

Town-level Forest Management

An example from Weston, Massachusetts

Prepared for the Harvard Conservation Commission

May 20, 2010

Emily Silver, Suburban Ecology Project

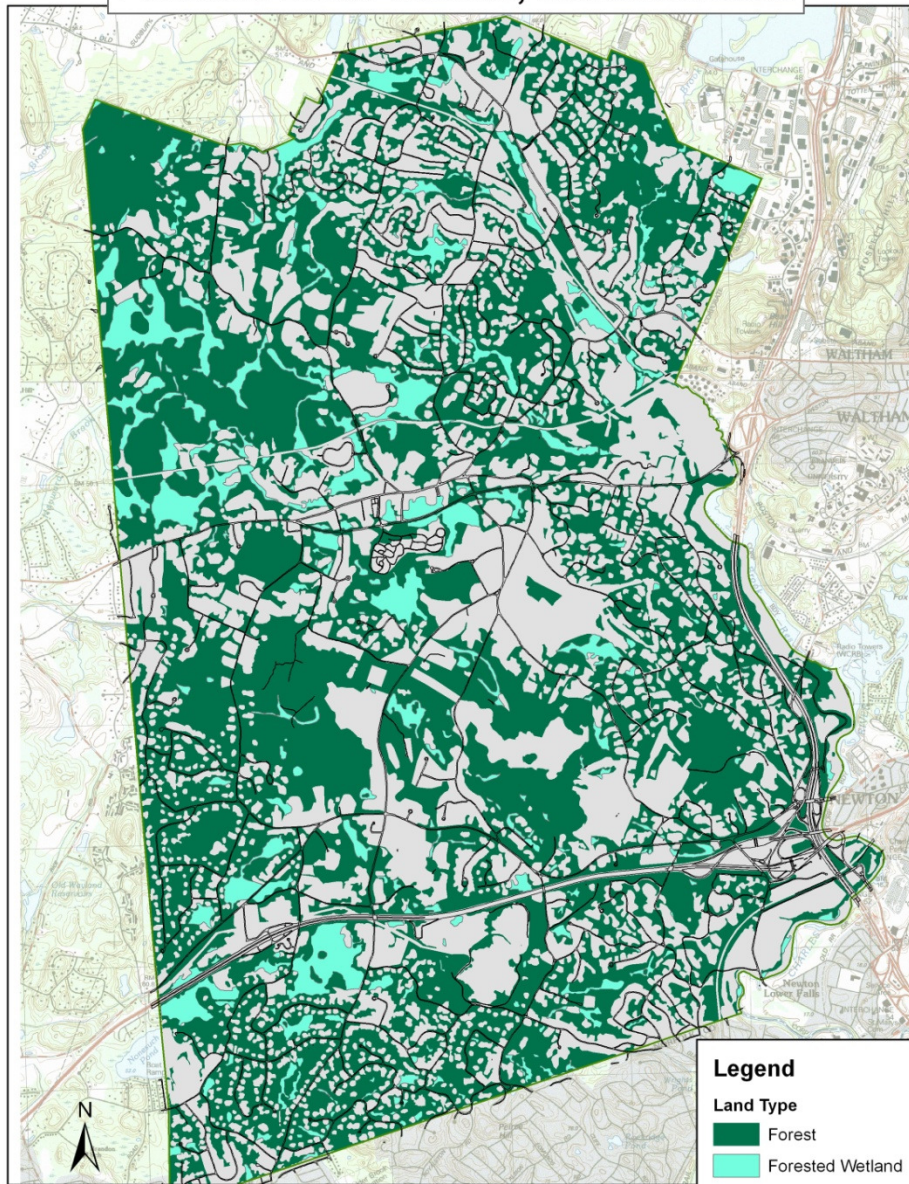
Al Futterman, Nashua River Watershed Association

The Resource

- Approximately 2,000 acres of open space
- 1,700 acres of forested land
- 1,000 acres are considered “available for forest management”
- Of the trees in Weston’s forests,
- 47.5 % are White Pine
- 28 % are Oaks
- 15 % are Red Maple
- 4 % are Hemlock
- Other species include: Ash, Sugar Maple, Birch, Hickory, Beech, Black Cherry

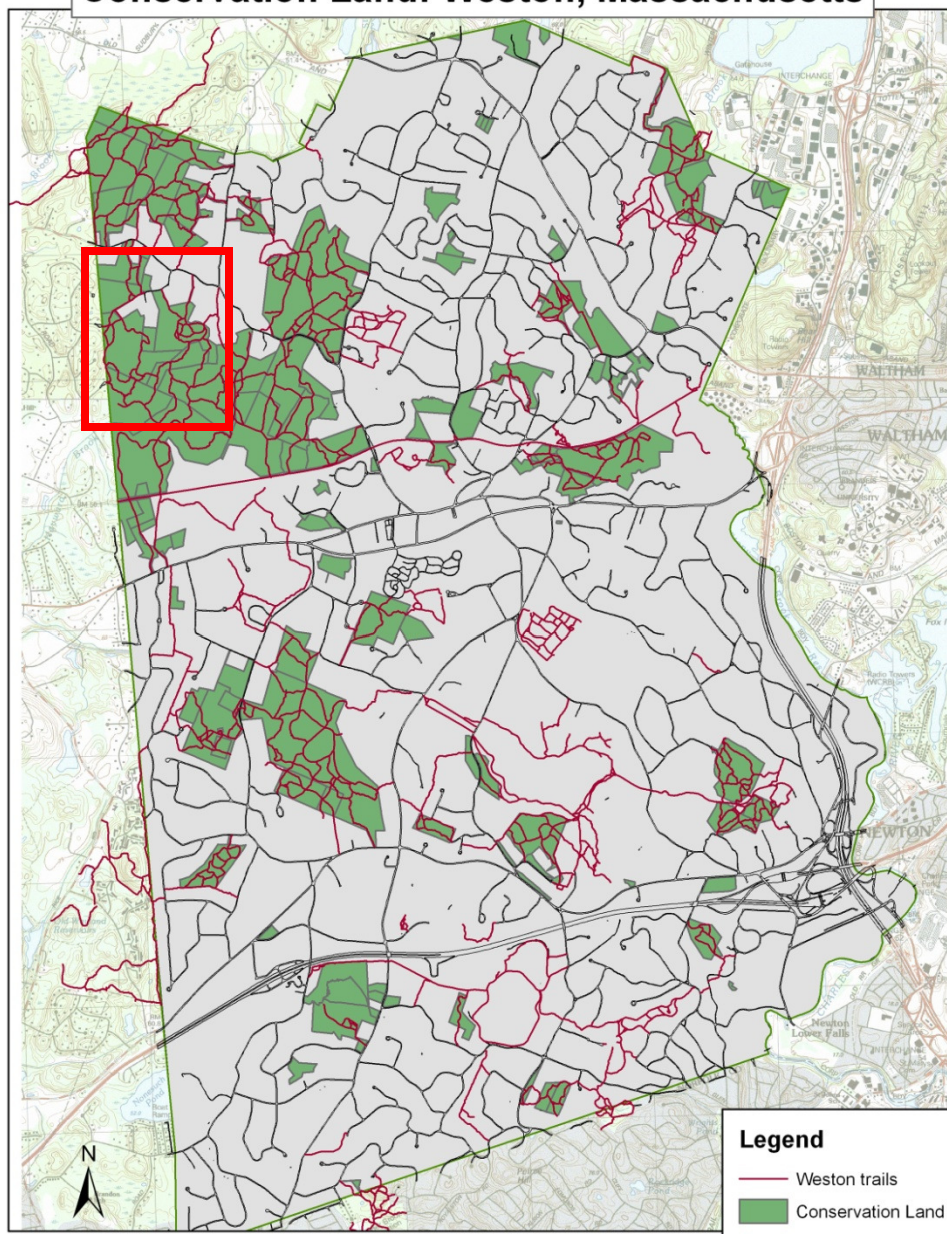


Forested Land: Weston, Massachusetts



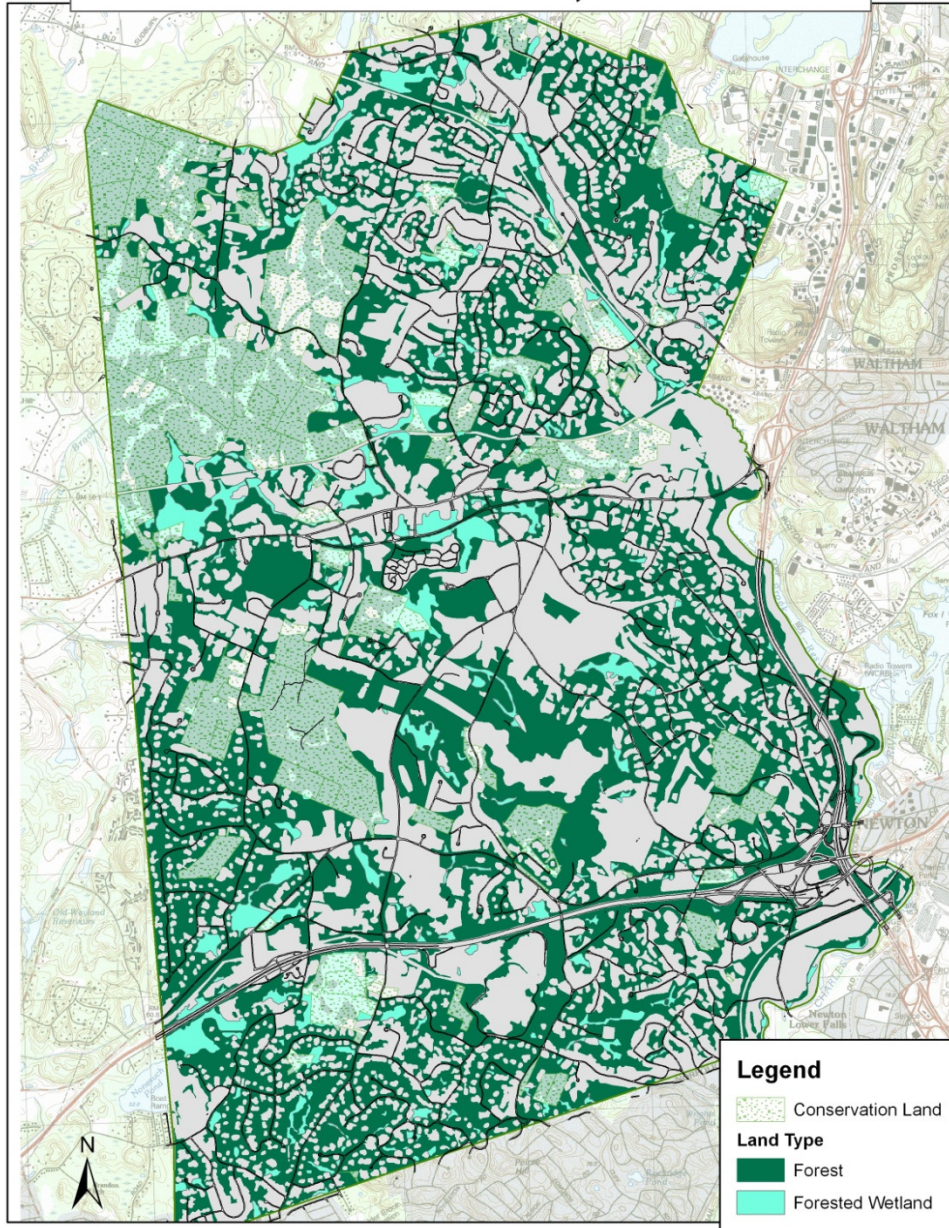
0 0.375 0.75 1.5 Miles All data courtesy of the Town of Weston and MassGis.
Weston_Overview.mxd, Emily Silver, May 2010

Conservation Land: Weston, Massachusetts



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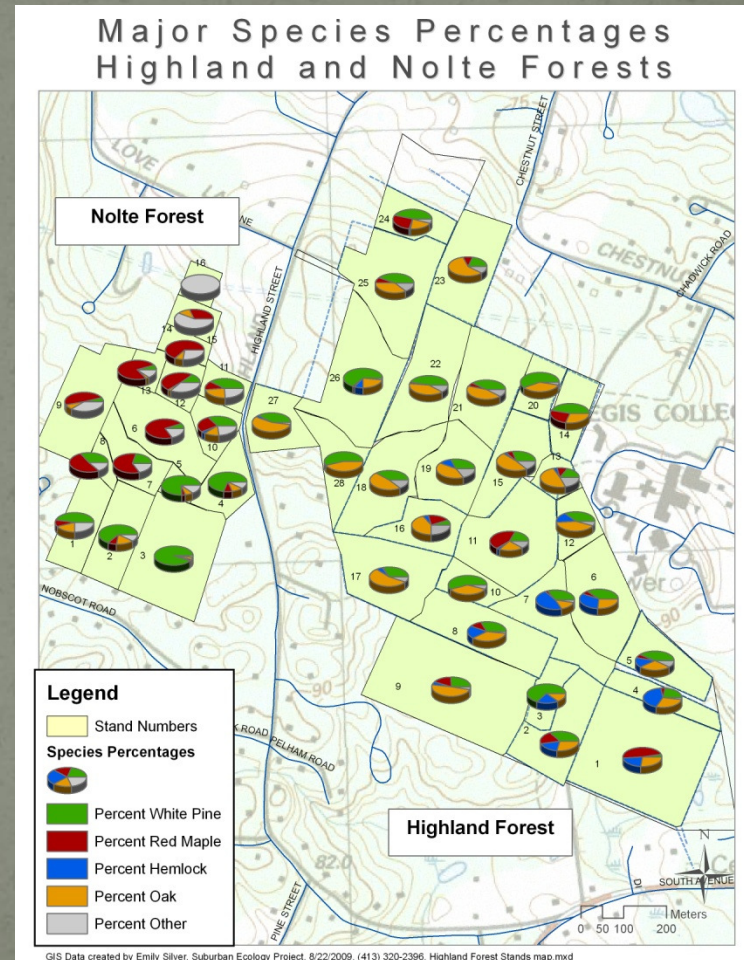
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A history of Forest management

- 1981, Land Sake began thinning firewood, and has probably averaged about 50 cords/yr
- 1989, John Potter, graduate of Yale University's School of Forestry, prepared a forest management plan eventually adopted by the Weston Conservation Commission
- Since then, small pine timber harvests (25 MBF)
- Greenpower ran a bandsaw a couple times but no longer
- 2007, cut for the pine rafters for This Old House, milled on a bandsaw

The Plan

- Shelterwood Method, mimics natural disturbances
- Divides forest into “stands” 5-10 acres in size
- Thin each stand every 15 years, harvest timber every 120 years
- In any given year, thinning and harvesting would take place on 1/15th or 70 acres of town forest land
- The Reality: Less than 10 acres per year are harvested



Partners

- Land's Sake, a non-profit in Weston founded in 1980 that runs a public farm, conducts educational programming, and manages the town forest
- Land's Sake buys 'stumpage' from the town and then sells the wood harvested
- Weston Forest and Trails Association



Forest Management Activities

- Stand thinning for firewood production
- Selective cutting for local building materials
- Tapping sugar maples for syrup production
- Maintaining trail systems



Photo Credit: Doug Cook, Land's Sake

Downed tree database

Conservation Commission MapsOnline - Weston, Massachusetts - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://www.mapsonline.net/westonma/index_concom.phtml

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Gmail - Land Management Issues D... Conservation Commission MapsO...

Town of Weston

Massachusetts

MAPS PRINT HELP

General Map Layers

PLAN ID	CC_FOLDER	CC_TYPE
8-4-731	84A	FEE

Trails

Type	Length	comment
fee_road	5.10433866675e+002	

Land Management Issues

issue	addr_num	addr_name
tree_down		

PeopleForms [jump to record](#)

date	2010-05-07
issue	tree down
issue_note	resident called to report tree down - i have not confirmed it yet. May be able to this weekend
status	open
reported	other
dept	concom

info Photos Queries

distance: area: x-coord: 705498 y-coord: 2982504

Conservation Com...

11:21 PM

Image Credit: Dave Quinn, Land's Sake

Bringing students into the woods



Brian Donahue's Eastern Forest Class helps collect maple sap



Weston High School field trip to learn about Hemlock Woolly Adelgid

Research

- In order to measure and monitor the ongoing ecological effects of forest management in Weston (and elsewhere) Brandeis University's Suburban Ecology Project and Environmental Field Semester are installing plots and measuring trees.



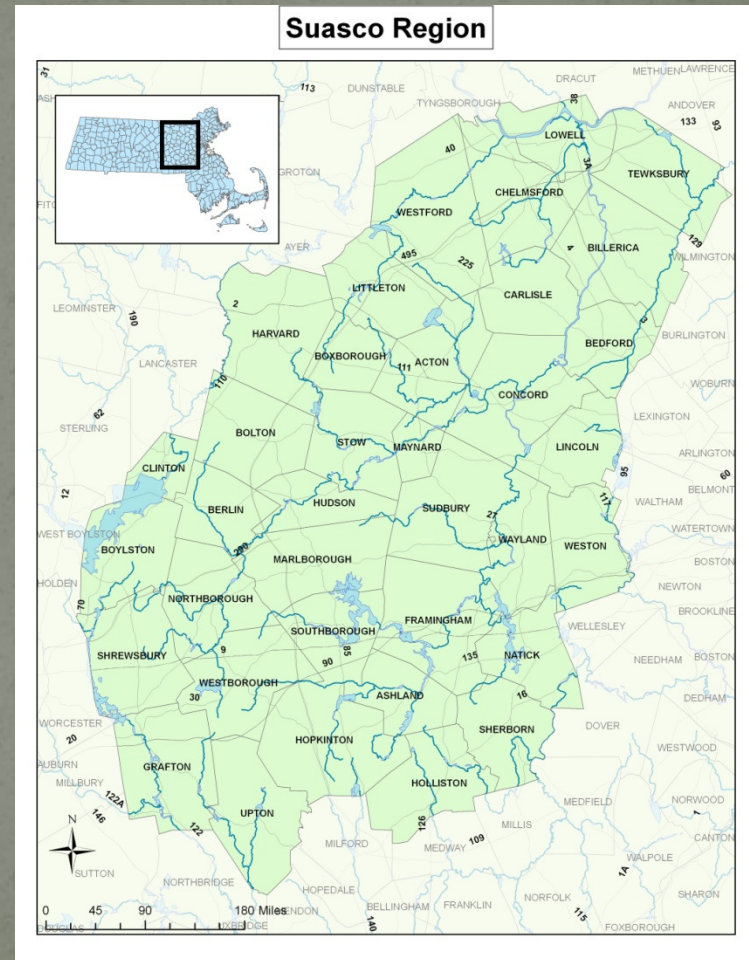
Non-forest land management activities

- Land's Sake contracts with the town on the following:
 - Invasives removal
 - Field habitat preservation
 - Farming
 - Orchard and berry shrub cultivation



The Future

- Small-Scale biomass heater for a Weston Public School, using wood chips from the town forest
- Increased timber harvest for local town construction needs
- Collaboration with neighboring towns through the West Suburban Conservation Council



Ingredients

- **A plan**, driven by knowledge of the resource
 - Inventory and Mapping of resource
 - Foundation in recommended sustainable forest management practices
- **A partner**, or several partners who can dedicate staff to land management activities
 - Land's Sake
 - Weston Forest and Trails Association
 - Weston Land Trust
 - Weston Conservation Commission
- **A market**, for wood products and Community Preservation Act money to maintain open space.
 - Keeping fields as fields
 - Protecting conservation land
 - Town demand for firewood

Questions?

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Suburban Ecology Project

<http://www.brandeis.edu/programs/environmental/sep>

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