



Learning the Importance of What We Leave on the Land

Forest Service Chief Dale Bosworth
Pennsylvania State University, School of Forestry, Annual Alumni Banquet
State College, PA—March 25, 2003

Thanks, Stan, for that introduction. It's a pleasure to be here at Penn State. I'm really just a dirt forester, so being here with a crowd of other foresters makes me feel right at home. We've got some Penn State alumni in the Forest Service, and one of them is here with me today—Tina Terrell, who works in our Washington Office on the Legislative Affairs staff.

Tina does a great job for us, and we hope to get more like her. She tells me this is one of the finest forestry schools there is, so the more Penn State graduates you alumni can steer our way, the better! The Forest Service is a good place to be if you are passionate about the land.

In fact, I understand that Stan himself used to be a district ranger for the Forest Service. I'm here today because I met Stan at Gifford Pinchot's 136th birthday celebration at Grey Towers a couple of years ago. Last year's guest speaker at this event was Gifford's grandson, Gifford Pinchot III. This year, Stan did me the honor of inviting me to be guest speaker. He reminded me of something I said at Grey Towers that day—that what we leave on the land is more important than what we take away. He asked me to expand on that here today, in view of the terrible fire seasons we've been having.

I'm glad Stan picked up on that, because I think it's really central to where we are today in the Forest Service. The importance of what we leave on the land is one of the key things we've learned. I'll try to explain that by addressing four questions:

- First, where did we start from 20 or 30 years ago?
- Second, how has our management changed?
- Third, where are we today?
- And fourth, where are we heading?

Past Output Production

First, where did we start from 20 or 30 years ago? Some say we were in bed with the timber industry. That's a myth, and I'd like to say a little about that.

The Forest Service's mission is caring for the land and serving people. Part of that is protecting the forest resource in all of its parts, including timber resources and sustainable waterflows. We are guided, in the words of Gifford Pinchot, by "the greatest good of the greatest number for the longest time." That is *not* the same thing as producing a profit from timber, although it could

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involve some harnessing of the profit motive, depending on local circumstances. Even as great a wilderness advocate as Aldo Leopold recognized the need for that.¹

In fact, the Forest Service has always recognized the importance of protecting *all* resource values. Aldo Leopold worked for the Forest Service, and he helped us set aside the nation's very first wilderness areas back in the 1920s. We also promoted some of the first outdoor recreation. For decades, we had huge political battles with the timber industry over what we regarded as their unsustainable practices.

Then came World War II. Afterwards, state and private timber supplies were exhausted. They had to wait for regrowth; but in the meantime, there was a huge postwar demand for timber to help realize the American dream of owning a single-family home. Today, we import a lot of timber to meet the demand, but that wasn't possible at the time, because the technology and infrastructure didn't exist. Besides, importing from countries with fewer environmental protections than we have just exports our problems to them. In my view, that doesn't make sense, and it's also unethical.

Anyway, drawing on national forest timber seemed to be the only option in the postwar period. Every administration, with strong bipartisan support, placed high demands on the Forest Service for national forest timber. From 1960 to 1985, the national forests met about 25 percent of America's softwood timber needs. To meet future needs, we planted young stands that could produce new timber at a far higher rate than the old growth we replaced. That gave state and private stocks time to regrow. Today, fears of a timber famine are over; if anything, there is a glut of wood fiber worldwide. Fifty years from now, we expect that timber growing in the United States will be nearly double the levels in 1960.

Change to Ecosystem Management

So our mission focus has shifted away from past levels of timber production. That brings me to my next question: How has national forest management changed? The change came partly in response to changing public attitudes and expectations. It was signaled by the first Earth Day in 1970. We got new environmental laws—the National Forest Management Act, ESA, NEPA, and so forth. I think that did us a lot of good. We need the national sideboards those laws give us.

But in the 1970s and 1980s, we were still being asked to put out a whole lot of timber. So we tried to squeeze our output production in between those new environmental sideboards. We did that mainly through the new forest planning process and by making rules and regulations for mitigating resource damage. For example, our guidelines for timber harvest say you've got to have stream buffers of a certain width and leave a certain amount of vegetation for wildlife.

¹ Aldo Leopold, "Conservation," in Luna B. Leopold (ed.), *Round River* (Oxford: Oxford University Press, 1993), pp. 156-157.

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That's fine, as far as it goes; but we found that planning has its limits. Our science and technology weren't always good enough to predict management impacts. In fact, they never will be—ecosystems are just too complex. Also, we failed to foresee certain developments, such as explosive fuel buildups in the Interior West. Gradually, we discovered what forest plans could and could not do, and we began looking for better ways of applying them.

In response to changing public values and new scientific insights, we developed a collaborative, ecosystem-based approach to national forest management. Ecosystem management has a number of basic features: watershed analysis, landscape-scale planning, collaboration across boundaries, and adaptive management. It capitalizes on new information technology—GIS, simulation models, remote sensing, Internet, and so forth. It emphasizes working closely with communities—making public involvement more meaningful. We've got new bodies for collaborative decisionmaking, such as watershed councils and resource advisory committees.

The idea is this: We sit down with stakeholders and all interested citizens, and together we envision a desired future condition for the land. We ask what values we all share—what do we want the land to look like in 20 or 50 years? If we can agree on that, then it becomes simply a matter of how to get there. Then we formulate appropriate goals and work with partners all across the landscape to reach those shared goals.

That's what we mean when we say that what we leave on the land is more important than what we take away. Twenty years ago, we focused primarily on outputs, measured in terms of board feet; today, we focus primarily on outcomes, measured in terms of healthy ecosystems. We've learned the need to plan for long-term ecosystem health by building a consensus among stakeholders all across the landscape through collaboration and community-based forestry.

Today's Problems

That brings me to my third question: Where does that leave us today?

Will Rogers once said, "All I know is just what I read in the papers." Maybe that's why so many folks think that logging and roadbuilding are such huge problems on national forest land. You can read about that almost every day in the papers. But it's simply not true. Here are the facts:

- Today, the national forests produce less than 2 billion board feet of timber per year. That's only about 15 percent of what we produced 15 or 20 years ago. In terms of sheer weight, Americans produce more woody yard waste than national forest timber.²
- In the last 5 years, the Forest Service built about 155 miles of new road on average each year. In our 360,000-mile road system, that's next to nothing. Besides, for every mile of road we built, we obliterated 14 miles of road. Our road system is actually shrinking.

² David B. McKeever and Kenneth E. Skog, "Urban Tree and Woody Yard Residues: Another Wood Resource" (unpublished draft paper, 9 January 2003; Madison, WI: USDA Forest Service, Forest Products Laboratory).

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As President John Adams once said, “Facts are stubborn things.” Of course, some people stubbornly refuse to face the facts. I think it’s Don Quixote in “Man of La Mancha” who says, “Facts? Facts are the enemy of truth.” That is certainly true of some of the so-called facts you read in the papers. The fact is, our management is not what it was 20 or 30 years ago. Instead of mitigating damage from *outputs*, we now capitalize on uses for generating *outcomes*. That includes using timber removal as a tool for restoring healthy, resilient forest ecosystems.

That’s one area where you foresters can really help us. Folks need to understand that timber removal is not all one thing. It all depends on your goal. In some places, the primary goal might be jobs and timber. In other places, it might be habitat for wildlife. In still other places, it might be forest restoration or fuels reduction. In each place, the amount and kind of tree removal will be very different. It all depends on what you’re trying to achieve.

On the national forests, our primary purpose for tree removal is not what it was 20 or 30 years ago. Today, long-term ecosystem health drives virtually everything we do. It determines whether or not—and where and how—we decide to cut trees.

That’s why the debate today—focusing on limits to diameter size—misses the mark. Some people contend that forests are unsustainable if we remove any trees at all over a certain diameter size. To my knowledge, there is no science to support that.

In my view, the way to manage for healthy ecosystems is to focus on what we leave on the land, not on what we take away. On a landscape scale, the number and size of the trees we remove doesn’t matter. What matters is the number, size, and type of trees we leave on the land to achieve healthy landscape conditions. The goal is to meet the desired future condition.

But these debates keep us stuck in the past. I think that’s divisive and destructive. It doesn’t get us anywhere. Our problems are simply too pressing; too many ecosystems are literally on the verge of collapse. Here are some of the real problems our district rangers face every day:

- Catastrophic wildfires. Since the mid-1980s, fire seasons have been on the rise. In both 2000 and 2002, more acres burned than in any year since 1954. Last year, we had record-breaking fires in four states. On the national forests alone, some 73 million acres are at risk from wildland fires that could compromise human safety and ecosystem integrity.
- We’re also seeing unprecedented outbreaks of insects and disease. For example, bark beetle populations have exploded in the South and West. On all ownerships nationwide, some 70 million acres of forest are at serious risk from 26 different insects and diseases.
- Invasive species are another huge and growing problem. Fully half of all imperiled and federally listed species are threatened by invasives.³ The economic cost alone is

³ David S. Wilcove, David Rothstein, Jason Dubow, Ali Phillips, and Elizabeth Losos, “Leading Threats to Biodiversity: What’s Imperiling U.S. Species,” in Bruce A. Stein, Lynn S. Kutner, and Jonathan S. Adams (eds.),

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staggering: All invasives combined cost Americans about \$138 billion per year in total economic damages and associated control costs.

Solution: Active Management

These problems are interlinked. By excluding fire, we have let many of our fire-adapted forests get overcrowded. Just to give you some idea, in the Southwest—Arizona and New Mexico—annual growth is enough to cover a football field 1 mile high with solid wood, even after losses from fire and mortality.⁴ Recent removals have been only about 10 percent of this.

The overcrowding can lead to both catastrophic fires and disastrous outbreaks of insects and disease. Fires in turn can weaken native communities, paving the way for colonization by invasives, which can further alter fire regimes, leading to new fires. The net result is often a downward spiral of deteriorating forest health.

Some folks say we ought to just leave the land alone to heal itself. That's another area where you foresters can really help us. People ought to understand that the only solution is active management. Unless we do something, the overcrowded forests we have today will stay weak and unhealthy forever—or until the next catastrophic fire or insect outbreak.

We know what to do. We've got to remove some of the small materials that are threatening the health of our forests and fueling our worst fires. We have two choices: The excess trees can go up in smoke or out on the back of a truck. The most important thing we can do, especially in a good part of the West, is some thinning and burning in a controlled manner.

So what's stopping us? Well, the Forest Service is caught in a bind. On the one hand, we strongly encourage collaboration through partnerships on a landscape scale. On the other hand, when it comes to delivering on our partnership commitments, we often find ourselves mired in process and unable to move forward with actual projects on the ground. When we can't fulfill our promises, all the trust and goodwill we spend so much time building evaporates overnight.

Some people call it process gridlock or analysis paralysis. Whatever you call it, it's a big problem for us. For example, some of our most time-sensitive projects involve mechanical thinning for fire protection. Many of those projects are subject to appeal. Last year, we did a study of those, and we found that 69 percent of them were in fact appealed; in one region, it was even 100 percent. Appeals and other procedural delays can keep a project from proceeding until after it's too late. Besides, the process is costly. Instead of spending time with folks out in the field discussing what we ought to do, we're holed up in backrooms doing useless paperwork to support our decisions. It just doesn't make sense.

Precious Heritage: The Status of Biodiversity in the United States (Oxford, U.K.: Oxford University Press, 2000), p. 242.

⁴ Marlin Johnson, personal communication (Assistant Director, Forestry and Forest Health, USDA Forest Service, Southwestern Region, Albuquerque, NM), 2002.

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I believe that people ought to have the right and the ability to question our decisions. But I also believe that the right to appeal should carry with it a responsibility. It's a responsibility to all the other folks who are involved in the decision or have a stake in the outcome. It's a responsibility to engage upfront in the discussion instead of waiting in the wings while others hammer out an agreement, then using appeals and other procedural maneuvers to torpedo it.

So we've started to reevaluate our tools and processes so we can give people more of a chance to participate meaningfully in our decisions. Last August, we got some help from the President when he announced the Healthy Forests Initiative. Here are some of the things we're doing:

- We're streamlining our own internal administrative procedures.
- We're reducing the number of overlapping federal environmental reviews.
- We're simplifying our Forest Service appeals process.
- We're getting more categorical exclusions for small vegetation management projects.
- We're revising our planning rule to give local managers more of the flexibility they need to make collaborative decisions based on local conditions and needs.

Let me just stress one thing again, because you sometimes hear that what we're really trying to do is to shut everybody else out of the process. With the process we have right now, we spend a lot of time and money in backrooms doing planning studies filled with information that nobody will ever use. I think it's a huge waste of time and resources, which in my view is not what your government ought to be doing.

In my view, what we ought to be doing instead is meeting with people who want to have a say in our decisions, taking them out to look at the land, discussing the projects we are proposing, and coming to some agreement based on the things we have in common, the values we all share. All we're trying to do is to revise some of our processes so we can finally do more of that. So we're not trying to shut anyone out at all. Instead, we're trying to do the exact opposite—to spend more time engaging and involving people in our decisionmaking.

Future Outlook

Now to my final question: Where are we headed in the future? I think we will continue moving in the same general direction. Twenty years ago, our focus was on output production and mitigating resource damage. We seldom looked beyond the particular piece of ground we were managing. Our public involvement was not as effective as we would have liked.

Today, the focus is on restoring healthy, resilient ecosystems. Increasingly, we consider long-term outcomes across the entire landscape. We manage collaboratively, drawing on the principles of community-based forestry to give the public a more meaningful say in our decisions. We know that what we leave on the land is more important than what we take away.

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It's a new day and a new time. In the future, as we discover more about how ecosystems work, I think we'll learn even better ways of protecting the land. Our workforce is aging, and I see career opportunities for young graduates with a passion for the land. I see them bringing us something new—new scientific understanding, new technical skills, and—maybe above all—the ability to articulate alternatives, to communicate effectively, and to bring people together in partnership.

Ten years from now, I see stewardship end results contracts as our main tool for getting the job done. Timber contracts will be part of that, but the timber sale isn't really the best tool for meeting the desired future condition, because it's geared toward short-term outputs. Service contracts will also be part of the mix, but they aren't connected to appropriated funds.

That's why we need stewardship contracts. They give us more of the flexibility we need to collaborate locally for long-term ecosystem health. In the future, I see us contracting with all kinds of nongovernmental organizations to meet the desired future condition. I see us focusing on partners with staying power—with a long-term stake in the land. So instead of traditional timber contracts, we might have vegetation management contracts with a local community, with an American Indian Tribe, or maybe with an organization like The Nature Conservancy, where the focus is on end results rather than outputs and bottom lines. That's where I think we're heading.

Again, this is an area where we could use your help. Some folks are saying that stewardship contracts are just another ploy to get out more of the cut. People need to understand that our district rangers aren't going to tear up the land in one place just so they can repair it in another. That just doesn't make sense. Besides, communities are involved throughout the process, from project selection through monitoring and assessment. The process is transparent, with plenty of opportunity for public scrutiny. And all projects under stewardship contracts are subject to NEPA, ESA, and our appeals procedures, just like any other project. So there are plenty of environmental controls.

Role for Foresters

In closing, let me just say once again that it's a real pleasure to be here with a group of fellow foresters. And I really appreciate this opportunity to visit Penn State. We will depend on forestry schools like this one to give us the Forest Service of the future. I hope you alumni will encourage graduates to consider a career with us. The challenges are huge, but so are the opportunities for truly making a difference if you are passionate about the land.

Along the same lines, we also need your help in another way. I think the Forest Service has come a long way in the last 20 or 30 years, but we've still got a ways to go. A lot will depend on how our management is perceived by the public. We could use your help in framing the debate.

You are the ones with the professional experience and the in-depth knowledge. You can help frame the debate—through your work, through your connections, even through the newspapers. You can help dispel the myths and work out the misunderstandings. You can help folks

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understand the direction we are moving and the real challenges we face on the land. You can help bring about more acceptance for active management. We are counting on your help and support.