



Project Impacts

NSRC-FUNDED RESEARCH FINAL REPORT

Impacts & Future Projections From 30 Years of Forest Conversion in the Northeast

PROJECT AWARD YEAR AND TITLE:

2014

*30 Years of Forest Conversion in the
Northeast: Historical Patterns, Ecosystem
Service Impacts and Future Projections*

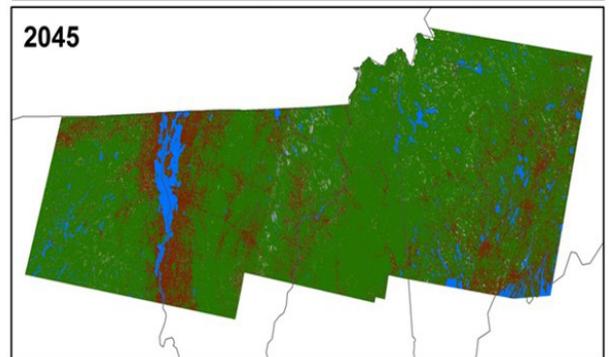
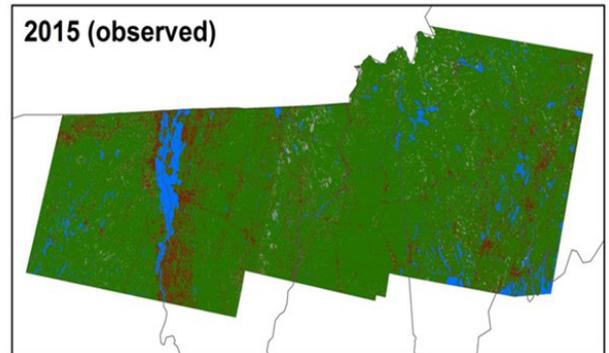
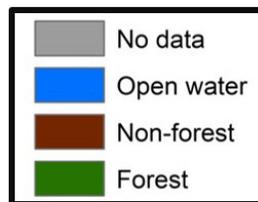
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The ability to monitor and assess changes in forest cover is critical to sustainable management of this important resource across the region. In particular, rural residential development can fragment forest cover and impact a range of ecosystem processes and services. However, current mapping of land use and land cover across the Northern Forest has primarily been limited to coarse scale national datasets or limited time frames.

To meet this need, researchers used novel remote sensing techniques to more accurately map forest basal area and generate a region-wide forest cover database from 1984-2015. The data and maps were used to examine historical patterns of forest loss and fragmentation in order to understand what drives forest loss, project changes in forest cover into the future, and identify areas of risk. While the rate of forest cover loss has varied over the last 30 years, the spatial patterns highlight an increasingly fragmented landscape, driven primarily by rural/suburban development pressures.

The researchers found a region-wide shift in tree species, varying by elevation – indicating that changes in species composition are mitigated by local site and climate factors. The greater level of detail provided by the maps and database allowed for improved carbon accounting and better understanding of the nature and extent of forest cover change over time. This information is critical to inform forest management and planning efforts.

