Weather Access Road	N	Stone Wall				00	5
and and	Seasonal Access Road	4	CFI Plot				(122-0]	
- 10 M	Cart road	٠	Rare Plant				Sall	1224
~	Proposed Skid Trail		Vegetation Type				148	The)
	Proposed Forestry Lot		Reservation Boundary				ľ	122
	1.0	00		2000	1			4,500 Feet
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- The protection forest surrounding Boston's water supply has been actively managed by this agency for >50 years.
- Uring that time, 1,000+ timber sales have been conducted, improving forest vigor, diversity, quality, and value while supplying natural resources to support the rural Massachusetts economy, and protecting or enhancing uncommon species/habitats and cultural resources.



The water supply has remained, throughout that same time, amongst the cleanest in the world, with no measured degradation related to active forest management, verified by consistent routine monitoring that currently includes 1,500 water samples per month.