

# *FY-15* forestry project proposals

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



# Guiding principle: most resilient watershed cover is a diverse forest

- ✓ Vigorous and diverse
- ✓ Actively reproducing
- ✓ Deliberately patterned
- ✓ *Resistant* and *resilient*



Massachusetts



# 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 stands

Irregular shaped openings

Maximum opening size of about 0.5 acre

Leave the biggest and best formed trees in the openings

# Regeneration Openings Summary

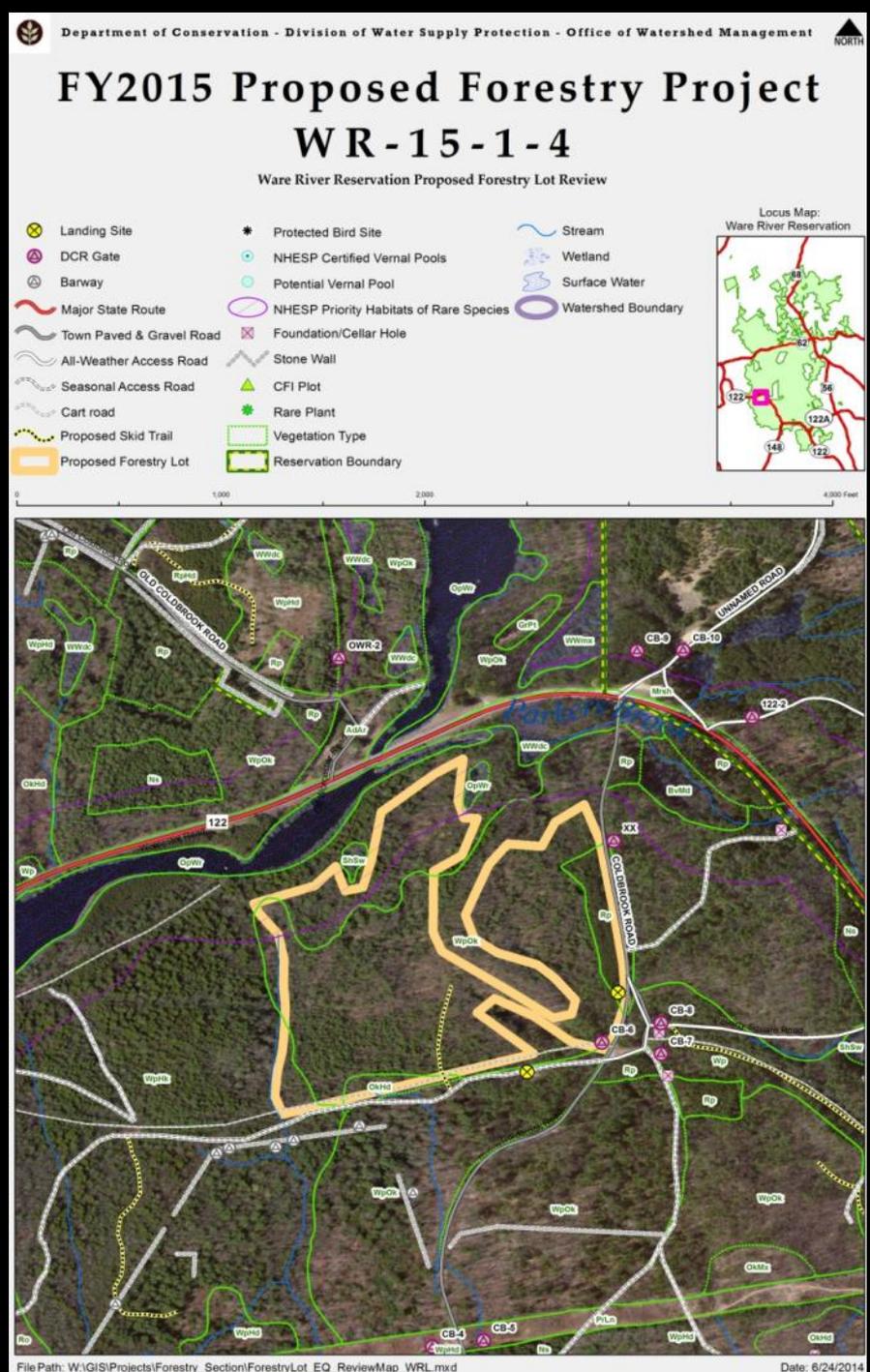
- ✓ Less than 25% of each lot will be cut for regeneration openings.
- ✓ Some additional area will be thinned.
- ✓ Total area in regeneration openings for these 3 proposals will be less than 30 acres, much less than 1% of our forest.





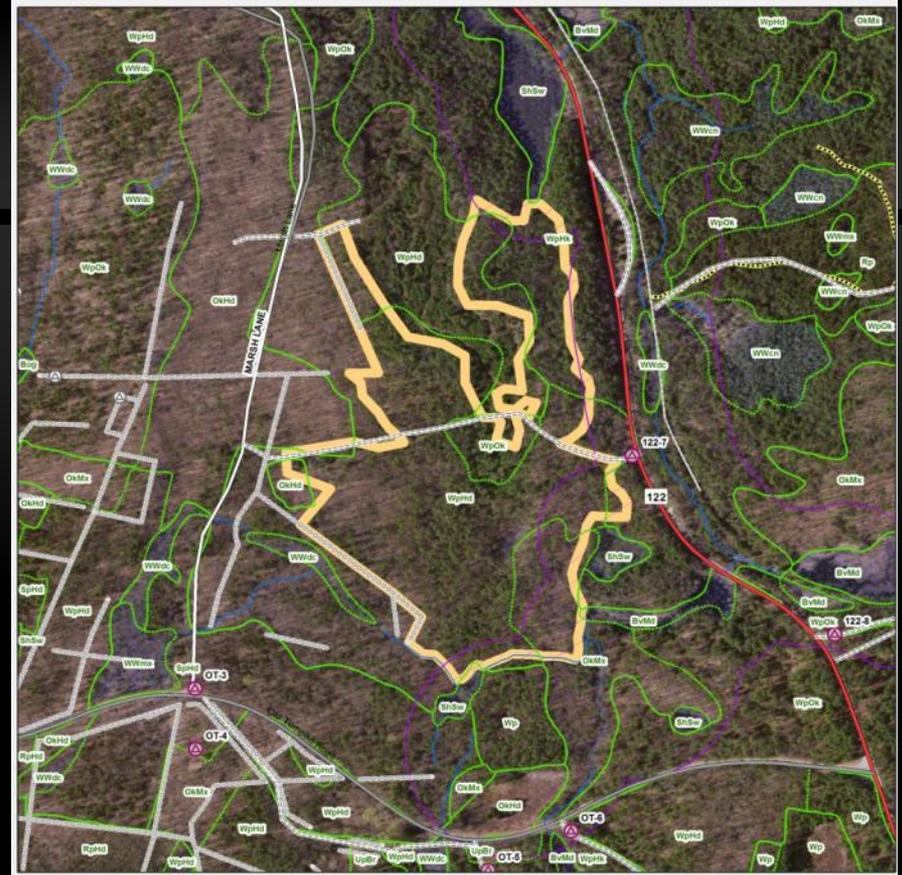
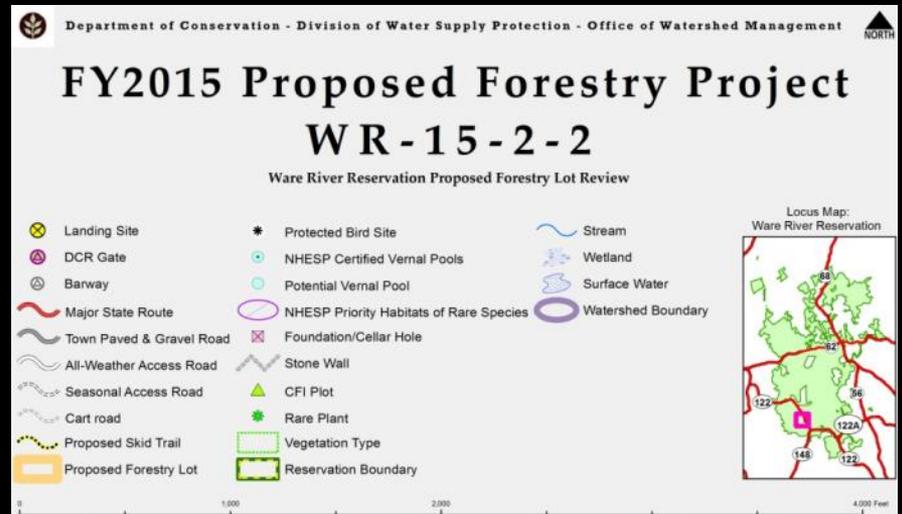
# Coldbrook Road proposal

- ✓ 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?



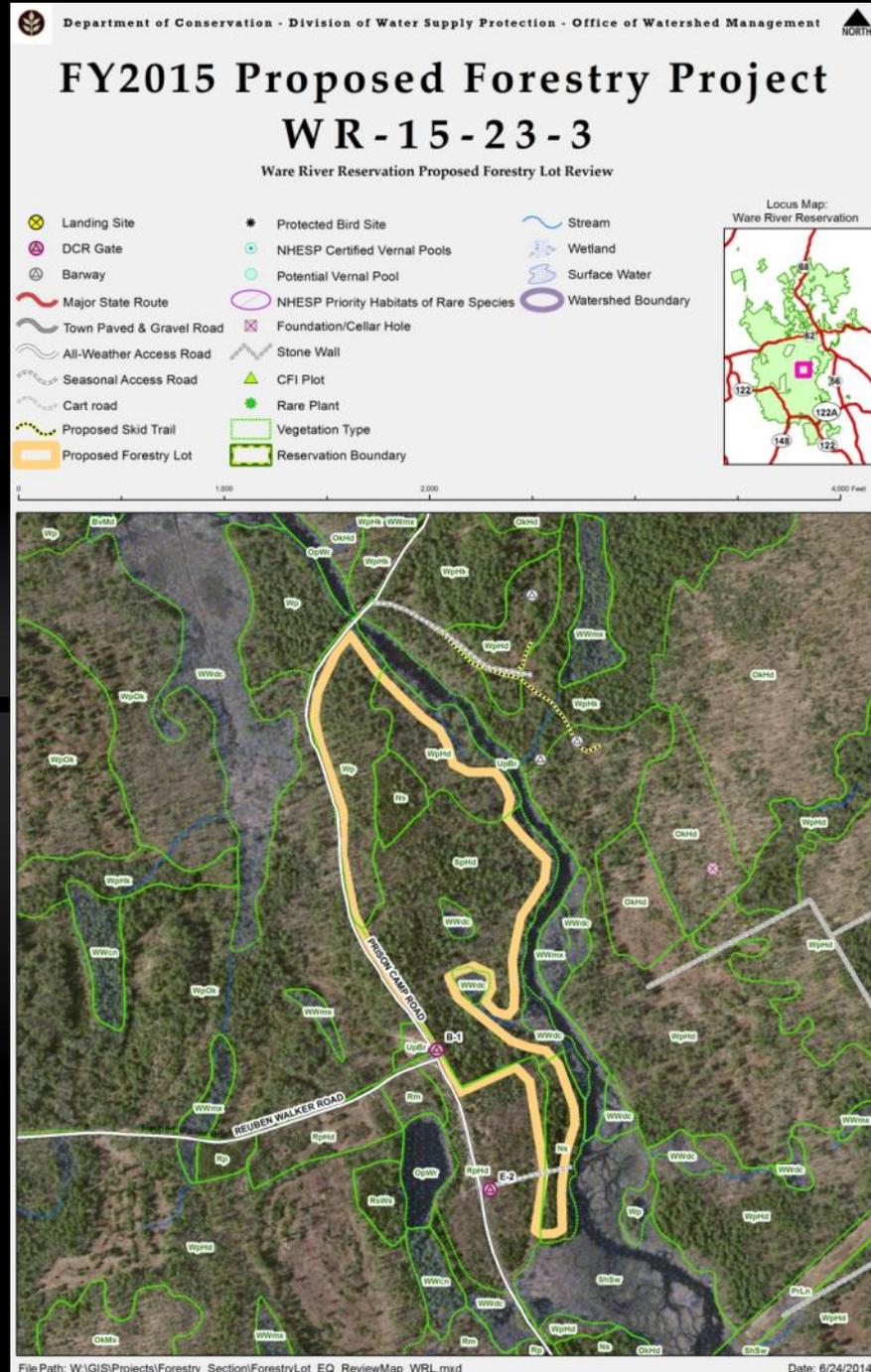
# Marsh Lane road proposal

- ✓ 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?



# 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?



# Finally...



- ✓ The protection forest surrounding Boston's water supply has been **actively managed by this agency for >50 years**.
- ✓ During 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**.