

MAINTAINING THE WORKING FOREST: Strategies for Resolving Forest Land Use Conflicts in Northern New England and New York

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Introduction

As is the case in Japan, the forests of New England are important to the economy and social well-being of the region. The increasing population pressures and changing demands for forest goods and services affect every aspect of the practice of forestry in New England.

New England is the six state region located in the extreme northeastern part of the United States. The six states are Connecticut, Rhode Island, Massachusetts, Maine, Vermont, and New Hampshire. Although the State of New York has many similarities with New England (once New York City is excluded from the comparison), New York is not part of New England.

For the last ten to fifteen years, New England's six states and parts of neighboring New York have undergone intensive development. The region's vast forests are now subject to new pressures which threaten their capacity to provide the goods and services people demand. The issue we in New England must resolve is how to maintain a working forest in a region where societal goals are increasingly in conflict with the concept of the working forest. By working forest, I mean a forest which provides for the full range of uses: timber, wildlife habitat, water quality, recreation and open space. Two major themes deserve our attention.

First, there is the obvious direct pressure for forest land conversion to developed uses in the more populated regions. Specifically, as the metropolitan areas of Boston, Hartford, New York City and southern Maine and New Hampshire grow, increasing land areas are converted from forest to housing, shopping centers and highways.

Second, as the forested wildlands disappear from the fringe of the urbanized areas, the people's attention is drawn to the millions of hectares of forests in northern New England and

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New York as the last refuges from urban stress. This expansive area has always been an important component of the working forest and a part of New England's mystique for both the region's residents and visitors.

The specific purposes of this paper are to provide an overview of:

- A. changes at the interface between forestland and urban areas,
- B. new pressures on the forestlands of northern New England, and
- C. strategies for maintaining working forests both at the urban fringe and in the northern lands.

The Forestland/Urban Area Interface

New England is both a heavily populated and heavily forested region. Over 14 million people live in New England; and 80 percent of the region's 16 million hectares of land are classified as timberland by the United States Forest Service. Much of the current conflict between forest and urban use takes place in southern New England and in New Hampshire. We can look at New Hampshire, which has been one of the most rapidly developing states in the U.S. for twenty years, to gain some insight into problems facing the entire region.

New Hampshire's land area is approximately 2.24 million hectares, 84 percent of which is classified as timberland by the US Forest Service. This is the highest percentage of forest cover in the state since the mid-18th century. In the middle of the 19th century, New Hampshire was only 35 percent forested. However, the collapse of agriculture toward the end of that century led to farm abandonment and the subsequent re-growth of the forest.

Our current high percentage of timberland is misleading. While the total area of forest is very high, the average size of nonindustrial private ownerships continues to become smaller and smaller. Our ownerships are becoming increasingly fragmented; their usefulness as forests for wood production and wildlife habitat is decreasing. And, thousands of hectares now support an understory of houses rather than young trees.

Fragmentation and conversion to other land uses will continue at a rapid pace, especially in southern New Hampshire. Our state's population, which is now slightly higher than 1 million people, will grow approximately 1.4 percent annually, yielding 1.5 million people by 2020. Most of this growth will occur in the southern parts of the state which are within one hour's commuting time of the high technology manufacturing region surrounding Boston. This

increasing population and accompanying development will convert over 600,000 hectares of New Hampshire forestland 2020.

Within the developed zone, even the remaining forest will lose much of its traditional usefulness. There is a shadow impact on forests from neighboring development. The new suburban dwellers are alienated from the processes required to obtain natural resources from the forest. They do not understand that the wood products they need for their daily living and the wildlife they enjoy viewing are available only through active management of forestland. And, there is a trend for new owners of tracts less than 40 hectares in size to exclude active management due to perceived adverse ecological impacts.

Many people in New Hampshire and throughout New England do not understand natural resource management. They do, however, have great political power. As a consequence, forestry is becoming a more highly regulated activity in the region. The viability of the forest products industry in some subregions is jeopardized. Local land use ordinances and other regulations unfavorable to natural resources management have been enacted. Ironically, many of these ordinances were created by local governments to protect forests. But, the laws often make forest management economically unattractive. Some landowners then sell to developers who erect housing, shopping centers and industrial parks thereby thwarting the noble purposes of these legal measures.

There has been some recognition of the adverse impacts of development and loss of forest and agricultural lands in the U.S. All New England states (and many other states) have enacted property tax relief programs which provide for taxing property in its current productive use rather than at its highest economic use. Thus, a forested tract near a city can be taxed on the basis of its timber income potential rather than on its value as a potential shopping center.

I believe two trends will accompany the increases in population and development. Local government control of forestry activities will increase and, due to tax revenue problems, current use tax relief programs will be reduced in scope.

We will certainly lose many traditional uses of the forest. For example, the forests in southern New England provide Europe and Asia with thousands of cubic meters of high quality red oak (*Quercus rubra*) sawlogs and lumber. But, in much of the red oak timbershed, we are mining the resource. Sustained yield management is not possible due to rapid development or to increasing restrictions on forest management.

I should not paint a too pessimistic picture for forestry in the urban fringe areas. Despite the negative forces, small urban forests will remain important. They can provide valuable open space and habitat for some wildlife species. Small woodlot management for aesthetics and wildlife and for Christmas tree farming are excellent alternatives. We will need to develop better ways to do implement that management. Many of our traditional management tools will not be appropriate or economically efficient. We foresters must communicate better with landowners and the public so that we can use our professional expertise to help those groups attain their objectives. I do know that we are now adjusting what we teach in U.S. forestry schools to better prepare our students to deal with the new reality of forestry on the urban fringe.

The Northern Lands

Across the northern tier of New England and New York lies a tremendous forested region which is largely privately owned by individuals, families, investment groups and major forest products companies (Table 1). This region is home to a major part of the U.S. forest products economy. There are several hundred sawmills, ranging in annual productive capacity of 6000 cubic meters to 600,000 cubic meters. There are 20 pulp mills ranging in daily capacity from about 50 metric tons to 2500 metric tons. In addition, there are nearly a dozen facilities which generate electricity from burning wood.

Table 1: Land Ownership in the Northern lands Study Area (Thousand of Hectares)

	Maine	New Hampshire	New York	Vermont	Total
PRIVATE LAND					
Industrial	3117	202	486	121	3927
Large Nonindustrial	1255	20	202	20	1457
Other Private	1377	142	1255	628	3401
Total Private	5749	364	1943	769	8826
PUBLIC LAND					
State	283	20	1134	36	1473
Federal	32	81	0	2	115
Other Public	9	20	0	2	31
Total Public	324	121	1134	40	1619
TOTAL AREA	6073	486	3077	810	10445

In 1988, Diamond International Corporation sold its 386,000 hectares of forestland in Maine, New Hampshire, Vermont and New York. Ninety-one thousand hectares of Maine timberland were sold to a Canadian forest products concern. Another 223,000 hectares of Maine land were acquired by a U.S. forest products company in a joint venture with Diamond. However, the remaining 73,000 hectares in New Hampshire, New York and Vermont were sold to two development companies. Many quasi-public interest groups and political leaders, feeling that there was a threat to the values traditionally available to the public from the private lands, launched a successful effort to purchase at least a portion of those lands.

These high profile transactions created sufficient concern to lead the United States Congress to authorize the U.S. Forest Service to assess forest resources of the so-called Northern Forest Lands, or North Woods, and to identify strategies to protect the long-term integrity and traditional uses of the land.

The final report of this year long study is currently being reviewed by federal, state and local government agencies, forest industry, professional societies and citizen interest groups. It has been my pleasure to have provided two background papers for the study and to have helped guide the review and response of the 1300 member New England Society of American Foresters.

Several major forces for change have been identified. First, there has been a shift in how major corporate owners view their forestland holdings. Second, fundamental changes are occurring in the economics of timber growing. Third, there have been changes in the development value of northern forestlands and in the markets where that land is sold. And, finally, as forestland disappears in the urbanizing parts of the industrial northeast, the people's attention has naturally shifted towards the remaining forested tracts of the North Woods.

Traditionally, North Woods forest products companies owned land as a strategic asset to provide fiber supply security to their capital intensive pulp and paper manufacturing facilities. Beginning in the mid-1970's and continuing through the 1980's, corporate owners came to view the forest as a capital asset to be managed for financial returns.

This key change was accompanied by major restructuring of the ownership of the pulp and paper industry throughout the U.S. and by highly publicized hostile and friendly takeovers and acquisitions of companies like Diamond International and Crown Zellerbach by James Goldsmith, St. Regis by Champion International, Container Corporation of America by Jefferson-Smurfit, to name but a few. Georgia-Pacific Corporation has acquired Great Northern Nekoosa to become the largest forest products company in the United States.

Restructuring has the potential for major land ownership shifts as was the case with the Diamond transactions. Moreover, some companies have altered their corporate land ownership structure to prevent the value of the land from being used by external investors to pay for a successful hostile acquisition of the company. It is these changes in ownership, structure and potential selling of assets which has triggered wide spread concern about maintaining traditional uses of the forest. This is particularly true for public recreation access to heretofore very accessible industrial forest land.

Timber growing economics have also changed. Widely held expectations of continually rising real prices for stumpage were shattered with a major downturn in prices for many species and products during the inflationary years of the early 1980's. Favorable tax treatment of income from timber sales was eliminated in 1986 and will not likely be restored. Moreover, favorable property tax treatment of forestland is constantly under siege from taxing districts needing new revenues and from interest groups who believe there are shifts in tax burdens from wealthy forestland owners to other property owners.

Completion of a high-speed highway transportation system, expanding populations and increasing real incomes have lead to a substantial increase in demand for recreation, and for second home related recreation such as ski areas and all-season resorts. Land bordering on water bodies is in the highest demand. Clearly, the development value of land in many parts of the northern lands greatly exceeds its income potential as timberland. This development value can provide the cash to pay for takeovers of corporate owners. Nonindustrial owners find it hard to resist selling their lands for development and investing the cash received in more attractive alternatives.

The North Woods of New England and New York have always held special attraction to the millions of people of the region. The image of vast woodlands as a refuge from industrial areas has been important for decades. It is probably irrelevant that people's vision of a North Wood wilderness contrasts starkly with the reality of a major privately-owned road network, intensive forest management, significant water flow control structures and communities dependent on the forest products industry. Although the vision is in conflict with reality, New Englanders have always enjoyed the benefits of recreational access to these private lands. Perceived threats to this access by shifts in ownership and subsequent subdivision of large tracts into smaller ownership units drive most citizen groups' interest in the Northern Lands Study.

The changes outlined above will lead, unless new public and private policies are implemented, to a diminishing timberland base to support forest industry, a shift away from a manufacturing-based economy to a recreation-based economy, and more adverse impacts on water and land resources from intensified recreation and development. Some development is both necessary and desirable. However, we must exercise care to ensure that the working forests of northern New England and New York continue to provide the goods and services we have traditionally valued.

Strategies for Maintaining the Working Forest

Effective strategies for ensuring that the forests of New England continue to play a major role in the social and economic well-being of New Englanders must recognize that the forestland of the region is, to a greater extent than anywhere else in the United States, privately owned. Moreover, policy actions for the urban interface and the northern forestlands will be very different.

At the Urban Interface

In southern New England and parts of northern New England where urban development is the most important factor affecting forestland, the primary tool for protecting natural resources has been, and will continue to be, municipal level land use laws (zoning) and regulation. The purpose of zoning is to guide and shape development in those areas where it would be most appropriate and to ensure that development meets certain requirements.

The draw back to zoning in New England as it relates to forest resources, is that few zoning ordinances are based on ecosystem science. Moreover, zoning ordinances are largely the products of individual municipal action. Each little town and major city has its own set of zoning ordinances; there are few mechanisms to ensure uniformity or coordination among adjacent communities. This is unlikely to change because New Englanders are proud of, and defend dearly, the idea of local control.

Regulation of forestry and other land uses has both positive and negative aspects in New England. The forestry community's greatest fears were realized in Connecticut where each municipality has adopted its own regulations. A timber stand belonging to the same landowner could be regulated differently if the municipal boundary passed through it. Massachusetts foresaw the difficulties of leaving forest practice regulation to the municipalities and enacted

state-wide forest practices legislation. With the support of forest industry and professional foresters, Maine, too, has laid the foundation for state-wide legislation. Other New England states will certainly enact forest practice regulations in the near future.

Another tool for the urban interface is the acquisition of lands for conservation purposes. This has been carried out in all the New England states. Important natural areas, wildlife habitat, wetlands, river corridors and some recreation lands have been purchased outright or easements have been bought by both public agencies and private conservation interest groups. Due to the high market values of threatened conservation lands in urban interface areas, easements and purchases are very expensive propositions.

There are some effective programs for acquiring certain rights to special parcels of land by state and local governments and by charitable organizations. Acquisition of easements or fee simple title to conservation lands in developing areas can be effective because it is there that private sector ownership is under the greatest pressures. I should note that the New England economy is now softening, so some of the development pressures in the urban fringe should abate. While we will have more time to plan for the future, money to implement plans will become increasingly scarce during any recession.

New Hampshire has established a unique public-private cooperative venture called the Trust for New Hampshire Lands. The Trust is a private legal entity which acquires critical conservation lands of state-wide and local importance. Most of the money needed for acquisition is provided through a publicly funded bond issue. Their most important acquisition to date was the 1988 purchase of 19 thousand hectares of Diamond International's New Hampshire timberlands in the Northern Lands region.

In the Northern Lands

The US Forest Service and others are advocating a mix of strategies to protect the timberland base, provide for public access of recreation, and accommodate necessary development. Their specific objectives are to:

1. maintain large tracts of private forest land through incentives,
2. keep private land open to public for recreation and hunting,
3. improve the ability of local and regional governments to zone and plan appropriate land uses,
and

4. obtain easements to important conservation lands and acquire, when necessary, additional public land.

It does seem clear that the market forces and public policies that led to the current interest in the area will be modified. Environmental interest groups and others are supporting the concept of coordinated public and private activities within an expanded Northern Forest Lands region. This expanded area would be legally designated; a green colored line would be drawn on a map. Similar concepts have been instituted in other parts of the U.S. including the Pine Barrens of New Jersey, the Columbia River Gorge in Oregon and Washington, and the Adirondack Preserve in New York. The color of the line varies on the maps, but the idea of giving geographic definition to a region of concern is the same.

Within the green line, there is a wide variety of possible policy and land planning alternatives. These range from a healthy mix of public incentives and private initiatives to an almost pathological desire to create massive tracts of federally owned land in a region which has been characterized by one and half centuries of private ownership. An additional problem of greenlining a region is that adjacent areas outside the boundary are consigned to whatever fates have been blocked from the area inside the boundary.

The major policy thrust of the Forest Service's study will be to provide incentives for maintaining large tracts of land for long run forest management. Most of these incentives are expected to be favorable changes in income, property and death tax laws in exchange for commitments to long run management. These large tracts are crucial for providing the timberland base for the forest products industry and the communities which are dependent upon that industry.

A second proposed policy is the public acquisition of recreation access rights. There has been a long history of open access to the forests of New England, particularly on the major industrial and nonindustrial ownerships. In fact, in Maine and New Hampshire, major private owners have formed management organizations to deal with the thousands of recreationists who visit their lands. Recreation access will be a key part of any policy initiative. We can expect governments to negotiate with landowners for access rights to large blocks of timberland and to important travel corridors across private lands. Such recreation access rights have already been acquired by the State of New York on 8,100 hectares of private forestland for approximately 80 percent of the wholesale value of the timberland. Clearly, public recreation access is a valuable component of the forests in the Northern Lands Study Area.

State governments will also need to alter landowner liability laws to protect landowners from law suits filed on behalf of people injured or killed while on private land open for recreation. Landowners cannot be negligent in their care of the land in service to those who might enter the property, but they do need to be protected against the carelessness of the recreating public.

Third, at a minimum, we can expect improvements in the legal system and technical and financial assistance to local communities and regional planning commissions to improve planning and zoning practices in their jurisdictions. However, due to the fragmented nature of government control in region, I see this approach as affecting change only at the margin. State governments do not have the political will to implement massive controls. Therefore, there will be little coordination of efforts. It will not significantly alter the decision making of landowners and developers.

A final policy proposal is the acquisition of easements on, or direct purchase of important conservation lands from private landowners. Easements to certain lands with important natural features such as habitats for rare and endangered species are likely possibilities and would have wide political support. An additional advantage is that easements are usually significantly less expensive than complete public acquisition.

Expansion of public land ownership is probably the least attractive policy alternative. It is expensive and our region has never seen public ownership as a very attractive alternative to private ownership. If there is to be expanded public ownership, however, state rather than national government ownership is preferred.

Recently, we have not had very happy experiences with federal ownership. The last significant federal acquisition in the developing areas of New England was the purchase of the Cape Cod National Seashore during the late 1960's and early 1970's. Even today, the government is still trying to develop a coherent and effective management plan for an area which attracts hundreds of thousands of visitors each summer. In New Hampshire, the White Mountain National Forest has struggled to develop a politically acceptable management plan. And, in the 1960's, the State of Maine moved to create the Allagash Wilderness Waterway to preempt creation of a federally owned and managed recreation area in the North Woods of that state.

Social Issues in the Northern Lands

One of the major shortcomings in all this concern for the Northern Forest Lands is a near total disregard for the human dimensions of the system. The natural resource situation and trends have been well documented and the economic statistics have been prepared. The policy alternatives which have been developed and disseminated for discussion focus almost exclusively on the land and its current or potential owners. This social needs of the people who live in this region have not been addressed well. And, there has been no assessment of the impacts of policy alternatives on indigenous social systems.

There are some reasonable explanations as to why the social concerns were not treated in the Northern Forest Lands Study by either the Forest Service or the many interest groups which have been a part of this process. First, and probably most important, the U.S. Forest did not have the time or resources to include social issues in the analysis. Second, as a natural resource management agency, social impact assessment is not something that comes readily to them or to their many natural resource oriented consultants. The third reason is political in nature.

The power to bring change to the Northern Lands resides in massive numbers of voters who reside in the metropolitan areas that follow the Atlantic seaboard from Boston to Washington, D.C. The people in these regions regard the Northern Lands as a vast wilderness or an unending recreation resource. They do not see the local people who earn their living from the working forest. They do not see the forest products industry and the private sector as good stewards of the land, although it is that stewardship which is largely responsible for creating the environment which some interest groups seek to preserve by shifting ownership to the federal government.

Because there are relatively few people who actually live in the Northern Lands region, they have very little political power. The needs of the region's people for economic and social improvement have not been addressed and will, for the most part, be ignored by outside interest groups.

At the University of New Hampshire, we have begun to bring together the research resources necessary to understand the social and economic impacts of the alternative strategies proposed for the Northern Lands. Our hope is to help guide public policies and private initiatives to achieve the greatest good for the people within and outside of the region. Our concern is that the political power of interest groups may bring about major governmental actions without fully

understanding the ramifications of those actions. For example, one well-meaning group has proposed the creation of an 800,000 hectare preserve. Although there are disagreements with its findings, the group did examine a broad range of natural resource questions. However, the socio-economic aspects of the proposed preserve were only superficially addressed.

Conclusion

The people and the forests of New England and New York are facing major changes in the coming decades. Whether we can manage those changes for society's benefit and maintain a healthy, productive forest remains to be seen. The issues are complex, resisting simple solutions. But the well-being of our region's people and the environment in which they work and play depend on our initiative and imagination.