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Maine Forests:

A Century of Change, 1900-2000 ...and elements of policy change for a new century

by Lloyd Irland



At the close of the nineteenth century, the state's forest area was at an all time low; landownership was changing rapidly with the emergence of new paper companies; a growing number of wildlife species were threatened; widespread unease over the future of Maine's forests was evident. Today a similar unease is evident. Many believe the state's spruce-fir forest is being overcut; landownership is changing rapidly; fear exists that the sustainability of Maine's forests and wildlife populations has been severely compromised. Given the similarity in circumstance, one might ask whether there's been any change over the To help us reflect on where we've been, where we are today, and how we might proceed in the future, Lloyd Irland presents seven different images of Maine's forest. Each corresponds to a value of the forest; some correspond to policy agendas. Irland argues that the pragmatic approach to managing Maine's forest for the future includes all of these values and does not place a greater importance on one to the exclusion of others. Further, he notes that cooperative approaches that advocate incremental change show the greatest promise for achieving real results.

t the close of the nineteenth century, America was Arushing toward a new wave of industrialization. Awareness was increasing that its forests, waters, and mineral resources were under strain. In Maine, lumber production was heading toward an all-time peak, reached in 1909, even as evidence grew that the old forest was giving out. The state's forest area was near its all-time low, and most imagined that it would continue to decline. Landownership was changing—lumber companies, not all beloved, and not all local in any event, were selling out to new paper companies. The paper industry was growing rapidly, coming here for wood, water and power. Observers of the time believed that timber famine was ahead, if not already here. This meant increasing dependence on imports, loss of jobs and economic base for towns, and loss of other important forest values. During this time, the public was aware of disappearing game populations. Forest losses also threatened wildlife and fish habitat.

With a new century begun, similar unease is evident. The same kinds of themes are here, but in a different economic and political context, and differing details. Maine's state forester advises that the state's spruce-fir forest is being overcut. Land ownership is changing again-too fast for comfort. In the late 1980s, a wildland subdividing boom occurred in previously remote wildlands (Harper, et al., 1992; Maine LURC, 1996; Northern Forest Lands Council, 1993). In 1998 and 1999, 56% of the state's industrially owned forest and 24% of the state's total forestland were sold. The unease over these trends has created a regionwide concern over "the Northern Forest" (Dobbs and Ober, 1995; Irland, 1996; Irland, 1999). One way to understand the forest's history and promise is by discussing different images, each reflecting an important forest value. These images then merge in competing visions of Maine's forest future. To some of these images, there corresponds a policy agenda.

SEVEN IMAGES OF THE MAINE FOREST

We can think of Maine's forest in terms of seven images, each summarizing one value of the for-

est. These are: the forest as a cultural resource, as a recreational resource, as a biological resource, as a timber resource, as a sector of the economy, as real estate, and as wildness. The order is arbitrary; readers will have their own views as to which are most important. Important concerns—such as the forest as watershed, as fish habitat, or energy supply, or as a site for utility rights of way or other facilities—will have to await another discussion.

THE FOREST AS A CULTURAL RESOURCE

The Maine forest is a cultural resource, essential to the state's sense of place and sense of history. The forest plays a significant role as both scene and subject in works of art connected with Maine's heritage. Only a few can be noted here. The coastal lumber schooners bask in shimmering

sunsets in Fitz Hugh Lane's paintings from the 1850s and 1860s. Frederic Church's scenes, as in *Mt. Katahdin from Millinocket Camp* (1895), brought vivid images of Maine wilderness to his audiences. Rockwell Kent posed dark spruce against winter snow in *Maine Coast* (1907), and Carl Sprinchorn painted logging camps in the 1940s. Recent representations in new forms include those of William Thon and *Pines at Falmouth* (1961) by painter David C. Driskell. Local vernacular painters include Alden Grant (Grant, 1994).

The art galleries are far from the only indication of the impact of the forest on Maine culture. As historian Paul Rivard noted:

The woods and the ocean continue to dominate public appreciation of Maine today in the same way that these characteristics have nearly overwhelmed the telling of Maine's history. This is for good reason. The forests,

One way to understand the forest's history and promise is by discussing different images, each reflecting an important forest value.

In some ways the old grand hotel system—supporting a high density of use on a small patch of land—was more environmentally benign than the present system, which embodies a voracious demand for privatized recreation opportunities a private lot along the lakefront for each family...

> which first provided incentive for settlement on the "eastern frontier," did indeed prove a source of both work and wealth throughout Maine's history. Similarly, Maine's long coastline, indented with harbors and connected to large inland water systems, promoted an economy of commercial trade. The harvesting of raw materials for shipment often surpassed the instincts toward agriculture and manufacturing. Unquestionably the woods and the ocean each contributed mightily to the "Maine difference." (Rivard, 1985)

Perhaps we can summarize this notion with words from a leading historian of the state, Charles Clark:

So far, the natural resources and natural beauty of the place, its placement on the map, and the human attitudes and characteristics that have formed as natural responses to these particularities have all been strong enough to resist to some degree the tendencies that make for absorption into a larger, uniformly dreary, culture. That is part of the reason—no, all of the reason—that Maine remains recognizable for itself rather than as some indistinguishable molecule in a homogenized whole. There are some who will regard this ability to resist as insular, backward, and provincial. Indeed, one is forced to admit that the relative weakness of the assault has almost as much to do with the situation as the strength of the resistance, and the assault is weaker here than in some other places. (Clark, 1977)

THE FOREST AS A RECREATIONAL **RESOURCE**

Tenry David Thoreau Lencountered "sports" while seeking solitude and big trout in the remote woods. So, the Maine woods have been a recreational resource for a long time. By the turn of the century, nascent centers

of an aristocratic style of fishing and wilderness enjoyment had arisen around the Belgrade Lakes, Sebago, Rangeley and Greenville. Only a few of the grand hotels remain, victims of fire and the Interstate Highway System.

In some ways the old grand hotel system supporting a high density of use on a small patch of land—was more environmentally benign than the present system, which embodies a voracious demand for privatized recreation opportunities—a private lot along the lakefront for each family, often occupied for only a few weekends a year. As at Sebago and dozens of southern Maine lakes, every family has its half acre in a line of lakeside cottages. Scarcely anywhere in southern Maine can a shred of unbuilt shoreline be found. Even worse, the cottagers band together to oppose agencies suggesting boat launches and parks that would enable the owners of the lakes themselves—the general public—to visit.

The forest as a recreation resource is a key asset to the state in three ways. The ready availability of fields and lanes to take a walk, hunt rabbits, or go crosscountry skiing is a key feature of the quality of life. The sporting uses of the forests are as much a part of Maine culture as the L.L. Bean hunting boot. And the hundreds of millions spent each year in camping, hunting, fishing and skiing are significant to the state's economy (NEFA, n.d.).

The ubiquitous mechanization of outdoor uses creates competition for the same wild spaces. Competition intensifies between skiers and snowmobilers, hikers and ATV users, canoe paddlers and canoe motorists. Opportunities to better manage these conflicts do not seem to be on the policy agenda. The tribalism and

selfishness of the various interest groups render efforts at peacemaking among them an unappetizing prospect for political leaders.

To secure the Maine tradition of dispersed forest recreation for its economic benefits as well as quality of life values is a top priority. This is because most of the recreation use occurs on privately owned land. Maine needs to continue to build on effective trails policies already in place for snowmobiles and other activities, where public-private partnerships have proven their worth. The roading of the northwoods opened up a wild empire for visitors. Still, this recreation experience could be privatized steadily through subdividing, although there is no reason why the use of these private roads should be free of charge. In southern Maine, posting escalates and subdividing erodes access.

THE FOREST AS A BIOLOGICAL RESOURCE

In Thoreau's time, biological science consisted largely of natural history, noting the abundance, habits, and distribution of species (Thoreau, 1864). The science of ecology did not yet exist as a way of studying how creatures interact in ecosystems. Today, ecology brings two powerful concepts to our understanding. The first is biodiversity; the second is ecological process. Both concepts were essentially unknown at the opening of the twentieth century.

Science has helped to teach us that there is more to a forest than the pine trees. A forest is a web of life woven of many threads and colors, a web we are only beginning to understand. The term "biodiversity" expresses the total number of organisms in an area, including the grasses and flowers, small mammals, fungi and soil bacteria. The forest remains a haven for biodiversity. Because of the climate and the history of disturbance and plant introduction, the state's biodiversity per unit area actually is at its highest in the midcoast area, and at its lowest in the remote northwoods.

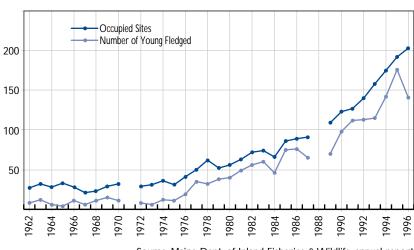
Science has disclosed an awesome array of species inhabiting Maine's forests, waters, fields and marshes. Past human action has wrought significant changes. Considering only the vascular plants, introductions have been especially important, though extirpations have been less than in other areas.

Number of Specie	es:
Native and exister	nt
Introduced	643
Extirpated	324
	l and endangered 3
	254
(Source: Gawler, et al., 1	

Within Maine are found 10% of the nation's vascular plants, 30% of the mosses, and 35% of the breeding birds. How forests are managed will affect all of these. Much remains to be learned. Still, enough is known to say that important aspects of biodiversity are at risk unless action is taken (Gawler, et al., 1996). Ongoing changes in forest structure and landscapes are considered potentially ominous for sustainability of ecosystem processes. The best example has been the trend toward total utilization, which eliminates den trees and rotting logs on the forest floor.

The story of the loss of one species after another from the Maine woods, fields, and coast during the

Figure 1: Maine Bald Eagle Occupied Sites and Number of Young Fledged, 1962-1996



Source: Maine Dept, of Inland Fisheries & Wildlife, annual report

nineteenth century is all too familiar. By 1900, deer and beaver were scarce and seabirds had been decimated. The long struggle to enable one species after another to recover is a success story too little appreciated. The 1999 shift in listing of the bald eagle from endangered to threatened symbolizes one such story. The future of Maine's eagles is not yet secure, but signs of improvement in a generally uncertain situation are welcome.

Potential future threats to biodiversity are numerous. In the short-term they include land and water development, poorly controlled timber cutting and related management practices, roads and subdivisions. In the long-term, some scientists believe, threats to forest health and composition are likely due to slow warming of the global climate, and the subtle effects of toxic metals, excess nitrogen, ozone, and other air pollutants. The likelihood of new imports of plant pests could endanger more individual species. Silvergray skeletons of elm trees still linger to remind us of the loss of the elm to an imported scourge; the chestnut, lost by the 1920s to an imported blight, is only a memory to our oldest residents. The Federal Endangered Species Act (1973) has given wildlife and biodiversity advocates the clout to obtain standing and power to take action in the interest of preserving life forms, however obscure. This has led to bitter debates over listings of salmon, turtles, lynx, and other species.

But there is more to the matter than mere diversity expressed in numbers of life forms. The key to how ecosystems function is not in numbers but in ecological processes—processes such as plant production, respiration, death, and decay. These processes are in turn related to movements of water, oxygen, minerals, and carbon between the sky, the rainfall, the soils, the plants, and the streamwater runoff. We are learning how to manage forests to conserve and to enhance biodiversity and ecological processes, yet progress in implementing the needed changes has been slow. It requires a mix of well-designed reserves, more thorough inventories of the diversity of life, and a richer array of forest management practices that retain structural complexities. One point is that selected stands and trees must grow to old age, fall, and decay on the forest floor; I call this the "Tithe to Nature." The standing and down woody debris retain and restore the substrate for a diverse and healthy forest floor population of microbes, insects, decomposers, salamanders, and other creatures critical to ecological processes (McComb and Lindenmayer, 1999).

A preliminary proposal for reserves on Maine's public lands has been developed (McMahon, 1998). Action is needed on this proposal, with orderly follow-up on whatever remaining gaps that can only be filled on private lands.

THE FOREST AS A TIMBER RESOURCE

The twentieth century opened and closed with the issue of timber sustainability much in debate. At the turn of the last century, the Maine forest seemed to be giving out due to overcutting for sawlogs and the rapid growth of the paper industry. In 1903, the entire northeast was swept by a wave of large forest fires. Following a serious budworm outbreak in 1919, the state forester argued that the forest was being devastated, and its end was only a matter of time.

Once again in the 1970s and 1980s, a major spruce budworm outbreak swept the region's spruce fir forests. Budworm feeding killed many trees and for years brought the growth to zero on surviving trees. Industry cut the trees so as not to lose them; some owners doubtless cut a bit more besides. Hungry mills wanted more fiber. In a 1995 survey by the U.S. Forest Service, the numbers proved what we already knewthe resource had shrunk significantly since the early 1980s. The question of sustainability was raised by many observers. In 1998, State Forester Chuck Gadzik issued a report based on arcane computer models and the new data. The analysis showed that, on his assumptions, the spruce-fir resource was being overcut by 14% (Maine Forest Service, 1998). Others disputed the assumptions, but the state had firmly declared that timber sustainability is in doubt unless action is taken.

In comparison with the beginning of the century, the forest is being used much more intensively, even allowing for the fact that there are more acres. On a major scale, industrialization of agriculture has driven land out of farming in Maine. At the close of 1999, there were some four million more acres of forest than in 1900 (sixteen million acres in 1995). In the woodyards of sawmills in 1999 are many logs, which would have been rejected as too small or too knotty just twen-

ty years ago. Biomass plants can burn wholetree chips. The pulp mills now use more hardwood than they do softwood, for the first time raising a concern for the sustainability of hardwoods. There is something to be said for sawmills that can use five-inch logs, but such mills now enable the owners to "eat the seed corn" if they choose to, by the smaller, faster growing trees that could well be left to grow more wood. This also permits more aggressive salvage and thinning.

The visual impact of a high level of cutting, and intensive management practices such as planting and herbiciding for competition control, was dramatic. Since the mid-1980s, the annual acreage clearcut has fallen; the acreage planted remains small, and herbiciding has also declined. The cumulative impact of twenty years of this activity was heavily concentrated in a few areas, where entire blocks of towns saw mature forest heavily reduced in a brief time. Some of these areas were heavily traveled by recreationists. What they saw did not look to them like sustainable management. Yet over the period 1980-1999, paper companies and others invested the better part of a hundred million dollars in intensive management, placing more than six hundred thousand acres in highly productive condition for future timber growth. The state forester's report suggests that a higher level of such investment will balance the books for the softwood resource. Maine should not throw away the opportunity.

The debate over forest practices illustrates the difficulty of solving complex problems with simple "solutions," those whose actual benefits are obscure but whose immediate costs are large. The issue of forest management practice has taken two different forms: a concern over clearcutting, overcutting, and intensive management in the north; and concern over "highgrading" and "liquidation cutting" in southern Maine. When it became evident that not only paper companies would have to be regulated to address these issues, a vigorous property rights reaction swiftly emerged that promises to be a significant force in years to come. Public officials and legislators now find their options squeezed between two groups of inflexible extremists, each intolerant of competing views and unwilling to admit the complexity of the problems. Movement from the status quo will be difficult, if not impossible. Maine faces two distinct problems: one is the quality

of cutting practice, and the other is the quantity of cutting. If the quality of cutting were a good deal better, then we need not worry so much about the quantity. If the quantity were a good deal lower, then perhaps we need worry less about the quality. It is not that there is no good management—far from it. The problem is that the gap between the exploitive and the praiseworthy is so heartbreakingly wide. Maine has a Forest Practices Act that should be firmly and effectively administered and periodically fine-tuned and updated.

THE FOREST AS A SECTOR OF THE ECONOMY

At the turn of the century, Maine's economy was dominated by farming, wood products, textiles, and fishing—depending on which town you were in. The power companies and railroads were emerging as major political forces. Changes in markets, resource availability, technology, and the world economy have rebuilt the Maine economy several times during the century. Yet through it all, natural resources remain important.

Over the last century, trade and service jobs have become increasingly important. While still important to

Table 1: Maine Forest Jobs, 1900-1997

Year	Lumber & Wood	Paper & Allied	Total L & W and P & A	All Mfg.	L & W and P & A as % of All Mfg.
1900	10413	4851	15264	55986	27.3%
1905	12968	7574	20542	59265	34.7%
1914	15542	10033	25575	82149	31.1%
1939	6957	11710	18667	82184	22.7%
1947	11556	14813	26369	100118	26.3%
1963	11900	16500	28400	99926	28.4%
1967	12700	18100	30800	110800	27.8%
1972	12400	16600	29000	99500	29.1%
1977	12700	17200	29900	102800	29.1%
1982	12300	17300	29600	110200	26.9%
1991	10354	16569	26923	92940	29.0%
1992	10340	15598	25938	90965	28.5%
1997	10333	13787	24120	85443	28.2%

particular communities, farming and fishing have shrunk to a nominal portion of the state's economy. Manufacturing continues to recede as a share of the state's jobs, though it is still important as a generator of income. Forest-based industries continue to supply 41% of the value of manufacturing production, and 28% of all manufacturing jobs. Since the late 1980s, they have been the largest single manufacturing sector.

In the recessions of the 1980s and the 1990s, paper industry restructuring during weak markets led to the closing of paper machines and of a few entire mills. In each instance, small communities lost some of their best-paying jobs and significant amounts of tax base. Few of those laid off quickly replaced their former levels of living (MCEP, 1999), as paper jobs rank near the top in wages:

	1997 Average Annual Wage
Paper mills	\$51,208
Electronic equipment,	
except computers	\$37,256
All manufacturing	
Lumber and wood	\$24,448
Source: Maine Department of Labor	

Recreational uses of the forest play a key role in the state's economy, accounting for thousands of jobs and significant economic impacts on communities. The broadening range of activities has somewhat reduced the seasonality of the recreation economy compared to the early years of the century. Today, with good snow, business is so busy with snowmobilers you cannot find a room on a February weekend in much of northern and eastern Maine. Forest recreation brings in tourist dollars and also redistributes economic activity to rural parts of the state. Sensible taxation, economic development, and tourism policies can be helpful in retaining these benefits.

THE FOREST AS REAL ESTATE

Since most of Maine is privately owned, thinking of the forest as real estate can be useful. As real estate, it is subject to taxation, transfer, inheritance, and subdivision. It can be built upon, mined, and left alone as the owner wishes, subject to minimal public regulations and the vigilance of neighbors. The history of Maine's forest as real estate has never been written, but an outline is all that is needed here. The large volume of transactions of 1998 and 1999, gives the image of real estate's special relevance at the century's end. At the turn of the last century, the lumber companies and the old families had cut much of their wood. Some were selling out, others were moving west. The paper company empires lay in the future. By the 1960s, that too had largely been completed. The greatest of them all, that of Great Northern, did not survive this century, after being a virtual symbol of enduring corporate presence in the state since 1899. It was sold a total of three times during the last decade of the twentieth century, ending in a dispiriting liquidation that broke it into three parts. The other major corporate empire—International Paper—is shrinking and its ultimate fate is now uncertain. The state's largest landowner is now a privately held concern, J. D. Irving, Ltd., of New Brunswick. For decades, through all the other challenges, the stability of corporate ownership remained. Now it is gone. Institutional owners do not measure expected holding periods for real estate in fractions of a century.

New owners and managers have entered the scene: insurance companies and others that manage timberland as an investment for families and institutions. The most dramatic ones, though, are the private conservation groups that have purchased large tracts of land or easements in the region. Is this a trend or an anomaly? It is too early to tell. Clearly, renewed instability of private ownership has raised the question of the proper role of public ownership and authority in ensuring the future for important forest values.

From 1953 to 1993, the number of owners of forest parcels smaller than one hundred acres increased from 63,000 to 229,000. In northern Maine, policy must deal with a dozen or so owners. In southern Maine, it must deal with tens of thousands. In the coming century, parcels will fragment even further, especially in the spreading suburban fringe.

The forest as real estate raises the age-old problem

of how Maine's rural lands are taxed. In our society presumed "fair market value" is defined by subdividers and speculators, not by returns to farming and timber growing. Maine's Tree Growth Tax, an imperfect instrument, raises periodic battles over unfair impacts on small towns. These will need ongoing attention, but predictable, use-value property taxation is a survival requirement for the forest.

Scattered wildland lot subdividing is simply unsustainable resource liquidation, and it squanders important public values while providing a minimum of public benefit. There will be other waves of wildland lot speculating and subdividing. The large owners need to sell no land to permit this. There are numerous small tracts everywhere, some astride key environmental or scenic values. To progressively immunize remaining remote woods, mountains, and key water frontage from the next landboom is a top policy priority. Steps such as conservation easements accomplish this.

THE FOREST AS WILDNESS

A forest value that eludes the above scheme is that of the forest as wildness. Wildness means different things to different people. To some it means a five-day canoe trip undisturbed by the sound of motors; to others, a snowsled ride along the Baxter Park perimeter road, admiring a snow-covered landscape; to others still, it means a walk in a southern Maine state park or a hunt in a game management area.

Wildness is perhaps the most fragile resource of all; there is an odd disproportion here. In the privatizing of wildness, we see its appropriation by a small number of shoreline landowners who can look across a pond to a wild hillside. Yet the canoeist camping on the opposite shore sees at evening the lights of a dozen "executive retreats" marring the darkening solitude (Dominie, 1990).

In the Maine woods there exist private domains of wildness, privately managed yet open to outsiders as customers of guide services or sporting camps. Some of these "private" preserves do a better job of preserving wildness than have government agencies, who, in the past, have suffered publicly owned lakefronts to be subdivided into dingy stretches of cabins on tiny lots. Can we describe the conflict here as exclusively one of

public versus private, of government versus greed? It would not seem so.

Clearly the market listens to those with the fattest checkbooks. The ongoing tension will be in finding ways to retain the rights guaranteed the public by colonial ordinances and by immemorial custom, in a largely private landscape. In many ways, Maine has taken a leading role in this, and needs to develop its capabilities further in the urbanizing southern portions of the state. These areas will remain largely wooded, but increasingly privatized by subdivisions and sprawl. The day users of southern Maine's "wild" areas are largely unrepresented in the political tussle over access to land for informal casual uses.

Just as the market responds to the fattest wallets, so the political system responds, not to the most broadly shared, long-term interests, but to the loudest and most strident voices. Hence, those who seek in wildness quiet places to hike and paddle must climb higher and paddle farther to escape the noise of Maine's motorized woods playground. Maine is only beginning to craft policies that will truly sustain wildness.

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MAINE'S PUBLIC ESTATE

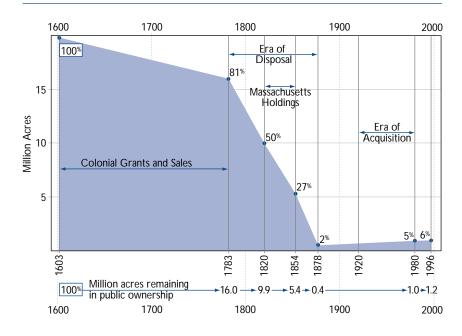
At the turn of the last century, public landownership in Maine had hit its nadir. The leaders of nineteenth century society held little regard for government landownership, feeling it merely a source of cost and unwanted bureaucracy. The myth that the northwoods were merely future farmlands in temporary forest fallow died hard. As far as we can tell, few ordinary citizens cared one way or another. Few of them had the leisure time for walking, hunting, or fishing.

Thoreau suggested "national preserves," perhaps aware of the federal reserve at Hot Springs, Arkansas (est. 1832) in his time. He did not specifically identify Maine as a location for such a preserve but the context tempts the reader to suspect it. During the turn-of-thecentury conservation movement, when other northeastern states were creating large parks, buying cutover lands, and lobbying for a national forest system, all these notions passed by Maine entirely.

The campaign to establish Baxter State Park stands out as an extraordinary act of vision by a small group of visionary people who could see the importance of a major reserve around the mountain at a time when many thinking people considered such an idea pointless and wasteful. To them, and to Governor Baxter who created the Park, future Maine citizens owe an eternal debt.

In the twentieth century there was little change in Maine's official disinterest in public lands. A solidly Republican legislature saw to it. Also, during these years, Maine was a low-income state. By the 1990s, public opinion began to shift. The Interstate Highway System had brought four fast lanes to remote corners

Figure 3: History of Public Land Ownership



Source: Irland, 1998

of the state for the first time. The development boom of the late 1980s marked the rural and wildland landscape with partially built-out subdivisions and saddled small communities with unwanted costs. The public, increasingly suburbanized and cut off from nearby open lands, saw a need to expand Maine's public estate. The Land for Maine's Future Board opened for business in the late 1980s and was swamped with offers to sell land. The size of Maine's public estate finally touched and then exceeded the million acre mark. Contentious debates about clearcutting, acid rain, and other causes convinced more and more people that the woods needed some backstop of safety that could only be provided by expanded public lands. Governor King proposed a \$50 million bond issue to replenish the Board's funds, which was passed at referendum in November 1999. Surely, more will be needed in time.

PROLOGUE TO A NEW CENTURY

The best prologue to the new century is to L clearly understand where we are today, in 2000, and why. The challenge of scarcity is neverending. Even in an Internet economy, choices must be made. To paint the choices facing the Maine forest as black and white, as between commodities and spiritual values, good and evil, socialism and freedom, makes good rhetoric but bad policy. Every image of the forest corresponds to a potent economic, political, or ideological interest. All advocate their cause. As I see it, all of the values of the Maine forest will become more important in the new century. The forest will be even more important as a source of wood and jobs, as a storehouse of biodiversity and haven for ecological processes, as real estate for its owners, and as a recreational and cultural resource. Its resource of wildness, which has managed to survive, perhaps to everyone's surprise, represents a fragile legacy of regional and national importance. The challenge of ensuring timber sustainability lies before us. Maine is the first eastern state to see a significant decline in softwood timber inventories. The timber problem cannot be denied. Solutions are elusive. There are no other models. The will

and the ability to limit cutting to what can be grown over time are unclear. Can we summon the optimism of author Coffin?

The fertility of Maine's forests is one of the amazing miracles of our time. It has stood up under two hundred years of constant shortsightedness. The wholesale destruction of thousands of square miles of evergreens and the leaving of slashings to turn into tinder and burn up the new growth and even the soil below it in forest fires—that has been the history of man's folly the past hundred years. And yet without new planting, without protection, the pines and spruces have come trooping bravely back, have created new soil and new moisture and new forests. (Coffin, 1937)

It is ironic that modes of using the wildlands in 1899—the "grand hotels" and horse logging on snow—were in some ways more ecologically benign than their reigning counterparts of 2000. Today, the forest practices needed to sustain biodiversity are understood in broad outline. Making them happen widely on private land will be difficult, but it is being done now on best-practice ownerships.

The opportunity to secure wildness for another century also remains. Securing wildness will entail not only managing trees, but managing recreational visitors to the wildlands. Saving a privatized wildness for a privileged few can be done, but is contrary to Maine tradition and principles. Saving bits of wildness from the howl of motors seems hopeless at the moment. Public policy antidotes to the tendency of the market to subdivide and cash out can be found; some are being implemented now.

ELEMENTS OF A POLICY

Nobody planned the portion of Maine that is now growing trees. The impersonal markets for wood, farm products, and labor worked this out, farm by farm, woodlot by woodlot, village by village on the margin of the wildlands. No one planned for most of it to remain "wild." Considering government powers to plan

the future of this forest strikes at the heart of the ideology of private property rights, as battles over LURC's comprehensive plan always illustrate. A real "plan" for the forest seems as unlikely as ever.

Sustaining the values of the forest will require new and more effective policies. How shall this be done? First, we must recognize that all of these problems are complex, and will not yield to simple solutions. Second, we must acknowledge that a stable policy environment is critical. There are three competing visions for Maine's future forest policy. Two of them are based on eighteenth- and nineteenth-century ideas. One is that we let the market decide. In its wisdom it will determine the highest and best use of each acre. Individual and corporate property rights, considered paramount in this view, will be sustained. This is the triumph of the forest as real estate. The other view is that we let the government decide, with a package of intrusive regulations and a large national park. Presumably the guiding image for this planned forest is the forest as biological resource. In both of these visions, images other than the dominant one are to step aside.

A third vision is based on a view of policy as the art of the possible. It is a pragmatic vision addressing land

ELEMENTS OF A FOREST POLICY

- Recognize that the problems are complex
- Maintain a stable policy environment
- Maintain a predictable and fair property tax policy
- Expand public monitoring of resource condition and assessment of outlook
- Continue targeted, costeffective protections for air, water, and wildlife
- Find better ways to sustain wildness
- Complete a reserve network
- Increase public ownership, especially in southern Maine
- Develop policies to ensure sustained timber yield
- Secure public access to wildlands, especially in southern Maine
- Effectively administer, and periodically update, the Forest Practices Act
- Continue providing advice and support for small owners
- Continue focused and effective economic development and tourism policies
- Support responsible intensive management
- Immunize larger areas of wildlands against the next land boom

use issues blending Maine traditions with a practical eye on the new century. This approach is being pushed forward by pragmatic public officials, by innovative "third-sector" leaders in environmental and other groups, and by understanding corporate executives. This vision eschews grand images and plans, focusing instead on results, on cost-effectiveness, and on particular places. It is not tied to nineteenth-century notions about conservation. It seeks incremental improvements that avoid igniting the ire of the polarized activist groups. This might be described as a cooperative-managerial approach, relying on private methods rather than primarily on government, implemented by executives and technocrats and not by politicians. Examples are the Pingree Conservation Easement, the Nicatous Lake Project, The Nature Conservancy's purchase of the International Paper lands, and the Moosehead Lake acquisitions from Plum Creek. These projects are initiated quietly, with a small number of actors, and very specific goals. They try to avoid the political process. The practitioners of the cooperative-managerial vision have been getting results while the proponents of the two nineteenth-century visions have been trading insults. To those who protest that this third vision takes too long, we should ask, what have the other visions actually accomplished lately? This approach has many attractive features. Still, there is much work for government to do on less dramatic "bread and butter" resource programs. The basic elements of a forest policy must be continually emphasized.

As to timber sustainability, there are simply no off-the-shelf solutions on the horizon. There is no operational experience in North America with policy effectively capping harvest levels on fifteen million acres of private timberland, strongly affected by international trade. None of the current suggested "solutions" will work. But we had better work out something that can.

Some will object that this agenda is old hat—it lacks drama, lacks forceful action commensurate with the values at stake. Such a reaction is understandable. Yet our political system is like an offshore reef strewn with the wreckage of grand schemes that never made it to port. In Maine's political culture, a cooperative-managerial approach of incremental improvement may

yield greater and more durable results. By tacking laboriously around the reef and avoiding the temptation to swiftly run before the wind all the way home, we can get something done and avoid more policy shipwrecks.

Can a small state find ways to sustain, for future centuries, the many values of these forests in a largely privately owned setting? There is no fundamental reason why it cannot do so. The first task is to overcome problem denial. The next is to face the complexities and the fundamental requirement for a measure of stability. What we accomplish—or fail to accomplish—in the coming decade or two will largely determine what future authors of "millennium" essays write about Maine's forests in the year 3000.



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