

FAMILY FORESTS: CHALLENGES OF INVESTMENT AND STEWARDSHIP

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ABSTRACT

Family-owned forests face distinctly unique challenges and rewards within the forest ownership community. Family landowners approach their lands with a variety of management objectives that may or may not be directly related to forest management, leading to highly variable outcomes in terms of forest health. Furthermore, the typically low-elevation location and diverse past-use histories of these lands result in particular ecological challenges to forest establishment and maintenance. Family forests also experience a more constrained business environment, one typically lacking the labor pools, in-house professional expertise, and tax advantages available for public or corporate-owned forests. Social and cultural perceptions and pressures may influence land management decisions as much as or more than silvicultural principles do. These lands are integral to the growing ethical debate regarding how far public environmental interests should extend into the private domain. Issues surrounding them are of substantial concern within both the social and ecological contexts due to increasing public environmental awareness, diminishment of the total forested land base, and the significance of the proportion of total forests under family ownership.

INTRODUCTION

Family-owned forests face a set of circumstances entirely unique within the composite of forest ownerships. Although these are private lands, their natural resources are of such value, so integral to larger ecosystems and often to urban interfaces, and of such increasing public interest that land owners no longer experience the autonomy formerly characteristic of private ownership. Instead, private owners make management decisions in an arena of escalating public and legislative scrutiny. The result is a complex network of overlapping and sometimes contradictory laws, policies, and cultural perceptions. The satisfactions of personal ownership remain substantial, but are increasingly tempered by awareness that a host of other stakeholders are paying keen attention and are genuinely affected by the implications of a private forest owner's choices in terms of land management strategies. These social, economic, and ecological dimensions affect public forests and private industrial forest lands as well as those under family ownership. But family ownerships, faced with the need to handle these issues largely solo and with only a personal out-of-pocket budget, are presented with a particular set of challenges beyond those experienced by their forest ownership counterparts. This paper addresses these issues and gathers them into a composite picture of the challenges and rewards of owning a family forest. Other papers presented during this symposium will address specific issues in greater detail; this one is intended to give a broad-brush overview from the perspective of a family forest owner and forester who is also a consultant working with other owners.

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FAMILY FORESTS

The Ownership Spectrum

Who Are They and Why Should We Care?

Family forests are owned by a group of people distinguished as much by their dissimilarities as by their similarities. Family forest owners are characterized by:

- Diverse backgrounds and experience, most often unrelated to forestry,
- A wide variety of reasons for owning land, and
- A wide range of management objectives that may or may not be directly related to forests.

The above may appear to be stating the obvious, but these combined characteristics are a primary source of the highly variable quality of land management outcomes discernable within this ownership spectrum. They are well worthy of attention. There is no 'standard' of preparation for private forest owners, and hence there is no 'standard' level of outcome from their management decisions. Most private forest owners are laymen, with little or no prior knowledge of forestry. Unless they know how to access professional expertise via sources such as university extension programs, consultants, or governmental forest agencies, they may be operating in a virtual vacuum.

The principles of good forestry are not part of our typical cultural lexicon. The private forest owner who may be making poorly informed forestry decisions is often being scrutinized by a general public just as unfamiliar with those concepts. It is from this public that most new forest owners arise. If a person were to walk down an average street and randomly ask ten strangers to define "agriculture", most could do so quite credibly. They might not be well prepared to actually succeed at making a living as a farmer or rancher, but they would nonetheless have a sufficient understanding of the type of land, practices, and equipment required to be able to fairly quickly begin to figure out where to start. If one were to walk down that same street and randomly ask those same ten strangers to define "silviculture", however, it is unlikely that a single person would even recognize the word. If asked to define a "forester", most would describe someone like the recreation or interpretive specialist(s) they may have encountered on visits to National Forests or Parks, or perhaps a logger of their acquaintance. Few are familiar with foresters or with the concepts associated with the active maintenance of forest health. It is not surprising, then, that many people who undertake to purchase a tract of forested land have little idea where to turn for information regarding how to manage it. Indeed, many persons who purchase forested land do so with little interest in forest management at all, and our culture has not prepared them to be aware of the many values inherent within a forested tract.

The cumulative effect of individual forest management decisions made by family forest owners is enormous. In western Washington alone, 322,000 acres of family forest land were converted to other uses between 1979 and 1989, at a rate of 50 square miles per year (Hanson 2003). Of those private owners in the United States who choose to retain the forest component of their land only 3% list

timber management as their primary objective, although this small percentage of owners controls 29% of the total private forest land base (Birch 1994). The remaining 97% of private forest owners list other objectives unrelated to forest management. These are as diverse as “It’s just there” within the boundaries of a farm or residential property (40%), recreational or aesthetic enjoyment (23%), and speculative land investment (9%) (Birch 1994). Clearly, then, mere ownership of forest property cannot alone be expected to result in the prioritization of careful forest management. Without further public education regarding the many values of forested ecosystems, there is little reason to expect a change in this trend.

Example

A young woman purchased twenty acres of mature Douglas fir on the western slopes of the Cascade Mountains. The trees were incidental to her. She thought them attractive, but had not purchased her land to manage it as a forest. She wanted instead to build an equestrian center. She did not at first object to the trees per se, and constructed her facility beneath them, but it was not long before she realized that the timber impeded her ability to be successful with her primary management objective. The dense shade contributed to a morass of mud that made daily chores a nightmare, the dampness and lack of air circulation beneath the trees contributed to ailments in the horses, falling tree limbs were continually damaging her electric fences and permitting valuable animals to escape onto a dangerous road. Furthermore, because her business was new and she was still paying off her capital investments, she was having trouble making financial ends meet. She faced the likelihood of having to sell her land. She dreaded the prospect of moving back to the city. Her new rural lifestyle had been a lifelong dream, and a hard-earned one at that. The timber had become a source of annoyance to her; it’s only remaining value seemed a monetary one and the economic temptation became too great to resist. So she cashed in her timber crop, and clearcut her land. Not a tree was left standing, and she had no intention of ever replanting.

Was this a good decision?

From a forest stewardship standpoint, of course not. It could hardly have been worse.

But, from a human dimension there are many who would consider her decision a sound one. After all, by choosing to “manage” her forest by eliminating it, she was able to retain her financial stability, her long-sought escape from an urban lifestyle, and the cottage industry she had worked so hard to create. She was able to keep her fledgling business afloat and see it begin to thrive. She views the fact that her land passed from being a tract of vigorous forest to becoming a new statistic of forest fragmentation as a very worthwhile trade-off.

Culturally, we had never prepared her to be familiar with all the non-economic values of a forest, nor as a society did we give her many incentives to consider forest retention and sustainable silviculture as serious business management options. And she is, of course, only one example among thousands, as any casual drive through the typically fragmented landscape along a country road will reveal.

The Good News

Fortunately, the above is only one end of the spectrum of the quality of forest management on private parcels. Stories of very well-managed family forests are just as numerous. Many owners purchase their land with good forest management as a top priority; examples of these are discussed in the following paragraphs. What is critical to their success, however, is sound information regarding

good silviculture. An abundance of high-quality professional assistance is readily available to landowners via university extension departments, state and federal forestry agencies, and private consultants. But do landowners always know how to initiate these connections? To ensure that they do, as foresters we need to ensure that our ‘silvicultural’ advances include not only forest ecology, but social ecology as well.

The Biological Challenges

Many ecological characteristics are shared among all types of forest ownerships, but in the western United States there are at least two that tend to set family forests apart. The first is elevation, and the second is prior land use history.

The Implications of Elevation

Particularly in the western U.S., public forest lands tend to occupy many of the higher elevation forest sites, while private ownerships tend to be concentrated at the lower elevations. Here, as elsewhere, lower elevations are characterized by generally deeper and more fertile soils, milder temperatures, and longer growing seasons. These conditions are highly conducive to timber production, and thus family forest lands in regions of ample precipitation often tend to be among the most potentially productive of all.

However, the same lower elevation conditions that can lead to higher site productivity also mean that these lands are extremely attractive to animals, including wildlife. Most family forests lie within wildlife winter ranges, presenting a unique set of challenges to forestry, and in particular to reforestation efforts. Many species, including those that forage readily on young trees, can often be found in unusually dense concentrations on family forests during these months. This winter period of residence occurs when other forage is at its least abundant, temperatures are at their lowest, climatic stress upon animals is greatest, female animals are pregnant, and animal caloric requirements are at their highest. Tree seedlings become prime targets as feed sources. A successful reforestation effort can quickly become far more difficult to establish and more expensive to maintain on a low-elevation winter-range site than a similar plantation would be in higher elevation summer range where wildlife are more likely to turn to abundant herbaceous forage to browse. If the site lies within a region characterized by summer moisture stress, a common occurrence at lower elevations, this combination of winter browsing pressure and summer moisture deficiencies can be even more devastating to young forest growth.

Lower elevation lands are also the most easily accessible to humans, and have been since their first settlement. Consequently, a private forest owner is more likely to be working with lands that have been the site of long-term intensive, sometimes abusive, and often non-forest use.

The Implications of Prior Land Use Patterns

Some family forests occupy lands that have never been converted from forest stands to other uses, although most have seen repeated harvest entries. A few fortunate owners are working with sites that have seen careful silviculture throughout their history. But most are dealing with stands that have at some point seen imprudent harvest entries and/or that are reflective of the complications resulting from excessive fire suppression. The forestry challenges presented by these sites are in many respects not unlike those that occur in forests on public lands or under industrial corporate ownership.

Many other family forest sites, however, have been converted to non-forest uses at some point in their prior history. These present a unique set of problems. For example, private land reforestation

efforts frequently involve reclamation of inhospitable sites rather than the more straightforward reforestation of quality timber sites with intact soils that may be expected elsewhere. Typical private land plantation sites include abandoned farm fields with compacted, impoverished soils and invasive stands of noxious plants, or deforested rangelands subjected to heavy grazing, or lands with soils depleted by mining. Here again, reforestation efforts become more difficult and more expensive than they would be on other forest ownerships. Once established, new stands are likely to display the slower growth rates and the higher vulnerability to insect infestation and disease characteristic of weakly growing trees.

It is not uncommon to see private forest owners with the best of intentions working with lands for which they have unrealistic expectations. Owners may purchase property capable of supporting only non-commercial stands of timber, for example, yet anticipate that they will be able to derive timber income from their land. Others may purchase open land with the intention of planting it to timber, only to find that their site is inappropriate for tree growth without irrigation. Still others may have sites suitable for commercial timber growth, but become discouraged by the difficulties of getting plantations established or the challenges of finding the financial resources, labor, and equipment necessary to help them practice sustainable forestry in established stands. In all these cases, the difference between realistic and unrealistic endeavors is often directly linked to the quality and availability of professional advice.

Example

Two adjacent forest owners, during the same planting season, decided to initiate ponderosa pine (*Pinus ponderosa*) plantations on their lands. Both were working with abandoned farm fields with similar soils, slopes, and aspects. Both fields had been invaded by scattered sapling-sized western juniper (*Juniperus occidentalis*), a typical seral species on fire-suppressed, cleared sites in middle-elevation Blue Mountain forests in eastern Oregon. The plantations were of close to equal size, and stocking rates per acre were identical. Both owners were motivated, enthusiastic, and prepared to invest, within reason, whatever it cost to establish their plantations. Both were working with planting stock obtained from the same tree nursery. It would be difficult to find two more similar planting efforts on two separate ownerships, yet the results achieved were radically opposite.

The owners of one parcel were attorneys who had moved to Oregon from New York. They were very enthusiastic about their new and extensive property, but had no prior experience with land management or plant culture. They went to the nursery and picked up their seedlings and turned them over to a professional planting crew. One-year survival in this plantation was less than one percent.

The owners of the other parcel were a geologist and a certified horticulturist. They also went to the nursery and picked up their own seedlings, but planted them personally. One-year survival on this plantation exceeded 90%, and four-year survival exceeded 85%. Growth rates were very good.

Why such differing results? In a word, information. The owners of the second parcel knew a few key things that the owners of the first did not. The horticulturist who went to the nursery to pick up her own seedlings asked the nursery employee to open a seedling bag so she could inspect them. She found them slightly chlorotic, and requested and was given a different, higher quality batch. She took her trees home, where she and her husband began planting them that same day. All seedlings were in the ground within three days, and those yet unplanted were kept shaded and moist in the

interim. These owners, although not directly familiar with forestry, nonetheless had a clear understanding of soils and of the importance of micro-siting. They were accustomed to personally working with outdoor plants. They had talked with a state forester and located a book about forest plantings that described a few critical points such as correct planting depth and the importance of avoiding J-rooting. They planted the trees correctly and provided artificial shade for all seedlings that could not be placed in the nurse-shade of a western juniper sapling. Once the new pine seedlings were well-established, at three years of age, they re-entered the plantation and removed all the juniper saplings, leaving behind a thriving stand of young ponderosa.

The other owners, by contrast, were uncertain how to assess seedling quality, nor did they know they should inspect the seedlings before accepting them. They took home the inferior batch of trees and called their planting crew. The crew, however, was busy during the height of planting season. The owners did not know they should store their trees in a local tree cooler until the planting crew could begin putting them in the ground. The trees, already weakened and chlorotic before leaving the nursery, stayed in their bags, uncooled, for over a week before being planted. The efforts that the crew then made at micro-siting the seedlings were inadequate, and no artificial shade was provided. The seedlings did not last the summer; the plantation was a total failure. The landowners understandably became discouraged. They concluded that planting trees was not a wise investment despite the fact that they were working with a site with good potential and were eager to improve their land.

The primary difference between these two plantations was simply the level of personal experience and professional advice available to the owners. A few years later the first, initially unsuccessful pair of owners contacted a state service forester and obtained some good information. Their plantation is now as thrifty as that of the second owners in this example, albeit several years younger and substantially more expensive due to the interim encroachment of noxious plants while the field stood unplanted.

The Business Environment

It is in the business environment that the differences between family forest ownerships and other types of forest ownerships are perhaps most marked. Some significant contrasts may be summarized as follows:

Resource Agencies and Large Corporations	Family Forests
1. Large employee labor pool or ready sources of contractors; trained in-house contract administration staff.	1. "Solo" operations; inexperienced at contract administration.
2. Homogeneity between management units and management styles leads to within-house efficiency.	2. Heterogeneity between management units and management styles leads to highly variable outcomes.
3. Larger land-base leads to increased annual replicability and predictability of revenue and expense.	3. Smaller land base may lead to diminished annual replicability and predictability of revenue and expense.
4. Information availability and functional complexity reasonably strong in both ecological and economic contexts.	4. Information availability and functional complexity often poor in both ecological and economic contexts
5. Financial resources large enough to permit financial "patience" over lag-time between resource-maintenance investment and return.	5. Financial resources often very limited; resource-maintenance investment without quick return often difficult or impossible.
6. Management goals usually reasonably concise, often economically feasible, ecological optimization likely to be an objective.	6. Management goals often unclear, often economically limited, ecological optimization may or may not be an objective.
7. Adaptive feedback quick and often interpretable within-house.	7. Adaptive feedback slower and less accessible; may require outside interpretation.
8. Linear transfer of research and technology more often adequate.	8. Managers may rely on personal intuition or observed experience without accessing research or technology
9. Extensive regulation, public scrutiny, and public influence upon decision-making.	9. Relatively autonomous decisions possible without great public recourse.

Availability of Labor and Equipment

Public resource management agencies or industrial forest corporations typically exist in a business environment wherein labor pools are large, equipment and facilities tend to be much more sufficient, and experienced personnel are available to supervise any contractors needed to accomplish additional work. By contrast, most family forests are owned by persons working alone or with the assistance of a few family members.

Many tasks of forest maintenance can be accomplished very satisfactorily by small crews working primarily with hand equipment or a few chain saws, particularly since family labor is normally available free of charge and work efficiency is less an issue than it may be for a supervisor paying employee wages. Planting and pre-commercial thinning are prime examples of tasks that can readily be undertaken by families personally working in their forests.

But when stands become ready for more complicated commercial thinning and harvest operations, most families must hire a crew and equipment. Without the guidelines of a professionally prepared forest management or stewardship plan, decisions may be made that are not in keeping with good silvicultural principles nor economically reasonable. Furthermore, a private landowner may not know how to draft or administer a logging contract, nor be familiar with the sorts of contract provisions that would best protect the future productivity of his or her timber site.

Accessibility of Professional Expertise

Although an abundance of high-quality professional silvicultural expertise is available to family forest owners in the U.S., many owners remain unaware how to best access it. Many states now have laws regulating timber management on private lands and requiring that at least harvest designs be approved by a professional forester, but enforcement of such laws remains a challenge. The result is that many family forest owners possess timber stands involving hundreds of thousands or even millions of dollars of monetary value as well as significant non-monetary value without seeking the sort of professional advice that would be considered routine in most other business endeavors. Forest health problems are therefore often left unaddressed.

Financial Resources and Financial Patience

Forestry is not a business for the financially faint of heart. The prospect of waiting the number of decades normally necessary before seeing the fruition of a silvicultural investment can be daunting to many family forest owners. Most family forests are managed by persons without particularly deep financial reserves. They do not have access to the sorts of public budget allocations or corporate investment portfolios that are available in other types of forest ownerships. The out-of-pocket expense required to actively manage and maintain a timber stand through its rotation period may exceed the monetary resources of many family forest owners. Agency-sponsored cost-sharing programs for resource protection are often readily available, but many owners still cannot afford their share of the costs. Hence, many interim silvicultural treatments that could protect the vigor and sustainability of the stand may be bypassed in favor of passively waiting until some or all of the timber is haphazardly ready for harvest.

This business environment is further complicated by the fact that many of the values inherent in a forest are not monetary. Such values may be difficult to measure, and their relative worth may be perceived very differently by different people. Here again, many states have begun to pass laws attempting to standardize the protection landowners must provide for the multiple resources on their land. To help ease this burden many governments also offer financial incentives programs to encourage landowners to undertake forest protection or restoration efforts. But these protective laws are often at odds with one another and with the tax laws governing private forest owners. A landowner may, for example, find him or herself making a decision to protect a forest resource only to find that he or she is subsequently penalized by tax legislation that has not caught up with advances in natural resource management legislation.

Example

In the Pacific Northwest a great deal of emphasis is now placed upon protection of riparian corridors and anadromous fish species. Within the state of Oregon an owner may possess a cleared tract of prime riparian habitat that in the long term would provide a far greater biodiversity of plant and animal species, significantly improved water quality, and greatly increased potential for financial return to the landowner if it were replanted to its original timbered condition. However, the owner deciding to undertake such a riparian restoration will find him or herself needing to bear not only much or all of the cost of the permit planning and restoration, but also faced with significantly higher property taxes. Forested land is taxed at a much higher rate per acre than is cleared, agricultural land. Within our society, we have historically made a decision that persons who grow food are creating a greater social good than persons who grow forests, even where forests may be the most suitable crop for the land from both an ecological and social perspective. We continue to reward persons who grow food with a tax structure that makes it easier for them to continue to do so. Although private forest lands also receive tax preference, this preference is much less substantial than that for agricultural use. As a result, many landowners who own sites desirable for timber production but only marginal for agricultural production never even consider the option of returning those sites to forest. This is often true even on many sites where reforestation would arguably constitute their "highest and best use" over the long term.

Estate tax laws are often another impediment to sound forest management. Upon a person's death, taxes are assessed against the total value of that person's estate. This affects forest owners and their heirs in two ways. First, land occupied by mature timber is far more valuable than land with only immature stands that will require many decades to become profitable. Hence, the more mature the timber, the higher the estate taxes that will be assessed against the heirs to the land. Second, because these taxes must be paid in liquid, not fixed, assets, heirs to land with valuable mature timber stands find themselves suddenly needing to procure a large sum of cash. If personal financial reserves from other sources are not great, families facing this situation may have little choice but to divide the land and sell a portion of it, or to try to keep all the land but sell much or all of the timber in order to pay the estate taxes. The net result is often premature harvest and/or forest fragmentation.

There are a limited number of tax opportunities available to help defray some of this problem, as well as to provide for savings in advance of the need to pay such taxes. But comprehending these normally takes the assistance of a professional tax and estate-planning expert. Families who do not realize in advance that they should understand these issues normally find themselves faced with a very difficult financial dilemma and a likely inability to retain all of their land or timber.

Regulation and Public Scrutiny

Central to the increasing legislative regulation surrounding family forest ownerships is the ethical debate over just how far the public interest should overlap the private domain. Earlier regulations affected primarily only the mobile resources, those such as air, water, and wildlife that can cross property boundaries and are impossible to confine within a single ownership. More recently, however, legislative restrictions have begun to emerge that also restrict the types of management a landowner may practice on fixed resources such as timber. Many landowners resist what they perceive as excessive intrusion into their private property rights. The controversy continues to escalate as more and more non-owners place higher value on non-economic natural resources. These changing social paradigms often place a disproportionate

share of the financial cost of maintaining non-economic natural resources on individual landowners.

In several states in the western U.S., among them California, Oregon, and Washington, landmark forest management acts have been passed that extensively regulate private forests. Family forest owners are now finding themselves entering the same arena of intense public scrutiny that has long been the realm of public forest managers. A significant difference remains, however, in that private landowners have yet to experience the type of frequent protest and litigation by special interest groups that is now an accepted piece of the public forest management puzzle. However, it is probably only a matter of time before private forest owners find themselves needing to publicly defend their management choices.

A new trend is emerging among groups of private landowners who are deciding to attempt to forestall such a scenario. Such groups are developing community-based collaborative management strategies designed to protect resources by initiating well-informed, publicly supported, and progressive management strategies on private lands. The hope of these owners is that by creating a land management program that is above reproach and well understood by the surrounding community, the owners will be able to continue managing their lands without excessive outside regulation. These efforts are materially assisted by a variety of university extension programs and occasionally by legislative options that attempt to permit conscientious landowners to find alternatives to regulatory intervention via improved land management. This approach, however, has as yet seen only localized development. Elsewhere, the escalating regulatory environment continues to build.

The Cultural Environment

The cultural and business environments surrounding private family forests are so intertwined that it is impossible to separate them. Cultural values dictate our assessment of material values. These material values are translated into policies, laws, and regulations.

Placing a high non-monetary value on forest resources is a fairly recent phenomenon in our culture. During our earlier centuries we were predominantly an agricultural people, and to a large extent we still revere the agrarian lifestyles. Farms and ranches were originally created by clearing forest stands, and many people still find a tidy, deforested agricultural property more desirable than a timber stand, particularly in non-alpine settings. As a society, many of us do not yet look across a lowland landscape and see an absence of forests as a shortfall.

This has yielded many social and ecological implications, among them the fact that many of our legislative mandates still favor private agriculture over private forestry. Consequently, many family landowners practicing sustainable land management still opt for short-term agricultural crops over long-term forest crops. This allows them to bypass the extraordinary lag time between investment and return that is characteristic of any forestry investment. It allows them to more quickly and easily fulfill the legal requirements that a property show regular profits in order to retain its status as a business. Many private lands are not hobby properties. Income from the land is essential if the owner is to be able to continue to afford the land, and a standing tree rarely provides income. A landowner operating on a narrow profit margin, as many must, is thus likely to choose the easier short-term fiscal environment of agricultural production or the quick-return option of converting land to development rather than face the long-term fiscal challenges of forest management.

Even those who do choose to practice forest management are likely to find themselves in a culturally-endorsed dilemma. Private

lands are subject to increasing regulation, regulation designed to reflect changing cultural paradigms about resource use and management. But deciding just how large a portion of the public resource-protection burden a private landowner should personally be required to bear is a delicate task indeed. Often when the lessening of that personal burden is made legislatively available to the landowner, it comes at the cost of an increased public and regulatory presence on their private land. These are excruciatingly complicated questions. Their successful resolution will require a broadly accepted social view regarding how best to share the burden of resource conservation among forest owners and the public alike.

CONCLUSION

How do we achieve such a shared view of desirable private forest management? The two major gaps in the private forest management picture are, first, information, and second, incentives. The transfer of sound scientific forest management information and technology to private forest owners is of paramount importance, but equally important is the transfer of information from forest owners to the community, and vice versa. Successful private forest management requires well-informed landowners with cultural incentives to favor sustainable forestry, and communities prepared to understand the complicated ecological and social issues surrounding forest ownership. Increased public awareness programs can familiarize owners and communities alike with the social, environmental, and economic values of vigorous forests. Without such awareness it is unlikely that the complexities of private forest management can be more successfully addressed by the landowners themselves or more successfully understood by the communities that surround them.

New incentives are also needed to enable private forest owners to more realistically consider options of reforestation and sustainable forestry. A hopeful example is found in the escalating concern over carbon sequestration and the resulting concept of initiatives permitting private forest owners to lease their standing forests to industrialists as carbon “sinks” for off-site pollution mitigation programs. This is a revolutionary concept and provides one of the first options ever for deriving tangible, interim income from standing, unharvested timber.

But many less exotic incentives may be devised, and much more quickly. Many governments have already made significant strides in this area, offering cost-sharing programs to private forest owners who are interested in resource conservation but struggling with the interim expense of such a project. The need for such direct-financing assistance could be reduced, however, by re-examining the tax structures surrounding private family forests.

The bottom line is that good forestry should be culturally rewarded. As a society we are learning to ‘value’ forests very differently than we did previously, when abundance was our byword and trees could be perceived as a primarily fiscal commodity while all their other contributions were largely ignored. We truly did not see the forest for the trees. As a society, our social awareness of forests must catch up with our scientific understanding of forests. We must learn to comprehend forests as systems rather than collections of individual stems. We need to continue to develop forest management policies that reflect our growing cultural sensitivity to the importance of robust, cross-boundary ecosystems. A critical piece of such a landscape may be found in the dynamic social and ecological environment of family-owned forests.

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