

A New Age for Forestry¹

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It's a great time to be a forester. That may have often been the case, but its even more true today than ever before.

The attention to good forest management has never been higher. One indicator is the enormous worldwide attention that has been paid to the concept of sustainable forestry. Another is the interest in the whole area of forest certification as a market tool. These enormous and growing signals of public interest in the sustainable management of the world's forests have been a driving force in the creation of an increasingly-sophisticated array of forest certification systems and programs. Your meeting is focusing on the most widely-applied forest certification system in the world – the Sustainable Forestry InitiativeSM (SFI) program.

As one who has been a member of the External Review Panel of the SFI since its inception, I am not a neutral observer when it comes to the SFI, and won't pretend to be. The SFI program has brought more change to the practice of forestry, in a shorter time span, than any of us ever dreamed was possible. That change continues today, in very positive directions, on over 100 million acres of forest in the United States and Canada.

Some of the changes on the land are dramatic. Others are more subtle, and have as much to do with the attitudes and feelings of the people in forestry as in the actual practices in the forest.

One major change on the land has been the radically different manner in which stream corridors are handled within the fabric of plantation forestry. It generally wasn't the case in this part of the country, where rough topography often dictates how plantations are managed, but in some areas of the South, it was common to see plantations that were several thousand acres in size. Not only were they big, but they were virtually unbroken. Pine trees in even-aged rows marched across the landscape, taking in stream corridors and uplands equally. Those plantations were designed for uniform, efficient fiber production, but not for a balance of fiber, wildlife habitat, and water quality.

When the SFI program raised attention to streamside management zones, even when a state's BMP's were voluntary and not regulatory, all of that changed in a hurry. Adding to that were the requirements for limiting the size of clearcuts and allowing a harvest area to regenerate before cutting the adjacent block. Then there were the performance measures related to protecting wildlife habitat and conserving biological diversity.

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The SFI participants with 1960's or 1970's-era plantations were faced with a very complex harvesting challenge. As those plantations came ready for harvest in the 1990's, it was clear that something very different was required. Foresters began designing harvests that met the SFI Standard, protected streams, and limited clearcut size and arrangement. In some cases, it was doubtful that the system could have been laid out without the GIS systems that the planners used.

The visual impact on the land has been enormous. In a matter of 5 years or less, landscapes that consisted of little more than one forest type and structure were turned into a complex mix of stands, structures, and treatments. One of the main beneficiaries, in all likelihood, has been wildlife habitat and the conservation of biological diversity on those lands. A great deal of research and monitoring is under way to see if that effect can be measured.

In a change that was more subtle, but perhaps as important, another major impact of the SFI could be discovered by talking to the field technicians in the companies that were aggressively implementing the SFI. I've had many of them tell me that they felt their work was being recognized and respected at the highest levels in their organization. I haven't run into a single person in my field visits that wasn't proud of what he or she was doing in the woods, but many of them told me that they felt this was the first time that doing what was "right on the land" was seen throughout the company as being more important than doing what was most profitable.

Oh, don't get me wrong. Cost management and profit generation are never very far from any forest manager's mind, as you know. We're all constantly looking for ways to make the forest enterprise more economically stable. But we also know that keeping it environmentally stable is a basic requirement of sustainable economics. A forest that fails to thrive is not going to remain profitable for long. That's one of the major goals we seek – a forest that is sustainable in every way – ecologically, economically, socially and culturally. And by all indications, there is increasing evidence that this can happen – and is happening in many places.

So we look around today, and see great opportunity for foresters. There is a very high public priority on sustainable forest management, and we can use history's best tools and techniques for achieving that management goal. Think for a moment about the technology we have at our disposal today, and contrast it with what was available to foresters only 40 or 50 years ago.

I am constantly amazed, for example, at some of the forest inventories that were done in the early years. They resulted from a lot of back country walking accompanied by a very sharp eye for landscapes. Today, aerial photographs and satellite images provide extremely detailed views of large forest areas. And the images fit right into geographic information systems so that we can build accurate maps and calculations for general or operational forest planning. Combined with forest data gathered in the field, these systems offer us the most comprehensive information resource that any forester, anywhere, has ever enjoyed.

Foresters carrying handheld computers and GPS systems gather many times more data than if they were still measuring and taking notes by hand, and that data can dump directly into their information management system so that they don't have to copy or transfer it twice. The entire

information management system can reside, for a medium to small forest operation, on a desktop computer that costs around \$1,000. Even a large and complex system runs on a machine that can be purchased for a price that is negligible compared to the land and forest values it serves. Today's forester learns more, knows more, and understands the facts of the forest better than ever before.

Out on the land, an increasingly-sophisticated set of machines harvest and haul logs out of the woods in ways that can reduce and often virtually eliminate excessive soil disturbance and damage to resident trees. The range of silvicultural methods that are economically efficient while being good for the forest and easy on the land grows broader and broader.

Our scientific knowledge of forest ecosystems, how they functioned in the native state, and how we can manage them today so that we take advantage of inherent tendencies and environmental factors, continues to grow at what seems like an exponential rate. Oh, there's lots more to learn, and we'll probably never learn as much as we'd like to know about these extraordinarily complex systems. But even with much more to learn, today's forester has the opportunity to be the most expert practitioner of the art that has ever lived.

But great opportunity is usually accompanied by equally great challenge, and that, too, is all around us.

In virtually every part of the United States where forestry is practiced, we are experiencing an increase in population that makes forest management more challenging. In many areas, it may become so difficult to practice commercial forestry that people just give up, and sell the land to the highest bidder. These days, that's usually a developer who will chop the forest up and sell it for home sites or recreational "hobby" forests to further local population growth.

The process starts when urbanization begins to gnaw away at the structure of the working landscape. A farm is developed; a working forest becomes a wooded subdivision. These changes happen one at a time, with none of them looking particularly important. But the neighbors notice, and they also notice when a mill closes, an equipment dealer disappears, or a local contractor moves away. To the working farm or forest, these changes mean higher costs, reduced market opportunity, and most importantly, a nagging uncertainty about the future of production farming and forestry in the neighborhood. Where this creeping conversion is accompanied by local controversy over the dust or smell of agriculture, the inconvenience of large trucks on a rural road, or the visual impact of a timber harvest, the message to producers is clear: You and your activities are no longer wanted in this community.

The result is predictable. People who are fearful of the future become hesitant to make long term investments. Facilities don't get updated; new machinery is bypassed by making the old stuff "go a little longer," and long-term investments like tree planting or forest stand improvement are avoided. Who would spend several hundred dollars an acre to establish or improve a forest that they may be prevented from managing or harvesting?

This pressure extends outward from growing population centers, in ways we cannot always see. I call it the “invisible bow-wave” of economic pressure against the management of working lands. One of the better ways of measuring it, perhaps, is to look at population densities, and how they are changing, to see how this urban growth pressure may be increasing.

Out of curiosity, I looked up the population statistics and projections for this region. I took in a rough area from the Canadian border south to Clearwater County, Idaho, that included 7 forested counties in Idaho and 4 adjoining ones in Northeastern Washington and another 4 in northwestern Montana. Fifteen counties in all. The population in 1980 was 649,000, with over half in Spokane, Kootenai, and Missoula counties, as one might expect. In 1999, those same 15 counties had 817,000 and by 2004 the Census Bureau predicts 875,000. That is an increase of almost 226,000 people, or 35% in just 25 years. And, as all of you know, those people aren't just settling inside existing cities. They are scattering all over the landscape.

What that means, of course, is that practicing forestry, at least on the private and many state lands in the region, is increasingly done in the wildland-urban interface. We are managing lands that affect lots more neighbors. And those neighbors can be pretty demanding. They want forestry that looks nice, in addition to being sustainable. As we know, there are times when even the most careful forest harvest looks pretty rough. That condition doesn't last long – almost nothing in the life cycle of the forest – but 2 or 3 years can be a lifetime in the neighbor's view. Or yours, if that neighbor is screaming at you, or taking you to court.

The range of management practices gets more limited in many of these wildland-urban interface areas. We are, for example, increasingly recognizing the need to use prescribed fire in many situations. Particularly in the ponderosa pine forests, it is often felt that fire is an essential ecosystem process if one wants to develop a system that mimics some of the native pine forests. But burning with a lot of neighbors can be somewhere between difficult and impossible. Even the most careful smoke management may, if the population density gets too high, be insufficient.

Forest management may also be increasingly limited to smaller and smaller properties, particularly on the private lands. As more and more people move into forested regions, one of the things that happen is the fragmentation and parcelization of forest lands. This can be a cascading phenomenon. The more forest land gets chopped up, the more expensive and less profitable it becomes to manage for sustainable forests on the remaining lands, so the pressure to cash them out for real estate value grows accordingly. The more land that is sold and fragmented, the more pressure is created, and on and on it goes.

So foresters are challenged as to how they will manage many forest situations in light of the views and demands of the people who have moved into the forested places. The fact that some of these people may object to the very practices that are needed to keep their forests healthy is often too hard to explain to people. But we have to try, and try harder.

Not long ago, I worked with John Gordon and Joyce Berry to prepare a paper about managing forests at the wildland-urban interface. It was done for a conference in Florida, and the book

should be published soon. Let me share with you, however, some of our conclusions in that paper:

1. Without large scale action, forests at the wildland-urban interface will continue to drop out of production and this will have a negative impact on quality of life in urban spaces: water, biodiversity, recreation, culture – all will suffer. The loss of production forests is more than a loss to foresters. It is a significant loss in community quality for all our citizens, both now and far into the future. It is important to increase the intensity of action to maintain working forests now, while some flexibility in the landscape still exists.

2. Forests and other working lands increasingly need to be viewed as an integral part of the human-constructed infrastructure in our communities. Urban influence can extend much farther in both time and space than land use maps are likely to portray, and this leads to social and economic pressures that make forest management increasingly difficult. Working forests within reach of urban populations will need the understanding and support of urban populations. If they lack it, they will not have the support of the vast majority of citizens in most regions.

3. Forestry and farm people need to cooperate better in addressing these problems. Gifford Pinchot suggested that “The farmer and the forester are like fingers on the same hand”. Farm and forest organizations need to coordinate their activities between the two communities, even though their specific goals may differ. Protecting the working landscape from being over-run by urban pressures is a common problem for both.

4. Resource managers must learn to speak urban. The ultimate solution to our forest future lies with urban populations. Where urban populations view the working lands of their region as a value to be saved, they will be saved. Where they continue to think of them as “development in waiting,” those farms and forests are eventually doomed, even where they still appear on the land.

But while those are significant challenges, I want to come back to where we started in this discussion. Foresters in the United States have the best opportunity, the best technology, and the best programs in the world with which to meet those challenges. The Sustainable Forestry Initiative is an absolutely outstanding program. Its not perfect. It has been changing and improving since day one, and that process must, and will, continue. But a hard look at the SFI shows that it is much, much more effective than any of its critics give it credit for being. In the Forest Monitoring Program that was sponsored by the External Review Panel and the Izaak Walton League for the past 3 years, that was demonstrated many times. The changes are in the forest, widely available for anyone to find that cares to look. And they are substantial.

With over 100 million acres in the program, and over 50 million acres that have been through third-party certification, the SFI is far larger than all the other certification programs in the world. I didn't look it up this week, but its possible the SFI is larger than all the others put together. And, in spite of what the environmental critics say, the practices on the land are the equal of any program, including the Forest Stewardship Council.

Added to the SFI will be, it appears, the American Tree Farm System, that is also working hard to provide an internationally recognized certification program for its members. Together, these two programs, along with similar programs in Canada, Europe, and other parts of the world, have the opportunity to build broad public confidence in the type of sustainable forestry you are practicing today.

Clearly, foresters need to speak out more forcefully and clearly about what's right with today's forestry. And we'll have to "speak urban," because that's who we're talking to. But can we do it?? Of course we can. There's never been a better, or more exciting, time to be a forester.