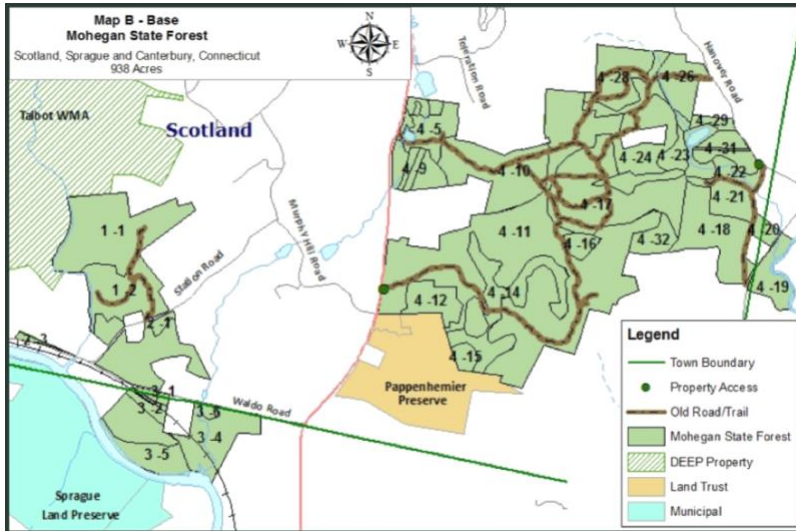


Mohegan State Forest: Forest Conditions and Management Goals



Stand 4-11 is fully-stocked to over-stocked for an oak-hickory forest type (BA/ac: 118ft², Stems/ac: 174, Avg. DBH: 18). Mortality (of primarily oak trees) has been heavy in this stand due to drought, gypsy moth, and stress-seeking pests. Discounting the dead trees does not bring the stocking of the stand below the fully-stocked level (BA/ac: 107ft², Stems/ac: 165, Avg. DBH: 17.5). Basal area of the stand is dominated by Red Oak, followed by black oak, white oak, and red maple. Number of stems is dominated by the smaller diameter birches, red maples and shade tolerant understory tree species.

Forest health concerns: Drought, gypsy moth, pine weevil, emerald ash borer, Invasive plants (barberry, bittersweet and multiflora rose), wild grape.

There is one state-threatened, and four State special concern species documented within the forest. These sensitive species are mostly associated with rivers and streams.

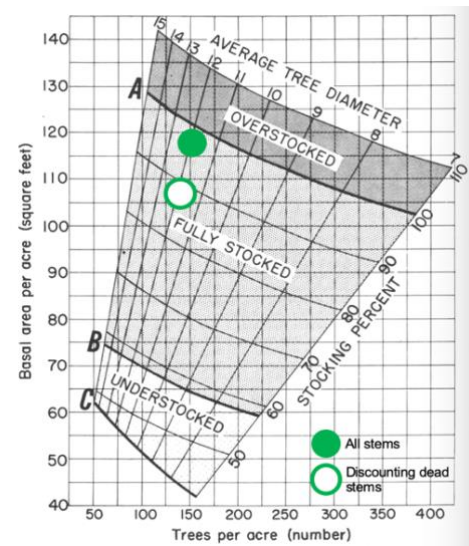
10-year goals

- Maintain and enhance forest health, productivity, and diversity.
 - Increase forest resilience to climate change
 - Improve wildlife habitat diversity through sustainable forest management
 - Control the spread of invasive plants
- Promote a balanced age-class representation across the actively managed acreage
- Increase public use and enjoyment of MSF
- Improve and maintain established roads to facilitate proper drainage and better access
- Improve wildlife habitat diversity through sustainable forest management and maintaining early-successional habitats

Desired Future Conditions

In 15 years: The forest will have a more balanced age-class distribution following silvicultural actions to improve forest health, habitat, and sustainability. Young forest habitats will be thriving. Climate-adaptation treatments will be serving as demonstration and research examples, and increasing forest structure and productivity. DEEP

Mohegan State Forest consists of multiple sections in Scotland, Connecticut, with portions reaching into surrounding towns. The smaller eastern sections include established trails and hemlock forests designated for old-growth management. The larger eastern section includes stands that were actively managed over 25 years ago. The oak-hickory stand (4-11) is the largest in the section and surrounds several red maple lowland stands, oak-pine and pine-hemlock groupings.



will be following-up on earlier management to ensure the continuation of regeneration cycles. The forest will serve the community with improved public access.

In 100 years: Regeneration-harvested areas will be nearing the end of their intended rotation and may require evaluation and potential regeneration plans. Forest composition should be largely maintained or potentially see increased levels of oak, and hickory species as climate change makes local forests more prone to summer drought. A diverse forest landscape will feature early, mid, and late successional forest. Mature forests will feature trees of great quality, form, health and vigor. Eradication of invasive species will result in more areas of diverse, healthy native vegetation. The forest will serve as a carbon sink, in both its above-ground biomass, and the long-lived forest products harvested from within its bounds.

Climate Change Considerations:

- Shorter and milder winters with less snowfall and frozen ground
- Increase in precipitation in winter and spring
- Extreme events (windstorms and drought periods) are expected to become more frequent and intense
- Shifts in suitable habitats resulting in changes in forest species assemblages:
 - Challenges for the recruitment and survival of oak seedlings
 - Suitable habitat for some species is likely to increase (northern red oak, black oak, white oak, red maple)
 - Less change anticipated for black cherry, sweet birch, and sugar maple
 - Suitable habitat projections for conifer species generally suggest declines; smaller declines projected for eastern white pine and pitch pine
- Increase in the extent and abundance of invasive plants as well as damage by forest pests and diseases
- Mortality of trees could lead to potential soil stability issues, increased light and temperatures on the ground, and shifts in wildlife habitat suitability