

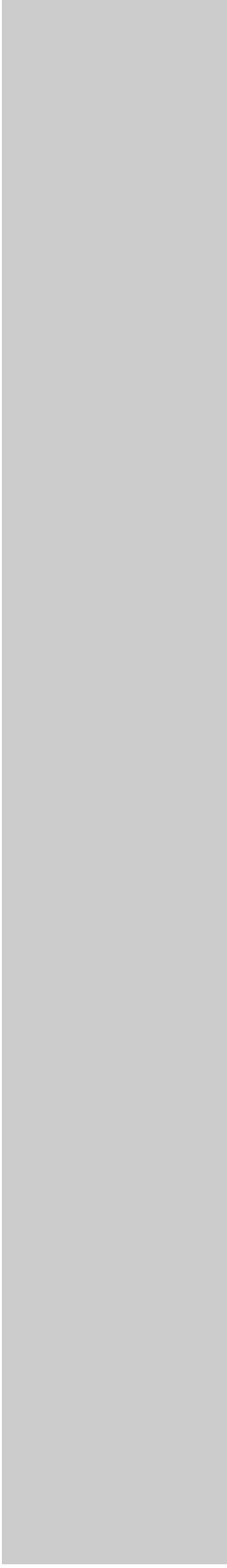
## **IV. PROMOTING MORE INFORMED DECISIONS**

**With increasingly complex technologies and sharpening focus on uses and conservation of natural resources, education and information transfer is needed by professionals and lay persons alike. Economic success and effective public policies depend on continued evolution of understanding.**

**As a culture, we are losing our intimate ties to the land, as most of our population inhabits urban and suburban environments. If people are to remain close to the land, they must have better education about natural resource issues.**

**Many of the Council's recommendations call for actions by an informed citizenry. The Council believes that individuals, their communities, and their work places—empowered by knowledge—can affect changes to improve their lives. Education and technical assistance are vital tools that allow them to keep pace with a rapidly changing world.**

**Therefore, this group of recommendations are intended to provide appropriate educational opportunities to all ages, so that natural resource conservation becomes a major component of school curricula; create the means for open and efficient technical assistance to landowners and others requiring it; and collect information necessary to assess the condition of the Northern Forest and trends affecting its future.**



## Research and Technology Transfer

### State University Cooperation

Forest products businesses, forest land managers, and forestry policy makers need increased transfer of information to make better decisions. In some instances, little research exists. In others, research exists but is not readily available to decision-makers. State universities are important resources for research and information dissemination; they can refine their research based on individual state needs. Simultaneously, a coordinated approach among universities could eliminate duplication of effort and enhance information-sharing among states.

Many forest products businesses, especially smaller ones, are unable to adopt new technologies that would enable them to participate more fully in rapidly changing and expanding wood products markets. Several factors influence the markets. National timber supply shortages prompt rapid technological changes in both wood product engineering and manufacturing. Improved communications—and greater mobility of people and products—throughout the world make it possible for primary and secondary wood products industries to compete in a global economy, rather than just in a local, state, or regional one. Consumer preferences are shifting to recycled products and may soon favor those produced using sound forestry practices. If they cannot keep up with these changing markets, many forest products companies in the region will miss opportunities to manufacture new products and apply state-of-the-art research and technologies to product development and manufacturing.

For broader forest policy, ecosystem management is an emerging approach to forest use. The Society of American Foresters' Task Force Report on Sustaining Long-term Forest Health and Productivity defines ecosystem management as the strategy by which, in aggregate, the full array of forest values and functions is maintained across the landscape. Federal agencies are beginning to incorporate this approach into their management activities. To date, most ecosystem management research has been on federal lands; this research needs to be expanded to other ownership types. In addition, information gaps must be identified and addressed. As information becomes available, it is critical to disseminate it to state and private landowners so they can incorporate it into their management activities.

**Recommendation 33, to support cooperative efforts among four state universities.** The state universities and USDA Forest Service—State and Private Forestry should support formal cooperative efforts among the forestry schools of the state universities in the four Northern Forest states. These cooperative efforts should include:

- (a) working with state forest roundtables (described on page 93).
- (b) working with the Northeastern Forest Experiment Station to increase research and transfer technology to the wood products industry on efficient and most up-to-date wood processing, and ways to reduce waste, pollution, and energy consumption in the industry. Information should be practical and usable for small firms.
- (c) serving as a clearinghouse on ecosystem management and on public and private programs affecting ecosystems. Specifically, this formal cooperation should.
  - (1) collect existing research and information;
  - (2) broaden this information base through additional research.
  - (3) disseminate existing and new information to landowners, public and private resource managers, state forest roundtables, and the general public.

For related recommendations, see recommendations 10 (Education about Sound Forest Management), 11 (Forest Practice Regulations and Programs), 12 (Cooperation to Achieve Sustainability), 15 (Identification of Lands of Exceptional Value), 21 (Biological Diversity), 23 (Market Development and Expansion), and 37 (Natural Resource Education for the Public).

**Responsible agency.** State universities, USDA Forest Service - State and Private Forestry and Research units should cooperate with landowners, the forest industry, environmental organizations, state forest roundtables, and other university departments, state and federal agencies, and interested parties to implement this recommendation.

**Related Findings in the Appendix.** Biological diversity 6; and local forest-based economy 3, 12, 13, 15, 22.

**References.** C.T. Donovan and Associates, Inc., Global Economic Trends that Affect the Forest-Based Economy in the Northern Forest Lands, October 1993.

Northern Forest Lands Council, Summary of Public Comment on the Draft Recommendations, August 1994.

Northern Forest Lands Council, Summary of Proceedings: Biological Resource Diversity Forum, December 9, 1992.

Northern Forest Lands Council, Summary of Proceedings: Forum on Forest-Based Economic Development in the Northern Forest, April 4, 1992.

Northern Forest Lands Council, Summary of Proceedings: Forum on Building Local Economies With Wood Products and Forest-Based Recreation and Tourism, June 14-15, 1994.

Society of American Foresters, Task Force Report on Sustaining Long-term Forest Health and Productivity, 1993.

### Land Conversion Trends

Well-documented data on land conversion trends in the Northern Forest are scant. In addition, timely and easily accessible information about the forest is lacking. The Northern Forest Lands Study and Governors' Task Force on Northern Forest Lands, and later the Northern Forest Lands Council, were created in reaction to the sale and feared conversion of nearly one million acres of forest land once owned by Diamond International Corporation. Many perceived the sale as an historical shift in land ownership and use, yet no data existed that could prove or disprove this perception or identify why such a shift might have occurred.

One of the Council's first tasks was to document how much forest land was sold, converted to other uses, or developed during the 1980s. We collected information for tracts greater than 500 acres; however, we could gather only existing source information (inadequate as it was) on smaller parcels. While the study of large ownerships is unique and valuable, it does not show whether development in the 1980s was substantially different than in other eras, since no similar data exist for those periods.

We learned from these studies that not a large conversion of land to non-forest uses occurred from 1980 to 1991. But at the same time, lands with exceptional public values (shorelines and scenic areas) were disproportionately converted and fragmented, compared to forest land without these attributes. Without good data, it is difficult to assess how this conversion affects the character and traditional uses of the Northern Forest.

The states must continue to document trends in land conversion, land use, and forest use and growth. An accurate and up-to-date database will allow states to act deliberately on emerging land conversion and forest use issues, avoid crises, and use limited government resources more efficiently.

**Recommendation 34, to track and analyze land conversion trends.** Appropriate state agencies should develop information management systems to track and analyze real estate conversion trends. Timely collection and analysis of such information, consistent between states, would enable states to make more informed decisions for land conservation efforts. This would include the magnitude, number, and location of subdivisions, consolidations, and land sales.

*"In order for states to keep track of forest land use trends, new information collection systems are required for tracts of all sizes - but particularly for tracts of less than 500 acres - in order to better understand the impact of forest land conversion on traditional land uses. This will also allow for a better understanding of environmental and land use regulations and their effects on land sales and conversions."*

Land Conversion Subcommittee  
Finding #28, page A-22.

### USDA Forest Service Decennial Surveys

Congress charges the USDA Forest Service with collecting and publishing data on forest resources in each state every ten years. The data include acres of forest land, timber volumes and quality, landowner demographics and attitudes, and other related information.

Historically, these surveys have not been conducted and published in a timely manner. The resulting data are essential for public policy decision-making, and must be timely. Additional information over that gathered in past surveys, including data on biological resources, should be included in future surveys. The Forest Service should be sensitive to, and respect the rights of, private property owners in these surveys.

**Recommendation 35, to conduct and publish decennial surveys in a timely fashion.** Congress should provide the funds necessary for the USDA Forest Service to conduct and publish decennial surveys in a timely fashion.

### Northern Forest Resource Inventory

During the Northern Forest Lands Study of 1990, it became clear that forest-related information in the states was not available in a consistent and readily usable form. The Congress and governors recognized this and, as part of the Council's work, included funding for a state-based Geographic Information System project to compile existing natural and economic resource information in a consistent format. (See Appendix F for details on the status of this project.) This inventory now needs to be available to local and regional organizations within the states, to assist them in their decision-making.

**Recommendation 36, to use the Northern Forest Resource Inventory.** In their land conservation and planning efforts, states should use the natural and economic resource data provided through the Northern Forest Resource Inventory.

For related recommendations, see recommendations 11 (Forest Practice Regulations and Programs), 12 (Cooperation to Achieve Sustainability), and 33 (State University Cooperation).

**Responsible agency.** Appropriate state agencies which collect land sales and conversion information should act on Recommendation 34 immediately, to update the existing land conversion study data quickly. State natural resource or planning agencies should monitor and act on the land conversion data collected. For Recommendation 35, Congress should

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review immediately the funding level for the USDA Forest Service decennial survey and assure adequate funding in the next budget cycle. The Forest Service should immediately make a priority the timely completion of the surveys. For Recommendation 36, state conservation agencies should immediately take advantage of the data.

**Related findings in the Appendix** Land conversion 9, 28; biological resources 8, 10, 13, 15; local forest-based economy 7, 8, 9, 12, 22; and property taxes 9, 26, 30.

**References.** Brock, Rainer, Recommendations to the Northern Forest Lands Council with Comments on a Briefing Paper, June 23, 1993.

Canham, Hugh O., Property Taxes and the Economics of Timberland Management in the Northern Forest Lands Region, February 1992.

DeCoster Group, Environmental and Societal Benefits of Certain Federal Taxation Policies Affecting Private Timberland Owners, October 12, 1993.

James W. Sewall Company and Market Decisions, Northern Forest Lands Council: Land Conversion Study, April 9, 1993.

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Northern Forest Lands Council, Summary of Public Comment on the Draft Recommendations, August 1994.

Northern Forest Lands Council, Summary of Proceedings: Biological Resources Diversity Forum, December 9, 1992.

Northern Forest Lands Council and USDA Forest Service, Operating Procedures, Standards and Guidelines: Northern Forest Resource Inventory, October, 1992.

Resource Systems Group, Inc., Ad Hoc Associates, Douglas Morris, Forest Property Taxation Programs; Report to the Northern Forest Lands Council, November 1993.

State Resource Strategies, New Directions in Conservation Strategies: A Reconnaissance of Recent Experimentation and Experience, October 28, 1993.



## Natural Resource Education for the Public

An increasing proportion of the people in the Northern Forest states lives in urban and suburban areas disconnected from the land. Many no longer understand the relationship of people to natural resources and natural processes. Even in rural areas, electronic communication and entertainment and standardized statewide school curricula draw people—particularly young people—away from the natural world and the natural resource uses that surround them. Although the media present some environmental issues, schools rarely provide a foundation for learning about how natural systems work and how people relate to and depend upon natural resources. Indeed, some people have come to equate human use with destruction of nature.

Although several useful school curricula teach students about forests and wildlife, and several efforts provide information to adults about the environment and natural resources, the Council is convinced that all young people (thus, in time, all people) within and outside the Northern Forest should have a basic understanding of natural systems and sustainable human use of natural resources. Only with such common familiarity with natural resource principles can the discussion over the future of the Northern Forest be constructive in the long run.

Recommendation 37, to promote natural resource education for the public. States should promote natural resource education for the general public, from youth to adult. These education programs should focus on the region's forest resources, natural processes, and resource management.

- (a) State education departments should require that all students complete one year of natural resource education to graduate. Options to meet this requirement should include:
- (1) one year of junior high school science focusing on natural resources and land-based economies such as agriculture and forestry.
  - (2) the equivalent of one year of natural resource and land-based education between the grades of 7 and 12.
  - (3) integration of natural resource and land-based education into present science programs of grades kindergarten through 12.

- (b) Teachers should have curriculum material and training opportunities through such programs as Project Learning Tree and Project Wild.**
- (c) State conservation agencies, state education departments, and private organizations should provide continuing education opportunities for adults to enhance their understanding of natural resources through new and existing public and private programs. Innovative mechanisms such as interactive television, personal computer networks and on-line services should be used to expand delivery of these educational opportunities.**

**For related recommendations, see recommendations 4 (Green Certification), 10 (Education about Sound Forest Management), 12 (Cooperation to Achieve Sustainability), 33 (State University Cooperation), and 35 (USDA Forest Service Decennial Surveys).**

**Responsible agency.** State education departments, universities, and colleges should work in partnership to provide these educational opportunities.

**Related findings in the Appendix** Local forest-based economy 3, 12, 13, 15, 22.

**References.** C.T. Donovan and Associates, Inc., Global Economic Trends that Affect the Forest-Based Economy in the Northern Forest Lands, October 1993.

Northern Forest Lands Council, Summary of Public Comment on the Draft Recommendations, August 1994.

Northern Forest Lands Council, Summary of Proceedings: Forum on Forest-Based Economic Development in the Northern Forest, April 4, 1992.

Northern Forest Lands Council, Summary of Proceedings: Forum on Building Local Economies With Wood Products and Forest-Based Recreation and Tourism, June 14-15, 1993.

## **Post Council Action**

**The Northern Forest Lands Council has accomplished its primary objectives. Now it is up to others to carry on the work to implement these recommendations. During the public comment period on the draft recommendations, the public expressed strong support for continued dialogue and consensus-seeking on natural resource issues within each of the four states. Citizens, businesses, and institutions of the Northern Forest must join forces to implement the Council's recommendations. The Council's consensus-building process can serve as a model for this collaboration.**

**The Council considers the following steps vital if the people concerned about the Northern Forest wish to continue the dialogue and implement the recommendations.**

- 1. Creation of a state forest roundtable (described below) in each state to continue the Council's dialogue on important forest issues.**
- 2. Continued dialogue among local, state, and federal governments on natural resource issues that affect the Northern Forest.**
- 3. Leadership and support by the state natural resource agencies to implement these recommendations, and to continue to build public understanding of Northern Forest issues and the Council's recommendations.**
- 4. Increased capacity at state universities to work cooperatively to support implementation of Council recommendations through education, technical assistance, research, and public outreach consistent with their missions (see Recommendation 33).**
- 5. Congressional and state action to enact legislation to implement Council recommendations beginning in calendar year 1995.**
- 6. Giving priority to direct existing funds within state and federal agencies toward programs and activities that support the Council's recommendations.**

### **State Forest Roundtables**

**Each Northern Forest state should convene a state forest roundtable, representing a wide range of forest stakeholders, as an ongoing forum to address Northern Forest issues. These roundtables would function for individual states much as the Council has functioned for the region. In**

Vermont, for example, the presently authorized Forest Resource Advisory Council should serve as a starting point for the roundtable.

Roundtable participants should represent local communities, primary and secondary forest products industries, large and small non-industrial landowners, environmental advocates, universities, recreation and tourism interests, private property rights interests, wildlife and plant specialists, and state conservation, water resource, and economic development agencies. Every effort should be made for the roundtables to be accessible to the public, as the Council has been. Their work should consistently and explicitly involve and inform local citizens, particularly in matters of meeting logistics, locations and times. Governors should consult with their Northern Forest Lands Council representatives and identify and appoint roundtable members by the end of March 1995. Roundtables should begin work immediately. The Council has drafted a recommended charter and urges each Governor to adopt it by Executive Order.

The Council suggests these roundtables operate under two guiding principles. The first is collaboration and cooperation. The Council hopes its emphasis on inviting input from the full range of stakeholders will serve as a model for individual states as they address forest sustainability and other issues. The second guiding principle is attention to both economic and biological values. Public actions and private initiatives should foster the continued production of a full range of forest values. In this regard, private landowners have a fundamental right to manage and utilize their lands for the production of forest resources consistent with the Principles of Sustainability. In addition, governmental and private initiatives should encourage cooperation between landowners to conserve a range of forest values that extend beyond ownership boundaries.

State natural resource agencies should provide funds from existing budgets to cover costs associated with the roundtables. The forest roundtables should be charged with the following tasks:

1. Advocate implementation of the Council's recommendations and provide guidance on implementation where necessary.
2. Continue the dialogue begun by the Council. The Council was unable to address every issue related to the Northern Forest and several, including potential solutions (identified in Appendix G) merit further discussion and possible action.
3. Address the Principles of Sustainability and appoint a technical subcommittee to define credible and practical benchmarks of sustainability as outlined in Recommendation 12.

### **Continued Dialogue among the Four States**

**The four state roundtables may choose at times to meet collectively, to share ideas and coordinate activities. They should also take the lead in working with their state’s Congressional delegation to develop a unified approach to implementation of recommendations at the federal level.**

**The four participating states have several existing forums that they can use to continue to communicate on important natural resource issues and advocate implementation of the Council’s recommendations at the federal level. Examples of such forums include the Council of Northeastern Governors and the New England Governors’ Conference.**

### **Leadership by State Natural Resource Agencies and USDA Forest Service**

**Continued support for state-based resource planning capabilities by the states and USDA Forest Service—State and Private Forestry is essential to ensure coordination and timely implementation of the Council’s recommendations at the state level.**

**For state natural resource agencies to accomplish all their post Council responsibilities, they must continue to employ their state resource planners. State natural resource agencies, through the resource planners, will perform the following tasks:**

- 1. Initiate contact with individuals and organizations responsible for implementing Council recommendations and assist in identifying appropriate mechanisms for implementation.**
- 2. Monitor implementation progress and develop and guide effective public participation during implementation.**
- 3. Serve as a communication link between the four states on progress, successes, and failures during implementation.**
- 4. Maintain regular contacts with Congressional staff and the USDA Forest Service—State and Private Forestry, regarding implementation and state needs for assistance.**
- 5. Provide staff support to forest roundtables.**
- 6. Continue research and analysis of forest policy issues with each state.**
- 7. Produce and disseminate materials for purposes of implementing the Council’s recommendations.**

**The Northeastern Area State and Private Forestry, USDA Forest Service should continue their focus on resource planning capabilities in the**

**Northern Forest. This would best be accomplished through a targeted staff position—a Northern Forest Liaison—with the following responsibilities:**

- 1. Shepherd implementation of federal recommendations, including issues of funding.**
- 2. Facilitate cooperation and coordination among the four states and their universities as identified in Recommendation 33.**
- 3. Facilitate communication and dialogue among the four states in close cooperation with the state resource planning coordinators.**

### **Legislative Action**

**Congress and the state legislatures should introduce and enact legislation to implement the Council's recommendations during the legislative session beginning in calendar year 1995. State resource planning coordinators can provide research assistance and information to support the drafting of state legislation.**

### **Implementation Funding**

**Implementing the Council's recommendations will require commitments of time and money from state and federal agencies. In many cases, implementation need not require new appropriations or staff. Agencies should already be doing much of what the Council recommends as they fulfill their respective missions. Agencies should direct existing grant programs toward implementation of the Council's recommendations, rather than the creation of new programs or continue those that work at cross-purposes to land conservation objectives generally. Implementation of some recommendations will require additional appropriations; however, public sector managers should first make best use of existing resources.**

**Throughout six years of an exhaustive public process, the public has made clear its support for land conservation. Thus, Congress, state legislatures, and state and federal agencies working in the Northern Forest should give high priority to funding these recommendations. Public support is strong; the time to act is now. Federal agencies that provide grants to state agencies and communities should give priority to proposals that support the Council's recommendations. In their turn, state agencies and other grant applicants should give priority to proposals that implement the Council's recommendations.**

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**Well aware of the concern in our country about expansion of government, the Northern Forest Lands Council honored its commitment to go out of existence upon completion of its charter. Now it is up those who care about the future of this remarkable region to carry on from here.**

**After years of study and discussion, we are absolutely convinced that if the actions described in this report are not taken, the region's people will have lost an opportunity that will not come again. And so we place our work and the responsibility for carrying it forward into the hands of decision-makers at all levels of government, as well as those citizens who are reading this report and who care so much for the future for the Northern Forest of Maine, New Hampshire, New York and Vermont.**