



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

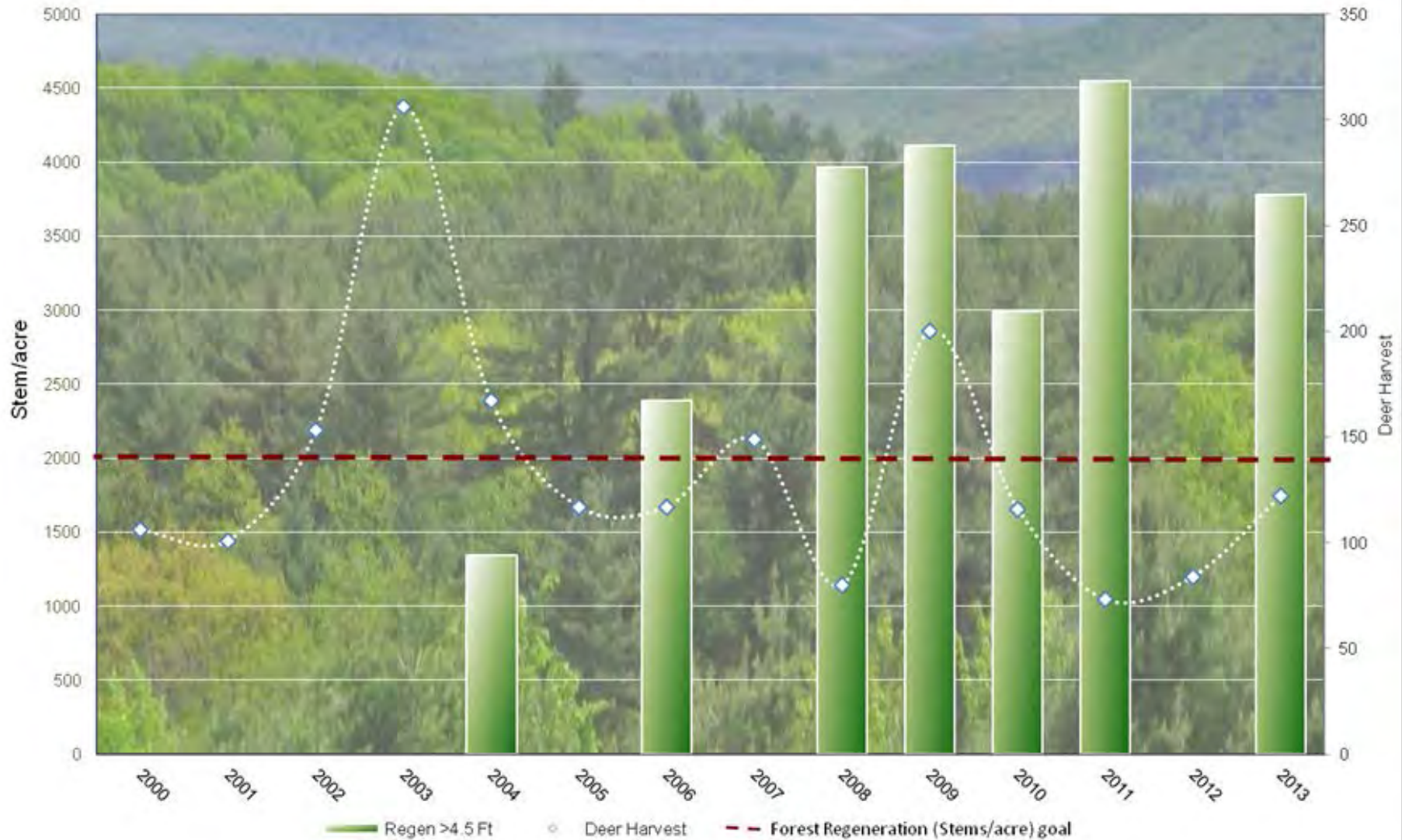


2-year post harvest multi-aged structure developed via small group selection on Prescott Peninsula

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.

2000- 2013 Estimated Quabbin Regeneration >4.5 ft



Summary of silviculture for proposals

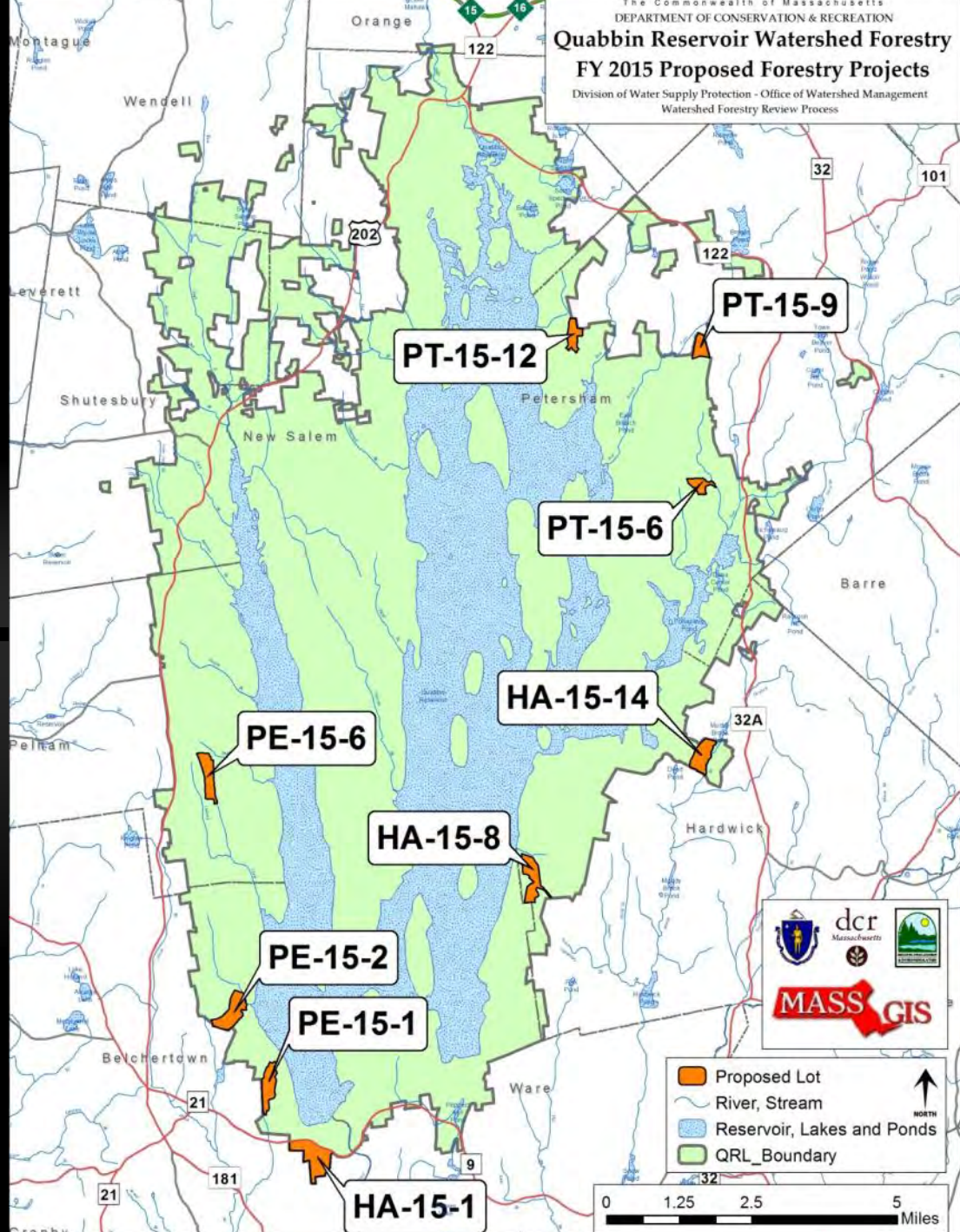
Target low quality poor vigor stems

Irregular shaped openings

Maximum opening size of about 0.5 acre

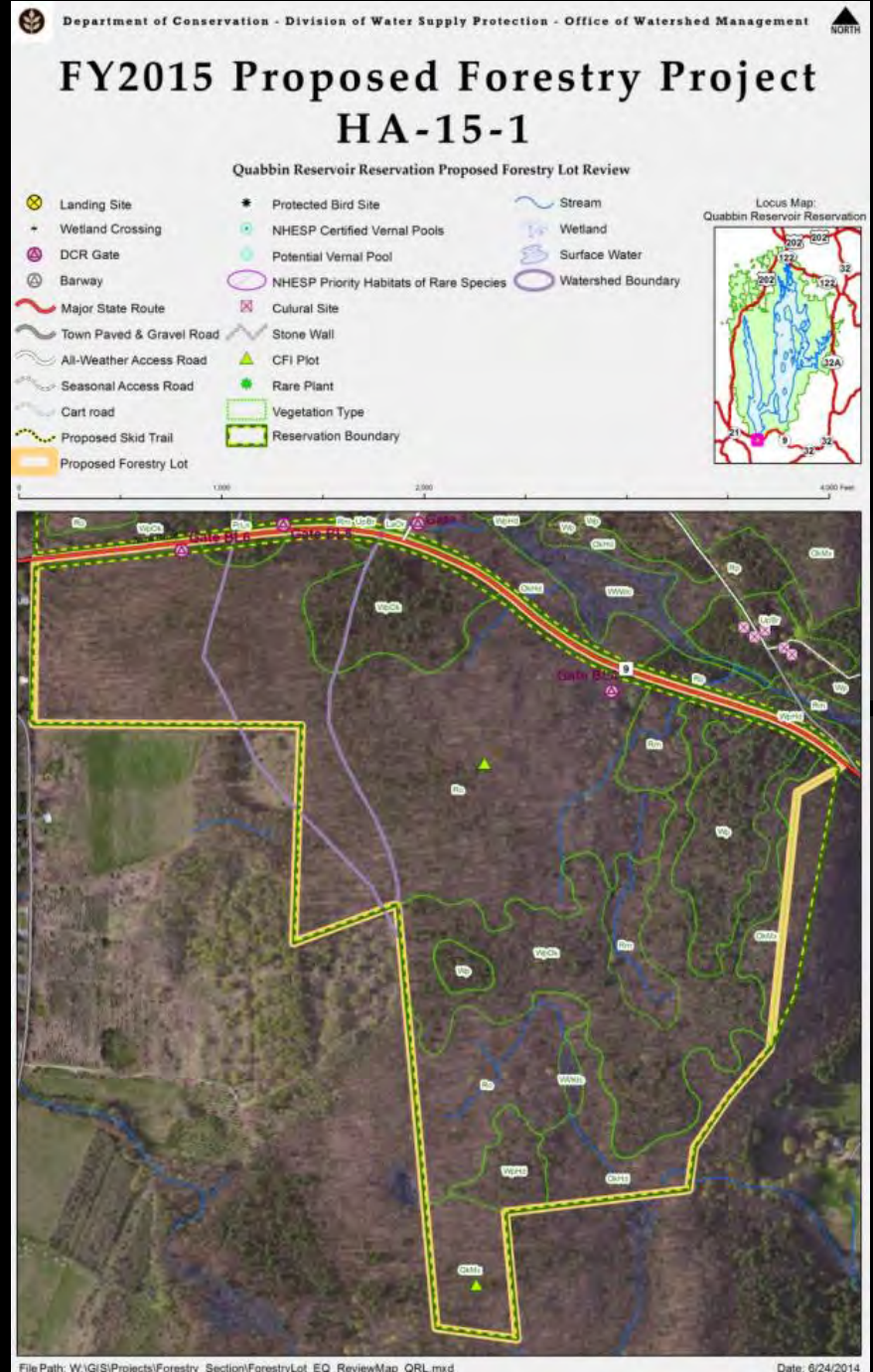
Leave the biggest and best formed trees in the openings

The Commonwealth of Massachusetts
DEPARTMENT OF CONSERVATION & RECREATION
Quabbin Reservoir Watershed Forestry
FY 2015 Proposed Forestry Projects
Division of Water Supply Protection - Office of Watershed Management
Watershed Forestry Review Process



Ware Road proposal

- ✓ 169 acres
- ✓ Red oak and White Pine are principle species
- ✓ Previously harvested in 1968 and 1981
- ✓ Release existing regeneration in small (up to 1/2 acre) irregularly shaped groups.
- ✓ Input?

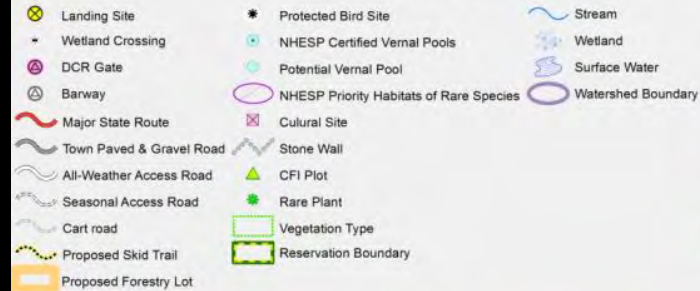


Gate 5 proposal

- ✓ 104 acres
- ✓ Thinned in the 1960's
- ✓ Oak and pine are the principle species
- ✓ Release existing regeneration in small (up to 1/2 acre) irregularly shaped groups.
- ✓ Input ?

FY2015 Proposed Forestry Project PE-15-2

Quabbin Reservoir Reservation Proposed Forestry Lot Review



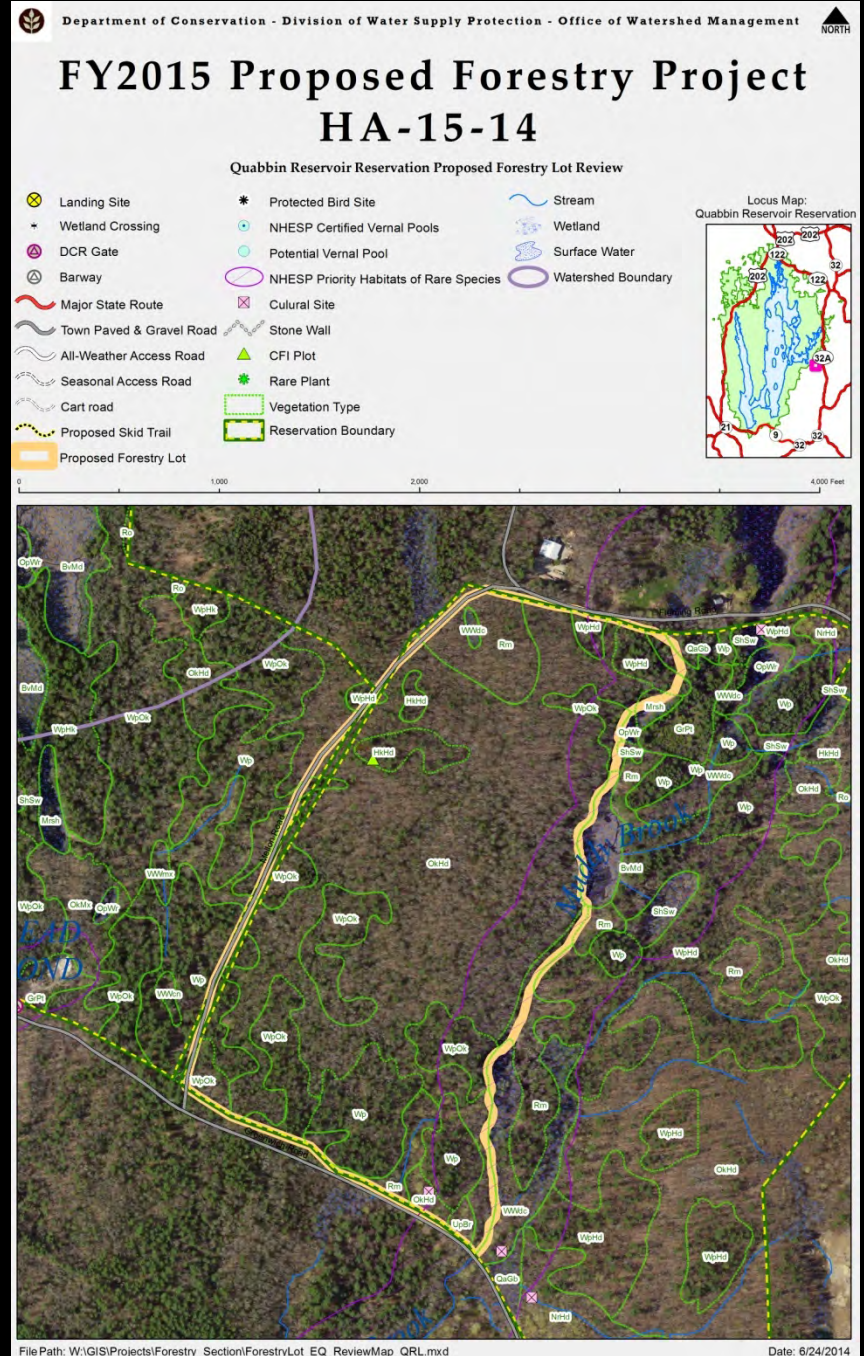
Gate 46 Proposal

- ✓ 111 acres
- ✓ Harvested in the 1990's
- ✓ Oak and pine are the principle species
- ✓ Release existing regeneration in small (up to 1/2 acre) irregularly shaped groups.
- ✓ Input ?



Mellon Road lot

- ✓ 97 acres
- ✓ Harvested in the 1990's
- ✓ Oak and pine are the principle species
- ✓ Release existing regeneration in small (up to 1/2 acre) irregularly shaped groups.
- ✓ Input ?

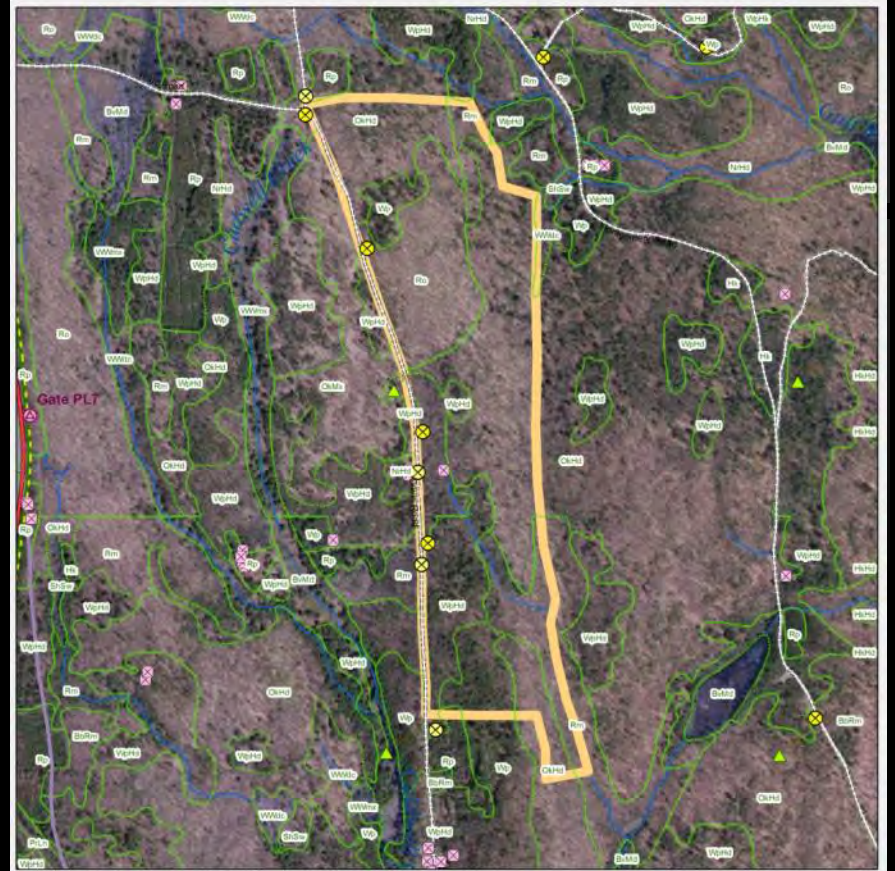


Gate 10 proposal

- ✓ 96 acres
- ✓ Harvested several times from 1970 through 1999
- ✓ Oak and pine are the principle species
- ✓ Release existing regeneration in small (up to ½ acre) irregularly shaped groups.
- ✓ Input ?

FY2015 Proposed Forestry Project PE-15-6

Quabbin Reservoir Reservation Proposed Forestry Lot Review

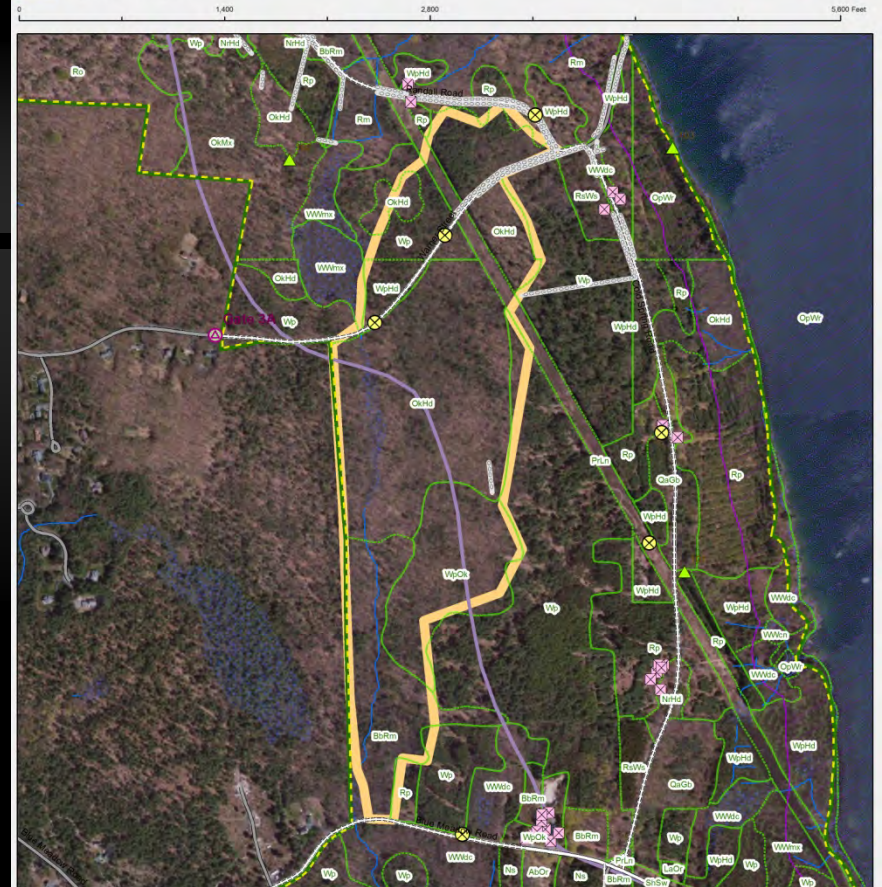
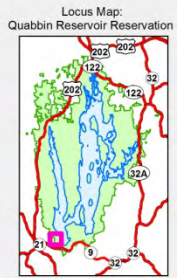
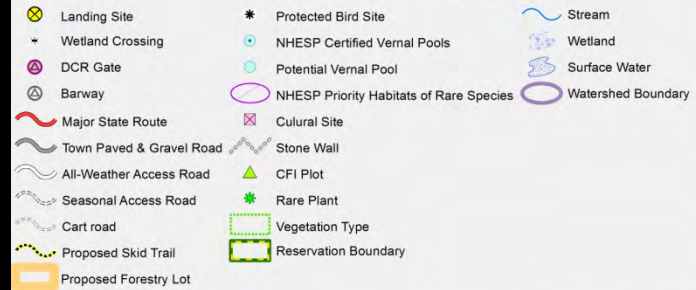


Gate 3A proposal

- ✓ 121 acres
- ✓ Harvested in the 1980's and again in the 1990's
- ✓ Oak and pine are the principle species
- ✓ Release existing regeneration in small (up to ½ acre) irregularly shaped groups.
- ✓ Input ?

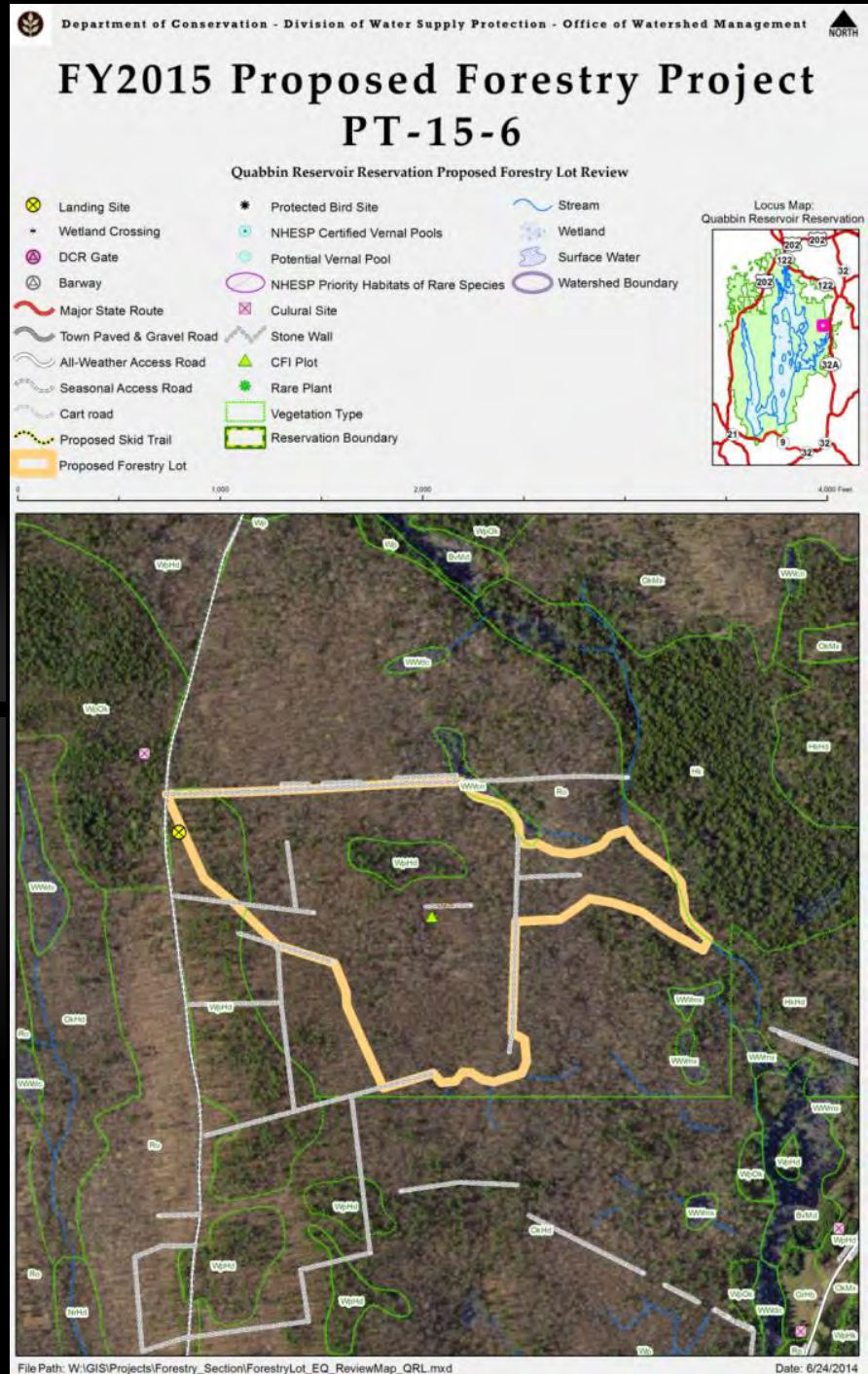
FY2015 Proposed Forestry Project PE-15-1

Quabbin Reservoir Reservation Proposed Forestry Lot Review



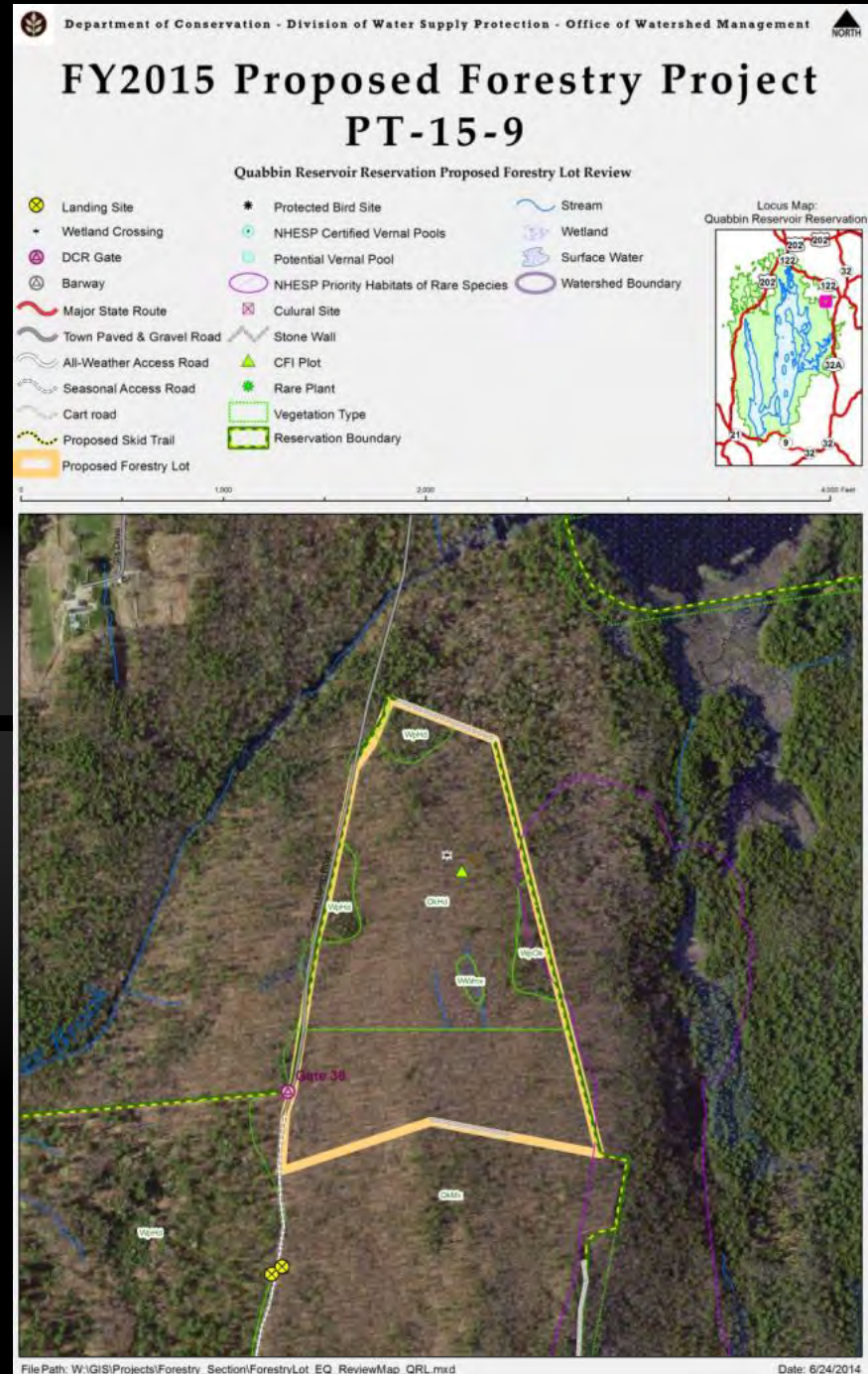
Mary Tamplin Road lot proposal

- ✓ 46 acres
- ✓ Harvested in 1989
- ✓ Oak is the principle species
- ✓ Release existing regeneration in small (up to 1/3 acre) irregularly shaped groups.
- ✓ Avoid old home site in this area.
- ✓ Input ?



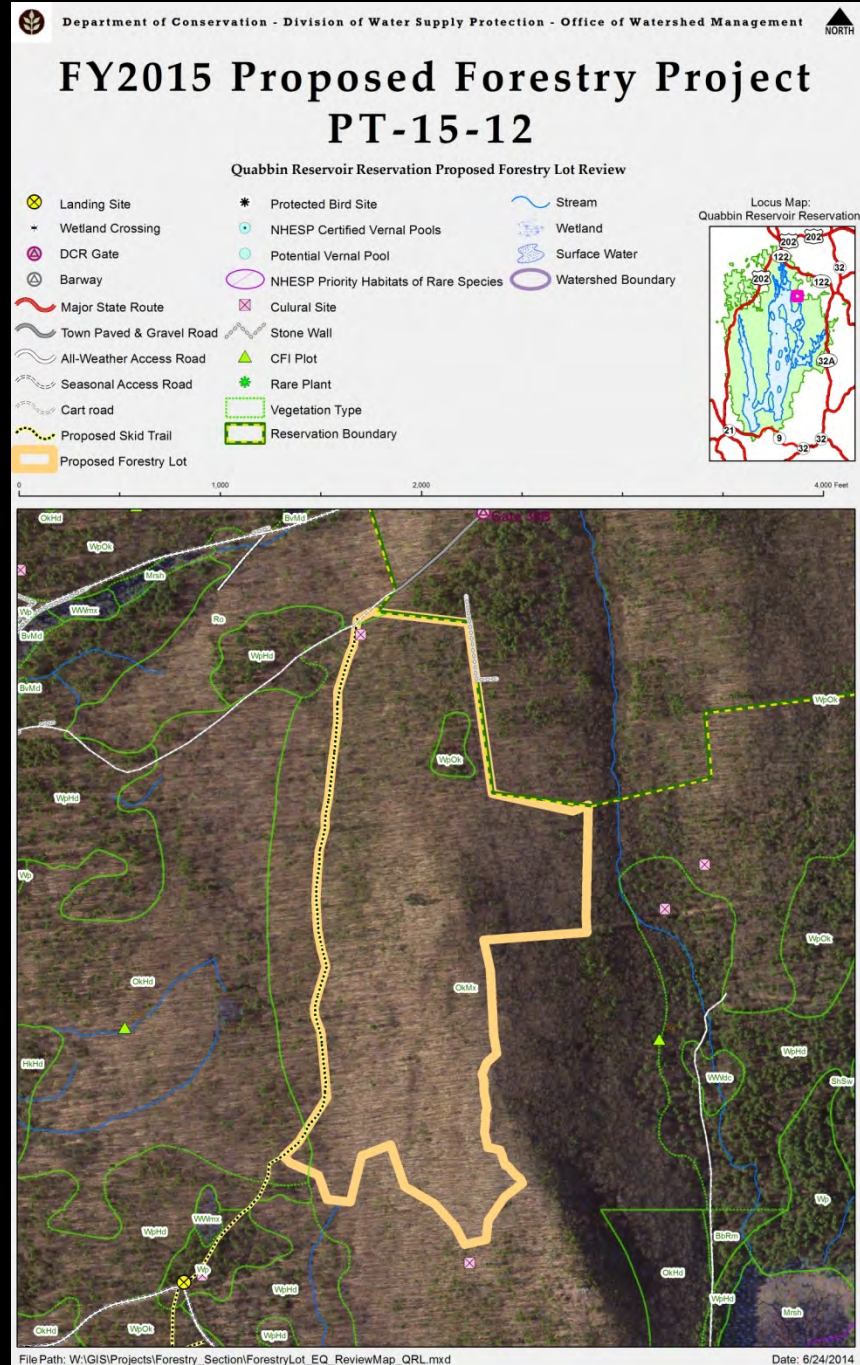
Camel Hump Road proposal

- ✓ 50 acres
- ✓ Harvested in 1985
- ✓ Oak is the principle species
- ✓ Release existing regeneration in small (up to 1/3 acre) irregularly shaped groups.
- ✓ Vernal pool on road
- ✓ Input ?



Soapstone Proposal

- ✓ 63 acres
- ✓ Cellar holes near landing
- ✓ Oak is the principle species
- ✓ Release existing regeneration in small (up to 1/3 acre) irregularly shaped groups.
- ✓ The hiking trail will be crossed at one location.
- ✓ Input ?



Regeneration Openings

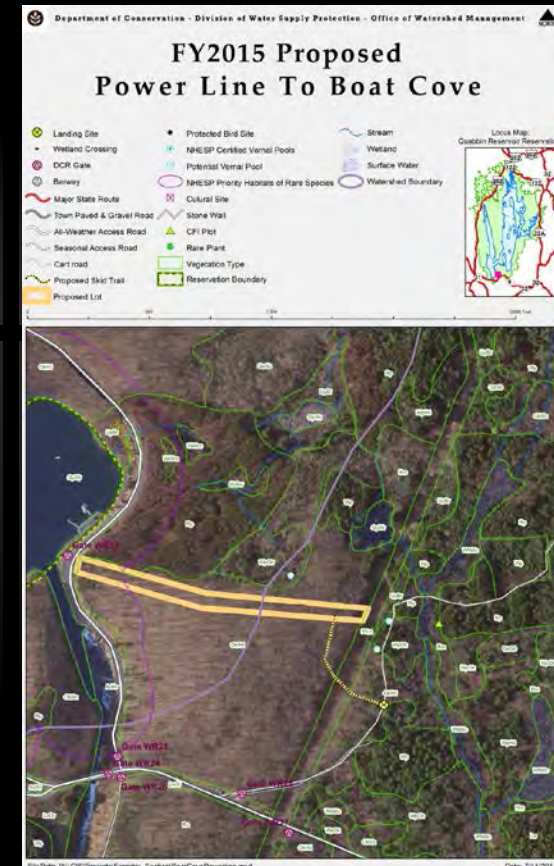
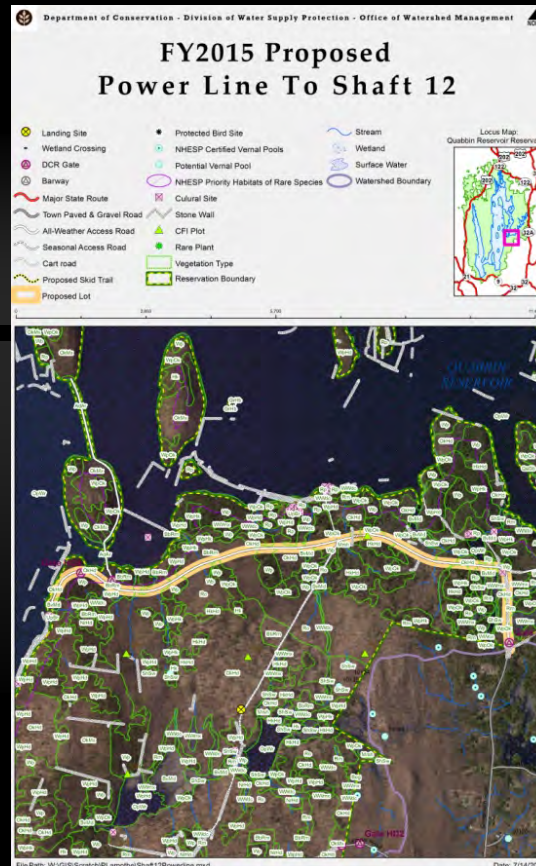
- ✓ Less than 25% of each lot will be cut for regeneration openings.
- ✓ Some additional area will be thinned.
- ✓ Total area in regeneration openings for these 9 proposals will be less than 214 acres, much less than 1% of our forest.



New Power Lines

Two infrastructure projects to install power lines will involve tree removal. Projects will aide in operations and enhance security at both sites.

- ✓ Boat Cove power line in Ware: 1,500 feet long and about 100 feet wide.
- ✓ Gate 44 to Shaft 12: 13,000 feet along existing roadway in Hardwick will include about 40 feet of tree removal.



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**.