

Marlboro – Sudbury State Forest

- Established around 1915
 - \approx 675 acres
 - Valued by many for many different reasons
- In active Forest management since inception
 - A Woodlands designation
 - Metrowest Area

Marlboro – Sudbury State Forest

The Hansen lot is about 100 acres and is part of the 900 acre Desert area.

- Dog Walking
- Walking
- Hiking
- Horseback riding
- Birding
- Trail Running
- Mountain biking
- Snowshoeing
- Cross Country Skiing

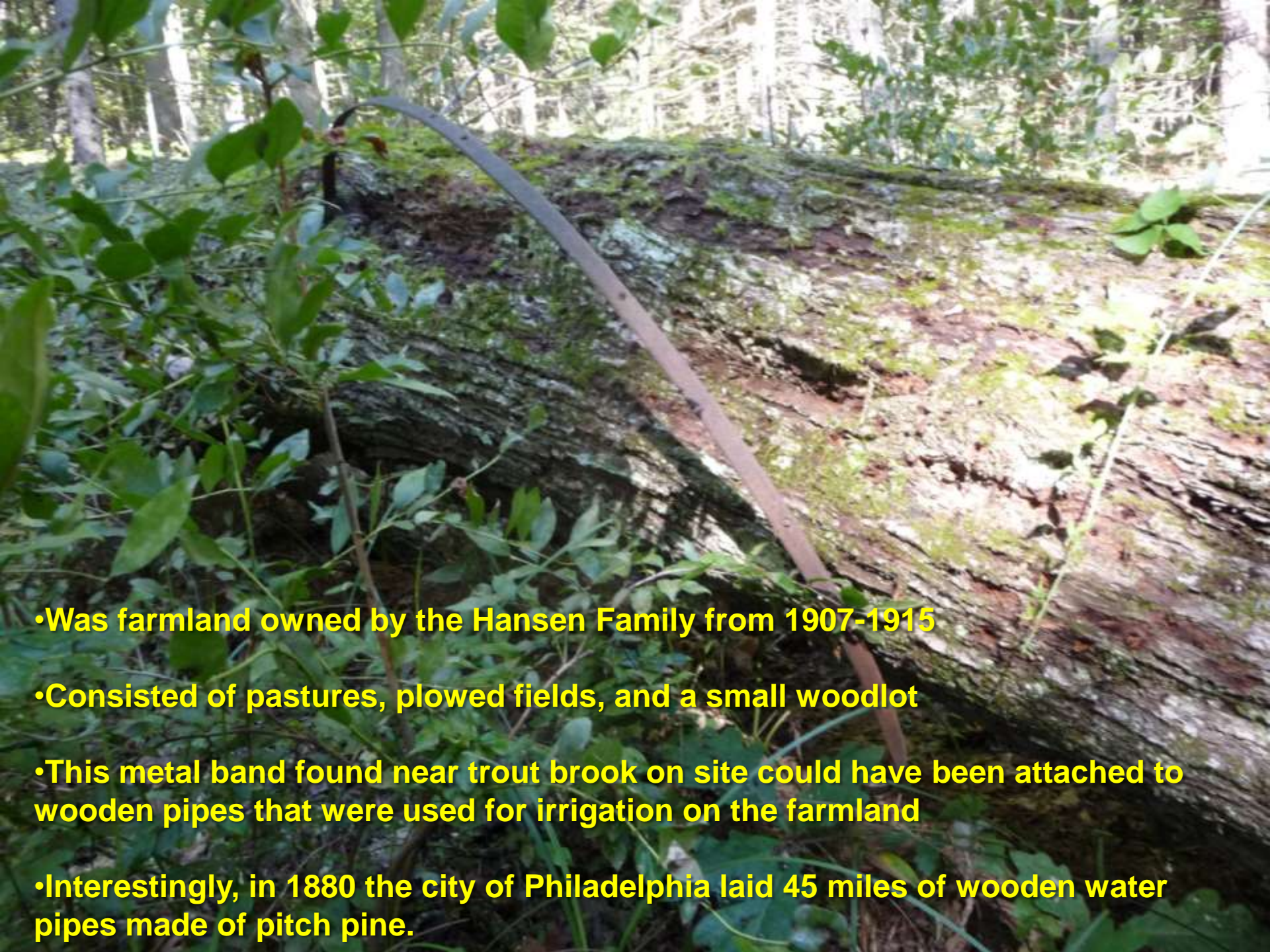


Marlboro – Sudbury State Forest

A photograph of a forest floor. In the center, a large, white, bell-shaped mushroom with a thick stem stands prominently. The ground is covered with a layer of brown, fallen leaves and small twigs. In the background, there are green ferns and the trunks of trees, creating a dense forest setting. The lighting is natural, suggesting daylight filtering through the canopy.

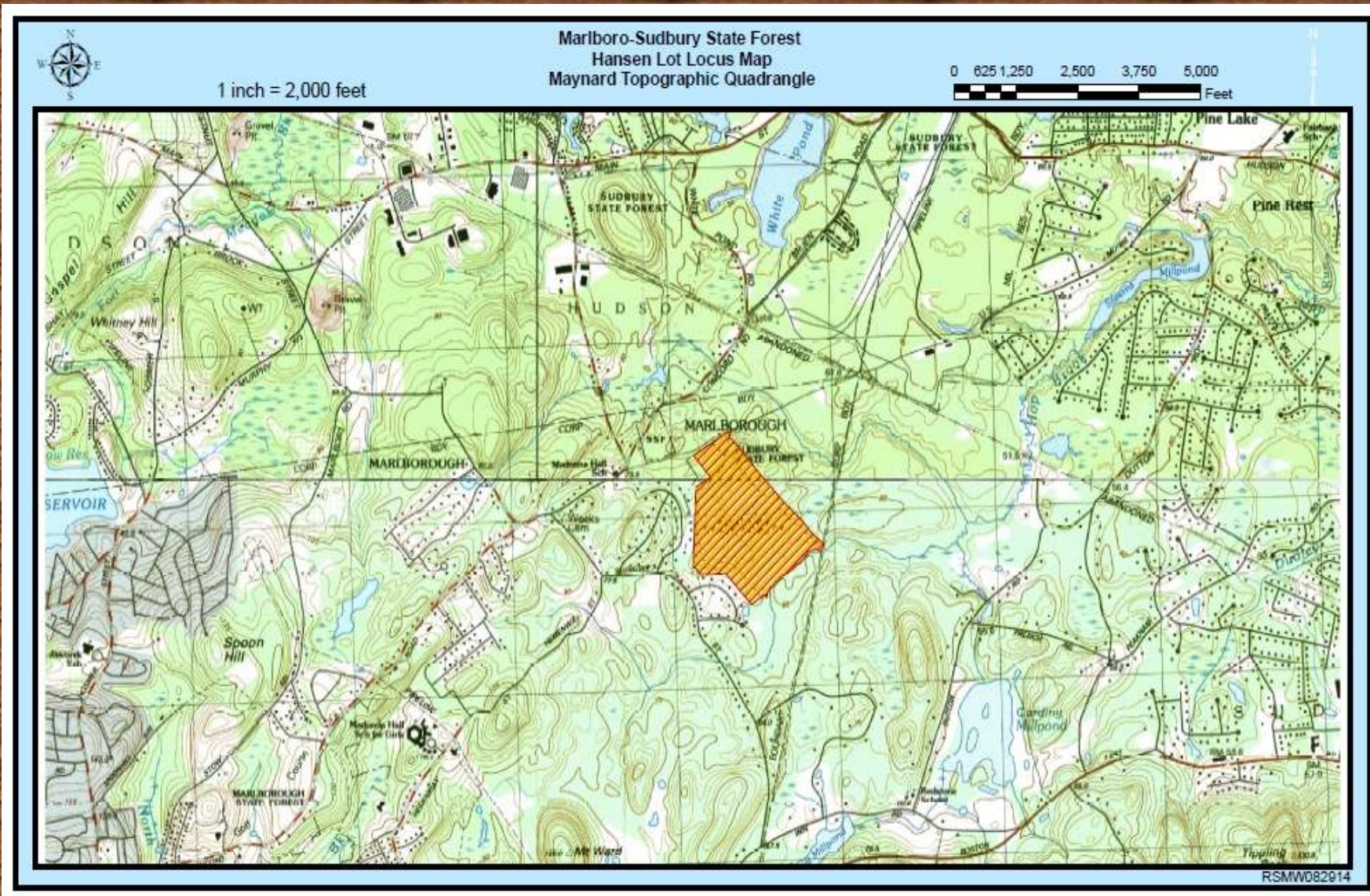
Some less obvious uses

- Providing a diverse and dynamic ecology to the native and sometimes rare flora and fauna
- Providing wood products to help build and beautify neighborhoods and the economy.

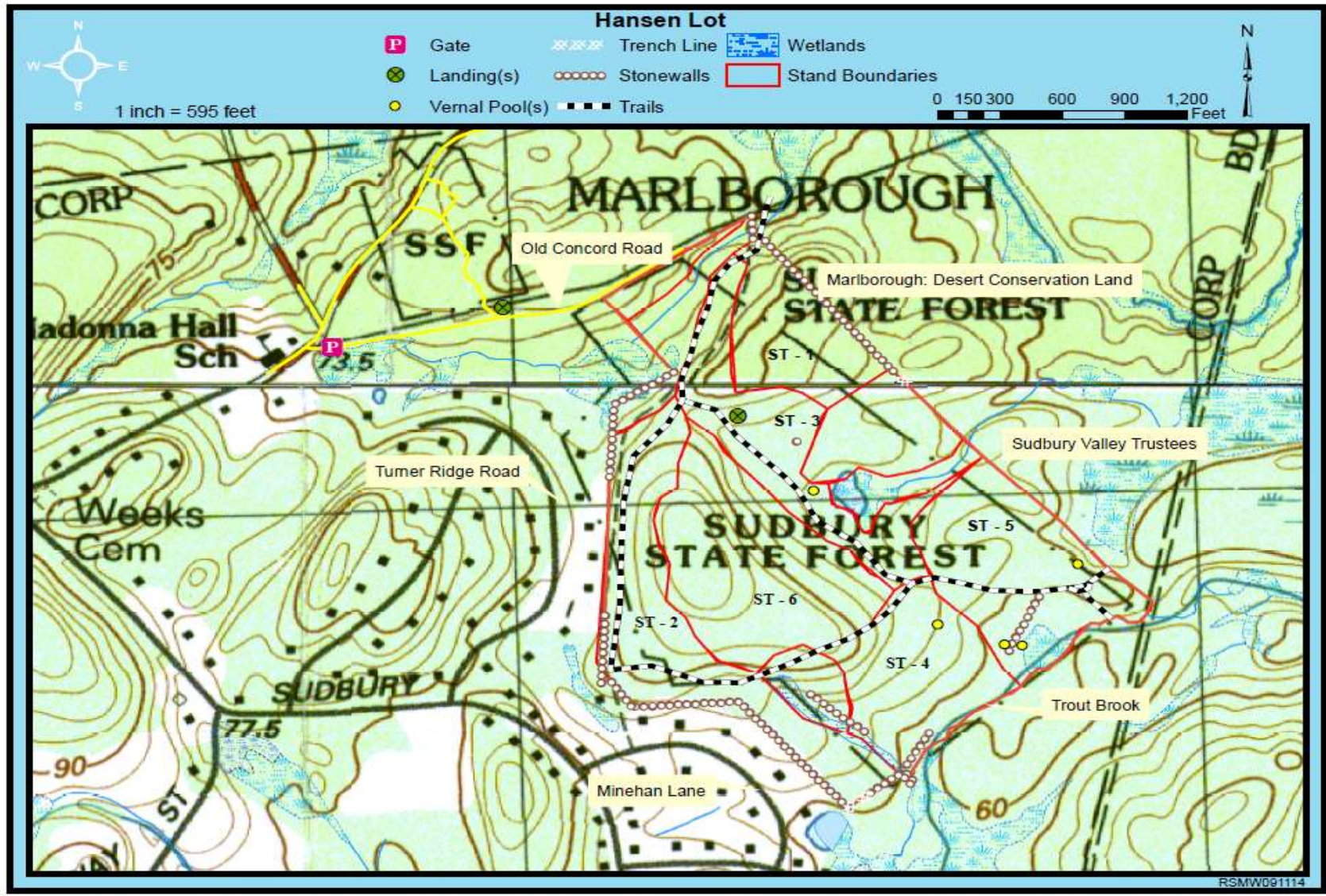


- Was farmland owned by the Hansen Family from 1907-1915
- Consisted of pastures, plowed fields, and a small woodlot
- This metal band found near trout brook on site could have been attached to wooden pipes that were used for irrigation on the farmland
- Interestingly, in 1880 the city of Philadelphia laid 45 miles of wooden water pipes made of pitch pine.

Hansen Lot – Locus Map



Hansen Lot – Detail



Existing Conditions of Red Pine

- Dense crowded trees
- Discolored and brown needles
- Red pine scale (*Matsucoccus resinosae*)
- Diplodia blight (*Diplodia pinea*)
- Rapid tree mortality



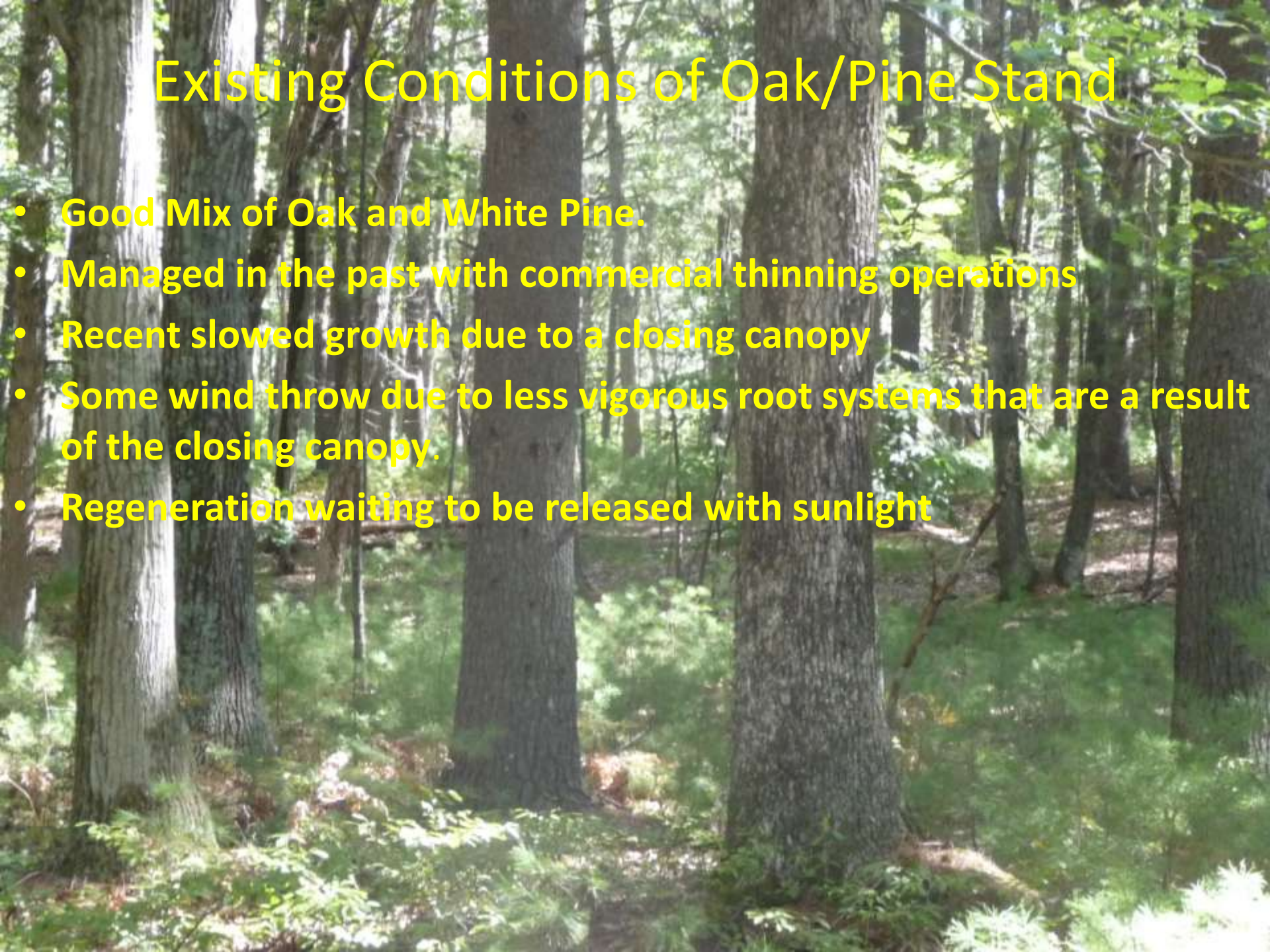
Existing Conditions of White Pine Plantation

- Overstocked
- little biodiversity
- Slowed growth and tree mortality
- Hazard and downed trees across trails
- little regeneration or understory vegetation



Existing Conditions of Oak/Pine Stand

- Good Mix of Oak and White Pine.
- Managed in the past with commercial thinning operations
- Recent slowed growth due to a closing canopy
- Some wind throw due to less vigorous root systems that are a result of the closing canopy.
- Regeneration waiting to be released with sunlight





Mature Stand of Pitch Pine and Scrub Oak

Undesirable Red and White oak, along with White pine crowding out and overtopping Pitch Pine.

Result is Mature Pitch Pine slowly dying with no new Pitch pine regeneration in the stand and the habitat is changing as a result.

Pitch Pine areas provide crucial habitat to rare and endangered species.

Goals

Restore the Pine Barrens landscape ecology which will:

- a) Provide sunlight and have somewhat regular disturbances that are required for PP/SO Habitat**
- b) Provide the opportunity for rare or endangered flora and fauna to thrive**

Thin the pine plantations and oak stands by removing diseased and slow growing trees which will:

- a) increase biodiversity**
- b) create a new age class of trees**
- c) Provide much needed food and cover for wildlife**
- d) Give growing space to the healthiest trees**
- e) Provide local wood products**

Follow Woodlands designated guidelines

Desired Results in the Pitch Pine Area

Current Conditions

Shaded



After (SVT PP/SO Work –A couple hundred feet from the Hansen lot)

Sunny



Pictures taken on the same day about one hour apart.

Desired results in the pine stands

Current Conditions

Shaded – sparse understory – little diversity



After (2008 Harvest at Marlboro Sudbury SF
<5 Minutes from Hansen lot)

Sunny – thriving understory- age & species
diversity



Pictures taken on the same day about one hour apart.

Desired results in the oak and pine stands

Current Conditions

Mostly shaded – slowed growth – less diverse species



**After (2008 Harvest at Marlboro
Sudbury SF <5 Minutes from Hansen lot)**

**Sunny - vigorous growth response -
more diverse species**



Timber Harvest

Pitch Pine Stands

- Reduce fuel loads
- Promote native pitch pine and scrub oak vegetation
- Promote shrub land habitat for dependent species of wildlife
- Improve aesthetics through use of whole tree harvesting and chipping
- **Pine Plantations and Oak-Pine Stands**
 - Thin pine plantations to improve vigor of remaining trees
 - Promote regeneration of native species of trees and shrubs
 - Improve safety by removing hazard trees along trails



Access and recreational opportunities during the harvest

- Alternative parking at the desert area will be available at SVT Memorial Forest, Assabet River National Wildlife Refuge and Sudbury Hop Brook Marsh
- The Hansen lot is a small portion of the overall desert area. Only the Old Concord Road access, Witches Cove trail and Hansen Trail will be inaccessible during operation.
- The harvest will occur during the winter
- Active harvesting will be limited to weekdays 8 am to 5 pm
- All types of recreation will still be possible in the desert area



The Hansen Lot is a special place

Many people, flora and fauna benefit from the Hansen lot.

- Conventional neighborhood day users who enjoy safe and quiet exercise
- Wildlife that lives in this contiguous forest haven
- Rare and/or threatened species who have an opportunity to thrive in a unique pitch pine/scrub oak ecosystem
- Environmental enthusiasts who enjoy the rare opportunity of a large “open space” in the Metro west
- Timber Harvesters who once every ten to twenty years benefit from harvesting wood products in a sustainable manner
- Wood product users

Desired Results

Short Term

- To restore these stands to native shrublands or woodlands characterized by pitch pine, scrub oak and associated native shrubs.

Long Term

- Prescribed burning and mowing to stimulate sprouting and growth of native shrubs.
- Variable frequencies and intensities to encourage a mosaic of pine
- Maintain barrens, shrublands, and woodland communities.

Barnes Tiger beetle



Mike Nelson / MassWildlife

Melsheimer's Sack Bearer



Mike Nelson / MassWildlife

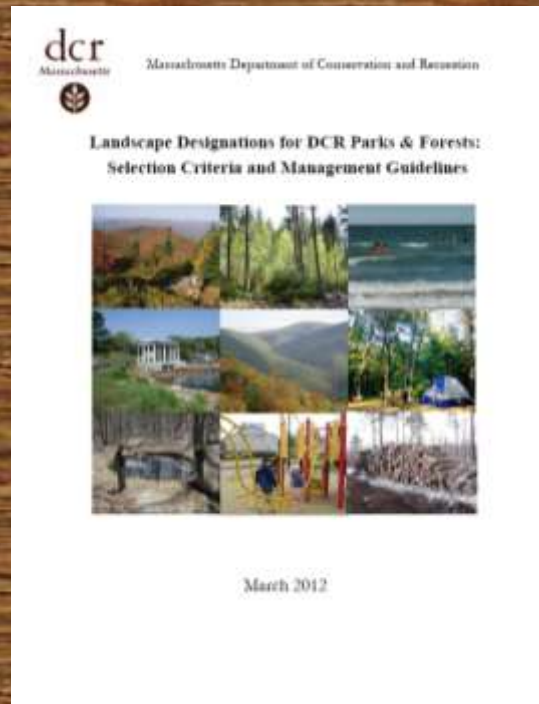
Slender Clearwing Sphinx



Mike Nelson / MassWildlife

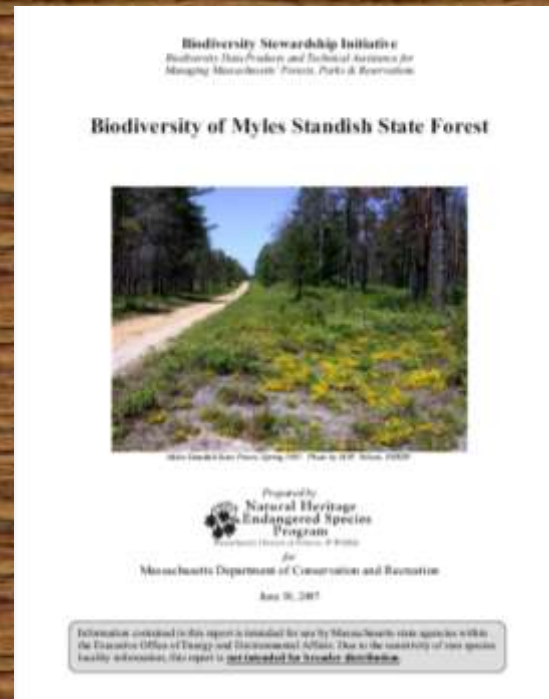
References

2012 Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines



References

- Highest Priority Recommendation:
 - Remove tree plantations consisting of non-native species and thin tree plantations consisting of even-aged monocultures of native species.
 - Promote habitat for rare and endangered species



2007 NHESP Biodiversity of Myles Standish State Forest

Contact Information

Mike Waterman
NE District Management Forester
25 Shattuck Street
Lowell, MA 01852
978-937-2092 Ext 109
Michael.J.Waterman@State.MA.US

William Hill, CF
Forest Management Program Supervisor
40 Cold Storage Drive
Amherst, MA 01004
413-545-3891
William.Hill@State.MA.US

<http://www.mass.gov/eea/docs/dcr/stewardship/forestry/manage/forest-product/hansen-lot.pdf>