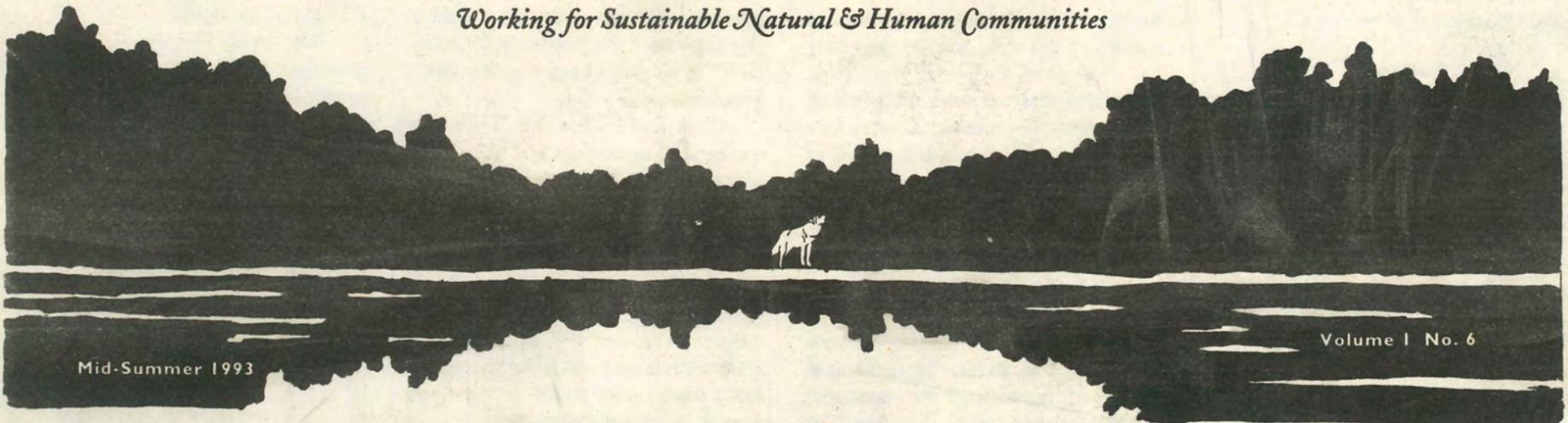


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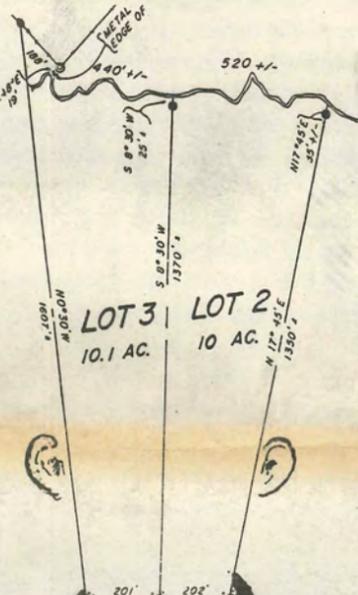
The Northern Forest Forum

Working for Sustainable Natural & Human Communities



Mid-Summer 1993

Volume 1 No. 6



**Can We Control
Development?**

**Yes!
Existing Use
Zoning**

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Conservation Area"
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Finding Common Ground

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*Can the Environmental Community and the
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Land Protection

The Northern Forest Lands Council
& Forest Management Practices

Natural Disturbance & the Logging History
of the Spruce-Fir Forest

The Economics of Place

The Origins of the Adirondack Park

The Ecological Restoration of the
Northern Forests

& More

Besides Saving My Life What Else Have You Done For Me Lately?

When you ask Rudy Engholm of the Environmental Air Force why he works to protect the Northern Forests, he responds with a single word: "Awe." Rudy and I and the legions of others who care so deeply about the fate of the northern Appalachians are mesmerized by its beauty and its wildness.

Wildness

When I gaze out across the ravaged forest of northern Maine, I see more than the scars of industrial forestry run amok—I see the potential for a wild, vibrant landscape that is again home to the full range of species and natural communities native to the region. I see wolves and salamanders and even slugs and black flies. I see a vast wild area that is not obligated to be kind to me. I see the real world.

Real Experience

I believe wild places and wild critters have inherent rights to pursue their evolutionary destiny regardless of any value they may have for human society. The same rights you and I have. I see an expression of longing—nay, craving—for real experience on the faces of people crammed together in urban and suburban America. Something unscripted, something natural, something wild. I think of the New Yorker who says "Weather is what happens to you between the door of your apartment and the taxicab." I wonder if it is more than mere coincidence that New York—with no remaining wild places—has the highest number of people wandering around muttering to themselves. It suggests to me that the collective sanity of our species requires large, wild places that have no value other than that they are home to billions of years of evolving life.

Squandered Opportunities

Over the past five years, we who love the Northern Forests have been privileged to participate in a unique exercise to examine the assumptions which guide—in some cases tyrannize—our daily lives. I see a profound yearning within and outside the region to reassess our social,

economic, political and environmental ethics and to begin to restore healthy natural and human communities to the Northern Forests.

Nevertheless, I am distressed because I fear we are squandering this opportunity. The Northern Forest Lands Council refuses to examine the social, economic and environmental impacts of industrial forestry, and only has examined the need for large ecological reserves with the greatest reluctance. The timber industry has failed to provide leadership to efforts to address the economic ailments of this region: lack of economic diversity, lack of value-added wood product manufacturing, exports of raw logs, and unsustainable and abusive logging practices. The lackluster response of the environmental community to both the current crisis and the unprecedented opportunity to challenge the status quo and protect the ecological integrity of the region has been disappointing. Instead of a bold, imaginative and heartfelt response, much of the environmental community—thus far—has been timid and fearful of a free and open discussion of ideas that inspire: ideas such as the restoration of wolves and other native predators.

There's enough blame to go around.

Finding Common Ground

My frustration is shared by many others. Hank Swan, a respected leader of the timber industry, is also impatient with the Council, the timber industry and the environmentalists. (See our conversation which begins on page 7.) He and I disagree on many issues—such as how much wilderness this

region needs. But, we have found much common ground: we truly love the Northern Forest; we care about its future; we recognize that any resolution of the current crisis will require responsible ecological and economic strategies that address realities, not unexamined myths. And, most important, we recognize that we are in this together. As Benjamin Franklin said: "If we don't hang together, we'll hang separately."

Hank and I agree that timberland managed in an ecologically sustainable manner provides superior wildlife habitat and is a wiser long-term economic investment.

We agree that forest practices must be brought under control. Some regulations are necessary to limit the worst excesses of clearcutting, roadbuilding, and wetlands destruction. But a more useful reform is to provide market incentives that address the current lack of opportunities to grow and process quality sawlogs within this region. If there were more secondary manufacturing jobs in the Northern Forest region, we could provide enough jobs while cutting much less wood. Additionally, I believe that if we begin to eliminate waste—inadequate recycling and wasteful end uses such as junk mail, most packaging, and wood pallets that are used once and discarded—we could dramatically reduce the demand for wood fiber. This would free up more land for wilderness and for tourism and recreation.

Buy Land—

They Don't Make It Anymore

In June 238,000 acres of Northern Forest lands were sold by James

River/Diamond Occidental (see page 6). Today there are millions of acres of industrial forest land for sale. These lands are generally uninhabited. The owners want to sell. Biologists warn us we must establish large ecological reserves if we are to protect the long-term ecological and evolutionary integrity of the region.

For folks like Rudy and me, protecting large wild spaces is an act of gratitude—a way of saying thanks to the wildness that fills us with awe and love. To continue to ignore the needs of our life support system is a foolish survival strategy. It also smacks of the sort of ingratitude of the fellow who said to his doctor: "Besides saving my life, what else have you done for me lately?"

—Jamie Sayen

Northern Forest Forum Statement of Purpose

The Purpose of the Northern Forest Forum is: To Promote Sustainable Natural and Human Communities in and beyond the Northern Forest Region.

The *Forum* will focus on:

- *The Ecological Integrity of the region and strategies we need to adopt to restore and preserve it;
- *The need for Economic Reform into an economy that is ecologically sustainable, equitable, and locally and regionally controlled;

- *Community Empowerment;

- *Monitoring the Northern Forest Lands Council.

The *Forum* is the only publication devoted to exploring the Northern Forest as an area of local, state, regional, national and global significance. It will seek to involve all citizens and groups concerned about the future of the Northern Forest.

We believe we can find the common ground that unites the diverse elements of the Northern Forest communities.

We hope to stimulate a healthy debate that will assist our search to find common ground, not more polarization. We hope the *Forum* will promote a sense of regional and cultural identity and celebrate the integrity, beauty and resiliency of the biotic community and the cultural diversity of the human communities of the region.

The *Forum* will seek to assure that political, economic, social and cultural strategies for the region's future be ecologically sustainable.

Articles published by the *Forum* will represent the views of the authors only, and will not necessarily represent the views of all supporting members of the *Forum* or its editorial staff.

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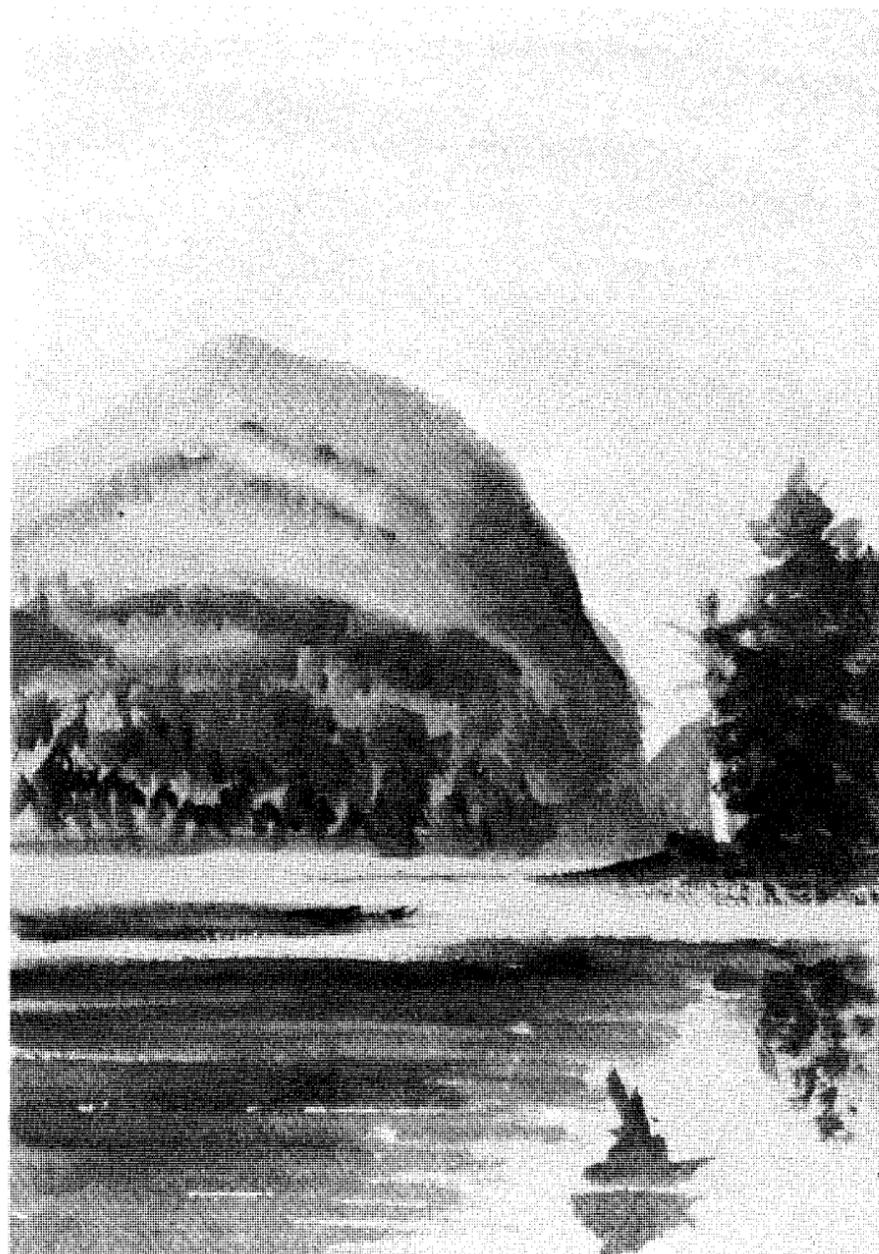
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Mailbox

Logging Aesthetics

Dear Editor:

I read with interest the letter from a reader in the last issue of the *Forum*, who proposed only allowing horses to be used to skid wood within a quarter mile of roads. She, like many New Englanders, is obviously motivated by the appearance of the forest after a harvesting operation. It was heartening to read that she actually spoke with some loggers in her area about the subject of logging and aesthetics. Too many people assume that logging is bad for the forest and that it ruins its appearance, and would not think of discussing the subject with a logger.

In my experience as Extension Forester at the University of Massachusetts, I have come to believe that many loggers and foresters care a great deal about the aesthetics of harvesting. Frankly speaking, they depend primarily on non-industrial, private woodland owners for their timber, and they know that a good reputation is important. A reputation for leaving a mess behind can follow a logger a long way into the future. Two years ago, we conducted a series of four 1-day workshops in Massachusetts for loggers and foresters on how to conduct a timber sale in an aesthetically acceptable manner. We had over 150 people attend one of the workshops. These professionals know that aesthetics are important.

Much of the information that was presented at the workshops has been compiled in a new 28-page booklet, produced by Geoff Jones, Land Manager for the Society for the Protection of New Hampshire Forests. In it, he describes numerous cost-effective, practical, and proven practices that minimize negative aesthetic impacts during and shortly after the harvest. The booklet is extensively illustrated with over 50 color photographs. The booklet is the result of Geoff's experience in harvesting

timber on SPNHF forests throughout the Granite State (which are heavily used for recreation). I am enclosing a sample copy of the booklet, and information on how to obtain copies. Since readers may be interested in this subject, you may wish to publicize this booklet and how one may obtain a copy.

Contrary to the assertion of the woman who proposes only horse logging near roads, it IS possible for loggers to use conventional skidding equipment and not "do terrible things to the forest" because of the expense of its operation. It is a myth to conclude that only logging done by horses will be aesthetically acceptable. While it is true that it is less expensive to operate a team of horses, it is also true that they pull out a great deal less wood per day or week. This decrease in production translates into less income for the logger. I believe it would be preferable to allow loggers to earn a living with their equipment, but encourage them to apply some of the aesthetic tips provided in the booklet by Geoff Jones.

Sincerely,
David B. Kittredge, Jr.
Extension Forester
Associate Professor, UMass,
Amherst

Ed. Note: A Guide to Logging Aesthetics, NRAES-60, is available for \$6.00 from the Northeast Regional Agricultural Engineering Service (NRAES), Cooperative Extension, 152 Riley-Robb Hall, Ithaca, NY 14853-5701. For foreign orders, or for discounts for bulk orders, call (607) 255-7654.

*I am more concerned about the ecological consequences of logging, rather than their aesthetics. However, foresters and loggers who take the time to protect aesthetic values likely also take greater care to protect forest ecosystem integrity. Unfortunately, in the industrial forest of northern New England, both aesthetics and ecosystem integrity too often receive short shrift as photographs run in the *Forum* sadly attest.*

Protection of Northern Forest Lands Has Broad National Support

Attend a meeting on the future of the Northern Forest Region and you will quite likely hear that the forests of northern New England and New York are within a day's drive of some 72 million people. Yet you are also likely, if you attend many such meetings, to run across the same small cast of characters, representing organizations and particular agendas that most of our 72 million may know very little about. The fact is that policy discussion and debate involves not even a hundredth of the general population—mercifully, some would say.

The problem, in the absence or impossibility of truly democratic policy formulation, is that anyone may appoint themselves the true interpreter of public desires. Northern Forest Lands debate reflects differing interpretation of just what the average citizen of the US wants in the way of a public lands policy. Does anyone really know who

Burlington to Host First North American Temperate Forest Conference in November

Dr. David Suzuki Will Be Keynote Speaker

Burlington, VT—The Native Forest Network (NFN) announced that eminent Canadian environmentalist, Dr. David Suzuki will be the keynote speaker for the First North American Temperate Forest Conference on the campus of the University of Vermont hosted by the NFN in Burlington, VT. It will convene on Thursday, November 11, with a presentation by Dr. Suzuki, and continue through Sunday afternoon, November 14, 1993. The conference will have other speakers and presentations, bioregional reports, and working discussion circles intended to cohesively define the direction for campaigns and actions for this continent.

The conference intends to bring indigenous people, forest dwellers, forest activists, conservation biologists and non-governmental organizations (NGOs) together for the first time in North America. The present crisis situation that our forests are in will be discussed and hopefully the attendees will resolve to act upon the shared knowledge from the conference. Additionally, environmental musicians, Alice Di Micele and Dana Lyons will provide entertainment.

Last year in Tasmania, Australia, immediately following the First International Temperate Forest Conference, the NFN agreed to hold this continental conference in the eastern part of North America. The NFN feels strongly that there is a wide disparity between national environmental NGOs and local and regional NGOs on forest campaign positions. The NFN believes that the forest movement needs to create a unified body capable of protecting and restoring native forests while articulating actions and proposals on national and international levels. The conference in Vermont will allow the opportunity to discuss this concept of a global umbrella for the forest movement so that forest defenders can unite while still remaining autonomous.

NFN organizers of the conference feel this will be the major forest conference of 1993 and prove to be more relevant than the "Forest Summit" held April in Oregon. Prior to the conference an educational "Roadshow" promoting the NFN will be touring throughout selected cities in North America starting in September.

For further information concerning the First North American Temperate Forest Conference, please contact: Eastern North American NFN, Orin Langelle, POB 57, Burlington, VT 05402; telephone (802)658-2403 or FAX (802) 863-2532.



Editorial Policy

The *Northern Forest Forum* is an independent journal covering issues of importance to the Northern Appalachians (including the Adirondacks and Tug Hill regions of New York). Signed articles reflect the views only of the writer, and do not necessarily reflect the views of the editors or any other groups or individuals associated with the *Forum*. The *Forum* will publish articles that stimulate the search for sustainable natural and human communities in the region.

If possible, please submit articles on Macintosh-compatible disc. Send articles to: *Forum*, POB 52, Groveton, NH 03582.

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P. 12-14—JL; P. 31—JL

wants what? For whom does the issue of forest preservation resonate most deeply? Who stands to gain or lose by a wider or narrower public policy discussion?

The *Northern Forest Forum* recently was mentioned in the June issue of a national, women's publication, *Self* magazine, in connection with an article by Bill McKibben on America's "ten most endangered places." The response indicates why local and regional preservation efforts have an impact beyond their geographic bounds. It also should indicate to policy makers and legislators everywhere that the constituency for preservation efforts is varied and widespread.

People have responded to the *Self* article from New York City, the South, Southwest, Mid-West, Northeast and

southern New England. Teenagers, housewives and college students are three of the more typical writers. They all want to know what they can do to protect and sustain forests. The one paragraph description which has elicited about 50 letters to date mentions the Northern Forest as being "surprisingly wild, despite proximity to the megalopolis," an area still home to moose, coyote and bobcat, and "in peril" from development pressures and commercial logging practices such as clearcutting and herbicide spraying.

The forests of the nation are in fact a national trust. A wider policy discussion would surely add to the consensus that funds dedicated to the further acquisition of land from willing corporate sellers are a solid investment.

—A.W.

New York State Legislature Funds Land Protection

Three Year Struggle for Environmental Fund Ends in Success

by John F. Sheehan
Adirondack Council

Albany—When New York's 1990 Environmental Quality Bond Act failed and the state ran out of money from the 1986 bond act, the Empire State's environmental spending dropped to 50th in the nation. Environmental groups which purchased land on behalf of the state were left to foot the bill themselves. Large landowners interested in preserving their forests grew frustrated.

With no improvement in 1991 and 1992, it appeared that 1993 would be just as grim. But this legislative session ended differently than the previous two, with a hurly-burly rush of activity that—at the very last moment—permanently improved New York's environmental climate.

Today, New York has established a permanent fund for environmental spending which will generate \$94 million a year by 1996. More than 70 parcels of land across the state have been approved for purchase—all of those listed in the state's Open Space Conservation Plan. Conservation easements can be used statewide to protect working farm and forest lands.

The money comes in slowly at first. By April of 1994, due to a one-time refinancing of state debt, roughly \$26 million will be available for land purchases, conservation easements, recycling, landfill closure, and historic preservation. By April 1995 more than \$50 million will be available, and the fund will reach its permanent \$94 million level by April 1996. After 1994 the money comes from the sale of underwater surplus lands and a real estate transfer tax.

In the Adirondack Park, additions to the "Forever Wild" Forest Preserve will include:

***Follensby Pond:** Site of Ralph Waldo Emerson's 1858 excursion into the wilderness with a group of influential artists and writers of his day, called the Philosopher's Camp. Also home to a state-run eagle hatching site and a five-mile-long "pond" with a single structure on its shoreline, adjacent to the High Peaks Wilderness in southern Franklin County.

***The Heurich Estate:** Roughly 2,000 acres of Lake Champlain shoreline, including the lake's highest mountain, timber rattlesnake habitat, peregrine falcon nesting area and excellent recreation potential.

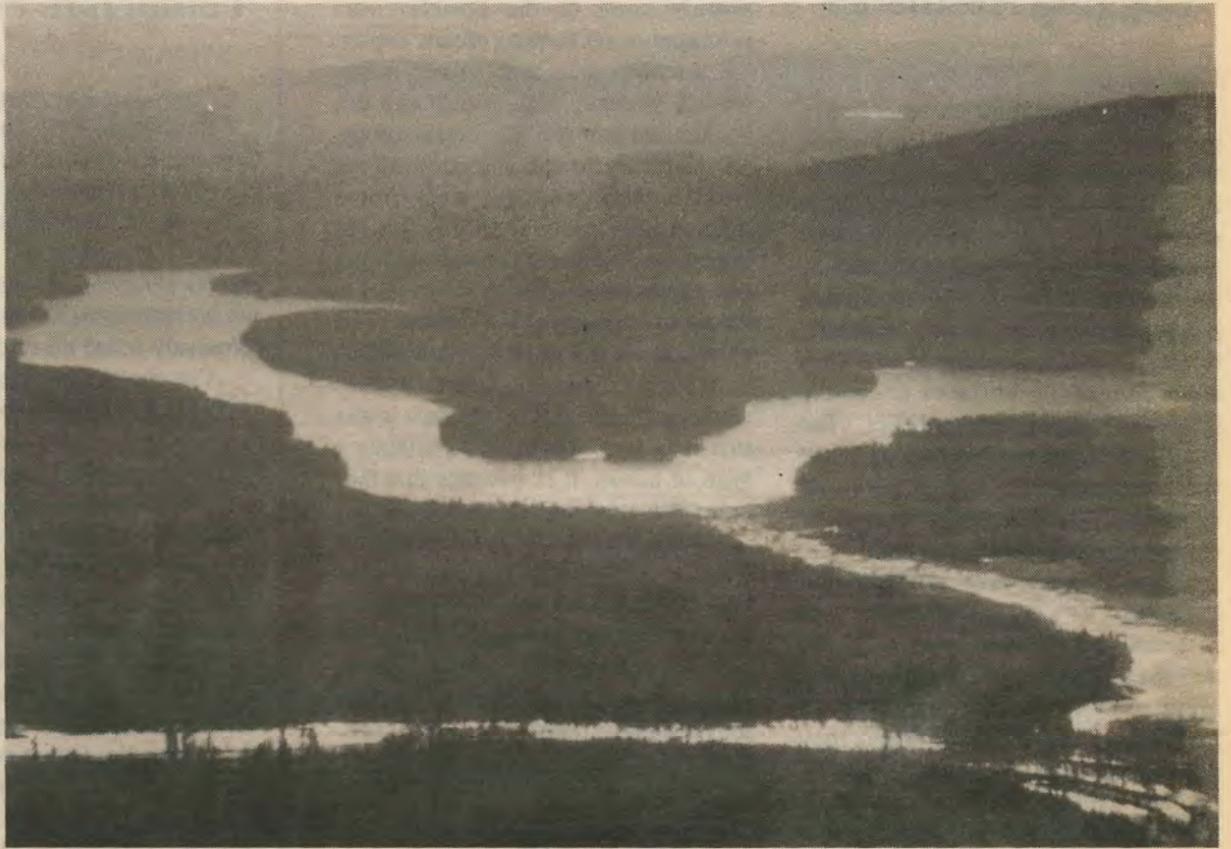
***The Morgan Estate:** About 170 acres on the eastern shore of northern Lake George, across from Silver Bay, part of the longest stretch of undeveloped shoreline on the heavily developed Queen of American Lakes.

***The Whitney Estate:** A 51,000 acre preserve owned by the family of the late Cornelius Vanderbilt "Sonny" Whitney, producer of "Gone With the Wind" and heir to the Cornelius Vanderbilt and William Whitney railroad fortunes. Located in the town of Long Lake it is yet unclear how much of the preserve will be sold to the state for Forest Preserve. The estate lies at the heart of the proposed 408,000 acre Bob Marshall (Oswegatchie) Great Wilderness in the west-central Adirondacks.

***Hudson River Gorge:** Located in the Town of Indian Lake, the gorge would make an excellent addition to the recreational amenities of that community, while preserving critical open space at the same time.

***Preston Ponds:** Located at the southern end of the High Peaks Wilderness, on the approach to the state's highest peak, the mile-high Mount Marcy, this parcel contains pristine lakes and excellent wildlife habitat. Located in Tahawus, near the hamlet of Newcomb.

The other two Adirondack parcels listed in the Open Space Plan are the Niagara Mohawk Power



Thanks to action by the New York Legislature, the State can now pursue the acquisition of Follensby Pond. Photo by Gary Randorf—Adirondack Council.

Corp. lands along the Upper Hudson River, between Warrensburg and Lake Luzerne, which were donated to the state in early 1992; and International Paper Company's 20,000 acre boreal forest parcel along the Raquette River, which was forever protected through conservation easements and donations to the state in December, 1992.

The need to protect lands in the Adirondack Park drove the debate over environmental funding for the three past years, with proposals from the Democratic governor and Assembly unable to win approval in the Republican-controlled Senate.

But through three years of seemingly fruitless struggle, Adirondack organizations never gave up. Adirondack groups reached out to hundreds of other organizations, trained an army of new activists and poured letters and phone calls into the offices of their legislators.

Groups paid personal visits to the editors of the state's most influential newspapers, appeared on radio and television shows, produced public service announcements, bought advertising space and sent publication after publication to the state's lawmakers.

Along the way, a number of obstacles were thrown in our paths. None was more daunting than finding a specific funding source which did not offend business interests with enough money and influence to doom the

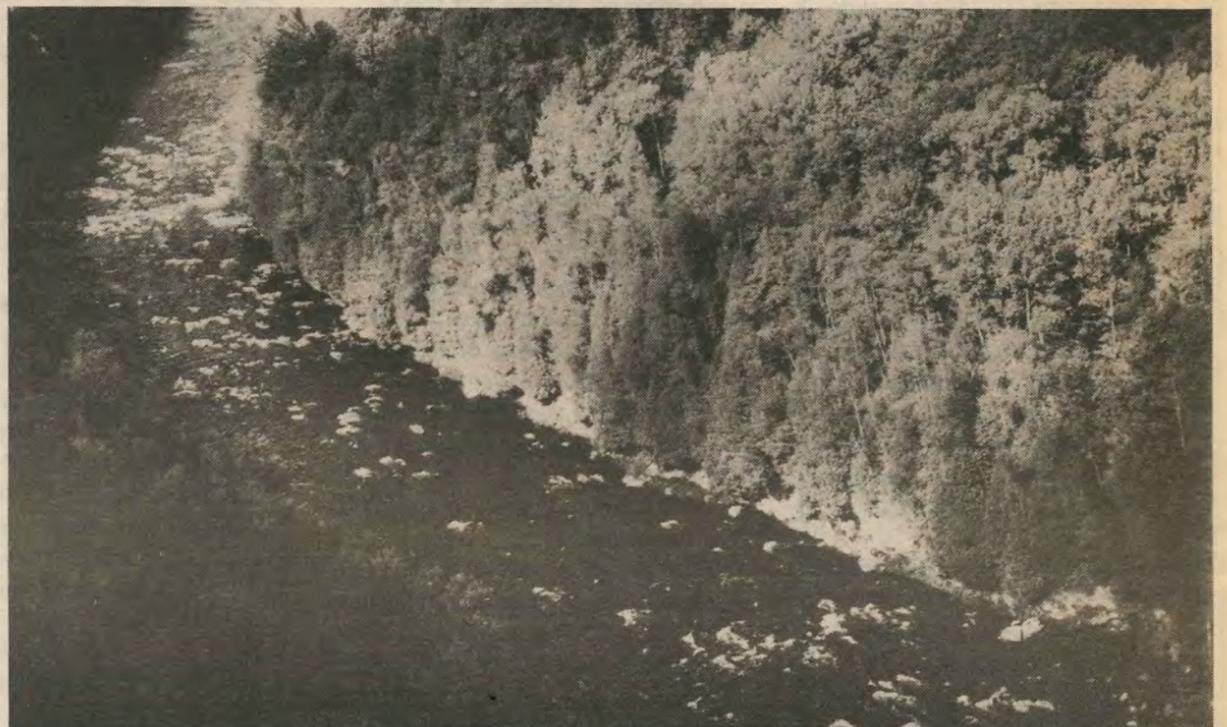
legislation.

Governor Mario M. Cuomo consistently urged the Legislature to require all unclaimed bottle deposits be returned by the bottlers and placed into a special environmental account. The bottlers lobbied hard each time the idea was proposed and killed it.

Environmental organizations asked the Legislature to consider using the soda and beer excise taxes imposed in 1990 before the bond act was voted upon. Those taxes were to be used to retire the bonds from the environmental bond act, they reasoned, so they would be a natural for the environmental fund. The beverage industry succeeded in stopping that proposal as well. Other funding sources were considered and dropped.

By the end of 1992, an election year, the Senate was ready to pass a one-house bill which it hoped would persuade voters it cared deeply about the environment. While the version drafted by Senate Environmental Conservation Committee Chairman Owen Johnson (R-Babylon) was reasonably good, both the Adirondack and Catskill parks were chopped out of the plan before it reached the Senate floor.

Then, something unexpected happened. Senate Majority Leader Ralph Marino (R-Muttontown) had a tough re-election campaign against James Gaughran. During the campaign, Gaughran attacked Marino on



Hudson River Gorge. Photo by Gary Randorf—Adirondack Council

the Senate's lack of interest in protecting the Adirondack Park. Voters sent Senator Marino back to Albany with a strong message about concern for the environment.

In 1993, environmentalists approached the Senate's political advisors, reminding them that the Republican party's strong record of protection in the Adirondack Park was in jeopardy. They agreed and vowed to take action.

In the spring, Governor Cuomo put an environmental fund plan into his 1993-94 budget proposal. While the Senate exhibited some interest, talks broke down over the debate concerning the fate of the Lyons Falls Pulp & Paper Co. The company needed cash quickly and sought conservation easements on its lands in the Adirondack Park and on Tug Hill.

Resisting mounting pressure from the Assembly and the Governor to approve \$5 million in funding for the easements and immediately create an environmental fund, the Senate opted instead to offer working capital loans to the ailing timber owner. Consequently, the fate of important bird habitat, the City of Rome's watershed, the snowmobile network on Tug Hill and the cutting rights of independent woods product companies is now in the hands of a Boston bank.

The budget deadline passed without an agreement on environmental spending. New taxes were proposed and defeated.

Then, after years of wrangling over the fate of an important pine barren on the east end of Long Island, environmental groups and builders reached an accord on future development and preservation of the key watershed area. But the plan required state environmental funding. Now, builders and development lobbyists wanted an environmental fund too.

Within weeks, the Senate created its own bill. It included \$3.5 million for the immediate purchase of the Morgan Estate and Follensby Pond. It also contained a "drop-dead" clause which banned any future use of the environmental fund in the Adirondacks. The fund provided \$100 million per year for open space protection, landfill closure, recycling and other priorities. No single tax was identified as the source of the fund. The Senate opted to skim the first \$100 million off the top of all tax revenues each year.

While that proposal was clearly unacceptable, in that \$3.5 million was not enough for both parcels, and the ban on future use of the fund could cripple land protection in the Adirondacks, it was also clear that the Senate was serious about creating an environmental fund.

But the state's chances to buy Follensby Pond and the Heurich Estate were disappearing as time passed. Options were running out.

As the Senate began debating the bill, the Senate chamber crackled with excitement. Democrats offered a variety of amendments. All failed. The debate wore on for more than three hours. Senator Ronald Stafford (R-Plattsburgh) spoke forcefully, urging his fellow majority members to resist any changes in the bill.

Then, suddenly, Senator Johnson rose to amend the bill himself. He added \$5.5 million and two more parcels (Whitney and Heurich) to the Adirondack list. The Senate passed the bill.

Now, the top four Adirondack priorities were approved for immediate purchase. While the ban on future use of the fund was still in place, negotiations with the Assembly had not yet begun.

The governor and the Assembly were in a bad position. They had pushed for an environmental fund for three years to no avail. Now, the Senate was daring them to make a \$100 million hole in the general fund budget with a legislative and gubernatorial election just around the corner. The question still remained as to whether the Senate would drop the Adirondack ban at the last minute to secure the funding for the Long Island pine barren (which was important to Marino and Johnson).

The scheduled ending date of the legislative session came and went without agreement on a variety of issues important to the entire state. Negotiations droned on right through the July 4 holiday weekend and into the following week.

On Wednesday, July 7, the legislature dug in for

the final round-the-clock bargaining bout that would end the legislative session. Wednesday turned to Thursday, and by 3 a.m. the first signs of an agreement were evident.

The first draft of the agreement provided no immediate money for Adirondack parcels, far less money overall, and a requirement for local approval of all state land purchases statewide. Those who had insisted that the Adirondack Park be treated exactly like the rest of the state got what they asked for, but not what they wanted. Now everyone had an additional hurdle to clear, despite the strong local input in developing the Open Space Plan.

By the time the final deal was struck, 75 parcels listed in the Open Space Plan were approved for

funding. Local input is required for any additions to that list.

At 10:27 a.m. on Thursday, July 8, the state finally had a permanent environmental fund. Once again, protection of the Adirondack Park and environmental quality were issues of bi-partisan concern. The Legislature immediately packed its bags and went home.

As a result, the Open Space Institute moved forward with its plan to purchase the Heurich Estate and will offer it to the state once the funding is available in 1994.

Negotiations continue on the Whitney Estate and other Adirondack Park parcels on the Open Space Plan.



The Heurich Estate along Lake Champlain provides habitat for timber rattlesnakes and nesting sites for peregrine falcons. Photo by Gary Randorf—Adirondack Council

1993 New York Legislative Highlights

by John F. Sheehan

The New York Legislature did much more than simply get back into the land-buying business this legislative session—it also solved some long-standing problems in the Adirondack Park.

The environmental fund legislation contained a solution to a disagreement over the state's use of conservation easements and tax exemptions in the Adirondacks; a formal study of the need to reimburse local governments for state-sponsored timberland tax abatements; and an enhanced state aid program for landfill closures in 22 of the smallest Adirondack communities.

There were other positive steps in this session as well. A new slate of commissioners was nominated and accepted for the Adirondack Park Agency board; a new school aid formula was approved which helps rural communities; and a bill allowing the cutting of trees on state rights-of-way in front of billboards was vetoed.

To understand the problem with the state's purchase of conservation easements in the Adirondack Park, one must first realize that the state pays full taxes on all lands it owns in the Adirondacks and pays its share of taxes on all lands on which it holds a conservation easement. This is important to local governments, which rely on those tax payments to remain solvent.

The problems arose when the state Department of Equalization and Assessment ruled that the state was entitled to the same tax exemptions enjoyed by the private owner of the land from whom the state was purchasing the easement.

For example, if the owner was entitled to a veteran's or similar tax exemption which reduced his/her taxes by 10 percent, the state wanted that 10 percent break as well when it paid the local government. The law now requires the state to pay its full share, regardless of the exemptions the private owner holds.

As for timberland taxes, the state agreed to study the effects of state timberland property tax exemption programs on local governments for the 80 property tax abatements offered to timberland holders. The program was meant to encourage landowners to keep forests whole, but has placed much of the financial burden on local governments.

The new school aid formula for small towns will now contain special consideration for districts with large geographic areas and small populations. Called "sparsity aid," the program provides compensation for problems such as limited course availability, transportation costs and the like.

Additionally, landfill closure money far beyond what was expected will flow to small towns throughout the Adirondack Park as soon as next spring. All New York towns closing landfills under state orders are entitled to 50 percent grants from the state. The environmental fund included money to increase the reimbursement to towns with populations of 3,500 or less to 75 percent. Zero-interest, long-term loans are also available to cover the remaining 25 percent. The aid and loans will amount to more than \$1,000 per person (not per taxpayer, per person!) in some communities.

In April, when the state budget was passed, the Legislature took Governor Mario Cuomo's advice and passed a significant funding increase for the Adirondack Park Agency. The extra \$330,000 allowed the APA to hire much needed new staff and speed up what had become a frustratingly slow permit review process. The budget increase came at a time when other state agency budgets were being frozen or slashed.

Meanwhile the governor instructed the APA to appoint a task force to study its procedures and recommend changes to streamline permit review and give potential applicants a better understanding of what is expected of them, without compromising the quality of the application review.

Then, at the end of the legislative session, just hours before the environmental fund was passed, the Senate confirmed three new members of the Adirondack Park Agency Board, filling the roster for the first time in years.

Appointed were Barbara Sweet of Newcomb, who participated in the Department of Environmental Conservation Region 5 Open Space Conservation committee; Jack Ryder Sr., of Lake George, a director of the Adirondack Nature Conservancy; and Richard LeFebvre of Caroga Lake, a special education teacher.

Lastly, on July 29, Governor Cuomo vetoed a bill which would have allowed the owners of billboards to cut trees anywhere on state highway rights-of-way to ensure that the advertisement can be seen from a great distance.

Katahdin Iron Works Sold to Hancock Pension Fund

Hank Swan, whose company will manage the land, discusses sale with the Forum

On June 29, the Katahdin Iron Works was sold as part of a larger deal by Diamond Occidental Forest, Inc. (DOFI) a 23% owned affiliate of James River Corporation to the Hancock Timber Resource Group. Altogether, Hancock purchased 238,000 acres in the Northern Forest region. At the same time, Hancock announced that Wagner Forest Management, Ltd, of Lyme, New Hampshire would manage the Northern Forest tracts.

A press release from Hancock stated: "The Hancock Timber Resource Group signed a letter of intent with Diamond Occidental Forest, Inc. to acquire over 300,000 acres of timberland and a leasehold interest in northern New England and the Southeast [for over \$100 million]. Hancock Timber and DOFI, a 23 percent owned affiliate of James River Corporation, announced that Hancock would pay cash for these properties in Maine, New Hampshire, Vermont, Alabama, and Mississippi.

"The transaction, which is expected to be completed in the third quarter represents Hancock's first acquisition in the Northeast. The Boston-based unit of John Hancock Financial Services is the nation's largest owner-manager of timberland assets for institutional investors, including public pension funds, endowments and foundations with long-term investment horizons. The Hancock Timber Resource Group currently manages 1.7 million acres with a market value in excess of \$2 billion in 10 southern states and three western states."

A Wagner press release stated: "Henry Swan, President of the Lyme, New Hampshire forest management company, views the acquisition as an important step in maintaining a sustainable forest economy within the Northern Forest area. While the forests will continue to provide raw material for James River Corporations' Old Town, Maine and Berlin, New Hampshire paper mills, the new ownership will be able to take a longer term view toward the production of quality solid wood. According to Mr. Swan, this is not always possible in public companies because of the need for current income."

Hank Swan spoke with Forum Editor Jamie Sayen in late July about the sale of the former Diamond lands.

Jamie Sayen: Very briefly, could you explain the situation and the terms of the James River/Diamond Occidental Forest Inc. sale to Hancock Pension Fund? How are you going to manage the land and what are your long-term goals?

Hank Swan: The sale is to the John Hancock Life Insurance Company which has set up a timber resource group with the goal of investing pension fund money, private corporations and interestingly, state pension funds in

timberlands as an asset class. Typically, a pension fund invests in stock, bonds and real estate, and one of the blocks of real estate that they've separated out is timberlands. It's a very, very small portion of a pension fund's assets as the pension funds need liquidity. Liquidity is provided by the stock and bond portfolio. The pension funds take a long-term perspective because their participants are employees that have

JS: Do you see this as a permanent or a temporary situation?

HS: Unfortunately, because the Northeast is so close to populations, I'm afraid it's temporary. I do think that we are seeing a reappraisal of timberlands back away from what land conversion value would bring to an income approach. But, as our population grows and our economy recovers, we're going



Haybrook Falls is part of the Kahtadin Iron Works tract. Photo by John McKeith.

some service in a company and more years of service ahead of them so that the funding need is years out. Therefore, the Hancock can take a longer-term perspective in their investment. Timberlands happen to fit it well. The Hancock is extremely successful in generating timberland investment in the Southeast and the Northwest. They have over a billion and a half dollars of pension fund money invested in timberland in those two regions. For years they've looked at the Northeast and have not seen the long-term investment return that would be acceptable to the pension fund. Therefore they have not participated in the Northeast. I've had a relationship with the Hancock for a number of years; most recently they've chosen Wagner to be their northeastern forest manager. Before that, I've been an advisor on stewardship issues. Why the Hancock was able to invest now in the Northeast was the collapse of the real estate market. The timberlands are selling more on their return as a working forest than they are on their return for conversion to a "higher and better use" [development].

to see people wanting their own slice of the Northeast and try to bid these prices back up to what they were in the early 1980s. So I think we have a window of opportunity right now to make a substantial number of timberland investments because the economics are right here, and, interestingly, because of the reduction in the timber land base, timber land prices and timber prices have shot way up in the Far West. So now the Hancock cannot invest in the timberland in the Northwest to get the return that their investors require. So we have it here for a while. Is it long term? We're obviously hoping that it will be.

I think Paul Bofinger of the Forest Society put his finger on a potential problem when he was reviewing the James River acquisition—I think this is true of any timberland ownership—and that is the manager, whether it's Wagner or Hancock, it doesn't matter, has a fiduciary responsibility to its investors to realize for them the best return off their land. The best return may mean some land conversion, unfortunately. Or land sales to people who would convert the land to a "higher" or people call it "better" use—but, anyway, a more

monetarily rewarding use of the land. Hancock and Wagner do take their stewardship responsibilities seriously, and I would hope that before we come to that point that we have in place some of those programs like the Forest Legacy program so that sensitive lands can be protected. One of the problems with private ownership is that when somebody pays a lot of money for a tract of land, they try to reduce their investment as quickly as possible. How do they do it? They remove all the quality timber. I would hope that before we have to exercise the extreme fiduciary responsibility of selling these properties to somebody at a very high price, we're going to be able to do some land conservation initiatives of easements, protecting areas, which we do anyway—wildlife corridors, which we do anyway. Our management philosophy on these properties—which is agreeable to Hancock—is again, long-term production of quality solid wood because we do see that as the best investment return in our financial model. In that long-term production we are going to have a lot of low-grade wood cut. We are essentially weeding the forest, and we want to maximize the utilization of the timber—therefore, we are going to have some biomass, chips; we are going to generate pulpwood. In the James River sale there are some pulpwood supply contracts that are less than 50% of the sustained yield production of pulpwood on these properties. We at Wagner are looking at this as a long-term. I know we are going to have some hard decisions to make particularly on property the environmental community has already targeted—Katahdin Iron Works, for instance.

JS: Let me just summarize what I think I'm hearing from you before I bring up the subject of Katahdin Iron Works (KI). This sale concerns me because Hancock is an absentee corporation that, as Paul Bofinger has pointed out, has a responsibility to its pension-holders that maybe conflicts with some concerns and values I have. Nevertheless, I feel heartened that at least the management is going to be with somebody who has a much stronger tie and commitment to the natural and human communities if this region. I'm nervous, but there is some hope. On the issue of re-sale and development, if you have your druthers, you will not be subdividing and spinning off land, but at this point, you're not in a position to make any guarantees?

HS: That's correct. You could look at Wagner's history over the past 15 years. We have not done that ourselves and the sales of property that we have done have not resulted in intensive development. This May I participated in the Hancock Timber Resources Group annual meeting which was held in Coeur d'Alene, Idaho. The theme of this year's meeting was forest stewardship. The audience was the Hancock's existing and maybe a couple of prospective pension fund investors. So I think it is important to recognize that

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Finding Common Ground—An Interview with Hank Swan

Ed. Note: When I spoke with Hank Swan about the Diamond land sale, I couldn't resist expanding the scope of the interview to a wide range of issues affecting the Northern Forest region. Hank and I have locked horns on numerous occasions on Northern Forest issues over the past several years. Our early encounters were not pleasant. However, over time, we have learned to listen to what the other was saying, and, as this interview demonstrates, it is possible for uncompromising environmentalists and leaders of the forest products industry to find common ground—and mutual respect. I am grateful to Hank for subjecting himself to this interview, and I hope that representatives of the environmental community and the forest industry can find new ways to work together to protect the ecological and economic integrity of the Northern Forest region.

Hank Swan is General Partner of Wagner Woodlands & Co., a timberland investment organization founded in 1955 and located in Lyme, New Hampshire. He is also President of Wagner Forest Management, Ltd. and Wagner Woodlands, Inc., forest management companies managing approximately 250,000 acres of timberland in the Northeast, and he also influences the management decisions on another 50,000 acres of timberland in the Northeast. Hank's resume is too long to list here. He served on the Northeastern Governors Task Force on the Northern Forest Lands from 1988-1990. He was an advisor to the Nash Stream Advisory Board. He is Chairman of the ad hoc White Mountain National Forest Advisory Committee. And he has recently served as a consultant and advisor on forest industry matters to Prime Ministers of two Russian Commonwealths of Independent States. He has a degree in forestry from the University of Maine, and an M.B.A. from Harvard Graduate School of Business Administration.

Jamie Sayen: You have written: "Historic land issues in the U.S. have been played out first in the Northeast in our country.... Unlike in other regions of the country, in the Northeast we have always been able to resolve our issues by sitting and talking about them—the New England town meeting form of decision-making. This still works. Old Yankee participative decision-making processes should not be fragmented, and all who participate in the debate over the future of the Northern Forest should realize that polarization will lead to disaster." How is the Northern Forest Lands Council process working, and what are your hopes and fears for the future of the Northern Forest region?

Hank Swan: I'm concerned that the Northeast is being influenced by national agendas of conservation and preservation organizations. I think we're all aware that the ecological and environmental issues are really more site specific. However, we are getting both



Hank Swan at home in Lyme, NH.

influences and changes in direction dictated by the national organizations. We all know the Northeast corridor is the most populous region in the country and close to the Northern Forest. The concern I see is that the national organizations are raising issues to make the Northern Forest more visible with the idea of being able to develop greater membership and personal financial gain, without the real true regard of the local economies and local conditions. My fear is that this outside influence will cause a breakdown. I do see the breakdown starting in the kind of town meeting dialogue that we've always had.

My hope is that through efforts of people like yourself who are willing to sit down and participate in the decision-making or advisory process and roll our sleeves up and work hard, will help give some guidance in land protection and the future of land protection. There are some groups who love to come in at the last minute and criticize what a lot of local people have worked hard to develop.

JS: I can hear my friends from the national groups raising several points in response: (1) From an ecological perspective, the Northern Forest is not just a local issue; (2) National environmental groups are not the only absentee influences in the region. Most of northern Maine is owned by multinational corporations headquartered far from the region; (3) Wise use people

certainly fit your description of people coming in at the last minute, not willing to sit down, getting money from outside, and having their own agenda that is utterly disruptive; and (4) (And this point will be most controversial within the environmental community) There is some feeling that the local environmental groups have not always been willing in the past to ask some of the hardball questions that need to be asked.

HS: Those are very good observations. I agree with your characterization of absentee ownership in the lands not really being as concerned about what is happening locally. That message is starting to come across to the local land managers. In my company you really could say that we have absentee ownership. Our investors come from all over the world. However, they have vested in me as general partner and president of a number of companies the ability to make local decisions. The management style I have at Wagner carries that another step in that we require our land managers to live in the local communities and participate in local dialogue when appropriate. They are not going to be transferred to Boise, Idaho or Atlanta, Georgia. They get their roots down in the community even though they do represent what I would characterize as the same kind of ownership, albeit we are private companies, so we don't have the problem with quarterly earnings. I think we are seeing some change within the forest industry, but your characterization is correct.

The Northern Forest is more than a local issue from an ecosystem standpoint, but we need to respect the local economies—the need for a sustainable, diverse economy within the Northern Forest. I think there are people like yourself, like the Society for the Protection of New Hampshire Forests, which we could argue is a local group, which has a much broader perspective relative to the needs for the Northern Forests serving a greater region. There are groups of people who can straddle the fence, and serve both, and be influential in both.

You mention the Wise Use movement, and that does sound like that fits exactly into what I am saying. But in our New England decision-making process—the town meeting—you have to swallow once in a while and accept the other people's viewpoints, whether you like it or not. And there's a tremendous amount of compromise within our local system. My problem with the Wise Use movement is that they have put their blinders on and they are representing a single point of view with an extremely small amount of flexibility. I used to like to use the term wise use of our resources because I believe we can use our forest resource wisely and sustain our economy—utilizing our land for timber harvesting, recreation purposes, watershed protection, protection of soils, protection of wildlife and management of wildlife. That's what we believe in. However, the wise use people have tacked on to this generic definition things like property rights: "You can't tell us what we're going to do with our land." Rights whereby they think they have rights to use anybody's and everybody's land. They've gone a lot further to the extreme rather than having a balanced approach. I think it is to their discredit because I think some of the people involved in the movement are extremely capable people. They discredit themselves by associating with some real kooks from around the country who espouse total property rights, all government is bad, all government intervention is bad, any regulation is bad. I think the wise use movement could have done much better if they had become part of this local decision-making process rather than a fringe element just like Earth First! and PAW.

JS: I think you are being unfair to the regional representatives of the national groups, and I fear that your allegation that they are motivated primarily by the desire to use the Northern Forest issue to raise money is polarizing. I work closely with them, and although we sometimes disagree on issues, I have enormous respect for their commitment to the region's overall welfare.

JR Sale

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Hancock is educating the trustees—and these people are trustees of pension funds, so they have a fiduciary responsibility. And a lot of them are the rank and file of state employees funds.

JS: The Katahdin Iron Works, which was one of the key parcels in this whole transaction, has been a long-time target by conservation groups for public acquisition and protection. With the sale to Hancock I don't see any diminishment in the desire of the conservation community to buy KI. I wonder if there is any possibility that the KI eventually could be spun off by Hancock into the public domain, assuming that we could secure the funding?

HS: I think so. I would like to know a lot more about the property than we know currently, because on a personal basis, Wagner has a number of people who are imaginative at developing conservation-related management plans. So I can see two alternatives: I can see that if the environmental organizations can raise enough money they can buy it in fee, but I also have some ideas for the sale of a conservation easement, and I have some ideas of trying to do even more than I think the environmental community is thinking about today relative to the ecosystem in that whole area. So the door is open. My personal opinion is that we can probably work out a very imaginative conservation initiative on that tract. I'd like to study it. I'm not sure that outright public ownership is necessary. Maybe it is, but it may

boil down to just the fact that the environmental community is only able to raise a certain amount of money which we can find a way to craft into an easement.

JS: One of my concerns is that KI is near two different kinds of land: protected areas such as Gulf Hagas, but it's also near some industry lands that have been very heavily cut over. Strategically, it's a very critical tract. If somebody wanted to go in there and flatten it the way some of the neighboring lands have been cut, it could do a lot of damage to the region. If it could be integrated into the Baxter-Gulf Hagas region, I think it would be wonderful.

HS: For the record, we're not going to blast it. We recognize the sensitive nature of the property just for the reasons you state.

HS: I respect your observation, and this is one reason we have dialogues such as this interview. We are here not simply to enlighten or perhaps entertain (or bore) your readers but to learn from each other. My feeling has developed from events that may be history now. Hopefully you are right. The one thing I do not want to have occur is additional polarization when we are working hard at de-polarization.

JS: As someone who manages a large amount of land, you obviously feel you have some property rights. In your mind, what are your property rights, and where does the public have a right to influence and regulate your land management decisions?

HS: I don't believe we have supreme property rights. We're only stewards of the land. The philosophy of our organization is to leave the land a little better than when we came on the scene, better for future generations. Our ownership is temporary in the long-range scheme of things. There are certain elements of this ownership that we feel we have to compromise. One area we are willing to compromise on is in certain forest management practices. As long as it does not represent a taking without compensation. We own land for the long-term production of forest products as well as providing some of the other multiple use benefits. So we can modify our forest practices and still make a good return on our money.

JS: In the last five years you and I have been involved in two very important issues from quite different perspectives, and often there have been very heated arguments: the Northern Forest Lands Study (NFLS) which eventually grew into the Northern Forest Lands Council (NFLC) and the Nash Stream Advisory Committee (NSAC). Can you briefly assess the strengths and weaknesses of those two undertakings and perhaps identify some of the changes that have occurred from 1988 to 1993 in the public debate that perhaps have resulted from those two initiatives—the good, the bad and the ugly?

HS: Let's take the NFLS first because it is more of a macro look at the Northern Forest. I was on the original "Governors' Task Force" on Northern Forest Lands. We came up with a group of recommendations to the governors. The strength of the Task Force was that it had good representation from three sectors of the Northern Forest community. We had statewide conservation organizations, representatives of state government and a representative from private land owners. Not without controversy and difficulty, we came out with a number of recommendations, one of which was the NFLC. The environmental organizations took a shot at the NFLC saying it was too dominated by the forest industry, and as a result, the NFLC was expanded to include a private citizen. Also a number of members chose not to continue or were not re-appointed. I don't think private industry was dominating the Governors' Task Force. I think we were able to come out with recommendations that did have strength, but the implementation did not because the implementation had to be taken over by the NFLC. The NFLC has been hamstrung by a bureaucratic process of having public hearings, public participation to the extent that they are not able to complete the task that they were assigned, or if they are, their recommendations—like the Local Forest-Based Economy Subcommittee recommendations—are extremely weak in order to mollify all sectors of the public. I think they have to be hard-headed and stronger in their recommendations instead of listening too much to the local minorities.

JS: I agree with your conclusion that we are getting a lot of mush from the NFLC, and not the sort of tough medicine we need. However, I was one of the loudest critics of the NFLS, and I do believe that the conservation community (not just the conservationists on the Task Force) did not hold up its end as well as the boys from Maine who simply refused certain issues to get raised. Two things happened as a result of that: (1) The issues that most concern people like me—especially the overall and long-term health of the ecosystem that sustains this region—got short shrift. Any attempt to develop an economic and political

strategy for this region that ignores the ecological component of the equation is doomed from the start. And (2) if the study was not an intentionally stacked deck, nevertheless, it did not seriously question some of the overriding assumptions that have dominated the region over say the last generation or two, and that was precisely what was called for. The result was as much a disservice to the industry as it was to the environmental community and the environment. We were unhappy that we didn't get the perspective we wanted, but I think that the disservice to the industry was as great. By evading the tough questions, by not subjecting themselves to the kind of scrutiny that I and others wanted them subjected to during a period of crisis, they missed an opportunity to have an honest self-examination, to make some necessary changes, and not be seen as troglodytes who will resist change at any cost. So, from our perspective, there was a real sense of frustration, often bitterness, that these guys had the power and weren't going to listen. But I think that even if you are sympathetic to long-term industry goals, you see they short-changed themselves because they could have gotten rid of some of the baggage and probably strengthened themselves in the process, if they'd been open to the dialogue. So we feel it was a two-way street of non-dialogue.



In 1990 Wagner Woodlands selectively cut this stand. In the foreground is a 14" (DBH) yellow birch. Photo courtesy of Hank Swan.

HS: The guidance that we had—essentially an exchange of correspondence between Senators Leahy and Rudman and the Chief of the U.S. Forest Service—may have been a trap relative to what you're talking about because I think in hindsight we recognize that that is an impossibility [to protect the status quo]. I don't think that anybody who has his head screwed on straight truly believes that we are in a static society. We are subject to constant change. It is the same problem as when you look at the U.S. Constitution between the strict interpreters and the broad interpretation. I think the people of Maine went much more to the strict interpretation than the people in New Hampshire and Vermont did. I will agree that was a shortcoming. The question of the long-term health of the ecosystem gets us into two areas that the task force did not feel it could handle. One area was forest practices regulations. The states, as you know, hold dearly their ability to govern themselves. Home government included forest practice regulations. Another local rule issue that came up very early was having a four-state greenline and having a regional biodiversity, ecology, and land use plan for the 26 million acres of the four states. Again, it was very evident that there would be no agreement among the states to carry back to their governors. New Hampshire is not going to tell Maine, and Maine is not going to

tell New Hampshire how to govern and zone their Northern Forest.

Third is forest health. Forest health does require some sort of regional action, and again the same arguments could be used that are used relative to forest practices. This should be done on a local basis. So we tried to take a look at the issues that could be handled on a global or a four-state Northern Forest perspective. That's why we looked at forest-based economics and taxation. We had a number of conservation strategies—use of easements. An important overriding factor was that the federal government should only be involved in land use and land protection initiatives if asked, and there were two states that simply weren't going to ask. Maine wanted no federal intervention or federal involvement, and New York State didn't either. They felt they had a good thing going in their Adirondack Park Agency and the Tug Hill Commission. They wanted a lot less federal influence than I think we were willing to accept in New Hampshire and Vermont.

I think evidence of the willingness in New Hampshire to enter into a coalition with the federal government was the Nash Stream acquisition by the state and the purchase of the conservation easement by the U.S. Forest Service. So what we had to do in the Task Force was look at areas where we could have agreement. Areas where we didn't have agreement we left alone, and I know you paint it as ignoring the ecological significance of the Northern Forest lands. I agree that the ecological significance is not hemmed in by state borders—that we have to look at the total Northern Forest. We can't look at political boundaries because the environment does not have political boundaries.

Getting to Nash Stream, I think that with the development of the Advisory Board that you and I served on [Ed. note: Hank was an appointed member of the Nash Stream Advisory Board. Although I attended every meeting, I was not a member of the board.] we took a number of practices and applied them on a site specific basis. Again, we had the overriding document of a conservation easement that was crafted in Washington by political leaders without a heck of a lot of input from private entities. There are some things that you and I probably would not have had in the easement. But by the same token, if our views had held, the easement probably would not have been crafted. One of them of course was the gravel rights [retained by Rancourt Associates]. I don't think any of us wanted that. However, it was a fact pure and simple that the state was not going to purchase it because Rancourt, the owner, would not sell if they did not retain the gravel rights. It was just a fact of negotiation that none of us really wanted. I do think as far as ecosystems that the practice developing the management plan really enlightened a number of people who were not sensitive to ecosystems and corridors necessary to maintain the integrity of an ecosystem. It enlightened a number of people who were members of the board on topics such as that. We also were saddened when we looked at the forest. We wanted to manage it as a working forest. The forest had very little current income prospects because of the past cutting practices. The Board tried to respect and meld in the ecological significance of the forest with the economics of timber harvesting.

JS: The Nash Stream Advisory Board (NSAB) ran the full year of 1990. I saw a remarkable transformation with a lot of us. At the beginning I felt a real hostility to the basic concerns I was trying to raise. And yet there was enough of a core of the committee that was willing to play fair and listen to these concerns. It wasn't an easy process, and there were a lot of hard feelings that had to be worked out, but over the course of the year, a lot of those ideas did get a fair hearing, and I think a lot of us found we didn't have to have such a hostile and adversarial relationship, even though there were very painful and serious differences that weren't going to get solved instantaneously. So I found it a very cathartic experience. I'd like to see it streamlined so we don't have to have so much gnashing of teeth and hairpulling. But it showed me that the different camps can put aside some differences for the greater good, and I think that as a result, we got

a management plan for the 40,000 acre Nash Stream watershed—that, while far from perfect—represents, I think, the best example of its kind that I've seen in this region.

HS: I really appreciate your observations. I agree with you wholeheartedly. I saw a tremendous transformation of a number of people on the board. You must realize on that board there were only two of us who had ever done a management plan on properties that big: [the representatives of the White Mountain National Forest] and myself. The other forest industry-related people were used to managing much, much smaller tracts, and so they didn't have to take the big picture look that was required and that you and I recognize the ability and flexibility—that's another word we should bring into our discussion on Northern Forest issues. That is that nothing is perfect. You mention that the plan wasn't perfect....We started on that board achieving a lot more flexibility. A lot more give and take with people who originally came in there saying you're not going to have unmanaged or natural areas. Things like that, you're right. It took a long time to get people to come around.

JS: What's your vision for a sustainable regional economy?

HS: A sustainable regional economy has to have a diversity of sources of economic benefit to the inhabitants. In other words, it cannot be strictly a recreational-based economy, nor can it be strictly a forest industry-based economy. I like to see a balance in my definition of a working forest—I do try to achieve that balance between all of the uses of the land. There are lands that are best left as wild or wilderness areas. A lot of those lands aren't good forestry sites. There are other lands that should be dedicated to high stewardship forest management. My vision is simply a diversified economy based on the resources it has available to it and not trying to hamstring the use of those resources, neither through an overly generous wilderness policy nor, on the other hand, would I want to see the entire Northern Forest cut right up to the edges of the streams and lakes.

JS: You and I are both talking about increasing real value-added opportunities. A couple of obstacles that I see are: first, due to past practices in large areas of this region the forest isn't likely to produce quality sawlogs anytime soon. You alluded to that in the Nash Stream. So how do we break that cycle of junk wood to junk wood from one generation to the next? And the second, where we are growing quality sawlogs, instead of processing them here, all-too-often we're shipping them abroad to Canada or China or to Europe. How do we break these two cycles?

HS: Good observations. Breaking the cycle of not having quality saw timber has to be done through the management plans of the owners of the property. We have noted here at Wagner in our economic studies that long-term you get a better return on your investment if you grow quality solid wood, which usually means saw timber. We have to be able to make it feasible for land ownership on a long-term basis so that we can let our forest grow and come back into what my definition of a good investment would be. A lot of people oppose this thesis because the best way I see to do it is through tax incentives to existing landowners. A lot of people feel that is nothing but a giveaway to industry. I think tax and economic incentives can work as long as there are very strict requirements and obviously monitoring and follow-up controls. So what we have to do simply is make it economically possible to own and manage the land in the private sector while the trees are growing into quality saw timber.

Your second point about lack of processing facilities is right on target. It is deplorable that we do not have domestic primary and secondary manufacturing facilities. The reason we don't is two-fold: first is because past management practices that you have alluded to have been more fiber-based. There has not been enough large timber to support somebody bringing in a manufacturing facility. The second reason is that there have been no economic incentives to the



"I feel that regulation would have helped in reducing clearcutting," says Hank Swan. Whole-tree clearcuts such as this 130-acre cut on Page Hill Road in Lancaster, NH destroy wildlife habitat and kill the long-term investment value of timberland. Photo courtesy Steve Gorman.

private sector to develop these facilities. There have been economic incentives in Canada, and that's why a lot of the saw timber is being brought to Canada to be processed there or to be exported abroad. We should not have to export unprocessed logs out of our region. However, I'm enough of a free market believer to feel that if you put restrictions on exports you will get countervailing restrictions from other countries on products that we need in the U.S. What we need to do is really attack the problem—which is exacerbated by the collapse of the banking industry—because private industry could not get bank financing even from working capital. I think the banking industry has been totally irresponsible in their actions in the last few years in supporting private industry of which saw mills is only one...

JS: Do you feel the work of the Council is hopeful or disappointing in terms of addressing the diversification and strengthening of the local economy of the region.

HS: Only moderately hopeful. Because I agree with you that a number of the recommendations that seem to be evolving are—you call it mushy—I call it without teeth. It's up to guys like you and I who have participated in meetings. I've told members of the Council they need to really come up with much stronger recommendations. Stronger recommendations are harder to sell and they are going to be in for much more criticism. But that's the only way we're going to pull it off. People can talk about partnerships, and I really feel the only way you can pull it off is through public-private partnership. And the public includes the state and federal governments working along with private industry.

JS: On the issue of "teeth", it seems to me some people are afraid to say something when they expect they are going to get some criticism. And yet, how else can you advance the discussion if you don't stand up and say something you believe in and face the critics? Censoring yourself because you're afraid that one extreme group or another is going to throw bricks at you. I think this has had a very detrimental effect on the free and open discussion in this region. And I criticize environmental groups, the property rights people, the Council, politicians, industry, everybody. I don't think anybody is immune from that observation.

HS: I agree with you, and we could go down to Washington and sit in the Congress and see the same thing. It's a human tendency to protect your backside. I think we have to challenge the people who are afraid to make the tough decisions.

JS: One of my biggest concerns is clearcutting and the absence of any kind of meaningful regulations. In fact, we had in New Hampshire an alleged study commission of the legislature that really didn't look at the issue very carefully and then concluded that everything was OK. But people up here who are dependent on the timber industry really don't think everything's OK. I have ecological concerns, but I think you also have some other concerns about clearcuts as well.

HS: I also have economic concerns as well as ecologic concerns. I think a multi-species, multi-aged forest provides a much more diverse environment for animal as well as plant species. My feeling is that clearcutting has been grossly overused and excused as a management tool. I feel that regulation would have helped in reducing clearcutting. However, in the absence of regulation, we have to bring home to our forest industry cohorts that what they're doing is short-sighted economic benefit, and they're killing the long-term. And I'm starting to see some response already. They're starting to recognize—and the only reason they're starting to recognize it is the discussion that came around the clearcutting bill and the public outcry. Unfortunately, what they've done from an economic standpoint by overcutting is they've sealed their own economic fate over the next few years—the next 20-40 years—because they've taken the investment out of a tremendous number of timberlands.

JS: What's your advice to the timber industry regarding the issues we've been talking about? And the next question is what's your advice to the environmental community?

HS: My advice to the timber industry is: look more longer-term. Educate your shareholders that your timberland is not a device to generate quarterly earnings per share, that is has a longer life span than that. You must look at the idea of both a working-forest and you have to respect more highly your stewardship responsibilities of your timberland. Also you will have to look at other ways to support owning your timberland base. And some of that is going to be through recreational leasing. My advice is that the industry is going to have to look at ways in which they can hold the land long-term. They're going to have to get involved in lobbying, and they're going to have to go to state government in Maine and New York State relative to the federal government holding a conservation easement or an interest in timberlands which they don't want. I think the Forest Legacy
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Northern Forest Lands Council Credibility Undermined by Refusal to Study Forest Practices



These abstract clearcuts near the West Branch Penobscot River remind the viewer of a Euclidian Geometry the assistance of Rudy Engholm & the Environmental Air Force.

by Mitch Lansky

[Ed. Note: On June 23 the Northern Forest Lands Council released its "draft findings" to its four state Citizen Advisory Committees. Following comments from the CACs, the draft findings will be revised by the Council's seven subcommittees and released to the general public on September 7, 1993. There will be a public comment period that ends on October 15, 1993. The *Forum* will await the release of the revised draft findings before offering extensive critiques of each subcommittee's findings. However, as Mitch Lansky observes, the four-year refusal of the Northern Forest Lands Study and its successor the Council to address the issue of forest practices undermines much of the work and credibility of the Council. We believe this is terribly unfortunate because the Council has done some very important work in addition to providing a forum for the many elements of the region to work together for a sustainable future. However, if the Council continues to shirk its responsibility to assess forest practices, we hold out little hope that its recommendations will be constructive, and we are confident that the public and the Congress will respond by ignoring recommendations that are biased by an unbalanced approach to the issue of forest practices.]

In his June 23rd memorandum on the Preliminary Draft Findings, Charles Levesque, Executive Director of the Northern Forest Lands Council, asks if there are any major holes in the contents of subcommittee findings. There is one major hole in the findings of each

subcommittee—forest practices. By avoiding discussion on forest practices (and their link with forest markets and forest conditions), the Northern Forest Lands Council is in the same awkward position as a high school with a crisis of teen pregnancies and venereal diseases—but unable to mention sex. Forest practices are central to the work of every subcommittee:

Biological Resources

This subcommittee finds that a diverse environment is a healthy one, and that "Finding a means to integrate resource use and the protection of the Northern Forest will be essential to maintaining the quality of life and special character of the region." But how can this be done without dealing with forest practices?

Because of the scale and intensity of forestry activity, forest practices are by far the most significant factor on the biological resources of the Northern Forest. The impacts of large whole-tree clearcuts, shortened rotations, herbicides, and roads are obviously not beneficial to plants and animals requiring unfragmented mature forest, vertical diversity, and reduced encroachment of motorized humans.

While the Council has considered recommending ecological reserves that would have representation of a wide range of ecosystem types, the ecological value of any reserve is affected by the management that surrounds it. Reserves that are surrounded by intensively cut over lands become isolated islands, with diminished capacity for sustaining viable populations of certain sensitive species. Such species are much better served if buffers and corridors are managed

according to ecosystem principles on a site and landscape basis.

In the Pacific Northwest, and even in Sweden, ecosystem-based management is a major issue of discussion. But the NFLC has not put this issue high on its agenda. Yet, one of its own contractors, C.T. Donovan Associates, [in *"Global Economic Trends that Affect the Forest-Based Economy in the Northern Forest Lands"*] concluded that, "Further research and analysis is needed on the emerging principles of the 'new ecology' which seeks to better balance the use of forest lands for harvesting, recreation, and conservation. Specific techniques for applying these practices to the Northern Forest Lands need to be developed."

Conservation Strategies

The findings of this subcommittee suffer from a problem; the word "conservation" is not defined. If "conservation" has any reference to soil organic matter and nutrients, water purity, or ecological integrity, then tax changes, full-fee purchase, or easement purchases that allow abusive management are not conserving the forest.

Purchase of a small percentage of the forest, even if there is some "conservation" on this parcel, does not conserve the whole forest, if the rest is simplified and fragmented.

There is one finding that does mention incentive programs (such as Forest Stewardship Program, or Partners in Wildlife) for private landowners. The existence of such programs raises some issues that need further exploration. Are non-subsidized forest practices insufficient to conserve

the forest? Is it legal (or acceptable) for landowners to degrade the forest? On what scale would such subsidies have to reach to significantly conserve the Northern Forest? How much would this cost?

Land Conversion

This subcommittee seemed to be concerned over the possibility that "land conversion" might impact the timber base. While it admitted that from 1980 to 1991, only 39,000 acres of forest land in lots larger than 500 acres were "converted" through development in the four state region, it suggested that there might be a "shadow" influence that would enlarge the impact on the timber base.

During the same period, forest landowners in just Maine reported (and this is probably a gross underestimate) clearcutting over 2,000 square miles of forest. From 1971 to 1986, federal and state forest surveys estimated that around 800,000 acres of the spruce-fir type were converted to other types (such as poplar) in Maine. The land conversions in both age structure and forest type from forest practices far exceed any conversions due to development. Indeed, there was probably more land removed from the timber base through roads, skid trails, and yarding areas, than through development during the same period.

This subcommittee seemed to be concerned over the "intensive timber harvesting," that accompanies subdivision and conversion for development, but it expressed no concern over exactly the same type of cutting (often followed by a dose of herbicides) done by large landowners if the land was not subdivided.

This subcommittee declared that the forest products industry, "is a viable industry," without any reference to the viability of the timber base. Since the biggest forest products industry in Maine is the pulp and paper industry, and since the most important resource for this industry (spruce and fir) has been declining in both area and volume, the finding by the Subcommittee lacks credibility.

This subcommittee found that "Where current use tax programs are not functioning well, increasing property tax burden is leading to the sale of forest land for development, high-grading and overcutting of timber before sales to maximize returns to sellers." Maine had the lowest property tax burden of the four state region, yet it had the majority of land sales, the majority of subdivisions, and certainly a good share of the high-grading and overcutting that went on during the 1980s. The facts thus do not support the contention that the cause of abusive forest practices is higher taxes (or that the cure is lower taxes). Indeed, the subcommittee found that "improving the profitability of forest management will reduce, but will not stop, the conversion of high value development lands."

The subcommittee admitted that, "Current environmental and timber harvesting regulations were not found to be a factor in land sales..." But it argued that the "unstable tax and regulatory environment," is one of the explanations for the relatively low level of investment in the region by institutional investors.

A more plausible reason, "the relatively high price of some forest land compared to its long-term return when managed for timber production," implies that much of the forest is in such poor shape that investment is not economically viable. Indeed, the Donovan report states that, "forest management practices and historical market conditions have resulted in a large volume of low-grade hardwood in the NFL region."

Ironically, an institutional investor did purchase land in the area—land that had been part of the previous leveraged-buy-out of Diamond [Ed. Note: See Interview with Hank Swan on page 6 regarding the James River-Diamond Occidental sale]. But Diamond, unlike some of the other industrial land owners, did not rely as much on clearcutting and left some timber to work with. Without reference to trends in forest practices, timber quality, timber volumes, and timber markets, discussions on trends in land conversion are incomplete.

Local Forest-based Economy

One would suppose that the object of trying to improve the local forest-based economy would be to improve economic diversity and create stable employment. Yet the subcommittee makes no reference to the current reality of market domination and declining jobs. It does not mention import of foreign labor or export of raw logs to Quebec. The chairman of the committee ought to be well aware of the latter practice since his own company is involved in it. The subcommittee also does not have any findings about forest practices or the changing quality of the forests. A state



Scott Paper Co. clearcut along the eastern shore of Moosehead Lake, not far from Kokadjo. The region west of Baxter State Park and northwards from Moosehead has been ravaged by massive clearcuts in the past two decades, yet the Council refuses to assess the impact of forest practices on the region. Photo by Steve Gorman

can not long support industries depending on high-value forest products if landowners do not sustainably manage for such products.

This subcommittee does make references to "improved marketing," and "value-added product opportunities," without discussing the barriers to such changes. It also has recommendations for a better "business climate" (i.e., reduce regulations and increase incentives) without discussing what type of business it is improving the climate for.

The dominating forest-product industry in Maine, the paper industry, for example, may not want a lot of competition for its markets if that would mean increased purchase prices for its wood supplies. To the extent that it succeeds in keeping purchase prices down, this means less money for woodlot owners and workers. This, in turn, influences the quality of forest practices.

Paper industry investment has been for machinery, and not for jobs. Despite high levels of cut in Maine during the 1980s, the number of jobs went down in both manufacturing and in the woods. Woods jobs declined 30% from 1984 to 1989, primarily due to mechanization. The only way to sustain jobs in such an industry is to continually increase the cut. But the cut, during the 1980s was non-sustainable. Indeed, as mentioned before, the spruce-fir resource declined.

It does not follow, therefore, that improving the business climate for this industry would benefit the workers, the communities, or the forests of the state (not to mention the air and water quality). Improving the climate for this industry may even hurt the climate for other businesses requiring some of the values of the forest (and water) harmed

by industrial practices.

One of the more interesting findings of this committee was that "educational opportunities are critical in the overall scheme of enhancing local forest-based economies." If educational opportunities were so critical, one would think that forest landowners would be glad to fund local education through property taxes—but this is not the goal of the next subcommittee...

Property Taxes

The extensive findings of this subcommittee are so riddled with myths (such as: that management is not profitable if taxes are greater than \$1 or \$2; that lower taxes mean better management; that land, such as industry land, under forester supervision can be assumed to be producing higher-value products than land, such as a farmer's woodlot, not under forester supervision) that I have sent in separate comments on this topic.

I suggested that a better way to improve returns to landowners than reducing taxes (and thus putting a greater burden on other taxpayers in town at a time of budgetary crisis) is to improve forest practices and markets.

Public benefits from tax decreases for special interests must be real, rather than theoretical. During the 1980s, on land under the Tree Growth Tax Law, the public in Maine was rewarded with forest practices that decreased biodiversity, decreased the volume and quality of timber, and decreased the number of jobs.

State/Federal Taxes

The findings of this subcommittee start with claims about the ability of landowners to "manage, own, and conserve," their lands being impacted

by the 1986 changes in federal tax law. But there are no data offered to substantiate this claim. The real-estate boom of the 1980s began before the 1986 federal tax changes. The boom subsided, somewhat, during the 1990s, despite the existence of these tax changes.

Before the tax changes, some large landowners clearcut entire townships. During the 1990s, after the changes, most landowners relied less on clearcutting. The corporate income tax therefore, seems to have a rather weak cause-and-effect relationship to public benefits in the form of improved forest practices or diminished development.

This subcommittee seems to equate consolidation of landownership with "conservation." In some cases, having more land owners may mean that the land is better cared for. It should not be the business of the council to preserve large concentrations of inherited wealth.

If the object of these tax changes is to protect a small percentage of the Northern Forest (HBU lands) from being converted to non-forest uses, then changing federal tax law for all forest landowners in the United States may be a rather expensive and ineffective method. There is no evidence that the recommended changes will guarantee the desired results.

If interest groups persist in lobbying for tax reductions with no clear public benefits (in the form of silvicultural strings or development restrictions attached), they will meet continued resistance. If tax policy is to be a recommended tool of the NFLC, there must be a *quid pro quo*—the policies must only apply to "qualified properties" where the public interest is truly at stake, and there must be guaranteed public benefits.

Recreation/Tourism

This subcommittee has not yet released its draft findings, but it is obvious that the condition of the forest is going to have an impact on the rate of tourism and recreation. Indeed, the Donovan report stated that "substantial efforts will be needed to ensure that forestland in the region is managed in a way that balances the commodity and the non-commodity values of the land. This is important because the non-commodity values of the forestland result in significant recreation and tourism, and contribute to the local forest-based economy."

Conclusion

The connection of forest practices to the ecological, economic, and social well-being of the region is undeniable. Just as forest practices are key to discussions of policy in the Pacific-Northwest region, they are key to discussions on the future of the Northern Forest. The public has raised these issues at Council and Citizen Advisory Committee meetings, and at open houses. I have sent letters on this topic to the Council—letters that have been printed in the **Northern Forest Forum**—but have, as yet, received no response. I have discovered that other members of the public have sent letters on the same subject and have likewise gotten no response.

Time is running out. And so is the credibility of the Council.

NRCM Proposes 'North Woods Conservation Area'

Existing Use Zoning—A Tool to Preserve Maine's Traditional Forest Uses

by Kathy Johnson
Natural Resources Council of
Maine

Introduction

Over the past five years, there has been a growing public debate over the future of the North Maine Woods. The debate was triggered by widespread land speculation and development in the North Woods during the land boom of the 1980s. During that period, the public realized that the traditional use of the North Woods for timber production, wildlife habitat, and public recreation was no longer immune from the ever-expanding pressures of development.

While the full extent of the land boom has yet to be documented, there is little doubt that the North Woods faces unprecedented land conversion pressures.

*The number of building permits issued annually by LURC [Land Use Regulation Commission which oversees the unorganized townships in central and northern Maine] tripled in the decade of the eighties.

*The average number of subdivision lots approved each year in the late 1980s was ten times the average number approved each year in the early 1980s.

*During the last half of the 1980s, unregulated land division activity resulting from the 40-acre lot exemption led to the fragmentation of over 100,000 acres of land.

*Now that the 40-acre lot exemption has been limited, developers

are presenting LURC with the largest subdivision proposals in the agency's history.

*Subdivision activity is focused on those lands with the most important public values: lakeshores, riverfront and scenic vistas.

What began as a Maine concern is rapidly evolving into an issue of national significance. Congress initiated the Northern Forest Lands Study and now is following up with further action. Several national environmental groups have made protection of the Maine Woods a high priority. Maine people have always realized that the North Woods were a resource of national importance. Now, as that resource comes under increasing threat, the national interest in that resource is making itself felt.

The recent changes in the North Woods have led to great uncertainty about the future. Environmentalists fear that conversion of forest lands to subdivisions and development will destroy prime natural and recreation areas. Those that make their living in and from the forest fear that adequate timber resources may not be available in the future. Sportsmen fear that public access to the North Woods may be restricted. Representatives of the forest products industry fear that the federal government will seek a more active presence in the North Woods preventing or severely restricting timber production.

These fears are not likely to subside on their own. To the contrary, unless the underlying causes of the fears are constructively dealt with, the fears will inevitably build and lead to pitched battles and further polarization of interested parties. The only way to avoid an escalation of these fears is for

Maine to initiate bold action to effectively protect the traditional uses of the Maine Woods. Quite simply, if Maine fails to seize the initiative to protect the future of this tremendous resource, the future of the Maine Woods will likely be resolved in the national political arena where the interests of the Maine people are less likely to be given full consideration.

With the establishment of the Land Use Regulation Commission almost twenty years ago, Maine people set forth a long-term vision for protecting the treasured resources and traditional uses of the North Woods. In the face of mounting pressures which threaten to undermine the traditions of the Maine Woods, it is time to reassert that vision with a new, equally far-sighted, initiative that will guarantee a more secure future for the state's wildlands into the twenty-first century.

The Natural Resources Council of Maine calls upon the Land Use Regulation Commission to create a "North Woods Conservation Area," a region encompassing the core and the essence of the North Woods, that will be designated for continued traditional uses including timber production, public recreation and wildlife habitat. The area will be placed off limits to the type of land speculation and development pressures that threaten the character and integrity of the North Woods. The NWCA offers an approach for future management of the North Woods that is consistent with the primary needs and goals of the Maine people.

In combination with this initiative, the Council advocates that development opportunities in the North Woods be more clearly targeted to facilitate planned growth in appropriate areas. By prospectively identifying growth nodes or zones, development opportunities will be assured and the regulatory review process will be more predictable for landowners.

How Would the North Woods Conservation Area be created?

The NWCA represents a natural progression of LURC's land use planning and zoning efforts. The Area would be created by rezoning a major portion of the unorganized territories to a Natural Character Management Subdistrict (M-NC zone). The Natural Character Subdistrict is an existing LURC classification with the following definition: The purpose of the Natural Character Management Subdistrict is to maintain some of the areas that characterize the natural outdoor flavor and spirit of certain large undeveloped areas of the jurisdiction and to permit only forestry and agricultural practices and primitive recreation. Unrelated development that might interfere with these activities and natural values will not be permitted.

LURC has never designated an M-NC subdistrict. The last time LURC updated its comprehensive land use plan and rezoned the jurisdiction was in 1983, before the land boom threatened the wildlands. At that time, there was not a perceived need for this type of zone.

However, today the need for new tools is clear. The Natural Character

Management Subdistrict is specifically designed to preserve the traditional character and uses of the North Woods, allowing timber management and other resource-based activities to continue in conjunction with other uses such as remote recreation, clean water and air, and wildlife habitat. Houses and subdivisions are not allowed as they are in LURC's General Management Subdistrict. Pockets of existing development within the NWCA (M-NC Subdistrict) would not be affected by the new designation.

Under current LURC procedures, rezoning of General Management Subdistrict lands for development is routine. Rezoning of NWCA (M-NC Subdistrict) lands would face a stricter test, providing security comparable to that now afforded LURC's protection zones around remote trout ponds.

The NWCA would "comprise a few large areas which are remote and have a natural and wild character" and contain a "variety and concentration of important features" (as described in LURC's definition of the M-NC Subdistrict). The NWCA would encompass a major portion of the unorganized territories.

Outside the NWCA, LURC should improve its system of identifying locations where development is to be directed. Currently, landowners and developers are only provided with minimal guidance as to what areas are considered acceptable for new development. By designating appropriate growth "nodes" or expanding development zones to accommodate anticipated growth, landowners and developers will have greater assurance that appropriate development will be permitted. The combined action of establishing the NWCA and prospectively identifying growth nodes will make LURC decisions affecting land use in the unorganized territories more timely and predictable.

Why a North Woods Conservation Area?

The NRCM proposal for the creation of a North Woods Conservation Area is based on a variety of premises which the Council believes to be important.

1. It builds on the existing system rather than starting anew. NRCM believes that the basic mandate and structure of the Land Use Regulation Commission are sound. However, the Council also recognizes that LURC must evolve to meet today's and tomorrow's challenges. Rather than replacing LURC with a new state, regional, or federal agency, NRCM believes that it makes sense to strengthen and improve LURC.

2. It recognizes that timber production is an important economic activity which benefits Maine's economy and workers. NRCM supports a vital and sustainable forest products industry. If development is allowed to spread through the wildlands, it will inevitably conflict with timber management activities and thereby undermine the forest products industry. "Strip and subdivide" has become a common practice in the North Woods resulting in the large-scale liquidation



of timber and threatening future forest productivity. Removing the subdivision option in the NWCA eliminates the driving force behind this type of destructive practice. Sound, sustainable forest management naturally becomes a higher priority.

In the current forest real estate market, it is often difficult for buyers who have a long term interest in forest land ownership to compete with those seeking to make quick profits from timber liquidation and land speculation. The NWCA will level the playing field for forest land investment by limiting quick-profit opportunities. Long-term forestry interests will be in a better position to acquire land resulting in improved forest management and a more secure timber supply.

3. It provides a continued opportunity to demonstrate that private ownership can be consistent with long-term stewardship of the forest. Many people argue that the only way to protect land is to have the government buy it. Others maintain that large forest landowners have been and can continue to be responsible stewards of forest land. The North Woods Conservation Area provides landowners with an opportunity to demonstrate their long-term commitment to multiple-use forest management.

4. It recognizes that there are ample opportunities for growth and development in the North Woods without destroying traditional uses and valued resources. Creation of the North Woods Conservation Area will not limit appropriate growth and development in the unorganized territories. To the contrary, the proposal seeks to identify areas where growth and development should be directed. High value resources, which attract Mainers and tourists to the North Woods, would not be destroyed by ill-conceived development.

5. It is designed to complement other North Woods strategies. A North Woods Conservation Area must be only one part of a multi-faceted approach to ensuring the future of the North Woods. Ambitious public acquisition initiatives, including acquisition of easements, and incentives to support sound forest management are necessary and would complement, rather than conflict with, this proposal.

Why the Existing System Cannot Protect the North Woods

The development pressures of the 1980s strained LURC's ability to manage growth and guarantee the protection of the resources and traditional uses of the North Woods. The agency's land use policies were adopted prior to the land boom at a time when such pressures could not have been foreseen. Several key weaknesses in LURC's zoning and regulatory abilities were exposed by the unprecedented rush to develop the North Woods.

As it presently operates, the agency lacks the means to prospectively direct growth to appropriate locations. The agency's primary growth guidance tool—the adjacency policy which requires new developments to be in the proximity of existing development—has proven to be far too simplistic to effectively guide growth to desired locations. Instead, vast areas of the jurisdiction are potentially vulnerable to

development. The agency has acted primarily in response to development proposals, a strategy which was adequate during periods of modest growth pressures, but which is proving inadequate as more and more land speculators set their sights on the Maine Woods. The result has been increasingly haphazard patterns of growth throughout the wildlands, rather than targeted growth in suitable locations.

A second limitation of LURC's

current rezoning policies is that there is no limit placed on the expansion of any development zones. During times of slow growth, this does not create a serious problem. However, with increasing subdivision pressures, development zones continue to expand unendingly with high value lakeshore and scenic areas bearing the brunt of the pressure. LURC should be planning, not just for the next five or ten years, but for the next fifty, for future generations.

A third concern with the current system is the ability to create non-subdivision development almost anywhere in the unorganized territories with little or no environmental review. This type of development—whether a single home on a previously pristine trout pond or a large-lot development gobbling up hundreds of acres of land—has resulted in the degradation of highly valued resources and the conversion of thousands of acres of productive timberland.

A final reason for the establishment of the NWCA is the lack of public lands in the North Woods and the continued reliance on private forest lands to meet public needs and interests. Unlike other states that can look to public lands to provide recreational opportunities and wildlife habitat, Maine relies on private lands to fill these needs. However, development trends threaten this tradition. The political and financial barriers to large scale land acquisition suggest that Maine needs to look at alternative strategies which can continue the tradition of multiple uses on privately held forest lands.

In sum, few areas in the North Woods are truly protected from development and, over the long term, current policies could lead to major changes in the character, land use patterns, and uses of the North Woods. The proposed North Woods Conservation Area responds effectively to this predicament. The NWCA boundaries will limit the expansion of development and direct growth to more appropriate locations. Also, the NWCA will prevent the cumulative impact resulting from piecemeal, unregulated development. While the NWCA does not preclude the need for new public land acquisitions, it allows limited resources to be focused on the most deserving areas.

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Existing-Use Zoning

(From the Northern Forest Lands Study, USDA Forest Service and governors' Task Force on Northern Forest Lands, April 1990, page 42)

Existing-use zoning is a simple form of zoning. As the name implies, it specifies that the legal uses of land are those that the parcel is already used for. The technique is meant for rural areas where the objective is to avoid continuous changes in land use. It works best in areas where people want uses of the land to remain what they have traditionally been, where existing land uses provide public benefits, and where the tendency is for that land to remain in its current use anyway.¹

Unlike traditional zoning, existing-use zoning requires owners who want to modify use of their land to shoulder the burden of justification when petitioning for rezoning or variances. It protects the public interest in retaining the character and quality of rural land and allows communities to "...keep what they have—both the prevailing uses of private land and the character or its surrounding." Those who stand to profit by imposing changes in land use must petition for the opportunity.

This form of zoning is based on the premise that current uses of the land are appropriate and that landowners are able to put the land to some economical use. Given this, existing-use zoning is not considered a taking and is within the limits of the United States Constitution. Although this form of zoning limits the right to develop the property, the Supreme Court has made it clear that this right is not one of the "fundamental attributes of ownership" for which landowners must receive compensation. The Supreme Court has also

stated that land use regulations denying an owner economically viable use of the land do constitute a taking. As long as some economically viable use of the land remains, even if it is not the most profitable use, the regulation is not a taking.

In the majority of the Northern Forest, growing wood products continues to be an economically viable use of the land. To this day, forest product companies are acquiring land in the study area for the intended purpose of growing wood. This may tend not to be land near certain lakes, rivers and scenic ridges, where development pressure is most intense and land values for subdivision lots are much higher than the value of ordinary forest land. Existing-use zoning would be most appropriate for forested areas away from existing communities and settlements.²

¹ John A. Humbach, "Law and a New Land Ethic," *Minnesota Law Review*, Vol. 74, No. 2, December 1989.

² Humbach, *op.cit.* Note also California and Oregon have existing use zoning of their forest land. In California, the Forest Taxation Reform Act mandated zoning by local ordinances of all timberlands into Timberland Preserve Zones. Oregon has a land use planning program, authorized by the Land Conservation and Development Act, requiring local governments to develop comprehensive plans that comply with statewide goals. One of the goals provides for forest land preservation by designating lands for forest use and limiting change to other uses without conforming to local land use plans. For further review of existing use zoning in California and Oregon, see Robert L. Liberty, "Forestland Preservation," *Harvard Environmental Law Review*, Vol. 5:153 (1981).

A Few Questions About the 'North Woods Conservation Area' Proposal

Editor's Note: I am very enthusiastic about NRCM's proposal to apply "existing use zoning" to much of the industrial forest region of Maine. Zoning and regulation may accomplish the same goals as acquisition of conservation easements, and they are much less expensive. Nevertheless, I do have some reservations about certain aspects of this proposal as it now stands. Here are Cathy's written answers to some of my concerns.

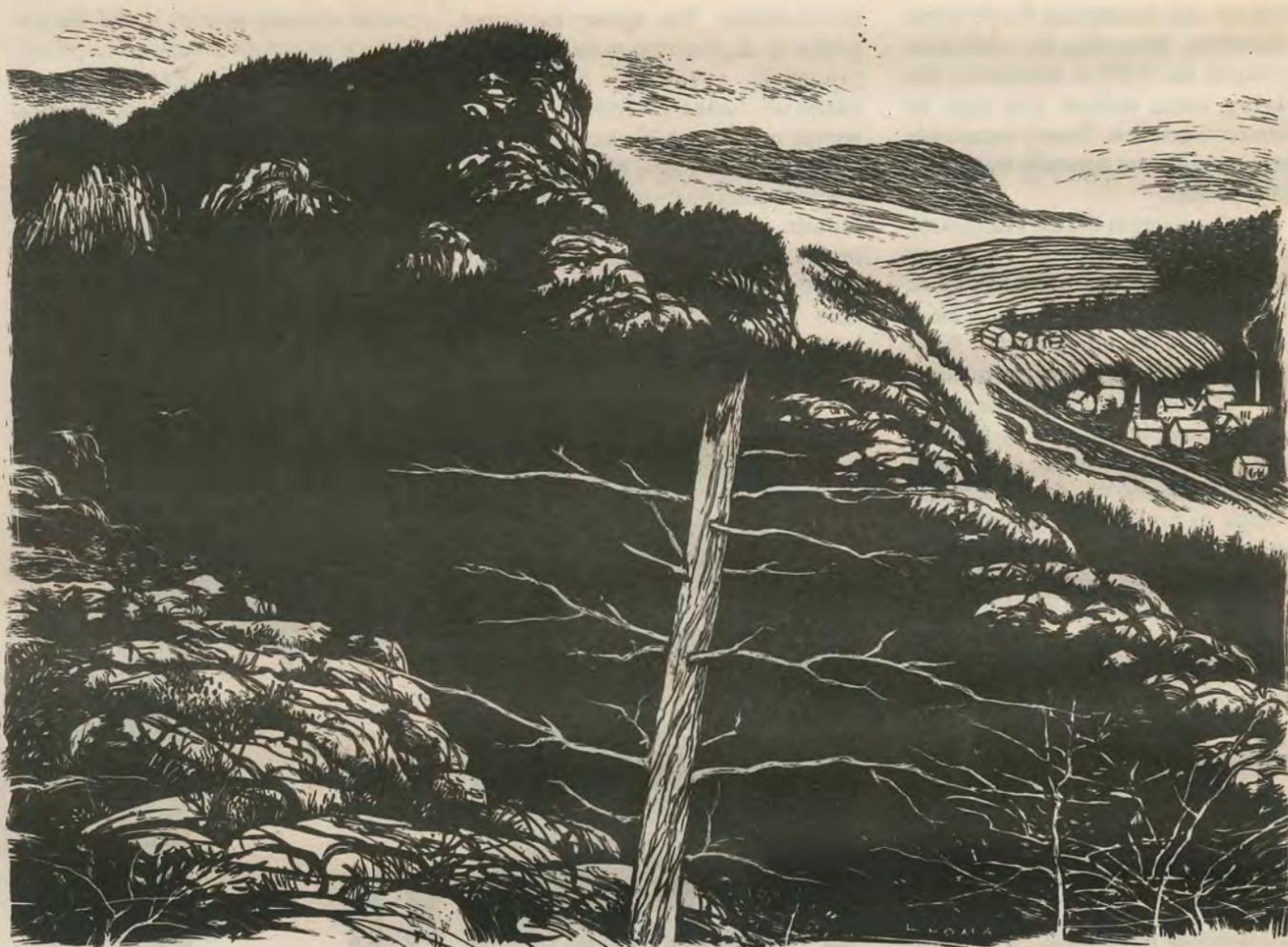
JS: Thank you for putting forth a proposal that relies on existing use zoning (EUZ). EUZ, not expensive easements, is the solution to most of the development problem. It is cheap, quick, and constitutional. It does not require messy negotiations with each and every land owner, and it does not discriminate against responsible, caring stewards. If it works hardship in greedy speculators, so much the better. They have wrought enough mischief already.

In the introduction you note that the future of the North Maine Woods is rapidly evolving into a national issue. Then a few paragraphs later you suggest that if Maine fails to seize the initiative to protect the future of these woods, the decision is likely to be decided in the national arena "where the interests of Maine people are less likely to be given full consideration." I believe that the past practice of treating the Maine woods as a strictly Maine issue has been disastrous for the Maine Woods and the people of Maine. Because 54% of the Maine woods in the Northern Forest Lands Study area is owned by absentee multinational corporations, this really is a multinational issue. The people of Maine need help from other citizens if they are to preserve northern Maine from the Wall Street corporations who continue to practice unsustainable forestry.

CJ: NRCM believes that the future of the northern forest issue is an issue of national significance. A variety of tools will be needed to fully protect the region, including acquisition, land use regulations, economic development strategies, economic incentives, and forest practices regulations. We believe that land use regulation is a tool that should be carried out at the state and local level. Nothing we have seen to date convinces us that federal land use regulatory control is superior.

JS: What are appropriate development zones? I submit that Maine is already over-developed, and that until we can get a handle on the true nature of the crisis—ecological, economic and social—we should call for a complete moratorium on development in the NFLS region, as was called for in the Adirondacks by the Commission on the 21st Century in 1990. Once we have done appropriate studies, we can make an ecologically responsible determination as to whether or not further development is acceptable.

We aren't obligated to safeguard profits for developers. Our job is to protect biological diversity and to encourage sustainable local economies.



Boom and bust development undermines this by raising property values and taxes, creating only temporary jobs, destroying some of the most ecologically sensitive lands and by encouraging an exploitative and speculative economy instead of a diverse, steady-state economy that retains the profits in the regional economy.

CJ: NRCM has not designated appropriate development zones. We believe that such designation should occur through a process which includes input from a wide variety of people, including land owners, environmentalists, and business interests. However, to give you an indication of what we have in mind, I believe that Rangely, Jackman, Greenville, Millinocket and Ashland are all examples of communities within the northern forest region where appropriate development could take place. All of these towns have LURC jurisdiction land abutting their borders.

JS: Would the M-NC zone permit new mining and other resource development?

CJ: As currently defined, the M-NC zones permit mineral exploration activities. The M-NC zone also permits extraction for road purposes. Metallic mineral mining is not permitted.

JS: How would rezoning of M-NC areas be done?

CJ: We anticipate that rezoning of M-NC zones would happen rarely if ever. Currently LURC applies criteria to a proposed rezoning of a remote pond very strictly. No remote pond has ever been rezoned for development. We would advocate similarly strict application of rezoning criteria for the M-NC zone.

JS: Development isn't the only force undermining a "vital and sustainable" timber industry. In fact, it is a rather late contributing factor, and only in a relatively small portion of the overall industrial forest region. Nevertheless, in some areas, development is, indeed, a serious threat. I agree. But, the region's timber

industry has been in trouble for a long time, due to the condition of the mills, forests, rivers, and the overall industry strategy to invest in the Southeast rather than in the Northern Forest region. The Diamond land sale was not dictated by development pressures, even though some developers exploited it. But, even there, most of the 800,000 acres Diamond sold in Maine went to industry, because developers were not interested in these lands. Most of the Maine woods is unthreatened by development, and your proposal would have no effect, unless coupled with meaningful forest practices regulations.

It is wishful thinking to hold out hope that the multinationals will suddenly practice sustainable forestry if the threat of development is removed. A study of industry practices all over North America reveals that areas totally unthreatened by development are being liquidated by the timber industry. Forestry abuses were well entrenched long before the 1980s development binge.

However, if we remove development threats, establish equitable property taxes and eliminate mill price-fixing, then the smaller land owners will be much more liable to practice sustainable forestry. But, even in the areas most threatened by development, a purely "development" strategy will not be adequate; we must address all root causes of the problem, including problems caused by the multinational timber industry.

CJ: I agree that development is not the only force undermining a sustainable forest products industry. But I do believe it is a very significant problem. The proposal is designed to address that particular problem. It does not attempt to solve all of the issues facing the North Woods. Other strategies will be needed to address other issues.

JS: In the section "Why a North Woods Conservation Area?" I am concerned about item #4 which suggests that "there are ample opportunities for growth and development in the North

Woods without destroying traditional uses and valued resources". It has been my experience that growth and development destroy the natural values of the area developed. What sort of positive development do you have in mind?

CJ: Sporting camps and value-added wood products industries are both examples of development which I believe would be appropriate in certain areas of the North Woods.

JS: Existing use zoning is one of the most important tools for protecting private lands, but the most acute problem in the northern forests is the lack of public land. Since it is estimated that 3-5 million acres are currently for sale in the 26 million acre NFLS region, we have a golden opportunity to rectify this problem by purchasing land from willing sellers. NRCM's proposal to use Existing Use Zoning is a splendid contribution to the overall strategy, but by itself, it is insufficient. We must incorporate an overall strategy of EUZ, full fee purchase, ecologically appropriate forest management practices, and a re-development of a regional economy based on labor-intensive, value-added, small-scale industries. Hand-made furniture, rather than biomass and pulp.

CJ: As we state in section 5, we have always supported, and continue to support, public acquisition along with land use regulation and other initiatives to ensure the future of the North Woods. No one strategy by itself is sufficient.

Cathy concluded her response to my comments with the following observation with which I fully agree: "Our proposed North Woods conservation area will not solve all of the problems in the North Woods. However, it could be a tremendous step forward. Designation of M-NC zones would allow the public, not developers, to decide which parts of the North Woods are appropriate for forestry, wildlife, and recreation, and which are appropriate for houses."

The Red Spruce-Balsam Fir Forest of Maine

Evolution of Silvicultural Practice in Response to Stand Development Patterns and Disturbances

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Excerpted from M. J. Kelty, *The Ecology and Silviculture of Mixed Species Forests*, Kluwer Academic Publishers, 1992, pp. 219-230.

DISTURBANCE HISTORY

Spruce Budworm: During the 20th century, the most profound natural influence on growth and development of red spruce forests in Maine has been the eastern spruce budworm, a native insect. Documented outbreaks resulting in extensive tree mortality have occurred on two occasions: ca. 1913-19 and recently from 1972-86. A third outbreak that reached epidemic status in the boreal forest during the late 1940s caused only non-fatal defoliation in northern Maine (Irland et al. 1988). This insect arguably has been studied more than any other forest pest in North America, and a voluminous literature has accumulated from comprehensive investigations of these outbreaks (Swaine and Craighead 1924; Morris 1963; Sanders et al. 1985). Most research on budworm dynamics has been carried out in boreal forests where fir occurs in mixture with white and black spruce. The red spruce-fir forests in Maine and the southern Maritimes are more diverse in composition and structure, and have more complex and less well understood response patterns to uncontrolled budworm attack.

Controversy remains about the causes and periodicity of budworm outbreaks. Intensive studies of budworm population dynamics and observations of forest age structures suggest a natural cycle of 30-40 years, controlled by climate, availability of extensive areas of mature host foliage (balsam fir), and other natural limiting factors (Morris 1963; Royama 1984). Blais (1985), on the other hand, has argued that outbreaks were less common and less extensive in virgin forests than during the current century, based on studies of radial growth suppression of old white spruce in trees mostly in eastern Canada. Blais attributed the more frequent outbreaks to an increased abundance of balsam fir (the favored budworm host) resulting from extensive cutting of spruce, insecticidal protection of mature fir stands, and fire protection that has gradually reduced the area of non-host hardwood forests. The argument that forest exploitation has rendered spruce-fir forests more vulnerable to budworm attack is not new or unique; Swaine and Craighead (1924), Mott (1980), and many other writers have advanced similar arguments in support of silvicultural control strategies aimed at reducing fir abundance (Blum and MacLean 1985).

No definitive studies have examined the presettlement history of budworm outbreaks in the red spruce-dominated forests of Maine, so what follows is somewhat speculative. Mott's (1980) review of historical evidence reveals the possibility of two outbreaks during the 1800s: one in coastal Maine during the 1870s which did not reach tree-killing status inland, and a speculative one during the early 1800s. Evidence for an early 1800s outbreak comes from eyewitness accounts of extensive spruce mortality by early explorers and a distinct pattern of growth suppression during 1810-14 described by Austin Cary (1894a) as "reduced in some cases to almost microscopic." Although Cary attributed this growth suppression to a period of unusually cold weather, it does coincide with an outbreak postulated by Blais (1968) nearby in Quebec. The extent of this outbreak throughout northern Maine is unclear. Cary stated that "this zone of rings has been found in spruce trees in all parts of the State", whereas Lorimer (1977) found little evidence of extensive budworm-caused tree mortality in surveyors' notes dating from the 1820s, when such evidence would have been quite apparent. One can conclude that Maine's red spruce region escaped a tree-killing budworm outbreak for a



Beaver dam-building is another important natural disturbance agent in the Northern Forests. Photo of beaver pond in the Kahtadin Iron Works tract by John McKeith

minimum of ca. 100 years (i.e., from the early 1800s to 1913), a much longer frequency than the nine outbreaks reconstructed by Blais (1985) throughout the boreal fir region during the same period. Further evidence that budworm was not an important influence during the late 1800s comes from Hopkins (1901) monograph on "insect enemies of spruce in the Northeast", and Cary's (1900) accounts, which concentrate on bark beetles and do not even mention any budworm-like defoliators.

Uncontrolled budworm outbreaks exert a controlling influence on stand development in forests dominated by balsam fir. After several years of complete defoliation, mature stands invariably are completely killed, while immature stands suffer partial mortality analogous to a heavy crown thinning. The outbreak then collapses as a result of foliage depletion, and surviving trees develop without further defoliation until the next outbreak ca. 40 years later. Between outbreaks, advance seedlings that originated beneath mature stands prior to defoliation develop into vigorous immature stands, while surviving 40-year-old trees develop into large-crowned, highly vulnerable 80-year-old individuals. In this manner, the budworm effectively perpetuates a two-aged forest structure by periodically thinning the 40-year age class and killing the 80-year age class (Baskerville 1975a; MacLean 1984).

The budworm's effect on stand development in forests with a strong red spruce component is more complex. Studies of uncontrolled outbreaks during the 20th century demonstrate that some spruce can be killed, but that this species is much less vulnerable to mortality than fir (Swaine and Craighead 1924; MacLean 1985; Osawa et al 1986). Post-outbreak stand structures thus depend on the relative abundance of red spruce and fir, as well as associated non-host species. One common pattern involved immature mixedwood or spruce-dominated stands that originated during the late 1800s after a heavy sawlog cuttings. Many such stands also had a residual overstory of fir left after the sawlog harvests, and were thus two-storied when the budworm outbreak developed ca. 1910. In these mixed-species stands, budworm tended to kill only the fir in both the residual and regenerating strata, thereby creating even-aged stands dominated by spruce or hardwoods (Seymour 1980). Sixty years later, these stands at age 90-100 were less vulnerable to the 1970s outbreak than were younger, 50-60-year-old pure-fir stands that originated after the 1913-19

attack. The logging-origin, spruce-dominated and mixedwood stands experienced only partial mortality and patchy regeneration, whereas the budworm-origin, fir-dominated stands were again completely killed and regenerated. Over time, in the absence of logging or catastrophic disturbances, the lower vulnerability of red spruce to budworm attack, coupled with its greater inherent longevity than fir, would eventually tend to promote multi-aged structures. Stands would become increasingly dominated by red spruce, as the more vulnerable fir was repeatedly purged from mixed stands.

Other Natural Disturbances: The preoccupation with spruce budworm as a dominant natural influence on stand development is relatively recent. When professional and scientific attention was first directed at the red spruce forest in late 1800s, the dominant concern was damage by the spruce bark beetle (originally *Dendroctonus piceaperda* Hopk., now *D. rufipennis* Kirby). Hopkins' (1901) investigations showed that, like other *Dendroctonus* species, this insect caused serious damage primarily to old, large-diameter trees. The scale of mortality apparently varied widely, from scattered mortality of individual stems to up to heavy losses over several adjoining townships. Peak mortality evidently occurred during the 1880s, coincident with large-scale spruce sawlog cutting operations on all major river systems of the State (Cary 1900). Severe bark-beetle mortality evidently regenerated "dense thickets of fir and other young growth" (Cary 1900); photographs in Hopkins (1901) show radial growth response of suppressed balsam fir that had formerly occupied understory status but was released by complete mortality of overstory spruce.

Wind damage is also an important disturbance agent, because of the shallow-rooted habit of spruce and susceptibility of fir to heart rots. Unlike insect epidemics, however, wind damage is usually a chronic phenomenon. Early surveyors noted large-scale windfalls (over 0.5 km in length) along only 2.6% of township lines, virtually all of which was spruce and fir on stony flats and swamps (Lorimer 1977). Assuming that surveyors would dependably record windfall for ca. 30 years, Lorimer calculated a recurrence interval for major windthrow (>25 ha) of 1150 years.

Fire was a concern of early foresters in Maine as it was elsewhere, but it is virtually impossible to separate a few, very large and probably man-caused fires from purely natural events. Extensive spruce logging, especially of pure stands on upper slopes and near railroads, appeared to increase both fire frequency and severity during the late 1800s in comparison to the presettlement era (Cary 1894b; Weiss and Millers 1988). Estimates of the natural recurrence interval of fire in northeastern Maine vary from a minimum of 800 to over 1900 years, depending on whether the 1803 fire (which covered 80,000 ha in the survey area alone) is included (Lorimer 1977).

Lethal disturbances affecting hardwood species also have greatly influenced stand development of mixed spruce-hardwood stands. Reams and Huso (1990) documented radial growth increases during 1935-55 in 54% of stands sampled ca. 1980 throughout northern Maine. They noted that this period coincides with extensive mortality and top-kill of *Betula* spp. resulting from the birch dieback epidemic, and the "killing front" of the introduced beech bark disease that eliminated *Fagus grandifolia* from the overstory of many stands in eastern and central Maine (Millers et al. 1989). Lethal disturbances affecting other conifer species that potentially have affected spruce-fir stand development include the larch sawfly (*Pristiphora erichsonii*) outbreak of the late 1800s that virtually eliminated tamarack from poorly drained sites throughout the spruce-fir region, and the pine leaf adelgid (*Pineus pinifoliae*) which can kill eastern white pine without damaging the alternative host red spruce (USDA Forest Service 1985).

Effect of Natural Disturbances on Stand Structures: The largely historical evidence reviewed above suggests that, unlike the boreal spruce-fir forest, large-scale stand-creating disturbances were much less

common in the red spruce region prior to extensive logging of spruce. Rather, the evidence appears to support a regime of disturbances that were perhaps quite frequent relative to the life span of red spruce, but which rarely resulted in complete overstory mortality. The typical origin of virgin spruce appears to be a gradual response to a series of releasing disturbances, until reaching the overstory at relatively advanced ages. Evidence of this pattern comes from comparing the age-size relationships of virgin spruce from Cary (1894a) and Graves (1899) with those of both managed (Seymour and Lemin 1988) and unmanaged (Meyer 1929) even-aged stands (Fig. 1). Cary aged 1050 spruce logs from all major river systems of Maine during the early 1890s and found that 72% of all trees fell into the 100-year age class between 150-250, and less than 5% were under 125 years old. On the average, a spruce required nearly 200 years to reach a stump diameter of 36 cm (14 inches). Graves' age-size data from the Adirondacks follow a very similar pattern. In contrast, Meyer's normal yield tables show that spruces will reach 25 cm (10 inches) dbh at ca. age 100 on average site land; with early spacing, this time can be shorted to ca. 70 years — 40-60% of the ages of comparably sized trees from virgin stands.

Graves (1899) also measured recent periodic growth, and found that trees averaged 0.25-0.30 cm (0.10-0.12 inches) of diameter per year, with little pattern by diameter class other than a slight increase in the 28-36 cm (11-14 inch) classes. These growth rates are slightly less than the diameter-growth rate implied by the least-squares regression slope of 0.33 cm (0.13 inches) per year, but are significantly greater than the average dbh growth of 0.15-0.23 cm (0.06-0.09 inches) for all dbh classes over their entire lives. The fact that mean annual growth was still increasing, even for spruce over 50 cm (20 inches) dbh, is further evidence that such trees initially developed through a period of suppression where they grew at a below-average rate. More recent studies of age structure of intact, old growth stands also document the presence of several age classes, and an overall relationship between age and size such that the largest diameter, dominant red spruces were usually the oldest trees in the stand (Oosting and

Billings 1951; Leak 1975).

The relative proportions of even- and uneven-aged stands in the presettlement forest are uncertain. Cary (1896) described height-growth patterns of free-growing spruces on two different soils, but noted that "but a small proportion of the trees that make up our spruce lumber have grown in any such way. Most have grown under a shade, often a dense and overpowering one." Cary (1896) further described a common forest type of "small and thick spruce timber" growing on "rocky knolls or ridges alternating with swampy ground" as "very old second growth which started up after some primeval fire or blowdown." He also encountered a 110-year-old fire-origin stand in which spruce was still in a subordinate stratum relative to the dominant white pine and declining paper birch and aspen, and commented "plainly, the prehistoric forest was by no means free from fire", but the clear implication was that such an origin was quite uncommon. Graves (1899) observed that pure spruce-fir stands, which occurred mainly on poorly drained flats or shallow, organic soils on upper slopes, tended to exhibit even-aged structures, as a result of their shallow-rooted habit and high risk of complete blowdown there. When Meyer (1929) sought even-aged stands for the first red spruce normal yield tables, he relied heavily on old-field stands; natural even-aged red spruce stands in Meyer's data base throughout northern New England occurred mostly on poorly drained sites.

It is possible that even-aged stands were common, but overlooked by early foresters simply because they were either immature, small-diameter, or dominated by balsam fir and hence of little value. Most even-aged stands probably originated after pure spruce-fir stands on poorly drained soils were subjected to severe windstorms; outbreaks of bark beetles or spruce budworm would usually not kill entire stands of spruce unless all trees were very old. Another probable origin is a heavy partial disturbance followed by windthrow of isolated surviving trees with unstable height:diameter ratios resulting from having grown in dense, undifferentiated stands (Oliver and Larson 1990). Post-disturbance blowdown was a common pattern of development after early partial cuttings, which led Cary (1899, 1902) to

recommend clearcutting such stands. Fires were uncommon, and usually created stands of intolerant hardwoods which can require over a century to develop a composition of pure spruce-fir. The apparent lack of truly even-aged stands does not necessarily imply the existence of more than two age classes. Nevertheless, if extended suppression were the characteristic origin of dominant, mature spruce trees, then small-scale releasing disturbances must have been the dominant influences on stand development and structure.

Historical Logging Practices: While study and analysis of structure and development of virgin spruce stands offers many interesting and provocative ideas, over a century of logging in Maine's spruce-fir region has greatly reduced the possibility of further research. Nearly a century ago, Cary (1896) estimated that only 14% of the entire Kennebec River drainage had never been cut for spruce. Hosmer (1902) also commented that the virgin stands he studied "represents a class of forest of which very little is now left in Maine." Oosting and Billings (1951) found abundant examples of virgin old-growth in the southern Appalachians, but were able to locate only four northern examples in the late 1940s, all in the White Mountain National Forest. Nearly all the present commercial forest in Maine has developed in response to some kind of harvesting, and likely exhibits structures and compositions that may be quite different than those of virgin stands. The following chronological narrative, patterned after Seymour (1985), is offered on the premise that an understanding of how forest structures influenced logging practices, and vice-versa, is valuable background for discussing more intensive silvicultural systems for today's forests.

Although Maine is probably most famous for its logging of old-growth white pine, there is little doubt that red spruce, not pine, has been the staple of both early and present industries in Maine. Logging in the early 1800s initially concentrated solely on pine, and the easily accessible pine resource was depleted within a few decades. By ca. 1870, spruce supplanted pine as the dominant species in the annual river drives (Cary 1896). The first spruce harvests during this period tended to cut only spruce over 30-40 cm (12-16 inches) dbh in a highly selective fashion, probably from mixed stands on deep well-drained soils where the largest trees grew. As markets improved and large-diameter stands became scarce, many stands were cut repeatedly for sawlogs, each time to lower diameter limits, until all timber over 25 cm (10 inches) stump diameter was removed. In the 1890s, the rapidly developing pulp and paper industry built several mills on major rivers and began large-scale acquisitions of timberland formerly cut over for pine and spruce sawlogs. Unlike other regions such as the Lake States and parts of the Appalachians that were liquidated during the same period, Maine's spruce-fir forest remained well stocked with merchantable trees after the initial wave of exploitation for sawlogs. As a result, many stands were again harvested to even smaller diameter limits. Continued lowering of merchantability standards allowed not

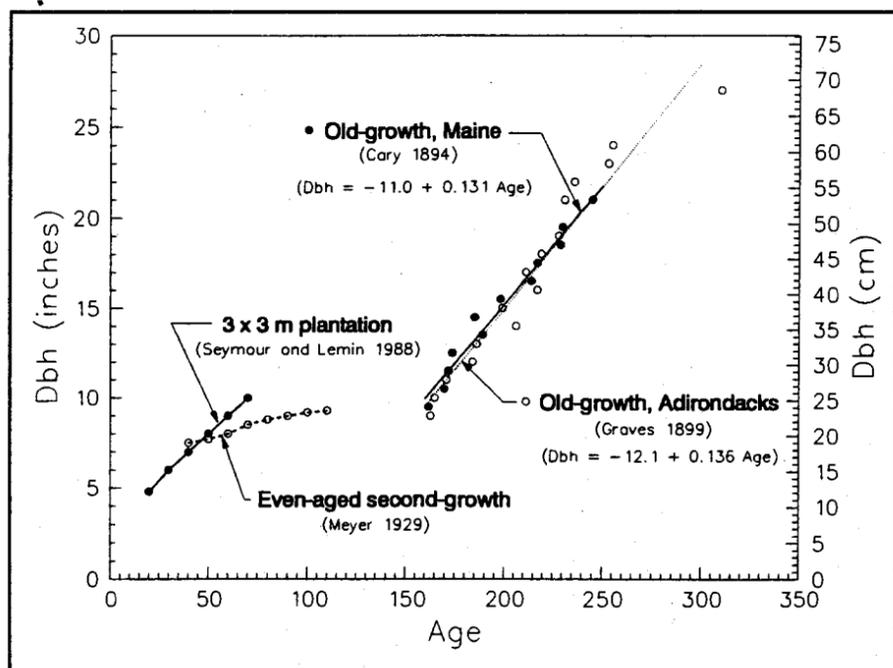


Figure 1. Comparison of diameter-age relationships of virgin old-growth red spruce with managed and unmanaged even-aged stands.

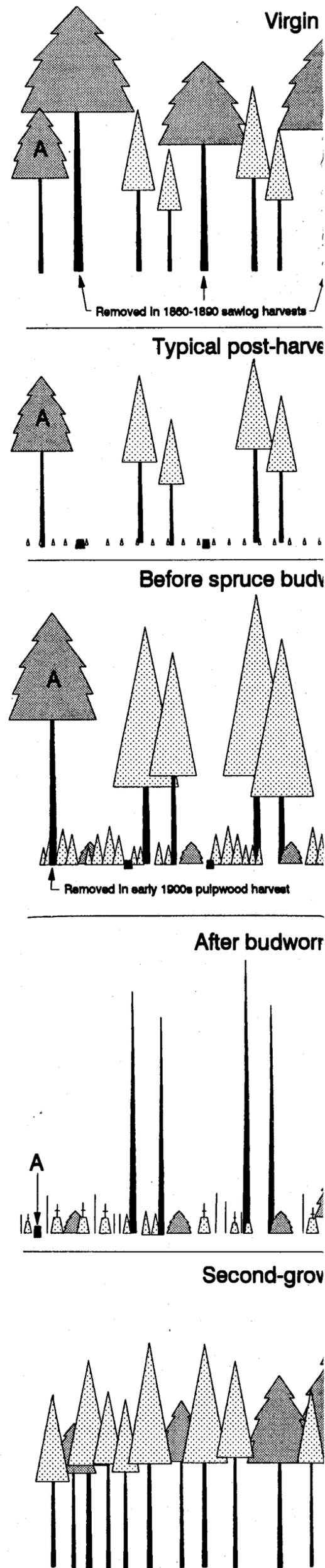
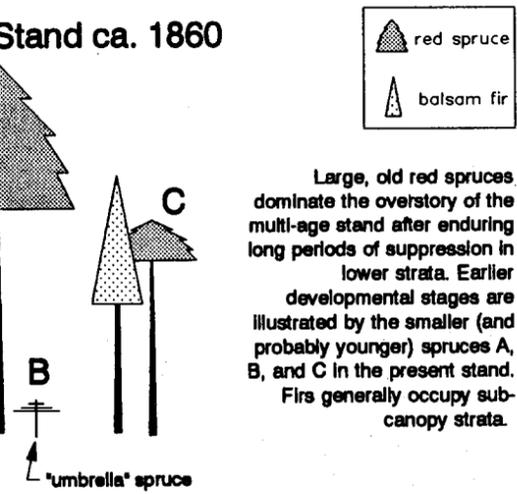


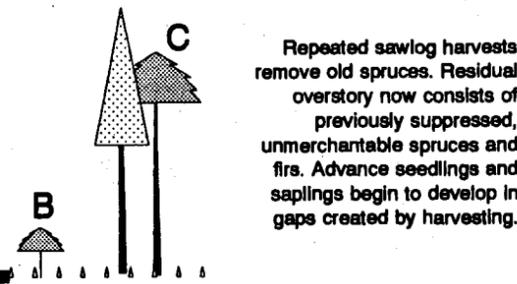
Figure 2. Development of typical spruce-fir stands.

Stand ca. 1860



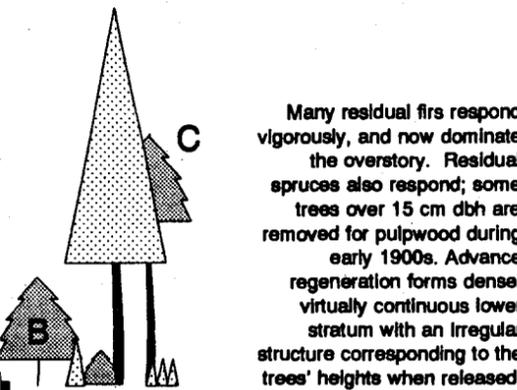
Large, old red spruces dominate the overstory of the multi-age stand after enduring long periods of suppression in lower strata. Earlier developmental stages are illustrated by the smaller (and probably younger) spruces A, B, and C in the present stand. Firs generally occupy sub-canopy strata.

Stand structure ca. 1890



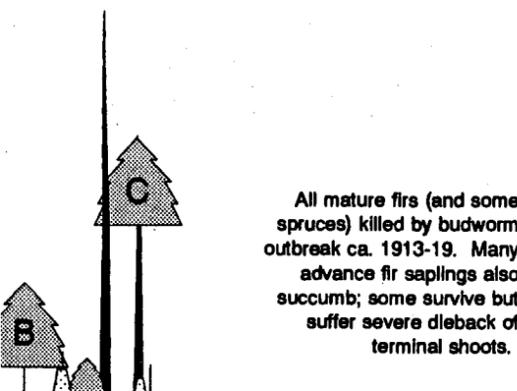
Repeated sawlog harvests remove old spruces. Residual overstory now consists of previously suppressed, unmerchantable spruces and firs. Advance seedlings and saplings begin to develop in gaps created by harvesting.

Budworm outbreak ca. 1910



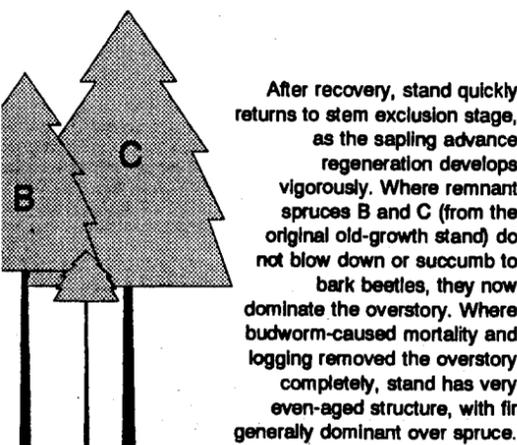
Many residual firs respond vigorously, and now dominate the overstory. Residual spruces also respond; some trees over 15 cm dbh are removed for pulpwood during early 1900s. Advance regeneration forms dense, virtually continuous lower stratum with an irregular structure corresponding to the trees' heights when released.

Budworm outbreak ca. 1925



All mature firs (and some spruces) killed by budworm outbreak ca. 1913-19. Many advance fir saplings also succumb; some survive but suffer severe dieback of terminal shoots.

Even-aged stand ca. 1970



After recovery, stand quickly returns to stem exclusion stage, as the sapling advance regeneration develops vigorously. Where remnant spruces B and C (from the original old-growth stand) do not blow down or succumb to bark beetles, they now dominate the overstory. Where budworm-caused mortality and logging removed the overstory completely, stand has very even-aged structure, with fir generally dominant over spruce.

Stand after logging and budworm attack ca. 1860-1970.

only stands cut previously to be re-entered, but also rendered operable "bunches" of small-diameter stands that had been skipped over during earlier entries into the same area (Cary 1896).

The increased severity of cutting in response to pulpwood demands was perceived with concern. Cary (1896) described an early pulpwood operation near Berlin, N.H. as follows:

"It is the hardest cutting ever seen by the writer...the surface of the ground was an almost unbroken brush-heap...Plenty of ground that started with fifty hadn't more than two or three cords¹ of wood of any kind standing on it...A hundred years will not suffice to grow another crop of spruce logs ... and at two hundred it could not fail...to be much smaller than the original stand."

In the first report of his extensive regeneration research, Westveld (1928) also described the transition in cutting practices:

"Increased demands for spruce pulpwood, making possible utilization of small-sized trees, have resulted in a gradual increase in the severity of cuttings, until in recent years the practice is generally being followed of clearcutting lands of all pulpwood species. Prior to the adoption of this cutting method a rough selection system was being practiced in which only trees of large size were removed. Under this method of cutting little difficulty was experienced in keeping the forest in a productive condition."

These early foresters recognized that repeated cuttings had been made possible only by the incompleteness of earlier entries. During this era, stand productivity was measured in terms of how much residual growing stock was left for future cuttings and did not consider future yields from regeneration.

By 1910, fifty years of preferential cutting of old-growth spruce had left extensive areas stocked with old balsam fir of all sizes to respond to release. The epidemics of spruce bark beetle, while probably less extensive, also had essentially the same effect. By early in the 20th century, Maine probably had far more mature balsam fir than had ever existed in the virgin forest (Zon 1914), and the state's spruce-fir resource was subjected to an extensive spruce budworm outbreak that killed an estimated 27 million cords by the early 1920s. While the timing could have been coincidental, early entomologists attributed the unprecedented severity of this outbreak to the unnaturally high fir component of the forest during the early 1900s (Swaine and Craighead 1924). By all accounts, the 1913-19 budworm outbreak left the spruce-fir forest seriously depleted of merchantable trees, and pulpwood shortages apparently were regarded as inevitable. In an assessment of Maine's future pulpwood supply, Clapp and Boyce (1924) wrote:

"The outlook...is probably an enforced curtailment of pulp and paper production...which will hit first and hardest the pulp mills without available timber supplies of their own. The cut of many other mills will probably be shifted in much greater degree than at present to their own inadequate holdings, with still more serious overcutting. It is very

doubtful if immediate application of the most intensive forestry measures over the entire spruce-fir type of the State can produce results soon enough to prevent such a curtailment."

Historical evidence reviewed by Seymour (1985) shows volumes per acre standing and harvested during the 1930s as low as 18-30 cubic meters per ha (3-5 cords per acre). Harvesting operations covered larger areas than formerly, removing scattered remnants of the virgin forest that survived the outbreak in very understocked stands.

Beginning ca. 1950, stands regenerated after early pulpwood cuttings and the 1913-19 budworm outbreak began to reach merchantable size over large areas. Growth rates and stocking levels increased dramatically, and the first official assessment of the Maine forest (Ferguson and Longwood 1960) showed a large surplus of periodic growth over harvest. Cutting practices from the late 1940s through the 1960s were dominated by diameter limit cuttings that varied by species (Hart 1963). These cuttings tended to remove the larger spruces from two-storied stands, most of which had survived and responded to release as saplings or small poletimber from the earlier sawlog cuts and budworm attack. Periodic growth continued to exceed harvest during the 1960s (Ferguson and Kingsley 1972) as the early-1900s-origin age class began to mature into high-volume, single-canopy stands. Diameter-limit cuttings in this age class became increasingly unsatisfactory. As removal rates rose, windthrow of residual stands became more severe, just as they had after similar cuttings in old-growth stands several decades earlier. Then in the mid-1970s, a massive budworm outbreak infested the entire resource, necessitating large-scale annual insecticidal protection programs. Within a short time during the late-1970s, clearcutting became an important (although not necessarily dominant) harvesting practice to pre-salvage dying stands dominated by fir. Pre-salvage clearcutting continued through the early 1980s until the outbreak subsided, and some landowners continue to rely primarily on clearcutting.

EVOLUTION OF STAND AND FOREST STRUCTURE, 1860-1990

While the primary purpose of harvesting in Maine's industrial spruce-fir forest has always been pulpwood production, not silvicultural treatment, there are nevertheless important lessons for silviculturists in the patterns of stand response. For example, merchantability limits for spruce pulpwood have not changed greatly since the turn of the century, yet "clearcuts" designed to harvest all merchantable pulpwood have produced very different results depending upon the particular stand structure(s) that were common during each era. The original, scattered sawlog cuttings removed only modest volumes from irregular, old-growth stands; their main silvicultural effect was probably to encourage establishment, and partially release, of large advance regeneration in the understory or in small gaps (Fig. 2). Subsequent re-entries, first for smaller logs and then for pulpwood, probably tended to release this regeneration more or less completely, as well as any residual, older balsam firs that were usually not merchantable. Such heavy cutting was often followed on poor sites by extensive windthrow, and virtually all stands were then subjected to the 1913-19 spruce budworm outbreak, further reducing the representation of the older age classes and giving complete occupancy to the already well established regeneration. Cutting in the decades following the outbreak probably continued this pattern. Over time regeneration established during or prior to the outbreak continued to develop, but merchantable volumes remaining in unharvested stands continued to decline as higher-volume stands were harvested. The budworm's effect was so pervasive that virtually all spruce-fir stands that had not already been released by early cuttings were at least partially regenerated by 1925. Indeed, most spruce-fir harvesting from before 1900 until the 1960s could be characterized as a staged liquidation of original members of the old growth forest that had survived the early partial sawlog cuts and the budworm attack and had not blown down, gradually releasing somewhat irregular, but essentially even-aged stands. This

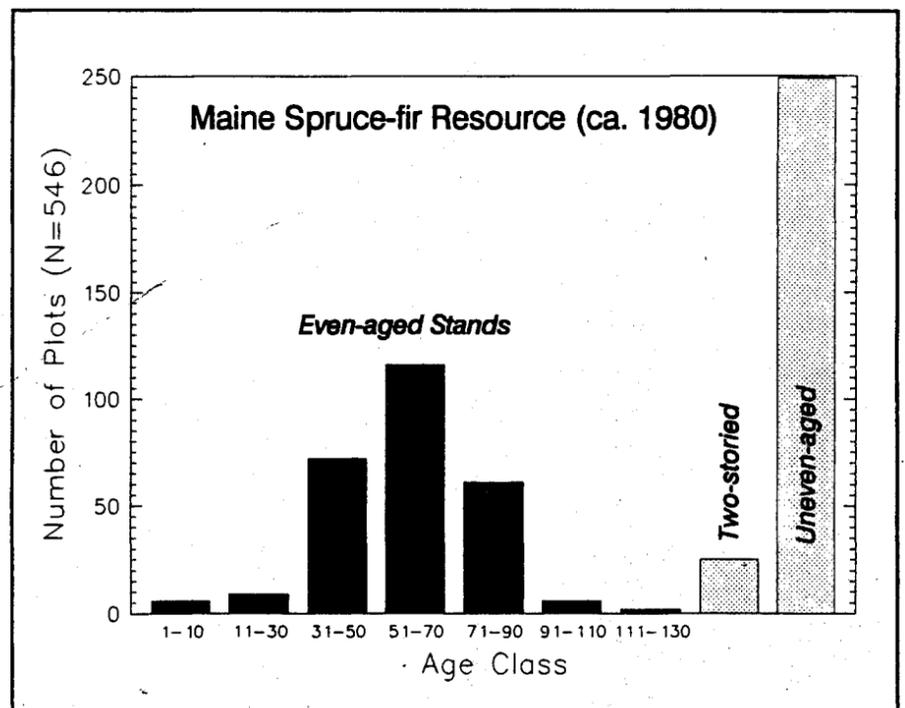


Figure 3. Approximate age structure of Maine's spruce-fir resource as classified by the USDA Forest Service ca. 1980. [Source: unpublished data used by Powell and Dickson (1984)]

history has created a forest with a seriously unbalanced age structure, dominated by even- or two-aged stands that originated in the decades surrounding the peak budworm mortality ca. 1920 (Fig. 3).

When the more uniform, even-aged stands regenerated during the early part of the century became merchantable during the late 1960s, new and different regeneration patterns began to emerge when excessive losses to windthrow and budworm risk led some landowners to substitute clearcutting for the previous diameter-limit prescriptions. Stand structures were quite uniform and had matured to the point where small-diameter, unmerchantable stems had mainly died from suppression or budworm defoliation. As a consequence of their younger age, higher stand density, and total lack of previous disturbances, advance regeneration beneath these stands was either absent or poorly established. Like earlier commercial clearcuts, these harvests left essentially no residual growing stock, but unlike previous cuts, large well established advance growth was not present to occupy the cutover sites immediately. Hence, stand development tended to revert to an earlier successional stage dominated by pioneer vegetation, with spruce and fir relegated to substrata or shaded out completely except on the poorest sites. Unlike earlier "clearcuts" which merely released well established advance growth, harvesting operations began to regenerate truly new age classes on a significant scale.

The "New Forest": The past century has witnessed a dramatic change in the structure of Maine's spruce-fir forest. These large-scale, episodic removals of mature trees, by logging in combination with spruce budworm, bark beetles and windstorms, have transformed Maine's spruce-fir forest from one dominated by mixed-aged, old-growth stands, to a forest dominated by younger, more uniform stands that may be more extensive in area and lack the within-stand height and age diversity of the old growth. This change in stand structures has, in turn, been accompanied by a change in silvicultural emphasis by large industrial landowners. Partial cutting systems designed to exploit the ability of residual trees and large advance

regeneration have gradually given way to even-aged plantation-like silviculture that now characterizes practice in most intensively managed conifer forests worldwide. This rapidly expanding age class is known as the "New Forest", not only on account of its young age, but because it exhibits patterns of development in response to cutting and management that may well be unprecedented.

The maturation of uniform, second-

growth stands and the related onset of clearcutting as a widespread harvesting practice have led to an oversimplified view of the current spruce-fir forest and its silvicultural challenges. Much silvicultural research on "intensive management" currently focuses narrowly on creating and culturing uniform, even-aged stands. Recent evidence suggests that actual harvesting and silvicultural practices encompass a much broader spectrum of activities and

stand structures. For example, if clearcutting had become the dominant regeneration measure during the 1970s, then the 1-10-year old age class in 1980 (Fig. 3) should comprise well over 0.4 million ha. The actual area is less than 20% of this total (Seymour and Lemlin 1989), suggesting that practices other than complete clearcutting predominated during this decade. Some of this apparent discrepancy can be explained by spruce-fir clearcuts that reverted to the early successional aspen-paper birch forest type; however, most is likely a result of continued use of various types of partial harvests which leave significant numbers of residual trees, similar to most historical practices. Such stands would fall in the "two-storied" and "uneven-aged" categories (Fig. 3), which contain all plots that do not clearly exhibit an even-aged structure including the very common two-aged stands. While few, if any of these uneven-aged stands contain any semblance of a balanced age structure, they represent an important category that cannot be ignored in any comprehensive treatment of the resource.

The apparent diversity in silvicultural practices and stand structures is further supported by 1986 mid-cycle remeasurement of Maine's spruce-fir resource (Maine Forest Service 1988). In an attempt to avoid the confusion inherent in classifying age structures of stands that contain trees with suppressed origins, stands were classified according to height structure. After over a decade of budworm mortality and intensive salvage cutting, stands under 3 m (10 feet) tall accounted only for just over 0.2 million ha. Stands over 12 m (40 feet) tall still comprised 74% of the resource, and 59% of these exhibited a vertically stratified structure with a lower stratum of either a different species or younger age class (Fig. 4). These data are entirely consistent with 1988 summary of harvest practices (Maine Forest Service 1989) which show that complete clearcutting is less common than various forms of partial cutting throughout the entire State (Fig. 5). While most of the partial cuts undoubtedly are heavy enough to promote regeneration, the presence of some residual growing stock distinguishes them from truly uniform even-aged stands.

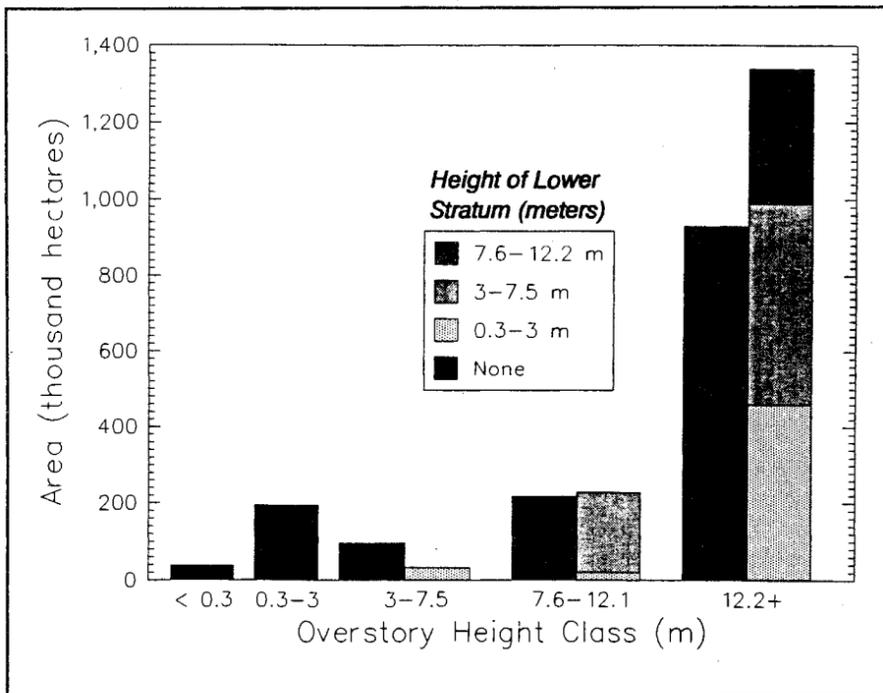


Figure 4. Height structure of Maine's spruce-fir resource, 1986. [Source: Maine Forest Service (1988)]

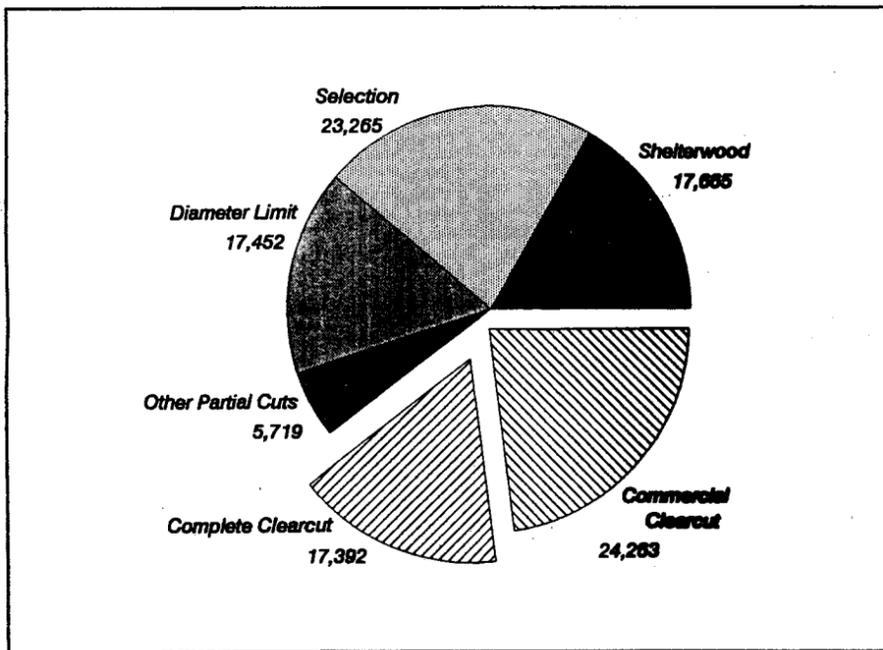


Figure 5. Areas (hectares) treated by various harvesting practices in Maine, 1988. [Includes entire state; data for spruce-fir type only not available. Source: Maine Forest Service (1989)]

LITERATURE CITED

- Baskerville, G. L. 1975a. Spruce budworm: super silviculturist. *Forestry Chronicle* 51:138-140.
- Blais, J. R. 1968. Regional variability in the susceptibility of eastern North American forests to budworm attack based on history of outbreaks. *Forestry Chronicle* 44:17-23.
- Blais, J. R. 1985. The ecology of the eastern spruce budworm: a review and discussion. p. 49-59. In: Sanders, C. J., et al. op. cit.
- Blum, B. M. and D. A. MacLean. 1985. Potential silviculture, harvesting and salvage practices in eastern North America. p. 264-280. In: Sanders, C. J., et al. op. cit.
- Cary, A. 1894a. On the growth of spruce. p. 20-36. In: Second annual report, Maine Forest Commissioner, Augusta, ME.
- Cary, A. 1894b. Early forest fires in Maine. p. 37-59. In: Second annual report, Maine Forest Commissioner, Augusta, ME.
- Cary, A. 1896. Report of Austin Cary. p. 15-203 + Appx. In: Third annual report, Maine Forest Commissioner, Augusta, ME.
- Cary, A. 1899. Forest management in Maine. reprint from: *J. Assoc. Engin. Soc.* 23(2).
- Cary, A. 1900. Insect damage to spruce timber in Maine and New Hampshire. *The Forester* (March 1900), p. 52-54.
- Cary, A. 1902. Management of pulpwood forests. In: 4th Rept. Maine Forest Commissioner, Augusta, ME.
- Clapp, E. H. and C. W. Boyce. 1924. How the United States can meet its present and future pulp-wood requirements. *USDA Bull. No. 1241*. 100 p.
- Ferguson, R. H. and F. R. Longwood. 1960. The timber resources of Maine. *USDA For. Serv. NE For. Exp. Sta. 75* p.
- Ferguson, R. H. and N. P. Kingsley. 1972. The timber resources of Maine. *USDA For. Serv. Resource Bull. NE-26*. 129 p.
- Graves, H. S. 1899. Practical forestry in the Adirondacks. *USDA Bull. No. 26*. 85 p.
- Hart, A. C. 1963. Spruce-fir silviculture in northern New England. p. 107-110. In: Proc. 1963 SAF Annual Convention, Boston, MA.
- Hopkins, A. D. 1901. Insect enemies of the spruce in the Northeast. *USDA Bull. 18* (new series). 48 p.
- Hosmer, R. S. 1902. A study of the Maine spruce. In: 4th Rept. Maine Forest Commissioner, Augusta, ME.
- Ireland, L. C., J. B. Dimond, J. L. Stone, J. Falk, and E. Baum. 1988. The spruce budworm outbreak in Maine in the 1970s — assessment and directions for the future. *Maine Agr. Exp. Sta. Bull.* 819. 119 p.
- Leak, W. B. 1975. Age distribution in virgin red spruce and northern hardwoods. *Ecology* 56:1451-1454.
- Lorimer, C. G. 1977. The presettlement forest and natural disturbance cycle of northeastern Maine. *Ecology* 58:139-148.
- MacLean, D. A. 1984. Effects of spruce budworm outbreaks on the productivity and stability of balsam fir forests. *For. Chron.* 60:273-279.
- MacLean, D. A. 1985. Effects of spruce budworm outbreaks on forest growth and yield. p. 148-175. In: Sanders, C. J. et al. op. cit.
- Maine Forest Service. 1988. Report of the 1986 midcycle resurvey of the spruce-fir forest in Maine. *Maine Dept. Conservation, Augusta, ME*. 51 p.
- Maine Forest Service. 1989. Silvicultural practices report for 1988. Augusta, ME. 6 p.
- Meyer, W. H. 1929. Yields of second-growth spruce and fir in the Northeast. *USDA Tech. Bull. No. 142*. 52 p.
- Millers, I., D. S. Shriner, and D. Rizzo. 1989. History of hardwood decline in the eastern United States. *USDA For. Serv. Gen. Tech. Rep. NE-126*. 75 p.
- Morris, R. F., ed. 1963. The dynamics of epidemic spruce budworm populations. *Entom. Soc. Can. Memoirs* 31. 332 p.
- Mott, D. G. 1980. Spruce budworm protection management in Maine. *Maine Forest Review* 13:26-33.
- Oosting, H. J. and W. D. Billings. 1951. A comparison of virgin spruce-fir forests in the northern and southern Appalachian system. *Ecology* 32:84-103.
- Oliver, C. D. and B. C. Larson. 1990. *Forest Stand Dynamics*. McGraw-Hill, Inc. 467 p.
- Osawa, A., C. J. Spies, and J. B. Dimond. 1986. Patterns of tree mortality during and uncontrolled spruce budworm outbreak in Baxter State Park, 1983. *Maine Agr. Exp. Sta. Tech. Bull.* 121. 69 p.
- Powell, D. S. and D. R. Dickson. 1984. Forest statistics for Maine, 1971 and 1982. *USDA For. Serv. Resource Bull. NE-81*. 194 p.
- Reams, G. A. and M. M. P. Huso. 1990. Stand history: an alternative explanation of red spruce radial growth reduction. *Can. J. For. Res.* 20:250-253.
- Royama, T. 1984. Population dynamics of the eastern spruce budworm *Choristoneura fumiferana*. *Ecol. Monogr.* 54:429-462.
- Sanders, C. J., R. W. Stark, E. J. Mullins, and J. Murphy. 1985. Recent advances in spruce budworms research. *Proceedings of the CANUSA spruce budworms research symposium*. Bangor, Maine, Sept. 16-20, 1984. *Can. For. Serv., Ottawa*. 527 p.
- Seymour, R. S. 1980. Vulnerability to spruce budworm damage and 100-year development of mixed red spruce-fir stands in north central Maine. *Ph.D. dissertation, Yale Univ.* 160 p.
- Seymour, R. S. 1985. Forecasting growth and yield of budworm-infested forests. Part I: Eastern North America. p. 200-213. In: Sanders, C. J. et al. op. cit.
- Seymour, R. S. and R. C. Lemlin, Jr. 1988. *SISTIM — A new model for simulating silvicultural treatments in Maine*. *Abstr. p. 1147*. In: Ek, A. R., S. R. Shifley, and T. E. Burk. *Forest growth modelling and prediction*. *USDA For. Serv. Gen. Tech. Rep. NC-120*. Vol. 2, p. 580-1149.
- Seymour, R. S. and R. C. Lemlin, Jr. 1989. Timber supply projections for Maine, 1980-2080. *Maine Agr. Exp. Sta. Misc. Rep.* 337. 39 p.
- Swaine, J. M. and F. C. Craighead. 1924. Studies on the spruce budworm (*Cacoecia fumiferana* Clem.). *Can. Dept. Agric. Tech. Bull.* 37 (new series). 91 p. + Appx.
- USDA Forest Service. 1985. *Insects of eastern forests*. *Misc. Publ.* 1426. 608 p.
- Weiss, M. J. and I. Millers. 1988. Historical impacts on red spruce and balsam fir in the northeastern United States. p. 271-277. In: Proc. US/FRG research symposium: effects of atmospheric pollutants on the spruce-fir forests of the eastern United States and the Federal Republic of Germany. *USDA For. Serv. Gen. Tech. Rep. NE-120*. 543 p.
- Westveld, M. 1928. Observations on cutover pulpwood lands in the Northeast. *J. Forestry* 26:649-664.
- Zon, R. 1914. Balsam fir. *USDA Bull. No. 55*. 67 p.

A Brief Account of How Maine's Public Lands Were Sold or Given Away

Condensed from *The Northern: The Way I Remember*
by John E. McLeod

Maine has little land which has not at some time been covered with forest. It has the largest percentage of wooded area of any of the 50 states of the Union. Of its more than 19,000,000 acres, some 17,000,000 is timberland. There also is a generous supply of water. The economic history of the state has been very largely determined by the manner in which these natural resources have been used and misused.

The story of lumbering in Maine, from the time of the early settlements up to the time the Great Northern Paper Company was organized is a fascinating part of the industrial history of America. Lumbering in the United States began in the District of Maine. Commercial lumbering was started as early as 1631 on the Saco and Piscataqua rivers. Probably the first American export of manufactured lumber was made from Maine in 1634, when the ship *Pied Cowe* arrived at South Berwick from England and took on a partial cargo of "cloave boards" and "pipe-staves"—hand-made clapboards and staves for wine casks.

Although the first sawmill in New England was in Maine, cutting timber and manufacturing lumber, as an industry, developed in Massachusetts; worked northward into New Hampshire and thence, about the beginning of the 18th century, into Maine. Timber had to be worked largely by hand; the population was unstable because of Indian raids; coastal shipping was precarious, and the colonists were more concerned with clearing land for farming than anything else.

As a further deterrent, the British Government forbade cutting the largest "pines and oaks," requiring that these be left for the use of the Royal Navy. This regulation was grandly ignored. Surveyors were then sent out to claim individual trees and mark them with the King's "broad arrow." In 1769, the last Royal Governor of New Hampshire was still trying to enforce this law, seizing mast logs being driven down the Androscoggin River.

Cutting masts and spars was for over 200 years an important industry. It began in 1634 or 1635 when several cargoes of mast pine were shipped to England from the St. George's River. In the middle of the 18th century, Maine was first as a producer of masts, with activity centered in the Saco Valley and at Falmouth (Portland). Lord Nelson's *Victory* and our own *Constitution* were said to be masted with Maine pine.

Sawmills were built on the Presumpscot River between 1660 and 1670, and the operations moved gradually north and east along the rivers in the late 17th and early 18th centuries. It was nearly 130 years after the first lumber was sawed at North Berwick, however, before the lumbering industry came to the Penobscot, when the first mill was established at Bucksport.

In the 1820s, the industry really blossomed. Lumbermen waded into the forest "with an axe in each hand," and in less than 30 years, Maine had become the lumber center of the world, with mills crowding every river and



Winter Hauling, Great Northern Paper's Red River operation, 1954. Photo courtesy of Bowater-Great Northern Paper.

stream from the Piscataqua to the St. Croix. To the early lumberman, the most valuable tree in the woods was white pine. It was not until the pine was almost exhausted, and this didn't take too long, that spruce and hemlock logs were taken. Then the whole state was logged over again.

The forests of Maine were predominantly softwood, with the heaviest stand of pine in the southern and western parts of the state. This doesn't mean there were no big pines in northern Maine. In 1852, it is reported that a pine was felled at New Limerick, Aroostock County, which measured five feet in diameter at the butt, and was 180 feet tall.

It might be of interest to follow briefly the process by which the forest lands of Maine came into the hands of private owners.

The British Crown, in 1606, considered the 19,000,000 acres of territory now the State of Maine to be its property. The first Crown grant of land was made in that year by James I to the London and Plymouth Company, or the Council of Plymouth, which was to establish settlements and develop the resources. The council began to make sub-grants to prospective colonizers, the best-known of whom were Ferdinand Gorges and John Mason. Its successor, the Council of New England, made other grants, notably the "Muscongus Patent," which lay just east of the Penobscot River. This land became the property of Gen. Henry Knox, President Washington's Secretary of War. In all, up to the Revolution, the British Government had disposed of about 4,000,000 acres of Maine land.

After the war, ownership of the remaining 15,000,000 acres of public land passed to the Commonwealth of Massachusetts of which the District of Maine was then a part. The new state found itself \$5,000,000 in the red, and the General Court saw these vast forests as a good source of income, but there were few takers, even at 50 cents an acre. Someone then conceived the idea that a lottery could dispose of more than a million acres, but only 437 tickets,

covering about 160,000 acres were sold.

During these early years, Massachusetts gave away, in grants to soldiers, settlers, schools, colleges and churches, nearly 1,225,000 acres.

With prices dropping as low as 10 cents an acre, private sales picked up. Between 1791 and 1795, more than 3,000,000 acres were sold by the state, the greatest part in the so-called Bingham purchases.

These huge tracts, a million acres east of the Penobscot and about the same amount along the Kennebec, originally were acquired by General Knox, who had settled in Thomaston, but Knox couldn't sell enough land to settlers to make expenses, and a wealthy Philadelphian named William Bingham took over the venture.

Neither Bingham nor any of various other speculators in Maine lands could meet the state's terms—to settle at least 40 families on each township. Much of the land involved wasn't suitable for farming. Eventually, however, deeds were issued to Bingham's heirs and to other developers with similar contracts. Great Northern later became owner of some of these lands.

In 1828 there began a frantic land boom, which bailed out the Bingham estate. More than 250,000 acres of its holdings were sold in the winter of 1834-35 alone.

(Title to some of these Bingham lands wasn't cleared up until the early years of this century. His ghost still haunts the registries of deeds in central and western parts of Maine.)

The boom, which lasted until the national panic of 1837, saw speculators buying whole townships and selling them piecemeal at prices to fit the buyers. Land often changed hands several times a day. A newspaper story of the time told of two paupers who supposedly escaped from the Bangor almshouse and, before being caught early the next day, "made \$1,800 each by speculating in timberlands."

The sale of public lands also boomed, with more than 2,000,000 acres passing into private hands from

1828-1835.

Maine, when it became a separate state in 1820, had acquired title to half of the unsold timberland within its borders, and continued the practice of land grants to finance education, help pay clergymen and develop public works. Construction of the original State House in Augusta was financed by selling 10 full townships.

Expansion of the lumber industry brought a second boom into the 1840s. There was, however, a big difference: this time real lumbermen were buying stumpage rather than land.

There is a record of a township bought in 1835 for \$620 which sold in 1847 for \$185,000 even though \$14,000 worth of timber had been cut from it in the meantime.

By 1854, nearly 1,200,000 acres of land still owned by Massachusetts remained unsold. Maine legislators bought it at 30 1/2 cents an acre. (In 1820 they had considered four cents too steep.)

Maine continued to sell and grant lands and in 1868 there was little more than a million acres left in the hands of the state.

Nearly all of this—largely cut-over and in poor locations—was given to the European and North American Railway Company, formed in 1868 to build a line from Bangor to Vanceboro. This road was not successful and, in 1882, was leased to the Maine Central Railroad, which later bought it. In 1974 the Canadian Pacific bought the Mattawamkeag-Vanceboro section for \$6,000,000.

What all this boils down to is that beginning immediately after the American Revolution both Massachusetts and later Maine sold and gave away their public lands to everybody and his uncle as fast as they could. At first they were disposed of as farmland; the stand of pine timber was secondary. Later, they were sold or granted for the timber on them.

We are grateful to Bowater-Great Northern Paper Company for permission to reprint this chapter.

The Public's Interest In Private Land

by Steve Perrin

No person shall be . . . deprived of life, liberty or property, without due process of law; nor shall private property be taken for public use without just compensation.

Fifth Amendment to the US Constitution

Who owns the sky, the clouds, the rain?

Who owns rivers and streams, lakes and ponds, the ocean?

Who owns insects, wildlife, birds and fish?

There are two possible answers to all of the above: we own them collectively, or no one does. Either way, no individual person owns any of them—rain, rivers and streams, or wildlife.

These things dwell in the public domain. They are owned and, to the extent they can be controlled, regulated by state and federal governments for the benefit of all.

If governments so wish, they can issue licenses to take fish from public waters, to dam those waters, or to hunt wildlife which drinks from those waters. Without a license, we partake in the collective ownership of those resources, but we can make no claim to own them privately as individuals.

In brief, no one owns the water cycle. If we own it at all, we do so together. Collectively. And collectively, we share in its benefits, among which, the most prominent is life itself.

Yes, life flows from water. Where there's one, you'll always find the other. Water makes up more than two-thirds of our bodily substance. Above all, we are fluid. Not a still pool, but an unceasing flow. Water moves through our lungs, our arteries, our brains and kidneys, bathing every cell and membrane, every tissue, every organ. Water flows in us as it does through the landscape. In a fundamental sense, we are features of that landscape, up on two legs perhaps, running about, but earthly flesh none the less, sharing the restless, fluid nature of water itself. And dependent on the water cycle, the ongoing flow of water from the sky onto the earth, then back again by way of the roots, stems, and leaves of plants; the skin and lungs of animals; or by evaporation from bodies of fresh or salt water.

All that is basic. We know it is true: intuition tells us so. How else are we to explain our enjoyment of ponds and the seashore, our awe at storms and waterfalls, our serenity at the sight of rivers sweeping to the sea? Our joy in swimming, taking a shower, drinking a glass of cold water, splashing in a puddle, watching seeds sprout from damp soil?

The astounding message sent year after year by the evergreen landscape of Maine is essentially this: here is water in the right amount, at the right time, of the right purity to bring forth abundant life. That's what our spruce-fir forests tell us, our stands of white cedar, of maple and oak. That is the meaning of columbine, skunk cabbage, moccasin flower, blueberry, cranberry, cattail, spartina, fungus, lichen, and moss. Water! Water everywhere. Enough for

you and for me.

White-tail deer say the same thing. They browse the greenery brought by water flowing through the land. So do the moose and the snowshoe hare. They feed on vegetation, like woodchuck, beaver, bear, porcupine, deer mouse, and meadow vole. Endlessly munching, thriving, growing fat, until they share the blessing of water—the gift of life—with those higher up the food chain. With coyote, fox, mink, ermine, bobcat, fisher, and fabled catamount.

Not to mention the thousands of species of bacteria, zooplankton,

to life.

Life's processes run smoothly in Maine because the water cycle operates year-round (slowing a little in January and February perhaps, but only to put on a good show in March, April, and May). From the Knife Edge on Mount Katahdin to Matinicus Rock and beyond, life sprouts and pulses, swims in, scampers upon, and flies over this glaciated landscape for one basic reason: because it has plenty to drink. Given sunlight, air and soil enough, it is water that brings Maine to life, day-after-day, season-after-season, year-after-year.



A bridge over the wild St. John River in northern Maine. Another bridge is being built a little to the north. The log truck kicking up dust on the bridge is hauling unmilled logs to a mill in Quebec. Photo by Steve Gorman with assistance from Rudy Engholm of the Environmental Air Force.

insects, spiders, worms, frogs, toads, salamanders, turtles, snakes, fish and birds, all of which are native to Maine because its terrain and climate suit them, granting them their fair share of the waters of life.

And tourists! Don't forget them. They come to Maine by the hundred thousand, by the million—drawn by a landscape so moist and green and lush compared to what they have in Away after developing the land for themselves. Scraping, digging, paving, reconstructing the land. Changing its nature. Stripping away its ability to hold moisture, and to distribute that moisture among once-native forms of life. No wonder they throng to Maine, to reclaim what they have lost, their natural heritage—even if only for a couple weeks out of fifty-two.

Yes, Maine is a bountiful land. A productive land. A fertile land. A green land. A damp and dripping land. Mossy and moosey, Thoreau called it. Because, in a word, it is wet. Receiving on average forty-four degrees on the Fahrenheit scale—not exactly hot, but three degrees above biological zero, the temperature at which wet land springs

So what else is new?

What is new is the white settlers' attitude towards the land they took from the native human inhabitants, the so-called Indians, from roughly the time the Treaty of Paris concluded the French and Indian War. Since the retreat of the last glacier twelve thousand years ago up until the early 1760s, land ownership wasn't much of an issue in Maine. The land was the land: people were people, coming and going as their needs required—needs dictated by their well-being and survival. But after they secured the land, European settlers brought with them a new attitude, based on the then current notion that wild or open lands were waste lands because they were "unimproved" by men. To improve land, men cleared its native vegetation, pulled the stumps, drained it, plowed it, cultivated it—that is, broke its native regime, interrupting its natural succession—to tame it for domestic use and consumption. All according to the law of human progress as it was formulated during the Enlightenment, a period when the ray of understanding shone selectively on human deeds and

accomplishments, leaving the ways of nature in the darkest of shadows. Nature was decreed the enemy of man, to be subdued and subjugated—all according to the Bible as it was interpreted in those heady days.

The twentieth century has taught us how wrong we were in believing nature could be made to march to the beat of human fife and drum. We have awakened from our enlightened dreams to see how our "improvements" have impoverished the land. Fouling the waters flowing across and seeping through it. Polluting even the air, the clouds, and the rain. We had no idea what we were doing; we see that now.

We had no idea that in imposing our appetites upon the land, we broke the natural flow of water through that land—and the very cycle by which it cleansed itself again and again. We thought nature could be forced to step to our tune, but erosion, salinization, pollution, desertification, disruption, depletion, and exhaustion of the normal supply have taught us how wrong we were.

The Enlightenment, now seen as The Obfuscation, led to the industrial revolution—the capture and enslavement of earth's resources by a few powerful nations, and within those nations, by a few powerful corporations for the benefit of a few powerful men.

All that is behind us. We know better now. Or we would, if the dead hand of the past would release its grip, letting us put modern knowledge and belief into practice. We are a nation of environmentalists now, led by environmental presidents. So we say. But we keep on doing as we have done in the past, putting jobs and the "economy" ahead of earth's well-being. Denying that our shortsighted human economy is really a division of nature's economy, and what's good for nature is good for mankind, not vice-versa, as we are fond of insisting.

What's good for water's perpetual cycle of cleansing and renewal is good for life; what's good for life is good for the land; what's good for land is good for users of land—all that is self-evident or should be by now.

It should be self-evident, too, that nobody owns the water cycle. We don't own the water before it gets to us. We don't own it after we're through with it. Even while we're using it, we don't own it. We are entitled only to borrow a little as it passes through our land. And only then if we return it to the flow in as clean and pure a state as it was when we took it.

The Fifth Amendment to the US Constitution guarantees we cannot be deprived of property without due process of law, and, further, that private property cannot be taken from us for public use without just compensation. Fair enough. But what about property that does not belong to us in the first place, such as public property we only borrow for private use, but must restore to its rightful owners when we are done? What about something in the public domain which we wish to use? Water, for instance, or that portion of the water cycle flowing through our land on its way to the sea? Does the Constitution give us a right to that as

well?

No, it does not. If we claim such a right, we are getting our domains mixed up, confusing our private with the public domain.

The Bible has something to say about that: when Jesus was asked to pay tribute to Caesar, he replied, "Render therefore unto Caesar the things which are Caesar's; and unto God the things that are God's." On that pattern, we would best render unto the public the things which are the public's, and forego claiming them for ourselves.

The logic is irrefutable: if a thing is part of a continuous flow, and you do not own that flow before it gets to you, and you do not own it after, how can you say you own any part of the flow while it is in your custody?

Ownership, clearly, is separable from use. You can own a car, but that doesn't mean you can use it; you need a license from the state for that. You can own a gun, but that doesn't mean you can use it; you need a license from the state for that. And if you don't own a car, or a gun, you can borrow one, but you still need a license to use it.

Just so with water. Even if it flows through your land, you don't own it. It's in the public domain, just as it is while in the form of rain or the current in a stream.

Think of your land as a kind of sponge. If you own the sponge, you own the tunnels and passages built into its structure—but that doesn't mean you own the fluids taken into those tunnels and passages to be squeezed out later on.

The water cycle is a single, unbroken continuum. Interrupted at any stage, it collapses. No one has a right to violate the flow of water through the environment. No constitution can conceivably grant such a right.

For that reason, the public at large has a tangible and an immediate interest in any land affecting, or potentially affecting, the hydrological cycle. That cycle is in the public domain, entirely, and in every particular. No agency has the authority to make the public surrender that interest for any reason, because the hydrological cycle is a cycle of nature, and nature does not recognize human rule, no matter who might claim otherwise.

Does the public have an interest in private land? Certainly it does. And likely, a wide variety of interests. At a minimum, by the present argument, the public has an interest in all land on which water falls (as rain, snow, sleet, hail, dew, fog, or other form of precipitation), across which it flows, into which it percolates, within which it is stored, through which it seeps, from which it evaporates, and on which it supports vegetation or wildlife of any kind. All those are natural uses of the land, and take precedence over whatever additional uses private individuals may perform in their own interest.

In short, no landowner has a right to deprive the public of its interest in the water cycle or to interfere with that cycle in any way without first obtaining a permit describing the manner and limits of allowable interference from the agency responsible for protecting the public's common interest in its water resources.

Any private use of land having an impact on the water cycle should be



A recent large industrial clearcut along the upper St. John River in northern Maine. Note the beauty strip along the river. Photo by Steve Gorman with assistance from Rudy Engholm of the Environmental Air Force.

considered a taking of public property for private use, requiring just compensation to be paid to the public for such use.

Paid how? By fees for land-use permits when projects are proposed, and by taxes once they are in operation or brought to completion. *The tax base being determined by the extent to which use of the land deviates from the normal course and operation of the hydrological cycle in its natural, unaltered state.* Paving the land, building on 100% of its surface, or blocking the flow through it completely would require imposition of the maximum tax. Paving, building, or blocking the flow 25% would require imposing 25% of the maximum tax, and so on. An assessor's job would be to determine the extent to which a land-use project bears upon and affects the normal course of the hydrological cycle. Taxes would be levied according to the degree or level of use.

And who would decide what degree or level of use is allowable on given parcels of land? The landowners themselves? In a way, but only collectively, as representatives of the public interest in total, the public being taken to include wildlife, trees, herbs, birds, fish, insects, as well as people—all those having an interest in the land at

issue.

To determine that interest, a comprehensive plan would be drawn up for all lands in the state in order to determine their role and importance in the hydrological cycle. The goal of the plan would be to determine which lands should be left undeveloped because of the importance they play in the cycle, which other lands are subject to development, and the allowable extent of that development in every case. The degree of tax imposed would correspond to the degree of development—not merely allowed—but imposed through actual land alteration and construction.

The less the water cycle is interfered with, the less the public interest is disturbed, the smaller the tax imposed. On the other hand, the more the water cycle is interfered with, the more the public interest is disturbed, the greater the tax imposed. Taxation is made proportional to alteration, disturbance, or interruption of the hydrological cycle. The allowable level of alteration being written into the comprehensive plan.

There you have it, a brief look at the public's interest in private lands in Maine, the source of that interest, and the consequences for the landowner. Regarding taxes, it makes sense to pay

as we go. If we don't go, we don't have to pay, or pay only the minimum rate. If we go a great deal in terms of altering the land because of the way we use it, then we pay according to the level of that use from the standpoint of its impact on the normal functioning of the hydrological cycle, whatever form that impact may take.

A development tax? Indeed, because it makes no sense to tax undeveloped land, land in its natural state. The assumption is that land manages itself best without benefit from the heavy hand of man. This is the opposite of what John Locke would have assumed, or Adam Smith. They put value on the works of man, not nature. Now we know they were wrong. We don't know enough to manage the earth. We keep putting our own interests first, no matter how narrow, selfish, or shortsighted they may be.

When it comes to distributing water for the greatest benefit of the largest and most diverse majority—for life itself—nature does the job best. When we put land to our own uses, we cut that benefit and impair that distribution. It is fair we should pay for what we take from the public at large. That is the responsible thing to do.

The Economics of Place

by Andrew Whittaker

Prescriptions for prosperity generally mention the need for an "engine," an impetus or tool for change that has an impact across many industries and human activities, creating the widespread potential for greater productivity. Agriculture and manufacturing have had their "revolutions," thanks to mechanical innovation. The results—some would say disruptions—created not only new economies, but also mutations of culture that have, among other effects, progressively severed the connections between these economies and the places we live.

The economic pressures experienced in communities dependent on resource extraction or manufacture today stem from multiple causes, but chief among these is dedication by industry to mass production. Feeding mass markets requires lowest-cost production: cheap labor and cheap raw material. This system has, with periodic lapses, kept society employed. Displaced workers, whether farmers or shop workers, have been able to find employment in new industries created by the capital liberated by higher productivity. Reformers seeking to keep up with the damage caused by an economic system shunting aside social and environmental costs have had to fight the perception that they impede the creation of wealth.

Today we search for a new tool for economic development in areas handicapped by a depleted resource base, dedication to commodity markets and overall, the inefficiencies inherent in a non-sustainable system of production. In so doing, we must re-examine the established imperatives of economic life: can we really find a solution to our system within its own tenets? Is either unreined manipulation of wealth or governmental regulation of the free market adequate response to a system essentially unlinked to place—politically as well as economically?

Loss of Community

Coupled to over a century and a half of evolving industrial production—to somewhat arbitrarily go back to the birth of the railroad as a mover of goods and destroyer of local economies—is the steady diminution of rural communities from their former identity as societies complete and self-sufficient. True, the first consideration in colonial settlements was a link to markets. But trade was a component of even North and South America's native tribes, for whom the immediate landscape in its natural state provided most necessities. The quality of trade changed with the destruction of local sufficiency under the force of modern ideas—comparative advantage, mass production, national and now global economies—and modern technology—the now pressing need for atom smashers, space stations and other expenses beyond the means of most small towns.

The change brought to New England and other regions affected by evolving forms of production and the increasingly independent life of money has been the loss within communities of the mercantilist spirit—the conception



Machines such as this fellerbuncher, not creatures such as Spotted Owls, have contributed to a steady decline in logging jobs in the region over the past two decades. Photo by Steve Gorman

that a locality looking to its own resources is best equipped to trade with the rest of the world.

The history of New England can provide many examples of incipient city-states. Early sea trade was conducted largely by individual towns, such as Salem, which were better known throughout the trading world than the larger political bodies to which they belonged. The trade connections between town and hinterland authored the web of secondary highways and backroads that characterize much of the region today.

Railroads too were quite often initiated by towns, such as St. Johnsbury, Vermont, to better facilitate their trade relations with the outside world. The continental systems into which they were later melded inevitably dwarfed their original purpose—and sometimes bankrupted small towns holding worthless rail bonds. Before their eclipse, however, the names of some communities were synonymous with quality and enterprise in the budding national markets of the 19th century.

Among the many reasons for the decay of localities is the scale of our economy, which has never sought to limit itself to the achievements of any one era. Further, a local resource base has seldom proven to be much of a match for the giant markets it sought to supply. The twin monsters of resource depletion and over-production testify to the strength of markets to demand cheap products into existence. Communities dependent on timber, agriculture or a fishery now face not

only the perils of lost productive capacity but also lost resource base.

Two Visions

The idea put forward by many is that new technology will prove a sufficient substitute for repairing damage to these natural pools of resource and restructuring production to fit the scale of nature and local human communities. New industries will grow, productivity will rise, prosperity will reign. At the heart of any quarrel with this prevailing recipe is disagreement that increased production per unit of labor is the real measure of system efficiency; or that stimulation of demand to mop up the products of human labor is the route to a genuine economy. Here we see two conflicting impulses fundamentally at odds indeed. The environmentalist says we must curb demand and orient communities toward their natural resources. The economic philosopher says we must stimulate demand so that our corporate institutions can sell their goods and services.

The first view suggests that the many problems faced by society are the result of economics *in vitro*; the forces that have given us a uniform and recognizable world. Communities are relieved of the necessity to look within for organic solutions by years of conditioned dependence on outside forces, political and economic—and so have lost all uniqueness of identity, all resourcefulness.

If not completely at odds, the economics of place supplies many of the attributes lacking in the economics

of technology. First is the consideration of geography. Although the electronic cottage, de-centralized industry and diffused corporate administration are part of current economic trends that promise to carry prosperity into the countryside; it is questionable how widespread their impact will be. Will they provide direct employment for natives or only jobs that ex-urbanites can carry with them? If they inject dollars into a local economy, will that money in turn merely generate low paying retail-sector jobs? And, finally, can every logged-out region of the country truly expect to transform its loggers into computer programmers when this and other high-tech industries are in fact trimming their labor requirement outright or shifting work overseas?

Chief among the positive attributes of rural communities are direct economic and cultural ties to natural resources. Although these may not be rewarded by money and so reckoned in the Gross National Product, they do in fact amount to a system of trade; exchanged goods, service and labor. As a result, rural areas in which traditions have managed to survive enjoy a level of true social security completely foreign to the experience of most Americans. Food, fuel and shelter may all be provided in some degree by trading with one's neighbors.

It is this inclination and ability to trade and produce that indicates the health of a locality and underlies its capacity for renewal. Community based approaches to development return to the basic notion of an economy as a system production and exchange that supplies a given population with its peoples' basic needs. Access to resources is not gained through wealth but through work, which is itself centered on adding value to extracted resources, (manufactures and agriculture) protecting the capital value of standing forests and running streams (public service), or, finally, making non-extractive use of such resources (tourism in its many forms).

Fundamental to the health of the community is the health of its forests, air and water. The more these yield, the more resources there are, the greater diversity of labor and provision there may be.

Sustainable Trade

At The Forest Partnership's recent "First North American Conference on Trade in Sustainable Forest Products," the two paths to economic growth were brought into relief by the community of interests that centers on the forests of the world. The question is whether the fight to sustain our forests is essentially an outgrowth of corporate concerns for supply of raw material and direction of market prejudices or a more prosaic struggle by commoners to renew culture through localized efforts to re-establish more wholesome ties to the sustaining natural system. As framed by conference discussion, the question is whether we reform Wal-Mart or start anew, at the grassroots. In a wider sense, this also relates to the choice between technology or locality as the "engine" of change and prosperity.

Here again, the two avenues are not

completely at odds and the answer to our question might be "both." The danger is that the communitarian agenda might be considered so innocuous it garners no serious attention.

The centerpiece of the Conference was discussion of certification of forestry practices for sustainability. As described by the Forest Partnership's Richard Miller, a former logger, the objective of certification is simple. It is to return an extra \$10 to the logger in the woods who might be earning \$30 per thousand feet of harvested timber. That margin, if it makes for profitability, will create the time and space necessary for better forestry.

That is the production end of sustainability. On the consuming end, much of the conference discussion revolved around the giant retailers, Wal Mart and Home Depot. Wal Mart's new Eco-Store in Kansas has been designed with considerations of sustainability in mind: the construction is wooden, and the building may be retrofitted for use as office or living space. The 15 acre facility will sell ecologically sensitive products, including a line of sustainably harvested lumber. Home Depot already sells such a line.

A chorus of voices both directly and tacitly criticized the view that forests can be sustained by reforming Wal Mart or by exploiting the (albeit debatable) readiness of consumers to spend more for green products. Walter Smith, progenitor of several sustainable forestry and restoration projects in northern California's Mendocino County, began his critique by noting that corporations landed his community in its current jam.

Timber companies that "cut and run" left the area with neither financial resources nor productive capacity. Efforts to put together a program of certification for what logging activity remains involved the spectrum of interests from loggers to Earth First! Some of these people are now fighting the arrival of Wal Mart in their own hometowns. How could they philosophically support such a store in Kansas? (For the record, Smith also lambasted California's forestry practices law as a prohibitively expensive "bureaucratic boondoggle.")

Tim Hermach of Oregon's Native Forest Council delivered a strongly worded critique of those elements of certification he termed a "deliberate, corrupt, advertising ploy." In particular, he ridiculed the notion of a scaling of sustainability by certifiers. Either you are or you aren't sustainable, he said; to be labelled 60% sustainable is "nonsense." He questioned marketplace economics, noting that the "market wants lots of cheap everything" and that "we create markets for all sorts of things that aren't necessary." "I have a hard time accepting we have to do what people will pay for; that's not smart," he stated. The real challenge, he concluded, was to return to an orthodox economy in which there is a "real market for real goods."

Other speakers echoed the theme that the economy as it exists today is out of control and that reforming demand is a top priority. Roy Keene of the Public Forestry Institute stated in an ingredients list for sustainable forestry that we live in a "lots now" society that lives contrary to the "more later"

principles of resource conservation. Good forestry, he said, will sustain yield, ecology and community. The stability of human communities depends on slow rates of harvest and forestry that concentrates more on the trees left standing than those harvested. Jobs should flow from the harvest of resources by ripple, rather than trickle; with jobs accruing to the community for each tree cut. Further, the logger is to be viewed and rewarded as the trustee of the watershed. Keene concluded that the public is skeptical enough not to be pacified by certification of such timber giants as Weyerhaeuser—there must be substance to certification.

For their part, Wal Mart and Home Depot's representatives spoke plainly and honestly and in the process revealed some of what makes the institution of giant retailing and mass consumption unsustainable. Mark Eisen of Home Depot spoke of his company's "absolutely tremendous" volumes of product and the difficulty a small producer would have in supplying the chain. Steve Brown, whose firm was Wal Mart's ecostore architect, admitted that the giant is "not totally sold on sustainably harvested timber" and that instituting change within the company is "like trying to turn a super tanker with a paddle." The suggestion from both was that consumer demand will determine the level of corporate response to environmental concerns, which calls into question both the quality and extent of corporate environmentalism.

Vermont's Northeast Kingdom

In the Northeast Kingdom of Vermont, it is interesting to regard the remaining woods product business on the railroad. Some West Coast lumber

is imported for local consumption and a larger quantity, because of quirky tariffs with Canada, for re-distribution throughout the Northeast (Vermont has become a break-of-bulk point for Canadian distributors). Pulp is exported to regional paper mills. Benefit to the railhead community occurs when the train crew or truck driver buys a sandwich or fills his truck with fuel.

Against this and similar low impact benefits must be measured the loss in forest assets to communities on both coasts. Here, with the industry clearcuts typical of Essex County, one must view the timber harvest as detrimental in sum: not only is the distribution of benefits from the cut meager, but the standing, capital value of the forest eroded.

Even the paper companies tacitly admit this. Desiring to reproduce softwood which regenerates under low light intensity, their high production methods favor hardwood and puckerbrush, for which the low cost treatment, if approved, would be herbicide. In other words, current methods of harvest cannot pay for preferred results.

This may also be seen in damage to trees in the residual stand, along skid trails and bulldozed roads, and around landings—damage which is often astoundingly high and demonstrates that under today's methods only volume, not the individual tree, possesses value. The main impression a skidder operator leaves behind is that of a man in a hurry, despite the fact that a skidder can do as clean work as the romanticized horse. Today's pace of harvest ensures a fiber forest for the future, assuming timber companies decide to carry the asset. In my locality the opportunity for a generation of value-added activity has

been greatly diminished by a skewing of age-class distribution to the extremely youthful. All of the above is a transfer from the pocket of communities in this region to no one knows where.

The logger or mill which has dedicated itself to sustainable harvest has to sell in a market which will pay for the true costs of production; covering these costs has an economic impact beyond the mere survival of the small-scale operator. In order for trees to "ripple" through an economy they must be brought off the stump intelligently, to the sawmill with a minimum of damage to the residual stand and overall forest ecology; on to the manufacturer for the highest quality in production and hence to market. After all those steps, which to be done sustainably requires extra work—more employment—the proper market is no longer a giant retailer that undercuts everyone else by moving enormous volume—or that paves over open land for retail space, for that matter.

Pitting forests against the market, as foresters frequently point out, inevitably endangers their health, for where does the market stop? New concepts of productivity must enlarge our economic senses beyond the instinct to plunder assets and liquidate their entire cash value. Forests cannot stand up to the treatment. The industries which we have been taught to regard as our future—our new "forests" or "oceans" created by the liquidated capital of the real ones—may satisfy and employ us, (assuming that the wealthy do in fact decide to invest in the system—and an economist such as Lester Thurow believes that convincing the oligarchs to do so is where we should mount our efforts) or they may not.

As communities that lost their productive capacities—whether mills or forests themselves—early in this century can attest, the market stops only when it burns itself out. Rather than allowing markets to dictate levels and quality of production and thereby cheapen natural and human communities, humans can move to safeguard the ecosystems that sustain the entire show. By subordinating market to forest, localities can re-discover sense of inherent, internal strengths, and use these to build a sustainable system of production and exchange. The challenge is to replace Adam Smith's invisible hand of blind motivation with the web of connections that is at the heart of any definition of community.

Beginning from recognition of what is necessary to ensure ecosystem survival, we should learn to live off what such natural systems yield. The most for the cheapest is not productive, unless we decide that "most" means the highest quality sustenance, physical and spiritual, and that "cheapest" implies minimal impact on the integrity of the forest, hydrology, and all linking biological systems. Under these terms, we must admit that today's system of production and retailing is expensive indeed.

At stake as society chooses its path are the quality of the human relationship to the Earth and the health of natural and human communities on both sides of that equation.



This whole-tree clearcut in Fayston, VT obliterated a cross-country ski trail this spring. It lies on land between Camel's Hump State Forest and the Green Mountain Forest, in the heart of one of Vermont's premier recreation and tourism areas. Photo by Steve Gorman

Imperishable Freshness

A Brief History of the Forever Wild Adirondack Park

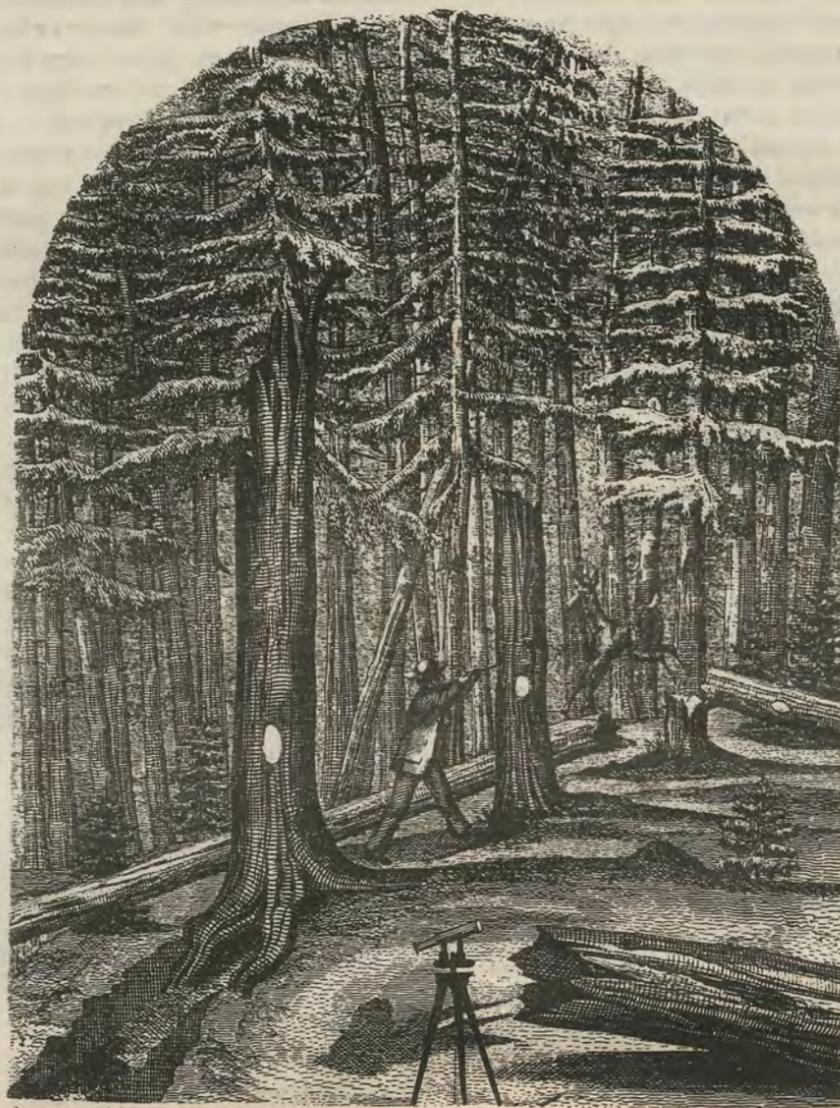
By Philip Terrie

On May 20, 1892, New York Governor Roswell P. Flower signed legislation creating the Adirondack Park. Ever since, the Adirondack Park has been a feature on New York maps—nearly always indicated with a blue line—and an image in the New York mind. Yet recent failure to act on the recommendations of Governor Mario Cuomo's Commission on the Adirondacks in the Twenty-First Century and to provide much-needed protection for the backcountry and shorelines suggests that many New Yorkers are uncertain about what the Park means and how it should be cared for.¹ One important reason for this uncertainty is that the Park legislation, part of a decade of activity aiming to protect what remained of the once vast Adirondack wilderness, was vague and inconclusive. A timid legislature was unwilling to do the job right, just as today's legislature is unwilling to complete the unfinished work of a century ago.

In creating the Park the legislature was responding to a complex set of images and participating in what was already a lengthy and densely textured cultural and environmental drama. Steps to conserve the Adirondacks had been discussed—both in the popular press and within government circles—for decades before 1892, but nothing substantive was accomplished until 1883 when the state decided that its Adirondack lands were no longer for sale. Before then any piece of the public domain was available to anyone who bid for it. Two years later, in 1885, the state declared that its Adirondacks holdings, which consisted of widely scattered parcels surrounded by private lands, would henceforth be known as the Forest Preserve and would be a forested landscape forever. In 1892, with the establishment of the Adirondack Park, the state affirmed, though with inadequate forcefulness, its commitment to the entire region, not just to the Forest Preserve.

The Park created in 1892 was a checkerboard of public and private land.² The blue line on the official map indicated the region in which the state should concentrate its efforts to acquire additions to the Forest Preserve. At the time, the state contemplated adding nearly all of the private land to the Park, but, much to the regret of later generations, it made no provision for doing so. In any case, all the lands in the Park—both the public lands in the Forest Preserve and the privately owned lands surrounding them—were special lands; they were an important piece of New York geography, one in which all the people of the State had a special interest.

The critically significant implication of the Park legislation, despite its shortcomings, was that it demonstrated this interest. It said that the North Country, the watershed of the upper



Drawn by Verplanck Colvin

Lith. by Wood, Parsons & Co.

S^TLAWRENCE CO. LINE

Drawing by Verplanck Colvin in *Topographical Survey of the Adirondack Wilderness of New York, Second Report, 1873-1874*.

Hudson, the Raquette, the Oswegatchie, the Moose, the Ausable, and dozens of other rivers was a place different from the rest of the state, that regardless of ownership it was important to the welfare of all New Yorkers. This is the theme that ties the events of a century ago to recent history—the conviction that what happens to the Adirondacks is the concern of the entire state, if not the entire country.

The final step in that decade of conservation was the approval by New York voters of a new state constitution in November of 1894, one of the provisions of which, Article VII, Section 7, guaranteed that the lands of the Forest Preserve would “be forever kept as wild forest lands.” Still in force today, this article makes the Forest Preserve one of the best protected landscapes in the world. But, as many people are quick to forget, it applies only to the Forest Preserve; the remainder of the Park has never been subject to the forever-wild clause.³

The Adirondack Park today is a complex and diverse place, existing both in the geographical reality of the physical landscape and in the imaginations of the millions of people who have lived, worked, traveled through, or thought about it. Now larger than each of six states (Connecticut, Delaware, Hawaii, Massachusetts, New Jersey, and Rhode Island) and containing over 2.4 million acres of state-owned Forest Preserve along with nearly 3.6 million acres of land

privately owned but governed by a regional zoning plan, the Adirondack Park possesses both placid wilderness ponds and noisy theme parks. It is home to 130,000 year-round residents and to moose, black bears, and bald eagles. The eerie cry of the loon can be heard on the same lakes roiled by speedboats and jetskis. The trees of the Forest Preserve, protected in perpetuity by the constitution, cannot be cut for any reason, but hundreds of thousands of acres of private land are intensively logged. It is largely a land of nature, treasured for the fragile tundra of its alpine summits and for its open spaces of forest and water, yet threatened by acid precipitation, crowding, overdevelopment, and a host of other environmental assaults.

During the nineteenth century, many New Yorkers, if they thought about the Adirondacks at all, pictured it as a recreational paradise where aristocratic hunters and anglers shot white-tailed deer and hooked brook trout. But tourists and sportsmen were not the only people aware of and eager to benefit from the region's treasures. One feature of the economic expansion in the northeastern United States during and after the Civil War was an insatiable appetite for lumber. By the 1860s, loggers were working throughout the southern and eastern Adirondacks, and their depredations on the landscape seemed ominously ruinous.⁴

Taking only virgin white pine and

spruce, loggers left huge piles of brush and bark on the ground. In time, given dry weather, this debris turned into tinder waiting for a careless spark, and forest fires became all too common during dry spells. The result was denuded mountainsides, and this threatened the watershed. Where a healthy forest covered a slope, rain and snowmelt, held in a sponge-like mass of topsoil, moss, and decaying leaves, were gradually released to streams and rivers. Where the forest cover was removed, the runoff occurred rapidly, leading to alternating flood and drought. Since the loggers were working primarily in the southern Adirondacks and since this was the area feeding the Hudson River and Erie Canal, New York transportation interests suddenly took note of what was happening in the Adirondacks, and the politicians were not far behind.

One inspiration to New York's initial steps toward conservation was undoubtedly a young man from Albany named Verplanck Colvin. The son of a prominent attorney, Colvin developed an obsession for the Adirondacks as a teenager, eventually managed to have himself employed by the state as a surveyor, and spent most of his life pleading for protection of the Adirondacks. His earliest useful meditation on the need for conservation and an Adirondack Park, published in 1872, appears in his account of an 1870 ascent of Mount Seward, a remote peak east of Long Lake, which he and Raquette Lake guide and hunter Alvah Dunning were probably the first to climb.

Colvin closed his description of this expedition with a ringing call for conservation. The chief argument for protecting the forests, in Colvin's view, was the need to preserve watershed. The steadily diminishing flow of water in “principal rivers and . . . canals,” he maintained, threatened commerce. The explanation for this potential catastrophe was the “chopping and burning off of vast tracks of forest in the wilderness, which have hitherto sheltered from the sun's heat and evaporation the deep and lingering snows, the brooks and rivulets, and the thick, soaking, sphagnous moss which, at times knee-deep, half water and half plant, forms hanging lakes upon the mountain sides.”⁵

Colvin's belief in the capacity of mountain forests to control run-off derived, almost certainly, from George Perkins Marsh's influential *Man and Nature* (1864). After several years spent in the Mediterranean basin, where he studied the local history and geography, Marsh concluded that profligate abuse of primeval forests had caused dramatic climate change and had destroyed agricultural productivity. Marsh argued that if modern societies did not change their ways, the earth would be reduced “to such a condition of impoverished productiveness, of shattered surface, of climatic excess, as to threaten the deprivation, barbarism, and perhaps even extinction of the [human] species.”⁶

Colvin believed that just such excesses were occurring in the

Adirondacks, that the forests were disappearing, and that "the winter snows that accumulate on the mountains, unprotected from the sun, melt suddenly and rush down laden with disaster." At the same time, valuable resources were being wasted, and New York, once a net exporter of lumber, would soon have to turn to other states or Canada for this important raw material. Colvin proposed "the creation of an ADIRONDACK PARK or timber preserve."⁷ This is the earliest known appearance in print of the expression "Adirondack Park."

That same year efforts to protect some portion of the Adirondack landscape began. The New York Assembly appointed a citizen commission, including Colvin, to look into Adirondack matters and recommend steps for protecting the watershed as well as the open space of forests and lakes becoming ever more popular with hunters, anglers, and other tourists. Significantly, this process began exactly two weeks after President Ulysses Grant signed legislation creating Yellowstone National Park—a federal act that undoubtedly inspired New York lawmakers. On March 15, 1872, the New York Assembly began consideration of a bill to appoint "Commissioners of Parks," whose chief mandate was "to inquire into the expediency of providing for vesting in the State the title to the timbered regions lying within the counties of Lewis, Essex, Clinton, Franklin, St.

Lawrence, Herkimer and Hamilton, and converting the same into a public park."⁸ But though it did in fact establish such a commission, the legislature was unwilling to act on its recommendations, and Adirondack forests remained at the mercy of the lumber barons. In 1883 the state withdrew its remaining Adirondack lands from public sale; since most vital Adirondack lands were privately owned, this was little more than a gesture.

On May 15, 1885, the New York legislature created the Adirondack Forest Preserve, comprised of scattered parcels totaling 681,000 acres. The chief shortcoming of the forest preserve law was its lack of a clear indication of just what it was designed to protect. The Adirondack Forest Preserve was defined merely as state land within eleven Adirondack counties, with no provision for expansion or consolidation.⁹ If nothing was done for the remaining millions of Adirondack acres, the region could scarcely be said to have been protected. Criticism of the law followed its passage almost immediately.

Because the popular mind entertained various and occasionally conflicting hopes for the Adirondacks, the focus of media demands was diffuse. The editors of the influential **Garden and Forest**, for example, feared watershed deterioration and a timber famine, while **Forest and Stream**, the most popular journal of field sports in the late nineteenth

century, worried about threats to Adirondack deer hunting. And doctors connected with the sanatoriums recently clustered around Saranac Lake emphasized the putatively curative qualities of Adirondack air, which depended entirely on the existence of a healthy forest. Combined, the calls of editors, sportsmen, doctors, and others constituted an incipient environmental lobby, arguing that the protections provided by the Forest Preserve law of 1885 were inadequate.¹⁰ In all cases, the positions of these groups depended on the image of the Adirondacks as a landscape of forests.

But the state forest remained relatively small and haphazardly scattered across a huge part of New York. The Forest Preserve law provided neither definition nor prospects for consolidation. Although this was an era of corruption and rampant environmental abuses, the state agency charged with overseeing the Forest Preserve, the Forest Commission, understood the law's shortcomings and pleaded with the legislature to create an Adirondack Park and for the "State to acquire and hold the territory in one grand, unbroken domain."¹¹

Governor David B. Hill agreed and renewed discussion of a park in his 1890 message to the legislature. With elegant simplicity, Hill suggested that legislators spread out the map and draw a line on it, identifying as a park the "wilder portion of this region covering the mountains and lakes, at and around

the headwaters of the several rivers that rise in that locality, including the Hudson." Once thus defined, Hill hoped, this park could eventually become entirely public domain through exchange and purchase. By holding out the hope that the park would be made up entirely of state land, however, Hill sidestepped the question of what would happen if the state had a Forest Preserve, which was public domain, and a park, which included both private and public land. In the century since Governor Hill and his generation wrestled with what to do with the Adirondacks, the question of how much interest the state should have in the fate of private land has been divisive and increasingly unavoidable.¹²

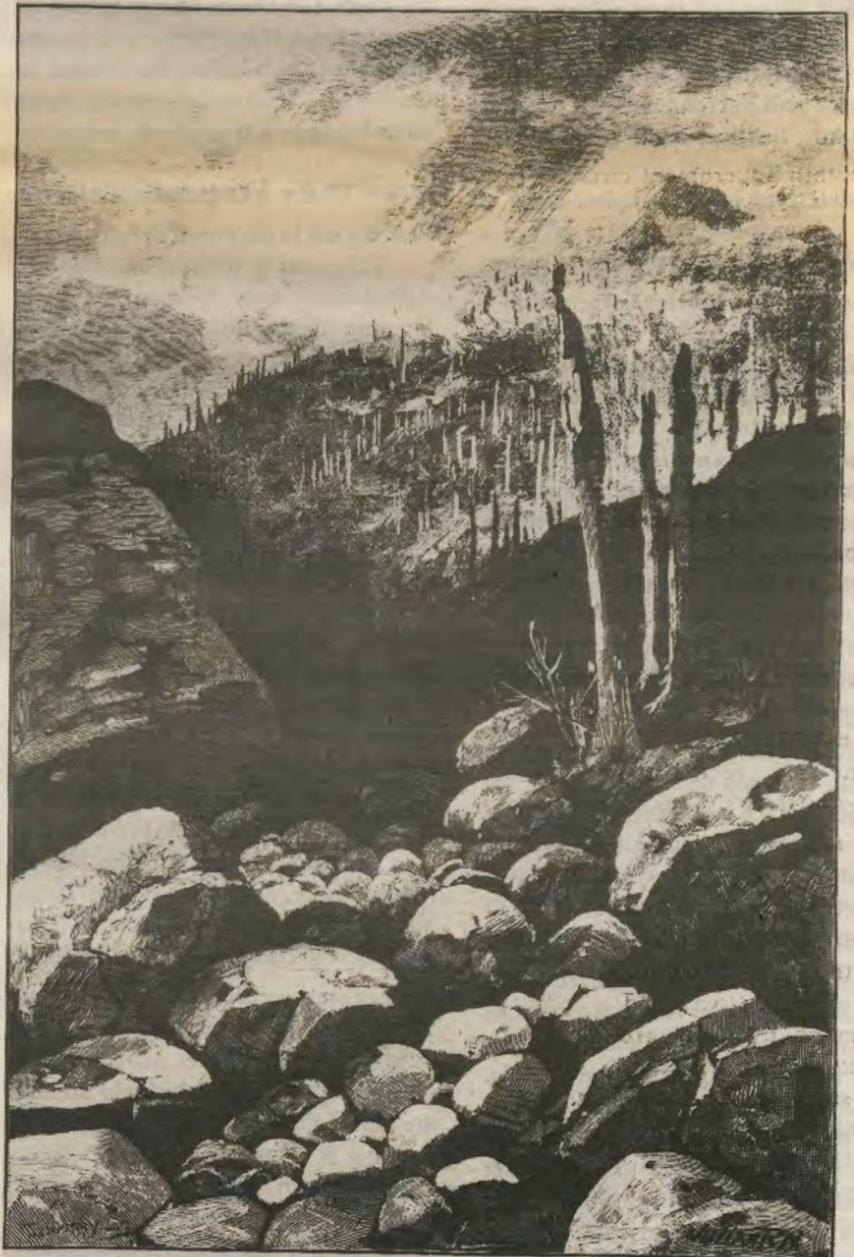
In 1892, after delicate maneuvering, the legislature finally sent Governor Roswell Flower a bill creating an Adirondack Park. The law defined the Park thus: "all lands now owned or hereafter acquired by the state" in specified Adirondack counties and towns "shall constitute the Adirondack park." It was to be dedicated to public use, watershed protection, and a "future timber supply."¹³ The central thrust of this act was toward establishing a contiguous, useful public domain in the Adirondacks. It left to later legislatures the task of deciding what to do about the realities of private land. It did not say whether private land inside the Blue Line was legally in the Park.

The constitutional strictures added in 1894 applied only to the Forest



A Feeder of the Hudson As It Was
Forest Destruction in the Adirondacks—The Effects of Logging & Burning Timber — Drawn by Julian Rix

These drawings, which first appeared in Harpers' Weekly on January 24, 1885, were part of the public outcry against the abusive logging of the late Nineteenth Century. Courtesy of the Adirondack Museum



A Feeder of the Hudson As It Is

Preserve, of course, but at the time they were enacted, most delegates believed that the State would eventually own all the land within the Blue Line. It seemed a realistic and positive goal for a large, contiguous state domain to be "forever kept as wild forest lands." Although the state was intensely concerned with the proper protection of the entire Adirondack region, one unanticipated result of the forever wild clause was a separation of state land from private in the public mind.¹⁴

During the years after the passage of the forever-wild provision, Americans dramatically renewed their interest in nature and its presumed virtues. The back-to-nature movement encouraged comfortably affluent, urban Americans to see nature, however vaguely defined, as a source of spiritual and physical vigor. Intellectually, this movement was a logical extension and descendant of the romanticism that had pervaded American culture since antebellum days, but by the end of the nineteenth century, it had acquired a remarkably recharged authority. Middle-class Americans sent their children to summer camps, spent Sunday afternoons promenading in their cities' redesigned public parks, traveled on family vacations to newly established National Parks like Yosemite and Mount Rainier, and read assiduously in the works of nature writers like John Burroughs and John Muir.¹⁵

To many Americans the cities seemed filthy and slum-ridden, work was often tedious and alienating, and conventional religion, circumscribed by science and surrendering to secular concerns, had lost much of its allure. For those who could afford it, a retreat to nature supplied the antidote to, or at least an escape from, the travails of a society struggling toward the twentieth century.¹⁶ The Adirondacks, within a day's journey of a large, urban population, especially appealed to the back-to-nature cult and became a popular destination for Americans searching for glorious scenery far from the pressures of everyday routine. The philosopher and psychologist William James, for example, spent many summers hiking amid the spectacular mountain scenery of Keene Valley, which he called "one of the most beautiful things in this beautiful world."¹⁷

Emphasizing the restorative powers of nature, James declared in 1895 that his Adirondack vacations helped him to recover from the "addled and corrupted condition in which the Cambridge year has left me . . . filled to satiety with all the simpering conventions and vacuous excitements of so-called civilization."¹⁸ His affection for the Adirondacks appears with particular precision in a letter to his brother Henry, the novelist, who lived in England. William believed that Henry, on one of his infrequent trips to America, had made a great mistake in passing up a visit to the Adirondacks: "You missed it, when here, in not going to Keene Valley, where I have just been, and of which the sylvan beauty, especially by moonlight, is probably unlike aught that Europe has to show. Imperishable freshness!"¹⁹

But when James hiked in the high peaks, the unresolved status of much of



Log jam in the Upper Hudson River, Newcome, New York. Courtesy of the Adirondack Museum

the land he loved concealed a threat to the future capacity of the Adirondacks to provide the back-to-nature experience that was so important to him and many others. One of the most common destinations for Keene Valley hikers, for example, was the summit of Mount Marcy, reached by a rough scramble of about ten miles and an elevation gain of some 4200 feet. In 1898 James climbed Marcy on a strenuous hike of "10 1/2 hours of the solidest walking I ever made."²⁰ To James, as to countless other climbers of his day, Mount Marcy—highest peak in the state, popular hiking goal, locus for stunning views of mountains, lakes, and forest—was a sacred Adirondack destination. Yet when James stood on the summit of Mount Marcy, he was on private land; it had been sold by the state many years before the creation of the Forest Preserve, and unlike many other holdings had not been reacquired through tax default or other means. Mount Marcy was in the Adirondack Park but not in the Forest Preserve.²¹

This was a pivotal moment in Adirondack history. William James and his generation could look back to an era when the Adirondacks was thought of as one big forest. Some of the land belonged to the state, some to lumber companies, some to individuals and families. (In the case of some parcels, no one knew *who* owned them, and this uncertainty kept Colvin and his crews busy trying to fix the location of occasionally century-old survey lines.) People had hiked, hunted, and fished wherever they liked, blithely indifferent to the niceties of property lines. But the decade of the 1890s saw the sudden and ominous appearance of no-trespassing signs on private preserves throughout the region. Although William James was permitted to hike to the top of Mount Marcy, neither his right to do so nor the rights of the millions of New Yorkers who owned the Forest Preserve to do so were secure.

During the twentieth century the public image of the Adirondacks crystallized almost exclusively around the Forest Preserve. More people were camping in the region than ever before. Particularly in the high peaks around Marcy (which was added to the Forest Preserve, in a rare exercise of eminent domain, in the 1920s), the Adirondacks drew enthusiastic hikers and climbers. Since the private lands through which these climbers drove to get to trailheads remained forested, the public paid little if any attention to the difference between the Park and the Forest

Preserve. Throughout the first half of this century, the status of private lands inside the Blue Line remained an unexamined but potentially explosive issue. So long as they were forested, the Adirondacks seemed safe.

The threat that finally led to efforts to repair the split between public and private lands was the possibility that huge tracts of private land—mostly in the hands of woods-products companies, clubs, and wealthy families—would be broken up and sold for vacation homes. In 1959 New York voters approved an amendment to the New York Constitution permitting the alienation of some 300 acres of the Forest Preserve for a super highway running north from Albany to the Canadian border.²² The Northway, as this stretch of Interstate 87 is known, was completed in 1967, made getting into the region easier and quicker than ever before, and is part of a combination of events that brought unprecedented pressures on the Adirondacks.

The '60s was the decade of a new environmental consciousness, culminating in the nationwide observance of Earth Day in April of 1970. One of the unexpected consequences of the new environmentalism of the 1960s was a startling jump in the number of campers and hikers, many of whom decided that the Adirondacks would be a pleasant place to have a summer cottage. There were millions of acres of Adirondack land in private hands and hundreds of miles of undeveloped lake and river shore. A new highway penetrating the region and a population both interested in getting closer to nature and able to afford it created, ironically, a potential environmental catastrophe.

The forested nature of the Park could always be compromised by tract subdivisions, by theme parks, by a host of currently permissible developments. In 1967 a group of planners associated with Laurance S. Rockefeller surprised upstate conservationists with a proposal that the Federal Government create an Adirondack Mountains National Park, to be comprised of some 1,120,000 acres of land from the Forest Preserve and 600,000 acquired from private holdings. The National Park proposal constituted one reaction to the widely shared fear that the special character of the Adirondacks could never be reliably safe so long as the Forest Preserve was surrounded by millions of acres of private land over which the people of New York had no effective control. In

other words, New Yorkers had to begin thinking about the Adirondacks in Park-wide terms: the separation of the Park into Forest Preserve and private land had to be overcome.²³ The Park proposal was not taken seriously as an answer to Adirondack problems, but it stimulated other plans.

The next chapter in this saga began when Laurance Rockefeller's brother, Nelson, the current governor, appointed a board of distinguished citizens to study the Adirondacks, look at what threatened the region's character, and make recommendations for its future. The Temporary Study Commission on the Future of the Adirondacks, created in 1968, was charged to examine the Adirondack Park as a whole. The most pressing issue the Commission confronted was the pressure on private land owners to convert their holdings from forests to second-home developments. Governor Rockefeller asked the Commission to address this basic question: "What measures can be taken to assure that development on private land is appropriate and consistent with long-range well-being of the area?"²⁴ The Commission found that a "crisis looms in the Adirondack Park." With the Forest Preserve protected by Article XIV, the Commission decided that some protection for private land was also needed: "Unguided development on the 3,500,000 acres of private land will destroy the character of the entire Park if immediate action is not taken."²⁵

Although late twentieth-century government reports lack the stylistic vigor of earlier writers like Colvin, the theme remains the same: where Colvin anxiously condemned the "chopping and burning off of vast tracks of forest" by loggers, his descendants of this century have warned of the possibility that the Adirondack region could lose forever its characteristic expanses of that same forest. The Temporary Study Commission proposed that the legislature establish an Adirondack Park Agency, with "planning and land use control powers over private land in the Park." After lengthy debate and after legislators representing local land owners demanded and won significant diminutions of the powers proposed for this Agency, it was established in 1971. The Private Land Use and Development Plan was approved by the legislature, after further weakening its mandate to control development, in 1973.²⁶

The institution of the Private Land Plan fell far short of solving the problems of the Adirondacks. It was

controversial from the start: many local residents saw it as an unnecessary bureaucratic intrusion in their affairs, while conservationists were disappointed in the compromises necessitated by legislative politics.²⁷ While these compromises may have been politically necessary, they undercut a plan designed from the start to permit (while controlling) development, not stop it altogether. Throughout the 1970s and '80s conservationists warned again that the forested character of the Park was slowly eroding as developments perfectly legal under the Private Land Plan popped up throughout the region. In 1989 a powerful article in the *New York Times Magazine*, illustrated with shocking before-and-after photographs, pointed out that during the previous two years alone more than 100,000 acres of forest had passed into the hands of speculators eager to subdivide and resell.²⁸

That same year Governor Mario Cuomo, responding to the growing conviction that the Private Land Plan did not provide adequate protection, appointed another special commission to study the Park and recommend changes in policy. After holding hearings throughout the state, the Commission on the Adirondacks in the Twenty-First Century reported to the governor in the spring of 1990. Reflecting the views of many of the New Yorkers who had testified before the Commission, the Report concludes that without serious modification of the Private Land Plan, the Adirondack Park could lose forever the character of forested open space that has defined the region in the popular mind since early in the nineteenth century.

The chief danger continues to be that huge tracts still owned and managed by timber companies or other private entities, subject to surging real property taxes and other economic pressures, will be subdivided and sold for tract developments. A current example is Whitney Park, in northern Hamilton County. First acquired in 1897 by a wealthy businessman, William C. Whitney, this tract of 52,000 acres and some forty lakes and ponds has been owned and conservatively logged by Whitney's descendants for nearly a century. But patriarch Cornelius Vanderbilt Whitney has

recently died, and his children are faced with huge inheritance taxes: if they are forced to subdivide the property, a devastating blow will have been dealt to the forested character of the very center of the Adirondack Park. The state cannot afford to buy the property for the Forest Preserve, and conservationists are frantically trying to come up with schemes involving conservation easements or some other mechanism to protect the open spaces of Whitney Park.²⁹

In the Adirondacks, the forest-products industry is largely on the side of conservation (though more out of self-interest than any devotion to sound environmental policy) and hopes that tax laws and other instruments can be devised to enable it to keep its lands producing trees and not sold to developers. This is a paradoxical twist on historic precedent. In the late nineteenth century avaricious loggers threatened the landscape loved by vacationers and vital to commerce; today the logging interests—the modern equivalent of the transportation lobby of

the 1880s and '90s—line up with conservationists to protect the forest from uncontrolled second-home development. "The state," declares Twenty-First Century Commission Chair Peter A. A. Berle (now President of the National Audubon Society), "must not let the Park be overwhelmed by the short-sighted interests that would destroy the forest industry and treat the Park as a mere piece of saleable real estate."³⁰ The opportunities for massive and inappropriate developments to destroy the forest character of the Park in the next decade are serious. In a letter to Governor Cuomo accompanying the Commission's recommendations, Berle concludes, "The state must not let this last great opportunity slip from its hands. Action is needed now to mold a truly great park from the priceless treasure that is the Adirondacks, to preserve for all time this natural legacy and set an example for the nation to follow."³¹

Berle's vision of potential disaster and his hope for government intervention are thus but the latest

elements in a long series stretching from Colvin down to the present. For a century and a half, the Adirondack region has appealed to people because it seems so different from the settled, developed remainder of New York. The antimodernism of James, the environmental concerns of Colvin, and the current drive to protect forested open space all aim to keep it different. The story of recent efforts to establish regional planning for the Adirondacks suggests that the split between the Forest Preserve and private lands that resulted from the conservation activity of the 1880s and '90s can be reversed. Whether this can be accomplished in time to preserve the essential character of the region remains to be seen.

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River drivers leap onto log jam. Courtesy of the Adirondack Museum

NOTES

- The Commission on the Adirondacks in the Twenty-First Century, *The Adirondack Park in the Twenty-First Century* (Albany, NY: State of New York, 1990).
- Thomas Cobb, "The Adirondack Park and the Evolution of its Current Boundary," *The Adirondack Park in the Twenty-First Century: Technical Reports*, (Albany, NY: State of New York, 1990), vol. 1, p. 24, notes that the Park of 1892 consisted of 2,807,760 acres, of which 551,093 were owned by the state. On subsequent additions to the Park, see Cobb.
- Useful histories of the Adirondacks include Alfred L. Donaldson, *A History of the Adirondacks*, 2 vols. (New York: Century, 1921); Marvin W. Kranz, "Pioneering in Conservation: A History of the Conservation Movement in New York State" (Ph. D. Dissertation, Syracuse University, 1961); Frank Graham, Jr., *The Adirondack Park: A Political History* (New York: Knopf, 1978); Norman J. VanValkenburgh, *The Adirondack Forest Preserve: A Narrative of the Evolution of the Adirondack Forest Preserve of New York State* (Blue Mountain Lake, NY: The Adirondack Museum, 1979); and Philip G. Terrie, *Forever Wild: Environmental Aesthetics and the Adirondack Forest Preserve* (Philadelphia: Temple University Press, 1985). All of these discuss in detail the passage of the constitutional provision of 1894.
- William F. Fox, *History of the Lumber Industry in the State of New York* (Harrison, NY: Harbor Hill, 1976; originally published in 6th Annual Report of the New York Forest, Fish and Game Commission, 1901); Donaldson, *A History of the Adirondacks*,

vol. 2, pp. 150-58.

- Verplanck Colvin, "Ascent of Mt. Seward and Its Barometrical Measurement," *Twenty-Fourth Annual Report of the New York State Museum of Natural History* (Albany: Argus, 1872), p. 179.
- George Perkins Marsh, *Man and Nature; Or, Physical Geography as Modified by Human Action*, David Lowenthal ed. (Cambridge: Harvard University Press, 1965), p. 43. On Marsh, see David Lowenthal, *George Perkins Marsh: Versatile Vermonter* (New York: Columbia University Press, 1958).
- Colvin, "Ascent of Mt. Seward," p. 180, italics in original.
- First Annual Report of the Commissioners of State Parks of the State of New York* (Senate Document 102, 1873; Albany: Weed, Parsons, 1874). Graham, *Adirondack Park*, pp. 76-77.
- Laws of the State of New York, 1885, Chapter 283. The Adirondack counties were Clinton (from which the towns of Altona and Dannemora were excepted), Essex, Franklin, Fulton, Hamilton, Herkimer, Lewis, Saratoga, St. Lawrence, Warren, and Washington; a twelfth, Oneida, was added in 1887. The law also designated three Catskill counties. On the legislation of the 1880s, see Graham, *Adirondack Park*, pp. 96-106; Terrie, *Forever Wild*, pp. 96-97.
- Forest and Stream*, 19 (Jan. 25, 1883): 502, and 21 (Dec. 13, 1883): 381; *Garden and Forest*, 3 (March 12, 1890): 121; Donaldson, *History*, vol. 1, pp. 273-88.
- New York State Forest Commission, *Annual Report . . . for 1890* (Assembly Document 84, 1891; Albany: James B. Lyon, 1891), p. 57.
- New York State Forest Commission, *Annual Report . . . for 1890*, pp. 67-68.

- Laws of the State of New York, 1892, chapter 707, pp. 1459-60. See also New York State Forest Commission, *Report for 1890*, pp. 57, 70, 77, 87-89; New York State Forest Commission, *Annual Report . . . for 1891* (Assembly Document 34, 1892; Albany: James B. Lyon, 1892), pp. 22, 25, 30; New York State Forest Commission, *Annual Report for . . . 1893* (Senate Document 85, 1894; Albany: James B. Lyon, 1894). Kranz, "Pioneering," p. 333, 335-37; VanValkenburgh, *Adirondack Forest Preserve*, pp. 48-50.
- On the Constitutional Convention of 1894 and the passage of Article VII, Section 7, whereby logging was prohibited forever on the Forest Preserve, see Donaldson, *History*, vol. 2, pp. 187-96; Graham, *Adirondack Park*, pp. 126-32; Terrie, *Forever Wild*, pp. 104-08.
- See Peter J. Schmitt, *Back to Nature: The Arcadian Myth in Urban America* (New York: Oxford University Press, 1969), and Ralph H. Lutts, *The Nature Fakers: Wildlife, Science, and Sentiment* (Golden, CO: Fulcrum Publishing, 1990).
- T. J. Jackson Lears, *No Place of Grace: Antimodernism and the Transformation of American Culture, 1880-1920* (New York: Pantheon Books, 1981).
- Letters of William James*, 2 vols., ed. Henry James (Boston: Atlantic Monthly Press, 1920), vol. 2, p. 261. The editor was William James's son.
- Letters of William James*, vol. 2, pp. 20-21.
- Letters of William James*, vol. 2, p. 259.
- Letters of William James*, vol. 2, pp. 75-78.
- The Marcy massif belonged to two owners: the Adirondack Mountain Reserve, a private club based around the Ausable Lakes and with which William James was on good terms, owned the east half, while

- the successors to the McIntyre Iron Company owned the west half. See Edith Pilcher, *Up the Lake Road: The First Hundred Years of the Adirondack Mountain Reserve* (Keene Valley, NY: Adirondack Mountain Reserve, 1987), p. 53.
- VanValkenburgh, *Adirondack Forest Preserve*, p. 218. Graham, *The Adirondack Park*, p. 212.
- Graham, *The Adirondack Park*, pp. 219-22.
- Temporary Study Commission on the Future of the Adirondacks, *The Future of the Adirondacks*, 2 vols. (Blue Mountain Lake, NY: The Adirondack Museum, 1971), vol. 2, Technical Report 1, p. 5.
- Temporary Study Commission on the Future of the Adirondacks, *The Future of the Adirondacks* (vol. 1 of *The Future of the Adirondacks*), p. 6.
- Temporary Study Commission on the Future of the Adirondacks, *The Future of the Adirondack Park*, p. 25. Graham, *The Adirondack Park*, pp. 242-46, 250-53.
- Richard A. Liroff and G. Gordon Davis, *Protecting Open Space: Land Use Control in the Adirondack Park* (Cambridge: Ballinger Publishing Co.), pp. 53-54.
- James Howard Kuntzler, "For Sale," *New York Times Magazine*, June 18, 1989. See also William K. Verner, et al., "Report of the Citizens' Advisory Task Force on Open Space to the Adirondack Park Agency" (Paperbound typescript, April 18, 1980).
- William F. Hammond, Jr., "Whitney Park's Future at Stake," *Schenectady Gazette* (March 1, 1992), A1-7.
- The Commission on the Adirondacks in the Twenty-First Century, *The Adirondack Park in the Twenty-First Century*, p. 3.
- The Commission on the Adirondacks in the Twenty-First Century, *The Adirondack Park in the Twenty-First Century*, p. 3.

MY ENCOUNTER WITH THE ECO-NAZIS

by Lowell Krassner

May 17 - It's a cool clear morning, and the Special Services van bringing my wife, Diane, and me to the University of Vermont campus for the dedication ceremonies is a little more timely than I had anticipated. We are here at Diane's special request, because, in 1982, as chair of the Vermont Sierra Club Group, she had been a leader in the environmental coalition that proved a key element in Senator Stafford's re-election campaign. In the succeeding years, our respect for him and for his efforts in defending environmental laws against the Reagan Administration's assaults grew. Diane thought it fitting to be present at the dedication of Robert T. Stafford Hall, UVM's new biology and medical research center. Besides, she hoped she might be able to speak with him, if she were fortunate.

As the van operator lowers Diane's wheelchair to the pavement, I notice a group of Earth First! demonstrators in front of the new building, and guessed at the reason for their presence. I also am concerned that uncontrolled pursuit of biotechnology could release an array of new or genetically altered organisms on the natural world, with unforeseen consequences. The record, just in this region, is not encouraging. Gypsy moths, pear thrips, Japanese beetles, Dutch elm disease, rats and roaches, even the dandelions that provoke suburban gardeners, all were introduced as a result of ill-considered human actions.

I wheel Diane into the lecture hall in an adjacent building, where speeches have just begun. 1982 was also the year when the cause of Diane's fatigue, blurred vision, and balance problems was diagnosed as multiple sclerosis. The disabilities have increased in the years since, and now Diane, confined to bed and wheelchair, requires full-time care in a nursing home. Recently, biotechnology has produced a ray of hope—beta interferon—holding the promise of stemming the progress of MS. Perhaps other research, including gene technology, will lead to therapies that can restore lost capabilities. Biotechnology, like almost every other technology, is a two-edged sword.

In the lecture hall, Senators Stafford, Patrick Leahy, and Jim Jeffords, as well as faculty members who will use the new building, are scheduled speakers. The keynote address, given by a visiting academic, begins with a discussion of the diversity of microbial life in the sea; that is about as much as I hear, for outside, loud noise erupts: banging, shouting, police whistles, and then the fire alarm is set off. I know it is the demonstrators, gone from peaceful protest to disruptive action. Except that there is no imminent threat here that can possibly rationalize their behavior.

Unable to concentrate further on what is shaping up as an interesting beginning to the address, I mistakenly think that the demonstrators will listen to reason and try to display their concerns in a civil manner. Perhaps I am also embarrassed that they are calling themselves environmentalists, a label that has been applied to Diane and

me for many years. Emerging from the lecture hall, I approach one costumed character, and try to explain to him that I, too am a concerned person, active in trying to protect the world. I am greeted with derision. When I try to move our discussion to a quieter place, so that we can at least communicate intelligibly, the response resembles that of a child to a potential abductor. Then from behind, another demonstrator blows a whistle in my ear. In response I push it away, and am accused of violence. A security officer ushers me away, but tells me I can't return to my wife's side, because if I enter the auditorium, the rowdies will demand entry as well.

I join an acquaintance, a Congressional staffer, to watch the proceedings on closed circuit TV. He, too, has mistakenly exited the hall, and isn't permitted to re-enter. His comment, "People like this give environmentalism a bad name."

By now I am getting my 15 minutes of fame. A TV reporter comes over to interview me on camera, as does a print journalist. I am on the evening news, and next day, a photo appears on

the front page of the Free-Press. At least the reporter's interview accurately reflects my views on the issue. But I hadn't come to do anything of the sort—indeed, if Diane had not wanted to be present, I would probably know of the day's events only from the six o'clock news.

The rowdies continue to make irrelevant noise, and try to censor the closed circuit view by turning the set off and blocking our view with signs. One of the environmental purists provides a humorous moment when he steps outside for a cigarette break. A passing member of the Medical School advises him about the dangers of smoking, eliciting anger.

When I return Diane to the nursing home, I find that I have been splattered with paint, an event the journalist had not mentioned to me, but which she reported in her newspaper story.

What can I conclude about the day's events? Surely I have lost all regard for Earth First!, an organization that formerly seemed sincere in its commitment, if extreme in its methods. The people I encountered resembled

most closely the extremists of Operation Rescue. Like them, they had a Received Truth, and anyone who dared question it was an enemy. They were bent on preventing the exposure of any views other than their own, and would censor what they weren't even hearing.

The newspaper story in the Free Press carried an interview with Ann Petermann, who spoke on behalf of Earth First! Her quote: "It used to be the gas chambers, now it's test tubes and biotechnology. They can make it so you can choose your white, blue-eyed, blonde-haired baby."

Ms. Petermann has it partly right; she forgets another favorite Nazi activity: burning books you haven't read.

Lowell Krassner has been one of the most conscientious monitors of the Northern Forest Lands Study and Council on behalf of the Vermont Sierra Club and the regional environmental community. He is a master of the art of asking the pointed question without lapsing into boorish behavior.



Forest liquidation near Victory Bog, Vermont. Instead of throwing paint at fellow environmentalists, activists should be fighting local deforestation. Photo by Alex S. MacLean—Landslides

Swan Interview

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program is the best solution that I see on the horizon to provide some near-term compensation for the forest industry to giving up certain of their bundles of rights on the land. The forest industry is going to have to come off its lofty pedestal and get right down and work with the people. The forest industry—as you call absentee ownership—cannot be dictated by a bunch of guys running up from Dallas or Stamford, Connecticut or somewhere. The forest industry has to allow their local people to work with the local people, to understand the local problems and local forest industry representatives have to be heard in regards to exporting. In this working relationship, one of the groups with whom they are going to have to work

more closely with are environmentalists.

Relative to advice to the environmental groups, again it's flexibility and open discussion, rather than just damning what the forest industry is doing. Sitting down with the forest industry and saying, "how can we work together to achieve some of these goals that we agree are mutually beneficial?" Now, there are going to be areas where people will never agree because of different philosophies, but those differences in philosophy have to be calmed down, and have to be exposed and explored in a democratic fashion, and not in an absolute fashion. I think the environmental community has to recognize that a viable working forest is not going to be a Northeast National Park or national forest as we know it today. It certainly isn't going to be a national park because we need to have

hunting and sports and recreation and timber harvesting. It might be a new kind of national forest where the only thing the federal government has—like Nash Stream—is a conservation easement with a minimal amount of federal bureaucracy. I know there has to be some oversight but the feds can't just build a huge bureaucracy to do this oversight. And maybe the oversight has to be done on an ad hoc or pro bono basis rather than having a bunch of paid Smoky Bears running around the woods telling the forest industry, "you can't cut that here; you need a permit to do that there." You have to have something that is workable and flexible and maybe the national forest model that I'm talking about has a minimal amount of people—mainly go-fers—to take care of certain issues and an ad hoc private partnership like the Ad Hoc WMNF Advisory Committee that does have local needs very high on its priorities.

The Northern Forest in the Age of Ecological Restoration

by Michael Kellett &
Jym St. Pierre

North America has sustained some of the great forests of the world. Even the youngest of these is the result of a hundred centuries of intricate evolution. Our inexorable drive over the last four centuries to convert these primeval forests into settlements, croplands, and fiber farms is stunning in its enormity.

Today, we are witnessing the final, agonizing twitches of Manifest Destiny. Over the next few years the last fragments of Ancient Forest in the Pacific Northwest will be preserved or stripped away for short-term profit. Moreover, the Ancient Forest controversy has overshadowed other equally important forest issues.

A new movement is rising that refuses to accept a legacy of degraded forests. Conservationists are beginning to look beyond simply mitigating the damage of the past, and toward the ecological restoration of entire landscapes. A major focus for this new challenge is the Northern Forest of Maine, New Hampshire, Vermont, and New York, where "cut and run" logging started its sweep across the continent.

Restoration experiments elsewhere around the country, though small-scale, have shown that degraded tracts can be revived and that their biological diversity will return. We believe that a restored Northern Forest can be the beginning of a new sweep across the continent: a drive to resuscitate our magnificent forest ecosystems on a large scale.

The Endangered Northern Forest

The 26-million-acre Northern Forest encompasses the largest tracts of undeveloped forestland in the eastern United States. This region contains millions of acres of mixed temperate forests, countless backcountry lakes, thousands of miles of undeveloped river corridors, mountains that tower above the surrounding terrain, and a rich variety of wildlife. To the scores of millions of people who live within a day's drive, this vast forest is a source of clean air and water, outdoor recreation, spiritual inspiration, and timber and other natural materials.

The Northern Forest also has global importance. As a part of a much larger North Woods ecoregion, it is ecologically linked with lands in Canada, the central Appalachians, and the Great Lakes region. As vital habitat for migratory birds, a massive storehouse for carbon, and an enormous reservoir of biological diversity, the Northern Forest is tied to ecosystems around the world.

Sadly, the Northern Forest has a long history of short-sighted and careless exploitation. The problem continues today. The forest products industry is mismanaging millions of acres through unsustainable forestry practices. Mills are discharging toxic waste into rivers and the air. Land ownership is increasingly concentrated in the hands of a few transnational corporations that respond to short-term economics, not the needs of local communities.

Unlike the western United States,



Heavy machinery such as fellerbunchers (pictured here) and whole-tree harvesters have accelerated the rate and intensity of clearcutting. These machines also compact the soils. Although the 'industrial forest' has been overcut, it can recover if it is brought back into public ownership. Remember, the Adirondack Park and the Green & White Mountain National Forests once were stripped by 19th century timber barons. Today, after a century of natural restoration, they provide the best habitat for numerous species native to the Northern Forest region. Photo by Steve Gorman

four-fifths of the Northern Forest is in private ownership. More than one-half of the entire region is held by fewer than fifty paper corporations, timber companies, and family trusts that manage their lands for crops of fiber and timber. One corporation alone, Bowater, Inc., owns over two million acres of the state of Maine. During the past decade nearly eight million acres in the Northern Forest have changed ownership, underscoring the instability of the current ownership pattern. The long-standing social compact between the major landowners and the public that once maintained traditional values is falling victim to the intense economic pressures of the global marketplace.

Restoration: An Idea Whose Time Has Come

Merely tinkering with the current system in the Northern Forest will not work. A sustainable future cannot be built on declining natural systems. The time has come for the ecological restoration of the Northern Forest region, a transition to an ecologically sustainable economy, and the re-establishment of our connection with, and respect for nature.

Despite the damage of the past, the essence of the primeval Northern Forest survives—in scattered old-growth stands, in remaining populations of native species, and in lakes, streams, and wetlands that have escaped development. Extensive tracts of forest, although impoverished, still retain

tremendous potential to harbor native biological diversity. These are the raw materials out of which a restored Northern Forest can emerge, if nature is given a chance to heal the land.

Economic trends provide an unprecedented opportunity for positive change. Large tracts of forestland are available, offering the potential for major new public acquisitions. The resource-extraction economy is declining as the forest is depleted, workers are displaced by machines, and jobs are exported. Shifting budget priorities provide an opportunity to convert spending on Cold War weaponry and public subsidies for logging and grazing into an investment in Northern Forest restoration.

Federal and state concern with ecological restoration and preservation is another important factor. The reauthorization of the Endangered Species Act and strong statements by Interior Secretary Bruce Babbitt are prompting widespread discussion of the need to protect entire ecosystems, not just single species. Federal and state resource agencies are placing greater emphasis on ecological protection. The Ancient Forest controversy and "forest summit" have helped focus public attention on all forest issues, including Northern Forest restoration.

Most important, more and more people are realizing the importance of the Northern Forest and the threats facing it. They are demanding strong leadership and decisive action. There is

good indication that the public is far ahead of elected officials, government agency staff, business and industry, and professional conservationists in rejecting the failed policies of the past and supporting true change from a "working forest" that has become dysfunctional to a "sustaining forest."

Making the Vision a Reality

The Northern Forest we envision has been restored to take its place alongside a renewed Everglades in Florida, the spectacular canyons of the Southwest, the Ancient Forest of the Pacific Northwest, and the Arctic coastal plain of Alaska as one of North America's great natural wonders. Many of the seeds for this restoration have already been planted. There is no instant fix, but with perseverance these steps offer terrific promise toward achieving restoration of evolutionary processes, and preservation of the ecological richness and cherished beauty of the life-support system we call the Northern Forest.

Awareness of the Northern Forest as an Ecological Whole. People and their representatives must recognize the global significance of this area as a unique bioregion. This process began with the federal-state Northern Forest Lands Study, and has been continued by the four-state Northern Forest Lands Council. If they accomplish nothing more, the Study and the Council have changed the way we view this region.

Public Acquisition of Lands from Willing Sellers. Virtually all public lands in the East were established by bringing private lands back into the public domain. The White Mountain, Green Mountain, and other eastern national forests were purchased under the authority of the Weeks Act of 1911. A "new Weeks Act" could be the foundation of a new generation of ecologically managed public forests in the region. New parks, wildlife refuges, and other public land units need to be established as well. A recent list of endangered "jewels" of the Northern Forest issued by a coalition of conservation groups highlighted 600,000 acres of high priority forestlands that are up for grabs.

Establishment of a Wildland Preserve System. The Adirondack Forest Preserve (New York) and Baxter State Park (Maine) were created largely from cut-over private forest lands. These areas protect healthy ecosystems while allowing most public uses. Today, there is growing support for a region-wide system of core ecological preserves connected by natural corridors and surrounded by carefully managed multiple-use buffer areas. In 1989, The Wilderness Society proposed a new Maine Woods Reserve that would protect critical wildlands around beleaguered Baxter State Park. The "gap analysis" being undertaken by U.S. Fish and Wildlife Service in the Northern Forest region, will help identify other areas that need protection.

Sustainable Public Land Management. For a century, most public forests have been managed primarily for a "sustained yield" of forest products. Today, a revolution is

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It Is Time to Draw a Line

A Proposal for a 'Great Northern Forest Boundary Act of 1993'

by David Miller

[Ed. Note: Whether you want more tax breaks for industry or landowners or more public lands, we need to identify the region where tax reforms or land acquisitions can take place. Otherwise, economic or land protection strategies designed for the Northern Forest region will apply to all 50 states. National Audubon Society's David Miller suggests we declare that the line Congress drew around the Northern Forest region almost five years ago be identified as the "Great Northern Forest Boundary" so that economic and protection strategies targeted for this region can be implemented most effectively. We welcome constructive criticism of this proposal. For what it's worth, the *Forum's* editor believes that the Berkshires and the Taconics should be included within the boundary.]

The Great Northern Forest Region, stretching from the Tug Hill Region of New York to the Northern Maine Woods is at a critical crossroads with threats to our conservation values of the greatest magnitude. Large tracts of land important to ecology, cultural character and local economies of the region are up for grabs in a "fire sale" frenzy only dampened by the current recession. Public ownership of these lands on the market can be a key tool in protecting the character, traditions and resource base of the region.

Federal financial resources are desperately needed to augment state land conservation programs if the Great Northern Forest Region is to survive for future generations to enjoy. However, the federal government does not have a simple mechanism to provide resources to invest in this region. Congress needs to create a means for the Great Northern Forest Region to receive needed funds.

Therefore, it is now time to draw a federal boundary line for this great resource for one simple reason: to authorize opportunities for conservation action and funding. Without action, the region will forever lose natural resource wonders. Future generations may not experience this critical part of our cultural and biological heritage. Our migratory birds and wildlife, our public recreation opportunities and even our local economies are at stake. A boundary line is not designed to address all of the issues facing the region, but it can be a key component of a comprehensive conservation strategy. It can be a public policy mechanism which goes beyond conservation issues and initiates tax reforms, programs for local based economies, forest management revisions and ecologically sound development.

The Great Northern Forest Region consists of beautiful mountains, rivers, lakes, bogs, rolling hills, and fields with small towns and hamlets dotted over a 26 million acre landscape. This region grows by several million acres when you provide cooperative links to the boundaries of Vermont's Green

Mountains and New Hampshire's White Mountains. These latter areas already are host to National Forests, state lands and some of the most extraordinary recreational opportunities in the Northeast.

The conservation community has identified natural resource jewels—lands on the market today—which are threatened by development and fragmentation. The conservationists' report, [See *Northern Forest Forum, Mud Season 1993, p. 15*—copies of report also available from David Miller] "Endangered Jewels of the Northern Forests," calls for the acquisition by federal and state agencies of over 600,000 acres listed for sale by willing sellers. Right now, lands for sale include: 14,000 acres of Follensby Pond in the Adirondacks, Katahdin Iron Works in Maine, Big Jay lands in Vermont, Lake Champlain shoreline in the Adirondacks, and over a quarter of a million acres of corporate non-strategic paper company lands in the region.

Discussions have been held recognizing that these lands are just the beginning of a trend whereby millions of acres will be for sale, especially in the category of "non-strategic" forest products land, during this decade. As they come on the market, these tracts of land could become Ecological Reserves for wildlife enhancement, biological diversity and sporting activities, while buffer areas beyond these reserves could serve as models for sustainable forestry and other economies. It must be emphasized that the lands we speak

of are "willing-seller" properties whose owners would welcome public acquisition opportunities to preserve their character and use for the future.

Many large land owners do not want resorts, condominiums, and other sub-divisions across these lands any more than we do; but what choice do sellers have? If land-owners must sell, the states have little to no money and they turn to the federal government for assistance. We do not now have a simple way for the federal government to help us and help local governments protect these lands from development. The crisis is upon us and we have no logical way to react.

This is why many conservationists are seeking a comprehensive process to be injected into the Northern Forest debate. The concept of a boundary line around this region can provide such a process and give Congress the ability to play a significant role in saving these endangered jewels, promoting sustainable economies and working with local governments. Many feel it is clearly time for the "Great Northern Forest Boundary Act of 1993," which could serve as a critical mechanism to bring a balance between people and the forests for the next century. Such an Act could provide the following functions for land conservation:

- (1) Proclaim the approximately 26 million acre area of the current Northern Forest Lands Study boundary as the "Great Northern Forest Region" with cooperative

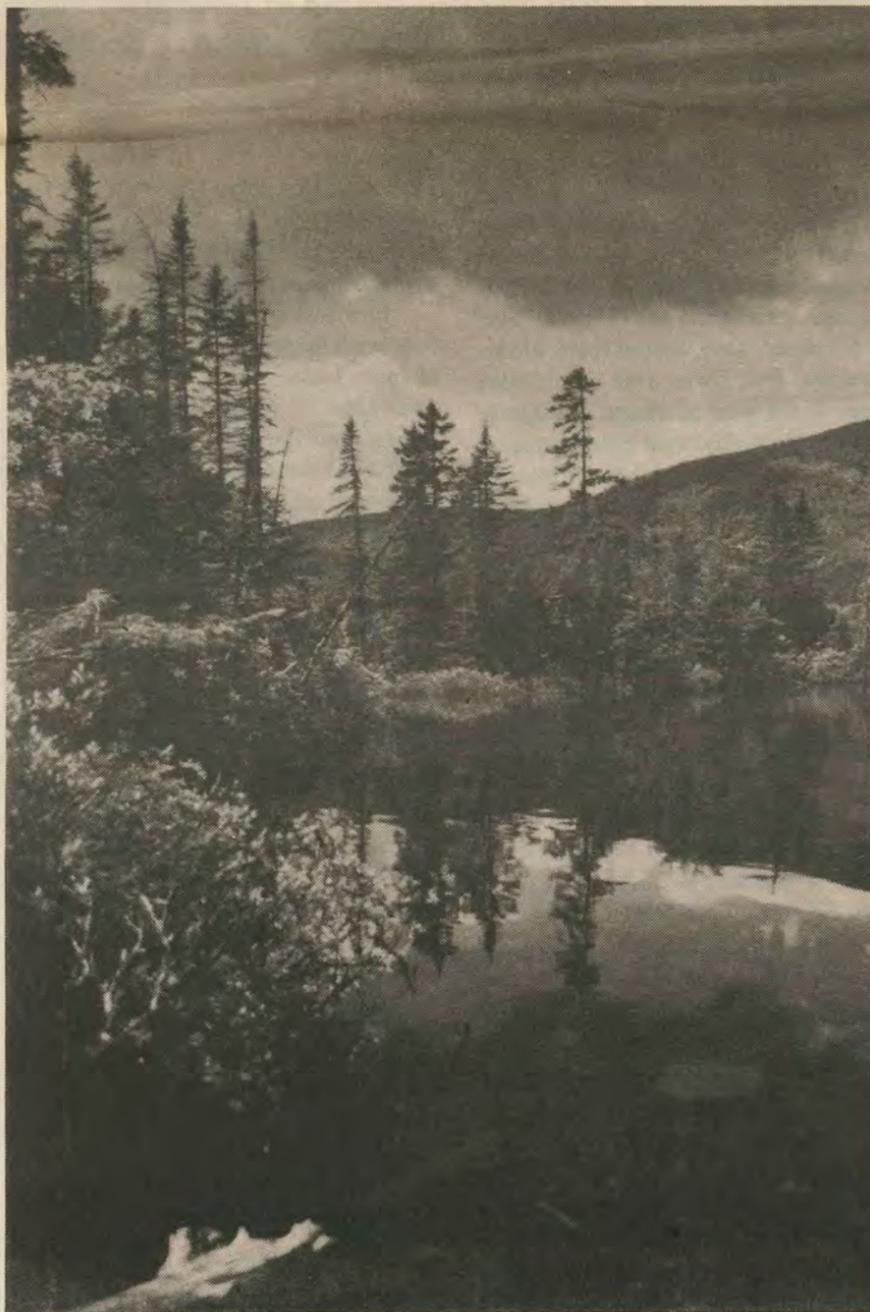
links to the Green Mountains and White Mountains not within the current study area.

- (2) Authorize the state side and the federal side of the Land and Water Conservation Fund (LWCF) to be used to purchase Northern Forest Lands within the boundary from willing sellers;
- (3) Allow for federal/state partnerships using not only the state side of the fund, but also through the federal side of LWCF which could allow for state ownership and management not unlike the New Jersey Pine Barrens model;
- (4) Call for the US Forest Service, state agencies and advisory bodies on Northern Forest issues to work cooperatively to establish Open Space/Land Acquisition priority plans for each state's portion of the Great Northern Forest Region; and
- (5) Call for plans to establish Core Areas or Ecological Reserves which are coordinated with land acquisition and conservation easement strategies for the Great Northern Forest Region.
- (6) Establish a framework for programs on sustainable forestry and strong local economies within a Great Northern Forest Boundary.

With this mechanism in place, a systematic approach could be brought into the Northern Forest debate and provide a framework to help address other issues such as tax reforms and sustainable local economies. On land conservation, people would be talking about real land that is truly for sale that people sincerely want to protect and/or utilize. The Congress would have a mechanism by which to play a meaningful role in ensuring a balanced ecological and cultural future for the Great Northern Forest Region. This approach provides for federal partnerships with state and local government towards implementation and financing of these critical land conservation objectives.

The demagogues of the "far right wing" will raise their red flags. They will claim that conservationists propose the creation of a twenty-six million acre National Park without people in it. Let them if they wish, for citizens are seeing through the distortions, lies and scare tactics of this fringe of the population. People are tired of "red herrings." People are more interested in finding ways to protect our beautiful natural resource jewels while preserving the region's way of life. The individual rights of land-owners to be able to sell their land to the public sector should be provided for, especially when purchase of these lands is consistent with regional and state conservation strategies. Many landowners welcome the opportunity to do so in order that traditional values and recreational uses can be preserved for generations to come.

Northeasterners have fought and voted for forest boundaries in the West



B Pond in the Katahdin Iron Works tract. Photo by John McKeith.

Draw a Line

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for over a century. Aside from our successful Green and White Mountain National Forest models, our region has neglected to seek the same opportunity for our natural resource jewels. Now, the grandeur and story of the Great Northern Forest needs to be heard across the nation to involve all citizens in this issue of national significance. Currently, we have no way to receive citizen support from the many parts of this country. People need to hear our message and rally behind a conservation policy initiative. The Boundary Act concept provides us all

with a legislative proposal to help describe the wondrous assets of our Northern Forests to the rest of the nation and to gain their support for critical initiatives to protect its integrity. Now people in California will know of the Great Northern Forest as we know of the Sierra Nevada, and in turn lend their support.

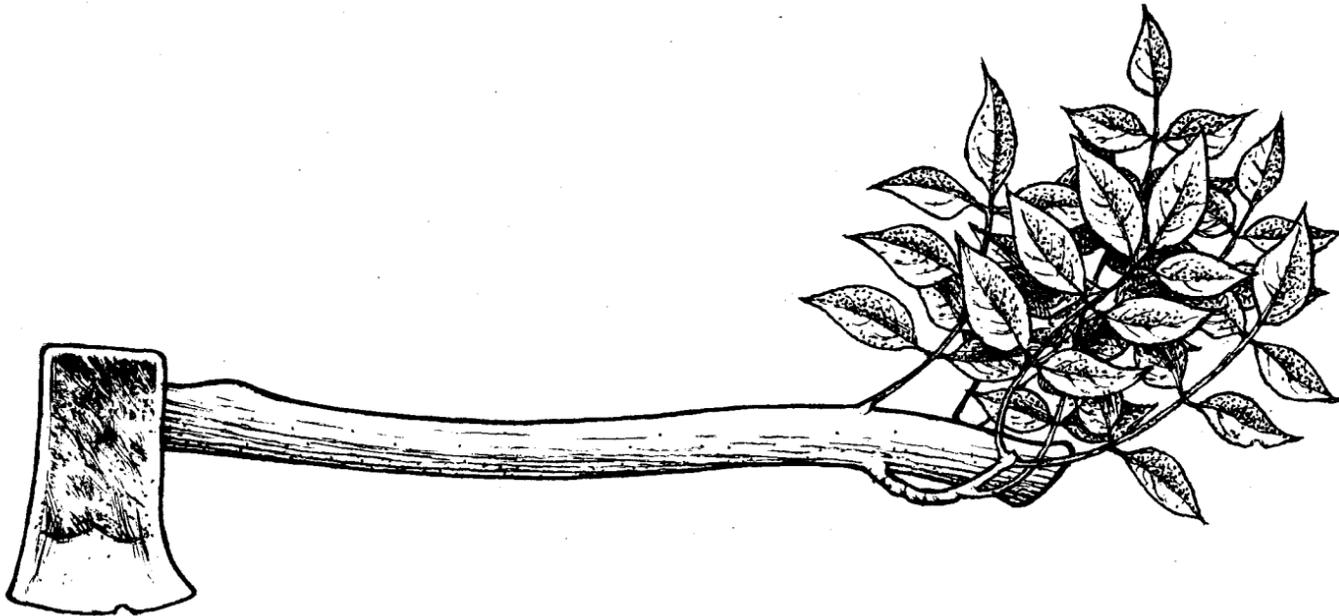
Over the next year as the Northern Forest Lands Council develops its final recommendations, this concept should be explored and debated. The Boundary Act concept is not the total answer to the needs of the Northern Forest Region and for the purposes of this editorial the land conservation piece of the public policy puzzle is

emphasized. However, sustainable forestry and strong local economy programs could be designed within the framework of a Great Northern Forest Boundary. The concept is not new and countless models have served natural resource areas well across the country, including the most recent federal, state and local partnerships surrounding the New Jersey Pine Barrens. It provides the basis for future conservation initiatives and takes the region beyond the recognized limitations of the current federal Forest Legacy program. It updates original proposals made to the Northern Forest Lands Study in 1990, while establishing a simple mechanism for "willing-seller" land

acquisitions.

For all these reasons, the time for this bold and visionary step is upon us as we seek a framework to help us address not only the conservation but also the economic and social issues of the region. The time has come to embrace the concept of a Northern Forest Boundary and proclaim this region "Great."

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Ecological Restoration

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underway. On the 45,000-acre Nash Stream State Forest in New Hampshire, purchased in 1988, the goal is to manage the area "as an integral part of the ecology, landscape, and culture of the Northern Forest." Other public areas, such as the new Nahmakanta Unit in Maine, need to incorporate this approach.

•Restoration of Native Species. The restoration of healthy populations of all indigenous Northern Forest species is essential. As habitats are restored, the full range of indigenous species will again have a chance to flourish. Already, there are a few encouraging signs. Conservation groups, supported by the governor of Maine, are fighting to remove Edwards Dam on the Kennebec River. This would open up miles of critical habitat for the threatened Atlantic salmon. Restoration of the lynx is already underway in New York, and recovery of the eastern timber wolf to the Northern Forest region has been proposed. The woodland caribou will need to wait until adequate habitat has been re-established.

•Conservation of Private Land. Private landownership will continue to be an important feature of the Northern Forest, but it must be guided in a more coherent manner to safeguard both the public and private interests. Existing regulatory approaches, such as the Land Use Regulation Commission in Maine, Act 250 in Vermont, the Adirondack Park Agency in New York, and clearcutting regulations in Maine and Adirondack Park have their strengths, but are often inconsistent and

ineffective. These programs need to be bolstered with better state coordination, existing use zoning, improved regulation of development and forest practices, and other conservation strategies. Although most forestry remains an uncontrolled experiment, some private landowners—such as Fraser Paper—appear to be moving toward more sustainable management.

•Sustainable Local Communities. The Northern Forest is the lifeblood of the million people who live in or adjacent to it. The forest is the foundation of the local economy, a source of recreation, and a dominant part of the history and culture. Effective programs are not only needed to promote economic stability and diversity, but to improve social services, protect public health, and support a transition to local businesses and industries that are ecologically sustainable. From the northern Maine town of Greenville to the Adirondacks, local timber-dependent communities are working to diversify and stabilize their economies. In Bennington County, Vermont, citizens voted recently to expand the Green Mountain National Forest into their towns. Cow Mountain Pond in Granby, Vermont, the first project of the new Forest Legacy Program in the Northern Forest, was acquired at the urging of the local community.

The Challenge

One of the greatest challenges to our society in the coming years is clear. We need to preserve what is undisturbed, conserve what we use, and restore what has been damaged. If we can stop waging war on the land and start the healing, there is hope for

restoration. A century after Frederick Jackson Turner declared the end of the frontier in the West, a new frontier is beginning in the East.

As Edward O. Wilson recently wrote in *The Diversity of Life*, "let us go beyond mere salvage to begin the restoration of natural environments, in order to enlarge wild populations and stanch the hemorrhaging of biological wealth. There can be no purpose more enspiriting than to begin the age of restoration, reweaving the wondrous

diversity of life that still surrounds us."

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A slightly different version of this article was published in the Summer 1993 issue of Forest Perspectives magazine.

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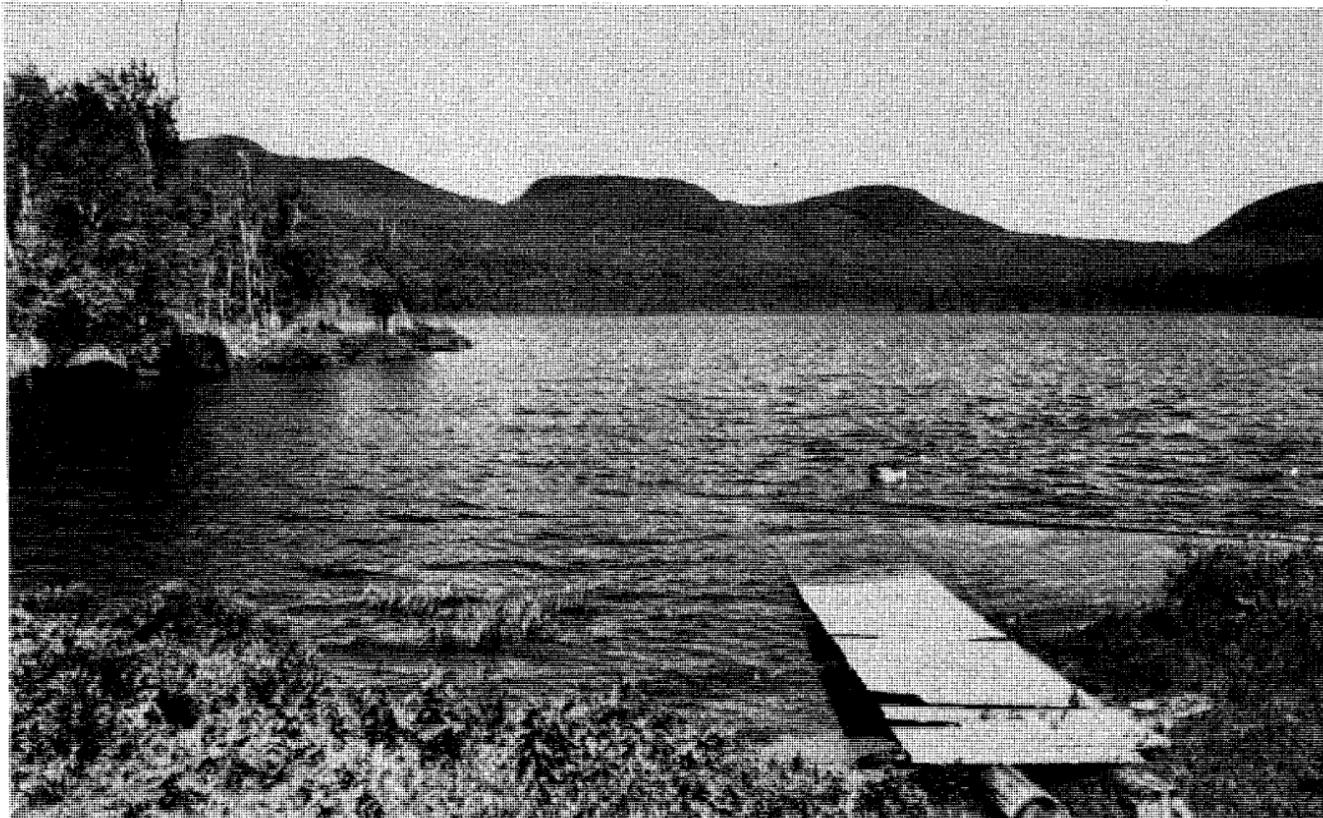
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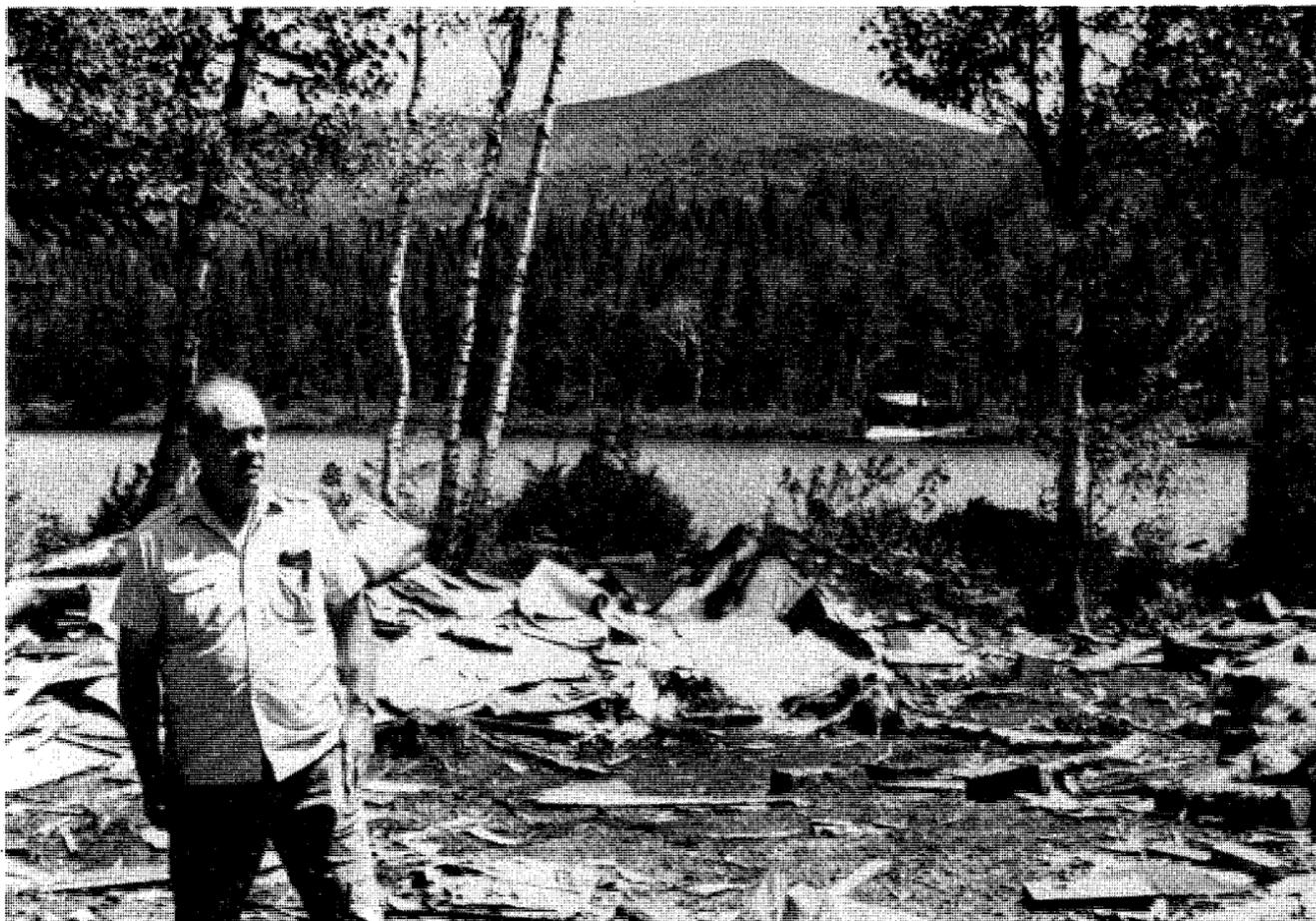
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The Demise of Stratford Bog

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Stratford Bog: In 1990 the voters of Stratford, NH voted against allowing the White Mountain National Forest to purchase the 7,000-acre Stratford Bog tract. Senator Warren Rudman had already arranged the acquisition. All that was required was an affirmative vote at a special town meeting. Frightened by falsehoods about rising taxes, the town voted the proposition down 33-30. Several of the negative votes were cast by owners of fishing camps on the Bog who feared that they would lose their lease if the land became publicly owned.



Winston Hubbard, of Pittsburg, NH, a former camp owner stands in front of the wreckage of one of the camps. In the background is Mt. Sugarloaf. Today, Lancaster developer Ray Hartshorn owns the Stratford Bog. He has grandiose dreams of building a ski resort on the west face of Mt. Sugarloaf. The east face of Sugarloaf is within the Nash Stream State Forest. This spring Hartshorn raised annual camp rental fees from \$185 a year to \$2000 a year. Many camp owners refused to pay. Some stripped wood from their camps or moved them. Others bulldozed their camp to the ground rather than leave it for Hartshorn. Now the ambitious developer is constructing an airplane landing strip to the east of the Bog. He has exercised his property right to spoil the Bog for the rest of us. Photos by Jill Brooks

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