

**THE CRISIS ON OUR NATIONAL
FORESTS: REDUCING THE
THREAT OF CATASTROPHIC
WILDFIRE TO CENTRAL
OREGON COMMUNITIES AND
THE SURROUNDING ENVIRON-
MENT**

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

Monday, August 25, 2003

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**OVERSIGHT FIELD HEARING ON THE CRISIS
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THE SURROUNDING ENVIRONMENT**

**Monday, August 25, 2003
U.S. House of Representatives
Committee on Resources
Redmond, Oregon**

The Committee met, pursuant to call, at 2:00 p.m., at the Deschutes County Fairgrounds Expo Center, 3800 SW Airport Way, Redmond, Oregon, Hon. Richard W. Pombo [Chairman of the Committee] presiding.

Members Present: Representatives Pombo and Walden.

The CHAIRMAN. The Committee on Resources will now come to order. I'd like to recognize a gentleman from Oregon. Mr. Walden.

Mr. WALDEN. Thank you very much, Mr. Chairman. I want to welcome you to Central Oregon and our Committee to Central Oregon for this hearing. At this time I would like to welcome the Oregon National Guard Youth Challenge Program who will—they will post the colors and then they will proceed to say the pledge of allegiance. If everybody could stand, please.

**STATEMENT OF THE HON. RICHARD W. POMBO, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF
CALIFORNIA**

The CHAIRMAN. Thank you. I'd like to extend my thanks to the Oregon National Guard Youth Challenge Program for presenting the colors today. It's my pleasure to be here with Congressman Walden in Central Oregon to take a closer look at the nation's forest health and wildfire crisis. In so many ways the State of Oregon has been ground zero in the debate about the future of our forests. Year after year, summer after summer Oregon has been stuck in the crossfire of catastrophic wildfires.

With memories of the Biscuit Fire still fresh in folks minds, Central Oregon is experiencing another horrific episode with the B&B Complex Fire. Like so many fires of the west, in the last few years this fire is burning hot, fast and destructive leaving a path of ecological destruction in its way. I understand a number of homes

have been evacuated and certainly our thoughts and prayers are with those individuals.

Today we also mourn the loss of eight firefighters who were killed yesterday in a traffic accident returning to Oregon from a wildfire in Idaho. Our hearts go out to the families of those who are lost.

The scope of America's forests health crisis cannot be overstated. This nation has a stunning 190 million acres of forest and wooded lands at unnaturally high risk of catastrophic wildfire and large scale insect and disease outbreaks. These forests are clogged with thickets of underbrush and other flammable material. They are a lightning strike or an errant campfire away from exploding.

And yet because of excessive procedural requirements, appeals and lawsuits, forest managers are only treating about two million acres a year. Even with an imminent threat of large scale catastrophic wildfire endangering a community or an important source of drinking water, it routinely takes three to 5 years for Federal foresters to get projects through the maze of bureaucracy and red tape, three to 5 years to get approval for a project that would protect a home or a watershed. And that's outrageous.

When you consider the devastating impact of these fires on our forests, our community, our air, water and wildlife, this glacial response is totally unacceptable. The process is fundamentally broken and law makers have an obligation to fix it. That's what the Healthy Forest Restoration Act would do. It would give land managers the tools to protect our air, water, wildlife and communities from the ravages of catastrophic wildfire while meaningfully streamlining bureaucratic procedures to build unprecedented lengths to protect the public's critical role in the management of our forest assets. Environmental groups can continue to appeal and litigate projects until they are blue in the face. They just won't be able to kill projects through unending delay tactics.

The bill passed the House of Representatives on an overwhelming bipartisan basis. A remarkable victory in the face of a well-funded lobbying campaign by so-called no cut environmental groups. The margin of that victory underscores the strength of public sentiment behind this legislation.

Outrageously some Democrat Senators, themselves part of the no-cut crowd, are talking about filibustering this legislation. And in other words, using procedures to prevent this wildly supported bipartisan legislation from even getting an up or down vote. I wonder what are they afraid of? Why not debate the bill, vote on the bill and let the cards fall where they may.

In the House of Representatives republicans and democrats prove that protecting our forests, wildlife and communities from catastrophic wildfire is not a partisan issue. Republicans and democrats put party politics behind us and crafted a legislative road map that will give foresters and scientists the tools to address the nation's forest health crisis. For those familiar with Washington, D.C. politics, you know that the House of Representatives is often a very partisan place. If we can rise above partisan considerations, I have to believe that the senate can too. I'd like at this time to recognize my friend and colleague, Mr. Walden.

**STATEMENT OF THE HON. GREG WALDEN, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF
OREGON**

Mr. WALDEN. Thank you, Mr. Chairman. I'd like to thank Deschutes County for providing us with the opportunity to host this deal here at the fairgrounds, and I'd especially like to acknowledge the county commissioners who are here today especially those from Deschutes County for hosting our Resources Committee Hearing and for hosting the President of the United States who happened to drop by last week. I want to thank you, Mr. Luke, DeWolf and Daly. Thank you for your extra efforts on our behalf and on the President's.

I'd also like to thank the Deschutes County fairgrounds staff for all of their hard work they put into this event as well as the President's visit last week. I'd like to thank Deschutes County Sheriff Les Stiles, his staff and the Oregon State Police for their involvement in today's event along with the city of Redmond Police. It's great to see Redmond Mayor Allen Unger here as well. The manager of the Redmond Airport, Carrie Novick, thank you all for your help and your hard work. I truly appreciate the support that Central Oregon has shown us as we have held or are holding this hearing.

I also want to thank and acknowledge representatives from our two Senators' staff who I am told are here with us today. Both Senator Smith and Senator Wyden staff are here. Susan Fitch with Senator Gordon Smith staff, Matt Hill with Senator Gordon Smith staff, Janet Brown and Kathy Eckman with Senator Wyden's staff. We thank you for joining us today. Thanks for being here.

Mr. Chairman, I appreciate the comments you made with regard to H.R. 1904. As a life-long Oregonian, and I have said it before, I like my forest green, not black which is sort of the difference in our clothing today. You are dressed in black. I am dressed in green. Our forests are suffering the same fate. As we sit here and discuss this bill and hear from expert testimony, stands of live trees, stands of dead trees that burned before are being engulfed in flames. Our valleys and our air sheds are filled with smoke. Our watersheds are threatened. Some of the treasures that we hold, Camp Sherman, for example, and other areas lie in the path of what could be total destruction.

It's time for us to come together, pass this legislation in a bipartisan way so that our professional foresters and our communities can get together and in an expedited way fix the problems with our forests, remove the hazardous fuels, the overstocking so that when we get the fire and we will, it won't be catastrophic in nature and as destructive and out of control as we're seeing right now.

Mr. Chairman, I am going to keep my remarks to that. I have a prepared statement I will submit for the record. And again I want to thank you for your courtesy in allowing us to have this hearing here. And I think it's fair to say that members of the public will be able to submit written testimony for the record even though today's testimony is invited panel testimony. Is that correct, Mr. Chairman?

The CHAIRMAN. Without objection your opening statement will be included in its entirety in the record, and the hearing record will

be held open for 2 weeks to allow interested members of the community the opportunity to submit written comments that will be included in the hearing record.

Mr. WALDEN. Thank you, Mr. Chairman. I thought it would be appropriate for us and the audience to get an update at the very beginning, Mr. Chairman, on the status of the fires that are to the west of us. I don't know how you want to proceed on that, but clearly there's a lot of interest.

The CHAIRMAN. Well, if I may before we begin the formal testimony I'd like to ask Chief Bosworth if he has someone with him who could give us an update on the fires here locally.

Mr. BOSWORTH. Yes, Mr. Chairman. I have Forest Supervisor Leslie Weldon, Supervisor of the Deschutes National Forest to do that.

The CHAIRMAN. Thank you. Leslie, if you could join us at the witness table here.

Mr. WALDEN. We can have somebody bring those over. I am sure there is a lot of interest in the audience. Perhaps we can put it where we all can see.

[The prepared statement of Mr. Walden follows:]

**Statement of The Honorable Greg Walden, a Representative in Congress
from the State of Oregon**

Thank you, Mr. Chairman. I appreciate having the opportunity to offer opening remarks today. I'm pleased to welcome you to central Oregon to examine an issue that has affected many of the residents of Deschutes, Crook and Jefferson counties—the threat that catastrophic wildfire poses to our communities, public lands, municipal water supplies and wildlife.

As we've seen over the last several weeks, and most recently with President Bush's visit to Deschutes County last Thursday, the threat of wildfire outbreaks is a constant variable in the daily equation of life in central Oregon. Currently, the Booth and Bear Butte fires are burning actively in areas of heavy fuels, steep terrain, and in remote areas previously decimated by beetle infestation. The estimated area burned so far for both of these fires is 25,800 acres. On Saturday evening Oregon National Guard helicopters, vehicles and personnel began arriving to assist with suppression efforts. The 25,800 acres that have burned in this fire are in addition to the 28,000 acres that burned as a result of the Davis, Link and 18 fires.

Unfortunately, the fires currently burning in central Oregon and Oregon as a whole mirror what is transpiring in Idaho and Montana, where approximately 310,000 acres have recently burned. And earlier this year we saw a wildfire in Arizona that destroyed more than 250 structures and precipitated the evacuation of 450 families near the community of Summer Haven. The possibility of a similar, and perhaps more dire, situation exists in California, where officials have established evacuation plans for residents living near Los Angeles due to the threat of major wildfire outbreaks. But, as many experts in the forestry community have stated, the threat of catastrophic wildfire and the crisis facing our forests is not unique to the West.

The dangerous build up of hazardous fuels on forest floors, outbreaks of disease and insect infestation combine to form a truly national problem afflicting every state and region in America. In the South over 57 million acres of forestlands are at high risk of beetle infestation. In other regions of the country the situation is equally severe. An insect called the hemlock woolly adelgid is destroying forests throughout the mid-Atlantic and Appalachian regions, while in Michigan the introduction of the emerald ash borer in 2002 has proven to be so devastating—already killing or damaging seven million trees—that in March Governor Granholm formally requested assistance from the Department of Agriculture to help combat the spread of the borer to the state's remaining 692 million ash trees.

The national scope of America's forest health crisis demands a national response. Fortunately, that is precisely what is provided by H.R. 1904, the Healthy Forests Restoration Act, which I co-authored with you, Mr. Chairman, and our colleague from western Colorado, Scott McClinnis. The House approved H.R. 1904 more than three months ago on May 20 by an overwhelming, bipartisan vote of 256 to 170—

including the support of 42 Democrats. It's not often that a national environmental measure of this magnitude is approved with such strong, bipartisan support.

While America's forests are diverse, many of the problems that afflict them are uniform across the nation. The biggest culprits to proper management are the procedural hurdles that tie the hands of our federal land managers. As we have seen here in central Oregon with the stalled implementation of the McCahee Vegetation Management Project, combined these problems tie the hands of forest managers and prevent projects that would improve forest health, help prevent catastrophic fire and safeguard our communities. As Chief Bosworth, has stated:

"I've got 37 years with the U.S. Forest Service, and over the years I have seen us get to a situation where there are more and more regulatory requirements, and less and less opportunity for professional foresters and biologists to make decisions out in the field. We end up spending more time in windowless rooms behind computer screens doing analysis, and in a lot of cases it doesn't lead to a better decision. We've gotten ourselves to where we just can't get work done on the ground. People expect us to get work done on the ground, and that's what we're here for."

The Chief aptly terms this "analysis paralysis."

Too often foresters are required to propose as many as six to eight alternatives to simple forest treatment projects under the National Environmental Policy Act (NEPA), knowing that most of them will never be utilized. As managers of the federal government's purse strings, we have a duty to ensure that we cease the current trend of shoveling taxpayer dollars at wasteful paperwork while we starve our forests of attention and stymie foresters from implementing their expertise.

While H.R. 1904 requires that hazardous fuel removal projects must go through the NEPA process, it does not force the Forest Service to draft alternative plans that they know will never be implemented. It also encourages greater public participation by codifying the bipartisan Western Governors Association 10-Year Strategy's robust public input and participation requirements, ensuring that interested persons will have numerous opportunities to engage decision makers during all phases of a project's development and implementation.

Without expediting forest treatment projects, the outbreak of disease and bug infestation and the build-up of hazardous fuels across our country will only grow worse. Last year taxpayers spent well over \$1.5 billion dollars fighting raging fires, and this year Congress once again increased annual funding for hazardous fuel reduction programs under the National Fire Plan to over \$400 million. As we continue to invest more in fire prevention and forest health programs, it is critical that we match this investment with the tools our foresters need to actively manage the crisis at hand.

After years of attempting various approaches, H.R. 1904 struck a chord of common sense. It is not only supported by such diverse groups as the National Association of Home Builders, the National Association of Counties and the National Volunteer Fire Council, but it is also supported by groups representing professional foresters like the Society of American Foresters and the Western Forestry Leadership Council whose members see the deplorable health of our federal forestlands firsthand. And, finally Mr. Chairman, I would like to emphasize the bipartisan support that this bill received in the House. Nearly 60% of the members of the House supported this bill on final passage. More recently, a slightly modified version of H.R. 1904 passed the Senate Agriculture Committee by voice vote.

Mr. Chairman, I'd like to close by thanking the people of Deschutes County for giving us the opportunity to hold this hearing at the fairgrounds today. I'd also like to take the opportunity to enter into the record editorials from the Bend Bulletin, Grants Pass Daily Courier, The Observer, the Wall Street Journal, Central Oregonian and the Willowa County Chieftain in support of the Healthy Forests Restoration Act.

**STATEMENT OF LESLIE WELDON, SUPERVISOR,
DESCHUTES NATIONAL FOREST, OREGON**

Ms. WELDON. Thank you. What I'd like to do is just give a very quick update of the B&B Complex which includes the Bear Butte Fire which is burning on the northern part of the Deschutes National Forest and on to the Confederated Tribes of the Warm Springs Reservation and also the Booth Fire which is burning in Sisters adjacent to Suttle Lake and adjacent to the Metolius Basin.

I will start with the Booth Fire. Acre wise as of this morning we are looking at a fire of about 31,000 acres. We are still experiencing some growth on the fire primarily to its western and northern flanks here. We are feeling pretty strongly that we have got a line that can be called contained and secured along the eastern flank. Again Camp Sherman and the Metolius Basin in this area are our highest priority and we are making sure that we have got strong lines and are watching carefully that there's no spread of the fire continuing to the east.

Along the fires burning into wilderness area, we are expecting a continuing trend of dry weather and may even experience some additional growth in this fire with the weather that we are anticipating. We are probably a long ways away from full containment on this fire. I think we are only talking about 20 percent. Even though this line is black, we usually give it some time to make sure we are firm before we truly call it contained.

On the Bear Butte Fire, we are looking at an acreage of approximately 6,100 acres as of this morning. We are feeling pretty strongly about lines we have been able to put in on the eastern flank of the fire. This fire too is burning into portions of the wilderness. We had limited access and a lot of hard work by hot shot crews to get some hand lines in. And again there's possibility of an opportunity for growth on this fire with the weather we are expecting over the next couple of days. A lot of folks work really hard on the fires, but we are still in a position where there may be some additional growth on both of these. Hopefully we have got things secure to the point where we won't have communities threatened from these fires.

A little bit more info on where we have been for this year. This is the fourth and fifth project fires in Central Oregon, and through today we have about 67,000 acres that have burned on the Deschutes National Forest with fires that began the last week of June and are continuing. As with last year with the Cache Mountain Fire we are experiencing a lot of benefit from places where we have done fuels treatments and seeing a drastic change in fire behaviors when those fires hit those burned areas, dropped to the ground, give us a strategic advantage for fighting fires and also create a much safer situation for firefighters.

We got examples through the 18 Fire which started about 4 weeks ago where our treatments change fire behaviors. We have got examples of portions of the Davis Fire. We even witnessed portions of these two fires here in particular the Booth Fire where we had truly change in fire behavior to the degree that we have been able to be a lot quicker in our suppression in those areas. And I think throughout Oregon we have had about—I think our figure was \$8 million that have been expended this year fighting wildfire. In Central Oregon our number is approaching about 20 million. Large fires like these we will be topping spending about a million dollars a day with all the suppression resources that are brought in during the most intense periods of fire fighting. And if there's any questions, that's pretty much a briefing of where we are at.

Mr. WALDEN. All right. Do you have the crews you need?

Ms. WELDON. We do. We are getting the resources that we need.
The CHAIRMAN. Thank you very much.

Mr. WALDEN. Thanks, Leslie.

The CHAIRMAN. I'd like to welcome our first panel that's going to testify here today. We have Dale Bosworth, who is the Chief U.S. Forester who is accompanied by Linda Goodman, the Regional Forester of the Pacific Northwest Region, and Mr. Ed Shepard, Assistant Director of Renewable Resources and Planning, Bureau of Land Management. Thank you for joining us here today. Chief, we are going to just begin with you, and your entire written testimony will be included in the record. If you can summarize that, and just for the sake of time, we appreciate that. Thank you.

**STATEMENT OF DALE BOSWORTH, CHIEF,
U.S. FOREST SERVICE**

Mr. BOSWORTH. Thank you, Mr. Chairman, Congressman Walden. It really is good to be here. It's good to be in Oregon. I think that Redmond, Oregon is a good place. It's a good setting to be discussing the efforts to improve the health of our nation's forest and also the grasslands. And part of it is because of the proximity we are right now to the Deschutes National Forest, the Ochoco National Forest, the Crooked River Grasslands. There is something like 1.6 million acres of Bureau of Land Management public lands in this area. Even with all attention though that we have some problems, some contentious issues, I think we need to take a minute and maybe reflect on some of the tremendous positives that are associated with national forest lands in Oregon.

I'd just like to briefly point out a few things. There are 15 national forests in Oregon. There's two national recreation areas. There's one national grasslands. There's 15.7 million acres of rolling hills and rugged hills of beautiful country. It covers a range of multiple uses. About 2.1 million acres of wilderness. It provides solitude for an awful lot of people. There is some diverse recreation opportunities both developed recreation and disperse recreation opportunities. There's fish and wildlife habitat, tremendous fish and wildlife habitat. Clean water. There's also commodity production and economic contributions to be made. There's many, many dedicated Forest Service people doing the very, very best in Oregon to care for the land and serve people, and I think that they would all agree and the people who live here would agree that Oregon is a wonderful place to visit. It's a wonderful and beautiful place to live.

Now I'd like to talk a little bit about it's 49 days since I met with you in Montana and testified. That was on July 2. Here we are today on August 25. Since that point we have burned 1,698,000 million acres. 1,698,000 acres have been burned by wildland fires. About 628,000 of that was on national forest lands. 17 people have died since then, 318 structures have been burned, 75 of those are homes. Currently we have 57 large fires that are burning in 10 western states.

We have testified several times over the last year on extremely important issues surrounding forest health before the House of Representatives and the Senate, and I think that the President was right on target with his introduction of the Healthy Forest Initiative. And the Department of Agriculture strongly supports HFI as well as 1904 Healthy Forest Restoration Act of 2003.

We are living in a time that has great issues, and some people and organizations would argue the timber harvest levels represent the greatest threat to the public forests. However loudly the voice or strongly felt and held these views might be, I don't think they portray the reality of the management needs for the public forests now or over the next several decades. I believe that some of the greatest threats to the forest and grasslands include the fire danger that's facing us right now, the unnatural accumulation of fuels.

And I think that invasive species is a huge problem, is a huge threat, to our nation's forests and grasslands. Nationwide invasive species cover an area that's a third larger than the state California, and then insects and disease problems that we have from outside this country. Our goal is healthy forests, and our goal is healthy forests so people can enjoy these resources for generation after generation after generation.

In some cases that's going to mean restoration of conditions so that the forest can remain healthy. For example, because we have been so successful in terms of suppressing wildfires and because we have been unable to do some of the needed thinning, we have fuel buildup in our forests that we are faced with.

Ponderosa pine, I think, is a great example. Historically most ponderosa pine forests were relatively open. You have a few dozen trees per acre. Today they might have hundreds or perhaps even thousands of trees per acre. In a drought all these trees can fuel catastrophic wildfire resulting in the potential loss of homes, loss of communities, municipal water sources, wildlife habitat. It can take decades of action to restore these forests provided our society is willing to focus on this issue and to commit the needed resources.

Federal forest and range lands across the country are also facing unusually high threats from the spread of invasive species, invasive weeds and insects and disease. Frequency, extent and timing of recent outbreaks are out of the ordinary. Changes in tree stand density, in species composition and structure due to decades of excluding or immediately suppressing fire, lack of active management and extended drought are factors that have affected insect infestation outbreak patterns. The central focus needs to be on what we leave on the land and we need to quit arguing about what it is that we are taking from the land.

We also have issues with processes that have grown to the point where the paperwork may impair our ability to act in a timely manner. The administration proposed actions in conjunction with the authorities proposed in H.R. 1904 will allow us to update our procedures to act in a timely manner, and it will also provide appropriate public participation and environmental review and protection.

Mr. Chairman, I will ask Regional Forester Linda Goodman to make a few specific comments about the Biscuit Fire so that we can maybe have some discussion about that.

**STATEMENT OF LINDA GOODMAN, REGIONAL FORESTER,
U.S. FOREST SERVICE**

Ms. GOODMAN. Thank you. Thank you for having us, Mr. Chairman and Congressman Walden. The Biscuit Fire burned nearly

500,000 acres as you well known costing over \$150,000,000 for suppression alone. Over 45 percent of the Siskiyou National Forest burned at varying intensity and effect including a complete reburn of the 100,000 acre Silver Fire and all but a few hundred acres of the Kalmiopsis Wilderness. The Biscuit Fire left us with an important lesson, the need to treat hazardous fuels at the landscape scale.

We have completed planning and decisions on eight projects. Specifically we have completed documents for road maintenance, immediate reforestation needs, special forest products and hazard tree felling and removal. Through extensive cooperation and outreach, seedlings were planted on nearly a thousand acres this spring including a 10-acre spot with a local high school. Road crews are completing repairs on over 200 miles of road. Recreation trails are signed for hazards and crews are working on 40 miles of trails. Hazard trees along roads are marked, and sales sold to date total 5.4 million board feet of timber.

We will be releasing a draft EIS sometime in October for salvage logging, fuels treatment, reforestation and all connected actions will address five primary issues: Recover merchantable dead timber before its economic value is lost; restore habitat for species that rely on older forests; restore, maintain and enhance fish and wildlife habitat; reduce risks of catastrophic wildfire to nearby communities and to adjacent private lands; and last learn and share our knowledge about large fires and fire recovery. Several alternatives are being evaluated including one that directly reflects the work of Dr. John Sessions of Oregon State University.

Among our proposals is the construction and maintenance of an extensive network of fuels management zones. These are linear features located on ridges and existing roads that are intended to provide safer, more defensible space for the use of prescribed fire and for fighting and containing wildfire. These fuel breaks will compartmentalize the landscape and reduce the chances of fires getting as large as the Biscuit Fire.

We are also working with the research community to test how we can best re-establish and maintain late successional habitat across the landscape in dry forest types. We are testing three different approaches: One that's a low intensity approach; second one a more intensive approach that includes our most aggressive economic recovery of dead timber; and third the use of prescribed fire and salvage. I will turn it back over to you now.

The CHAIRMAN. Thank you. Mr. Shepard.

**STATEMENT OF ED SHEPARD, ASSISTANT DIRECTOR,
BUREAU OF LAND MANAGEMENT**

Mr. SHEPARD. Mr. Chairman, Congressman Walden. Thank you for the opportunity to testify today. Good to be back in Oregon. The need to restore our nation's public forests and rangelands to long-term health has never been greater. That's why the Department of the Interior strongly supports H.R. 1904, the Healthy Forest Restoration Act of 2003.

East of the crest of the Cascades in Oregon and Washington the BLM manages approximately 223,000 acres of forest. It's estimated that due to fire, insect infestation and disease nearly 87 percent of

these forest lands have been altered from their historic conditions and are at moderate risk of losing key ecosystem components.

The BLM has addressed this problem in the Eastside Forest and Woodland Management Action Plan for Oregon and Washington. The plan focuses on aggressively restoring these woodlands through thinning and prescribed fire. The plan will also help reduce the threat of catastrophic fires that have impact on small communities and resources including beyond the forest ecosystems critical rangeland habitat important for livestock and for the sagebrush and the spread of invasive species.

Since the President announced the Healthy Forest Initiative last year, I am pleased to report both the Secretary of the Interior and Agriculture have taken several steps to help implement the President's plan. These include the publication of joint guidance allowing multiple projects to be considered under one Endangered Species Act consultation and some current direction on how to consider and balance potential short term effects and the long term beneficial impacts to endangered species while evaluating projects; rule changes that encourage early and meaningful public participation in project planning for important hazardous fuels projects; new categorical exclusions for certain hazardous fuels reduction projects and proposed fire rehabilitation projects with sideboards to ensure that these are used appropriately; new proposed regulations authorizing agencies to make determination on actions not likely to adversely effect listed species without informal consultation and concurrence with the Fish and Wildlife or NOAA Fisheries; guidance from model environmental assessment for fuel treatment projects that enhance the administrative processes.

The BLM Rogue River hazardous fuel EA is such a project. This 8,000 acre project was released for public comment just last week. 190 residents live within the Hellgate recreation section of the Rogue River and support for this project in the local community is strong. Project implementation is anticipated to start this fall.

And finally the implementation of stewardship contracting that allows the BLM and Forest Service to enter into long term contracts with the private sector, nonprofit organizations, local communities and other entities to help achieve important land management objectives. In 2003 the BLM has two planned stewardship contracts in Oregon, one in Medford and one in Baker City. These projects focus on reducing extremely high fuel loads in the wildland urban interface and in bug infested areas while also improving fish and wildlife habitat. We believe that these actions will provide Federal lands managers with the tools they need to restore these lands to the condition where they can resist disease, insects and catastrophic fire. However, the Administration also believes that the additional tools and authorities provided for in H.R. 1904 are needed in Oregon to fully implement forest restoration on a large scale basis in a meaningful timeframe.

The Forest Service and BLM also completed a number of significant actions associated with implementation of the National Fire Plan in 2002. We have awarded 38 grants in Oregon totaling approximately \$5.5 million to state agencies and local communities to perform hazardous fuels reduction projects, provide education and

prevention programs, and to find uses for the by-products of hazardous fuels reduction projects.

For example, in John Day we have provided \$91,000 to complete an interface hazardous fuels inventory and a hazardous fuels public education program. We have allocated \$1.9 million to 191 fire districts in Oregon. Funding was used for training, equipment purchase and fire prevention activities on a cost-share basis. The town of Fossil, for example, was able to purchase a new pump, foam unit and personal firefighting protective gear with some of the money.

We have conducted hazardous fuels reduction treatments on 190,232 acres in Oregon. About 50 percent of these acres were treated within the wildland urban interface areas. An example of these treatments is the Bly Mountain interface fuels reduction project that resulted in over 4,000 acres of thinning, brush removal, slash piling and prescribed burning adjacent to BLM managed lands. This also employed 35 local people and two local subcontractors.

We have completed 86 projects covering nearly 71,000 acres of forest restoration and rehabilitation of burned areas in Oregon and awarded 30 Forest Service economic action program grants to rural communities and businesses including the Ashland watershed protection program. This cooperative venture includes the city of Ashland, the Forest Service, Oregon Department of Forestry and private landowners and has resulted in treatment to over 100 acres within the city limits of Ashland.

Regional Forester Goodman talked about the Biscuit Fire and the salvage actions they have there. BLM also had a fire started about the same time in southwest Oregon. The Timbered Rock Fire started from a lightning strike and burned 27,000 acres. About 12,000 acres of that was BLM managed land mostly in late successional reserve timber stands under the northwest forest plan. Restoration and rehabilitation efforts are currently being analyzed in a draft EIS down there.

In addition to supporting timber salvage opportunities, the EIS's proposed alternative analyzes actions designed to restore the area to the late successional forest conditions. It's expected we will start salvage operation and restoration activities in the spring of 2004. Another part of the proposal on the Timbered Rock was it would include a number of studies conducted by scientists from Oregon State University and USGS BRD program to answer some of the concerns associated with timber salvaging and fire restoration.

Mr. Chairman, these are just a few examples of the ongoing efforts in support of the President's Healthy Forest Initiative. We believe that these actions along with H.R. 1904 provide the much needed authorities so that the agency can move forward in a timely and effective way to restore the conditions of our forest and rangelands. Thank you for the opportunity to appear today and I'd be glad to answer any questions.

[The joint prepared statement of Mr. Bosworth, Ms. Goodman, and Mr. Shepard follows:]

Statement of Dale Bosworth, Chief, Forest Service, U.S. Department of Agriculture; Ed Shepard, Assistant Director, Renewable Resources and Planning, Bureau of Land Management, U.S. Department of the Interior; and Linda Goodman, Regional Forester, Pacific Northwest Region, Forest Service, U.S. Department of Agriculture

Mr. Chairman:

We appreciate your invitation to participate in today's field hearing to discuss the threat of catastrophic wildfires to central Oregon communities. Redmond, Oregon, is an appropriate setting to discuss efforts to improve the health of our Nation's forests and rangelands given its proximity to the Deschutes and Ochoco National Forests, the Crooked River National Grasslands, and to approximately 1.6 million acres of Bureau of Land Management (BLM) public lands. As we have testified in recent hearings on forest health before the House of Representatives and the Senate, the Departments of Agriculture and the Interior strongly support the President's Healthy Forests Initiative and H.R. 1904, the Healthy Forests Restoration Act of 2003.

Background

We are living in a time of great issues and great debate. Some people and organizations argue that timber harvest levels represent the greatest threat to public forests. However loudly voiced or strongly held these views may be, they do not portray the reality of the management needs of public forests now or over the next 100 years. Today, the removal of timber and other active vegetative management efforts on federal lands before wildfires occur, coupled with sensible suppression actions when wildfires do occur, can lead to improvements in wildlife habitat; enhance watershed and ecosystem conditions; and reduce hazardous fuels. These active efforts can also address key issues associated with America's forests, grasslands and rangelands—the protection of communities from catastrophic wildfire through the reduction of the harmful effects of destructive invasive species and pathogens.

The need for action to restore our Nation's public forests and rangelands to long-term health has never been greater. Catastrophic fires are just one consequence of the deteriorating state of forest and rangeland health that now affects approximately 190 million acres of public land, an area triple the size of Oregon. Last year, wildfires burned about seven million acres of public and private lands across the Nation. This resulted in the destruction of over 800 primary residences and the evacuation of tens of thousands of people from hundreds of communities. Oregon alone saw nearly 1 million acres burned, well above the ten-year annual average of 308,000 acres burned for the entire State. In addition, wildfires in Oregon destroyed 131 structures and 27 residences last year. Collectively, central Oregon (including the Deschutes and Ochoco National Forests and the BLM Prineville District) experienced 72,000 acres of forests and public lands burned, more than double the ten-year annual average. In addition to the direct costs of suppressing fire and the loss of property and infrastructure, the other economic impacts to small communities can be devastating.

Although wildland fire activity so far this year has been less than the average of the last ten years, we have seen some indications of the potential for destructive wildfires. As the fire season pushes north we are continuing to see large fires in Idaho and Montana. Currently there are 4 large fires totaling over 26,000 acres on Federal lands in Oregon. While this fire season has not yet produced the severe and enormous fires Oregon experienced in 2002, the on-going drought coupled with a recent series of wet and dry thunderstorms have significantly increased the potential for fire activity. All indications are that given the current conditions, the potential for large and severe fires in Oregon continues to exist.

An underlying issue is that many of our forests have become overgrown and unhealthy. We don't want to oversimplify—many forests are healthy, and some forest types were always dense. On the public forests, millions of acres adapted to frequent fires are at risk from wildland fires that could compromise human safety and ecosystem health.

Ponderosa pine is a prime example. Historically, most ponderosa pine forests were relatively open, with a few dozen trees per acre. Today, they might have hundreds or even thousands of trees per acre. In a drought, all those trees can fuel a catastrophic fire resulting in the potential loss of homes, communities, municipal water sources, and wildlife habitat. It will take decades of action to restore those forests, provided our society is willing to focus on this issue and commit the needed resources.

Federal forests and rangelands across the country are also facing unusually high threats from the spread of invasive species and insect attacks. Insects and

pathogens have historically existed in our forests and rangelands. However, the frequency, extent, and timing of recent outbreaks are out of the ordinary. Changes in tree stand density, as well as in species composition and structure, due to decades of excluding or immediately suppressing fire, the lack of active management, and extended drought, are factors that have significantly affected insect infestation outbreak patterns. The result is the death of millions of trees across California, Utah, Arkansas, Michigan, Minnesota, the Mid-Atlantic States and the South. Further, the checkerboard pattern of land ownership in Oregon presents more challenges for federal land managers. Fires and insect infestations that begin on private or public lands can spread to the other quickly causing significant property damage and posing threats to public health and safety.

Healthy Forests Initiative

Recognizing the existing crisis, President Bush proposed the Healthy Forests Initiative (HFI) in August 2002. This initiative is based upon a common-sense approach to reducing the threat of catastrophic wildfires by restoring forest and rangeland health. Our goal is to ensure the long-term safety and health of communities and natural resources in our care. Our responsibility is to ensure the long-term health of our forests and rangelands for the use, benefit and enjoyment of our citizens and for generations to come. The President directed Federal agencies to develop several administrative and legislative tools to restore deteriorating Federal lands to healthy conditions and assist in executing core components of the National Fire Plan, established in 2000. Since the President's announcement in August of 2002, the Secretaries have taken several administrative actions to implement components of HFI, which include the following:

- **Endangered Species Act Guidance**—On December 11, 2002, the Fish and Wildlife Service (FWS) and National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) issued joint guidance that allows multiple projects to be grouped into one consultation and provides direction on how to consider and balance potential short- and long-term beneficial and adverse impacts to endangered species when evaluating projects. The goal is to recognize that project-specific, short-term adverse impacts on species need to be weighed against the longer-term watershed level benefits to those and other species that such projects will achieve.
- **CEQ Memorandum & Model Environmental Assessment Projects**—CEQ Chairman Connaughton issued guidance addressing the preparation of model environmental assessments (Model EA) for fuels treatment projects that improve administrative processes. These guidelines are now being applied on both Forest Service (FS) and Department of the Interior (DOI) agency model fuels-treatment projects. Some of these Model EA's are now out for public comment, including the BLM Rogue River Hazardous Fuels Reduction Project, located within the Hellgate Recreation Section of the Rogue National Wild & Scenic River. The purpose of the Rogue River Model Project is to reduce the hazardous fuels load on approximately 8,000 acres of public and private land comprising the Hellgate Recreation Section. There are approximately 190 residences within this area. The proposal and analysis assume public participation, yet there is no obligation for a landowner to participate. Scoping responses have indicated a broad level of public support. On BLM-managed lands, contingent upon fire season work restrictions, project implementation is anticipated to start in the fall of 2003. The BLM Medford District Office anticipates completing this project within two years after beginning its work.
- **Appeals Process Reform**—Both the United States Department of Agriculture (USDA) and DOI made rule changes designed to encourage early and meaningful public participation in project planning, while continuing to provide the public an opportunity to seek review or to appeal project decisions. This enables issues to be resolved earlier in the project planning process, allowing for a more expedited application of hazardous fuels reduction projects.
- **Categorical Exclusions (CE)**—Both USDA and DOI have established new categorical exclusions, as provided under the National Environmental Policy Act, for certain hazardous fuels reduction projects and for post-fire rehabilitation projects. These new CEs shorten the time between identification of hazardous fuels treatment and restoration projects and their actual implementation on the ground.
- **Proposed Section 7 Counterpart Regulation**—FWS and NOAA Fisheries have proposed Section 7 joint counterpart regulations under the ESA to improve Section 7 consultation procedures for projects that support the National Fire Plan. The proposed regulations would provide, in some situations, an alternative to the existing Section 7 consultation process by authorizing the agencies to make

certain determinations without project-specific consultation and concurrence of the FWS and NOAA Fisheries.

The Consolidated Appropriations Resolution, 2003 (Public Law 108-7), signed into law on February 20, 2003, contains stewardship contracting authority, which allows the FS and the BLM to enter into long-term contracts with the private sector, non-profit organizations, local communities, and other entities to help achieve important land management objectives. In FY 2003, the BLM will implement stewardship contracting on a limited basis. Two planned projects are in Oregon, one is in Medford and the other is in Baker City. The focus of the projects is to reduce extremely high fuel loads in the wildland urban interface and in bug-killed stands while also improving fish and wildlife habitat. Environmental analyses for portions of both projects are complete and project work could be started this fall. These projects will generate significant economic support to local communities in Oregon.

Region 6 of the FS is moving forward to implement the expanded stewardship contracting authorities along with the 12 Pilot Stewardship projects in the Region. Nine of these are in Oregon. There are three projects on the Wallowa-Whitman National Forest and one project each on the Winema, Siuslaw, Rogue River, Deschutes, Willamette, and Siskiyou National Forests. Three projects are complete, four are under contract, and two will have contracts awarded this fall or winter. The completed projects and those under contract are estimated to have generated significant wages in the local communities while accomplishing forest health, fuels reduction, and watershed improvement treatments.

The public input period for the joint agency guidance for long-term implementation of stewardship contracting closed on July 28, 2003. The agencies are completing formal analysis of the input for consideration in the development of final agency guidance which should be available sometime this fall.

We believe these administrative actions will provide federal land managers with useful tools as they work to restore public forest and rangelands to a condition where they can resist disease, insects, and catastrophic fire.

BLM Eastside Oregon and Washington Forests

BLM public domain forests in Oregon and Washington are concentrated east of the crest of the Cascade Mountains and comprise 223,000 acres of public domain forests. Due to fire, insect infestation, and disease we estimate that nearly 87 percent of these forestlands have been altered from their historic conditions and are at moderate to high risk of losing key ecosystem components, such as old forest characteristics, soil productivity, and sensitive species habitat.

In December, 2002 BLM-Oregon issued an Eastside Forest and Woodland Management Action Plan for Oregon and Washington to address much needed forest health restoration needs. The Action Plan, developed as a supplement to the President's Healthy Forests Initiative, identifies a strategy for aggressively restoring these forestlands to a more stable ecological condition by reducing stand density through thinning, favoring species composition that more closely resembles historical conditions, reintroducing prescribed fire where practical, and making use of biomass energy opportunities where they exist. The Plan's goal is to create more stable forested ecosystems that are less vulnerable to fire, insects, and disease.

National Fire Plan

The National Fire Plan's 10-year Comprehensive Strategy and Implementation Plan, adopted in August, 2001, by federal agencies and western governors, calls for reducing hazardous fuels through more active forest and rangeland management. The Plan was prepared in collaboration with county commissioners, state foresters, and tribal officials. It establishes a framework for protecting communities and the environment through local collaboration on thinning, planned burns and forest restoration projects.

The FS and BLM completed the following actions associated with implementation of the National Fire Plan in 2002:

- Awarded 38 grants in Oregon totaling approximately \$5.5 million to state agencies and local communities to perform hazardous fuels reduction projects, provide education and prevention programs, and to find uses for the by-products of hazardous fuels reduction projects. For example, John Day, Oregon, was provided \$91,000 to complete an interface hazardous fuels inventory and a hazardous fuels public education program.
- Allocated \$1.9 million to 191 fire districts in Oregon. The funding was used for training, equipment purchase, and fire prevention activities on a cost-share basis. The town of Fossil, for example, was able to purchase a new pump, foam unit, and personal firefighting protective gear.

- Conducted hazardous fuels reduction treatments on 190,232 acres in Oregon. About 48 percent of the acres treated were within wildland urban interface areas. An example of these treatments is the Bly Mountain Interface Fuels Reduction Project which resulted in over 4,000 acres of thinning, brush removal, slash piling and prescribed burning adjacent to BLM managed public lands.
- Completed 86 projects covering nearly 71,000 acres of forest restoration and rehabilitation of burned areas in Oregon.
- Awarded 30 Forest Service Economic Action Program grants to rural communities and businesses including the Ashland Watershed Protection Project. This cooperative venture includes the City of Ashland, the Forest Service, Oregon Department of Forestry and private landowners and has resulted in treatment to over 100 acres within the city limits.

Timbered Rock Fire

The Timbered Rock Fire started on July 21, 2001, from a lightning strike and burned 27,000 acres in southwest Oregon, including 12,000 acres of BLM-managed public lands, mostly in late successional reserve timber stands. Restoration and rehabilitation efforts are currently being analyzed in a draft EIS. In addition to supporting timber salvage opportunities, the EIS's proposed alternative analyzes actions designed to restore the area to late-successional forest condition. This would be done by improving roads and reducing sedimentation, increasing hazardous fuels reduction projects, and improving anadromous fish habitat. The public comment period for this project closes on October 15, 2003. We hope to sign a Record of Decision in December 2003, which would allow for salvage operations and restoration activities to commence in the spring of 2004.

Biscuit Fire

The Biscuit Fire burned nearly 500,000 acres at a cost of over \$150,000,000 for suppression alone. Over 45 percent of the Siskiyou National Forest burned at varying levels of intensity and effect, including a complete re-burn of the 100,000 acre Silver Fire and all but a few hundred acres of the Kalmiopsis Wilderness. The Biscuit Fire left us with an important lesson, the need to treat hazardous fuels at the landscape scale.

We have completed planning and decisions on 8 projects. Specifically, we have completed documents for road maintenance, immediate reforestation needs, special forest products, and hazard tree felling and removal. Through extensive cooperation and outreach, seedlings were planted on nearly 1,000 acres this spring, including 10 acres with the local high school. Road crews are completing repairs on over 200 miles of road. Recreation trails are signed for hazards, and crews are working on 40 miles of trail. Hazard trees along roads are marked. Sales sold to date total 5.4 million board feet of timber.

We will release a Draft EIS for salvage logging, fuels treatments, reforestation and all connected actions which will address five primary issues: 1) recover merchantable dead timber before its economic value is lost; 2) restore habitat for species that rely on older forests; 3) restore, maintain, and/or enhance fish and wildlife habitat; 4) reduce risks of catastrophic wildfire to nearby communities and to adjacent private lands; 5) learn, and share our knowledge, about large fires and fire recovery. Several alternatives are being evaluated including one that directly reflects the work of Dr. John Sessions of Oregon State University.

Among our proposals is the construction and maintenance of an extensive network of Fuels Management Zones. These are linear features located along ridges and existing roads that are intended to provide safer, more defensible space for the use of prescribed fire and for fighting and containing wildfire. These fuel breaks will "compartmentalize" the landscape, and reduce the chances of fires getting as large as the Biscuit Fire.

We are also working with the research community to test how we can best re-establish and maintain late successional habitat, across the landscape, in dry forest types. We are testing three different approaches: 1) a low intensity approach; 2) a more intensive approach that includes our most aggressive economic recovery of dead timber; and 3) the use of prescribed fire and salvage.

Costs

There is no question that fighting these fires was expensive—the cost in FY 2002 for all wildfire suppression was almost \$1.6 billion. We are in the process of establishing new procedures that will focus on cost containment strategies in suppressing wildfire and eliminating unnecessary expenses; establishing clearer financial management accountability of incident commanders and line officers; and providing for improved controls and incentives for suppression costs.

H.R. 1904

As mentioned earlier in this statement, the Departments of Agriculture and of the Interior strongly support H.R. 1904. The bill sets out a flexible yet comprehensive approach to forest health and hazardous fuels reduction on our Nation's public rangelands and forested areas. H.R. 1904 provides more efficient procedures for USDA and DOI to plan and conduct hazardous fuels projects on up to 20 million acres of federal land that are most at-risk from wildfires while preserving public input in agency decision-making. Projects would be selected through a collaborative process involving local, tribal, state, Federal, and non-governmental entities as described in the 10-Year Comprehensive Strategy and Implementation Plan. H.R. 1904 will provide agencies with the latitude necessary to reduce the risk of damage to communities and municipal water supplies and at-risk federal lands from catastrophic wildfires.

Conclusion

Mr. Chairman, the Departments of Agriculture and of the Interior are committed to working with Congress, State, local and tribal officials, and the public to advance common-sense solutions to protect communities and people, and to restore forest and rangeland health. We believe that H.R. 1904 provides the much needed authorities for the agencies to move forward with the President's Healthy Forests Initiative. We were encouraged to see prompt action by the House on H.R. 1904. We hope the Senate takes up the measure soon after it returns from the August recess. Thank you again for the opportunity to appear here today to discuss healthy forests and issues specific to central Oregon. We will be glad to answer any question you may have.

The CHAIRMAN. Thank you. I thank the entire panel for their testimony. Chief Bosworth, in the last 3 weeks I have been in ten states in the west and have had the opportunity to visit a number of national parks and Forest Service lands, BLM lands, and it was somewhat surprising to me that one of the top two or three issues that was brought to my attention by the park superintendents, the forest managers and the mid-level managers throughout the west was the Healthy Forest Initiative. And every one of them took great pains to either point out areas that they had already had the opportunity to do work in or to point out areas where they desperately need to step in and do some work. And in the midst of being out in the middle in essence of what's fire season and seeing a number of fires that were burning throughout the west, I found it quite interesting that that is something that was on the minds of so many people that are on the ground, the guys that are doing the work on the ground. And I notice that when we had the presentation on what's happening with the local fire here, that she talked about areas that had been treated and areas that hadn't been and how that plays into their ability to actually fight these fires. What have you seen on a system-wide basis in terms of areas where you were actually able to do some work in the last year or two and what impact did that really have on fires?

Mr. BOSWORTH. Mr. Chairman, there's a number of examples around the country that I have seen personally and other examples that I have been told about where we have done some treatment either with thinning and then followed up with prescribed burning or in some cases just prescribed burning where when a wildfire gets started and got to those areas, the fire dropped down to the ground and burned on the ground and gave our folks an opportunity to get a handle on the fire.

The problem is that we haven't done enough of it and in many cases the areas treated just are simply too small yet. The way some of these fires burn if you have an area that you have treated that's

40 acres or 50 acres or 60 acres, that's a drop in the bucket. We have some that are five, six, seven, eight thousand acres that made a big difference.

When I talked to Forest Service people, the firefighters as well as the line officers and other folks that are out there on the ranger districts and forests and the researchers that are following up and saying these things, I don't think there's any doubt in the Forest Service people's mind that if we do the thinning and then we re-introduce fire in these dry pine types, that makes a big difference. And if we can be more strategic in the location of those and we get more of the dollars to ground to get those treatments, most all of us believe it will make a big difference in those certain types, in those dry pine types particularly.

The CHAIRMAN. I had an opportunity to see in the north rim of the Grand Canyon where they had several different—there's one forest but several different levels of protection that what been put in, and it was interesting to see what happened when they had a lightning strike and fire came in where they hadn't done anything—where the Forest Service which has a big part of the land on the north rim hadn't done anything, it just wiped it out and there was just bare ground left over. But in one area where it had been treated, there were still trees there. There were still green trees there. It was a very striking visual to actually see it and what had happened in that north rim.

Mr. BOSWORTH. There's a number of cases where you can see it from the air and it particularly gives you a very good perspective of where it just looks like an island of green in a sea of black. If you go find out what was in that island of green, that was an area that we treated, we had done some thinning, and we maybe had done some prescribed burning. The fire still burned through there, but it burned on the ground. It did the way that fires are supposed to burn in that kind of country and that particular timber type.

The CHAIRMAN. In that particular case at first I didn't even notice that the fire had gone through that one area. That as it was pointed out to me and I started to look, you could see that there was some black on the trees as it went through. But the trees were still alive versus the other areas where everything was just burned to the ground. There was nothing left.

Mr. Shepard, you talk about some of the things that BLM is doing now in trying to keep up with the President's initiative. What is the biggest holdup in actually carrying this out on a system-wide basis?

Mr. SHEPARD. There's a number of issues that we are trying to address. One of the problems we have had in BLM for a number of years our infrastructure has left us and we don't have the forest that we used to have. We don't have the current inventories. So we are trying to catch up in a lot of these ways to where our problems are. We are trying to address that, and we have in the President's budget. We have some additional money to put some more foresters on the ground. We found that when we have foresters in place, we have actually done a pretty good job of aggressively treating the problem.

The CHAIRMAN. I thank all of you for your testimony. Want to recognize Mr. Walden.

Mr. WALDEN. Thank you very much, Mr. Chairman. I too want to thank you for your comments today. I direct this question to both the Chief and Mr. Shepard. And that has to do with probably one of the principal issues that the opponents raise regarding H.R. 1904 and that is whether it will allow for basically clear-cutting old growth stands. And I guess the first question I ask is how many definitions are there of old growth for forest types? In all seriousness there are some who say it is a diameter limit that we are after and yet that may not apply depending on what forest you are in and to define old growth, east side, west side, Doug fir versus pine. Can you speak to that issue?

Mr. BOSWORTH. I can't answer the question about how many definitions there are because I know there's a lot. The point is my view is that the definition of old growth in the Pacific Northwest on the west side would probably be different than on the east which would be different than it would be in western Montana which would be different than it would be in Louisiana which would be different than what it would be in some parts of the northeast. To come up with a definition that we are going to apply across the United States is very, very difficult.

I hear people referring to mature old growth. That they say anything over 80 years old is mature old growth and should stay out of that. Other people talk about three-, four-hundred-year-old trees that have stands, timber stands, that have certain stand structure. For instance, some decayed trees that provide for certain characteristics. And so it really depends upon where you are at and what it is you are trying to achieve.

Mr. WALDEN. So is it possible to come up with one definition that would apply nationwide to every forest?

Mr. BOSWORTH. I can't see how that would make sense.

Mr. WALDEN. Mr. Shepard?

Mr. SHEPARD. I would agree. I don't see any one definition that would fit nationwide or even from forest to forest.

Mr. WALDEN. Let me ask you this question too. Because as you go out in the forest, sometimes you will see one big healthy tree right next to one big diseased tree. If you had a diameter requirement that precluded you from cutting certain trees, certain diameter, wouldn't that therefore require you to leave the diseased tree standing next to the healthy tree?

Mr. BOSWORTH. Well, that could be the case. Obviously that may be the case. On the other hand it may be you want to leave the diseased tree for some purpose as well. To me a diameter doesn't make sense because I don't believe there is any kind of science basis specifically for diameter limits. On the other hand a silviculturist or a fuel specialist or someone else looking at a specific area and having done some surveys and looking at that area, they may say a certain diameter limit would make sense for that one area that we carefully examine. But to try to say across a large area with some diameter limit is what you ought to use for fuels treatment, for example, to me it doesn't make sense.

Mr. WALDEN. Now, in H.R. 1904 we say these hazardous fuels reduction programs need to be done in accordance with relevant forest plans. Wouldn't that take into account the local decision-

making as far as managing each forest for its best use or its best ecology?

Mr. BOSWORTH. Yes. The forest plans have been developed with a lot of public involvement. They are plans that define the direction that the forests are going both in terms of what kind of planned use we are going to make of it and what kind of standards and guidelines would apply. And they should be what guides us. They should be what guides us in our fuels treatments as well as other activities. I think it's appropriate to have this legislation point out that we still need to use the forest plans as a guide.

Mr. WALDEN. Don't those relevant forest plans also already include old growth management standards and guidelines?

Mr. BOSWORTH. They do.

Mr. WALDEN. So those guidelines would stay in effect under this act?

Mr. BOSWORTH. Those guidelines would stay in effect under this act. That's correct. That's nothing in there that changes under laws or the forest plans that I can see.

Mr. WALDEN. Then let me ask you directly is it your intent as head of the Forest Service and yours with BLM, to the extent you have a direct supervision, is it your intent go out and cut old growth to pay for the hazardous fuels reduction treatment?

Mr. BOSWORTH. No. That's not the point at all. I think where people get confused is I think there's some value in doing thinning and utilizing mainly small diameter material that you would remove in a thinning fuels treatment project. It may be trees that are six inches in diameter, eight, ten inches in diameter, and there may be something on occasion that may be larger than that because that's what needs to be removed in order to leave the right number of trees on the land.

But it makes sense to utilize that material if you can, and that utilization would help pay for some of the treatment. It may not pay for all of it, but it may help. It may defer the cost to some degree. In a lot of cases we don't have the necessary infrastructure in terms of sawmills or other ways of utilizing materials in parts of the country. It's disappeared and you can't even get any value out of it because there's no one to purchase it. It would be good to be able to utilize that material rather than paying somebody to haul it out to a landfill or burn it onsite.

Mr. WALDEN. Mr. Shepard?

Mr. SHEPARD. The material that would be left, the material that we remove would be prescribed by our silviculturist, biologist and fuels managers to meet the objectives for that land, and that may include taking some big trees where that would be necessary to meet those efforts.

Mr. WALDEN. Let me ask you another question and that is the debate over where this hazardous fuels work should be concentrated. As you know, this legislation calls for it to be done in wildland urban interface, in our watersheds, in areas of threatened and endangered habitat where the species recovery plan calls for this kind of hazardous fuels reduction to take place and then elsewhere. But those are the top priorities. There are others who argue that 70 to 80 percent of the work should be done within a half a mile of the communities. Is there a scientific basis for doing it only

a half mile out? How does fire behave if that is as far as you go? Should we be out in the watersheds?

Mr. BOSWORTH. There is some research that would show that a very short distance from a structure is what actually causes the structure to ignite. Maybe it's 40 feet or a hundred feet or something like that. People would argue you really don't need to do anything except for that close to a structure. And I would argue that what you have done is you have saved a house, but you have lost a home because a home is a whole lot more than just a structure. A home is your community. It's your watershed. It's your surrounding. It's your neighbors.

And so I think what we need to be doing is we need to be focusing first on the areas close to the community so that we can do the kind of treatments and help protect the communities. But we also need to be working out of the communities over time into the municipal watersheds. There's other values that are natural resource values that are extremely important.

I give you as an example in California last year we had a fire called the McNally Fire which threatened some of the giant sequoias. Those are natural treasures. And there are enough trees that grow up under those giant sequoias that if you got a fire into those trees, they would be like a ladder and go up and get into the crowns of the sequoias and could kill some of those huge trees. Is that what we want? I don't think so. I think what we need to be doing is thinning from below and thinning some of those smaller diameter trees out of there. And there may not be a home anywhere near there, but those giant sequoias are still worth trying to save.

Mr. WALDEN. Mr. Shepard?

Mr. SHEPARD. I think you have to look at the Hayman Fire, and I understand a witness is going to talk about that a little bit later. But you see the damage that was done—

Mr. WALDEN. That's in Colorado?

Mr. SHEPARD. Yes, in Colorado. The damage that was done to the Denver watershed by that fire was pretty incredible. So I think we have to look at our priorities, and the priorities that the Administration have placed are pretty similar to what's in H.R. 1904. And we need to concentrate on those areas, but we need to treat our important areas of the forests on a broader scale than just around the residents.

Mr. WALDEN. Chief, the legislation requires that your agency only do one alternative under NEPA and one no action alternative, but it does not preclude you from doing additional alternatives if you thought that was necessary. Correct?

Mr. BOSWORTH. That's correct. It allows us to limit it to one alternative if that's what we would like to do. I'd like to explain that a little bit. The way that we do these projects and the way we are moving to the future is an up-front collaborative way with the community. You sort of start off with a broad perspective looking at all sorts of options and choices, and when I am working with people you continue to narrow that down until you come up with a proposed action. And normally then we end up developing a whole bunch of alternatives to that proposed action which takes lot of time, it takes a lot of analysis, and often doesn't—may or may not

add any value to the decisionmaking or to the disclosure to the public. The opportunity here would be that we have narrowed it down to a proposed action by working with the public, and we would be able to move forward if we chose with just the one alternative. If we believe there's good reason to have additional alternatives, nothing precludes that.

Mr. WALDEN. Thank you. I have been asked by members of the media over the last few months if this bill were to become law, when could you take advantage of it? Would it apply to the next season? What kind of a timeframe do you think we are on?

Mr. BOSWORTH. If legislation was passed and signed by the President, we would be able to move very quickly. My concern is that people might expect that because we have got that legislation out, we are not going to have any more fires next year. That's not going to be the case. It's going to take us a number of years of hard work with some help and tools like this in order to be able to achieve the kind of treatments that we need to achieve to make a big difference.

It may take 15 years before we really start seeing significant differences, but the longer we wait, the worse it gets. We're working hard now, but I believe that we are losing ground. I believe that right now we probably have more acres each year going into conditions that are moderate and high risk than we are removing just because of how fast this is going.

Mr. WALDEN. Can you describe for us too what it costs to fight a given fire versus what it might cost to go in and treat?

Mr. BOSWORTH. It varies quite a bit, but I'm going to have Linda Goodman give you some specifics for some fires here and situations here in Oregon that I think are pretty good examples of what it cost.

Ms. GOODMAN. Thanks, Dave. For the Link Fire that was here in Central Oregon and for the Clark Fire, the average cost per acre was \$1,700 per acre and \$2,500 per acre. To do a prescribed burn we have an average of around somewhere depending on whether it's close to urban interface \$200 up to less than \$1,000. So \$200 an acre up to around \$1,000 depending on again what kind of treatment we are doing. So those are rough estimates of our costs. You can see that it's much better for us to do prescribed burn or thinning than it is to fight the fire. Much cheaper.

Mr. WALDEN. So \$1,700 and \$2,500 to fight the fires and \$200 to \$1,000 to do thinning or prescribed burn depending upon the type of treatment?

Ms. GOODMAN. Right.

Mr. WALDEN. Thank you very much. Mr. Chairman, that's all the questions I have at this time for our witnesses. Thanks again for your testimony.

The CHAIRMAN. Thank you. Chief Bosworth, just before I excuse this panel, you mentioned in your opening statement that it's been the better part of a month and a half since we had a hearing in Seeley Lake, and as I am sure you are aware, shortly after we held that hearing that forest that surrounded where we had the hearing burned. And it was, I think, a real wake-up call to a number of members of the Committee who had been there and had the opportunity to see that beautiful area and to realize now that a

good portion of it has now burned as a direct result of us not having the ability to get in there.

Mr. BOSWORTH. I do realize that and I hope a lot of others realize that. It's a whole more reason why we need to move forward as quickly as we can. It's extremely frustrating for our folks in the field trying to do the kinds of treatments that need to be done so we can avoid some of those kinds of catastrophic wildfires and still not have the tools at hand to really do the job that needs to be done.

The CHAIRMAN. Thank you. And I appreciate you and Ms. Goodman and Mr. Shepard making the effort to be here and participate in this hearing today. Thank you very much for your testimony. I'd like to call up our second panel of witnesses. On panel two we have Dr. Thomas Bonnicksen, Professor, Department of Forest Science, Texas A&M University; Dr. John Sessions, University Distinguished Professor of Forestry, Oregon State University; Mr. Daniel Dessecker, Senior Wildlife Biologist, Ruffed Grouse Society; Mr. Andy Stahl, Executive Director, Forest Service Employees for Environmental Ethics; and Mr. John Marshall, Assistant Director for External and Intergovernmental Affairs, Colorado Department of Natural Resources.

Thank you. I welcome our second panel to testify today. I would like to remind our panel that your entire written testimony will be included in the record. If you can try to summarize your oral statement and hold it within 5 minutes. We do have the lights up here. The green light will stay on for 4 minutes, the yellow light will come on when you have a minute to sum up, and then the red light will come on. When the red light comes on, I would appreciate it if you try to wrap it up. I would like to start with Dr. Thomas Bonnicksen.

**STATEMENT OF THOMAS BONNICKSEN, PROFESSOR,
DEPARTMENT OF FOREST SCIENCE**

Dr. BONNICKSEN. Thank you, Mr. Chairman. I will talk slow and say less so we can still be within 5 minutes. I am Professor of the Department of Forest Science at Texas A&M University. I am also affiliated with the forest foundation in California. I have been working on the restoration of America's forests and understanding and studying the history for about 35 years now, and it's something that is near and dear to me is taking care of our forest heritage.

I came up from San Bernardino a week ago where I am working on the beetle infestation problem where mortality now is approaching 90 percent overall and 100 percent on some ridges. It's a terrible tragedy that we have lost that forest. I fly here from Portland and I see a 10-mile long front of flame to a forest that never historically burned like the one I just saw. I know that our forests aren't healthy. We have had 50 million acres burned since 1990. We have lost 4,800 homes. And then, of course, the question is why?

Well, we know all the basic answers. Fire suppression, removal of native Americans, logging, grazing, all the usual culprits. Let me tell you in my experience it now has gone beyond that. I studied forest restoration under Aldo Leopold's son, Starker Leopold. Restoration started with Aldo in 1934. So it's not a new idea. Also Har-

old Biswell and Ted Stone. In the '60s restoration was ahead of its time, but by the '80s it became a lot more accepted and two things happened. One, I co-founded the society of Ecological Restoration in 1985, and that was about the same time that environmental activists stopped us from managing our forests. So we can say the usual culprits, but I think now since the mid '80s the real culprits are those who will not let us do what we have known for decades how to do which is restore health and diversity to our forests.

So let me proceed with what I think are some of the myths driving this desire not to see us do the right thing and manage our forests. I will deal with old growth as a beginning. You asked how many definitions of old growth there are. I have found 75 in the scientific literature and the Forest Service manual has another 124. And I know there's more out there. I just don't want to look anymore.

And the next question is how much old growth was there historically? One of the things that people think is that it covered the landscape. Well, I don't want to plug my book but I will. If you go on Amazon.com you will find America's Ancient Forests where I documented the 18,000 year history of North America's forests including Canada, and let me just give you some numbers, real numbers, scientific numbers. Mix conifer forest, 18 to 21 percent. Ponderosa pine forest along with forest in the south, 17 to 40 percent. Lodgepole pine in the Rocky Mountains, 30 percent. I could go on if you like, but some forests are more. Some forests are less. The point is it was not a sea of old growth.

But yet what we have are groups that now want to stop us from managing and restoring our forests so that they can create a sea of old growth that never existed and which is leading us to the horrible devastation by insects in the south and by fire up here. Then they say these fires and infestations are natural. Well, if we were responsible for creating forests in which insects breed and fires rage, then it's not natural. We caused it. And what we are not doing is accepting our responsibility to correct our mistake.

Let me give you another myth. Well, OK. Let's use prescribed fire. Nature used fire in the past. Let's use it in the future. It's impossible to use prescribed fire to correct this problem anymore. I can give you a litany of reasons from air pollution to the fact that fires escape on the average once every 20,000 acres burned. It is impractical, virtually impossible to use fire as a tool that we can manage our forest with.

What about another myth. Thinning beyond 200 feet of a home adds no protection. Well, I don't know how many homes you have seen in the forest, but they are embedded in the forest. So if you thin 200 feet from a forest, there is no forest left basically. That's one thing. Unless you live in a concrete block house, no house embedded in a forest is safe. Period. I don't care what you do to it. You will make it safer, but you cannot make it safe.

Think of it. If a hundred foot wall of flame approaches within 200 feet of a house, you can actually melt the windows, and firefighters know it can melt the headlights on their truck. It's just not going to work.

How about the myth that fuel breaks—OK. We will concede a little bit. Maybe that will be good enough. We will have fuel breaks

600 feet maybe surrounding communities. The people who advocate this have never seen communities in forest. It would be like building a medieval castle wall around miles and miles and miles of houses. It wouldn't happen. We can't do that. It's too big and people are interspersed in the forest. Not only that, fuel breaks don't work.

Now that's a pretty bold statement to make. But if you think about it, what's a fuel break? 40 to 60 percent can be covered. Almost everything underneath is removed so what you end up with are light flashy fuels that burn fast and you end up with more sunlight hitting the ground and you end up with higher densities in the understory. What does that mean? That means when the fire drops to the ground which it will in that fuel break, it will rush through it to the other side.

So how do you keep that from happening? Well, you get a firefighter or a lot of firefighters in precisely the right part of that fuel break at precisely the right time. That's pretty tough to do when they are stretched thin on a big fire in the first place. Then you give them a little hose and you tell them when that one hundred foot wall of flame comes at you, I want you to squirt the hose on it. Well, first of all the first thing you do is say whoever told you to do that is crazy. Second of all you already know if you tried it once before that the water evaporates before it gets to the flames.

So what good is the fuel break? If you can get there on time, its real value is that you can set a backfire relatively safely. So what does a backfire do? It burns the area the fire would have burned in the first place, and it says that what you are doing is sacrificing whole watersheds to protect the community. Now, that may be a worthy tradeoff, and that's what happened in (inaudible) when the fire was stopped and the community was protected by a back fire. But to me sacrificing the forest is a bad choice.

So where does this lead us? We can't just let our forest grow thick, we can't use prescribed fire, we can't rely on 200 feet of clearing, and we can't rely on fuel breaks. We have to deal with the real problem which is the forest itself. That has to be managed. And until that is managed, no community is safe and our forest will continue to be sacrificed to beetles and fire. I see I have a red light and I would like very much to answer any questions you have.

The CHAIRMAN. Thank you. Before the gentleman begins I would just like to ask that our audience not respond positively or negatively to anything that is said. This is an official congressional hearing. The rules of the House require that we maintain decorum in the audience.

[The prepared statement of Dr. Bonnicksen follows:]

Statement of Dr. Thomas M. Bonnicksen, Professor, Department of Forest Science, Texas A&M University, Visiting Scholar and Board Member, The Forest Foundation, Auburn, California

INTRODUCTION

My name is Dr. Thomas M. Bonnicksen. I am a forest ecologist and Professor in the Department of Forest Science at Texas A&M University. I am also a Visiting Scholar and Board Member of The Forest Foundation in Auburn, California. I have conducted research on the history and restoration of America's native forests for more than thirty years. I have written over 100 scientific and technical papers and I recently published a book titled America's Ancient Forests: from the Ice Age to

the Age of Discovery (Copyright January 2000, John Wiley & Sons, Inc., 594 pages). The book documents the 18,000-year history of North America's native forests.

UNHEALTHY AND DANGEROUS FORESTS

Our national forests are growing older and thicker, some reaching astronomical densities of 2,000 trees per acre where 40-50 trees per acre would be natural. A forest can stagnate for many decades or even centuries under such crowded conditions. Consequently, plant and animal species that require open conditions are disappearing, streams are drying as thickets of trees use up water, insects and disease are reaching epidemic proportions, and unnaturally hot wildfires have destroyed vast areas of forest.

Since 1990, we have lost 50 million acres of forest to wildfire and suffered the destruction of over 4,800 homes. The fires of 2000 burned 8.4 million acres and destroyed 861 structures. The 2002 fire season resulted in a loss of 6.9 million acres and 2,381 structures destroyed, including 835 homes. These staggering losses from wildfire also resulted in taxpayers paying \$2.9 billion in firefighting costs. This does not include vast sums spent to rehabilitate damaged forests and replace homes.

The 2003 fire season is shaping up to be potentially as bad. Fire danger is very high to extreme in much of the Interior West, Northwest, and portions of California and the Northern Rockies due to overgrown forests, an extended drought, and insect damaged trees.

Not only are fires destroying America's forests, bark beetles and other insects are killing trees on a scale never before seen. Forests in Arizona, the Northern Rockies, and California have been especially hard hit by beetles.

I have been working in California's forests since the late 1960s. Never have I seen anything more dangerous than the overgrown, beetle-ravaged forests of the San Bernardino and San Jacinto Mountains. I am concerned for the safety of people living in communities surrounded by these forests.

About 90 percent of the pines will be dead when the beetles end their rampage. Then, forest communities like Lake Arrowhead and Idyllwild will look like any treeless suburb of Los Angeles. Whole neighborhoods are already barren of trees where houses once hid in a thick forest.

This disaster affects everyone who cares about America's forests, but it is especially serious for the people who live and recreate in these mountains. Dead trees are falling on houses, cars, and power lines, and they could easily fuel a catastrophic wildfire. That's why arborists are cutting trees at a frantic pace, but they cannot keep up with the insects.

Unfortunately, it is too late for the San Bernardino and San Jacinto Mountains. The original pine forest will be gone soon. We must start over, and we must do it fast before a wildfire turns what's left of the forest into brush and communities into rubble.

WHY FORESTS ARE UNHEALTHY AND DANGEROUS

If we looked back two hundred years, 91 percent of our forests were more open because Indian and lightning fires burned regularly. These were mostly gentle fires that stayed on the ground as they wandered around under the trees. You could walk over the flames without burning your legs even though they occasionally flared up and killed small groups of trees. Such hot spots kept forests diverse by creating openings where young trees and shrubs could grow.

Fires burned often enough in historic forests to clear dead wood and small trees from under the big trees, and they thinned some of the weak and diseased big trees as well. These were sunny forests that explorers described as open enough to gallop a horse through without hitting a tree. Open and patchy forests like this also were immune from monster fires like those that recently scorched Oregon, Arizona, Colorado, and California.

Our forests look different today. They are crowded with trees of all sizes and filled with logs and dead trees. You can barely walk through them, let alone ride a horse.

Now monster fires and hordes of insects are devouring trees with unprecedented ferocity because our forests are so dense. The role of drought in causing the problem is overstated. Drought contributes to the crisis, but it is not the underlying cause. There are simply too many trees.

In the case of Southern California, the drought added more stress to an already unhealthy and dangerous forest, so bark beetles took control. They made the wildfire danger even more critical by killing trees, turning them into instant fuel. The smallest spark could cause a human catastrophe.

Trees are so crowded they have to divide what little moisture is available in the soil. During normal rainfall years, the trees have barely enough moisture to produce the sap needed to keep out the beetles. They cannot resist attack during dry years.

A healthy forest can survive a beetle attack during a drought with only moderate mortality. A thick and stressed forest cannot. Therefore, the drought triggered the insect epidemic, but it didn't cause it.

We know how we got into this fix: forest management stalled because environmental activists, government officials, and politicians engaged in endless debates on how to look after our forests. Central to the debate is that environmentalists want thick forests. They lobbied for years to convert forests to old growth, which they define as dense, multi-layered, and filled with dead trees and logs. Meanwhile, trees grew and forests became thicker because they care nothing about politics. Now insects riddle our trees with holes and wildfires turn them into charcoal.

The debates continue, and bark beetles have taken control of the San Bernardino and San Jacinto Mountains, as well as other western forests. It is time for people to shape the destiny of their forests instead of leaving the decision to mindless insects and the harsh indifference of wildfires.

MYTHS AND REALITIES ABOUT RESTORING HEALTHY FORESTS

Some groups perpetuate myths about managing our national forests that they think help their cause. This does not serve the public interest. Our national forests are the people's forests. They belong to all of us and they should serve all of our needs. All of us also deserve to participate in making informed decisions about our forest heritage.

Myth 1: Some groups argue that removing standing and fallen dead trees killed by wind, insects, or fire will not reduce the fire hazard.

Experience and logic say that is false. Ask anyone with a fireplace if logs burn. If the dead trees are not removed, they will fall into jackstraw piles intermingled with heavy brush and small trees. These fuels become even more critical when they are dispersed among large live trees that escaped destruction. The logs will become bone dry by late summer, even earlier during a drought. Any fire that reaches these mammoth piles of dry fuel could unleash the full fury of nature's violence. This has happened before.

The first Tillamook Burn in 1933 in Western Oregon blackened 240,000 acres and dropped ash on ships 400 miles at sea. The second burn in 1939 brought the total to nearly half a million acres. However, the third fire in 1945 rushed through 173,000 acres, much of it in the earlier burns that were now filled with down timber and young trees.

This time the fire destroyed everything, including nearly all the young trees and even seed stored in the soil. It took a massive effort in the 1950s and 1960s to restore the forest by planting 72 million seedlings, many of which were hand planted by school children and volunteers.

We should not let this happen again. Acting quickly to rehabilitate a wind or insect ravaged forest, or a burned forest, creates long-term benefits that far outweigh any short-term changes that may be produced.

For example, during the winter of 1995-1996, a windstorm caused an extensive blowdown of timber over about 30,000 acres in the area burned by the 1999 Megram Fire in northern California. This increased fuel loadings from 5-50 tons per acre to 100-300 tons per acre. The Forest Service accurately predicted that a wildfire of the size and type of the Megram Fire would occur after the blowdown.

The Megram Fire burned 125,000 acres before it was controlled. Treated portions of the blowdown were less severely affected by the fire than untreated areas. The most effective treatment involved removing the majority of the logs. In addition, most damaged trees with less than 20 percent live crown were cut and removed. Then the slash was piled and burned, followed by understory burning. The remaining forest had 60 percent canopy closure, and numerous standing dead trees and logs were left for wildlife. This treatment reduced high severity mortality from the Megram Fire to 3 percent of the acres treated. In contrast, treatment without piling and burning increased the incidence of high severity mortality, while treatment with just piling and no burning cut mortality by nearly half.

Myth 2: Some groups argue that massive beetle infestations and wildfires are a natural way for forests to thin and rejuvenate themselves.

On the contrary, when human interference creates the conditions that allow beetles to thrive and fires to spread over vast areas that never burned that way in their known history, the resulting devastation cannot be natural. It is human-caused. Rather than deny our role we must accept responsibility for the crisis we created and correct the problem.

Myth 3: Some groups argue that logging contributes to fire.

This may have been true a century ago when branches and twigs often were left on the ground after harvesting. Current regulations and science-based forest management require removing such material. The result is a forest that is healthy and

fire resistant rather than a fire hazard. Modern forestry has made huge strides in the last 50 years, yet some groups continue to play on our emotions to advance their agendas—frequently advocating extreme positions like “no-cut” policies that have devastating effects on our forests.

Myth 4: Some groups argue that thinning beyond 200 feet of a home adds no additional protection.

First, many houses are located among the trees, so clearing around the house means removing the forest in which they live. After all, big trees do burn and they drop flammable needles on roofs and decks. Even then, I would not live in such a house if thick forests filled with dead trees and piles of logs surround it. It matters little how clear the area around a house is if a 10-story wall of flame burning at 2,000 degrees gets close to it. Certainly, people should reduce fuels around their homes because it does help a little. I just could not recommend it as the only defense against wildfire.

Myth 5: Some groups argue that thinning narrow strips of forest around communities, or fuelbreaks, is more than adequate as a defense against wildfire.

They think swarms of chewing insects and roaring wildfires coming in from surrounding public lands cannot penetrate these flimsy barriers. They could not be more mistaken.

One obvious problem with fuelbreaks is that forest communities are spread out, with homes and businesses scattered over huge areas. It would be impractical, if not impossible, to create an effective thinned “zone” to encompass an area so large.

In addition, fuelbreaks are only valuable if firefighters are deployed who can attack the fire when it enters the area, drops to the ground, and moves along the forest floor. If no one is present to fight the fire in the fuelbreak, fire behavior studies show that the fire will accelerate through the cleared space—at ground level rather than through tree crowns, as in thick and overgrown forests—and erupt out the other side.

Fuelbreaks won’t protect anything unless they are fully staffed by firefighters at precisely the right time. That is highly unlikely in a big fire because there are just too few people available to fight the fire. Furthermore, there is always the danger of firefighters being trapped, which is another reason to avoid being in a fuelbreak during a monster fire.

Even then, a catastrophic fire, roaring through hundreds of square miles of unthinned, overgrown forest is no respecter of narrow fuelbreaks. Fires often jump over railroad tracks and even divided highways. Furthermore, firebrands—burning debris—launched up to a mile in advance of the edge of a wildfire, will destroy homes and communities no matter how much cleared space surrounds them. In fact, the Los Alamos Fire of 2000—a prescribed fire that got out of hand—burned many homes while sparing the surrounding thinned trees and other vegetation. The reason: Catapulted embers landed on roofs.

Ironically, groups that want fuelbreaks instead of well-managed forests fail to realize that they are unnatural, sterile, and unsustainable. Removing all the little trees, and standing dead trees and logs, on a fuelbreak drastically reduces wildlife habitat. It also means there is no reproduction to replace big trees that die. Likewise, thinning the big trees on a fuelbreak to reduce the density of the canopy to improve fire resistance makes the forest even more unnatural. When done, a fuelbreak may resist crown fires, but it looks like a sea of telephone poles with nothing growing underneath.

Like providing clearings around homes, fuelbreaks are a necessary part of a comprehensive community protection program. I just could not recommend them as the primary defense against wildfire.

Myth 6: Some groups argue that there is no need to manage large areas of forest between communities.

We must face the truth. Preservation does not work to solve the fire crisis because trees and shrubs keep growing and producing more fuel. Prescribed fire does not work because it is ineffective and unsafe in thick forests. Likewise, surrounding communities with fuelbreaks, and ignoring the area in between them, won’t stop monster fires by themselves. Ultimately, a fuelbreak is most often used as a relatively safe place to set fires that deprive the wildfire of fuel. This means that we are sacrificing whole watersheds to fire and adding to the area burned.

The reality is that there isn’t any substitute for fixing the real problem. “No-cut” policies and total fire suppression have created forests that are dense, overgrown, tinderboxes where unnatural monster fires are inevitable. That means managing the forest to prevent fires in the first place. We have to restore our forests to their natural, historical fire resistance. Thinning and restoring the whole forest is the

only way to safeguard our forest heritage, make our communities safe, and protect our critical water sources.

Myth 7: Some groups argue that all fires are good and forest management is bad.

They use this argument intentionally to divert public attention away from forests and focus it instead on communities. The truth is that today's monster fires are bad for forests and management is the only way to stop them.

When a monster fire finally stops, it leaves a desolate landscape scarred by erosion and pitted with craters that formed where tree roots burned. The habitat for forest dwelling wildlife is destroyed, small streams are boiled dry, fish die and their habitat is smothered by silt and debris. The fire also bakes the soil so hard water cannot get through, so it washes away by the ton. All that is left are the blackened corpses of animals and fallen and standing dead trees. Often there are too few live trees left to even reseed the burn and the area soon becomes covered with a thick layer of brush that prevents a new forest from becoming established for many years.

Historically, fire was part of America's forests. However, the monster fires we see burning nearly all of our forests today are unnatural. In the past, such fires burned only a few types of forest, and then only infrequently. Most forests burned often and gently, which kept them open and resistant to large fires.

Furthermore, a historic forest was a mosaic of patches. Each patch consisted of a group of trees of about the same age, some young patches, some old patches, intermingled with bare spots and open meadows.

It was a mosaic of patches. Patches of younger trees, bare spots, and open meadows served as natural firebreaks, while the weak and diseased trees under larger trees burned off frequently without turning into infernos.

The variety of patches in historic forests helped to contain hot fires. Most patches of young trees, and old trees with little underneath did not burn well and served as firebreaks. Still, chance led to fires skipping some patches. Therefore, fuel built up and the next fire burned a few of them while doing little harm to the rest of the forest. Thus, most historic forests developed an ingenious pattern of little firebreaks that kept them immune from monster fires.

Today, the patchiness of our forests is gone, so they have lost their immunity to monster fires. Fires now spread across vast areas because we let all patches grow thick, and there are few younger and open patches left to slow the flames. That is what is happening throughout the West.

This is even more serious because monster fires create even bigger monsters. Huge blocks of seedlings that grow on burned areas become older and thicker at the same time. When it burns again, fire spreads farther and creates an even bigger block of fuel for the next fire. This cycle of monster fires has begun. Today, the average fire is nearly double the size it was in the last two decades and it may double again. Worst of all, these monster fires are converting natural fire-resistant forests into unnatural and dangerous forests.

Myth 8: Some groups argue that, if management is unavoidable, then deliberately set fires, or prescribed fires, are the best way to solve today's wildfire crisis.

It is naive to believe we can have gentle fires in today's thick forests. Prescribed fire is ineffective and unsafe in such forests. It is ineffective because any fire that is hot enough to kill trees over three inches in diameter, which is too small to eliminate most fire hazards, has a high probability of becoming uncontrollable.

Even carefully planned fires are unsafe. Each 20,000 acres burned in a fire is likely to produce one escaped fire. That means there could be as many as 243 escaped fires a year just from prescribed burning. That is unacceptable.

Not only that, there are very limited opportunities to burn. All the factors, such as fuel moisture, temperature, wind, existence of defensible perimeters, and available personnel, must be at levels that make it relatively safe to conduct a prescribed burn. This happens so rarely that it would be impossible to burn large enough acreage each year to significantly reduce the fire hazard.

Some groups also overlook what it was like when fires burned freely. Explorers often complained in their journals about the pall of smoke hanging over mountains and valleys. Today, health hazards and air pollution restrictions make extensive burning difficult and unpalatable. The public won't stand for smoky skies from prescribed fires and burned homes from inevitable escapes.

Myth 9: Some groups argue that we should use taxpayer money to solve the wildfire crisis rather than involve private enterprise.

A minimum of 73 million acres of forest needs immediate thinning and restoration to begin solving the fire crisis. Another 120 million also need treatment. Assuming that in most of these forests the same area burned once each 15 years on average historically, that means that each year about 4.9 million acres of seriously

overstocked forest will have to receive an initial treatment. Subsequent maintenance treatments also must be done on a 15-year cycle since fuels will continue to accumulate. In short, the fuel reduction process will last forever.

So, what would it cost to do the job right? Using average costs, and assuming that most if not all forests will require mechanical or hand treatment before prescribed burning, and assuming that prescribed burning will be feasible on all acreage, the total cost for the initial treatment would be \$60 billion, or about \$4 billion per year for 15 years. Then it would cost about \$31 billion for each of the following 15-year maintenance cycles.

In other words, an unending stream of tax money would be required to restore and sustain a healthy fire resistant forest. No one will pay this enormous cost.

We cannot succeed without a partnership with the private sector because there is too little public money to do the job. That means private companies harvest and thin only the trees required to restore and sustain a healthy fire resistant forest. In exchange, they get to sell the wood and public expenditures are minimized. This is just common sense—why allow our forests to burn if we can use them in a way that also restores them?

RESTORING HEALTHY FORESTS IS ESSENTIAL

Restoring healthy forests is the only effective way to address the fire crisis. However, fire is not the sole reason to restore our forests. Healthy, diverse, and ecologically sustainable forests of native species also support a wide range of wildlife and fish, protect water supplies, enhance local economies, and provide the public with scenic and recreational opportunities.

Even so, the fire crisis must be resolved quickly and decisively. That means providing relief from excessive environmental and other regulations that impede the process of restoring healthy forests. We should not doom later generations to the unending cycle of destruction from fire and insects that we see today. Let's stop the debates, take action now, and do what is necessary to protect and restore our forest heritage.

The CHAIRMAN. Thank you. Dr. Sessions.

STATEMENT OF JOHN SESSIONS, UNIVERSITY DISTINGUISHED PROFESSOR OF FORESTRY, OREGON STATE UNIVERSITY

Mr. SESSIONS. Thank you, Mr. Chairman. I am John Sessions, Professor of Forestry at Oregon State University. My testimony today concerns the Biscuit Fire and the opportunities to hasten forest regrowth and the costs of management delay. Protection of forested ecosystems and communities from effects of uncharacteristic wildfire involve three elements: One, creating forest conditions that reduce the risk of intense fires; two, aggressive control if wildfires occur that threaten life, property or resource values; and three, rapid restoration of forests or natural recovery of forests will be impeded by lack of seed source or competing vegetation. All three are important.

I am going to concentrate on the rapid restoration of conifer dominated forests using the southwest Oregon Biscuit Fire as a case study. I will conclude with observations on making other southwest Oregon forests more fire safe.

During the summer of 2002 the Biscuit Fire, the largest fire in recorded Oregon history, burned more than 400,000 acres over 54 days and cost more than \$150 million in direct suppression costs. Almost all canopy was lost on more than 200,000 acres. Most of the Biscuit was being managed for wilderness and old forest conditions to provide habitat for species that live in older conifer dominated forests and for recreation and watershed protection purposes.

I wish to make seven points today regarding the Biscuit. Point one, the natural recovery of large and intensively burned areas of dry forest to mature conifer dominated forest in southwest Oregon

is slow and uncertain. On dryer sites with large distances to seed trees naturally seeded areas will develop slowly and restocking by conifers may require a hundred years or more.

Point two, well-established silvicultural techniques can hasten conifer forest regrowth. We have learned through \$25 million in research and more than 20 years experience that we can successfully plant conifers and with control of competing vegetation to double conifer growth rates. This can substantially reduce the time necessary to regrow a conifer dominated forest with large tree characteristics which is precisely the forest conditions called for in the northwest plan for much of the burned area.

Point three, conifer regeneration costs rise rapidly as a function of time since wildfire. Immediately following intense fires conifer forests can be re-established at one quarter to one eighth the cost that will be required if planting is delayed 5 years. We estimate the cost for replanting intensely burned conifer forests outside of wilderness on the Biscuit will increase from \$28 million in 2004 to almost \$150 million in 2007. The use of herbicides could substantially reduce the establishment costs and increase forest restoration success.

Point four, standing fire killed trees contribute to future fire risk. Significant concentrations of dead and dying trees in the Biscuit area will leave the landscape prone to large and intense wildfires for at least 60 years into the future further jeopardizing any potential for the forest to return to mature conifer dominated forest.

Point five, salvage value of standing fire killed trees declines rapidly. Based on studies throughout the west, we estimate that approximately 22 percent of the fire killed volume that existed immediately after the fire has already been lost to deterioration, and by 2007 only volume in the lower logs of the larger trees will have any economic value.

Point six, time is not neutral. The window of opportunity to rapidly restore these conifer forests is closing. Typical NEPA and sale preparation procedures now take up to 2 years. For green timber sales this time investment is reasonable. After a wildfire, however, the cost of delay are extreme. Green timber may increase 2 percent to 6 percent or more in volume and value during the NEPA process. But after a wildfire, fire killed trees will lose more than 40 percent of their value during the same period, and delays and subsequent forest regeneration will further increase costs.

My concluding point. Action can be taken to make other dry forests more fire safe. To avoid the kinds of actions described in the Biscuit report, dense stands will need to be thinned and surface fuels will need to be treated ahead of fires. The best most ecologically sensitive and cost effective forest restoration after fire is to have forest conditions before the fire such that natural recovery under a normal fire regime is the best choice. Thank you for the opportunity to provide testimony.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Sessions follows:]

**Statement of John Sessions, University Distinguished Professor of Forestry
and Stewart Professor of Forest Engineering, Oregon State University**

Introduction

Mr. Chair, I am John Sessions, University Distinguished Professor of Forestry and Stewart Professor of Forest Engineering at Oregon State University. I have advanced degrees in civil engineering, forest engineering and a PhD in forest management. I have been teaching and doing research in forest planning and transportation planning at Oregon State University for almost 20 years. I also provide strategic planning support to the Oregon Department of Forestry (ODF) on the Tillamook and Elliott state forests. I have prior experience in harvesting operations and management with the forest industry and 10 years experience with the USDA Forest Service at the district, forest, regional office, research station and Washington Office levels. I have provided planning advice and services to companies and agencies in 16 countries on five continents. Specific experience relevant to my testimony includes hot shot crew fire operations experience, forest planning and fire modeling on the Congressionally mandated Sierra Nevada Ecosystem Project, the Applegate Project, and currently the Jackson County Wood Utilization and Fire Risk Reduction Project. Recently I was lead author of a study on management options on the Biscuit Fire that originated with a request by the Douglas County Commissioners, concerned about the large wildfires that occurred in southwest Oregon during 2002.

Protection of forested ecosystems and communities over time from uncharacteristic wildfire effects involves (1) creating forest conditions that reduce the risk of uncharacteristically intense wildfire effects and change the behavior of fires so they are easier, safer and less costly to manage, (2) aggressive control if wildfires occur under uncharacteristic conditions and threaten life, property or resource values, and (3) rapid restoration of forests that burn with such intense effects that natural recovery of forests will be impeded by lack of seed source or competing vegetation. All three are important. I am going to concentrate on the rapid restoration of conifer-dominated forests in fire-prone landscapes after uncharacteristically intense wildfire in order to describe the significant ecological and economic costs that can result from management delays in decision-making and implementation. I use the southwest Oregon Biscuit Fire of 2002 as a case study.

During the summer of 2002, the Biscuit Fire, the largest fire in recorded Oregon history, burned more than 400,000 acres over 54 days and cost more than \$150 million in direct suppression costs. Most of this land was being managed for wilderness and old forest conditions to provide habitat for species that live in older conifer-dominated forests and for recreation and watershed protection purposes.

The six points I will make are:

- 1) natural recovery of large, intensively burned areas of forest in southwest Oregon to mature conifer-dominated forest is slow and uncertain
- 2) well-established silvicultural techniques can hasten conifer forest regrowth
- 3) conifer regeneration costs rise rapidly as a function of time since wildfire
- 4) standing fire-killed trees contribute to future fire risk
- 5) salvage value of standing fire-killed trees declines rapidly
- 6) the window of opportunity to rapidly restore conifer forests is closing

Natural Recovery

Historically, large areas of conifer forests that burned light to moderate in intensity reseeded naturally. Where seed is readily available and site conditions are conducive to Douglas-fir, the most common conifer in the Biscuit area, natural stands begin with seedfall of 100,000 or more seeds per acre yielding more than 1000 seedlings per acre. Over time, through inter-tree competition, the new forests self-thin themselves to often fewer than 100 trees per acre by age 160. Seed crops occur naturally at irregular intervals. Most conifer seeds are wind dispersed and the majority fall within one tree height; 90% within two tree heights with some seeds being found at distances of 800 feet or greater. Given that a seed falls, the chance of it developing into a successful seedling is less than one in a hundred.

On drier sites, with large distances to seed trees, naturally-seeded areas may develop slowly and restocking by conifers may require 100 years or more. Thus, natural recovery to the pre-fire conifer-dominated forest can be a slow process. Although Douglas-fir is the most common conifer in the Biscuit fire area, other conifers also occur. Three important conifers in the area, Port-Orford-Cedar, Sugar Pine and Western White Pine, are threatened by non-native diseases. Disease resistant strains have been developed. Nature, alone, will not guarantee the long-term survival of these species without planting disease resistant stock.

Hastening Conifer Forest Regrowth

By far, the most significant problem facing young conifer regeneration in the southwest Oregon region is competing vegetation. Following wildfire, shrubs and hardwoods reoccupy sites rapidly from seed stored in the soil and scarified by the fire and from sprouting. At lower elevations, grass can aggressively reoccupy sites. All three are vigorous competitors to conifers. Grasses and shrubs also provide habitat for birds and seed-eating rodents. Much of the conifer-dominated forest that burned in the Biscuit fire was established during the waning years of the Little Ice Age (1800-1850). Current and likely future climates are more favorable to root-sprouting shrubs and hardwoods than when the burned forests originated. With limited amounts of soil moisture, competition from woody and herbaceous vegetation greatly reduces the survival and growth of conifers.

At the request of community leaders in the late 1970's, a major cooperative research and technology transfer effort called the Forestry Intensified Research Program (FIR) was initiated by Oregon State University and USDA Forest Pacific Northwest Research Station, with strong support from Senator Mark Hatfield and Congressman Les AuCoin. The ensuing basic and applied research greatly expanded our knowledge of forest ecosystems in the region and identified silvicultural practices for successful reforestation after wildfire or timber harvests. Some experimental treatments have now been continuously monitored for 23 years. It has been demonstrated that rapid planting of conifers after wildfire can have more than a 90% success rate, and with control of competing vegetation, it is possible to double conifer diameter growth rates. This can substantially reduce the time necessary to regrow a conifer-dominated forest with large tree characteristics, which is precisely the forest conditions called for in the Northwest Forest Plan for much of the burned area. A tree's resistance to death by fire is related strongly to its diameter and height to the live crown. The faster the tree can grow and the larger its diameter the greater its chance of survival.

In the absence of human assistance, we estimate that the larger conifer trees (>18 inches diameter) that provide much of the character of mature conifer forest and most of the habitat for old-growth-dependent wildlife will take much longer to grow. On many sites, it will take 50 years or more to supplement the surviving larger trees, even with prompt regeneration, and up to 100 years to approach pre-fire conditions for 18-inch or larger trees. Without planting and subsequent shrub control, it could take more than 100 years to even re-establish conifer forests that will be anything like the pre-fire forests.

Conifer Regeneration Costs

As an outgrowth of the FIR Program and related regeneration studies in the Northwest, OSU researchers have estimated (1) the initial cost of a variety of regeneration options, (2) the declining probability of success related to time, and (3) the differences of success on north- versus south-facing slopes. Immediately following intense fires, conifer forests can be re-established at one-quarter to one-eighth the cost that will be required if planting is delayed five years. Three important conclusions can be drawn from examining regeneration costs: (1) the most cost-efficient method of establishing conifers is immediate regeneration; (2) planting delays beyond the first three years (or less with aggressive sprouting) can substantially increase costs through poor survival and high restocking costs if competition from weeds and shrubs is not adequately addressed; (3) when delays are unavoidable, herbicides for site preparation and release will dramatically reduce costs of establishment over other reforestation options. We estimate that the cost for replanting the conifer forests on national forest lands within the Biscuit fire outside of Wilderness and outside of the low-productivity serpentine-derived soils will increase from \$28 million in 2004 to \$148 million in 2007. The use of herbicides could substantially reduce the out-year establishment costs and increase forest restoration success.

Future Fire Risk

The adage "lightning never strikes twice in the same place" is not true. Lightning frequency tends to be higher in certain areas, such as southwestern Oregon. Although we do not know when fires will start, we do know what conditions create fire hazards. These conditions include (1) availability of snags that are easily ignited and, when combined with wind, can result in spot fires up to 1 mile away; (2) forest litter (fine fuels) and shrubs that provide opportunities for rapid fire spread; (3) down wood derived from decaying dead trees that contributes to high-intensity fires; (4) tree canopies that extend to the ground, providing fuel ladders to the tree crowns; (5) dense forest canopies that provide conditions for spread of crown fire; and (6) lack of access that can delay or prevent suppression. All of these contribute greatly to the difficulty in developing control strategies for new fires.

We estimate there is an average of more than 160 fire-killed trees per acre in the Biscuit fire area. These trees will fall over time and create small and large logs that, while providing habitat for many different species and slowly returning organic matter to soils, also will fuel the intensity of future fires. We estimate that high numbers of snags will persist for several decades and that down wood accumulations on the forest floor will grow as snags fall and/or deteriorate, reaching maximum levels in 40 years and remaining at those levels for several decades. The numbers of snags and amount of down wood will be higher in more severely burned areas and lower in less severely burned areas, but are indicative of the trend. Significant concentrations of dead and dying trees in the Biscuit area will leave the landscape prone to large, intense wildfires for at least 60 years into the future, further jeopardizing any potential for the forest to return to mature conifer dominated forest.

Salvage Value

If decisions are made to assist nature in forest recovery and reduce future fire and insect risks, actions could involve the removal of some fire-killed and fire-stressed trees. This is often referred to as salvage logging. We estimate that as much timber was killed in the Biscuit Fire as is harvested in the state of Oregon in a year, and is comparable to the entire annual export of timber producing countries such as New Zealand and Chile. Much of the timber in this condition that is located outside of designated Wilderness is accessible and could provide funds to offset restoration costs. Past experience indicates that the recovery value of fire-killed timber will decrease as trees deteriorate from checking, fungal decay, and woodborer activity. Based on studies throughout the West, we estimate that approximately 22% of the fire-killed volume that existed immediately after the fire will be lost during the first year and by the fifth year, only volume in the lower logs of the larger trees will have economic value. By the summer of 2003, we estimate that the economic loss due to timber deterioration will already be in the tens of millions of dollars.

In areas of limited access such as the Biscuit fire area, helicopter logging provides an opportunity to quickly remove fire-killed timber with little soil disturbance, and it can be done without the construction of any new roads, thus keeping roadless areas, roadless. Oregon is home to the majority of helicopter logging capacity in North America and the capacity exists to remove more than 2 million board feet per day. Helicopters were used to salvage significant volumes in the 1987 Silver Fire (within the Biscuit fire area) and the Rodeo-Chediski fire (White Mountain Apache Reservation, Arizona, 2002). Logs from fire-killed trees at the Slater Creek Salvage Sale (Boise National Forest, Idaho, 1993) were flown as far as 4 miles.

Time is Not Neutral

Typical NEPA and sale preparation procedures now take up to 2 years. For green timber sales, this time investment may be reasonable given the costs and benefits of the proposed actions. After wildfire, however, the costs of delay are extreme. Green timber may increase 2%-6% in volume and value over the 2-year plan preparation and decision-making period. But, after a wildfire, fire-killed trees will lose more than 40% of their value during the same period, and delays in subsequent forest regeneration will further increase costs (Figure 1).

Time is not neutral. If society or agency managers do not choose to expedite post-Biscuit-fire restoration so that action can begin by 2004 and end by 2006 or 2007, then nature alone will determine the future habitats in as much as 400,000 acres of burned federal forests (nature alone will already determine the future of ecosystems in the 153,000 acres burned inside the Kalmiopsis Wilderness Area). Without human intervention on the most intensely burned areas, future fire-burned landscapes, regardless of congressional or administrative intent, will likely be dominated by cycles of shrubs, hardwoods, and fires for a long time.

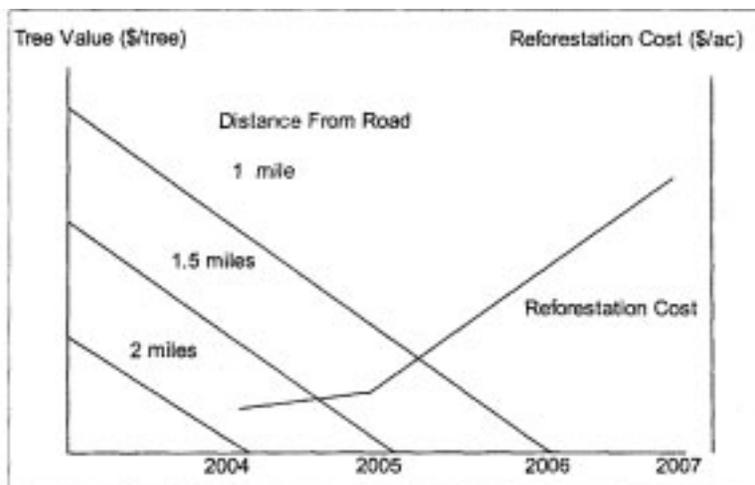


Figure 1. Average salvage value of fire-killed trees as a function of distance from road and year, using helicopter logging, and cost of reforestation.

The CHAIRMAN. Mr. Dessecker.

STATEMENT OF DANIEL DESSECKER, SENIOR WILDLIFE BIOLOGIST, RUFFED GROUSE SOCIETY

Mr. DESSECKER. Thank you, Mr. Chairman. My name is Dan Dessecker. I am a senior wildlife biologist for the wildlife conservation organization called Ruffed Grouse Society. Too often in the past we have chosen to not manage our nation's forests for fear of placing at risk one or another species of forest wildlife. Unfortunately, these decisions failed to adequately consider the risks posed by inaction. Risk becoming increasing evident and a classic example forest is the Biscuit Fire Dr. Sessions just provided an excellent summary on.

The Biscuit Fire burned 69,000 acres of critical habitat for the federally endangered northern spotted owl. This included 24 percent of all known nest sites in the Siskiyou National Forest. 49 nest sites. Many of these were located in what we called late successional reserves. These areas were set aside under the Northwest Forest Plan for "protection" from what was seen at that time to be the greatest threat to these areas that being active management. Obviously the Biscuit Fire makes us rethink that assessment.

In 2002 in the southwestern part of the country more critical habitat for the federally endangered Mexican spotted owl was burned, and that was affected over the last decade through active forest management. Our well-intentioned efforts at species protection have obviously been substantially less than entirely successful. To protect at risk ecosystems and safeguard wildlife population, we must identify and create conditions wherever they exist, adjacent to communities, back country landscapes, wherever. Proposals to limit treatments to the wildland urban interface are both short-

sighted and ecologically baseless. We must allow treatments on all landscapes, not simply those adjacent to communities.

And this is one of the real strong points of H.R. 1904 because it explicitly authorizes treatments based on need, not on location. From a purely ecological perspective or at from the perspective of this biologist, it is disappointing that where to treat is a point that's even being debated. And I think it allows us to ask those who would suggest that treatments within the wildland urban interface will suffice, we need to ask these folks are ecosystems outside of the interface not at least as ecologically important as those within?

Now, in July of this year 22 wildlife conservation organizations from across the country representing four million members sent comments to the Senate and provided recommendations as to what should be included in the forest health legislation, and one of these recommendations was an explicit call for treating lands outside the wildland urban interface where appropriate to safeguard wildlife populations. If the primary goal is to protect in peril ecosystems and associated wildlife, we must treat hazardous conditions where we find them.

Although I am from northern Wisconsin, I truly enjoy working in Oregon and elsewhere in the west throughout the year. It's important to remember that we have 384 million acres of forest east of the Great Plains. Over 52 percent of the forest in the U.S. are east of the Great Plains. Of this 195 million acres are dominated by oak. Our oak forests are declining throughout the eastern United States primarily because of two factors. We have eliminated natural fires from the landscape, and we are not adequately managing these forests at this time.

Oaks dominated the eastern forest landscape for the past six to nine thousand years. Historically natural fires sustained our oak community by eliminating competition and by removing all or some of the forest canopy which allowed sunlight to reach the young oak allowing the oak to grow and indeed to maintain control of the stands. Oaks produce acorns, and acorns for many years are the very foundation for the wildlife food chain. Significant loss of oak forest in the eastern United States would be devastating to many species of game and wildlife because we as a society have interrupted natural disturbance regimes. We are literally watching the face of our eastern forest change before our very eyes. Sounds familiar, doesn't it? Yet because these changes are slow and readily visible only to the relatively trained observer, there's extremely little discussion of this loss of oak outside of professional circles.

In conclusion, to effectively restore forest health and safeguard forest wildlife populations, we must keep two considerations in the forefront of our minds. One, we must treat hazardous conditions where we find them. And two, as we make management decisions, these decisions must balance short term risk to wildlife of proposed actions with a long term risk of inaction. Thank you for your time.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Dessecker follows:]

**Statement of Daniel R. Dessecker, Senior Wildlife Biologist,
Ruffed Grouse Society**

Mr. Chairman:

Man's disruption of natural disturbance regimes is arguably the single greatest threat to sustaining healthy forest ecosystems across the United States. The effects of catastrophic fires fueled by unnaturally dense vegetation have been well documented and are increasingly evident. Fires of uncharacteristic severity threaten the very existence of forest ecosystem components, including forest wildlife, that evolved through millennia in response to conditions wholly different from those that exist today.

We can't turn the clock back a century or more to undo what man has done through well-intentioned efforts to "protect" our nation's natural resources. However, we can learn from past mistakes and recognize the critical role periodic disturbance plays in shaping our forest landscapes.

Because of society's presence throughout, and influence on the forests of the western and eastern United States, it is generally not possible to allow natural fires to return to historic levels. Therefore, the active management of forest vegetation through prescribed fire and mechanical and other treatments is essential to help ensure long-term forest health and ecosystem integrity.

Proposals to limit restoration activities to arbitrarily delineated zones surrounding rural communities, commonly referred to as the wildland/urban interface (WUI), are shortsighted and will not secure the health of our nation's forests. Proponents of such proposals must consider whether healthy, functional ecosystems outside of the WUI are as important as those within. Out-of-sight out-of-mind is not a solid foundation for sound resource policy.

Limiting restoration activities to the WUI will pose a new series of problems by increasing the likelihood of human/wildlife conflicts. Thinning projects increase the amount of sunlight and moisture that reaches the forest floor. This in turn increases the production of succulent herbaceous forage for ungulates such as elk and mule deer. Migratory herds of elk and mule deer will find treated landscapes attractive as wintering areas, as will the large predators that prey upon these herds. Conflicts are inevitable as high-density wildlife populations compete for space with rural communities, competition that will occur literally in our own back yards.

We must treat hazardous fuel conditions where we find them. The Biscuit Fire in southwest Oregon provides an example of the ramifications to wildlife of our failure to do so.

During the summer of 2002, the Biscuit Fire consumed 500,000 acres in southwest Oregon. This total included 160,000 acres of Late Successional Reserve, lands set aside to "protect" them from active management, which was presumed to be the greatest threat to wildlife of old forests. As a result, 69,000 acres of critical habitat for the northern spotted owl was burned and 63% of this acreage experienced > 50% canopy mortality, thereby significantly reducing its value as spotted owl habitat. The burn area included 49 known spotted owl nest sites, 24% of all known nest sites on the Siskiyou National Forest.

It is not possible to assert with absolute certainty that mechanical thinning or other forest health restoration treatments would have negated the loss to the local population of spotted owls from the Biscuit Fire. However, neither is it reasonable to suggest that such treatments would have had no benefit. The Biscuit Fire offers a classic example of the need to balance the short-term risk to forest health from the implementation of active management and the long-term risk associated with the failure to do so.

Like those in the West, the forests of the eastern United States are also changing as a result of man's disruption of natural disturbance regimes.

Oak forests have dominated much of the East for the past 6-9,000 years. Although recent trends vary by region, oak forests are declining through much of the eastern United States.

Oaks, of course, produce acorns. Acorns provide food for many species of forest wildlife. In some years, acorn production is the very foundation of the wildlife food chain. The black bear, wild turkey, white-footed deer mouse and the mammalian and avian predators that prey on small mammals all thrive when acorn crops are abundant. As oaks decline in abundance, so too will this important food source and the wildlife it supports.

Historically, fires likely played a significant role in maintaining oak forests. Young oak seedlings and saplings can survive periodic fires, whereas maples and other thin-barked tree species that compete with oaks for growing space are typically killed by fire. In addition, historic fires in oak forests killed some or many of the canopy trees, thereby increasing sunlight penetration to the forest floor. The

combined effects of fire; reducing competition and providing additional sunlight for young oaks allowed this genus to long remain dominant on many sites throughout the East.

By precluding natural fires and limiting the implementation of active management as a partial surrogate for fire, we are placing in doubt the future of oak forests and changing the face of our eastern forest landscape. As stated by Healy et al. (1997), "The net result" may be that the genus that dominated a vast ecosystem for thousands of years will be reduced to a minor component within a century."

The virtual elimination of fires in the East has not only complicated efforts to sustain oak and some pine forests, it has hampered the establishment of important young forest habitats and associated forest wildlife. Young forest habitats are dominated by a dense growth of shrubs and small trees that are free to flourish when the canopy of a mature forest is removed by fire, mechanical treatment, or some other disturbance.

These habitats support a suite of wildlife species that do not exist in mature forest or exist only at very low population densities. Wildlife that rely upon young forest habitats include the ruffed grouse and American woodcock, two important game species pursued by almost one million sportsmen and sportswomen each year in the eastern United States. In addition, many types of nongame wildlife require the protection from predators afforded by thick, young forest habitats. The mourning warbler, field sparrow, yellow-breasted chat, and the golden-winged warbler (classified by the U.S. Fish & Wildlife Service as a species of highest conservation priority), all nest almost exclusively in shrub-dominated or young forest habitats. These and many other wildlife species that require young forest habitats are declining in the eastern United States, as these habitats become increasingly rare.

Forest inventory data document that young deciduous forest habitats (<20 years old) have declined by 41% over the past 2-3 decades in the eastern United States. Exceptions to this general trend include Minnesota and Maine where significant active forest management has occurred over the past 2 decades resulting primarily from the commercial regeneration of mature aspen and birch forests.

Breeding Bird Survey data for the eastern United States from the U.S. Fish & Wildlife Service show that 50% of the bird species that nest in shrub-dominated or young forest habitats have decreased since the Survey was initiated in 1966, whereas only 24% of the bird species that nest in mature forests have decreased during this period. Conversely, 39% of the species that nest in mature forests have increased, while only 19% of the species that nest in young forests have increased. These data do not suggest that we ignore the demonstrated conservation needs of certain species characteristic of mature forest habitats. However, these data clearly document the compelling need to address ongoing declines of wildlife that require young forest habitats.

In summary, disturbance is a natural component of forest ecology. By largely precluding natural disturbance, society has allowed the health of our nation's forests to deteriorate. Where it is possible to return disturbance to the landscape consistent with likely historic patterns, society should strive to do so. Where it is no longer possible to allow natural disturbance to play its role in sustaining healthy forests and associated wildlife populations, the only responsible option is to thoughtfully implement active management treatments.

*** On 10 July 2003, 22 wildlife conservation organizations representing over 4 million hunters, wildlife resource professionals, and other conservationists provided recommendations to the United States Senate regarding legislative efforts to enhance the health of our nation's private and public forests and rangelands (attached).

These recommendations included:

- Emergency health conditions within the wildland/urban interface and municipal watersheds should receive priority, however, treatments outside of these areas on lands identified as at significant risk by assessment processes as referenced above may be necessary to protect and enhance components of ecosystem health, including essential wildlife habitats, and should be applied as appropriate.
- During the development and review of proposals designed to address emergency health conditions, agencies should give equal consideration to both the short-term risks of forest and rangeland restoration activities and the long-term risks resulting from no action.
- Projects designed to address emergency health conditions should not be subject to post-decision appeal.
- Judicial review of projects designed to address emergency health conditions should be expedited.

BEAR TRUST INTERNATIONAL
BOONE & CROCKETT CLUB
BOWHUNTING PRESERVATION ALLIANCE
CAMP FIRE CLUB OF AMERICA
CONGRESSIONAL SPORTSMEN'S FOUNDATION
CONSERVATION FORCE
DELTA WATERFOWL FOUNDATION
FOUNDATION FOR NORTH AMERICAN WILD SHEEP
HOUSTON SAFARI CLUB
INTERNATIONAL ASSOCIATION OF FISH & WILDLIFE AGENCIES
NATIONAL RIFLE ASSOCIATION
NATIONAL SHOOTING SPORTS FOUNDATION
NATIONAL TRAPPERS ASSOCIATION
NATIONAL WILD TURKEY FEDERATION
POPE & YOUNG CLUB
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ROCKY MOUNTAIN ELK FOUNDATION
RUFFED GROUSE SOCIETY
SAFARI CLUB INTERNATIONAL
TEXAS WILDLIFE ASSOCIATION
US SPORTSMEN'S ALLIANCE
WILDLIFE MANAGEMENT INSTITUTE

JULY 10, 2003

The Honorable Thad Cochran
Chair, Agriculture Committee
United States Senate
Washington, DC 20510

The Honorable Tom Harkin
Ranking Minority Member, Agriculture Committee
United States Senate
Washington, DC 20510

Dear Senators Cochran and Harkin:

The organizations listed above represent hunters, anglers, natural resource professionals and others that share a strong interest in traditional conservation values and America's wildlife resources. We appreciate the opportunity to express our support for comprehensive legislative efforts to enhance the health of our nations private and public forests and rangelands. We believe that the prevention of uncharacteristic fires, insect infestations and disease outbreaks is essential to sustain fish and wildlife populations and other elements of healthy ecosystems and is, therefore, in the public interest. Likewise, it is important to ensure that fundamental environmental protections be maintained.

The following recommendations may be helpful during deliberations of proposed legislative initiatives.

Forest and rangeland emergency health conditions should be documented through an objective and science-based risk assessment process (e.g. National Fire Plan condition class ranking) and should account for regional variation in forest conditions and special habitat needs for at-risk fish and wildlife populations.

Emergency health conditions within the wildland/urban interface and municipal watersheds should receive priority, however, treatments outside of these areas on lands identified as at significant risk by assessment processes as referenced above may be necessary to protect and enhance components of ecosystem health, including essential wildlife habitats, and should be applied as appropriate.

During the development and review of proposals designed to address emergency health conditions, agencies should give equal consideration to both the short-term risks of forest and rangeland restoration activities and the long-term risks resulting from no action.

State fish and wildlife agencies, which have authorities and responsibilities for fish and wildlife conservation on private and public lands, must be explicitly recognized as having a fundamental role in planning and assessment processes designed to address emergency health conditions.

Public interests should be incorporated into project proposals for emergency health treatments on public lands through a cooperative process. Consideration should be given to establish a process that provides an opportunity for a pre-decisional challenge of projects by parties that previously have commented on project design.

Projects designed to address emergency health conditions should not be subject to post-decision appeal.

Judicial review of projects proposed to address emergency health conditions should give equal consideration to both the short-term risks of forest and rangeland restoration activities and the long-term risks resulting from no action.

Judicial review of projects designed to address emergency health conditions should be expedited.

During the implementation of emergency health treatment projects, the removal and sale of forest or rangeland products should be limited to situations where such removal is entirely consistent with the forest health objectives of the emergency treatment.

Agencies should monitor the short- and long-term effects of emergency health treatments and adapt subsequent projects based on these assessments. These assessments should be conducted in cooperation with state fish and wildlife agencies.

We sincerely appreciate your thoughtful consideration of our perspective. If you have any questions or comments, please don't hesitate to contact:

SINCERELY,

JEFF CRANE, CONGRESSIONAL SPORTSMEN'S FOUNDATION:
202-543-6850 (JEFF@SPORTSMENSLINK.ORG)

DAN DESSECKER, RUFFED GROUSE SOCIETY: 715-234-8302
(RGSESS@CHIBARDUN.NET)

GARY TAYLOR, INTERNATIONAL ASSOCIATION OF FISH & WILDLIFE AGENCIES: 202-624-7890 (GTAYLOR@SSO.ORG)

TERRY RILEY, WILDLIFE MANAGEMENT INSTITUTE:
202-371-1808 (WMITZR@AOL.COM)

The CHAIRMAN. Mr. Stahl.

STATEMENT OF ANDY STAHL, EXECUTIVE DIRECTOR, FOREST SERVICE EMPLOYEES FOR ENVIRONMENTAL ETHICS

Mr. STAHL. Good afternoon, Mr. Chairman. Mr. Walden. It's a pleasure to be here. My name is Andy Stahl. I am a forester. I work for Forest Service Employees for Environmental Ethics. I also raise sheep and hay on a ranch outside Lorane, Oregon and I live in a high fire risk area. In my forest fires don't naturally come through every five to 10 years as they do in Central Oregon. They don't burn cool. When my valley burns, it's going to burn hot, intensively.

Most of the valley I live in is managed as commercial forest land. We have a very responsible timber company. They do thinning. They do some clear cutting. They are good neighbors. They know their forest is likely to burn especially as we move into a dryer climate situation. The chance of fire risk in my valley is very high.

I built my house a year ago with hardy plank siding, a concrete product. It doesn't burn. I have a metal roof on the house. I keep all the brush back at least 30 feet and I have thinned my backyard. I removed all the white fir and I left oaks and a few large conifers with the branches thinned up at least 50 feet. I mow with my tractor every year.

I want to tell you about Jerry Sorenson. Jerry is a logger. He lives at Oak Flat at the end of the Illinois River Road in the middle of the Biscuit Fire. Jerry has lived there off the grid eight miles from the nearest electricity with his wife for 24 years. Born in Grants Pass, he knows the area. He knows fire is going to happen. So when the Biscuit Fire was headed to Oak Flat, Jerry got out his bulldozer and he put a line around his property, built his house with a metal roof, keeps his lawn watered, keeps the brush back from the house. He's an independent fellow. He didn't look for the Federal government for any help at all.

The Biscuit Fire came through, went through Oak Flat, didn't take out a house. His practices worked. The Forest Service came in and lit a back fire the next day. The backfire escaped and burned down four houses. Jerry wasn't looking for help from the Federal government. Certainly not that kind of help. I'd like to submit for the record Jerry's story in his own words. This is an article in our magazine entitled, "Who Needs Help Like This?" With the Chairman's permission I'd like to append that to my formal comments.

The CHAIRMAN. Without objection.

Mr. STAHL. Thank you. It's time we try a different strategy. I think we all know that fire suppression for a hundred years hasn't had the consequences we intended for it. It was well intentioned. It didn't work out the way we had hoped. We are the first society in 10,000 years on this continent to wage war against fire. We think we are so smart, and yet for thousands of years before we arrived here millions of people lived in North America with fire. They managed fire. They worked with fire. They worked with their landscapes.

I think we are smart enough to do it too, but it's going to take a new strategy. It's going to take a strategy that actually makes communities and homes resistant to fire. We know how to do it. And yet in Sisters Fire Chief Don Rowe pointed out in a recent article that most of the houses destroyed by fire have wooden shake roofs. There's still no building code in Sisters that requires metal roofs or other fire resistant roofs. We can do that. That's practical. In an area that is one of the fastest growing in the Nation in terms of home building, we can at least have that amount of foresight.

Now, obviously creating fire resistant communities and homes is only a first step. It's a necessary step. Because I don't care how much you have thinned your forest, I don't care how much you have done prescribed burns, given the right conditions, drought, high winds, middle of summer, a fire can threaten a community. And unless those homes are ready for it, you will lose them. And that's just not fair to people because we can do better.

Now we can do better in managing our forests as well. We know that on the dry site ponderosa pine forest that Chief Bosworth was talking about that fire suppression has created problems. We can

do things. We can do brush removal. We can do prescribed burning. But for it to succeed it needs the public behind it. These are public lands. These are national lands. And you in Congress know that to pass legislation, you need bipartisan work. You need some consensus.

It's no different than the forest land manager. They need people working together, and they need Congress to help bring people together. Not pull them apart. So it's time to end the partisanship, it's time to end the straw man, the nay saying, the bickering, and get on with the work that needs to be done.

A good example of that locally is the Metolius River Basin project. If it works, it will be because people were brought together working together with accountability on the agency, and I think it's a good project and needs to go forward. Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Stahl follows:]

**Statement of Andy Stahl, Executive Director,
Forest Service Employees for Environmental Ethics**

Mr. Chairman and members of the Committee, I am pleased to testify today on behalf of FSEEE, a non-profit partnership of 500 Forest Service employees and over 11,000 citizen owners of our national forests.

Central Oregon's forests have changed substantially during the past 100 years. Fire suppression removed fire from its dominant role as a natural ecosystem process. Commercial logging removed most of the large pine trees that typified central Oregon's forests prior to European settlement. This combination has changed the structure and species composition of the area's forests. Tree density has increased dramatically, tree size (as measured by diameter) has decreased dramatically, and tree species has shifted to favor grand fir and lodgepole pine at the expense of ponderosa pine (Youngblood and Riegel, 1999).

As a young forest management student in the late 1970s, my ecology class visited the Pringle Falls Experimental Forest southwest of Bend, Oregon. We saw the effects that fire suppression has had on tree species composition. I saw hundreds of small white fir seedlings dot the understory beneath the mature pines. Cyclical climate change also played a role as the cooler and wetter weather common to the '60s and '70s increased the range of white fir further downslope on the eastside of the Cascade mountains.

Central Oregon's human population has also changed substantially during the past 100 years. Formerly a region dependent upon lumbering and livestock, central Oregon is now one of the nation's premiere recreation and retirement communities. Population growth in the three-county region during the 1990s averaged 3.5% annually, more than double the state-wide average of 1.6%. Job growth is highest in computing and technology, education, health, and social services. Outdoor recreation and tourism are central Oregon's most important economic engines with 4.5 million overnight visits to the region annually.

The challenges facing Deschutes and Ochoco national forest employees as they seek to sustain ecosystems across about 2.5 million acres are also substantial. Forest Service managers and scientists know that the 100-year ad hoc experiment of suppressing fire has had unintended consequences. As a result, fires burn hotter and less controllably in today's denser forests with smaller trees. And the region's robust economic growth has put more homes built without regard to fire risk in harm's way.

In sum, 100 years of fire suppression and logging have created conditions that threaten central Oregon's natural resources and communities.

Thus it is inexplicable that the solution proposed by President Bush and some members of Congress emphasizes fire suppression and commercial logging, the very practices that created today's crisis. The federal government continues to attempt to suppress over 99% of all wildland fires. The Forest Service continues to measure its success not in terms of ecosystems restored, but in fires put out. The President's Healthy Forest Initiative, as embodied in H.R. 1904, promotes commercial logging at the expense of citizen participation and oversight of the forests we own.

As Benjamin Franklin said: "The definition of insanity is doing the same thing over and over and expecting different results."

It is time we tried a different strategy, one that addresses independently the protection of communities, on the one hand, and the restoration of forest ecosystems, on the other. These goals are not the same. They involve different landscapes, constituencies, and practices. Protecting communities alone will not restore ecosystems. Nor will restoring forest ecosystems protect homes and communities.

FSEEE's Community Protection Strategy for Central Oregon

Homes burn when they ignite. This simple truism means that protecting homes from wildland fire requires preventing ignition. Two factors alone affect home ignition—the flammability of the home and the amount of heat that reaches the surface of the home.

As Sisters, Oregon, Fire Chief Don Rowe has pointed out, most houses that are destroyed by fire in central Oregon have wooden shake roofs (Strannigan, 2001). Requiring that fire-resistant materials be used in new home construction and remodeling would do the most to protect communities and homes from fire.

Forest Service research shows that limiting flammable vegetation from within 100 feet of a home reduces the amount of heat that reaches the home's surface during a fire sufficiently to prevent ignition of plywood and other common building materials, even during high-intensity fire events (Cohen, 2003). Vegetation management within this home ignition zone is primarily the responsibility of private property owners. To the extent the federal government believes it has a role to play, it can do so through grants, loans, technical assistance through extension programs, and education through the Firewise program. FSEEE is also assisting with homeowner education through our mascot Reddy Squirrel whose motto is "Forest Fires Happen. Be Ready." See <http://www.fseee.org/whosreddy.htm>.

Creating fire-resistant homes and home ignition zones is the only proven method of protecting communities from wildland fire. However, there is some anecdotal information that suggests that thinning and brush removal within the wildland/residential interface may assist firefighters. Such buffers around communities are expensive to create and must be maintained regularly to provide a bona fide fuel break. Thus it is important that scarce federal funds for such purposes be targeted to the land immediately adjacent to communities and not squandered in the backcountry.

FSEEE's Ecosystem Restoration Strategy for Central Oregon

The ecological processes that shape central Oregon's forests are fairly well understood. The Pringle Falls Experimental Forest, the first to be established in the nation, has been the site for ecological research since 1931. These long-term studies have highlighted the importance of fire as an ecosystem process, examined the relationship between fire, shrubs and mule deer, and explored treatment alternatives for the control of dwarf mistletoe, among many other inquiries.

The consensus view of ecologists is that fire is necessary, but not sufficient, to restoring these ecosystems. For example, fire restores the shrubs and forbs upon which mule deer rely for browse. In fire's absence these shrubs, e.g., bitterbrush, become increasingly woody and lack the succulent leaves and young growth deer prefer (bitterbrush also fixes nitrogen in the soil at the rate of 1 kg/ha/year, making this essential nutrient available for tree growth). Meeting the State of Oregon's mule deer population objectives for hunters will require fire on a landscape scale not seen since the advent of fire suppression policies in the early 20th century.

However, low-elevation, xeric forests in central Oregon have lacked widespread fire for so long (on the order of 10 natural fire rotations have been suppressed) that fire threatens to replace rather than rejuvenate forests. Tree densities in these ponderosa pine stands must be reduced substantially through thinning or other mechanical treatment before fire is restored. The Metolius Basin project exemplifies the multi-step process necessary to restoring fire to these forests (USDA-Forest Service, 2003).

Thinning treatments that attempt to impose a forest structure inconsistent with natural fire regimes are unlikely to restore ecological processes. For example, thinning that seeks to convert a low-frequency, high-severity fire forest (e.g., sub-alpine fir/mountain fir) to a stand structure consistent with a high-frequency, low-intensity fire forest (e.g., ponderosa pine) will likely forfeit many of the forest's natural processes and resources (e.g., woodpecker habitat). This is not forest restoration—it is forest type conversion.

No matter how ecologically meritorious, forest restoration projects will not succeed unless the public owners of national forests concur. Public acceptance is best gained through a collaborative approach that ensures disclosure and accountability. Those who seek to short-circuit public processes, as proposed by H.R. 1904, are penny-wise and pound-foolish. For example, the Metolius Basin project's success will be due, in

no small measure, to the Forest Service's conscientious efforts at full disclosure, collaboration, and accountability.

Just as homeowners must bear the cost of protecting their homes from inevitable wildland fires, so, too, the federal government must bear the cost of restoring national forest ecosystems. A century of well-intentioned fire suppression combined with removal of commercially valuable and fire-resistant large trees has created a forest structure that requires investment, not further exploitation. Although the thinning of some forest stands may produce commercially viable wood products, for the most part, central Oregon forest restoration will require practices whose costs exceed their financial returns to the government (Aycock, 2002). Unless and until the Congress makes these investments, the ecological health of central Oregon's forests will continue to suffer.

Central Oregon has been inhabited for 8,000 years, yet our society is the first that has proven itself incapable of living with fire. The economic and ecological cost of our hubris is enormous. The most challenging and profound change that must occur before central Oregon ecosystems are restored is an end to our society's war on wildland fire. More fires, under appropriate conditions, must be permitted to burn. Land managers must be rewarded for returning fire to fire-dependent landscapes. Homes and communities must be made fire resistant so that we may end the war and learn to live with fire.

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The CHAIRMAN. Mr. Marshall.

**STATEMENT OF JOHN MARSHALL, ASSISTANT DIRECTOR,
COLORADO DEPARTMENT OF NATURAL RESOURCES**

Mr. MARSHALL. Mr. Chairman, Mr. Walden. I appreciate the opportunity to testify in front of you today. I'd like to share with you a little bit about the Hayman Fire which was the biggest in the state's history. I brought some slides and pictures that will help me tell the story more eloquently than I could with words alone.

The Hayman Fire began last June and burned 138,000 acres. It burned in the upper south watershed right outside of Denver which is the primary watershed for the city of Denver. Over 1.3 million residents receive their water from that watershed. It's about 20 miles outside the city of Denver proper and closer to that obviously to the suburbs.

Throughout the last 6 years we have seen many fires in the Upper South Platte that have damaged the watershed. A couple of those right here. Here is a picture of Strontia Springs Reservoir after a 12,000 acre fire came through dropping the equivalent of 13 years worth of sediment load into the reservoir after one heavy rainfall.

In perspective the Cheesman Reservoir which is the primary water source unit in the upper south right in the—it is the epicenter of the Hayman Fire. We have not yet had a rain quite like

that directly on the reservoir, but as the next slide will show you, we have had rain events and runoff that have provided a lot of damage to the wildlife in that area. In fact recently less than 3 weeks ago we had a rain event which actually has caused upwards of 90 percent mortality in one of our premier cold water trout fisheries in the Upper South Platte. This picture here was taken after the runoff which also has caused problems. Our biologists estimate we will face this problem for the next 5 years.

One of the biggest frustrations with this scenario is that our fish and wildlife over the last 6 years has invested \$9 million trying to improve aquatic habitat and to protect the watershed. The Hayman Fire obviously caused a real problem for us in that regard.

Next slide. This is Highway 67 the main artery that goes through the Pike National Forest next to the Hayman Fire. Five feet worth of sediment and burned refuse was strewn across the highway closing it down for upwards of a day less than 3 weeks ago. Another reservoir on Missionary Ridge, the second biggest fire in the state's history was burning simultaneously with the Hayman in the southwest part of the state by the city of Durango. A pretty telling picture. That reservoir also supplies the main water supply for the city of Durango and is now costing them I am told millions.

Next slide. Some of the air quality problems. Move to the next slide you can see the day before the Hayman Fire. If you move to the next slide, you can see the day of when the Hayman Fire exploded visibility less than one mile. Particulate matter levels the highest that we have ever recorded them and we did have one fatality as a result of smoke.

Next slide. Two of the major species that were affected by the fire, on the left you see the Pawnee Montane Skipper butterfly. This butterfly occurs one place in the world and that is the Upper South Platte watershed. Almost 50 percent of the skippers habitat has now been burned in the last 6 years. We are not entirely sure what the status of the species is at this point because it has gone into somewhat of a dormancy. Biologists tell us they expect next year to have a better feel for it, but we know we have lost at the very least in 6 years half of the species habitat.

My friend, Mr. Dessecker, mentioned the Mexican spotted owl. 40 percent of critical habitat and acres were burned in the Hayman for the Mexican Spotted Owl.

The Canada lynx is not an interesting one. The state has spent a lot of money introducing that species and now successfully have them reproducing in the wild. 68,000 acres of lynx habitat was burned in the Missionary Ridge Fire less than a year ago. We see here the effects of proper treatments in western Colorado. This is the Bucktail Fire that occurred last year. Some can argue about the effects that this has, but in Colorado experience this is the difference between absolute devastation and what we would consider to be fairly regenerating status.

Next slide, please. The Hayman Fire, if there is any lesson it is the importance of landscape scale treatments. In addition to the weather being helpful, the only thing that stopped the Hayman Fire was a large scale 5,000 acre treatment. There were a lot of treatments that were strewn throughout the fire of a thousand

acres, and while these were helpful, they obviously don't work when a fire runs 12 miles in a matter of 8 hours.

As a concluding statement I'd like to tell you real briefly about the areas surrounding Cheesman Reservoir. A 7,400 acre parcel that has never been logged, never been grazed and what the Rocky Mountain Research Station in Fort Collins considered the crown jewel of ponderosa pine. And at the risk of making this somewhat trite, old growth ponderosa pine. We know that there was a significant number of three-hundred-year-old trees and in fact were many six-hundred-year-old trees across that landscape. After the Hayman Fire across 95 percent of that landscape there was 100 percent mortality. I want to repeat that. Across the 7,400 acre old growth landscape, we had 100 percent mortality across 95 percent of it.

The President refers to the threat to old growth that fire presents. Never was that more true than on the Hayman Fire. With that, Mr. Chairman, I'd like to accept any questions you and Mr. Walden have.

[The prepared statement of Mr. Marshall follows:]

**Statement of John Marshall, Assistant Director,
Colorado Department of Natural Resources**

Ladies and gentlemen of the Committee, my name is John Marshall and I currently serve as an assistant director of the Colorado Department of Natural Resources. It is my distinct honor to come before you and provide some information about the degraded water quality, aquatic habitat, and wildlife impacts that catastrophic fires have had, and continue to have on the State of Colorado.

As you well know, the 2002 Hayman fire was the largest wildfire in Colorado's recorded history, burning some 138,000 acres in and around the Pike National Forest—less than 20 miles from the Denver Metropolitan Area—at a cost of \$40 million in suppression costs. The totality of the Hayman fire, the Missionary Ridge fire, and some 2,000 other wildfires statewide was unprecedented. I would like to share with the Committee just a few of the impacts that these fires had on the natural environment in Colorado.

The Hayman fire was started on June 9, 2002. Severe drought and unseasonably dry weather, exacerbated by unnatural fuel accumulations throughout the forest, had left the Pike a virtual tinderbox. In a move not often seen by wildfire ecologists, the Hayman fire crowned and made a 12-mile run in half of a day's time. It destroyed almost everything in its path, including threatened and endangered species habitat and imperiled one of Denver's largest municipal water supplies.

Water Quality

The impact of catastrophic wildfires on forested watersheds is difficult to underestimate. The Denver Metro Area is primarily served by the Upper South Platte River drainage located within the Pike National Forest. The Denver Water Department, which supplies 1.2 million users in the Metro area, owns several storage facilities in the Upper South Platte drainage. One of the most significant storage facilities in the drainage is the Cheesman Reservoir, which is also at the heart of where the Hayman fire burned. In fact, some of the most severely burned stands are directly within the Cheesman drainage. If history is any indicator, this fact bodes very poorly for Denver's drinking water.

In 1996, the 12,000-acre Buffalo Creek fire—which is located just north of where the Hayman fire burned in the South Platte watershed—burned above a drainage leading to another Denver Water storage facility in the Upper South Platte basin. Heavy rains a month later caused flash flooding across the denuded landscape, washed out a state highway and deposited 600,000 cubic yards (hundreds of thousands of tons) of sediment into Strontia Springs Reservoir—the equivalent of 13 years of sediment load in a few short days. To date, the State Forest Service estimates that more than \$25 million has been, or will be spent as a result of the comparably small Buffalo Creek fire.

Colorado's concern, and more acutely, the concern of Metro Area water users, is what will then happen to drinking water supplies when a heavy rain falls above the Cheesman Reservoir site in the middle of the Hayman fire burn area—an area

roughly 10 times the size of the Buffalo Creek fire and above a reservoir roughly 6 times the size of Strontia Springs Reservoir. It is estimated that Denver's Upper South Platte River water supplies would be cut off for upwards of three days if a major event occurs in and around Cheesman reservoir. Perhaps most disturbing is the fact that this threat of incapacitation may persist for up to five years. We are looking at a potentially disastrous situation, despite the mammoth \$7 million flooding mitigation effort by the Denver Water Department. Denver Water has constructed very large sediment barriers, but granular granite sediment across such an immense landscape still has the potential to do tremendous damage to the reservoir and to the basin as a whole.

In short, the Hayman fire has already affected the quality of Denver's drinking water. Just three weeks ago, Highway 67 was blocked with more than five feet of burn-area refuse after a major rain event. Unfortunately, our forest professionals tell us that the threat of landslides and massive sedimentation will not subside until vegetation has been reestablished. Because of the heat and intensity of the fire, many of the soils are incapable of supporting vegetation without scarification or other expensive mitigation efforts.

Endangered Species

Recently, massive fish kills have been occurring across Colorado as a result of major rain events on last year's catastrophic wildfire sites such as the Hayman fire and the Million fire. Colorado's top aquatic wildlife biologists speculate that fish kills above the North Fork confluence of the South Platte river may be as high as 90 percent. While we will not know final figures for some time, the prospect of losing 90 percent of one of the state's premier cold water fisheries is devastating, to say the least. We have also witnessed nearly 70 percent mortality of brown trout along parts of the Rio Grande river where last year's Million fire burned in southern Colorado. We estimate that these fish kills will continue for upwards of five years.

The Pawnee Montane Skipper butterfly is a federally threatened species, listed under the Endangered Species Act (ESA) in 1987. It is found in only one place in the world and that is the Upper South Platte River watershed area. The total amount of suitable habitat burned since 1996 is 12,026 acres, or 48.3 percent of the mapped suitable habitat. Based on the USFS fire severity mapping for the four major fires since 1996, it is estimated that the skipper population has been extirpated from about 30 percent of its former habitat since 1996. The fires of 2002 alone burned 39% of known skipper habitat. The species is now believed to be in a drought-induced dormancy, so official population estimates will not be known for some time, although few skipper have been observed since the fire. Needless to say, the Hayman fire has put tremendous stress on an already sensitive species.

Over 40,000 acres burned within the boundary of designated critical habitat for the Mexican Spotted Owl. There were several other threatened or endangered species that lost habitat—either known or suitable—in the Hayman fire, including the Bald eagle, Preble's Meadow Jumping Mouse, and Canada lynx.

We also lost an undetermined number of big game species, such as elk. Because the fire burned so early in the season, elk calving was a factor and state officials estimate that cows and calves were lost due to the immobility of young at that point in the season. The Hayman fire did not burn the primary range of elk, but wildlife officials are still unsure about the total impact to the herds in that area.

Conclusion

Colorado experienced a wildfire season in 2002 unlike anything we have faced before. The largest two fires in our recorded history—the Hayman and Missionary Ridge fires, respectively—not only burned simultaneously, but represented nearly half of the total acreage burned in the entire state in 2002—well over half a million acres in all. There are contributors to unnatural wildfires like these that are beyond our control, such as weather and drought. But the unmitigated fuel levels across Colorado's 22 million acres of forested lands is not beyond our control.

The federal government owns two-thirds of Colorado's forested acres. Reducing the fuel levels on those lands is a monumental task with which Congress will have to wrestle. There are enormous roadblocks that the federal land management agencies are facing in their effort to reduce dangerous fuels throughout the West. We know that the actions we are asking the federal agencies to take will come at significant costs—though these costs can and should be reduced through effective tools like stewardship contracting. But we would ask Congress to keep in mind the cataclysmic costs that inaction would have on the landscapes of our forests.

At the state level, Colorado has taken the initiative to address forest health conditions. Colorado Governor Bill Owens has now signed into law a bill requiring state land management agencies to manage state-owned forested lands to reduce the

threat of catastrophic wildfire and to improve wildlife habitat and water quality. The only problem is that this bill only deals with state-owned lands, some 1% of Colorado's forests.

Catastrophic wildfires like that of the Hayman can be avoided through aggressive and coordinated fuels reduction treatments. We know thinning works. Science and research support these findings. Treatments in and around the Hayman fire dramatically altered fire behavior. But to be effective, treatments must occur on a landscape scale. It is for these reasons, among many others, that the State of Colorado whole-heartedly endorses the Bush Administration's Healthy Forests Initiative and the Healthy Forests Restoration Act now before the Senate.

Colorado has passed legislation that will allow us to use thinning to restore healthy ecosystems in state-owned forests. But we must have action from the federal government to provide thinning on a landscape scale in Colorado. Our best efforts simply cannot effect the volume necessary to avoid Hayman-type catastrophes in the future unless they are mirrored by federal land managers. Nothing short of that will provide the necessary protections for our precious air, water, and wildlife.

Our analysis provides the following findings:

1. The key to reducing the risk of catastrophic fire in Colorado is to return Colorado's forests to a more fire resistant, resilient condition; and
2. There are active management techniques that can speed up the process of returning forests to a more natural, fire resistant condition.
3. Obsessive focus on short-term species protection impedes long-term habitat protection and sustainable ecosystems.

The CHAIRMAN. Thank you, and I thank the entire panel for your testimony. Mr. Stahl, I'd like to begin if I can in listening to your testimony is it your opinion that as a goal that our number one priority should be the protection of homes and communities to the exclusion of the rest of the forest? I am trying to understand exactly where you are coming from on that.

Mr. STAHL. They are certainly not mutually exclusive goals. However, it strikes me as irresponsible to protect the rest of the forest and fail to protect the homes and communities. Whatever you do in the rest of the forest short of paving it is not going to eliminate fire. We are going to have fire. In fact, some of the most intense wildfires burn on lands with hardly any fuels. Cheat grass. Great example. Mr. Walden knows that. If you are talking about fast moving fires, cheat fires move fast. It will take out a home in nothing flat. So we need to protect homes. We need to protect communities. That doesn't mean that we don't need to do things in the woods too, but let's not lose site of the homes and communities because of the battle in the forest.

The CHAIRMAN. I don't disagree with you on that. I think that both are important and what we tried to address in the legislation was both. And there's been a lot of people that have made the argument before and since we have passed the legislation through the House that the only thing we ought to worry about is the urban wildland interface.

Mr. STAHL. I would say that the problem for homes and communities addresses a totally different landscape than H.R. 1904 addresses. Homes and communities burn based on what happens on private land. Now that's not your Congress's direct responsibility. But you do have a role that you could play through grants, through extension of work, through working with communities, through conditioning state aid on the basis of building codes.

So there are some creative solutions for a Federal role in dealing with that ignition zone around houses. I recommend that you expand H.R. 1904 or other legislation to address those issues because

that's what your fire chiefs, that's what your rural fire departments are crying out for no more so than in Deschutes County where it's a major issue.

The CHAIRMAN. Dr. Bonnicksen, when you look at this problem and the scope of this problem that we have in front of us, how do you propose that we deal with it in terms of beginning to manage or getting back to managing our public lands?

Dr. BONNICKSEN. Well, I would definitely agree especially in San Bernardino where I have actually told people when I have talked to them in their homes that I would suggest they start taking their belongings down the mountain. That's how serious it is.

The CHAIRMAN. And specifically you are talking about the Lake Arrowhead area?

Dr. BONNICKSEN. Yes. What I am saying that that's a microcosm of what we are going to face throughout the west and are beginning to face throughout the west. And I see it as a very, very bad omen. We definitely have to encourage people to make their homes more fire resistant. I couldn't agree with that more. That helps. We definitely have to start at the interface to provide as much protection as we can to communities. So I would suggest that we go through those two steps and then work our way out from those fuel breaks into the forest itself because just protecting the home and the fuel break alone will not protect the community. It will only help protect the community. We have to restore the forest itself.

Now, the scale of this one would think and using my perception of the historic forest in North America and by forest type I can tell you the scale is mammoth, but it's not insurmountable. The only thing that would make it insurmountable is to expect the tax payer to pay for it. If we talk about the 73 million acres that are at greatest risk of fire right now, I have made what I now think after spending another year on the ground looking at this problem are very conservative estimates that in the 15-year period of time to treat that 73 million acres it would cost approximately \$60 billion. I know think that's conservative. At the end of that 15-year period of course the first year's treatment would require maintenance. I estimate that will cost \$31 billion every 15 years into the indefinite future. That's constant dollars.

There's absolutely no way in the world we can do that. If we can't do that with taxpayers money, then we have two choices. One is to continue to allow these unnatural monster fires to burn and frequently destroying communities and destroying our forest and our watersheds, or we can accept the fact that the private sector is a legitimate, skillful and I think caring partner that will help us solve the problem.

Why would they be involved? First and foremost because they can derive enough value and in some cases like in San Bernardino maybe not much value from the land to help pay for the cost. In essence in those places where we can't make money, leverage tax payer funds. But there are many areas of our forest where we can actually make money for the treasury restoring the communities and the infrastructure we need and restore the forest simultaneously.

Let me give you one example. It harkens back to this point we are only supposed to thin small trees. Well, the forest I know better

than any other forest in the world is the giant sequoias. Few people realize that many of the old trees that they are looking at are 125 years old. They don't know that when the Indian tribes left, there was an influx of fir and sugar pine and so on that has now grown into trees three foot in diameter or more. And they think this is old growth.

Well, I'm sorry to use the word old growth. They think they are old. They are not. The fact of the matter is that to thin that forest properly requires thinning some of the big trees that weren't supposed to be there in the first place and those trees have value. So I think we can actually make money for the treasury and bring back the forest that the explorers first saw and that I think most of the American people would like to see again.

The CHAIRMAN. In using your example with the giant sequoias, you would have to take each and every forest and look at it and the biologists and the foresters and everybody would have to come in and look at that and determine how it should be managed, and you can't expect us to pass legislation that is a one size fits all this is how you manage a forest in the United States.

Dr. BONNICKSEN. Absolutely not. You know, I have studied most of the forests in North America and I would be the first one to tell you don't ask me how to do the best job of managing each and every one of them. You can't do that. There is no one prescription. We have very well educated foresters and biologists who when working together in a particular forest type can come up with the ideal prescription. What I think the Congress can do is provide the philosophy, the overarching vision of what it is that we want to achieve on behalf of society and then leave it to the professionals to help us achieve that.

The CHAIRMAN. Thank you. Mr. Dessecker, as far as what's the best way to deal with the management of our forests in terms of wildlife, and I guess my question to you is similar to what I asked Dr. Bonnicksen in terms would we not have to look at each of these regions, each of these forests on an individual basis and say with these species that live here, this is the way that in your best guess is how we ought to manage it in terms of which areas should be open areas and which areas should be large canopies and what the density of the forest should be? And from a professional biologist's point of view wouldn't you have to look at it in that way to determine what's best for the wildlife that exists there right now?

Mr. DESSECKER. Absolutely. The key to wildlife diversity is habitat diversity. That does not mean that we have a host of different habitats on each and every acre. That's foolish. It's counter-productive from a wildlife standpoint. But somewhere on a given tract of land somewhere on the landscape we need to have young forest, old forest, open forest and all other types of natural habitat to provide for the native species of wildlife. Those are the outcomes that we want from a wildlife standpoint. How we get there, what outputs we provide is irrelevant. I think the outcome is the key.

The CHAIRMAN. Thank you. Mr. Walden.

Mr. WALDEN. Thank you very much, Mr. Chairman. Thank you to members of our panel for your testimony. Mr. Stahl, I was just going to follow up on your comments and actually read from the bill. In Section 103 it says and I quote, "As provided for in the im-

plementation plan, secretary concerns should give priority to authorize hazardous fuel reduction projects that provide for the protection of communities and watersheds.” So in terms of the overall focus of the bill we are saying communities and watersheds. We go into other detail later on.

But picking up on what you are saying and I think the national fire plan provides grants to local communities to do the very kind of work you are talking about. And I know this area in central Oregon has been very aggressive with our community officials, law enforcement, forestry officials and insurance companies I think have played a role too in encouraging homeowners to do precisely the kind of work you are describing needs to be done.

Mr. STAHL. May I respond?

Mr. WALDEN. Sure.

Mr. STAHL. The bills language you quoted of course doesn't apply to private land, only to Federal land, and most of the problem for homes and communities is on the private land sector. You are absolutely right. There are limited funds and it's just a small, small fraction of the amount of money we spend on fighting even one fire available for communities. However, individual home owners are not permitted to apply for those funds, and so that's a change that I would recommend Congress look at. Right now only community associations can apply. So if you are a home owner that's not part of a community association or small town and you have a place that's in the forest interface zone you are not permitted to access those funds. And I would hope that you would look at changing that.

Mr. WALDEN. Good suggestion. Dr. Sessions, I appreciate your perseverance in getting here. I understand you had some difficulty on the way, and I appreciate your making the extra effort to join us. Let's talk about the Northwest Forest Plan for a moment. Does it call for active thinning in the LSR to preserve and protect the late successional reserve?

Mr. SESSIONS. I think you have better people here that could answer about the Northwest Plan including the Chief and the Regional Forester. But certainly that the understanding as it comes to me is that there is the active management in the LSRs to create the habitats for which they were designed. And that does include certainly thinning and that's generally prescribed before the forest reach certain ages within the LSRs.

Mr. WALDEN. Have you done much study of the LSR or some?

Mr. SESSIONS. Well, in terms of for what purposes?

Mr. WALDEN. Any kind of study. I guess what I am getting at is do you believe that it's important to do that kind of work to manage for LSR? What has to be done to manage for LSR I guess?

Mr. SESSIONS. Well, certainly if the objective is growing large trees as quickly as possible, it's a well-known silvicultural technique that you identify the trees you want to favor and you remove the other trees thereby allowing those trees to have more room. The prescriptions I have seen for use in the LSRs do exactly that. They come in with actually a very heavy thinning around age 40 to 60 to start to accelerate the development of those late successional characteristics.

Mr. WALDEN. It sounds like how you would grow a garden. You thin out carrots and radishes and everything else and let everything else grow.

Mr. SESSIONS. That's right.

Mr. WALDEN. So how do you apply that same principle to forest management or that type of management criteria?

Mr. SESSIONS. I would just say in the prescriptions I have seen the thinning prescriptions are actually very aggressive and quite heavy. They are not the small understory removals, but they remove a sizable portion of the stand to accelerate the development of those larger trees.

Mr. WALDEN. Which is the goal?

Mr. SESSIONS. Which is the goal.

Mr. WALDEN. Dr. Bonnicksen, I was struck by your testimony as you walked through all the myths of how to treat forests, and I was left with the question how would you treat them then because you sort of dismiss prescribed burning, you almost dismiss thinning, these different strategies, and maybe I understand it incorrectly. Would you elaborate based on what you know about northwest forests? What do we need to do here and when do we need to do it?

Dr. BONNICKSEN. Well, it depends on which side of the mountain you are on. No. I don't dismiss any tool, any tool that is effective and cost effective. It's fine to me if it gets us to where we want to be. And from my point of view the place we want to go is something approximating what was here historically. I recognize that what we found when the explorers came, what they found, was a result of 12,000 years of management by native people to serve their needs when they lived here. And then we have our unique needs as well. So we can't replicate the forests that we found, but we can use them as a model for the forests that best serve our needs and build on what we learned from them.

But there are some fundamental principles in these high frequently low intensity fire regimes, ponderosa pine, for example. We want a forest with 17 to 40 percent older trees in a patchy manner by and large the pack size a square foot is about two tenths of an acre all within range from several acre sizes and even larger in some cases. We have to have proportions of all the different age classes represented on the landscape that are similar to what was there historically. That includes meadows and brush and so on. And we have to sustain it by continually developing openings in the forest which means removing larger trees by the way because they are at the end of their life cycle and leaving snags, logs on the ground and using prescribed fire to regenerate fires and species and reduce fuels. The whole tool box is needed to achieve this diverse forest.

Let me tell you one of the benefits of this aside from the fact endangered species become a thing of the past because we are providing this diversity of habitats. But one of the other things is making our forests fire resistant. It turns out—and this works by the way also in Yellowstone in the lodgepole pine forest. Some forests in different successional stages don't burn. They don't burn very well at all. Even in lodgepole 100-year-old trees don't burn. And if you have a forest with all these successional stages rep-

resented in it like ponderosa pine in the correct proportions, the odds are that the fire will stay on the ground throughout most of the area. Even though it may burn thousands of acres, it will stay on the ground and only flare up here and there where it missed 40, 50 years before burning and there were trees in the understory.

Mr. WALDEN. That's the ladder fuel?

Dr. BONNICKSEN. Right. So these little flashy spots in the forest which by the way historical accounts describe are where the new openings were created to regenerate those shade intolerant trees. We use timber harvesting as a tool to replicate those little hot spots in the forest. So we can get fire resistant diverse forests that looks very much like a natural forest full of old trees and it sustains itself ecologically and economically.

Mr. WALDEN. Mr. Marshall, I was struck by your comment that I believe you said 100 percent mortality of old growth in the Hayman Fire?

Mr. MARSHALL. Yes.

Mr. WALDEN. How did that happen? None of that area had been thinned before; is that correct?

Mr. MARSHALL. That's right. The majority of that area—the area surrounding Cheesman has been privately owned and so there has been no logging and no grazing on that land. What occurred however was the buildup. They had done some thinning around some of the structures and in some very small portions across that. What had happened though was as been described so many times today with fire exclusion and the growth of younger ponderosa, those stands were crowded out quite a bit and what resulted was a moon-
scape.

Mr. WALDEN. And the structures were burned as well?

Mr. MARSHALL. The structures—there was thinning. There was quite a bit of thinning around a handful of structures. It's a very remote location so the structures are mostly maintenance kind of structures. Those structures were saved.

Mr. WALDEN. They were saved. OK. And the watershed you said would be years before you were done with the mud flows and things?

Mr. MARSHALL. It's estimated that for 5 years without—we're doing our best to try and turn up soils and to get some sort of grasses and whatever else on there. To date the fire burned so hot that the Governor actually took a thousand volunteers out a year ago and tried to do some replanting. But it's just not been very successful. Raking it is much like raking concrete. Even trying to break up those soils is very, very difficult. We expect probably at the very least it will be 5 years until we stop seeing these fish kills and these mud slides because of the fact that these soils are just absolutely baked. And I will add to that that Dr. Kaufman who is kind of a renowned expert in that area on that particular forest estimates that it will be roughly 400 years before we see a stand of ponderosa that was in the same condition as prior to the Hayman burn.

Mr. WALDEN. I appreciate that. Four hundred years?

Mr. MARSHALL. Four hundred.

Mr. WALDEN. By the way if you need help with grass seed, we grow great grass seed around here. We can get you a deal and it

will help our economy. Mr. Dessecker, I am curious about the oaks. While we have oaks around here, we don't have the kinds of forests you reference. What needs to be done on those and how would this bill if it were to be enacted into law help you?

Mr. DESSECKER. Well, again we interrupted natural disturbance regimes. Oaks is a fire dependent species. We're not going to return fire to the eastern landscape because of course ownership fragmentation. We have too many houses in and amongst the forest be it public or private. We can't use that as a tool anymore. Therefore we have to utilize active forest management. Be it commercial or otherwise, frankly as a biologist I don't care as long as we maintain the forest types that are a benefit to wildlife species.

1904 although it does not explicitly identify this as an issue, let's talk about it. But it at least helps the public understand that there is a reason to manage forests and that forest management is not in and of itself evil. And if we can broaden that message, help the public understand that, it's a step in the right direction.

Mr. WALDEN. OK. Thank you, Gentlemen. Thank you, Mr. Chairman.

The CHAIRMAN. I want to thank this panel for your testimony and answering the questions. If there are any further questions that we have, they will be submitted to you in writing. If you can answer those in a timely manner so that they can be included in the hearing record, I would appreciate it. So thank you.

I would like to call up our third panel. Commissioner Dennis Luke, Deschutes County; Mr. Les Stiles, Deschutes County Sheriff; Mr. Tim Lillebo, East Oregon Field Representative, Oregon Natural Resources Council; Mr. John Shelk, Managing Director of Ochoco Management, Inc.; Mr. Don Johnson, owner of D.R. Johnson Timber Company; and Mr. Ralph Minnick, Chief Financial Officer of the Warm Springs Forest Products Industries.

Welcome, Gentlemen. I would like to remind the witnesses that under Committee rules to limit your oral testimony to 5 minutes but your entire written statements will adhere in the record. And I'd like to now recognize Mr. Luke for his statement.

**STATEMENT OF DENNIS LUKE, COMMISSIONER,
DESCHUTES COUNTY, OREGON**

Mr. LUKE. Thank you, Mr. Chairman and Mr. Walden. I am Commissioner Dennis Luke, Deschutes County Commissioner, and while I am elected in this county, my testimony today reflects that of my fellow commissioners plus our neighboring counties that work together very closely when the fire hits. And I know the Chairman comes from a large state as representative Walden does, and sometimes it's interesting to put the size of this county in perspective, and so we have put it over the state of Connecticut. When we have done Congressman Walden's district, it takes in the state of New York and most of New England. So this is just a very small part of the district.

The second one we have up in the red is the Forest Service and BLM property. The Federal property owned in this county, the green, is the nonFederal land. The Forest Service and the BLM own approximately 76 percent of this county as you can see com-

pletely surround most of our communities. And so they become a very integral part of the fire plans here.

The next one is a picture of the 18 Fire which occurred on July 23. And this was very, very close to the city of Bend. We had several subdivisions that were ready to put on notice to evacuate and it was a very destructive fire. The thing that saved us on this were some treated areas where the fire hit some treated areas, plus the wind laid down and allowed the crews to get on. So we were very fortunate there. And Mr. Chairman, I have one picture that isn't part of the record and I have this on my wall. This is the Awbry Hall Fire from 1990. This is the city of Bend right here and this is the Awbry Hall Fire. This scared a lot of people, we evacuated a lot of homes and was a very destructive fire.

Mr. Chairman, there are no turf battles. When a fire starts in our region, we support each other. Emergency personnel from all three counties respond in a prearranged and organized manner. During the Deschutes County 18 Fire last month, the person in charge of the structural element of the fire crews was actually from Jefferson County. These extraordinary coordination efforts are necessitated by the very real threat that wildfire presents to our communities.

There are a list of projects in my written testimony, but I want to talk about just a couple of them here. We were very fortunate this county to receive a project impact grant from FEMA, and when that grant was over, we converted and kept going as a local community and we renamed it Project Wildfire. One of the things that we do in this county is every spring we open up our landfills to free disposal of yard debris, and this last year we took in 2,394 tons of yard debris in 3 weekends free to our subdivisions, to our constituents. That's enough debris to fill a football field nine feet high of yard debris that we took out of our subdivisions to make them safer. That's a 26 percent increase in customers and 13 percent increase in tons.

Through our committee, we worked with Oregon State University—and I have this for your staff too—to develop fire resistant plants. And it has the pictures, it talks about the plants. These plants are not fireproof. They are fire resistant. Other communities have approached us and asked us to be able to use this. And the reason we don't have 75 of these is we are getting ready to reprint and bring them up to date.

I have also given your staff a copy of an article that occurred in the April 2001 issue of Sunset magazine where it's living with wildfire on the west. Very good article. About five or six pages in it talks about the projects that we are doing here in Deschutes County and Bend.

We have accomplished a lot over the last few years by educating our citizens and by completing projects that make our communities more disaster resistant. When these communities are next to or surrounded by untreated Federal lands, those communities are still at risk of catastrophic fire. What we are lacking is a comprehensive plan that is easily administered to treat the Federal lands immediately adjacent to our communities in the short term. That plan needs to be expanded for the long term treatment of the entire forest to help restore the natural health and vitality that made

them the great forest of long ago. Fire was a natural ally of the forest, but there is nothing natural about the wildfires we have been experiencing currently or over the last few years. We need your continued help and cooperation to make our communities and forests safe again.

This will not be done overnight, but it needs to move forward now. We want to thank you and your Committee for all your efforts, and again we want to thank you for taking the time to come to our community to hear our concerns. Sheriff Stiles is the next speaker, and this community holds a great deal of thanks to all our emergency personnel who put themselves in harms way to keep us safe. Thank you, Mr. Chairman.

[The prepared statement of Mr. Luke follows:]

**Statement of Dennis R. Luke, Commissioner,
Deschutes County, Oregon**

Mr. Chairman and Members of the Committee:

My name is Deschutes County Commissioner Dennis Luke. Thank you for taking the time to hold this hearing on this significant national issue that has such a large impact on our daily lives. While I am elected to represent Deschutes County, today my comments reflect on the types of activities that are taking place not only in Deschutes County but also in our neighboring counties of Jefferson and Crook. There are no turf battles when a fire starts in our region, and we support each other. Emergency personnel from all three counties respond in a prearranged and organized manner. During the Deschutes County 18 Fire last month, the person in charge of the structural element of the fire crews was from Jefferson County. These extraordinary coordination efforts are necessitated by the very real threat that wildfire presents to all our communities.

We have accomplished a lot over the last few years by educating our citizens and by completing projects that make our communities more Disaster Resistant. When these communities are next to or surrounded by untreated Federal Lands, those communities are still at great risk of catastrophic fire.

In 1999 Deschutes County and the City of Bend were given a Project Impact grant by FEMA to be one of a few counties in the nation to dedicate its disaster mitigation efforts toward wildfire safety, education, and preparedness. We were successful in involving our communities in creating long-term wildfire mitigation strategies by using a combination of local partnerships, governmental support, and business participation. As the FEMA grant was drawing to a close, the steering committee reorganized under the banner of Project Wildfire to continue these local efforts. One of the final projects for the FEMA grant was a cooperative venture with the Oregon State University Extension Service which produced a brochure on fire-resistant plants, complete with pictures and plant descriptions. Our local landscapers have been very supportive in the distribution of the brochure and the stocking of the plants. The brochure has been well received by the public. Other states and local jurisdictions are asking for the ability to use it in their areas. Another project was the construction of an emergency exit for a subdivision that has a potential build out of more than 7,000 people; this subdivision is surrounded on three sides by a lava flow, the Deschutes River, and the railroad. That subdivision was evacuated in 1990 using only a single exit. It was extremely fortunate that no one was injured during that evacuation.

Throughout the late 1980's and into the 1990's the county has sought to address a home's resistance to fire by changing building codes to require fire resistant material, increase road construction in rural areas to facilitate emergency vehicles, provide emergency exits for subdivisions, and to encourage home safety by providing an avenue for our citizens to dispose of yard debris.

Every Spring, we open all our landfills for three full weekends for free disposal of yard debris. We advertise the event and some of our subdivisions use the time preceding these events to stage their community clean up. Volunteers and youth work crews step forward and cleanup yards to help those who cannot do the work themselves. During last Spring's event an estimated 2,394 tons of yard debris was brought to our landfill. That is enough to cover a football field with yard debris to a depth of nine feet. The 2003 event saw an increase of 26% in the number of customers and a 13% increase in the total number of tons of yard debris. Throughout the year the landfill is open for free disposal of electronic equipment, tires, appli-

ances, and hazardous waste. While this does benefit the County, we believe it also keeps some of these items off National Lands that make up more than 76% of Deschutes County. Through the use of a grant, we have removed car tires from Federal and private lands in South Deschutes County. We have also worked with the BLM to remove trash from their lands.

What we are lacking is a comprehensive plan that is easily administered to treat the Federal Lands immediately adjacent to our communities in the short term. That plan needs to be expanded for the long term treatment of the entire forest to help restore the natural health and vitality that made them the great forests of long ago. Fire was a natural ally of the forest, but there is nothing natural about the wildfires we have been experiencing over the last few years. The high temperatures these fires produce sterilize the ground, burn large and small trees, destroy vital wildlife habitat, and put life and property at risk. After the fires, in most cases, it may take years before we can remove burned trees from the land and move forward with replanting the forest. During that time the land deteriorates because of erosion and the land becomes a weed patch.

It reminds me of a neighborhood where the neighbors have kept their homes and yards in good shape. Then for one reason or another one of the homes becomes vacant and the absentee landlord allows his home to become run down, infested with weeds, bugs, and the condition of his home becomes a threat to the neighborhood. The Federal Government is a landowner of more than 76% of our County. You have let your land become run down. We are asking you to become good neighbors again and to help us make our communities safe once more. To this end, Deschutes County has stepped forward with an initiative to work with the Forest Service on four or more demonstration projects. We need your support to make these projects move forward in the most productive manner possible.

Thank you for taking time to visit our community and listen to our story of a very real danger to our way of life.

The CHAIRMAN. Thank you. Sheriff.

STATEMENT OF LES STILES, SHERIFF, DESCHUTES COUNTY

Mr. STILES. Mr. Chairman, Congressman Walden, I want to thank you for this opportunity to be here today to discuss these important issues. The primary mission of the Sheriff of Deschutes County and all other sheriffs in the State of Oregon is public safety. The first and foremost primary threat to public safety in Deschutes County on an annual basis is fire.

Last year the Cache Mountain Fire burned into Black Butte Ranch. I was in that fire. When it burned into the ranch, I saw firsthand when I went in to clear structures lost—and we did lose two homes there. I saw firsthand one of my deputies had just literally driven out of a wall of flame 50 to 100 feet high as it rolled across George McAllister Road. Although the picture on the far right there does not—was not taken at George McAllister, it is identical in nature to the level of burning and the amount of timber that caused that rolling ball of fire to come through.

By the way the noise you are hearing are our bombers going overhead right now fighting the fires that we are presently dealing with. When that fire rolled into Black Butte and I was in the back end, I drove in to the fire to declare for the incident commander that structures had been lost. In the process of doing that I saw firsthand the value of thinning the natural forest timber. Because I saw a ball of fire that had been burning 100 to 150 feet high roll down to flames that were two and three feet tall when it hit the thinned area. If the area that I was in had not been thinned, we would have lost 30 to 48 additional houses.

From 1990 to present we have lost 42 homes in Deschutes County due to major wildfires. We had a major fire in 1990, the next

major fire the Skeleton Fire in 1996, and this year alone in the last 8 weeks we are into our fourth major fire in Deschutes County. One in particular, the Davis Fire is symbolic of the issues we need to address today. During the Davis Fire within the first 3 hours that fire literally exploded. I came very close—within seconds we came very close to losing three of the deputies in my sheriff's office during that incident.

That's not the first time lives have come close to being lost in fires in Deschutes County. That fire in particular exploded so dramatically and the fuel load was so high that the firefighters were pulled off the fire line. That was a good decision. It was one of the most chaotic fires I had seen in the last 3 years. The reason for that is demonstrated in that photograph on the right. That photograph was taken a week ago Sunday of the west side of Davis Mountain where the fire burned through.

The real irony in this is that the testimony you heard here today about how to fix it, in the foreground is depending on your definition of old growth an old growth ponderosa completely toasted. It's gone. But the intensity of the fire brings a danger to the firefighters and to the law enforcement officers who are in there evacuating people out of campgrounds and out of houses.

The only solution to the issues in Deschutes County are reducing the fuel load. It's just that simple. H.R. 1904 does that for us. If you don't reduce the fuel load and the intensity of the fires remain the same, we will be back where we were last year at the end of Cache Mountain Fire.

I met with Senator Wyden 13 months ago. I gave him a five-page document requesting Federal assistance that deals with the issues that we are talking about in Deschutes County. I closed my conversation with him with the following comment: "If we fail to address these issues in a substantive manner today, I promise you next year we will be back here and the year after that and the year after that."

You have heard sufficient testimony here today to indicate that even with the passage of H.R. 1904 and additional legislation, even if we start today we are still going to be dealing with this problem tomorrow. From the public safety perspective we need your help and we need a solution to this problem and we need to thin the forest and reduce the issue of fire as a public safety hazard in Deschutes County. Thank you for your time.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Stiles follows:]

Statement of Les Stiles, Deschutes County Sheriff, Bend, Oregon

Thank you to this Committee and to Congressman Walden for the invitation to speak about the issues surrounding wildland fire and public safety in Deschutes County.

A quote from the introduction to the book "Fire and Ashes" by John MacLean, published in 2003, succinctly summarizes the issues we need to discuss today:

"Today nearly every policy that governed firefighting in the modern era is being challenged. The issues range from whether to fight a fire at all, especially if life and property are not threatened, to the degree of acceptable risk once the battle is joined. Settlement in the wildland urban interface—WUI or the red zone—a place where open lands and development meet, has multiplied at astonishing rates and with few controls since the 1980s, to make an already dangerous situation explosive. At the same time, almost a century of fire suppression and, more recently, reduced logging have created wildlands badly in need of more fires not fewer."

Paradoxically, certain logging practices over the decades, such as careless disposal of slash and excessive logging of the biggest trees, have contributed to a buildup of brush and small trees and thus to a more fire prone forest. Yet the reality of more people plus more fires guarantees conflict. While national fire policy now calls for millions of acres to be deliberately burned each year, a preliminary Forest Service study reports that nearly half the planned ignitions have been delayed by legal appeals—environmental groups seeking to curtail logging, home owners and politicians trying to minimize smoke.

Fires have grown more intense in recent years because of drought, which has been made worse by global warming. Concern about wildland fire and forest health, meanwhile is no longer restricted to land-management agencies such as the Forest Service and the Bureau of Land Management (BLM), inhabitants of fire country, and small environmental elite. The environmental movement has become broadly based and, together with the media, has succeeded in raising national awareness of the values and dangers at stake. Partly as a consequence, federal land-management agencies have been forced to change their focus from income-producing activities—logging, mining and grazing—to custodianship of the land. Laudable as the change may seem to those who do not log, mine, or run cattle, the agencies have lost authority and cohesion as a result. ‘The Forest Service is an agency in limbo,’ says Gerald W. Williams, the Forest Service’s Chief Historian.”

Central Oregon and Deschutes County is rich in natural treasure and beauty. Our mountains, crisp, clean lakes and rivers, and forests are widely recognized as a playground for outdoor enthusiasts and a major attraction for new residents. And fire has always been a part of that equation and a threat in Deschutes County. The Awbrey Hall fire in 1990 destroyed 21 homes and forced the evacuation of many thousands of people. The Skeleton Fire in 1996 destroyed 19 homes and forced the evacuation of thousands of people. The Cache Mountain Fire in 2002 destroyed two homes in Black Butte and forced the evacuation of over 5000 people in less than two hours and a loss of significant income to the Black Butte Corporation. This year we have had four major fires in Deschutes County in the past eight weeks. The Davis Fire in June destroyed over 22,000 acres and almost cost the lives of three of my deputies. The “18” fire started within a mile of a large sub-division that, but for the grace of a north wind, would have destroyed many homes, within the Bend city limits. And last but not least is the Link fire this summer in the area of Cache Mountain’s fire last year. It burned very close to the “trigger” point where we would have again evacuated thousands of people and potentially lost more homes. Because of a fire that began last Wednesday, we are again facing (for the third time in 12 months) another evacuation of Black Butte Ranch. The Bear and Booth complex fire continues to burn in Deschutes and Jefferson Counties and on Thursday, August 21, 2003, forced the evacuation of Camp Sherman and all campgrounds on the Metolius River. The four fires in the past eight weeks have alone destroyed approximately 30,000 acres. The cost to the Sheriff’s Office exceeds \$100,000 and does not come close to accounting for the risk to firefighters, police officers and Search and Rescue members. The cost in disrupted lives, air quality, animal habitat and lost revenue for businesses dependent upon our forests, is probably unidentifiable.

Shortly after last year’s Cache Fire where we lost two homes in Black Butte, I met with Senator Wyden and briefed him on the issues of local wildland fire and my concerns for public safety. I sent him a paper asking for assistance at the Federal level and discussed the Deschutes National Forest with respect to problems ranging from “environmental restrictions to firefighting” to forest thinning to Federal OSHA concerns about the aggressiveness with which initial attacks can be made to fires. To date I have received no response to that request.

Because of the forest floor fuel load, thick stands of timber choked with small trees and blow-down dead, fire suppression efforts and a lack of thinning or logging, most of the forested areas in Deschutes County are tinderboxes waiting for an ignition source to explode. Prior to the Davis fire there were areas on Davis Mountain that were impossible to walk through because of so many downed trees. Further, there are many inhabited areas of Deschutes County that are completely surrounded by unhealthy forests with fuel loads so large it is almost guaranteed they will become “catastrophic” at the time of ignition.

The primary mission of the Deschutes County Sheriff is Public Safety. The primary threat to Public Safety in Deschutes County is fire. Please know, however, that we have not been sitting idly wringing our hands and waiting for the cataclysm. Many of us have been actively involved in prevention and treatment programs such as Project Impact and Project Fire Free for several years. Great strides have been made in reducing fuel loads near homes, creating defensible space; “fire-proofing” homes by changing building materials and roof material. And we have hard evidence that those prevention efforts paid off during the Cache Mountain Fire

in Black Butte last year. However, in the end, these projects, while highly important and needed, are not sufficient to diminish the risk to a reasonable level. The Federal Government owns Two thirds of Deschutes County and we would like the government to be a good neighbor and participate in this effort to clean up their property as we have done on private property, locally. If the government does not take the same steps, our efforts could become meaningless once a “catastrophic” wildfire is ignited.

The challenges we face in Deschutes County, Oregon, are an excellent microcosm for the issues being faced around America with respect to fire. We have increasing population growth in the “forested areas” (wildland urban interface) surrounding the communities of Bend, Redmond, Sisters, Black Butte, Sunriver, and in particular the community of LaPine. At the same time tremendous tree and vegetation growth has occurred in the Deschutes National Forest. The most recent estimate from forestry experts is between 225 and 250 million board feet per year. There has been little removal of wood fiber from the Deschutes National Forest in the last 10 plus years, certainly nothing coming even close to the annual growth rate. Couple these factors with a forest floor fuel load of approximately 100 to 150 tons per acre (source—Tucker Williamson—private forester and consultant) of dead and dying timber; add the growth of smaller trees combined with high density; throw in drought conditions; add a dry thunderstorm and few bolts of lightning and you have a recipe for a disaster.

The good news is that these challenges are not without solution. It is clear the problems being discussed today have been recognized at the national level. After the 2000 fire season when over 8 million acres had burned and the average cost-per-day of fighting a Type II or Type I fire was 1 million dollars, the National Fire Plan was adopted. Under this plan the federal fire budget rose from about 1 billion a year to 1.8 billion for 2000, 2.9 billion in 2001, and 2.3 billion in 2002. This year has seen the Congress pass the Healthy Forest Restoration Act (H.R. 1904), which will allow for thinning of the National Forests and reduction in fuel loads—assuming it passes the Senate and is signed into law.

The policy of “let it burn”, which is controversial from many viewpoints, is not new. Elers Koch, a U.S. Forest Service Ranger, who fought the 3 million acre “Big Blow Up” Fire in 1910 stated “I firmly believe that if the Forest Service had never expended a dollar in this country since 1900 there would have been no appreciable difference in the area burned over” (Source—“Fire and Ashes”—MacLean, 2003). Koch may have been right 100 years ago. That policy, today, would lead to the loss of millions of acres and many more homes and lives each year.

The problem with this policy at the Federal level is that “let it burn” is premised on what is good for a healthy forest. In other words a forest that is “natural”. What was a natural forest in Deschutes County over 150 years ago, before humans started intervening, is not the same forest we live with today. To quote MacLean in “Fire and Ashes” again: “The amount of forest and grassland consumed by fire dropped dramatically from an average of about 30 million acres a year at the turn of the century, and from highs of 40 to 50 million acres a year in the drought years of the 1930’s to an average of about 5 million acres a year in the 1970’s.”

With increased fire protection and suppression efforts and the reduction of timber harvests and thinning, the fuel loads have increased dramatically in the last 15 years. As a result we have total destruction when fires are burning hotter and more destructively. The result is devastation. For example in many areas following the Davis Fire, the soil is burned and scorched at least 8 inches deep and completely sterilized. Nature may take care of this over time, but it will certainly not be in the near future. Meanwhile, the runoffs into Odell Creek and Davis Lake will be silt laden and increase the speed with which this lake becomes a marsh, fish will die off and preserved eagle habit could be eliminated.

The primary solution to our fire problems in Deschutes County is really quite simple and at the same time amazingly complex and controversial. Thin the forest and reduce the forest floor fuel load. Because nature cannot take care of the problems in the same manner as she did before man’s intervention, we must give her a hand and assume some of her responsibilities. Once the forests are thinned and healthy, fire will become the friend of the forests and not the devastating enemy it now is. Once the forests are thinned and healthy, fires will become easier to manage, safer to fight when appropriate, more nature’s tool, and pose less of a problem to public safety.

Although these actions are being taken and will help solve some of the problems associated with fire, there remain other challenges we deal with at the local level. The issues relating to wildland interface problems within community boundaries are primarily a local problem. We are dealing with the issues of Fire Free Zones through a combined committee of community representatives that work together to

educate the public on how to “fire-proof” homes and their surrounding grounds. Project Impact, which was started with seed funding from FEMA, has allowed the community to make a number of significant changes that will enhance our ability to deal with wildfires. Unfortunately, the funding support for this program has gone away and with the severe budget crisis we are facing in Oregon, the discretionary local dollars to continue at a significant level has gone away. As a result, a valuable program that has an effective prevention impact in our communities has, paradoxically at exactly the time it is most needed, is unavailable. Federal assistance in this area would be invaluable not to mention cost effective.

Certainly there are many definitions and opinions about what is best for a healthy forest. Many people express concern about the thinning solution, as “that is just an excuse to bring back the logging of old-growth timber”. Followed by the comment that “the only way we would even think about supporting this concept is with the imposition of diameter limits to insure old-growth trees are not taken”. The concept of artificial diameter limits is one that is a good “straw-man” argument to create another issue and subtract from the basic problem being addressed. It has been made very clear to me while walking in the forests before and after our fires there are trees of large diameter that should be removed for the health of other trees in the area as well as overall forest health. It is my belief, however that the decision on which trees should be taken and thinned should be left in the hands of the professional forestry experts who know what is appropriate to maintain a healthy forest that protects old growth trees. Undoubtedly there are circumstances when old trees should be removed.

The issue of forest health and how best to achieve a healthy forest and maintain old growth timber has become so politicized and the various groups addressing the issue have become so polarized and emotional, that we are in gridlock and have been for the past 10 years. During that time, the fuel loads have grown larger, the forests have thickened until they are very unhealthy in many areas, diseased and dead timber has increased and millions of acres have been blackened taking with it uncounted numbers of animals and endangered species. Using the environmental protection act as a political tool, filing appeal after appeal and lawsuit after lawsuit to stop the actions of agencies charged with caring for and managing the forests has resulted in the catastrophic fires we are now fighting in Deschutes County.

It is time for this type of behavior to end. It is time to address the problem of wildland fire and forest management in a substantive manner. It is time to create consensus and if necessary make unpopular decisions. And it is time NOW, not tomorrow. Last year when I met with Senator Wyden I closed our conversation with the following statement “if we fail to address this issue today, I will be involved in many more fires next year and the years after until one of them becomes the fire where we lose an entire community, many lives or both”.

That statement is not an exaggeration. People who do not live here do not understand the close proximity of established communities and the forest. For example, my family and I live in Bend, a community that exceeds 50,000 people. We live in an established neighborhood, well within the city limits. Our home is close to shopping, the hospital and a significant medical complex and across from a school. When the Skeleton fire exploded in 1996, we could see the red glow of the fire from our front yard. During the recent “18” fire, we could see flames from the street that runs by our hospital. And many times we have found burned pine needles and other debris on our cars, parked in our driveway. And Deschutes County has other communities, such as LaPine and Black Butte that are actually in the forests. When a fire begins near those communities, the potential for devastation is understood by all.

We have the power and the ability to do something—TODAY. We need you and the Federal government to become a partner with Deschutes County in finding solutions to this expensive and potentially deadly public safety issue. I urge you to do everything in your power to help make sure the Healthy Forests Restoration Act passes in the Senate and becomes law. I urge you to continue to develop programs and policy that will support prevention programs and interventions currently under way at the local level with Federal support.

Thank you.

The CHAIRMAN. Mr. Lillebo.

**STATEMENT OF TIM LILLEBO, EAST OREGON FIELD
REPRESENTATIVE, OREGON NATURAL RESOURCES COUNCIL**

Mr. LILLEBO. Hello, Greg, and I appreciate this opportunity to address you on this important forest management issues. I was just looking at my testimony and relative to a fair amount of the other testimony, it reminded me of the old Yogi Bear cartoons. You know where there were the rangers and the bears were kind of always giving them a little bit of a hard time. If you guys are the rangers, I think I can safely say that, Yogi, the rangers ain't going to like this testimony. Anyway, I guess I will go ahead and give it a go.

My group in particular is the Oregon Natural Resources Council. We are not a nonprofit statewide conservation Group. We have been around for many years and work on public land issues. And specifically my comments are about H.R. 1904, its content and what we think are needed improvements. At this time we are opposed to H.R. 1904 in its current form, and as I said, we would like to provide written recommendations to improve it.

The bill itself in our view does not actually work or does not prioritize the funding to the wildland urban interface. That's already been addressed here to some degree. We believe the same thing. We should be at least as a first priority spending most of the money and spending most of the effort in that community zone, wildland interface where the houses and the property and the people are at risk.

Also we have studies that have shown that as far as private, state and tribal land, that actually accounts for about 85 percent of that wildland urban interface where the BLM and the Forest Service appear to be only about 15 percent. So it would make sense also to—and there's been some discussion earlier—it makes sense also to focus more funds or prioritize on some of the private as well as the tribal and the state lands because that appears to be where most of the majority of the people are at risk. I think that might apply also on the east coast.

The bill's language would allow logging in the back country, and we are thinking it should be prioritizing into the areas where the communities and houses are. There are other bills in Congress—I believe that was mentioned—there are several other bills in the Senate and some of those bills provide that 70 percent of the funds should be spent and the work done in that community on that wildland urban interface to actually protect the houses. To me that seems very reasonable.

We only have so much funding and we hopefully will be able to get more and more as the time goes on. But it makes sense to prioritize right now first, and then there are areas out in the other parts of the forest that do need work as well. They need ecosystem restoration and that may involve prescribed burning, involve thinning, involve taking products out or get products as far as a result of thinning. But I think prioritizing makes sense, and I don't feel that this bill does that. It should actually state that.

And I agree with last week's Oregonian editorial which is directed to the President and it reads, "Commit explicitly to doing most of this first round forest treatments in so-called urban interface where houses and people are at risk rather than the back country."

Another part is there is in our view is really no old growth protection provisions in this bill. It was addressed the forest plans would be adhered to, and there is—it is true there is some protection for old growth in those forest plans. So I will take back what I said here that there is no protection, but there is some of it. The key is that many of those forest plans are a decade or potentially almost two decades old and they only protect a very small portion of the actual remaining old growth.

And so therefore again I would like to see that—we actually have overwhelming support nationwide I believe for protecting old growth. We would like to see that these thick, larger old growth trees are the fire resistant ones, and they are the ones that have lived through nature's millennia of ground fires, and we would like to see that these large old growth trees are ecologically the ones that we must retain while we do some burning or we do some thinning of the smaller diameter trees, while we do some brush removal.

All those smaller trees have grown up after we suppressed fires for 60 to 80 years. So we are saying there's only a certain amount of old growth left. We logged for 60 years, we have precious few of these old growth left, and it makes sense to keep those. To me the notion that we log larger fire resistant trees to pay for the fuels reduction to me doesn't have a scientific or ecological basis.

As one Congressman put it, if you have a failed kidney and you need a kidney transplant operation, you should not sell your one good kidney to pay for that kidney transplant operation. We need to protect those larger bigger trees. Again I agree with the Oregonian editorial that says, "First, agree to amend the bill so that it reads clearly that no old growth trees or roadless areas should be logged under the guise of fire prevention. If the bill is not about old growth or roadless areas, it should say so."

I think I am running out of time. I also have sections here about roadless areas. The same thing. We believe it should have provisions in the bill to protect those. The bill actually repeals the Appeals Reform Act which specifically gives statutory rights to citizens to actually appeal government decisions. And one thing if we are trying to build trust and collaboration providing for an as yet unknown and unformulated citizen review process, we need—if you are going to have this review process like you mention in your bill that's unformulated at this point, that new process should be put out and should be debated before any legislation passes.

There's also some judicial questions we have about maybe interfering with the independent judiciary. We would like to give the final recommendations and then let the next speaker go.

As far as the recommendations, several areas in legislation we believe that could be approved and really needs these provisions. It should say in the bill that it protects old growth and the larger fire resistant trees. That it would actually identify and protect roadless areas. Focus the funds and the work in that wildland community zone to protect the property, houses and communities. Provide significant additional funding beyond the national fire plan and beyond existing budgets to actually do the appropriate work on the ground because there is a lot to do. Maintain not lessen the current public input and appeal process, and not interfere with the

independent judiciary and maintain the citizens current rights to legally challenge government decisions.

And I have heard President Bush the other day and others say and opponents of this legislation insist that it isn't about killing old growth and it's not about roadless areas, and it is about maintaining citizens' rights. Then I just ask them that they clearly write that into the legislation, and I believe that we can all consider legislation that helps protect the communities and help protect our invaluable forest. So let's just do what we say and write it down and I think it will help everybody out. Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Lillebo follows:]

Statement of Tim Lillebo, Oregon Natural Resources Committee

Hello Greg and members of the Resources Committee. I appreciate this opportunity to testify on important forest management and fire issues. Most of my comments will be directed to the H.R. 1904 fire legislation concerning its content and needed improvements. We are opposed to H.R. 1904 in its current form.

This bill does not prioritize the funding in the Wildland Urban Interface (WUI) community zone where houses, property, and people are at risk. This bill does not significantly fund work on private, state, and tribal lands where the preponderance of WUI houses and communities are located. 85% of the WUI are private, state, or tribal lands and only 15% BLM and Forest Service federal lands.

I ask the Resources Committee and the public, with 85% private, state, and tribal, doesn't it make common sense to first spend most of the money where you can help protect the most houses, private property, and people.

Yes, we have many dry site ponderosa pine forests that need prescribed fire or small tree thinning followed by prescribed fire to help restore these forest ecosystems, but as first priority we should be focusing the limited funding on houses and community zones.

This bill's language would allow logging in wildlands far away from homes and communities. I agree with last week's Oregonian editorial to the President which reads: "commit explicitly to doing most of this first round of forest treatments in the so-called urban interface, where houses and people are at risk, rather than the backcountry."

There are no old-growth protection provisions in this bill. Again, the public has shown overwhelming support to protect old-growth. It is these thick barked larger old growth trees that are fire resistant and lived through nature's millennia of ground fires.

These large old growth trees are ecologically the ones we must retain while we burn or thin the thick stands of small trees and brush that have grown in since we suppressed most ground fires for the last 60-80 years. After a century or more of logging big trees, we have precious few left in our forests. The notion that we log larger fire resistant trees to pay for fuels reduction has no scientific or ecological basis. It just doesn't make sense to log off the fire-resistant big trees. As one congressman put it, if you have a failed kidney, you sell your one good kidney and to pay for the kidney transplant operation. No way. This is failed logic. Our precious public forests are a great American heritage and they are more than worth funding investments to help protect them.

I agree with last week's Oregonian editorial to President Bush which reads:

"First, agree to amend the bill so that it reads clearly that no old-growth trees or roadless areas will be logged under the guise of fire prevention" and "if this bill is not about old growth or roadless areas, it should say so."

This bill has no protection for roadless areas from logging.

The recent National Forest Roadless Area Protection Rule received millions of public comments with the overwhelming majority in favor of full Roadless Area Protection from new roads and logging. Some of these areas need ecosystem restoration. When funds become available, many of these areas could be prescribed burned with no mechanical treatment or thinning.

Sure we hear publicity on the few prescribed fires that got away, which is very sad in some cases, but there have been thousands of prescribed burns that reduced fuels and were performed professionally by Forest Service experts.

Again, I agree with last week's Oregonian editorial to President Bush which reads: "agree to amend the bill so that no old-growth trees or roadless areas will

be logged under the guise of fire prevention". "If this bill is not about old growth or roadless acres, it should say so."

This bill repeals the Appeals Reform Act of 1992 for fuels reduction projects and takes away the current statutory rights of ordinary citizens to challenge and appeal such government decisions. If we are trying to build trust and collaboration, it is not a good idea to take away current legal rights of American citizens to challenge the government. The bill provides for an unknown and as yet unformulated citizen review process. Any new process must be known and debated before any legislation passes.

The public input and citizen rights to the appeal process often leads to a better project on the ground.

Some timeframes can be shortened, but these timeframes must be reasonably long to allow for meaningful public input. We are willing to have somewhat expedited time frames for fuels reduction projects in the 1/3 mile WWI Community Zone near houses, but the public must retain full public participation and the appeals process outside this 1/3 mile zone.

Many times, the public has improved projects by being involved in the project planning. One local example is the large 13,000 acres Metolius Basin Fuels Reduction Project. In the draft proposed Forest Service Alternative 150-200+ year old fire resistant ponderosa pine were planned to be logged. A citizens Federal Advisory Committee was involved and then major public input was received that objected to this old growth logging, which helped the Forest Service change the proposed alternative to not log the old growth ponderosa pine. This is the beauty and propriety of full and complete public input and appeals process.

Under the H.R. 1904 bill, the Metolius project may have had only one alternative and citizens would not have had the same public input or appeals and the old growth pine logging could have sadly happened. Only one alternative does not give land managers or the public a reasoned choice as is rightly required by the current law. The public needs full NEPA process and forest managers need a choice among alternatives.

We should not short-circuit the public input process.

Studies of all of the fuels reduction projects have shown that the vast majority of the appeals were resolved in the normal public allotted time frames.

This bill could allow 1,000 acre projects with no logging limitations if the area has trees that are at risk of fire, insect, or disease damage. Does that mean any tree made of wood? We need clarification and definitive protection guidelines here. Not only could the bills language allow these areas to be clear cuts, but there could be many 1,000 acre areas back to back, one after another. Greg and I have discussed this, and I do not think the agencies would normally plan 1,000-acre clear cuts, but the bills' language would not specifically prohibit it.

We have many examples of good fuels reduction projects that can be models for future actions. I will mention three such projects.

- Highway 20 Fuels Reduction. Sisters to Black Butte: thin 8" dbh, mow, and prescribe burn, with one 10" dbh commercial thin adjacent to Black Butte Community. The project left the larger fire resistant trees and old growth—it is a public success story and it was not appealed. People like it!
- Chiloquin Project (in south central Oregon) thinning and burning to protect small community in South Central Oregon-Forest Service said 8" dbh limit was good to get fuels reduced and no appeals.
- Crater Lake area thinning project: prescribed burning, small tree and commercial thin 12" dbh to restore old growth and forests adjacent to Crater Lake National Park—there was commercial product and an old growth interpretation area with no appeal.

Unfortunately H.R. 1904 does not have a strong prescribed fire provision.

We should generally try to get the most "bang from our buck" to reduce fire risk. The least expensive way is to use prescribed fire. There are literally millions of acres of western forests that with little or no mechanical treatment could be prescribed burned. These prescribed burns can be relatively cheap and effective firebreaks. Prescribed burning is often 1/10th to 1/3 the cost of thinning the same acres. There are millions of acres where a small tree <8" dbh thinning can be done and followed by prescribed fire.

There are also millions of acres in previously roaded lands that could be thinned up to 12" dbh and provide forest products and some financial return. We could use the model projects I previously mentioned to design future projects.

This bill interferes with our independent Judiciary. The foundation of our democracy is the three branches of government: Congress, Administrative, and Judicial; our system of checks and balances. This bill unreasonably restricts the rights of citi-

zens to legally challenge government decisions and restricts the independent judiciary.

The public only having 15 days to file a legal challenge is totally unreasonable. Also giving special weight to the government in litigation is unfair to citizens and violates our impartial judiciary.

I agree with last Wednesday's Oregonian editorial to President Bush which reads: "Do not go after the judicial process" "the first step in creating a healthier political climate on public lands should not be to restrict the ability of people to challenge government decisions"

It's a scientific fact that the dry intermountain west ponderosa pine forests were born of fire. For thousands of years fire was the natural part of the ecosystem and despite all our efforts, fire will continue. It's not a question of IF these forests will burn; it's WHEN they will burn. We can and should join with nature and use prescribed fire and appropriate small tree thinning to try and restore the ecological balance of these fire dependent forests.

Recommendations

There are several areas where this legislation must be improved and needs provisions for:

- Protect old growth and large fire resistant trees;
- Protect roadless areas;
- Focus the funds and work in the WUI Community Protection Zone to actually protect property, houses, and communities;
- Provide significant additional funding to do the appropriate work;
- Maintain, not lesson, the current public input and appeal process; and
- Not interfere with the independent judiciary and maintain American citizens' current rights to legally challenge government decisions.

If these important elements are clearly added to the bill, we will have good common ground to pass legislation that helps protect people, communities, and our invaluable forests.

The CHAIRMAN. Mr. Shelk.

STATEMENT OF JOHN SHELK, MANAGING DIRECTOR, OCHOCO MANAGEMENT. INC.

Mr. SHELK. Congressmen, my name is John Shelk. I am the managing director of Ochoco Lumber Company in Prineville, Oregon. Ochoco is the oldest surviving lumber manufacturer east of the Cascades in Oregon. My family was one of the founding families of Ochoco Lumber Company which was formed in 1924, Ochoco has 250 employees, and I am a life long resident of Prineville, Oregon. I support the Healthy Forest Restoration Act. I see it as a balanced response to the natural resources gridlock that currently exists on public land throughout the western United States.

Our company owns about 75,000 acres of our own timberland. On this timberland we share a common boundary of approximately 25 miles with the Federal government, either the U.S. Forest Service or the Bureau of Land Management. Last summer we lost 60 acres of timberland and nearly \$200,000 of timber to wildfire on the Flagtail Fire near John Day, Oregon. The fire started in untreated stands of timber on the Malheur National Forest and swept through dense thickets of ponderosa pine until it arrived at our property. Because we had thinned our land, we were able to contain the fire with the loss of only 60 acres. This 60 acre loss is uninsured as we are unable to economically purchase fire insurance for this land. We will have to bear the cost of rehabilitating the fire damaged land, and we will have to wait generations before we once again have a commercial stand of timber.

We accept fire as one of the risks of owning private timberland. What's difficult to accept is the wholly inadequate response of the Federal agencies to wildfire prevention and suppression. Additionally private timberland owners get no compensation for damage to their land as a result of wildfires escaping from Federal lands. Whereas victims of floods and other natural disasters are eligible for assistance, we must bear our own losses unaided by anyone.

There's been widespread alarm at the large expense of suppressing wildfires coupled with the extensive size of these fires in recent years. During the 60-year period through the yearly 1990s, the acres burned on national forest and the cost of fire suppression was relatively low. The answer to this issue is obvious. During most of that 60-year period there have been loggers in the forest. Loggers had skidding tractors and firefighting equipment on the job site, plus sufficient employees to act as a rapid response team when forest fires occurred near them. They were able to quickly move to the site of the fire and extinguish the blaze when it was still very small.

Today with few active timber sales on national forests, the loggers are gone and the response time on a fire by Forest Service fire crews is frequently so long that the fire has burned tens if not hundreds of acres before the firefighters arrive at the site.

Another important tool in economically dealing with forest health issue is currently in danger of being of lost and that is the processing plants, the sawmills, that can act as processors of some of the thinnings of forest clean-up activities. There exist in Central Oregon at least two sawmills capable of processing small diameter timber which would be a by-product of forest health activities. These sawmills could add value to that product that is removed from the forest and thereby partially offset the expense involving the thinning activities.

At our small log mill in Prineville which is currently sitting idle due to a lack of timber we could re-employ up to 80 people immediately if we had a sufficient supply of logs for these thinning activities. We process logs from six inches to 16 inches in diameter in the sawmill and in no way depend upon old growth trees to operate this facility. It should be noted that we plan to dismantle this facility in the near future if we are unable to purchase sufficient logs to reopen the mill.

I'm obviously very close to the resource issues of our region, forest health, wood products employment, wildfire on public lands and the risk public land mismanagement brings to private landowners. I am frustrated and amazed that this has become a largely partisan issue that pits one political party against another. This is not a political issue. It's one of common sense. Should we intervene in the natural process which is growing vegetation and trees at the rate of hundreds of millions of board feet per year on our national forests in Central Oregon? Should we do this under the strict environmental laws that currently afford the highest resource protection standards of harvesting available in the world today? Or should we continue in political gridlock and allow our national forest to be subject to uncontrolled wildfires that burn with an intensity that destroys everything in its path? The answer seems to

me to be absurdly obvious that I am appalled at the current attempts to polarize and politicize this issue. Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Shelk follows:]

**Statement of John Shelk, Managing Director,
Ochoco Lumber Co., Prineville, Oregon**

Congressman, my name is John Shelk. I am the Managing Director of Ochoco Lumber Company in Prineville, Oregon. Ochoco is the oldest surviving lumber manufacturer east of the Cascades in Oregon. My family was one of the founding families of Ochoco Lumber Company, which was formed in 1924. I am a life-long resident of Prineville.

I am an enthusiastic supporter of H.R. 1094, the Healthy Forest Restoration Act. I see it as a balanced response to the natural resources gridlock that currently exists on public land throughout the Western United States.

Our company owns about 75,000 acres of our own timberland. On this timberland, we share a common boundary of approximately 25 miles with the federal government; either the U.S. Forest Service or the Bureau of Land Management. Last summer, we lost 60 acres of timberland and nearly \$200,000 of timber value to wildfire on the Flagtail Fire near John Day, Oregon. The fire started in untreated stands of timber on the Malheur National Forest and swept through dense thickets of Ponderosa Pine until it arrived at our property. Because we had thinned our land, we were able to contain the fire with the loss of only 60 acres. This 60 acre loss is uninsured, as we are unable to economically purchase fire insurance for timberland. We will have to bear the cost of rehabilitating the fire damaged land, and will have to wait generations before we once again have a commercial stand of timber.

We accept fire as one of the risks of owning private timberland. What is difficult to accept is the wholly inadequate response of the federal agencies to wildfire prevention and suppression. Additionally, private timberland owners get no compensation for damage to their land as a result of wildfires escaping from federal lands. Whereas victims of floods and other natural disasters are eligible for assistance, we must bear our own losses unaided by anyone.

There has been widespread alarm at the large expense of suppressing wildfires, coupled with the extensive size of these fires. In the last sixty years through the early 1990's, the acres burned on national forests and cost of fire suppression have been relatively low. The answer to this issue is obvious: during most of that sixty year period there had been loggers in the forests. Loggers had skidding tractors and firefighting equipment on the job site, plus sufficient employees to act as a rapid response team when forest fires occurred near them. They were able to quickly move to the site of the fire and extinguish the blaze when it was still very small. Today, with few active timber sales on national forests, the loggers are gone, and response time on a fire by forest service fire crews is frequently so long that the fire has burned tens if not hundreds of acres before firefighters arrive at the site.

An important tool in economically dealing with the forest health issue is currently in danger of being lost, that being the processing plants, sawmills, that can act as processors of some of the thinnings from forest clean up activities. There exist in Central Oregon at least two sawmills capable of processing small diameter timber that would be a by-product of the forest health activities. These sawmills could add value to the product that is removed from the forest, and thereby partially offset the expense involved in the thinning activities. At our small log mill at Prineville, which is currently sitting idle due to a regional log shortage, we could re-employ up to eighty people immediately if we had a sufficient supply of logs from the thinning activity. We process logs from six inches to sixteen inches in diameter in this sawmill, and in no way depend on old growth trees to operate this facility. It should be noted that we plan to dismantle this facility in the near future if we are unable to purchase sufficient logs to re-open the mill.

I am obviously very close to the natural resource issues of our region: forest health, wood products employment, wildfire on public lands and the risk that public land mismanagement brings to private landowners. I am frustrated and amazed that this has become a largely partisan issue that pits one political party against another. This is not a political issue, it's one of common sense. Should we intervene in the natural process which is growing vegetation and trees at the rate of hundreds of millions of board feet per year on our national forests of Central Oregon? Should we be allowed to do this under the strict environmental laws that currently afford the highest resource protection standards of harvesting available in the World today? Or should we continue in political gridlock and allow our national forests to

be subject to uncontrolled wildfires that burn with an intensity that destroys all in its path? The answer seems so absurdly obvious that I am appalled at the current attempts to polarize and politicize the issue.

The CHAIRMAN. Mr. Johnson.

**STATEMENT OF DON JOHNSON, OWNER,
D.R. JOHNSON TIMBER COMPANY**

Mr. JOHNSON. Again I would like to thank both of you for coming and listening to us here today to see what it's really like here particularly Mr. Pombo. My name is Don Johnson. I am a native Oregonian. I was born and raised west of Eugene and my father had a little mill he built during the depression. I worked in it until I graduated from high school outside of going to school. I moved here to Riddle in 1951 and built a sawmill over there which is still there, and I have been in this business now for 53 years so I think I have a lot of experience. I have made a lot of mistakes and have gained some experience from that.

What's our problem today? Our problem really stems from a group of people that have filed lawsuits, and those lawsuits have got into these Federal extremely liberal judges that have taken the Endangered Species Act and twisted it any way they might want to get what they want out of it. That's what has happened. And it isn't helped by the past Administration, and it nearly destroyed our natural resource industries. Without our industries—God has given us these trees here for man to use for homes and other uses, not just to look at or to leave to burn up. If we don't manage them like we should, that will happen exactly like what's going on now. Without our natural resource in our country, our country cannot survive.

Those involved in the movement will say they are shooting only at big business. But as a small family owned business that has been destroyed, as you know these are the heart of America. These same people who are none other than terrorists just like any other are trying to destroy our country. They have used the endangered species very effectively. Our natural resource of course is a basis for all of our wealth and most environmentally clean renewal supply that we have today to build homes and all those great things that wood are used for.

The Endangered Species Act has been so misused that it allows little groups to actually shut down family business when the act was in no way intended to replace or not to allow the human element to be in this which is a fact of the bugs and the bees and the birds and all those that have greater priority over us is the way the law is interpreted. This is where we are at. This is how we got to this point.

What's the solution? I am just a redneck from Douglas County, but I believe the only way we are going to get this system under control is first would have to acknowledge these people are terrorists and get tough with them. We just can't allow them to bring our country to poverty by stopping the capitalistic system. We need to utilize our natural resources and manage our growth. We need to clean up the forest and do so immediately.

Dollars that should be going to the county, to states and federally government are literally burned as we speak. Tell the families of the firefighters who just had six of their young people killed in this accident—in fact eight all together of which six of them are from my county in Douglas County. That’s a major, major tragedy. And this was brought on because the fires and them working long, long hours and trying to put it out and wanting to get home because they had been gone for quite awhile and use of unwise ideas to get there. And it just didn’t work. That’s a great, great tragedy in my opinion, and it was totally unnecessary. Had we had not had fires burning here, they would not have been in that pickup or that whatever it is and been killed trying to get home. I think that’s the end of mine, and I will be sure glad to answer any questions.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Johnson follows:]

Statement of Don Johnson, Owner, D. R. Johnson Lumber Company

Introduction

Good afternoon, Mr. Chairman. My name is Don Johnson and I am the owner of D.R. Johnson Lumber Company, based in Riddle, Oregon. In addition to the sawmill, laminated beam plant, and cogeneration plant in Riddle, my family and I also have sawmills in Round Prairie, John Day, Prairie City, Wallowa, and North Powder, Oregon. Additionally, I have one other cogeneration plant located at the Prairie City facility. I am proud to say that I support nearly 500 employees at my operations, and provide each one with family wage jobs and benefits. I have lived in a rural community all of my life and have a great deal of appreciation for the hard working families in those communities.

I have been in the forest products business for over fifty years, and am a believer in wise management and sustainable use of our forest resources. As evidence to this, our crews are now harvesting trees on land we logged several decades ago. I have truly seen the cycle of wise use in the forests.

The forest health crisis

Our nation faces a severe forest health crisis. Fire and endemic levels of insects and disease are a natural part of a healthy ecosystem, but our federal forests currently are not healthy and therefore the fires and insect and disease epidemics that we are seeing today are unnatural and widespread. Whether it is raging fires, ravaging insects, or pathogens that threaten to wipe out entire species, not a single region of the country, nor any person in it, is being spared the devastating economic and environmental consequences of this forest health crisis.

Recent national forest policies have served to exacerbate, rather than solve, these problems. The practice of fighting every wildfire, coupled with a passive forest management philosophy, has created and exacerbated this monumental crisis. Federal land managers are unable to actively manage our forests to address the problems.

The effects of wildfires are disastrous and far-reaching. The wildfire seasons of 2000 and 2002 were among the most destructive fire seasons in the last half-century. In 2002, forest fires burned nearly 7 million acres at a cost to federal land management agencies of over \$1.6 billion. Since 2000, South Dakota, Oregon, Arizona and Colorado have each experienced the largest wildfires in their respective history. The impacts are far-reaching: loss of lives and homes, displacement of communities, loss of tourism dollars, destruction of wildlife habitat and watersheds, and damage to timber and non-timber resources. The events of the past few summers have provided us with numerous examples of just how devastating wildfires and other natural events can be.

In the past two years we have experienced large wildfires in the areas where my companies have operations. In 2002 the Flagtail and Monument Rock fires burned large acreages on the Malheur and Wallowa-Whitman National Forests. The Biscuit Fire destroyed nearly 500,000 acres on the Rogue River/Siskiyou National Forests. Very little salvage or fuels reduction have occurred on these burned areas since last summer.

Again this summer we are seeing the forests burn because of dense and unhealthy trees. Most recently, we have had fires in the Santiam Pass area in Oregon. This area had a severe outbreak of spruce budworm attacks in the 1980’s and it was

clear that a catastrophic fire was eminent. In just the past two years, we've had the Cache Mountain Fire, Link Fire, and just the other day, the Booth and Bear Butte Fires started in this very area. These fires have destroyed valuable wildlife habitat, led to repeated evacuations of campgrounds and church camps, and destroyed two homes. As of this hearing date, the Booth and Bear Butte Fires still threaten homes, have a major east-west highway closed, and are destroying habitat we tried to protect for threatened and endangered species.

What is needed?

There has been a great deal of debate recently about where we should focus our efforts on forest health restoration and fuel reduction projects. Some argue we should limit it to within a prescribed distance of communities and developments. But empirical evidence proves otherwise.

Take for instance the Cache Mountain Fire of 2002 on the Deschutes National Forest. This fire started at least 4 miles from a local community in Central Oregon. When it was done, it traveled that distance and burned two homes. Coincidentally, the fire started and burned through an area that was scheduled for vegetation management designed specifically to reduce such risks but due to environmental groups appealing and litigating, the project still has not been implemented.

Another example, again from Central Oregon, is the Davis Fire. This fire, origin still undetermined, started in the vicinity of the East Davis Lake Campground on the Deschutes National Forest. Though at least 10 miles from the nearest community, La Pine, this fire threatened human lives in the crowded July 4th campgrounds, but it also put the La Pine community on alert. Why? Because of the conditions of the forest and the fact that the fuels and weather conditions were such that the fire had the potential to travel great distances. Fortunately, there is clear evidence that due to the foresight of the Forest Service and its Seven Peaks project, there was enough managed areas to the east of the origin to allow firefighters to dig in and stop the fire.

The point here is that we cannot simply say forest health and fuel treatments should only occur within a certain proximity of communities or the interface area. There are other values, e.g. key watersheds, eagle nests, old-growth stands, and campgrounds that also deserve equal protection.

This is why when the Western Governors' Association worked collaboratively on its 10-year comprehensive strategy and implementation plan, there was no direction on where the conduct these types of activities. The collaborative group, including representatives of the industry, environmental groups, local governments, tribes, etc., instead opted to allow the state and local levels to determine where best to focus on restoring forest health and reducing the risks of catastrophic wildfire.

Recent research

I wish to highlight for the record a recent report from forestry researchers at the Oregon State University. This study¹ has found that old-growth ponderosa pine, even trees more than 250 years old, can increase their growth, improve their health and respond quickly to thinning that provides the trees with more water. The research, has important implications for the management of old-growth pine forests in the western U.S. because there are millions of acres in very poor condition, suffering from a century of fire suppression that has led to overcrowded conditions, inadequate water and nutrients, poor tree growth, epidemics of insects and risk of catastrophic fires.

The study showed that even trees that are hundreds of years old could increase their growth and presumably their ability to resist insect attack if they are given a chance. "Some people believe that old-growth ponderosa pine forests are decadent, that they can't really respond to the aggressive thinning that would restore conditions similar to those we had before fire was excluded from these forests," said Stephen Fitzgerald, an Extension silviculture specialist with OSU and expert on the types of pine forests that dominate much of the drier portions of the American West.

Historically, fire moved through many dry forest regions of the West as often as every 10-15 years. In areas suitable for ponderosa pine, this "thinning by fire" resulted in a park-like setting of 12-35 huge ponderosa pine trees per acre, with very little underbrush or other trees. Trees 300-500 years old thrived and some lived up to 800 years, and these healthy ecosystems supported a broad range of other plants,

¹ Carbon isotope discrimination and growth response of old *Pinus ponderosa* trees to stand density reductions, N. McDowell, J. R. Brooks, S. A. Fitzgerald & B. J. Bond, Department of Forest Science, Oregon State University, Corvallis, OR 97331, USA, Western Ecology Division, NHEERL/ORD/EPA, Corvallis, OR 97333, USA and Department of Forest Resources, Oregon State University, Corvallis, OR 97331, USA.

grasses and wildlife species that were associated with these old-growth conditions. With fire exclusion during the past century, these same areas now often have 1,000 to 2,000 trees or saplings per acre, instead of 12-35, the researchers said. The heavy undergrowth creates a "ladder" that can turn natural ground fires into stand-replacement fires that can kill the large trees. And all the vegetation, starved by intense competition for water, light and nutrition, declines in health.

"Part of what's clear is that we cannot save these old-growth pine ecosystems simply by putting a line around them and leaving them alone," Fitzgerald said. "If we just walk away from millions of acres of forest we may lose it all to fire or insect attack. To save the old-growth ponderosa pine we still have, we'll have to act."

In their research, they studied the historical effect of thinning on several ponderosa pine stands near Camp Sherman, Oregon, which had 60-80 percent of the tree stocking removed and probably 90 percent or more of the total number of trees, leaving only the largest and healthiest ponderosa pines. The study showed that after aggressive thinning, which provides more water to the remaining trees, the old-growth trees responded immediately and dramatically. Their increased vigor and photosynthetic response will help make them more insect and disease resistant, and the change in the forest structure significantly reduced the risk of stand replacement fire. The trees continued a higher level of growth for up to 15 years following the thinning.

The thinning regimens necessary to accomplish this depended on the site and its level of overcrowding, but often included removal of almost all small and some of the medium-sized trees, along with brush and other vegetation. Thinning can also help step down the fuels in these stands, so that fire can be re-introduced more safely. "The type of thinning that was used in this study is being done in very few interior, old-growth forests across the West," Fitzgerald said. "It's becoming increasingly clear that these techniques can bring these forests back to health and growth, and that's something we have to consider if we're serious about preserving old-growth pine forests. Simply leaving them alone may be their doom."

Our local economies

My testimony would not be complete if I did not emphasize how important resource-related jobs are to the rural communities of Oregon. The areas where my mills are located are surrounded by Federal land and thus are very dependent on the proper management thereof.

Oregon has the dubious distinction of being among the highest unemployment rates in the nation. This problem is particularly acute in our rural communities.

Many believe the President's Healthy Forest Initiative and H.R. 1904 are just an excuse to cut big trees. But that's not what we're after. We want jobs provided by thinning and cleaning up these forests.

My facilities, similar to many others in this industry, are re-tooled to handle smaller logs than the past. In my company's case, with my co-generation facilities, I can even handle material that wouldn't qualify for a sawlog of any diameter.

But the problem is that there is so little management, it's virtually impossible to supply even these types of materials to my mills.

Closing

I hope that meaningful legislation can be passed to expedite needed restoration in our forests. Clearly there's a problem and clearly there's a common sense solution. First and foremost, members of Congress must realize that there's a need to fix the analysis paralysis from the policy-level.

Second, members of Congress must empower the resource professionals on the ground and the local communities to decide what's best for their specific situation.

I believe H.R. 1904 does this and I respectfully ask that the House and Senate pass this important and timely legislation.

Thank you for this opportunity to submit this testimony for the record.

The CHAIRMAN. Mr. Minnick.

STATEMENT OF RALPH MINNICK, CHIEF FINANCIAL OFFICER, WARM SPRINGS FOREST PRODUCTS INDUSTRIES

Mr. MINNICK. Mr. Chairman, Representative Walden, committee members, good afternoon. I am Ralph Minnick, Chief Financial Officer of the Warm Springs Forest Products Industries, a wholly owned subsidiary of the Confederated Tribes of Warm Springs on

whose behalf I am here today. Thank you for a chance to testify this afternoon on H.R. 1904, the Healthy Forest Restoration Act, and in particular on its biomass provisions in Title II.

The Warm Springs Reservation is about 45 minutes north of here and half of our 650,000 acre reservation is timber and immediately bordered by national forests. We have been actively harvesting our forests since the 1930s and is the primary source of our private government's income. We have our own sawmill which employs about 135 people with an annual payroll of about \$6 million, and we hire work crews so we have additional payroll of about \$7 million.

Because of our mill's importance to the local employment, we try to keep it operating, but despite that soft timber sales and reduction of our harvest rate from accelerated levels in the past have placed the mill under economic pressure. We had to eliminate the second shift at the mill cutting 65 jobs. We are actively seeking new economic opportunities. One such opportunity is biomass generation. We have examined the Commercial Utilization Grant and Value Added Grant provisions in Title II of H.R. 1904 and support them both.

Our mill has two power boilers that drive three steam electric generators principally to generate five million watts of electricity needed by the mill. But they are also hooked up to the local electrical grid so we can sell electricity in the northwest market place. We also have two process boilers that run our drying kilns. All four boilers run on fuel. If we were to operate those systems year round, they would consume about 86,000 bone dry tons of wood fuel a year. Of that our mill produces about 52,000 bone dry tons a year. If run year round, we would have to buy most of the additional 35,000 bone dry tons at the local chip markets.

Right now the northwest chip market is a little tight and you have to pay about 33 bucks a ton for a steady supply of fuel. With the electrical prices the way that they are, if we had to pay more than \$10 a bone dry ton, it is cheaper to shut down the power boilers and buy the mill's electricity from our local utility. So we don't buy many chips and our power boilers don't run very often.

However, the Commercial Utilization Grant program could easily help stem that difference. \$33 a bone dry ton converts into \$16.50 a green ton and within H.R. 1904 maximum of \$20 a green ton. If more wood fuel comes out of local forests, that price could decline. So by our calculation, the Commercial Utilization program could enable this state to buy thousands of tons of forest a year.

H.R. 1904 Value Added program would also be helpful. For instance, we need a portable chipper for Warm Springs logging crews to directly move biomass fuels to our local forests. A used portable chipper is about \$175,000. And it's maximum \$100,000 Value Added Grant would be helpful. If possible, however, hopefully that maximum could be increased to \$500,000 which was the maximum in the now sidelined Senate energy bill version of the biomass system. The increase in capitalization system would allow a wider range of communities particularly those in more distress and marginal locations to get into a biomass program.

With regard to the Senate's version of H.R. 1904 as reported from the Senate Agriculture Committee, I'd like to note our strong

support for tribal watershed assistance program and the inclusions of the tribes in the new public land and rural community forestry enterprise programs. They are needed and would be helpful.

Finally the Intertribal Timber Council of Warm Springs and other tribes are pursuing the idea of the Senate bill to grant tribes preference and stewardship contracting on Federal lands around those reservations to protect our trust timber assets. This is just a pilot project limited to no more than 12 qualified tribes. The preference would not operate to displace existing contractors. We think it's a good idea and hope we can get adopted in the Senate bill and very possible in Congress. Mr. Chairman, that concludes my testimony.

[The prepared statement of Mr. Minnick follows:]

Statement of Ralph Minnick, Chief Financial Officer, Warm Springs Forest Products Industries, Confederated Tribes of the Warm Springs Reservation of Oregon

Introduction

Mr. Chairman, Members of the Resources Committee, I am Ralph Minnick, the Chief Financial Officer for Warm Springs Forest Products Industries, a wholly owned subsidiary of the Confederated Tribes of the Warm Springs Reservation of Oregon. On behalf of the Warm Springs Tribal Council, which has asked me to testify today, I thank you for this opportunity to talk about H.R. 1904, the Healthy Forest Restoration Act, and in particular about Title II, its Biomass provisions, which is of particular and timely importance to Warm Springs Forest Products, to the Warm Springs community, and to the Tribe.

The Warm Springs Tribe and Reservation

The Warm Springs Reservation covers 650,000 acres in north central Oregon, running from the crest of the Cascade Mountain Range down the eastern slope to the canyon of the Deschutes River. It has always been, and will always remain, the home of the Confederated Tribes of Warm Springs. Most of our 4,200 Tribal members reside in the Reservation community of Warm Springs.

The Warm Springs forest and sawmill

Half our Reservation is forested, in Douglas fir and other conifers at the higher elevations, ponderosa pine further down, and juniper and sage at lower elevations. This is prime commercial forestland, and has been actively harvested since the 1930's. In 1940's, a sawmill was privately built at Warm Springs, and in 1967, our Tribe purchased it. In the early 1970s, we acquired two used boilers and three steam turbine generators to burn our hogged fuel and generate electricity. This electricity was principally for the mill's own use, but, facilitated by the Tribes' involvement with a nearby hydroelectric project, we also tied it into the local electric system, which enabled us to also sell our electricity into the broader Northwest market place.

Slow-down at the mill

The harvest of our Tribe's timber is a principal source of income for the Warm Springs Tribal government, and logging and work in the mill provide significant employment for our community. Our forest products enterprise, Warm Springs Forest Products Industries (WSFPI), provides 135 full time jobs and an annual payroll of over \$6 million. Local loggers working with WSFPI generate additional revenues of over \$7 million a year.

Today's forest-related revenue and job figures for Warm Springs, however, are down substantially. The soft timber market and a reduction in harvest from past accelerated levels recently prompted the mill to eliminate the second shift, with a consequent loss of 65 full time jobs. And our mill, the last still operating in north central Oregon, remains under economic pressure.

Exploring biomass potential

With this difficult financial picture, we are actively exploring other potential sources of revenue, and with our boiler-generator power plant and the proximity of several National Forests, we have been closely examining the potential for biomass generation at Warm Springs Forest Products Industries.

In the early 1970s, WSFPI purchased our power plant from the Fairbanks Exploration and Mining Company. Originally erected in 1927 in Alaska, the plant was disassembled and shipped to Warm Springs, where it was rebuilt and put back in operation in 1976. During reconstruction, the two Babcox & Wilcox power boilers were converted from coal-fired units to Dutch oven hogged fuel-fired units. They operate at 650 degrees f and generate 250 pounds per square inch of pressure. They are tied to three General Electric steam turbine electric generators rated at 3.75 megawatts each (3.0 mW at 80% capacity).

Separately, WSFPI also has two hogged-fuel process boilers, operating at 350 degrees f and 125 pounds per square inch, to heat our lumber drying kilns.

The WSFPI electric power plant is tied into the Pacific Power electrical system, and the enterprise has sold electricity to Pacific Power in the past. However, due to the cost to produce power in these aging units and the current wholesale price of electricity, we are only periodically producing power for our mill operations, depending on our accumulation of chips.

The availability of biomass fuel

Another key factor in our examination of biomass generation is the presence of significant amounts of potential wood fuel in our area. Our power plant, operating to generate a steady 4.6 mW, would require 46,600 bone dry tons of woody material a year. Please note that, in our experience, most biomass fuels sales are conducted in bone dry tons. It requires approximately two green tons of material to produce one bone dry ton. Our two process boilers for our kilns require 39,228 bone dry tons per year. To operate our power boilers and our process boilers would require 85,828 bone dry tons a year. Our sawmill, processing the full annual allowable cut from our Reservation, produces 51,750 bone dry tons annually, leaving us with a potential need of 34,078 bone dry tons a year. Some of that need could be met with material from our Reservation, but while we don't have exact figures at this point, it would substantially less than half. It is our understanding that the surrounding National Forests could easily provide whatever balance would be necessary. It has been reported the Deschutes National Forest has over 500,000 acres in need of thinning and fuels treatment. At a minimum, a treated acre should produce two bone dry tons of material. If 50,000 acres a year are treated in the Deschutes National Forest alone, at least 100,000 bone dry tons of material could be generated a year for ten years. Clearly, there is sufficient biomass material available around central Oregon for us and other generators.

We should also point out that these excess woody materials in those National Forests are in dire need of removal. According to the Central Oregon Intergovernmental Council's report "COPWRR Strategy Framework, Reducing the Risk of Wildfire in Central Oregon by Removing and Utilizing Forest Fuels," December 2002, over 740,000 acres in Deschutes, Jefferson, and Crook Counties are in fire Condition Class 2 or 3. 500,000 acres (31%) of the Deschutes National Forest was at "abnormally high risk from large stand replacement infestations, disease outbreaks and wildfire, predominantly in the ponderosa pine, mixed-site species, and lodgepole pine plant associations."

Federal and State agencies, as well as the Warm Springs Tribe, recognize that catastrophic fires in overstocked stands are a serious potential in Central Oregon. Reducing the risk of catastrophic fire, insects and disease is top priority. Over recent years, including right now, our Reservation and several nearby National Forests were, or are being, significantly affected by wildfire.

- On July 9, 2002—The Eyerly Fire begins on the Warm Springs Indian Reservation along the Metolius arm of Lake Billy Chinook. Over the next 18 days the fire burned over 23,000 acres of Reservation, Deschutes N.F. and private lands until containment on July 26. The fire burned into the Three Rivers Subdivision where 18 homes were destroyed.
- On July 13, 2002—The 747 fire begins in the Black Canyon Wilderness on the Ochoco N.F. Over the next 27 days the fire burned nearly 17,000 acres of National Forest and private lands until containment on August 8.
- On July 23, 2002—The Cache Mountain Fire begins on the Deschutes N.F.. Over the next 10 days the fire burned nearly 3900 acres of National Forest and private lands until containment on August 1. The fire burned into Black Butte Ranch where 2 homes were destroyed.
- On June 28, 2003—the Davis Fire starts on the Deschutes National Forest. The origin was near East Davis Lake campground on the Crescent Ranger District, Deschutes National Forest. The Davis Fire was declared 100% contained on July 6, 2003 at approximately 21, 181 acres in size.
- On July 23, 2003—the 18 Fire starts on the Deschutes National Forest near Bend. The Woodside Subdivision of Bend is put on evacuation alert. The 18 Fire

burned in mixed conifer and sagebrush and burned about 3,800 acres. On July 26, 2003, it was contained.

- And as of the writing of this testimony, the Bear Butte fire, ignited just last night in the Deschutes National Forest Jefferson Wilderness, has grown to more than 4,000 acres, the majority of which has spread to our Reservation and is now burning toward our commercial timber stands.

The removal and disposal of forest residue in Central Oregon is needed. It will help preserve our neighboring National Forests, in which Warm Springs has substantial trust, treaty, and cultural rights and interests. It will help protect our own Warm Springs forest resource, which the U.S. has an obligation to protect as a major trust asset. And it could be a source of biomass economic development for Warm Springs Forest Products.

Prospects for Warm Springs biomass

Our examination of local biomass potential shows us that, presently for Warm Springs Forest Products, it is only at the financial margin. Our aging power plant does not operate at peak efficiency. To generate 4.6 mW over a year, it will burn 46,600 bone dry tons, or roughly double that amount of green tons. Even though there is a tremendous amount of potential fuel nearby, with such large volumes, its handling and transportation costs are a significant factor. And the current wholesale price of electricity is determinative, either as an avoided cost, if we were to dedicate our generated power to the mill, which requires about 5 mW, or as a potential power purchase price to draw us into the market.

At today's electricity prices, if we pay more than \$10 a bone dry ton for fuel for our power boilers, it is cheaper to shut them down and buy the mill's electricity from our local utility. Additionally, wood chips are not plentiful in our area today, and buying a steady supply commands about \$33 a bone dry ton. So, we don't run our power boilers much and we buy most of our electricity.

A Commercial Utilization Grant of up to \$20 a green ton in Section 302(a) of H.R. 1904 could dramatically change that. As I discussed earlier, to run our power boilers all year, in addition to our process boilers, WSFPI would need 34,000 bone dry tons beyond what the mill produces from our annual allowable cut. Some of that additional need could come from the Reservation, but the bulk of it would have to be purchased in the marketplace. For discussion purposes, let's say we would have to buy 25,000 bone dry tons in the open market. With a bone dry ton roughly equating to two green tons, we would need 50,000 green tons. If a bone dry ton commands \$33, a green ton ought to command about half that, or \$16.50, an amount well within the \$20 per green ton maximum authorized in H.R. 1904 for Commercial Utilization Grants.

The point of the above hypothetical exercise is to demonstrate that, at assistance of up to \$20 a green ton, the Commercial Utilization Grant program could have a significant impact on WSFPI's operation of our boilers, burning tens of thousands of green tons of forest residue a year. Moreover, if fuels removal activity accelerates in our nearby National Forests, the local price of wood fuel should decrease.

We also support the Value Added Grant Program in Section 203(b) of the bill. At the \$100,000 maximum grant level now in the bill, it could, for instance, help WSFPI acquire a used portable chipper for about \$175,000. Currently, our lack of an in-the-woods chipper prevents us, and the Warm Springs tribal member logging crews we hire, from directly bidding on biomass forest projects for our mill. If the Committee wanted to make the Value Added Grant benefits available to a wider range of communities, and I must say that could include Warm Springs, we suggest that, if possible, the legislation adopt the \$500,000 grant limit proposed in Section 533 of the reported version of S. 14, the Improved Biomass Utilization Grant Program in the now-sidelined version of the Senate energy bill. Again, a broader range of assistance under these grants would enable a wider array of communities and potential operators at otherwise marginal or distressed locations to viably operate biomass plants.

Also with regard to the Value Added Grant program, we ask that, in the final bill, the definition of "preferred communities" be clarified to include Indian tribes. Otherwise, it is possible that tribes could be excluded from the first—and perhaps only—round of such grants. H.R. 1904 as reported from the Senate Agriculture, Nutrition and Forestry Committee, we note, makes this adjustment.

We strongly support both the Commercial Utilization Grant and Value Added Grant provisions.

Comments on the Senate version of H.R. 1904

If I might take this opportunity to briefly further comment on the Senate reported version of H.R. 1904, we support the inclusion of the separate tribal watershed pro-

gram in Section 303, Title III. Water is only as clean as the last watershed through which it has passed, making coordinated and cooperative watershed management across different jurisdictions particularly important. Moreover, many tribal communities, including Warm Springs, depend upon forested watersheds for domestic water supplies, making their management and protection especially important.

We also support the inclusion of tribes in new Title VI, the Public Land Corps, and in new Title VII, the Rural Community Forestry Enterprise Program. Both would be a great help to Warm Springs.

An idea: tribal preference in stewardship contracting adjacent to the reservation

Finally, I would like to make a plug for language granting tribes preference in stewardship contracting on National Forest and BLM forest lands bordering or adjacent to Indian trust forest land. Our forests are essential to our economic and cultural well-being, and as assets held in trust by the United States, the U.S. has a duty to protect them, including protecting them from fire or disease from adjacent federal public forests. To facilitate such protection, several timber tribes and the Intertribal Timber Council have been working with the Senate on a pilot project limited to no more than twelve timber tribes around the country. The tribes would have to voluntarily apply and qualify in terms of capability, the significance of their forest resource, and their exposure to potential threat from federal public forests. The preference would only apply to tribes meeting stewardship contracting criteria, and could not displace any already operating stewardship contractors. If this were to be adopted in the Healthy Forests bill, Warm Springs would apply and hopefully participate. It would, we believe, allow the U.S. and concerned timber tribes an opportunity to team-up in the protection of Indian forest trust assets. If the chance arises, we hope the Resources Committee could support this idea.

Conclusion

Mr. Chairman, Committee Members, that concludes my testimony. Warm Springs Forest Products Industries and the Confederated Tribes of Warm Springs strongly support H.R. 1904's efforts to facilitate biomass generation. We hope our comments have been helpful, and we thank you again for asking Warm Springs to appear before you today.

The CHAIRMAN. Thank you. I thank the panel for your testimony. I'd like, if I could, to put all of this in a little bit of perspective in listening to Mr. Johnson, Mr. Shelk, and Mr. Minnick talk about some of the challenges that you have right now. When I was first elected to the house 11 years ago, this was an issue that was just beginning in terms of Congress responding to it. And there was—at that point in time I think there was broad support but little consensus in terms of when we needed to do and how we should move forward.

The first version of the Healthy Forest bill was introduced in 1995. And as I am sure you are well aware, that bill didn't go anywhere. And part of the reason it didn't was opposition from the Administration at the time, opposition from a number of the environmental groups, and for the past I guess 8 years we have been refining and working and trying to figure out how we move forward in trying to respond to some of the challenges that people face in the real world.

And this was about 3 years ago Mr. Walden stepped in and took this issue on with a vengeance. And I think anyone who has served in the House for the past 3 years has had the opportunity to talk to Mr. Walden about this issue whether they wanted to or not. And one of the things that Greg has brought to all of this was a real passion for trying to solve the problem. And it wasn't necessarily an ideological fight as much as it was we have got a problem. How are we going to fix it?

And in this last bill that passed the House, at the very last minute before—after the bill had passed committee on a large bi-

partisan vote, after the bill had passed the Agriculture Committee on a large bipartisan vote we had a number of members who stepped forward at that point and said I don't like the bill. And we were into negotiations again. I guess it was the 2 weeks before the bill actually came to the House floor I spent more time with Greg—and I like Greg, but I spent more time with Greg during that period than I ever wanted to trying to negotiate with folks on both sides of the aisle concerns that they had. And some of those concerns have been brought up here today, and we try to address every single one of those concerns of the bill.

And it's kind of interesting listening to some of the testimony that we have heard and some of the comments that I have read in the paper because what the bill originally was 7 years ago it's not today and what it was 6 months ago it's not today. We tried to address every one of these concerns.

And it comes down to fairly broad agreement that this is a problem and we need to do something about it. Everybody admits that except for a few on the very fringe of this issue that nobody really takes seriously. And in trying to move forward with that, it became apparent that one of the biggest problems we had in moving forward with all of these projects was that every one would be or nearly every one would have a lawsuit filed against it.

And in the TAO report that came out recently, it's interesting that 52 percent of the projects in this urban wildland interface were appealed by environmental groups to go forward, and yet today a lot of it is we have got to concentrate on those areas. When we started this debate and we talked about the wildland urban interface, most of the environmental groups didn't want to talk about that. They wanted to talk about the health of the entire forest and how important it was to practice ecosystem management and to look at the entire forest and the health of that forest. And as we tried to compromise and move, it seems like we have had a moving target all the way along.

And I can say that Mr. Walden has contributed greatly to that bill not only the structure of it and what it's made up of, but the simple fact that we were able to pass it was because of the work that he put into it. And I don't think anyone can dispute that because it was a compromise. It was an effort to address the concerns that people raised and to continue to move to improve and try to move forward with a bill that would actually accomplish something. And that has been the goal from the very, very beginning of this process.

It's somewhat frustrating to try to go through all this because I hear a lot of the same arguments today that I heard 10 years ago even though we have tried to address those concerns, and the lawsuits and the appeals have continued from the very beginning. I think that to be honest there are some that just don't want any of this work to be done at all regardless of what the outcome is or how we do it or why we are doing it or anything else.

And I do want to thank Mr. Walden for the effort that he has put forth because without the effort that he put forth, we would not be at this point right now. And I appreciate that a great deal. Mr. Walden, I will recognize you for your questions.

Mr. WALDEN. Thank you, Mr. Chairman. I appreciate your comments very much and your leadership of our Committee so we can move this bill through and pass it on the House floor. Mr. Lillebo, if I might respond to your comments. I will see your one editorial from the Oregonian and match it with four from the Bend Bulletin I would like in the record, one from the Wall Street Journal, one from the Grants Pass Daily Courier, one from the LaGrande Observer, and one from the Central Oregonian all in support of the legislation. Mr. Chairman, I would like to have those put in the record.

The CHAIRMAN. Without objection.

Mr. WALDEN. And with all due respect to my friends on the editorial board of the Oregonian, Portland is not quite as threatened as by fire as Bend, Prineville, LaGrande or John Day. You raised the issues that get raised against this bill, and I appreciate that dialog although I obviously don't necessarily agree.

And I'd like to start first by reminding everybody that the provisions of this bill already are focused on only 20 million of what the Forest Service tells us is I believe 190 million acres of Federal forest land subject to catastrophic wildfires, disease and bug infestation. So we have already said we are going to narrow this to 20 million of 190 million acres.

Then if you go to page eight of the bill and actually read it on the authorized hazardous fuels reduction projects and go to line 20, we talk about the focus of the bill. And line 20 says, One, Federal lands located in an interface community or intermix community. Two, Federal lands located in such proximity to an interface community or intermix community that there's a significant risk that the spread of a fire disturbance event from those lands would threaten human life and property in the interface community or intermix community. Three, condition class three or condition class two Federal lands located in such proximity to municipal water supply system or to a stream feeding a municipal water supply system that a significant risk exists that a fire disturbance event would have substantial adverse effects on the water quality of the municipal water supply including the risk to water quality posed by erosion following such a fire disturbing event.

I have to tell you just as an aside, we spent a day or two writing that language as to whether it was substantial adverse effect going back and forth with Sherry Bollard and some others that I think are pretty strong environmentalists to get in place what they could agree to.

And then number four, condition class three or condition class two Federal lands identified by the secretary concerned as an area where wind throw or blow down or the existence or threat of a disease or insect infestation poses a significant threat to forest or range land health or adjacent private lands. And then five, Federal lands not covered by paragraph one, two, three or four that contain threatened or endangered species habitat but only if Sub A, nature fire regimes on such lands are identified as being important for wildfires identified as a threat to an endangered species, threatened species or its habitat in the species recovery plan prepared under Section 4 and on and on and on.

And so having spent a lot of time working through those priorities knowing this bill only affects 20 million of the 190 million acres, I felt we had put focus on where it was needed most including the wildland urban interface.

You raise the issue of roadless, and the Oregonian raised the issue of roadless. As I recall reading the bill you won't find a mention of roadless in the bill. Now you are smart enough to know if we don't change the rules, the existing rules stay in effect. Right?

Mr. LILLEBO. The existing rules seem to be changing daily, Mr. Walden, with the Presidency changing them. And the initial roadless rule that protected the various roadless areas has now been changed and it is very open ended depending upon—

Mr. WALDEN. My point is, though, this bill doesn't even mention roadless. It doesn't. And so it does specifically say, however, we won't go into wilderness areas, national monuments, I think refuges, other areas that were singled out because people said we don't want you in there. We actually think a lot of the environmental side of this equation say we don't want you to mention roadless. We want you to be silent about it. So we are in this conundrum of which group, you know. Anyway so I raise that.

I do agree with you that we need more money to do this problem, solve this problem. The President agreed with you. He said that in his comments. The Speaker of the House in Medford on Monday last week said if we pass it, we will fund it. Now we will probably fight over how much that figure is, but we got a boat load of work to do out there, and we are going to end up having to pay for it because we are the landlords of the Federal lands. We should be the stewards. Hopefully we will recover some along the way. Hopefully we will produce some jobs in these rural communities that have been upside down as well. And so I guess I will just have to agree to disagree. I think we have put the emphasis where it's needed most.

Mr. Shelk, I was trying to sort through your comment about—

Mr. LILLEBO. Excuse me. May I just respond?

Mr. WALDEN. Sure.

Mr. LILLEBO. Thank you. I appreciate it. I think most people do agree that we need to do some things in the forest to try to reduce the fire risk. I think everybody has gotten that idea. I think it's very understandable. And I think we need to do prescribed fire, and I believe that's one of the main things we support. We need to do some thinning depending on the areas. And I think there would be many jobs and economic activity and potential wood products as a result from some of the thinning that we could use.

We also need to, as I said, protect the old growth, and we would like to see that actually labeled in the bill to protect the old growth. And I don't see any objection to that, and I didn't see any from you, and I don't see any objection to that from President Bush. I mean the concept. But we would like to see that actually put in the bill. So I would just like to say there are obviously things that we would like to see. And also the funding. I do appreciate you recognizing that because there needs to be some more funding to actually accomplish the appropriate work for thinning the small trees and then protecting the old growth fire resistant trees. Thank you.

Mr. WALDEN. Thank you. Mr. Shelk, I was trying to work through your issue of partisanship and figure out where you were headed with that. Because we had 42 democrats vote for this in the House. 17 co-sponsored this bill including three of the chairs of committees today. The democrats were in the majority of the House and it passed at 59 percent of the House. Maybe you weren't referring to this legislation, but as I look at it, we finally put together a formula that unlocked the bipartisan majority on what Tim might agree is the most significant change in forest management policy in many years to pass the house. Can you elaborate more on what you meant?

Mr. SHELK. Sure. About a month an half ago in the Oregonian there was a full page ad that essentially supported one forest health bill that was not your forest health bill, and that bill specifically said thinning of the urban interface. And it was signed by a variety of people most of them urban, most of them west of the Cascades, and most of them in a political party other than yours. And it appalls me that people with public office in the state of Oregon recognizing the problem we have feel that they have to take a particular political and a partisan position on this particular issue.

Mr. WALDEN. I haven't seen many forest fires around the city of Tigard either. I notice the mayor signed that one. I appreciate that. Mr. Shelk, if this bill were to go in effect and you were able to cut small diameter out of the Ochoco again, would that allow you to restart do you think? How much volume would you need?

Mr. SHELK. Our sawmill takes about 25 million feet a year to operate on a single shift. If we were to have 12 to 14 million feet a year of small logs that came from public lands that we didn't have to depend upon the local log or private log association in Central Oregon, we would be able to restart. And the 80 to 85 employee number that I gave you is just direct employment. That doesn't include loggers, contract loggers that don't work for us.

As hard pressed as this state is to create new jobs and tax revenues, it seems to me amazing that other people haven't picked up on that particular issue that we could re-employ an awful lot of people with family wage jobs and family wage benefits just by harvesting these trees that are probably likely to either die or burn.

Mr. WALDEN. How small diameter can you get down to with these?

Mr. SHELK. I mentioned six inches.

Mr. WALDEN. Mr. Johnson, how small a diameter can your mills deal with and what about the biomass provisions?

Mr. JOHNSON. We can go down to five inches. However, we try to keep it to six. And what was your second question?

Mr. WALDEN. The biomass provisions in this legislation that would provide a \$20 green ton subsidy for the brush and all that comes out for cogeneration facilities?

Mr. JOHNSON. We have two cogeneration plants, one over in Prairie City over here in eastern Oregon. We currently are using our waste from the sawmills to fire that plant. We don't really have enough demand to go outside and get very much of the stuff you are talking about. You have got such a huge, huge amount of it out there, two to three hundred tons to the acre or more in some cases.

That's a huge pile of chips and waste. I just cringe when I think what's going to happen here one of these days if this thing continues on. In eastern Oregon it's getting worse all the time, getting more down and dead stuff, the bugs, the fire. The fires are going to create more fuels for fire. It's just going to continue on until there is not going to be much left here.

Mr. WALDEN. Thank you. Mr. Minnick, I just wanted to comment briefly on your remarks regarding tribal inclusion in the bill. I think that was a good addition. It was something we probably should have done in the House. And so I fully support that effort, and I look forward to working with you on that. I just want to thank the Commissioner again and your colleagues for your assistance with arranging the facility and all for the hearing.

Mr. LUKE. If I might. I appreciate Mr. Stahl's comments about building codes. When I had the privilege of serving with you in the Oregon House, we did change the law in Oregon so destination resort CC&Rs could not require fire, things that burned on roofs and those kind of things. And it takes a while to change that. I believe that happened in '93. Deschutes County has changed its building codes, and the city is starting to come along. So we do not allow those kind of things on houses on their interface anymore, and all communities should be doing that.

Mr. WALDEN. Thank you. Yes, Mr. Johnson?

Mr. JOHNSON. I want you to know I think it's a pretty darn good bill and I am very grateful that you managed to get it in there and I thank you very much for that. But the bill and problem we have out here is more a legal problem at this point than anything else. I think in Malheur National Forest we have had five different salvage sales that were put up and purchased that we did anywhere some of them and they filed lawsuits and stopped it. We even had the Federal judge out on the property to look at it. And we thought once he looked at it, he would understand what's going on. But he didn't care. He ruled against us. And so that has been going on here.

We have people here in the Forest Service that really want to manage the forest, but they have not had an opportunity to do that since the President had become the President we have now. And we need to—I don't know how you solve the Federal part. Maybe you guys go tell them what to do. I hope that's what it is. But it hasn't worked very well so far.

Mr. WALDEN. I appreciate it. Mr. Chairman, those are all the questions I have and I thank you for allowing us to have this.

The CHAIRMAN. Thank you. Before I excuse the panel, there is one thing I do want to ask Mr. Lillebo and that's dealing with this urban wildland interface. And this is something that really bugs me because we tried to work through this and why the environmental community has gone back to stressing the urban wildland interface after arguing against it in previous years and now that seems to be the big issue.

When we looked at this and we have had a number of hearings in different parts of the country, and I remember specifically in Arizona them talking about the situation that existed there and how if they had done something on the interface, it wouldn't have made any difference. That they had to deal with the valley or the canyon

coming into town. That that was the major thing that they had to deal with. And I have had different foresters and different people in other areas and in Montana and other places where we have had hearings that have talked about the need to actually get into the forest and do this work back in the forest and not just right around the houses.

And Mr. Stahl talked earlier about just some common sense stuff about keeping things away from your house and not having a flammable roof. And I don't think anybody is going to argue with him about any of that. That's pretty common sense stuff when it comes to protecting your house. But when it comes to doing this work on a broader basis, I think there is a disconnect between what some of the foresters and biologists and others have talked about versus what you are talking about. And I really don't understand why you think that unless all we do is talk about that urban wildland interface you are not going to support the bill. You have got me on this one.

Mr. LILLEBO. I will address that. We have been talking about ecosystem restoration for years and years. In fact for half a century we were mainly cutting old growth forest both on the west and the east side. That was kind of the main stay on the public lands. That has changed to a great degree in the last 10 or 15 years. And I believe that we should be moving toward ecosystem restoration. And in most cases as I said in my testimony and as I said most of the people probably believe we should be doing prescribed fire using nature as a tool to help reduce the fuels and so forth and that helps restore the natural ecosystem. And in some areas we can also do thinning of the smaller trees leaving the large fire resistant trees.

And what we are saying is that—as I said I mentioned a bill or two that had 70 percent of the funding and the work should be prioritized in this first few years or first round. It may only take a year or two if you have enough money. But that should be prioritized in that community to where the people and the houses are and that makes sense to me.

Mr. WALDEN. Let me step in. That's the problem right there is that in every case that may not be the priority. And if we dictate that 70 percent has to go there, if that's not what they need, then we are basically throwing money away.

Mr. LILLEBO. I will address that. What I think is if you have 70 percent allocated to that community, I believe that what money we do have we will easily be able to spend that in areas that do need fire risk reduction around the communities or wildland urban interface. 30 percent or what's left over may fit just for that area you are speaking of that may not have as much of that urban interface, and we can use funds for that there to do that prescribed burning and thinning of the small diameter trees that may actually do ecosystem restoration out in the forest. So I think there's room there.

And then as I believe some of the other speakers have said, as time goes on we will be able to move on out into those areas. But I think at this point we need to prioritize on those communities. So we might be saying somewhat of the same thing. I'm not sure. It doesn't sound like it.

The CHAIRMAN. I think you are but I am not sure.

Mr. LILLEBO. I'm not sure. That's why I would like to have it written into the bill in the way that I was referring to it.

The CHAIRMAN. The way that we have gone back and forth with this bill and the compromises that have been made and with the testimony that we have received, we feel like we have tried to hit that balance. And I am sure there is more things that you would like to put in the bill and there is things I would like to put in the bill. But if you had your way or I had my way, the bill would never pass. So what we have tried to do is reach a balance of compromise.

As Greg said earlier, this thing passed with almost two thirds of the vote. It's pretty slim pickings out there the guys that voted no. And this was about the biggest consensus on a resource issue that has been before Congress in over a decade. And sure, there's going to be things that everybody wants that weren't in the bill, but I really feel like that compromise was reached on it.

Mr. LILLEBO. And we are saying that without having specifics on the old growth and those things that I mentioned, then I think that those could be added and I would like to ask you to actually do that.

The CHAIRMAN. I am afraid if we went back and opened it back up and started to include more things, that there would be a lot of things that people would want in there. But I appreciate this panel's testimony. I know that all of you have made an effort to be here and to testify.

In order for us to, I think, more fully understand the impact of these issues and I think the depth of people's feelings on these different issues, we have made a real effort on the part of the House Resources Committee to get out and do field hearings and to bring Congress to the people more and to get people outside of Washington, D.C.

As I said earlier, this is the tenth state I have been in in the last 3 weeks and have had the ability to listen to a lot of different people on issues that come before the Committee. But I feel it's extremely important that we make this effort because I know all of you make a great effort to try to inform us.

I want to thank the hospitality of my colleague, Mr. Walden. He has obviously been a very valuable Member of Congress and the Committee for a long time and has worked extremely hard on issues that are important in Oregon. So I thank him for having us here and for insisting that we come.

And I'd also like to add to submit testimony for the record you can e-mail it to the House Resources Committee. It's the Forest Health Subcommittee. They will give you the e-mail address on the way out so that you can have a chance to grab your pencil and you can write it down. So those of you who did not have an opportunity to give oral testimony can submit written testimony for the record. Again I want to thank all of the witnesses today, thank you, Mr. Walden, and the hearing is adjourned.

[Whereupon, at 5:00 p.m., the Committee was adjourned.]