

Do Conservation Easements Promote Sustainable Management of the Northern Forest?

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We found that conservation easements encourage sustainable forest management and contribute to viable local communities in the Northern Forest region.

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<http://www.uvm.edu/envnr/nsrc/>

Project Summary

- Our study examined conservation easements for forested lands in Maine, New Hampshire, Vermont, and New York. The overall goal was to assess effects of conservation easements on management of forested lands and viability of surrounding communities. We surveyed easement holders, landowners, and forest managers to determine the extent to which 201 parcels protected by conservation easements are being managed for forest products and to evaluate compliance with selected principles of sustainable forest management, including those principles that relate to support of local communities. A second objective involved interviews of residents of three northern New England communities to assess the influence of easement-based land conservation on their communities.
- Nearly three quarters (74%) of respondents use written plans to guide forest management activities. Forest health, wildlife, and wood products continue to be the most popular management priorities for landowners with easements. Easements do not seem to be curtailing forest management investments. Commercial harvesting occurred since the easement was enacted on 54% of the properties for which we received responses. From 30 site visits and forester interviews, we found that recent harvesting on conserved properties appears to have been done carefully, with legitimate forest management objectives in mind. Management seems to have considered Best Management Practices for protection of water and soil, stand improvements, and wildlife considerations.

Project Summary (cont'd)

- Interviews with 48 individuals in three Northern Forest communities located near large (greater than 100,000 acres) conservation projects revealed the extent to which individuals and organizations participate in and are affected by conservation decisions, particularly as those decisions relate to outdoor recreation access, use, and sustainability. Results indicate that while the conservation process is similar across towns, public involvement depends on the landowners (both seller and buyer), the goals of the conservation project, and the shared issues faced by outdoor recreation groups, local businesses and residents, and visitors. Conservation projects that use public funds or result in public land ownership provide opportunities for public involvement, whereas private deals have limited or no public participation. Outdoor recreation and other interest groups tend to form alliances with each other when common issues are at stake, and social network models aid in identifying individuals and groups, such as local business persons, officers in outdoor recreation clubs, long-time residents, and government officials, likely to be knowledgeable and influential in local issues.

Background and Justification

- A conservation easement is a legal agreement between a landowner and a nonprofit land trust or government entity that permanently restricts the uses of a property to protect specified conservation values. Where active management for timber or other forest related receipts occurs, the term “working forest” easement is often used. Following a proliferation of easements since the late 1980s, some 2,000 properties covering over two million acres of forest are now under easements in Maine, New Hampshire, Vermont, and northern New York. The popularity of easements has caused many forest stakeholders in the Northeast, including timber companies, land trusts, and state agencies to seek a better understanding of how easements are affecting the sustainability of forests in this region and reshaping the regional forest industry. This project was a response to that interest--it investigated how easements are influencing the sustainable management of forest lands in the Northern Forest.
- Conservation easements in the Northeast date back to the 1960s. The first generation of easements was scattered across the landscape and limited to small acreages. Perceived and actual influences on forest management and forest economies in the region were limited. However, a global restructuring in the forest industry beginning in the 1980s caused several forestry companies to divest of expansive land holdings (Northern Forest Lands Study 1990). It could no longer be assumed that traditional forest lands would remain accessible for timber harvesting. State governments in Maine, New Hampshire, Vermont, and New York responded by creating the Northern Forest Lands Council to advise them on how to limit the conversion of forests to other uses.

Background and Justification (cont'd)

- One of the key recommendations of the Northern Forest Lands Council was to expand the breadth of conservation easements to conserve large tracts of working forest across a 26-million-acre Northern Forest region. As a result, the Northeast has witnessed an explosion of new easements, especially those applied to large properties. There are now over a dozen easements in the region exceeding 10,000 acres. Several existing or proposed easements are over 100,000 acres.

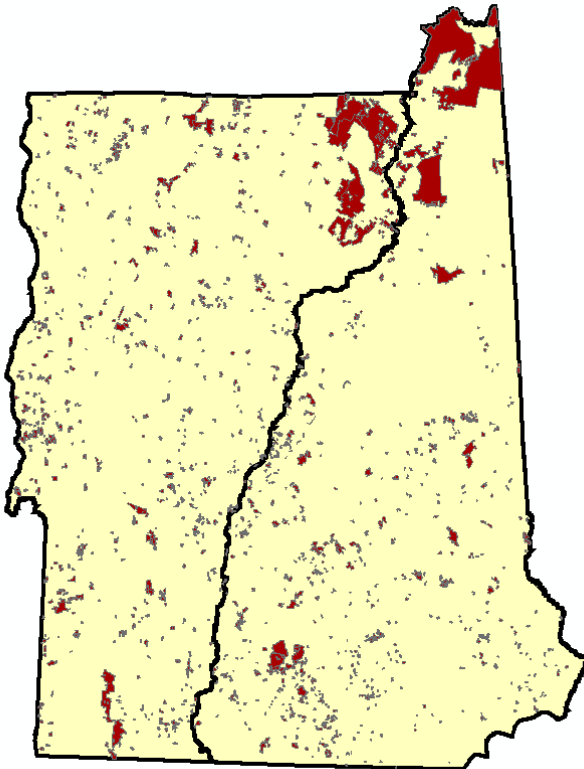


Figure 1. Working forest conservation easement properties in Vermont and New Hampshire

Methods

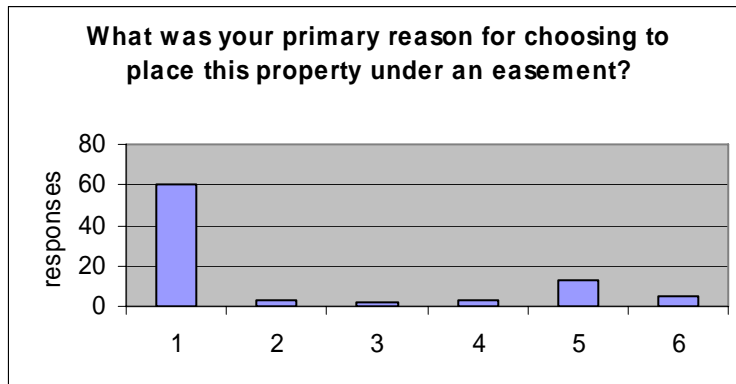
- Step 1: We compiled a database of conservation easement properties in New York, Vermont, New Hampshire, and Maine; the database is available in GIS format from UVM's Spatial Analysis Lab.
- Step 2: We selected a stratified random sample of easement properties for analysis: 43 in New York, 55 in Vermont, 71 in New Hampshire, and 32 in Maine.
- Step 3: We designed a mail survey for easement landowners that focused on the relationship between forest management activities on their property (e.g., land use history, current forest management, and objectives) and their easement.
- Step 4: We disseminated the survey to the landowners in the sample pool, then collected and tabulated results.
- Step 5: We augmented survey results with site visits and interviews with foresters who managed properties with easements.

Methods (cont'd)

- Step 6: We selected three towns – Island Pond, Vermont; Pittsburg, New Hampshire; and Rangeley, Maine – based on similar socio-economic and demographic characteristics, proximity to large conservation easement projects (greater than 100,000 acres), and availability of similar four-season recreation opportunities.
- Step 7: We selected and interviewed 48 people with a range of roles or positions within the three towns using purposive and snowball sampling techniques.
- Step 8: We transcribed, coded and analyzed interviews for common themes.
- Step 9: We created and analyzed social network models of the interviewees from the three towns.

Results/Project outcomes

- We received 23 completed questionnaires for properties in New York, 30 for Vermont, 52 for New Hampshire, and 31 for Maine. Properties represented by these responses totaled 1,253,805 acres.
- A genuine desire to conserve land was the overwhelming reason for easements on forest land; 70% of respondents want to keep their land in a “natural” condition in perpetuity. Only 3.5% of respondents indicated that improving forest management was the primary motive for seeking an easement.



1. I wanted to keep the property in a “natural” condition in perpetuity.
2. I wanted to improve forest management.
3. I wanted to qualify for a current use tax credit program.
4. I wanted to benefit from a charitable income tax deduction.
5. I sold the easement as a good business venture.
6. Other.

Results/Project outcomes (cont'd)

- Written management plans guided forest management on 74% of the properties in the survey; many of these properties did not have management plans before their easements. Thus, requirements of easements appear to have stimulated development of forest management plans. Management plans were most common in Vermont (in use for 90% of responses) and least common in New York (52%).
- A mandatory forest management plan is the norm for recent working forest easements in the Northern Forest. In a review of 32 easements, we found that those written since the early 1990s require that forestry activities be guided by a forest management plan.
- Eighty-three percent of respondents indicated that forest health was the highest priority for management. Wildlife was a priority in 77% of responses, wood products in 68% of responses, and aesthetics in 67%.
- Twenty-eight percent of respondents indicated that their property was certified, or being certified, by one of the sustainable forest management programs.

Results/Project outcomes (cont'd)

- The survey found that commercial harvesting occurred on most properties in the 20-year period preceding the easement. By contrast, commercial harvesting occurred on just 54% of properties after they were conserved. When asked “why,” however, respondents most commonly indicated that the forest was understocked and that harvesting would occur when appropriate. There appeared to be no aversion to future harvests on easement properties in the survey, as most landowners intend to pursue commercial timber harvesting on their conserved property within the next 10 years.

Results/Project outcomes (cont'd)

- The conservation projects near the three study towns where interviews were conducted each followed the same general five-step model: 1) Project Initiation; 2) Negotiations; 3) Partnerships and Funding; 4) Completing the Deal; and 5) Management and Stewardship.
- The public, including outdoor recreation interests, may or may not be involved (or represented) in each of the steps. Differences in participation by the public are attributable to public funding and public ownership. The public is involved in the conservation process if public funds are used and if the project results in public ownership of lands.
- Differences in participation by the public did not correlate with the level of support for the projects. The public was not involved in the project near Rangeley, Maine but evidence showed that the community supported the project.
- In the general sense that the public could continue to access the conserved properties, the land conservation projects did *not* change access to those local lands. Access was *forever* changed in Island Pond, VT and Pittsburg, NH, however, by the guarantee of the public's right to access those lands in perpetuity by the public access easements. While the conservation easement near Rangeley, ME did not guarantee public access, part of its purpose was to conserve the historic public recreation opportunities for present and future generations.

Results/Project outcomes (cont'd)

- Analysis of the social network models showed that most outdoor recreation groups in the three study areas do not work together, at least not formally, even though they might have network ties or overlapping memberships. The research found, however, that recreation interest groups form strategic alliances based on shared interests such as restricted access or use of the conserved lands.
- While there are similar types of outdoor recreation interests in the three study towns, there are differences in how those groups are linked, with each other and with other community and state interests. In general, interviewees tended to link traditional recreation interests with each other (hunting, fishing, snowmobiling), and motorized, nonmotorized, consumptive, and nonconsumptive interests were clustered, but not necessarily linked. Recreation interests that are unorganized, such as kayaking, were not linked to other interests and may not have as loud a voice if their interests (e.g., access to rivers and lakes) were threatened. Recreation interest groups and spokespersons largely remained unchanged upon completion of the conservation projects.
- Although all-terrain vehicle (ATV) riding continues to grow in popularity, those groups remain relatively separate from other recreation activity groups in the three study towns. Respondents did, however, identify the people involved in those groups as local leaders. ATV groups do not have the same established relationships with local private landowners that snowmobile groups enjoy, resulting in limited opportunities to use those lands.

Implications and applications in the Northern Forest region

- The number of conservation easements in the Northeast and the acreage of forest land covered under easements have grown dramatically over the past decade. Today, easements in Maine, New Hampshire, Vermont, and northern New York apply to about 3,000 forested properties encompassing 2.5 million acres.
- The survey we conducted suggests that the typical landowner with a conservation easement is happy with that easement, has multiple management objectives including keeping the forest in a “natural condition” *and* harvesting wood products, and does not believe that the easement hinders their freedom to manage the property in the way they want. Most landowners regularly harvest wood from their conserved property.
- During the time that easements have been spreading across the Northeast, their content has been evolving. Easements enacted over the past decade tend to provide clear direction – that is, they are more explicit about what forest values are to be conserved and why. They may also stipulate more specific forest management objectives. But the details are usually deferred to a management plan prepared by the landowner (or their forester) that can be updated on a regular basis.
- Our study indicates that the recommendation by the Northern Forest Lands Council to expand the use of conservation easements to protect large tracts of working forest is being followed and used effectively to encourage sustainable management of forest resources.

Implications and applications in the Northern Forest region (cont'd)

- While public involvement and support varied across the conservation projects, people simply wanted their concerns to be heard and addressed. Involving the public early in the process, both formally and informally, provides opportunities to gather ideas on how to balance competing demands.
- While the five-step conservation model is helpful in understanding the process, it is also important to consider the context of the communities before and after the conservation projects. These projects are not isolated events in time but interact with an established local culture and introduce potential changes to local traditions, including outdoor recreation access and use of local private lands. If the public is not allowed to voice their concerns, much less participate in the process, these potential changes will be met with resistance and the community is less likely to offer support for the project.
- Conservation organizations and government agencies can use social network models to gain knowledge about positional, reputation, strength, and other network tie characteristics to identify local community leaders and develop strategies to involve them and the groups that they represent. Understanding which individuals and groups possess knowledge and influence within communities can provide a more efficient and targeted effort in establishing partnerships, sharing information, and exchanging other resources.

Future directions

- New York, Vermont, New Hampshire, and Maine should coordinate the continued development and maintenance of a spatial database of forest lands conserved by easements.
- Future research should analyze spatial patterns of easement properties in relation to other types of conserved lands. Priorities for future land conservation should consider the connectedness of easement parcels.
- Future research should be directed towards the long-term economic, social, and environmental impacts of land conservation.
- Future research could explore the provision of outdoor recreation opportunities by land conservation organizations.

List of products

- Davis, B. 2007. Conserving community: Assessing the participation and social networks of outdoor recreation interests in three Northern Forest land conservation projects. M.S. Thesis, University of Vermont. 157 pages.
- DeGooyer, K., and D.E. Capen. 2004. An analysis of conservation easements and forest management in New York, Vermont, New Hampshire, and Maine. Final report to North East State Foresters Association. 75 pages. (Available for download from <http://www.nefainfo.org>)
- DeGooyer, K. 2005. Working forest easements in the Northeast: landowner experiences, easement content, and the working forest/reserve model. M.S. Thesis, University of Vermont. 144 pages.