

NATIONAL FIRE PLAN

HEARING
BEFORE THE
SUBCOMMITTEE ON
FORESTS AND PUBLIC LAND MANAGEMENT
OF THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
ONE HUNDRED SEVENTH CONGRESS
FIRST SESSION
TO CONDUCT OVERSIGHT ON THE ADMINISTRATION'S
NATIONAL FIRE PLAN

MARCH 29, 2001



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NATIONAL FIRE PLAN

THURSDAY, MARCH 29, 2001

U.S. SENATE,
SUBCOMMITTEE ON
FORESTS AND PUBLIC LAND MANAGEMENT,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:32 p.m., in room SD-628, Dirksen Senate Office Building, Hon. Larry E. Craig presiding.

OPENING STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR FROM IDAHO

Senator CRAIG. Good afternoon, everyone, and welcome to the first hearing of the Subcommittee on Forests and Public Land Management of the 107th Congress.

During the last Congress, this subcommittee worked on 47 free-standing bills that became law with broad bipartisan support. This was in addition to a number of other measures on which the subcommittee heard testimony that eventually became law as a part of either an appropriation bill or an omnibus legislative package.

Obviously, this level of legislative productivity required a great deal of cooperation from all of the subcommittee's members on both sides of the aisle. But I want to especially thank my colleague to my left, Senator Ron Wyden of Oregon, the Ranking Democrat Member of the subcommittee. We worked well together. We continue to do so. In light of all the new Senate rules, I want to gladly acknowledge that he is deserving of 50 percent of the credit for the work done in the last Congress. As we get further into the oversight of what we are about, I am also very willing to give him 50 percent of the blame for the work that we do not get done.

[Laughter.]

Senator CRAIG. Last year we saw some of the worst and some of the best in Federal land management. We experienced the worst fire season in the last 50 years, over 70,000 fires that burned more than 7.5 million acres. At times nearly 30,000 personnel were on the fire lines, including the military and fire fighters from other countries around the world.

During the worst of the fire season, we learned that the Federal fire fighting agencies' budget requests were reduced before they were sent to Congress. Consequently, fire fighting preparedness was not optimum, and fire fighting efforts in some instances were hampered.

Today we are suffering through the results of a lack of that kind of foresightedness. Some parts of my State and some parts of the West will not recover for decades from what it experienced last summer.

Unfortunately, the situation is still very dire. If you look at the maps of the mountain snowpack and spring and summer runoff forecasts for March of this year—and that is just going up—the bright red tells the story. It tells what could be a very angry story come summer. For much of the West, mountain snowpack is much less than 70 percent of that average, as demonstrated by those charts, spring and summer stream flows projected at less than 70 percent of the average flow. In very simple terms, this means that it is unusually dry out West for the summer, and it is dry right now. Unless we get some very unusual weather during the late spring and summer, then it will get dryer and the heat of the season could well produce a catastrophic fire situation.

I, therefore, offer a very simple conclusion: We are likely to have another fire season similar to the one we have just experienced, but tragically enough, it could even be worse.

Lately we have been discussing the crisis of California. That is an energy crisis. Once again, my colleague from Oregon and I in the Pacific Northwest are experiencing the problems that are, in part, a result of California's situation.

For example, this is how bad it is. Last week a noted Hollywood makeup artist was quoted as being horrified at the prospects of making up Catharine Zeta Jones for the Oscar ceremonies in sheer darkness and without a blow dryer.

[Laughter.]

Senator CRAIG. Now, pertinent to today's hearing, let me offer my worst case scenario. It involves an uncontained Sierra Nevada project level fire with crews on the line when a rolling blackout grounds the air tankers and shuts down tanker loading facilities. Could this happen? We are entering potentially a very dangerous fire season.

At the same time, last year we saw some of the best efforts in Federal land policy. In addition to the passage of H.R. 2389, the Secure Rural School and Community Self-determination Act, which I hope to review in oversight later this year, we were able to pass important legislation addressing wildfire and hazardous fuel situations.

With the cooperation of Senator Ron Wyden and Senator Domenici and Senator Bingaman, who has just joined us, and Senator Feinstein, who has just joined us, and others, we were able to provide considerable authority, support, and funding for a National Fire Plan developed by the Clinton administration. In addition to increasing findings for fire preparedness, we were able to identify communities at risk from wild fires, enhance cooperative fire fighting efforts, and provide additional funding for the initiation of hazardous fuel treatments and forest health projects and secure additional funding and accelerated procedures for rehabilitation and restoration work.

Today we will get a first look from Federal and State agencies as to how this is coming together. In addition, we will hear from community activists and land stewardship contractors involved in

some of the projects on the ground. Finally, we will hear from some national groups which will offer their perspectives on what Congress passed last year and how the agencies are carrying out Congress' will.

With that, it is my pleasure to turn to my colleague, the Ranking Member of this committee, Ron Wyden, for his comments before we turn to other members of the committee.

[A prepared statement from Senator Johnson follows:]

PREPARED STATEMENT OF HON. TIM JOHNSON, U.S. SENATOR FROM SOUTH DAKOTA

Last year, raging fires scorched large areas of forests in the Black Hills of South Dakota and in several other western states. 70,000 acres were burned in the Black Hills alone. 73,000 wildland fires have destroyed 6.4 million acres in the western states at a record cost of \$626 million.

The firefighters as well as federal and state authorities did a tremendous job in containing the fires. However, it was clear to me that South Dakota and the states throughout the western United States needed additional resources to manage clean-up and to work on prevention efforts in the future.

Last year, Congress directed emergency resources to address the needs of the western forests before the problem worsened. The funding being used for fire fighting efforts, post-fire salvage and environmental clean up, protecting the integrity of watersheds and community water supplies, and assisting individuals and businesses adversely affected by property losses and economic hardships.

Preliminary documents from the Forest Service on its National Fire Plan demonstrate commitment to these and other long term efforts to address the challenges facing forest maintenance. In particular, I am encouraged that the Plan includes programs for rural fire assistance that would provide support and training for fire-fighting in rural communities.

At the same time, I am concerned about reports that the President's budget may cut as much as a third of funding that was approved by Congress last year. The emergency funding was passed with bipartisan support last year in response to a critical need to rehabilitate forests that were damaged last summer. It is also designed to provide assistance for programs that would help to prevent and contain fires in the future.

In particular, I am disturbed that funding for fire rehabilitation and restoration may be eliminated. There is still a great deal of work to be done to repair the damage from the fires and leaving this work unfinished could be a devastating blow to the health of the forests.

The President has expressed a desire to work in a bipartisan manner but gutting funding for vital fire rehabilitation and prevention programs that were passed with bipartisan support is not the way to go. The President needs to work together with Congress and the Forest Service to ensure that proper steps are being taken to address the needs of our forests. We did that last year and must continue to do so in the future.

**STATEMENT OF HON. RON WYDEN, U.S. SENATOR
FROM OREGON**

Senator WYDEN. Well, thank you, Mr. Chairman, and thank you for your exceptionally kind remarks. Without turning this into a bouquet-tossing contest, let me be clear that you have met me more than halfway. You have consistently made an effort to work in a bipartisan way on these key issues. With the help of Senator Bingaman, especially on our county payments bill, we produced what the Forest Service called recently the most significant bill for their agency in 3 decades. I think if you had asked folks 2 years ago whether we could have produced a bill like that, they would have said: fat chance. So, I thank you and your staff very much for working in such a bipartisan way, and I know we are going to pursue these issues in just such a fashion again this session.

I am glad also that you held this hearing. It comes at, I think, a very important time.

I want to begin my brief remarks by describing what happened in my office yesterday where we had folks from the Joseph Timber Mill, which is in Joseph, Oregon, together with Wallowa Resources, which is a nonprofit environmental group. As we had with county payments, and so many of the important issues that we have dealt with, we had the timber industry folks and the environmental community coming together saying: we want to be part of a new partnership; we want to get beyond the days of salvage riders and all of the bitterness that we saw 2 years go and we want to try to figure out a way that makes sense for the economic needs of these rural communities and, at the same time, manage the resource in a sustainable way.

Well, what the folks who own the mill said, along with the environmental leaders that were there as well, is that when they were told at the Joseph Timber Mill that their days of processing big trees were over, they both got together and made an investment in trying to deal with approaches where they could look to smaller trees and also ensure forest health. They both wanted to make sure that this mill could process trees that were thinned from a fire-prone forest.

So, you had the timber industry people and the environmental community working together in exactly the way that the Government suggested. They were not going to focus on big trees. They were going to go after an opportunity in line with the environmental laws to manage the resource as it related to small trees and preventing fire.

The problem is, as of right now, there is no processing or thinning going on at this mill in Joseph, Oregon. The fact is that the Forest Service has not followed through on their promise to provide the small trees.

I would just offer up the judgment, Mr. Chairman, that this issue, reducing the risk of fire, is too important for the Government to be the weak link in an effort to build a partnership between the timber industry, the environmental community, and the Government. Frankly, what I have seen around the country is that too often the Government has been the weak link and has not followed through on these pledges to work with industry and the environmental community, as the folks who were sitting in my office described yesterday.

The last point that I would mention, Mr. Chairman, is obviously we need sufficient resources. I was very pleased to have been able to join you in expressing concerns about the proposed cutbacks in fire prevention funding. The idea of cutting a billion dollars of the funds earmarked for fire prevention obviously drew bipartisan opposition when it was raised earlier. I think we all understand that to have those kinds of cutbacks, when things are so dry and we have had such a reduced water year, would be really ominous. I know we are going to work together to restore that money and to ensure that the funding is in place so that people in Enterprise, Oregon, the environmental folks, and timber industry people who come together can actually take steps to make sure that they are

putting in place the projects that the Government envisaged as we look to making a transition in natural resources policy.

I thank you for this hearing.

Senator CRAIG. Ron, thank you very much.

Now, let me turn to Senator Bingaman. The Senator is the Ranking Member of the full Committee of Energy and Natural Resources. Thank you for joining us.

**STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR
FROM NEW MEXICO**

Senator BINGAMAN. Well, thank you very much for having the hearing. This is a very important issue in all of our States. I am anxious to hear what the status is of the efforts to reduce these hazardous fuels all through the West. In my State there are many communities where it is considered a very urgent matter that needs attention, and that was what we have been working on here last year in the Congress and again this year I am very glad to say.

Let me mention three things in particular.

First, I want to thank Betty Vega who is one of the witnesses. She is from my hometown. She is here to talk about some of the activities that we have engaged in in New Mexico to deal with this issue, the Cooperative Ownership Development Corporation in Silver City, New Mexico.

The three points I wanted to make are: first, I believe Senator Craig made this point. It is absolutely critical to keep this dialogue going between the land management agencies and the communities. That is something that we have not had enough of over the years. I think that is doing much better now, and I think it is important that it continue.

A second point is that we need to be vigilant in monitoring this National Fire Plan that we put in place.

Of course, the third point, which we have all said and which I firmly believe, is that we need to sustain a commitment to deal with this problem over the long term. It is not something we are going to do in a year or 2 years. It is going to take 10 or 15 years to deal with this in a responsible and adequate way.

I was disappointed at what I have heard about the administration's proposed cuts in funding for some of these programs, but I have had the chance to speak with Senator Craig. I know he is committed to seeing that the funding is there when the Congress completes its budget, and I certainly am. I think all of us want to see this effort continued.

I have said to Senator Craig several times that we have had a better than average rainfall and snowpack year in New Mexico this year, and that the problem is not in the southern Rockies near to the extent that it is in his State. I think that is true.

However, there was an article in Sunday's *Albuquerque Journal* entitled "New Mexico Fire Officials Gear Up for Worst," pointing out that they do not believe that the snowpack, even though it is substantially better than last year, is going to solve our problems. So, I would ask consent, Mr. Chairman, that that be included in the record.

Senator CRAIG. Without objection.

[The *Albuquerque Journal* article follows:]

Sunday, March 25, 2001

N.M. FIRE OFFICIALS GEAR UP FOR WORST

(By David Mercer of the Journal)

With a heavy snow pack holding in northern New Mexico's mountains, some might be tempted to put the memories of 2000's disastrous fire season behind them and believe the season ahead doesn't hold the same potential for catastrophe.

Firefighters and forecasters working in the region aren't among them.

The encouraging information, according to Albuquerque-based National Weather Service meteorologist Chuck Maxwell, comes from measures of those mountain snow packs, as high as 124 percent of average in some northern mountains.

Less encouraging? More moisture means the region's lower elevations are carpeted with a healthy layer of grass, waiting to dry and burn.

"As of right now we've already had some fires here in this area because it's still dry," Las Vegas, N.M., Fire Chief Robert Gonzales said Saturday. "People don't realize it's dry" and want to burn trash and brush. Some is left over from last year when dry weather and news of big fires made many reluctant to so much as strike a match.

Gonzales said his department already has responded to a handful of grass fires in recent weeks, one that burned 25 acres and another that quickly consumed three or four acres. Both threatened homes.

"It's still not as wet as people think," he said. "But remember, we've had a drought for what, six years now."

Taos Administrative Fire Chief Jim Fambro believes the fire season of 2001 will be active. In just the past couple of weeks the number of fire permits issued by his department has sharply spiked.

"So people are starting to get the itch," he said.

One such permitted fire was driven out of control by swirling winds Saturday afternoon and consumed an acre before firefighters got a handle on it, Fambro said.

Still, he would rather see people do any burning they feel necessary now rather than wait until later this spring, when the weather may be warmer and drier.

Just what's ahead, Maxwell said, is hard to say.

The long-term outlook calls for drier- and warmer-than-average weather. What that really means, Maxwell said, is difficult to say.

"I'd be surprised if we didn't have one more big, wet storm come through here by the middle of April," said the meteorologist, who authors the weather service's extended fire weather forecasts for New Mexico. "That's just the way spring is here."

Snow that is sitting in the high mountains so far is impressive when compared to last year. According to the Natural Resources Conservation Service in Washington, D.C.: the Pecos River Basin was at 124 percent of average in the first week of March, compared to 37 percent a year ago; Sangre de Cristo drainages were at 120 percent of normal, while only 59 percent early last spring; and Jemez Mountains drainages were at 104 percent, compared to 31 percent last year.

"That's good for places that benefit from the slow melt-off of snow," Maxwell said. In that high country, "there's much less likelihood of an early fire season."

And odds also are decreased for another Vieveash, the 28,000-acre fire that swept across the southern Sangre de Cristos last spring, and Cerro Grande, which burned almost 48,000 acres in the Jemez range in May and destroyed more than 400 residences in Los Alamos.

Maxwell offers a couple of caveats, though. He notes that snow measures are taken in some of the highest, coldest places, "not where fire activity is going to be the highest."

He also points out that northern New Mexico's snow pack doesn't peak until the middle of April. And two or three weeks of windy, dry weather—hardly out of the question—could change the picture significantly by then.

"That could eat up the snow pack," he said.

Firefighters across the region, in the meantime, say they'll plan and wait.

Chama Volunteer Fire Department Chief Felix Gallegos said his department saw few brush fires last season but nonetheless had a truck follow the daily departure of the Cumbres & Toltec Scenic Railroad's steam engines to the Colorado border for fear that a stray cinder might ignite a blaze. They'll be ready to do the same this year for the tourist line to Antonito, Colo., he said.

Gonzales said his department will be passing out brochures on how people can safeguard their own homes against wildfire and offers free home inspections in Las Vegas to evaluate dangers such as debris on roofs and the ground around homes.

Fambro said his department offers similar inspections and will plan for at least the potential of another bad year.

"We're still gearing up for the worst," he said, "and we'll hope for the best, I guess."

Senator BINGAMAN. I would also just alert our witness, Lyle Laverty, who is here that I am going to ask him about this legislation that we are intending to introduce. I know Senator Wyden and I have talked about introducing it to ensure that the reimbursement can go to the Fish and Wildlife Service, in particular for these hazardous fuels reduction projects. I think we need to be sure that the law is clear on that so that those funds can flow.

Thank you very much, Mr. Chairman.

Senator CRAIG. Senator, thank you.

Now let me turn to Senator Feinstein of California. Senator Feinstein was leading on the issue of forest health, starting a good number of years ago when we partnered up on Quincy Library. I must tell you, Senator, that your due diligence over the last year and a half or 2 to make that happen has been impressive. And I appreciate it because I think those kinds of pilot programs, to demonstrate that we can get in and reduce fuel loads and change the character and health of the forests without damaging the environment, are so necessary for our publics to see that kind of thing going on. So, thank you for your leadership in that area.

**STATEMENT OF HON. DIANNE FEINSTEIN, U.S. SENATOR
FROM CALIFORNIA**

Senator FEINSTEIN. Well, you are very welcome, Mr. Chairman.

I want to thank you for taking the time to meet with representatives from the Forest Service and the leadership of the House as we work to try to get Quincy underway. I think it is pretty fair to say that Quincy has been fought by the Department. That is my very sincere belief. I have tried to push. You have helped me try to push. I hope we are beginning to make some progress. I do not know how the new plan that was just put forward is going to affect the Quincy Library proposal.

But let me say this. We have 18 national forests in California. They cover 20 million acres of our State. I have become a believer that the Forest Service fire suppression policies have been a dismal failure in the United States. We have had a buildup of the possibility of catastrophic fire over the years that is second to none in our history. That is why I worked with Senator Domenici in cosponsoring \$240 million of emergency funding last year. The aim was to address this problem of dangerous fuel buildup on millions of acres of our national lands.

With this buildup of fuel, the possibility of very serious and destructive forest fires has dramatically increased. The Forest Service has now identified 60 million acres of land in the interior West as being at high risk of catastrophic fire. Almost a full quarter of this acreage lies in California. We have more than any other State.

Two years ago, my State lost more than 700,000 acres of forests. Several people lost their lives in these fires and dozens of structures were burned. Incidentally, 70,000 acres were prime California spotted owl habitat in the Lassen and Plumas Forests.

Now, the loss of owl habitat is exactly one of the things that the Quincy Library project attempted to protect against. Last year we were luckier than many of our neighbors, but with about 15 million

acres in California at high risk of catastrophic fires, it is only a question of time.

I very much believe that a one-size-fits-all management strategy is not the right approach. I very much believe that each forest is distinct, that there are differences in topography, in geography, in climate, in trees, different trees burn differently, and that proper forest stewardship in California may well not be the same practices that are used in Pennsylvania or Alaska or Montana.

So, I believe that a combination of tools must be used to fix the problem. The dead and dying trees must be removed. Overgrowth must be thinned. Mechanical treatment and controlled burns must each be used separately and in conjunction with each other. And if we do not do this, incidents of serious fire will only continue to increase.

So, I hope we can get at that 60 million acres in our West that are at high risk of catastrophic fire, but in order to do so, I truly believe the only solution is to change our forest management practices to phase out fire suppression while phasing in fire prevention.

I look forward to continuing to work with you, Mr. Chairman, and the ranking member to see if we cannot get some additional pilots going. Let us see. You see, I have always wondered why was there so much opposition to Quincy. If it was wrong, it was going to fail and we would know it. Why was the Department so eager to prevent it from moving, from happening? Now, with the new plan, I do not know whether it is possible for Quincy to succeed or not, but I hope to ask some of these questions when my time is appropriate.

Thanks, Mr. Chairman.

Senator CRAIG. Thank you very much.

Just briefly, before we turn to our panelists, Senator Bingaman expressed the same concern that I have had about budgets and necessary resources. The administration found the situation they were in when they were putting the money together, that we put all of the 2001 money in an emergency spending account, and in building the 2000 budget proposal, the administration did not have such an option. They did manage to save about half of the 2001 emergency increase and build it into the 2002 budget. Therefore, the 2002 request is a significant increase over 2001, albeit I think—and I think my colleagues agree—still inadequate. And we are going to resolve that problem before the appropriation is finalized. So, that is a project we have all got to work on.

Now let us get to our panelists. I am extremely pleased today that we have three people who are directly engaged in the issues that we have been talking about. Lyle Laverty, the Associate Deputy Chief and National Fire Plan Coordinator, U.S. Department of Agriculture, U.S. Forest Service here in Washington; Tim Hartzell, Director Office of Wildland Fire Coordination, U.S. Department of the Interior; and Jim Hubbard, Colorado State Forester, National Association of State Foresters.

With that, Lyle, we will turn to you to ask you to lead off, if you would please.

**STATEMENT OF LYLE LAVERTY, ASSOCIATE DEPUTY CHIEF
AND NATIONAL FIRE PLAN COORDINATOR, FOREST SERVICE,
DEPARTMENT OF AGRICULTURE**

Mr. LAVERTY. Well, thank you, Mr. Chairman and members of the committee. It is really an honor to be here this afternoon to share with you information and an update on what is actually taking place and what we have accomplished so far with the implementation of the fire plan and, perhaps more importantly, what we plan to do this summer.

As you have all referenced, the fire season of 2000 captured the attention of American people in a way that has never surfaced before, particularly in the area of protecting life and property. I think that you could not watch the news anywhere without seeing some type of a fire scene last summer.

The President directed the Secretary of Agriculture and the Secretary of the Interior to develop and prepare a strategy or a report on what are we going to do with the situation. Actually on September 8, the two Secretaries delivered that report to the President. That report is what we have referred to as the National Fire Plan. It contains a series of recommendations that were developed in consultation with the Governors across the country to talk about the impacts of fire and the effects on rural communities, but more importantly ensure a strategy on what are we going to do with that.

The important point is that this is a National Fire Plan. It is not a Western issue. It is not just an Eastern issue. It is not a Southern issue. But it is truly in fact a national plan.

Accordingly, the plan is framed around five goals. You can see there the one board that frames those.

Very quickly, they are: to protect communities, to build the fire fighting readiness, to reduce hazardous fuels, restore those impacted fire sites. Perhaps most importantly that is on the agenda for Tim, Jim and myself is that we can, in fact, ensure accountability, that we can come back and look all of you in the eye and let you know that these have been good investments.

The Congress for the Forest Service provided an additional \$1.1 billion in funding for the Forest Service's portion of the fire plan in 2001. This represented about an 84 percent increase over the 2000 level. The increase provided funding for the first time on the Forest Service side to achieve the optimal level of fire fighting resources in those emergency funds and to carry out the goals and objectives of the plan.

I would tell you today that the implementation of the plan is well underway. We have, in fact, made significant, remarkable progress. Cooperation between the agencies, collaboration between the Governors, the tribal and local governments is beginning I believe to set a new model in how government can and should work, responding with results to the needs of the people of this great country.

We recognize that there are many challenges in front of us to complete this significantly increased workload. The conditions of America's forests, as you have referenced, especially in the interior West, typically dictates that escaped fires quickly become infernos resulting in significant damage not only to resources but to property.

It is going to take many years and continued and determined commitment of resources to effectively reduce the impacts of the wildland fire in rural communities across America. But I would tell you that these are sound investments and they will, in fact, make a difference. Investing in fire fighting capacity, both on Federal and on State and private lands, combined with aggressive changes in structure and composition of these wildland fuels, will lead us to healthy and restored fire-adapted ecosystems. Uncontrolled, large catastrophic fires will decline. The investment strategy is long-term and it is going to be expensive, but the return on the investment is going to be significant.

The National Fire Plan has five key points. First is fire fighting, and that is to ensure that we have the preparedness resources ready to go for the 2001 season. To that end, we have been very aggressive, and I think we are in a much better position as we enter the condition that Senator Craig highlighted as we move into this summer.

The second area deals with the restoration and rehabilitation of those areas that were severely impacted by the wildfires of 2000. Progress is well underway, and in many cases we actually had restoration activities taking place before we even left the fires this summer and the smoke was down.

The third key point deals with the hazardous fuel reduction. The funds that the Congress provided allows us to work and invest in projects that will, in fact, reduce risk.

The fourth key point is community assistance, to work with the communities to assure that the communities actually have adequate protection as well. This is the great cooperation that is going on between the States and the Governors and the agencies.

Finally, the fifth key point deals with accountability. We want to be absolutely transparent. We want to be absolutely accountable. We have, in fact, a framework that we have established for oversight and monitoring for results. Even though it is early in the year, we have made a good start and we have got a number of accomplishments in place that we are already able to report.

On the Forest Service side, we have treated over 400,000 acres as we move toward that 1.8 million acres that we expect to treat in 2001.

We have been aggressive in terms of recruiting fire fighting personnel. We expect to hire about 3,000 people just on the Forest Service side, and we are making great progress on that. This is the most significant block of hiring that has taken place on the Forest Service side.

We have started to provide assistance for training and equipment for over 4,000 volunteer fire departments across the country. This becomes a very critical element because in many cases these are the first responders.

We have developed a framework, working with the Governors, on preparing a 10-year comprehensive strategy that includes not only the Federal lands but also State and private lands. This begins to help us identify where should we strategically place resources.

We are committed to increasing the Nation's fire fighting capability and to protect communities and restore resources, but it is going to take a long time. It is going to take more than 1 year. It

is going to take more than 2 years, and it is going to take more than 3 years. I am really pleased with the conversations that we have had with members and with staff about the commitment that we can make a difference.

The outcome will, in fact, be significant. We are going to see healthy ecosystems and we are going to see improved watersheds. I can tell you that we are going to be able to reduce losses to communities and protect property values.

Thank you very much for the opportunity, Mr. Chairman, to share a few remarks. As Tim and Jim finish up, we would be happy to entertain any questions. Thank you very much.

[The prepared statement of Mr. Laverty follows:]

PREPARED STATEMENT OF LYLE LAVERTY, ASSOCIATE DEPUTY CHIEF AND NATIONAL FIRE PLAN COORDINATOR, FOREST SERVICE, DEPARTMENT OF AGRICULTURE

Mr. Chairman and members of the subcommittee, thank you for the opportunity to appear before you today to talk about the implementation of the National Fire Plan. I am Lyle Laverty, Associate Deputy Chief and National Fire Plan Coordinator of the Forest Service. I am here today to bring you up to date on what has been accomplished thus far and what we plan to do next.

The severe fire season of 2000 captured the attention of the American people on the need to find ways to protect life and property and minimize losses of natural resources. On September 8, the Secretary of Agriculture and the Secretary of the Interior issued a report entitled, "*Managing the Impact of Wildfires on Communities and the Environment*." The report, referred to as the National Fire Plan, contains recommendations to reduce the impacts of wildland fires on rural communities and ensure sufficient firefighting resources in the future.

Mr. Chairman, implementation of the National Fire Plan is well underway and significant progress has been made. However, we recognize that there are many challenges to complete the significantly increased workload. Long-term, it is going to take many years and a continued commitment in resources to effectively reduce the impacts of wildland fire on rural communities.

Even though it is early in the year, we have made a good start with the following:

- Treated over 80,000 acres, 713 miles of roads and 245 miles of trails to restore and rehabilitate areas damaged during the 2000 fire season.
- Reduced hazardous fuel on over 400,000 acres of the 1.8 million acres we plan to treat this year.
- Hired over 850 new permanent fire personnel and expect to have another 1906 (650 permanent, 1250 temporary) hired by April 30, 2001 along with planning to acquire 412 fire engines and the services of an additional 47 contracted helicopters to provide the highest practical level of fire fighting capability.
- Initiated assistance for training and equipment for 4,000 volunteer fire departments.
- Published a preliminary list of communities at risk prepared by the States and Tribes to ensure that we increase the focus of our future efforts on reducing fire risk in the areas adjacent to these communities.
- Started 63 research projects to increase scientific knowledge in support of the National Fire Plan.
- Initiated discussions on a framework and draft of the national ten-year comprehensive strategy for the National Fire Plan.

Before I talk more about our accomplishments and our planned actions let me explain how conditions on our forests and rangelands developed the level of uncharacteristic fire risk that exists today.

BACKGROUND

Fire Conditions

Decades of excluding fire from our forests and past management practices have drastically changed the ecological condition of western forests and rangelands and dramatically affected fire behavior. A century ago, when low intensity, high frequency fires were commonplace, many forests were less dense and had larger, more fire-resistant trees. Over time, the composition of our forests has changed from more fire-resistant tree species to species non-resistant to fire such as grand fir, Douglas-fir, and subalpine fir.

Fire ecologists point out the paradox of fire suppression: the more effective we become at fire suppression, the more fuels accumulate and ultimately create conditions for the occurrence of more intense fires. As it became Federal practice to extinguish fires aggressively in the west, firefighting budgets rose dramatically and firefighting tactics and equipment became increasingly more sophisticated and effective. In the early 1930s the annual acreage burned by wildfires in the lower 48 states was about 40 million acres a year. In the 1970s, because of our effective fire suppression, the annual acreage burned by wildfires in the lower 48 states dropped to about five million acres. In the 1990's, the annual average acreage burned by wildfires was less than 4 million acres.

In addition to changes in tree species and ecological conditions of forests and grasslands more communities are at risk of wildfire than in earlier years. During the last two decades dramatic increases in the population in the West has resulted in housing developments in fire-prone areas, often adjacent to Federal land. This area where human development meets or intermingles with undeveloped wildland is called the "wildland-urban interface."

Reversing the effects of a century of aggressive fire suppression and past management practices will take time and money targeted to high priority areas to protect people, communities, readily accessible municipal watersheds, and habitat for threatened and endangered species. Although not all areas will need to be treated, the Forest Service and the General Accounting Office have estimated that there are around 60 million acres at risk of uncharacteristic wildfire in the interior West and more than 72 million acres nationwide. Many of these acres are not in the wildland-urban interface and include acres distant from habitation.

The Forest Service and its interagency partners have increased their efforts to reduce risks associated with the buildup of brush, shrubs, small trees and other fuels in forest and rangelands through a variety of approaches, including controlled burns, the physical removal of undergrowth, and the prevention and eradication of invasive plants. In 1994 the Forest Service treated approximately 385,000 acres across the United States to reduce hazardous fuels. In 2000 we treated over 750,000 acres almost double our earlier efforts.

Addressing Fire Conditions: The Key Points of the National Fire Plan

To address these changed conditions the recommendations in "*Managing the Impact of Wildfires on Communities and the Environment*" and actions implementing the National Fire Plan focus on five key points:

- Firefighting. Be adequately prepared to fight wildland fire.
- Rehabilitation and Restoration. Restore landscapes and rebuild communities damaged by the wildfires of 2000.
- Hazardous Fuel Reduction. Invest in projects to reduce fire risk.
- Community Assistance. Work directly with communities to ensure adequate protection.
- Accountability. Be accountable and establish adequate oversight, coordination, program development, and monitoring for performance.

The report also recommended substantial increases in funding for the land management agencies to address the five key points.

In response to the recommendations in the Report, Congress and the Administration increased funding for agency firefighting, fuels reduction, and other fire-related programs. We appreciate the quick and decisive actions of Congress and the Administration to fully fund the fire budgets for both the Department of Agriculture and the Department of the Interior. (See Appendix A.)*

The Conference Report for P.L. 106-291 contains explicit direction for the implementation of the National Fire Plan. The Appropriations conferees directed the agencies to work closely with State and local communities to maximize benefits to the environment and to local communities. They directed the agencies to seek the advice of the State Governors and local and tribal government representatives in setting priorities for fuels treatments, burned area rehabilitation and public outreach and education. The Appropriations conferees also directed the Departments of the Interior and Agriculture to work together to formulate complementary budget requests and to carry out the other tasks, including developing criteria for rehabilitation projects, developing a list of all communities within the vicinity of Federal lands at high risk from fire, and working collaboratively with the State Governors to develop a 10-year comprehensive strategy. (See Appendix B.)

* Appendix A and B have been retained in subcommittee files.

ACCOMPLISHMENTS OF THE NATIONAL FIRE PLAN

Implementation of the National Fire Plan is well underway. Since the very beginning we have worked collaboratively with Department of the Interior agencies, the Governors, State Foresters, tribal governments and county officials.

Our implementation efforts focus on addressing the five key points of the National Fire Plan. The status of our actions include the following:

Firefighting Readiness

We are focusing on increasing firefighting capability and capacity for initial attack, extended attack, and large fire support. We believe our efforts will keep a number of small fires from becoming large, better protect natural resources, reduce threat to adjacent communities, and reduce the cost of large fire suppression.

The expanded capacity will be used in a manner consistent with our knowledge and experience of the causes of fire risks. The agency will be guided by fire management plans that we intend to have updated and completed by the end of 2001.

To date the Forest Service has hired over 850 new permanent fire personnel and plan to hire a total of over 2,750 (1,500 permanent, 1,250 temporary) to provide the highest practical level of protection efficiency. This will include twelve new hotshot crews for a national total of 74 crews. We plan to acquire an additional 412 fire engines and have contracts for an additional 47 helicopters for a total of 106 helicopters and 40 fixed-wing aircraft. In addition we will have another 500 aircraft available through "call when needed" contracts. We are also in the process of awarding the retardant contract for 2001-2003 to ensure adequate supplies.

In addition, we will construct several new fire facilities and increase the level of maintenance on existing fire facilities to support initial attack. This construction includes projects such as a new airtanker base and national fire cache in Silver City, New Mexico, new hotshot crew housing in Ft. Collins, Colorado, and a new helitack base in Price Valley, Idaho.

The agency is also investing in applied research to improve the efficiency, effectiveness, and safety of the national firefighting effort. In addition to the progress made in the Forest Service research and development program, the Joint Fire Science Program (JFSP) has been increased. This additional applied research and development will assess fire behavior and fire restoration techniques during and immediately after fire events; upgrade aircraft-based tools for monitoring fire behavior; increase understanding about post-fire conditions, fire effects, and the effectiveness of past land management treatments; and establish protocols for evaluating rehabilitation measures. The Secretaries of Agriculture and the Interior have also established a stakeholder advisory committee to advise the JFSP Governing Board. The committee plans to hold its first meeting in April.

Rehabilitation and Restoration

We are focusing rehabilitation efforts on restoring watershed function, including protection of basic soil, water resources, biological communities, and prevention of invasive species in priority watersheds. Healthy, diverse ecosystems are resilient and less likely to produce uncharacteristically intense fires when they burn.

Burned area emergency rehabilitation (BAER) teams mobilized after the 2000 fire season. Plans were developed and approved for over \$40.8 million of emergency stabilization for 235 projects on moderately and severely burned National Forest System lands. Most of the emergency treatments were completed before winter, including 62,000 acres of grass seeding, 3,606 acres of mulching, 17,886 acres of intensive log and wattle erosion barriers, and drainage improvements on 713 miles of roads and 245 miles of trail. For example:

- In Idaho, 650 acres were seeded, 242 acres intensively mulched, and erosion control barriers installed on 3,157 acres on the Trail Creek fire on the Boise NF.
- In Montana, drainage was improved on 410 miles of road and 4,732 acres of intensive erosion control barriers were installed on the Skalkaho-Valley fire on the Bitterroot NF.
- In California, 890 acres were seeded and 200 acres intensively mulched on the Manter fire on the Sequoia NF.
- In New Mexico, 13,500 acres were seeded, 3,070 acres intensively mulched, and 5,170 acres of erosion control barriers installed for the Cerro Grande fire on the Santa Fe NF.
- In Colorado, 1,000 acres of mulch and erosion barriers are being installed on the Bobcat burn.

The remaining acres will be treated as soon as the land is accessible this spring.

In addition, long-term rehabilitation and restoration on over 400 projects is currently underway. These activities will include reforestation, replacement or repair of minor facilities, treatment of invasive species (including noxious weeds) resulting from fire, survey and monitor impacts to wilderness, survey and rehabilitate impacted heritage resources, reconstruct fencing, restore critical habitat and restore impacted trails.

We are also conducting additional research in rehabilitation and restoration methods. One example is research at Rocky Mountain Research Station quantifying the soil and water quality consequences of catastrophic fire, using the Cerro Grande and other southwestern fires as study sites.

Hazardous Fuel Reduction

We are focusing hazardous fuels reduction projects in communities at risk, readily accessible municipal watersheds, threatened and endangered species habitat, and other important local areas, where conditions favor uncharacteristically intense fires. We will remove excessive vegetation and dead fuels through thinning, prescribed fire, and other treatment methods.

Following Congressional direction we asked State, local and tribal governments, and interested parties to identify urban wildland interface communities within the vicinity of Federal lands that are at high risk from wildfire. The Departments of Agriculture and the Interior published a preliminary list in the Federal Register on January 4, 2001. The States and Tribes each developed criteria for selecting communities that resulted in some States listing numerous communities and others listing only a few. The Departments of Agriculture and the Interior have asked the Governors and the National Association of State Foresters to help the Federal Agencies to work with Tribes, States, local governments, and other interested parties to develop a national list based on uniform criteria.

We have completed hazardous fuel reduction on over 400,000 acres of the 1.8 million acres that are planned for treatment this fiscal year. Many of these projects focus on wildland-urban interface areas. In the future, we intend to focus the majority of this work on wildland-urban interface areas where hazardous fuel conditions exist near communities.

In addition to work on Federal lands, we will also provide technical and financial support to State and local fire departments to implement 329 projects to improve conditions on wildland-urban interface areas on non-federal lands. The States will also be implementing projects in impacted areas using the Community and Private Land Fire Assistance funding.

Research is also focusing on hazardous fuels projects. An example is work to characterize and map vegetation and fuels from remote sensed data to locate urban interface areas exposed to high fire potential. These methods will be helpful in prioritizing investments in fuels treatment.

Our success in accomplishing hazardous fuel reduction objectives will be largely dependent on focusing our treatments in the areas of greatest need. Our goal is to do this efficiently and with the least amount of controversy, getting the most amount of high-priority work done. Protecting communities and restoring forests represents the sort of win-win solution that will allow us to build a strong constituency for ecologically sensible active management.

Community Assistance

We are assisting State and local partners by providing funding assistance to rural and volunteer fire departments and through programs such as FIREWISE to educate homeowners to take actions to reduce fire risk to homes and private property. We plan to expand community assistance to rural volunteer fire departments to increase local firefighting capacity. Rural and volunteer fire departments provide the front line of defense, or initial attack, for up to 90 percent of communities. Strong readiness capability at the State and local levels goes hand-in-hand with optimal efficiency at the Federal level. We will increase our assistance for training and equipment to 4,000 volunteer fire departments in high-risk areas.

The Forest Service has been working with the State and private landowners, the National Fire Protection Association, and local firefighting organizations to help ensure that home protection capabilities are improved and to educate homeowners in fire-sensitive ecosystems about the consequences of wildfires. Also homeowners are being taught techniques in community planning, homebuilding, and landscaping to protect themselves and their property. Efforts include FIREWISE and other high priority prevention and mitigation education programs, as well as fuels reduction, defensible space development, and community hazard mitigation on non-federal lands.

We expect implementation of the National Fire Plan can create over 8,000 new jobs in rural areas and provide economic opportunities for rural forest dependent communities.

We are also beginning research to test the effectiveness of different models of collaboration, education, and community actions and to compare different local regulatory and incentive-based policies for encouraging residents to adopt FIREWISE practices. These new efforts will provide useful insights and guidelines for implementing effective community-level programs for wildfire protection.

Accountability

The agency is working to establish adequate oversight, coordination, program development, and monitoring for National Fire Plan performance to ensure accountability.

A key component in ensuring accountability is tracking funding and accomplishments. In keeping with Congressional reporting requirements, the Forest Service is finalizing a database to track projects funded by Title IV funds. It will include project accomplishments and funding for work in hazardous fuels reduction, rehabilitation, and community assistance. Once it is fully operational—which is planned for the end of this month—we will be able to report, for example, numbers and types of rehabilitation work being done in a particular national forest, congressional district, or state.

Of course, the Forest Service must be accountable for all funding. In fiscal year 2000, obligations in the Wildland Fire Management Appropriation totaled \$1.5 billion, exceeding available funds by \$274 million. An anti-deficiency report was sent to President Clinton and members of Congress as required by law. This violation was caused by delays in entering suppression costs into the agency financial system. The agency is conducting an intensive Anti-Deficiency Act violation review to more fully determine the specific causes and implement procedures to prevent a recurrence.

Another recent development associated with the implementation of the National Fire Plan is the *“Review and Update of the 1995 Federal Wildland Fire Management Policy.”* The Review and Update was completed in January 2001 in response to a request from the Secretaries of Agriculture and the Interior. The working team concluded that the 1995 Federal Fire Policy is generally sound, but that some changes and additions are needed to address issues such as fire planning, program management and oversight, and program evaluation.

If you refer to the list of Reporting Requirements in Appendix B, you will see the Forest Service and the Department of the Interior have accomplished several other important tasks and reported to Congress in a timely manner. These include a report on criteria for rehabilitation projects; a report on the need for revised or expedited environmental compliance procedures; and a financial plan and an action plan showing how agencies will spend the emergency funds.

Next Steps

The following are the next immediate actions to be taken by the Forest Service to continue implementation of the National Fire Plan:

- Complete the fuels management projects underway and continue planning for 2002 focusing fuels treatments in urban interface communities where they are most likely to reduce risk effectively.
- Continue work on a long-term strategy for the National Fire Plan (2002-2010) in collaboration with Governors and other stakeholders.
- Complete the hiring of new fire personnel to produce an extremely high level of firefighting capability.
- Complete analysis of fire risk and integrate with other resource information to prioritize treatment areas.

We will continue to provide timely information to Congress and other interested parties about the National Fire Plan.

Summary

Mr. Chairman, my staff and I will continue to work closely with the Department of the Interior Team to work with communities to restore and maintain healthy ecosystems and to minimize the losses from future wildfires on National Forest System lands, other Federal, State, Tribal, and privately-owned lands. Our successes to date—beginning to define the wildland-urban interface communities, hiring firefighters for the 2001 fire season, and ongoing rehabilitation, restoration, FIREWISE education work—is evidence of the strong start. However, our continued success will depend on what happens this field season.

We are committed to increasing the Nation's firefighting capability and ability to protect communities and restore resources, but it will take longer than one year.

This concludes my statement. I would be happy to answer any questions you or the members of the subcommittee might have.

Senator CRAIG. Well, Lyle, thank you. Before I turn to Tim, let me recognize Senator Conrad Burns of Montana who has joined us. Conrad's State was one of those that burned a great deal last year, and while we burned a few more acres in Idaho, Conrad got all of the attention.

Senator BURNS. We got all the smoke.

Senator CRAIG. He got all the smoke and he lost property in the sense of homes and human structures.

Conrad.

**STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR
FROM MONTANA**

Senator BURNS. Thank you, Mr. Chairman. I will not make a statement. I will submit it for the record.

I have also a letter from Jim Hurst of Owens and Hurst up at Eureka, Montana.

I cannot impress enough on the Forest Service to let us start salvaging that burned timber. We are doing it on State lands and we are way ahead. We are harvesting. All this timber is in roaded areas where it should have been harvested in the first place. Right now there are 11 million board-feet available just in that one area. And we cannot get to it. It makes no sense for this Government to deny, number one, a clean-up and the salvage by a mill in Eureka, Montana.

I am going to submit a letter that Jim Hurst wrote to Bob Castaneda for the record. And they have got facts and figures on what we can do.

But this is so short-sighted and so ignorant that it is unbelievable that we manage our lands this way and this country this way. It is unbelievable and I think it is unconscionable. It flies in the face of common sense of everything we do in this country.

So, I want to submit that letter, and thank you, Mr. Chairman, for this opportunity to sort of vent a little bit.

I know that it is not entirely the fault of the gentlemen in front of us, but I just beg of people to let other folks work and let us salvage a product that is wanted and is demand. It just flies in the face of just good old common sense.

Thank you very much.

Senator CRAIG. Conrad, thank you. Your letter will become a part of the record.

[The prepared statement of Senator Burns follows:]

PREPARED STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

I want to thank the chairman for holding this hearing on the National Fire Plan and thank our witnesses for being here. Just a few weeks ago I co-chaired a similar hearing on behalf of the House and Senate Interior Appropriations Subcommittees, and I am glad we are following up on that effort. We are looking at another dry year with high fire danger in the West, and this is the time to be doing something about it. We were able to dedicate a good deal of money to wildfire fighting and prevention last year, but we need to make sure it's spent effectively.

I am looking forward to seeing what each of you has to say this afternoon. We have a wide variety of interests represented, which is important because the fires

affect us in many different ways. I am especially pleased to see that we have witnesses not only from the Forest Service and the Department of the Interior, but also a representative from the National Association of State Foresters. It is very important to me that the federal firefighting agencies work collaboratively with state and tribal governments in mapping out a national long term strategy that addresses the fire risks across all jurisdictional boundaries.

My home state of Montana and many other states were severely damaged by wildland fires during this past year. Over 7 million acres were burned nationwide—1 million of these acres were in Montana. This is more than twice the 10 year average for acres burned. In the West, so far this year the snowpack has been well below normal with many locations reporting 50 to 70 percent of normal levels. I am concerned that these conditions may lead to a repeat of the fires we had in 2000.

As a result of last year's fires, the firefighting agencies prepared a report to the President which is now known as the National Fire Plan. This report contained five key recommendations. These recommendations were to fully fund the firefighting infrastructure so that we are better prepared to fight fire, to restore and rehabilitate landscapes and communities damaged by fire, to reduce hazardous fuels, to work directly with communities, and to be accountable for performance. The agencies requested an additional \$1.6 billion to implement the Fire Plan. All these funds were provided by Congress in the FY 2001 Interior Bill.

The Department of the Interior and the Forest Service emphasized that they would be accountable for the additional funds provided by the Congress. Now it's time for us to take the agencies at their word. The Committees involved need to know what the Department of the Interior and the Forest Service have accomplished with these additional resources so far and what they expect to achieve over the course of this year. We also need to know what the long term budgetary needs of the agencies are.

I am also interested in what obstacles the agencies, states, and tribes are facing and what we can do here in Washington to help maximize accomplishments on the ground. I will focus especially in the coming year on how the Bureau of Land Management and the Forest Service integrate community protection from wildfire into their regular forest and range management activities. Reducing fire hazard through thinning and stewardship activities can work hand-in-hand with opportunities to produce forest products. This was frequently overlooked in the past Administration. I would like to know what the agencies' approach will be now.

I believe another way to provide forest products and to carry out the agency's stewardship activities is to salvage timber burned last year on federal land more efficiently. In Montana, the Forest Service has had mixed success in making salvage timber available. For example, on the Bitterroot National Forest the agency has been able to offer sales only in areas that were slated for timber sales prior to the fires. Unfortunately, in other areas there is at least a 4 month lag time in getting any timber harvested from federal land. The longer the timber stands, the less it is worth, and it is also less useable.

The problem is partly that each Forest has to reinvent the wheel every time it tries to make a timber sale using expediated procedures. In last year's Interior Appropriations Bill, we authorized the President's Council on Environmental Quality to write new and simpler procedures for these after-fire timber sales and fuels reduction projects on Forest Service land. Under the previous Administration, CEQ chose not to change those procedures, but I hope this will change soon.

On the other hand, the state of Montana is currently harvesting timber from state lands that were burned. To this point, approximately 21.9 million board feet (mmbf) has been harvested from state land on a harvest area of 4,050 acres (out of a total of 14,000 state acres burned). The bulk of this salvage was removed within 3 months of the burn and no lawsuits were filed against the state. We need to do better on the federal lands. I am including in the record letters from two of my constituents, Owens & Hurst Lumber Co., Inc. and Pyramid Mountain Lumber Inc. which highlight the problems local mills have had in attempting to get the Forest Service to expedite salvage logging in national forests burned in Montana.

Finally, I am concerned that the federal commitment to addressing wildland fire issues may wane as other priorities in the Interior bill become pressing and as the memory of this past year's fires fades. I think this would be a terrible mistake. Unless Congress and the Administration provides the funds to address the wildfire hazards in our forests over the long term we will have more and more devastating fire seasons. We need a comprehensive approach to wildland fire management that addresses fire hazards across all ownerships, that safeguards at-risk communities, and perhaps most importantly, emphasizes the need for proactive management which can prevent a repeat of 2000 from ever happening again.

Senator CRAIG. Now let me turn to Tim Hartzell, Director, Office of Wildland Fire Coordination, U.S. Department of the Interior.

Tim, welcome before the committee.

STATEMENT OF TIM HARTZELL, DIRECTOR, OFFICE OF WILDLAND FIRE COORDINATION, DEPARTMENT OF THE INTERIOR

Mr. HARTZELL. Thank you, Mr. Chairman, members of the committee.

Let me first preface my remarks by letting you know how much we appreciate the support the Congress has given us for the fire management programs for the Department of the Interior and Department of Agriculture this year. We are truly appreciative of that. And for fiscal year 2001, for the Department of the Interior, that funding is nearly doubling our fire program capacity and that is going to increase our fire fighting capability. It is going to help us protect critical natural resources, sustain local economies, restore healthy range and forest ecosystems, and most importantly, keep our fire fighters and the public out of harm's way.

I am pleased to report that the Department of the Interior has made some substantial progress in responding to the mandate that Congress gave us in the 2001 appropriation report. The 2001 appropriations provided the best chance in decades for Federal agencies to demonstrate that management goals can be developed, sound objectives can be formulated, constituencies built to implement those objectives, and results achieved.

The problem is certainly a large one, but it is not insurmountable. I believe that the National Fire Plan prescribes a blueprint for us and everyone to be successful.

Let me address our accomplishments to date, which have been many, as they relate to the five key goals of the National Fire Plan.

First, in the arena of being adequately prepared to prevent, detect, and conduct initial wildfire attack, we are hiring nearly 2,500 new fire positions. We are well along the road to completing that task. We are also ordering 62 new fire engines that will increase our initial attack capability throughout the country. We are going to be contracting 24 new helicopters and other aircraft to increase our initial attack capability. We are going to be reconstructing 52 fire facilities, such as crew barracks and heliports, which are substandard.

In the arena of hazardous fuel reduction, we have a plan to treat nearly 1.4 million acres. One-fourth of that acreage will be around wildland communities in the vicinity of Federal land. The remainder will be hazardous fuel treatments in priority watersheds to ensure healthy range and forest lands.

Let me just say that in pursuit of this hazardous fuels management goal, we have initiated several actions to increase our ability to complete fuels reduction work via contracting, which was a directive in the appropriations report.

We have streamlined procedures. We have eliminated duplication among the agencies. We have developed standard contracts and statements of work for the various types of work to be conducted. We have established geographic contracting leads, and we have de-

veloped community assistance contracts to enable agencies to provide training to increase contracting capacity in local communities.

For the third goal of rehabilitating and restoring the acreage that was severely burnt or damaged in last year's wildfires, we plan to treat nearly 1.4 million acres in 14 States. Projects will be targeted at stopping accelerated erosion, protecting water quality, and restoring crucial wildlife habitat. Of this 1.4 million acres, we estimate that treatment on nearly 600,000 acres will be targeted to preventing the expansion of noxious weeds.

For the goal of community assistance, Congress has given the Department of the Interior a new appropriations component, a \$10 million increase that will target small rural fire departments in the vicinity of Federal lands throughout the country. The purpose of this appropriation is to provide training, equipment, supplies, and materials, thereby increasing the protection capability and enhancing fire fighter safety in these small fire departments. These are communities and small fire departments that are very important to us because very often, as you know, in small communities throughout the country, these fire departments are often the first responders. We are delighted that we have increased capacity to provide education and material to support these rural fire agencies.

Lastly, Lyle talked about accountability. We are committed to the success of the National Fire Plan and we have taken several critical actions to ensure that success.

First, we are tracking all key elements of the National Fire Plan. We will continue to do so throughout the year so that we can respond to your request for progress status on call.

We are working with the Forest Service to develop one national tracking system and one national database. In the interim, we are modifying our four Interior bureau management information systems to ensure that progress on the key elements of the National Fire Plan is tracked and reporting is available.

We have also initiated regular reporting procedures through the Department of the Interior bureau directors to the Secretary, providing her with updated information on status of the National Fire Plan.

Let me close by saying that I truly appreciate this opportunity. We are grateful for the support that Congress has afforded us, and we are grateful for the support that you have given us to begin to reverse the trend of deteriorating health of our forests and rangeland ecosystems. We view the funding for 2001 as an investment that will, in the future, help us save communities money, our natural resources, and the lives of fire fighters and the public.

However, the progress we have made to date has not occurred in isolation. The Federal agencies have for some time worked very effectively together in the arena of suppression. This is an evolution in that process. You are going to see this year, and in the future, increased collaboration among the Federal family not just for suppression but for fuels hazard reduction and you are going to see increased collaboration with our non-Federal and our State and local partners to help us carry out this important mission. We will not—any of us—be successful in isolation. The problem is bigger than any of us and the solution clearly depends upon all of us, the Fed-

eral community with the States, non-government organizations and local communities.

Like any long-term investment, however, I would caution that we need to maintain some patience. It took many, many decades for fuels to build up to their current dangerous levels. The demands on the public lands and resources are only going to increase in the future. It will take time for all of us, the Federal agencies, our tribal partners, State and local partners, rural fire districts, elected officials, and others to ameliorate the volatile and dangerous situation that exists in so many areas of our country.

The Department of the Interior has made a commitment to see this process through to a successful conclusion. We intend to honor our commitment and we look forward to your continued support. Thank you, Mr. Chairman.

[The prepared statement of Mr. Hartzell follows:]

PREPARED STATEMENT OF TIM HARTZELL, DIRECTOR, OFFICE OF WILDLAND FIRE COORDINATION, DEPARTMENT OF THE INTERIOR

Good morning Mr. Chairman and members of the Committee.

I appreciate the opportunity to address this committee concerning a natural resource effort that is historic in its scope and presents a unique challenge, implementation of the National Fire Plan. My name is Tim Hartzell and I am the Director of the Office of Wildland Fire Coordination for the Department of the Interior. I am pleased to report that the Department of the Interior firefighting agencies have made substantial progress in responding to the mandate that Congress gave us in the appropriation language for FY 2001 to minimize the severity of another fire season such as we had in 2000, lessen the dangers to communities at risk, restore ecosystems and the natural role of fire, protect our critical natural resources, and most important, keep our firefighters and the public safe.

BACKGROUND

The 2000 fire season was long, stubborn, volatile and widespread. The fire season started on January 1st, when a small blaze ignited near Ft. Myers, Florida, and lasted well into the fall. As late as December, more than 14,000 acres burned east of San Diego, California, destroying fourteen structures.

In total, almost 93,000 wildland fires burned close to 7.4 million acres. While neither the number of fires nor the number of acres approached all-time records, the conditions, fire behavior and potential for an even more explosive season were perhaps unparalleled in the last fifty years. The intensity of the fires was the result of two primary factors: a severe drought, accompanied by a series of storms that produced millions of lightning strikes and windy conditions, and the long-term effects of more than a century of aggressively suppressing all wildfires, which has led to an unnatural buildup of brush and small trees in our forests and on our rangelands.

The 2000 fire season also caught the attention of the public. In early August, President Clinton visited a battalion of soldiers from Ft. Hood, Texas, pressed into duty as firefighters on the Burgdorf Junction Fire, near McCall, Idaho. During that trip, President Clinton asked the Secretaries of Agriculture and the Interior to develop recommendations on how to reduce the impacts of fire on rural communities and ensure sufficient firefighting resources for the future. On September 8th, the Secretaries responded with a report entitled, "Managing the Impacts of Wildfires on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000," also known as the "National Fire Plan."

The National Fire Plan recommended that the Departments of Agriculture and the Interior seek an increased appropriation for fire management, and do several things:

- Continue to make all necessary firefighting resources available;
- Restore landscapes and rebuild communities;
- Invest in projects to reduce fire risk;
- Work directly with communities;
- Be accountable.

We are grateful that Congress took quick and decisive action once the report was issued. As a result, the wildland fire budgets for both the Department of the Interior and Department of Agriculture were substantially increased for FY 2001.

At present, we are concentrating our efforts in the Department of the Interior on three main areas: fire preparedness, fire operations, and assistance to rural fire districts. Later in my statement, I will detail some of the steps that have been taken and will be taken in the coming months to address these three critical areas.

ACCOMPLISHMENTS TO DATE

The FY 2001 appropriation provided an injection of critically needed support and funding for wildland fire and resource management. Although the agencies have managed wildland fire in the past as efficiently and safely as possible, the FY 2001 appropriation provided a much needed boost to ensure that adequate resources are available in the face of today's significant fire and resource management issues, such as rangeland and forest health, the increasing size and intensity of wildland fire that is resulting from much of the land's unhealthy state, and the ever-expanding wildland-urban interface. Late in 2000, the Department of the Interior and the USDA Forest Service began implementation of the National Fire Plan by detailing support, direction and funding for wildland firefighting agencies to better manage fire and resources on the land. An interagency steering group convened with representatives and leads from each Federal wildland firefighting agency, including DOI's Bureau of Indian Affairs, Bureau of Land Management, National Park Service, Fish and Wildlife Service, and USDA's Forest Service. Each of these agencies developed an agency-specific National Fire Plan implementation strategy to provide field personnel with procedural guidance.

The National Fire Plan is founded on a long history of cooperation among firefighting agencies. Its long-term success depends on cooperation and collaboration among Federal agency partners, Tribal, State, county and local governments, contractors and other service providers, and users of Federally-owned land. As soon as agencies received the FY 2001 budget, National Fire Plan leads from the Departments of Agriculture and the Interior met with such partners as the National Association of State Foresters, the Western Governor's Association, and the National Association of Counties, to discuss the ramifications of the FY 2001 appropriations.

Within weeks of the passage of the FY 2001 Appropriations Act, requests for pertinent data and status reports were sent to the field to determine staffing, rural fire district, and planning needs, and to determine which hazardous fuels treatment projects are ready for implementation in FY 2001 and which remain in the planning stages. Deferred maintenance and capital improvement projects were prioritized and allocated, and project tracking systems were developed. Weekly interagency and agency meetings, satellite broadcasts and information bulletins help coordinate efforts and disseminate information throughout the agencies.

In January 2001, the Department of the Interior and the Forest Service issued the "Review and Update of the 1995 Federal Wildland Fire Management Policy." This report came in response to a request from the Secretaries of Agriculture and the Interior. The National Fire Plan is built upon the foundation and framework of the Review and Update. The Review was conducted by 14 Federal agencies and the National Association of State Foresters, who concluded:

- The 1995 Fire Policy is still sound, but additional emphasis is recommended on science, outreach and education, restoration, and program evaluation.
- The fire hazard situation is worse than predicted in 1995.
- The scope of the Urban Wildland fuels hazard problem is even more complex and extensive than predicted in 1995.
- Additional research is needed on the effectiveness of different fuels treatment options, and post-fire rehabilitation activities.
- Additional collaboration and integration of all Federal agencies with land management responsibility as well as non-Federal agencies is needed.

The National Fire Plan addresses these concerns by:

- Increasing fuels hazard treatment activities for DOI to a planned target of 1.4 million acres of Federal land in FY 2001. This represents an increase from an average of 800,000 acres of fuels treatment activities.
- Increasing on-the-ground fuels hazard reduction work in FY 2001 around a greater number of vulnerable communities, and by developing a collaborative partnership with the State Foresters and others to design a long-term fuels treatment strategy in the Urban Wildland interface.
- Increasing research in: a) the economic and environmental consequences of fuels treatment alternatives in a variety of fuels types across the country; b) the ef-

fectiveness of post fire rehabilitation techniques including the control of noxious weeds and invasive species.

- Increasing outreach and partnership activities with the Western Governors' Association, the National Association of Counties, Tribes, other Federal partners, and non governmental organizations in designing a 10-year strategy to restore health to fire adapted ecosystems and a plan of action to implement the NFP.

Also in January 2001, the Department of the Interior completed an action plan to implement the National Fire Plan. This action plan contains proposed accomplishments for FY 2001 in wildland fire preparedness, operations, and rural fire assistance. It addresses actions needed to implement the National Fire Plan, including:

- Hiring additional personnel and obtaining needed equipment.
- Completing deferred maintenance and construction.
- Enhancing fire science work.
- Planning and implementing hazardous fuels treatments.
- Planning and implementing burned area rehabilitation.
- A financial plan for complying with Title IV of the 2001 Appropriation Act.

We divided our accomplishments under the National Fire Plan into the three key areas: fire preparedness, fire operations, and rural fire district assistance.

Fire Preparedness

Wildland fire preparedness provides agencies with the capability to prevent, detect and take prompt, effective initial attack suppression action on wildland fires. Preparedness includes staffing, aircraft and equipment, maintenance and construction, fire science and research, and the associated Federal acquisition practices.

Interior and Forest Service personnel have been working together to create consistency in position classifications. Outreach and recruitment to obtain diverse, well-qualified candidates began in December 2000 to fill firefighter, fire manager and support positions, and for fire and fuels specialists. Many of these positions have been advertised jointly and centrally to eliminate duplication of effort and to streamline the application process.

We are contracting for the use of an additional 16 aircraft, and we purchased equipment, including 40 new heavy engines, 43 light engine upgrades, 14 crew carriers for Hot Shot crews, 7 water tenders, 5 helitack trucks, and 3 dozers and lowboys. Although this equipment has been purchased in 2001, some of it will not be delivered until 2002.

Within the Department of the Interior agencies, 50 fire facilities require maintenance or construction. These projects have been prioritized and the funding has been allocated.

The Joint Fire Science Program, a six agency partnership to address wildland fuels issues, was established in 1998 to fill the gaps in knowledge about wildland fire and fuels. The purpose of the Program is to provide wildland fire and fuels information and tools to specialists and managers who make wildland fuels management decisions. The information and tools will also help agencies develop sound, scientifically-based land use and activity plans. The Joint Fire Science Program will fund important new research to explore effective methods of mapping and treating fuels. The program will also direct a significant portion of funding to answer questions about important regional or local suppression, fuels management and rehabilitation needs. The Department of the Interior and the Forest Service recently issued a request for proposals for fire science projects. We expect new proposals to focus on the feasibility of developing a locally-based biomass conversion industry. Other proposals will examine carbon storage, soil compaction, water quality, and habitat as they relate to fuels treatments. We have also requested proposals to determine the cumulative effects of fuels manipulation on fire behavior and severity, wildlife populations, and habitat structure. In addition, on January 18, 2001, we established the Joint Fire Science Program Stakeholder Advisory Group under the Federal Advisory Committee Act (FACA). The purpose of the Group is to advise and assist the Secretaries of Agriculture and the Interior, through the Joint Fire Science Program Governing Board, on priorities and strategies for completing wildland fire and fuels research and implementing research findings.

The National Fire Plan calls for a dramatic increase in the amount of fuels reduction and fuels management work, and much of this work is targeted for completion by independent contractors or through service agreements. In December 2000, an interagency team of contract and fuels specialists met in Boise, Idaho, and developed model contracts and agreements that agencies will use for fuels reduction, rehabilitation and restoration projects, and model grants and cooperative agreements to assist communities and rural fire departments. We created a web site that houses

these model contracts so that each field office can access them easily, saving valuable time and effort, and increasing consistency among agencies.

Although fuels management by contract has grown over the last 10 years, there is still a need to foster growth in the number of contractors available. A primary focus of the 2001 appropriation is to facilitate awards to firms that will hire locally. Although the term "local" is undefined, managers and contracting personnel will emphasize the use of sealed bid awards to firms that are in closer proximity to project work and best value awards to firms that commit to specific plans to hire local workers.

The interagency contract and agreement team has developed an outreach plan that will:

- Locate firms that are not currently active in bidding or proposing on Government procurement for fuels management contracts.
- Introduce local independent contractors to the benefits of contracting for this type of work with the Government.
- Encourage continued participation by firms that currently have fuels management contracts.

Fire Operations

Wildland fire operations include suppression, burned area rehabilitation and fuels management, including fuels reduction in wildland-urban interface areas that pose a risk to people, property and natural resources. To better facilitate these operations, several steps have been taken:

First, a list of communities most at risk from wildland fire in the wildland-urban interface (discussed in more detail later in this testimony) and hazardous fuels reduction projects within and around those communities has been developed. Work is continuing to refine the criteria and the list of communities at risk.

Second, a cohesive fuels management strategy has been drafted that will provide a broad, national framework for Interior agencies to ensure:

- Effective collaboration among Federal agencies, Tribal, State and local governments and other stakeholders.
- Alignment of all program areas to prevent further degradation, and to work toward the common goal of reducing unnaturally intense wildland fire.
- Integration of fire and resource management within and across all agencies.

Third, on February 7th, Secretary Norton approved the release of \$4 million to the U.S. Fish and Wildlife Service, and \$2 million to the National Marine Fisheries Service, needed to perform consultations under Section 7 of the Endangered Species Act for work identified by DOI. This money will facilitate consultation for critical hazardous fuels treatment projects as implementation of the National Fire Plan progresses.

Finally, both Departments are engaged with the Governors, Tribes, non-governmental organizations and others in an active and open partnership to develop a ten-year comprehensive strategy to implement collaboratively the National Fire Plan and to begin to effectively and efficiently manage the nation's hazardous fuels situation. This ten-year strategy will unify State, Tribal, and Federal efforts to cooperate across jurisdictions, coordinate activities and maximize capabilities to reduce the impacts of wildfires on communities and the environment.

Rural Fire Department Assistance (RFDA)

The 2001 budget appropriation provided \$10 million to the Department of the Interior for a new program to enhance the wildland fire protection capabilities of rural fire departments (RFD). In December 2000, representatives from each of the Interior agencies met and developed basic selection criteria for the distribution of these grant funds. Grants will be limited to \$20,000 per RFD, and the RFDs that apply will be reviewed for criteria that include:

- Having an agreement in place with the State Forester or an Interior agency.
- Serving a community with a population of less than 10,000, in the wildland-urban interface.
- Using funding only for training, equipment and prevention.
- Sharing a minimum of 10 percent of the total cost.

An Interior work group was formed to develop an interagency agreement/contract which will be used by field offices to facilitate the transfer of funds to rural fire departments. A draft of this document is currently undergoing field review and will be finalized in the next few weeks.

The money for RFDA has been allocated by each Interior Bureau to field offices, and fire managers are working with partners at the local and regional levels to establish priorities and to allocate available funds.

Communities-at-Risk

The Secretaries of Agriculture and the Interior were asked in the FY 2001 Interior Appropriations Act (Public Law 106-291) to publish jointly in the Federal Register a list of all wildland-urban interface communities that are at high risk from wildfire.

The list was published in the Federal Register on January 4, 2001. Communities on the list were proposed by States, Tribes and local governments. The criteria for listing varied from State-to-State, which explains why some States listed hundreds of communities, while others submitted a much smaller list. The list also identifies communities with ongoing fuels treatment projects and those with projects planned for FY 2001. A total of 37 States participated and more than 4,500 communities were listed. Since then, four more States have submitted their lists, and the total number of communities has grown to more than 6,400. We appreciate the work that went into the list, especially the work performed by the State Foresters and Tribes.

Developing the list of communities was only part of the Federal Register notice published on January 4. The notice also provided a definition of wildland-urban interface, and included suggested criteria for categorizing interface communities and evaluating the risk to those communities. The January 4 list is a starting point. It needs to be refined, possibly narrowed, and focused so that we can set treatment priorities for the coming years. The list of communities far exceeds our hazardous fuel reduction capabilities.

Revising the list is a formidable task. Working closely with the Western Governors' Association, we have developed a process to address this daunting task. Some communities are much more vulnerable to wildland fire than others. Our next task becomes one of identifying, again in collaboration with our Tribal, State and local partners, the communities in the vicinity of Federal lands that are most at risk, which are the places where we will begin hazardous fuels reduction work. The results of this effort will be published in the Federal Register later this spring. The Federal Register Notice will identify the full extent of the high-risk wildland urban interface problem along with communities where hazardous fuels reduction treatments will not be planned, and the reasons why.

The revised lists of communities at risk in each State will be developed by an interagency team consisting of representatives of the Department of Agriculture, Department of the Interior, State Foresters, and Tribes. Representatives from other Federal agencies such as the Departments of Energy and Defense will be included where appropriate. Others who may be invited to participate include representatives of county government, local fire response organizations, State emergency management offices, and community forestry organizations. A specific process for refining the urban wildland communities list has been developed by the Forest Service, the Department of the Interior, and the National Association of State Foresters. We envision that these teams will continue and will serve the long-term goals of identifying, prioritizing and implementing fuels treatment projects, to ensure that the long-term needs of communities vulnerable to wildland fire are addressed.

Existing project proposals in these identified urban wildland communities that have approved plans and completed environmental compliance will have the highest priority for fuels treatment, and work is already underway in many of these communities. DOI's projects will cover about 300,000 acres. Additional projects that can be readied for implementation this fiscal year will receive the next priority. Finally, for those newly identified projects or projects not ready for implementation, the planning process will be initiated toward future treatments and implementation schedules will be developed.

A cornerstone of the National Fire Plan has been enhancing the communication for preparedness and strategic planning among all partners in the wildland fire management arena. To facilitate this objective, all of the National Fire Plan Coordinators from the Department of the Interior and its bureaus, as well as the Forest Service, and representatives from the Environmental Protection Agency, Council on Environmental Quality and others, assembled in Denver on February 21 and 22, 2001, to share concerns and issues, clarify roles and expectations, validate the importance of success, and define a management structure for collaboration at the geographic area level throughout the country. This meeting provided a springboard to unify State, Tribal and Federal efforts to cooperate across jurisdictions, coordinate plans and activities, and collaborate with local governments to implement efficiently and effectively the goals and commitments outlined in the National Fire Plan.

CONCLUSION

We appreciate the opportunity to testify at this hearing. We are grateful that Congress has afforded firefighting agencies an opportunity to reverse the trend of deteriorating health for our forest and rangeland ecosystems. We view the funding for FY 2001 as an investment that will, in the future, help save communities, money, our natural resources, and the lives of firefighters and the public.

Like any long-term investment, it will require patience. It took many decades for fuels build up to reach their current levels. The demands on public land and its resources will only increase in the future. It will take time for all of us, the Federal agencies, our Tribal, State and local partners, rural fire districts, elected officials and others, to ameliorate the volatile and dangerous situation that currently exists in many parts of our country. The Department of the Interior has made a commitment to see this process through to a successful conclusion. We intend to honor this commitment, and we look forward to your continued support.

Thank you, again. I will be happy to answer any questions from the committee.

Senator CRAIG. Thank you very much, Tim.

Before, Jim, I recognize you, let me turn to my colleague who has just come in, Senator Gordon Smith of Oregon, for any opening comment you would like to make.

**STATEMENT OF HON. GORDON SMITH, U.S. SENATOR
FROM OREGON**

Senator SMITH. Mr. Chairman, I do not have an opening statement, but I am anxious to hear what our witnesses have to say because clearly in our part of the world, fires could be a very real part of the drought that is besetting our region.

Thank you for holding this hearing.

[The prepared statement of Senator Smith follows:]

PREPARED STATEMENT OF HON. GORDON SMITH, U.S. SENATOR FROM OREGON

Last year's catastrophic wildfire season, in which nearly 7 million acres burned, finally brought to the forefront the need to address the increasingly dangerous forest fuel loads on our public lands. It is unfortunate that it took such a financially and ecologically devastating fire season to bring the former Administration around to seriously deal with this issue. I trust that the new Administration will make this a top priority, not only this year, but over the long term as well. I have been heartened by statements from top officials in this Administration indicating that this will, indeed, be the case.

During today's hearing, I look forward to learning more about how the dramatically increased funding for wildfire suppression and fuels treatment that we passed last year is being spent. It is my hope that this will be just the first year of many years of providing the necessary federal resources for federal land management agencies to address this important and long-neglected need to reduce the risk of catastrophic fire across the West. However, it is equally important to ensure that the money is being spent wisely and that the maximum on the ground results will be achieved.

As you know, this year is shaping up to be one of the worst drought years on record for many parts of the Northwest. If this turns out to be the case, this will only exacerbate what was already a widely known problem of significant wildfire threats built up over years of relatively inactive management of our public forests. I believe the Administration's efforts to reduce the dangerous fuel loads near populated areas, both large and small, must be accelerated. There are a number of communities in my state—from the large and fast-growing like Bend in Central Oregon, to the smaller rural communities like John Day—that are nearly surrounded by federally-managed forest lands in declining health. I am deeply concerned that this summer we could see a tragic loss of life and property—not to mention fish and wildlife habitat—if we do not act now to rapidly reduce hazardous fuel loads. To the extent possible, I hope that this new Administration will fully utilize local stakeholder groups in this process and quickly implement fuel-reduction strategies that address the high-priority areas in a manner that accrues complimentary economic development and environmental benefits.

I want to thank all the panelists who are here to testify today. In particular, I would like to acknowledge Nils Christoffersen of Enterprise and Cece Headley of

Eugene who have traveled all the way from Oregon to take part in this hearing. I look forward to hearing your testimony this afternoon.

Thank you, Mr. Chairman, for holding this important and timely hearing today.

Senator CRAIG. Thank you, Gordon.

Now let us turn to Jim Hubbard, Colorado State Forester, National Association of State Foresters.

Jim, welcome to the committee.

STATEMENT OF JAMES E. HUBBARD, STATE FORESTER OF COLORADO AND REPRESENTATIVE OF THE NATIONAL ASSOCIATION OF STATE FORESTERS

Mr. HUBBARD. Thank you, Mr. Chairman. I am here today representing the 50 State foresters trying to provide the liaison with the Federal agencies in implementing the National Fire Plan. I am pleased to be before you today, and I will observe the rules that you laid down, Mr. Chairman. I am staying awake and I am taking a lot of notes.

[Laughter.]

Senator CRAIG. Thank you.

Senator BURNS. That is more than I am doing.

[Laughter.]

Senator CRAIG. We have got a buzzer on Conrad's chair.

[Laughter.]

Senator CRAIG. Please continue.

Mr. HUBBARD. The 2000 fire season, with over 7 million acres burned, was bad, but it is not necessarily what we should consider to be an exceptional year. Our 10-year average is increasing and we will continue to have that kind of a problem. It is related certainly, in part, to drought in the West, but it is also related to forest condition and rangeland condition. That condition is not going to change anytime soon, so we can expect to have a lot of fire activity. And now we have increased the risk of our exposure by adding life and property in the interface to this mix.

Congress responded. Congress provided money to fund the National Fire Plan to fight fire, to restore the burned areas, and to begin mitigating the fuel hazard. If we work together, Federal, State, tribal, local, we think we can make that work.

The Western Governors got into the picture as well and asked for three things of the Secretaries. They asked for full involvement in all of the elements of the National Fire Plan. They asked that it be an all-lands approach. They are concerned that this be the long-term approach with the strategy it takes to follow through and complete the work.

As for the State and local involvement with Federal land management agencies, one of the triggers to make that happen is the community list, the wildland/urban interface community list that is published in the Federal Register. That list is provided by the States. The Federal agencies are judged whether or not they are successful with their project implementation for fuel hazard by how their projects match up with that list. So, the collaboration has increased considerably. We have always worked together on suppression of wildland fire. We are working much closer now than ever before on the mitigation of the hazard.

Now, we have with that list some national consistency, but of course, we have regional and State differences that have to be observed. So, we have local implementation teams usually within each State that are dealing with all aspects of the National Fire Plan. Those teams are composed of State, Federal, and local participants. Other interests are also participating. So, they are coordinating the preparedness, the mitigation, and the prevention. They are coordinating the Federal preparedness dollars with the volunteer fire assistance dollars, and how we meld those two together and fight fire on an interagency basis. We have volunteer fire departments that are trained and equipped to deal with the increased complexity of fires because of our forest condition and because of the interface.

We are also now mobilizing the interagency on the fuels treatment, and with the State fire assistance that you provided, that is going into incentives to make sure when we work cross-boundary on a landscape scale and we have private ownership involved mixed with Federal ownership, that those private landowners can participate with some help in producing a public benefit to reducing that hazard.

We also have the community assistance program that takes the form of economic action and fire management planning locally that is helping counties to determine how they best want to deal with this problem.

Finally, the Fire Wise program and prevention messages so that the public is aware. Many of these landowners moving into this interface do not have the awareness they need of what they are getting into, and they can do a lot to help themselves. Fire Wise helps them do that.

All-lands approach. With the ownership pattern, particularly in the West, you cannot do this without dealing with all lands across boundaries. If you want to protect a subdivision on private land, it is necessarily going to involve Federal land treatments that are close to that subdivision. We have to deal with that landscape scale and manage on a watershed basis and do it together.

We have to be able to cross the boundaries. Senator Wyden helped the Federal agents come across the boundary on the private side. We have some legislation that is being tested in Colorado that allows the State to go the other direction. That is going to be very useful as we proceed with joint project efforts.

Long-term. The forest condition and the age of our forests is increasing. It was created by disturbance in many places, and it is about to be recreated by disturbance. And that is usually fire. The tree moistures, the field moistures are low. They are not going to recover regardless of precipitation. So, when we have dry periods, we are going to have fires that burn hot. We are going to have fires that are more difficult to control. We need to deal with those millions of acres of fuel accumulation and treat them, and we need to do that, as I have said, together.

The critical factor for the State and local governments is the wildland/urban interface. That is because we have life and property at risk. What we worry about is a fire like the Buffalo Creek fire just outside of Denver, Colorado. That fire burned 10 miles long by 2 miles wide in 5 hours. Fortunately that was in an area where

there was no property involved. We lost a lot of trees. We have got all kinds of problems with soil erosion following that kind of a fire. But the county that it was in replotted the footprint of Buffalo Creek one watershed north, and 840 homes were in the way. You do not get people out of the way of a fire that moves that fast and covers that much area.

So, it is a major concern. We have got to do something about the fuels treatment. You have helped us to start that process. We have got to do something about how we fight fire in the interface together.

In summary, we have serious conditions and it is going to take us a long time to deal with them. It is complicated by the life and property that is at risk. We have to collaborate to make that happen. The National Fire Plan finally offers us that kind of an opportunity like we have never had before.

And we do have to get beyond the differences. We do have to figure out how we are going to work this together, not just the land management agencies, but all the interests involved, and protect those properties, those people, and our natural resources.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Hubbard follows:]

PREPARED STATEMENT OF JAMES E. HUBBARD, STATE FORESTER OF COLORADO AND
REPRESENTATIVE OF THE NATIONAL ASSOCIATION OF STATE FORESTERS

IMPLEMENTATION OF THE NATIONAL FIRE PLAN AND RELATED
CONGRESSIONAL DIRECTION

My name is Jim Hubbard and I am the State Forester of Colorado. I am here today representing the National Association of State Foresters, which represents the directors of the State Forestry agencies from all 50 States and seven U.S. territories, as well as the District of Columbia. Our members are actively involved in wildland fire suppression and are working in partnership with the USDA Forest Service and the agencies of the Department of Interior to implement the National Fire Plan. I serve as the liaison between the National Association of State Foresters and the National Fire Plan.

The long-term stewardship and sustainability of our natural resources and communities is of utmost importance to the membership of the NASF. As many states saw during the 2000 fire season, catastrophic wildland fire poses a significant threat to both of these priorities. On behalf of NASF, I want to thank you for helping focus attention on the long-term challenge of restoring our forests and rangelands to a more resilient condition.

My testimony today will highlight three major areas: First, I want reiterate our support for the overall approach to the issue espoused by the Western Governors Association. Second, Congress must recognize that this is a long-term problem that will be costly in the short term but will hopefully prevent higher costs over the long term. Last, I'd like to point out why the wildland urban interface is the most critical problem facing wildfire managers and which aspects of the National Fire Plan are best equipped to address it.

STATE FORESTER PRIORITIES

As the extraordinary scale of the 2000 fire season became apparent, particularly in the Interior West, many Western Governors felt compelled to become more intimately involved with the recovery and response efforts being mounted by the Federal land management agencies. The Governors met face-to-face with the Secretaries of Agriculture and Interior in September 2000 and emphasized that their priorities for both short and long term wildfire response are as follows:

- Full state involvement in all relevant planning, prioritization, decision-making and implementation processes at the national, regional and local levels;
- Funding and implementation of rehabilitation, hazard reduction, and ecosystem restoration projects across all lands, regardless of ownership; and

- Development and funding of a long-term (10+ years), intergovernmental strategy to address “the wildland fire and hazardous fuels situation as well as the needs for habitat restoration and rehabilitation in the Nation.”

The Governors and Secretaries left the gathering in full agreement that an active state-federal partnership would be necessary to effectively address the immediate wildfire recovery needs of the nation as well as the long-term restoration and maintenance needs of our fire-adapted forest and rangeland ecosystems. The group further agreed that local communities must play a more integral role in designing and carrying out these activities on the ground. The State Foresters fully support these priorities and are working in active partnership with the Federal agencies to ensure that implementation of the National Fire Plan adheres to them.

FULL STATE INVOLVEMENT IN PLANNING AND DECISION-MAKING

State governments share responsibility with their federal counterparts for the administration of many resources and public services within their boundaries. This cooperative, intergovernmental partnership is crucial in providing for safe and effective response to wildland fire. This is especially true in the wildland-urban interface where initial attack may be conducted by volunteer, local, county, state or federal firefighters regardless of where the fire started.

The Governors insisted on full state involvement in all levels of wildland fire response, including rehabilitation and hazardous fuels mitigation, because they recognized that states bring to the table valuable resources such as established networks with local governments and communities, knowledge of statewide land management priorities and access to local workers and industries. If states are closely involved in wildland fire preparedness, mitigation and response activities, they can help coordinate the efforts of diverse federal land management agencies, ensure that opportunities for interagency collaboration are identified, and improve the understanding and support of local residents for priority land management actions.

Congress acknowledged the importance of these intergovernmental relationships in the FY 2001 Interior Appropriations Bill (PL 106-291) and accompanying Conference report. In several instances, the bill directed the USDA Forest Service and Department of Interior agencies “to work closely with States and local communities.” The 2001 Appropriations bill further directed the agencies to “seek the advice of governors, and local and tribal government representatives in setting priorities for fuels treatments, burned area rehabilitation, and public outreach and education.”¹

Clearly it was, and continues to be, the expectation of Congress that the federal land management agencies would incorporate state and local representatives into all levels of their wildland fire activities. This enhanced level of state-federal partnership is, in fact, beginning to develop in many States as federal agencies are faced with the task of identifying projects and allocating increased levels of funding according to both Congressional and Administrative direction.

Many States have established an interagency state-federal team to coordinate implementation of the National Fire Plan within their state. My state of Colorado has convened an interagency coordination team that we hope will improve our collective land management efforts by identifying areas of mutual importance where we can effectively focus our efforts and funding.

It is important to note that each of these partnerships has been strengthened by the availability of increased funding to state and community assistance programs. These additional dollars for cooperative fuels reduction on non-federal lands, for training and equipping of local fire departments, and for assistance to communities impacted by wildland fire greatly increase the ability of non-federal entities to participate fully in large-scale project planning and prioritization. Moreover, these are the critical components to reducing the risk to life and property in the wildland urban interface, which is creating unprecedented levels of complexity for wildland firefighters from coast to coast.

The kind of intergovernmental collaboration now occurring could have happened previously but, for the most part, did not. Specific direction from Congress combined with increased funding for state and private fuels management and wildfire preparedness activities have given both sides the impetus to work together. I encourage you, on behalf of the State Foresters, to continue to provide both of these motivational elements—funding and direction—with the hope that this kind of cooperation will eventually become our standard way of doing business.

¹ FY 2001 Interior Appropriations Conference Committee Report [Report], pgs. 160-161.

CROSS-BOUNDARY LANDSCAPE SCALE ACTION

Anyone who has spent much time walking across a Western landscape will realize that natural forces such as insects, disease, fire, invasive weeds and flooding do not generally abide by fence lines or other jurisdictional boundaries. In many of our Eastern and Southern landscapes, interface fires cross multiple property lines and run freely from undeveloped lands into areas with homes and other developed property. We must maintain this same boundary-less mindset in our efforts to rehabilitate burned areas, mitigate future fire hazards or restore forests and watersheds to a more resilient condition.

The need to work across boundaries is particularly important in the wildland-urban interface which is, by definition, a landscape characterized by multiple private ownerships and structures surrounded by wildland which could be under local, state or federal jurisdiction, or a combination thereof. While individual homeowners can reduce their risk from wildfire by using fire-resistant building materials and clearing defensible space around homes and structures, it takes several landowners working together across a landscape or watershed to truly impact fire behavior and improve the ability of firefighters to protect residents' lives and homes.

Cross-boundary project planning and implementation is also important beyond the interface zone in fire-adapted ecosystems where actions are aimed at restoring natural fire cycles, protecting municipal and priority watersheds, reducing susceptibility to insect invasions or enhancing fish and wildlife habitat. All of these goals will be more effectively accomplished if land managers coordinate their efforts and improve forest and rangeland condition on a more functional landscape scale.

Both Congress and the Administration can facilitate this boundary-less concept by prioritizing federal fuels funding on projects that involve multiple landowners and/or can be implemented on a landscape scale so as to maximize positive results on-the-ground. These efforts will be further strengthened by allowing and encouraging the expenditure of federal funds across non-federal boundaries when that expenditure makes sense on a landscape or watershed scale. The continued availability of focused incentives for private landowners to participate in large-scale hazard reduction or ecosystem restoration projects will make the cross-boundary puzzle complete.

LONG-TERM STRATEGY AND FUNDING

Since last year's fires, the Western Governors have placed particular emphasis on the need for a long-term, strategic response to wildland fire response rather than a one-year influx of funds. The State Foresters strongly agree with them on this point and we seek your support for such a multi-year approach, particularly for the programs that help fire managers cope with the wildland urban interface.

Many of us are now familiar with the General Accounting Office's (GAO) estimate of 39 million acres of forestland in the interior West at high risk of catastrophic wildfire.² What often gets lost is the realization that this number does not take into consideration the condition of federal lands not under Forest Service management, state and locally owned lands, private lands, or that vast majority of lands outside the interior West. As we've seen in recent years in States such as Florida, Texas, Virginia, New Jersey, and New York, fire is no longer a hazard faced only by Westerners but by all Americans.

Clearly, the condition of fire-adapted ecosystems—and the related risks to lives, property and natural resources—is an issue of national proportions and significance. The heavy fuel loads in many Western forests is a situation that has developed over more than one hundred years. The expansion of development into the interface in the East and South has also been ongoing for decades. Treating the lands to reduce fire dangers and equipping and training local fire departments will take a multi-year investment of time, money and people to address.

The Interior Appropriations Committee members echoed these sentiments in the Conference Report by stating, "the managers strongly believe this FY 2001 funding will only be of value . . . if it is sustained in future years."³ The managers further strengthened this declaration by directing the Secretaries of Agriculture and Interior to "work with the Governors on a long-term strategy to deal with the wildland fire and hazardous fuels situation, as well as needs for habitat restoration and rehabilitation."⁴

The Western Governors and their staff have taken the lead in bringing this direction, and their own stated priorities, to fruition by serving as the catalyst for the development of an intergovernmental strategic plan aimed at restoring health to

² GAO/RCED-99-65, pg. 3.

³ Report, pg. 161.

⁴ Report, pg. 193.

fire-adapted ecosystems across the nation. The drafting team for this ambitious plan is national in scope and includes representatives from federal, state and local government, non-governmental and environmental organizations, ranching and grazing interests, the timber industry, and community forestry groups, to name a few of the stakeholders involved. Representatives from State Forestry agencies from all regions of the country are included in this effort.

The draft document that is currently being circulated for comments outlines a ten-year strategy focused on achieving the following goals:

- Reduce the risk and consequence of catastrophic wildfire, and increase public and firefighter safety;
- Improve conditions of fire-adapted ecosystems to make them more resilient;
- Promote local action by increasing public understanding and providing tools to enhance local responsibility;
- Maintain and enhance community health and economic and social well-being;
- Increase resource protection capabilities;
- Provide for the restoration and rehabilitation of fire-damaged lands;⁵ and,
- Enhance collaboration/coordination among all levels of government and stakeholders for joint planning, decision-making and implementation.⁶

In addition to these goals, the final strategy will include indicators for success that can be tracked through monitoring and adaptive management. Progress will be guided by yearly performance goals, objectives, budget estimates for land ownerships and state participation, and time lines that facilitate implementation of the strategy within a ten year time frame.

The draft document also calls for reviews of Federal laws and regulations, such as contracting procedures and agreements, liability issues, National Environmental Policy Act and Endangered Species Act processes and other procedures, for opportunities to improve their effectiveness and efficiency in meeting the goals of the Strategy.

Once finalized, this strategy will serve as a blueprint for intergovernmental and multi-stakeholder action at the national, state or regional, and local levels. This represents a significant shift in the way we traditionally allocate public funds in response to wildland fire. Rather than viewing the issue as simply a costly stimulus-response cycle, where we suppress wildfire and then attempt to rehabilitate the land, the strategy attempts to plan for a coordinated interagency approach to wildfire that treats the problem as one of landscape management.

IMPLEMENTATION: REDUCING RISKS IN THE WILDLAND-URBAN INTERFACE

Before concluding, I would like to re-emphasize the importance of reducing the risk to lives and vital community resources in the wildland-urban interface. As we begin implementing projects and carrying out activities in response to the recent fire season, addressing the interface challenge must be our top priority.

The USDA Forest Service and the Department of Interior agencies have each produced documents outlining their priorities and actions in conjunction with the National Fire Plan. Congress established additional direction and goals through Appropriations language. The states have expressed their priorities through communication with the Secretaries and Congress, interstate resolutions, and the draft ten-year strategy. Each of these documents and expressions of intent acknowledges the critical importance of reducing risk and improving protection capability in the interface.

One way that Congress conveyed this message was by dedicating \$240 million in federal hazardous fuels dollars to “projects within the wildland-urban interface on federal lands or adjacent non-federal lands.”⁷ Congress complemented this funding with \$50 million in State Fire Assistance for cooperative state and private efforts. The states are focusing this funding through a competitive grant program for private land incentives, hazardous fuel reduction, and public outreach and education.

Appropriations Committee members also highlighted the importance of addressing the interface by directing the federal agencies to work with the states and tribes to develop and jointly publish in the Federal Register a “list of all urban wildland

⁵In the context of this draft document, “restoration” activities may include: fuel reduction, prescribed fire; riparian restoration; invasive plants and noxious weeds treatments; and understory thinning or other activities related to restoring fire-adapted ecosystems.

⁶As of March 14, 2001, the most recent draft of this document, titled “A collaborative Ten-Year Strategy for Restoring Health to Fire Adapted Ecosystems,” was version five released for comment on February 20, 2001. Copies of this draft may be obtained from Rich Phelps at rphelps@fs.fed.us.

⁷Report, pg. 164.

interface communities within the vicinity of federal lands and at high risk from wildfire.”⁸

The initial version of this list, published in December 2000, was developed under a very short timeline without an adequate level of consistency from state to state. A team of federal and state representatives has since developed a standard set of definitions and criteria and outlined a revision process that will be used nationwide by interagency state-level teams to refine the original community lists.

Although difficult, the development of these lists has served to connect state, federal, and, often local land managers and has furthered conversation and information exchange on the status of the interface across the nation. The revision of these lists will necessarily be an ongoing process as the needs of various communities are assessed. However, the version provided for the May 1, 2001 publication should provide a meaningful display of the enormity of the problem facing us and should also serve to highlight those areas where we can most effectively work together. We urge the agencies involved to keep lines of communication open with the States on these lists, and we suggest that the Congress use them as guidelines, not requirements, for funding allocations.

Finally, Congress underscored the importance of safe and effective initial attack in the interface by providing nearly \$20 million in additional funds for assistance to local and volunteer fire departments. According to the conference committee, “effective management of fire related issues in the wildland urban interface requires strong commitment and resources from state, tribal and local government. Fire readiness capability must be on an equal par between state, local and federal organizations.”⁹ NASF believes that we need to view the budgets provided for the Cooperative Fire and Cooperative Forestry programs in response to last year’s fire season as the baseline for future budgets if we are to achieve this goal.

In addition, some adjustments will likely be needed in the federal agencies’ Most Efficient Level (MEL) analysis system. Currently the method for determining MEL only considers likely suppression needs on federal lands and therefore does not adequately address the wildland-urban interface.

SUMMARY

A successful response to the 2000 fire season revolves around full state involvement, implementation of land management projects across boundaries on a landscape scale, and the development and funding of a long-term strategy for the restoration of fire adapted ecosystems.

I also want to stress that last year’s fire season was not an isolated event, either historically or geographically.

Since roughly 1988, the year of the Yellowstone fires, we’ve seen fires growing in intensity and frequency, in all parts of the country. In the West, we’ve seen a convergence of fire regimes, as fire suppression has changed stand structures in certain forest and range types, resulting in fires there hotter and more destructive. Other forest types, which typically regenerate through catastrophic fire, are becoming more susceptible to these stand replacing fires. In the East, in spite of effective fire-fighting and more intensive forest management, the growth of the wildland urban interface is putting more values at risk with every fire and is complicating the jobs of wildland firefighters at all levels.

The partnerships necessary to implement the National Fire Plan are forming, state by state, as disparate field personnel work to realize the common goals laid out for them by Congress and by their own agency leadership. In Colorado, we are further refining this vision by concentrating our initial efforts on reducing risks in the wildland-urban interface. By focusing our planning and activities on an issue of relative common ground, we hope to build trust among our partners and constituents. We hope to build support for the more complex actions we will need to carry out in the long term.

But the success of Colorado’s efforts, like those of every other state, will depend on the sustained commitment of both Congress and the Administration to provide the necessary long-term funding and program direction. The NASF has written to Secretaries Norton and Veneman and expressed our belief that the level of funding needed for the land management agencies in FY 2002 and beyond to implement the ten-year strategy will be consistent with funding received for FY 2001.

This will require not only a continued increase in the budgets of the USDA Forest Service and USDI agencies, but also sufficient resources for the regulatory agencies that may otherwise become a bottleneck for this important work to go forward. We

⁸ PL 106-291, Title IV (3).

⁹ Report, pg. 166.

believe that the agencies are making good faith efforts to implement important fuel reduction and rehabilitation work this year, but they have understandably focused on projects for which NEPA analyses and ESA consultation have been completed. We hope to see future activities focus on projects that have been planned and prioritized by collaborative efforts at the State and local level. Unless Congress supports the budgets of both the land management agencies (i.e., the Forest Service, BLM, etc.), and the regulatory agencies (in particular the U.S. Fish and Wildlife Service and the National Marine Fisheries Service), our ability to carry out such projects in the next ten years will be limited.

The devastation of the 2000 fire season has resulted in the emergence of several opportunities that hold promise for helping land managers and interested stakeholders find and implement mutually agreeable solutions to the wildland fire and ecosystem restoration challenge. Focused and consistent leadership from both Congress and agency administrators will enable us realize this promise. We urge you to support budgets that enable firefighters and land managers to work cooperatively to implement a fire plan that protects life and property in the wildland urban interface while working towards restoration of the landscape.

Senator CRAIG. Jim, thank you very much.

We will go into a round of questioning for 5 minutes, and then we will do a second round if the members wish.

Lyle, let me start with you. In your view, what are the goals and major provisions of title IV?

Mr. LAVERTY. Mr. Chairman, the major provisions provide for the staffing levels to bring us up to the most efficient level of fire fighting readiness. Between us, as Tim and I have talked, that brings us an additional 5,000 new fire fighters over what we had in the season of last year. It provides additional funding for fuels treatment. It provides the funding for the restoration and treatment of the burned areas of the fire season of 2000. And the part Jim talked about, it provides funding for community assistance and funds for Fire Wise types of programs. It provides funds for volunteer fire departments. It provides funds for education opportunities where we can actually work with the landowners to help them determine what they can do on their land. So, it is a major component for us.

Senator CRAIG. So, what are the procedures being used then to allocate title IV funding?

Mr. LAVERTY. Those funds, in fact, have been allocated to the field. The Congress asked us to put together a framework on what criteria were we going to use for the restoration and rehabilitation funds. We submitted those back in January. So, that provided the framework of a matrix on how we would allocate those funds to the field.

Very similar in terms of the process and the framework and the matrix in terms of the fuel conditions. We have been working across the country with our fuels specialists to determine the number of acres. We have a great matrix that provides the support for that.

The State assistance. We have a model that has worked. It has been a long-term program that has raised the income level for us in terms of working with the State forest system. We have a great framework in terms of a smooth machine to deliver those funds out.

Senator CRAIG. What are the procedures being used to determine which communities in the urban/wildland interface will be receiving funding in 2001, 2002, and beyond?

Mr. LAVERTY. Mr. Chairman, we have been working with the Western Governors to identify the list of communities that are in harm's way. We published that list in the Federal Register, compiled from input from the Governors across the country. There were 4,500 communities identified at that time. We are currently in the process of working with the Governors and the State Foresters to refine that list to see if there are communities that need to be on the list or communities that we should take off that list.

We have then taken the list that was published in the Federal Register, the first round, the 4,500. We identified about 25 percent of the communities that actually have a fuels project that is associated with those for 2001. In part, the reason for many of those projects for 2001 is because we started the planning 2 years ago. So, as they came on line we bring down the list of the communities that are at risk.

Our expectation as we begin to move in the planning of 2002 and beyond and we look at this list, working with the States and the counties, that we are going to find that we have a higher percentage of those projects that will be aligned with those communities that are at risk.

Senator CRAIG. How are Federal agencies using new authorities to build community capacity through training and local employment and to assist in the development of small businesses that may lead to a sustainable restoration economy?

Mr. LAVERTY. There is a number of programs that are underway as part of the National Fire Plan. One of the most significant pieces allows us, as we treat the fuels projects, the authority to actually target a portion of those contracts to local communities. We expect that 50 percent of the contracts we will award, between Interior and the Forest Service, will in fact go to local communities to begin developing that capacity. The programs on the economic action plans are also opportunities where we can invest in communities to help build that capacity.

This is a huge workload. Between us we are going to treat about 3.4 million acres. In many cases, we are going to tax local capacities to even do that work and will be going out and contracting. I think we have opportunity where we can look at communities where—we know in Oregon there are communities where there is 14-15 percent unemployment. These are opportunities where we can put people to work to do some of these projects. So, I think we have a good framework, and we have good tools to help us to do that.

Mr. HUBBARD. Mr. Chairman, could I add to that?

Senator CRAIG. Please do. Tim, you are certainly welcome to respond to these questions also, if you wish.

Mr. HUBBARD. In the community assistance programs, there are monies through the States for economic action, how to deal with the small diameter material that is a big part of the removal of this fuel hazard problem and how to deal with that in local processing and fit with local markets. There is stewardship planning and there are cost-share incentives to implement planning for fuel reduction where there is a public benefit on a large scale. And there is community planning for fire protection within counties, within

jurisdictions. All of that spinning together and delivered locally to the communities.

Mr. HARTZELL. Mr. Chairman, just an observation on contracting. One of the things we are concerned about is building the internal and external capacity to do this fuels work with local contracts or local employment. I wanted the committee to be aware that back in December, collectively the Federal agencies pulled 100 fuels management and contracting experts together at the National Interagency Fire Center. The purpose was to ask these people to develop a streamlined process so that we do not have the agencies duplicating contracting work and being inefficient.

As a result of that, what we have established is 11 nationwide geographic areas for contracting. Now, these are geographic areas that are consistent with our 11 geographic area coordinating regions for wildfire suppression. So, they are the same geographic areas. But the concept is that one agency and one contracting officer would take the lead for contracting within that geographic area.

Now, we have left it up to the contracting and fuels people in these geographic areas to subdivide those geographic areas as they see fit based on land ownership or contracting capacity within an agency.

Right now there are four geographic areas that have this contracting concept up and working. The Pacific Northwest has seven geographic contracting subunits. The Northern Rockies has four. As an example of the way that works, the Bureau of Land Management has the lead for fuels contracting and rehab contracting in eastern Montana based upon land ownership and their contracting capacity. The Forest Service has the lead in the northwestern part of Montana. Also, this concept is up and running in New Mexico and Arizona. I was told today it is soon to be up and running in the Great Basin States.

The way the concept works is that all agencies may order against the lead agency's contract. They do not have to develop their own contracting model or contracting statement of work. There is a model up and running and they can order against it. So, it is going to save a lot of time and effort on the agencies' parts to implement contracting to get work done on the ground.

By the way, Mr. Chairman, this is all available on a web site that we have available through the National Interagency Fire Center.

Senator CRAIG. Thank you.

Now let me turn to my colleague, Ron Wyden.

Senator WYDEN. Thank you, Mr. Chairman.

Gentlemen, it has been helpful and I want to begin with you, Mr. Laverty. As you know, the policies that were set in place at the end of last year are pretty new. Money is just starting to get out. But I would be curious as to whether or not there are any policies that have been set in motion with respect to dealing with fires that you would like to see changed.

Mr. LAVERTY. One of the immediate needs we have is the provision that Congress gave us provided for \$11.5 million of funds on the Forest Service side to transfer to the Fish and Wildlife Service for section 7 consultations. Our attorneys have indicated that we do not have the authority to do the transfer. That is a key one.

Senator WYDEN. I understand that, and as you know, I am going to introduce that legislation with Senator Bingaman and Senator Craig very shortly, and we are glad to have your support of that.

As you know, Mike Dombek is no longer going to be at the agency, and these policies to deal with fire are new, but a variety of changes have been set in motion, and I would just be interested in your thoughts as to whether any of those policies that have been set in motion that you would like to see changed.

Mr. LAVERTY. There is a number of opportunities that we have right now. One that has surfaced in my conversations with many of the regional foresters is categorical exclusion. There may be some elements where we could look at categorical exclusions to do some of the things that Senator Burns was talking about that we could get in very quickly following a set of established parameters and principles where we could move much faster than we have in terms of being able to go after some of that volume, particularly if there were no road construction or anything like that, we could move quickly. I think that is an opportunity that can be pursued.

We also have a group. In fact, we have to report back to the Congress on the 1st of May on those recommendations. Some of those ideas that came out of the report that Dinah Bear put together, is that we should take a look perhaps at some of our appeal regulations. Those are some things that can perhaps streamline some of the process and make things happen on the ground.

So, there is a number of things that we are considering and we have a group of people coming together, actually the week after next, to frame that set of recommendations.

Senator WYDEN. Now, you told Senator Craig that you thought a great many of the contracts were going to involve the local communities, and that is certainly welcomed. When do you think contracts are going to be let, and when do you think people would actually be able to walk out onto the forest floor and do the work?

Mr. LAVERTY. Let me start. OMB released the title IV funds about a month ago. Those funds are now back in the field with the regional foresters for their allocation to the national forests. I would expect that we should start seeing some contracts coming out within the next month or so. In fact, while we are here right now, we have a conference call with the regional foresters asking that very question, and I can give you a good answer tomorrow.

Senator WYDEN. So, contracts would get out within a month and people, presumably a few days after that, could actually work?

Mr. LAVERTY. I would hope so.

Senator WYDEN. The only other area that I wanted to explore with you was the question of jobs being created by the fire plan. Both the Forest Service and the Department of the Interior are giving us very valuable information with respect to the number of acres that would be treated and fire engines purchased, and research is going to be created. But we do not seem to be getting much information about jobs. Of course, we are dealing in all of our States with communities with 15 percent, 17 percent unemployment in resource-dependent communities. What can you tell us about the kind of jobs that would be created and their effects on local communities?

Mr. LAVERTY. Well, Senator Wyden, one of the questions that we are asking the regional foresters today is how many contracts have you awarded, what is the value of those contracts, and how many people are going to be employed as those contracts are implemented on the ground. Those calls are going to take place every 2 weeks. So, we will be in the position of a biweekly response to you to let you know exactly how many people we have, in fact, employed through these contracts to do these fuels projects.

A similar position is taking place in Interior.

Senator WYDEN. I am going to wrap up just by asking you to look personally at the situation that we are faced with in Joseph, Oregon. I know you were here when I described this.

I want to commend you because you and your staff have really been reaching out to us on the county payments bill and to Senator Bingaman's folks and others, and we appreciate that.

Certainly, as elected officials, we get an awful lot out of these case studies. To have folks in a very hard-hit community, that Senator Smith and I represent, where a mill owner comes and a non-profit environmental group comes and they say, we are doing what the Government told us to do: stay away from the big logs and the big trees, go after the thinning and the projects with small trees, and we cannot get the Government to act.

I would very much appreciate it if you would work with the environmental folks and the industry people. I think we have given you all the names already. Take that work through the system because I think that kind of thing is going on all across the country in the West. I hope we can deal on a bipartisan basis to make sure that the Government is not the weak link any longer. I think that is what we have seen over the last few months, and that is unfortunate.

Mr. LAVERTY. Just one quick response, if I could. One of the things that we are, in fact, planning to do—I have been working with John Howard out of Union County. We are taking that Dinah Bear—we are going to spend some time in Union County looking at what is happening on the Walt Whitman. Can we find some efficiencies in the NEPA process? Are there some things that we can do to make us more responsive? I shared with some of the folks the blueprint the President provided. It talks about the Government being nimble. I like that word and I want us to be nimble.

Senator WYDEN. That sums it up. You are running with the right crowd when you talk to John Howard. You have worked very closely with Senator Smith and me, and we look forward to working with you.

Thank you, Mr. Chairman.

Senator CRAIG. Ron, thank you very much.

Senator Burns, questions?

Senator BURNS. I do not have any questions. We have already pretty much covered all the same ground. I am pretty familiar with Enterprise and Wallowa, Logsdon, Imbler.

Senator CRAIG. Senator Bingaman.

Senator BINGAMAN. Thank you very much.

Let me mention a few obvious things that I am sure you folks have thought about.

Back in 1994, in the summer, I remember very distinctly flying out to my hometown with then Secretary of Agriculture Mike Espy to attend a memorial service for three young men who had been fighting a fire there and were killed in the fire. One was a helicopter pilot, and the other two were temporary employees. I am sure that those kinds of incidents are foremost in your thinking as you hire these new people and ramp up for all this increased activity that you are expecting out there, so that there is adequate protection, that there are adequate safeguards in place so we do not have more of those experiences this summer. I would certainly hate to attend any more of those memorial services. I just wanted to mention that.

We put \$10 million in the bill last year for assistance to rural fire departments, as I understand it. That is an issue that I know has been very important to some of the volunteer fire departments in small communities in my State. They came to us and said, look, we can help. The problem is we are not equipped with equipment that is adequate to allow us to really step in and help. Anything we can do to get the proper equipment so that the Forest Service sees us as properly equipped and trained, we can be of much bigger help. I think you mentioned that in your testimony as something that was important.

Do we need to earmark funds for that purpose, as you understand it, again this year in the budget, or will that be done on an automatic basis?

Mr. LAVERTY. There are two parts to the answer to your question. The \$10 million that you referred to is new money that has come to Interior, which is the first time they have had kind of authority.

The Forest Service has historically had funds that have gone to volunteer fire departments, but we have never been funded at the level. We have got about \$13 million this year in the Forest Service budget that goes to volunteer fire districts. That is really one of the most, I guess, unfunded components in terms of how we get volunteer fire districts equipped.

I was with Governor Janklow of South Dakota the day before yesterday. He had 250 volunteer fire districts meeting in Rapid City to talk about the fire season for 2001 and what they can do. One of the fire chiefs told me it costs him \$450 to outfit a volunteer fireman with personal protective gear. That is a lot of cookie sales and bake sales for those folks to have to raise those kinds of funds.

Senator BINGAMAN. So, your advice is that we should once again earmark funds for that and be sure that there is adequate funding for that particular purpose.

Mr. LAVERTY. Yes, sir.

Senator BINGAMAN. I agree with that. I think it is a very high priority activity.

Did you have a comment, Mr. Hubbard?

Mr. HUBBARD. Yes, Senator Bingaman. Not only the \$10 million that was provided in the Department of the Interior, but the \$13 million that Lyle referred to in the Forest Service budget as well. That combined is a huge increase to what we are able to provide as assistance to those volunteers. They provide initial attack for 90 percent of our fires in this country. It is critically important.

Those fire departments are also the best sales people we have to convince local jurisdictions, local homeowners to do mitigation activity as well.

Senator BINGAMAN. Mr. Chairman, I would just point out to the members of the committee, we have got a lot of talk here in town about the Government assisting faith-based organizations so that we get them involved in doing social work of various kinds. And I favor doing that if we can do it in a proper way.

This to me seems like a very parallel circumstance where you have got a lot of volunteers who spend enormous hours and put themselves at great risk to help their communities deal with fires, and what public funds we can provide to equip them and train them I think is something we really should put an emphasis on.

Mr. HARTZELL. Senator Bingaman, could I comment on the rural fire departments?

Senator BINGAMAN. Please, yes.

Mr. HARTZELL. The Department of the Interior has a relationship with about 3,200 or 3,300 rural fire departments. With the \$10 million the Congress gave us, we will be able to provide some sort of assistance probably to between 800 or 900. We do not know for sure because it is a pilot program.

But let me just say that in the first month that our instruction memoranda went out to the field on how to administer this program, at the National Interagency Fire Center alone, 900 phone calls were received asking how to participate.

Senator BINGAMAN. Good.

Let me ask about one other thing here. My time is about out.

Mr. Hubbard, I believe in Colorado there has been established something called the Small Diameter Utilization Center at Colorado State University.

Mr. HUBBARD. Yes, sir.

Senator BINGAMAN. That is to help, as I understand it, groups and businesses that want to create jobs and do work that relates to the small diameter trees that are taken out.

We have got some organizations in New Mexico. Rocky Mountain Youth Corps is one that comes to mind, operating in Taos, New Mexico, Betty Vega's group in Silver City, some others that I think can benefit from the expertise of this center. Could you describe it very briefly for us and tell us what services you can provide to organizations like ours?

Mr. HUBBARD. Yes, sir.

Part of this started with the Four Corners project, New Mexico, Arizona, Utah, Colorado, where we tried to find out how to reestablish systems, to leave the large trees, to reintroduce fire back into the system, and still not have costs that we could not afford for that kind of treatment. That Four Corners project is still making good progress on how to do that locally.

We then exported that same approach to the front range of Colorado where we have fewer large trees and more smaller trees, and it is more of a challenge to figure out how to reduce those costs and use that material.

The center that has been created has been given that assignment. The Forest Products Lab of the U.S. Forest Service has a lot

of good research. We are trying to connect that information with local processors in local markets and put it to use.

Senator BINGAMAN. Thank you very much, Mr. Chairman.

Senator CRAIG. Thank you very much.

Senator Smith.

Senator SMITH. Thank you, Mr. Chairman.

Gentlemen, last summer the climatic conditions in Oregon were identical to those in Idaho and Montana. We were lucky that we did not have the same fires that they did. As we speak, we are looking at a near record drought in the Pacific Northwest.

Senator Feinstein and I are spending time on energy these days trying to keep the lights on. A lot of the western grid runs through public lands, and much of it through national forests. Are you factoring in protection of these energy lines as you prepare for this summer? Because any disturbance will have wide-ranging ramifications to further heighten and magnify the kind of blackouts that are easy to predict, anyway.

Mr. LAVERTY. Mr. Smith, a similar question was asked earlier about when are we going to be able to deal with the resources and how do we place ourselves based on forecasts for the summer. I believe that with the increased capability, we are going to be more flexible in terms of strategically placing resources based on conditions. We ran out of people last summer. Tim talked about the increased capacity with helicopters, and we talked about 5,000 additional fire fighters. I think we are going to be able to strategically place people around different parts of the country as necessary to be responsive to those kinds of conditions.

Senator SMITH. I appreciate that. I just would forewarn and plead that you watch out for these electrical transmission lines because it could make a bad situation much worse.

I apologize. I did not hear the exchange between Senator Burns and you all. But I am also mindful that there are an awful lot of areas in Oregon still where years ago there were fires and there is timber still standing. I am wondering, are you getting a different signal from this administration as to some kind of salvage being a part of helping local communities? When this act was passed last year, it was my understanding that salvage would not be a part of anything even in roaded areas. I am wondering if you are getting a different signal at all in that regard.

Mr. LAVERTY. I can tell you that one of the items that we are, in fact, addressing in the restoration and recovery plans for the fires from 2000, recognize the entire set of tools that we have available to us. Commercial harvest is one of the tools.

I was just talking to Dale Bosworth, Regional Forester in Montana, earlier this morning. One of the projects they are looking at in the Bitterroot recovery is that full spectrum of alternatives and actions, including salvage of some of that timber. I think they are going to be able to look at a series of options that will include using salvage sale funds to help us accomplish restoration objectives, but it is important to talk about what do we need to leave on the landscape, but then what can we actually take off. If we can capture some value, that is good.

Senator SMITH. Those kinds of activities are proceeding on private land and State land, and it does not seem to be happening on Federal land.

Mr. LAVERTY. I understand on the Bitterroot, we are actually going to see some volume being removed by the end of this year. And Senator Burns made that very clear to me.

Senator SMITH. I imagine he would.

[Laughter.]

Senator SMITH. In any event, thank you, gentlemen. Thank you, Mr. Chairman. No further questions.

Senator CRAIG. Thank you.

Senator Feinstein.

Senator FEINSTEIN. Thanks very much, Mr. Chairman.

I am a little confused. What is the \$240 million that was the emergency supplemental that Senator Domenici and I cosponsored being used for?

Mr. LAVERTY. I believe those are actually being used for fuel reduction projects as well.

Senator FEINSTEIN. Is that \$240 million being used for this?

Mr. LAVERTY. Probably incorporated into that, yes, ma'am.

Senator FEINSTEIN. Is that funding this plan?

Mr. LAVERTY. That was in addition to, I believe, this plan.

Senator FEINSTEIN. My understanding is that money was just allocated to the regions within the last 2 weeks?

Mr. LAVERTY. The title IV money of the appropriations for 2001. I think yours was separate from that.

Senator FEINSTEIN. I would like to get a breakdown of specifically how the \$240 million is being utilized, where it is being utilized.

In terms of what I know about California forests, I am a little surprised at this, and I would also like to get a breakdown, if you would, of the California coverage that is provided by this map. New Mexico got help big time, and I understand because of the big fires there. But the potential for catastrophic fire in California at this time is enormous, and we have got one-third of the National Tahoe Forest either dead or dying. Yet, you have just got a little square over it, not a big sunburst.

[Laughter.]

Senator FEINSTEIN. I would like to know how much work you are going to do there. I am really very serious about this. I would like to know exactly what you are going to do in California.

Mr. LAVERTY. The conference report directed us to send to the Congress a financial and action plan. We delivered that in the first part of January, and we will get you a copy of that because it does break down all the projects that are being done under the hazardous fuel work.

I was just looking at a table here. For the increase of the \$1.1 billion that came to the Forest Service, \$135 million of that was for hazardous fuel reduction. Of that \$135 million, about \$30 million of that is going to California. So, there is a major portion of those hazardous fuel projects—

Senator FEINSTEIN. Right, but now you have another \$240 million.

Mr. LAVERTY. That is right.

Senator FEINSTEIN. That is what I am interested in.

If I could ask this question. Recently the Forest Service has submitted the record of decision for the Sierra Nevada Forest Plan. How will the Sierra Nevada framework address the fuel loading problem in the Sierras, and does this strategy achieve the objectives of the National Fire Plan?

Mr. LAVERTY. I have been talking to Brad Powell about that question. I was hoping Mr. Hubbard might answer that question for me.

Senator CRAIG. I am very fascinated by your answer.

Mr. LAVERTY. I am sure you are. I am sure everybody is.

[Laughter.]

Mr. LAVERTY. I talked to Brad Powell about that very question. I have read through the decision. Based on Brad's conversation, he believes that the framework does provide for implementation of the National Fire Plan. On the other side of the equation, I have had numerous people come and tell me that it will not work.

I know that decision is currently under appeal, and I think at that time, we are going to have a chance to look at what is it that may or may not be working as we implement the National Fire Plan.

Senator FEINSTEIN. Mr. Chairman, here we are again. Somehow we have got to move that project forward. I hope that we can have cooperation from you all in doing that. Is that a yes?

Mr. LAVERTY. That is a yes.

Senator FEINSTEIN. On the record.

Mr. LAVERTY. On the record.

Senator CRAIG. And I heard it too.

[Laughter.]

Senator FEINSTEIN. Thank you, Mr. Chairman. That is it for me.

If I could get a full copy of the National Fire Plan. All we got are these things.

Mr. LAVERTY. I would be happy to do that.

Senator CRAIG. Thank you.

Now let me turn to Senator Pete Domenici who is with us. As you all well know, both Senator Domenici and Senator Feinstein, as a result of the Los Alamos disaster of last year, co-authored much of what you are now working with today, which is a very important tool in this fire strategy that we are looking at today. So, let me turn to Senator Domenici for any comments and questions that you would wish to make.

Senator DOMENICI. Thank you, Mr. Chairman, and thank you, Senator Feinstein.

We got the unanimous approval of the Senate to the so-called Happy Forest Amendment. People did not know that was going to happen, but you did. You got on it and before too long everybody understood that this was the right thing to do, including a reluctant administration.

I am not sure that I am going to have any questions. I put a statement in.

[The prepared statement of Senator Domenici follows:]

PREPARED STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR
FROM NEW MEXICO

In the wake of last year's horrible fire season Congress made funds available for the creation of a strategy to address the catastrophic wildfires that consumed more than 7 million acres in at least 13 states. We are here today to see how this plan is being implemented.

Following last year's fire season, frustrations about the fire situation peaked. These frustrations echoed across my home state recently when the New Mexico legislature passed a bill allowing local communities to protect themselves from the threat of fire if their federal government won't do it for them. In spite of the legal obstacles, this bill sends a strong message that people want action to protect their lives and homes, and they want it now.

I have some frustrations of my own. Much of the burned timber that is currently rotting in our forests is not being salvaged. What a waste! Additionally, I have seen where the Forest Service would rather go into the forests and burn small diameter trees rather than sell them for the little value they have.

I thought that the major fires, the loss of lives, homes and livelihoods last year would bring common sense to this issue. After watching half a million acres burned in New Mexico last season I determined that something should be done. I was pleased that Congress supported and funded my request for \$240 million for "Happy Forests," and the rest of the Fire Plan. If the federal government will truly implement this legislation, and use the money we appropriated for it wisely, including expansion of salvage timber proposals, using grants and cooperative agreements and utilizing local business to get the work done, then we will see positive results in many communities.

It is the way we spend these funds on the ground that will help save homes, lives and our nation's forests. We must allow New Mexicans and others to re-enter the forests and employ their centuries-old knowledge to help restore healthier, happier forests. It is time that we stop letting environmental extremism dictate our policies and prevent us from seeing the forest for the trees.

It is still my hope that you will continue expanding on cooperation efforts for fire prevention activities. I also challenge you to continue pursuing NEPA reviews while getting work done on the ground. Finally, I hope that you will take advantage of your ability to expedite procedures when you can, including Section 7 consultations under the ESA.

State, private and federal lands are intertwined in the West. Our success in achieving results will only come when we plan and work together. We have shown you the money. I am anxious for you to show us the results!

Senator DOMENICI. But I am going to tell you what I am worried about. I have read now that in the Santa Fe National Forest, as an example, the watershed there, that there is going to be a thinning process because it is a fire avoidance area of the highest dimension. I read that after it is thinned, up to 7 inches in diameter, all of the timber that they raze and the brush is all going to be burned. Now, I do not think we intended that unless there is some other superseding law. I am just throwing out one example.

Frankly, I think it is a disgrace in a State like New Mexico where many people use these forests and have in the past for a livelihood. If we do this and we say to them, we are not going to let you come in and have any of this to use or put it out for contract, but we are going to burn it right in front of your eyes, I think that would really send the wrong signal to what we are up to.

Now, I have seen a plan in another forest in New Mexico where you do not plan to do that, where you plan to use it, and I have seen two or three that you have not yet come up with. There are some very big burn areas with standing trees where you have no plan.

So, I want to ask you, first, is it within your process to permit freestanding burned timber that is usable to be cut down and used as timber and lumber or whatever it is good for? Can you answer that one first?

Mr. LAVERTY. Yes.

Senator DOMENICI. What holds you up from getting that done?

Mr. LAVERTY. Well, the first answer to that is for the forest to go through and complete the NEPA process.

Senator DOMENICI. But there is no policy within the Departments, either of them, that says we are not going to do that because some people think it should stand there and rot in place.

Mr. LAVERTY. No, sir.

Senator DOMENICI. Can we get some of it done, do you think, within the next 18 months in a State like New Mexico where we have so much of it standing around?

Mr. LAVERTY. I believe that we can, yes.

I was just talking to Bob Leaverton earlier this afternoon about what is actually happening in the Southwest, and I think we have some projects that are well underway.

Senator DOMENICI. My second question is, would you please let us know for the record if there are any areas that need thinning that are being impeded in terms of thinning because of the past President's roadless areas? I think that is what has happened to the Santa Fe watershed. But I think we should know that, if you would do that for us.

Mr. LAVERTY. We will get that for you.

Senator DOMENICI. Now, my last question has to do with entering into stewardship agreements and the like with people in the area. You understand that was given as a preference of what we wanted done. There is nobody trying to exercise a policy inconsistent with that, is there?

Mr. HARTZELL. Not at all.

Mr. LAVERTY. No.

Senator DOMENICI. Did we give you enough authority to do that kind of stewardship arrangement? We thought we did in the appropriation bill.

Mr. LAVERTY. I believe we have the authority.

Senator DOMENICI. Do you think you have the authority?

Mr. HARTZELL. I believe we do.

Senator DOMENICI. Mr. Chairman, I really appreciate your giving me some time. I want to insert some other questions, if I might, and ask them to answer them.

I want to tell you, the expert on forests, a little story. I was in New Mexico in Los Alamos. There was a big set of meetings with the Los Alamos people. Instead of going back the same way, I went over the mountain, which anybody who knows New Mexico is called the Jemez Mountain, on the other side. And I observed something that you obviously have already seen and I should have seen it. But half the way up there, I was driving through forests that were terrible in terms of looking like real forests. There were trees that close together all over the place. As a consequence, there were no big trees because there is no room for big trees. It is just like driving through a thicket that happens to be a little bit green. And you finally get to another part that has been handled right, and you see beautiful forests, big trees and daylight. They can breathe.

I just wonder if we ought not to be calling these to your attention because one is good management, the other is a result of something

but not management, either neglect, we did not do anything to fix it. It just looks awful, and I do not believe it is much of a forest for us to be preserving. That is an observation. I think you have seen it more than I, and I just want to tell you I know about it now and you know about it. Right?

Mr. LAVERTY. Senator, I believe that one of the outcomes of the investment we are going to make in the National Fire Plan will, in fact, bring us back to the restoration of those kinds of stands that you last talked about, that are green and healthy looking stands.

Senator DOMENICI. I hope so.

Thank you, Mr. Chairman.

Senator CRAIG. We will submit your questions for answering, and I think because of the time constraints we are going to have today, there will be more questions submitted than asked.

But now let me turn to my colleague from Arizona, Jon Kyl. Of course, in his State, especially in the northern end of the State, some marvelous experimental work has gone on that demonstrates the point that Senator Domenici was making a few moments ago that we are going to have this committee focus on this year as it relates to the thinning, the necessary cleaning, and what can result from it. Anyway, the mike is yours for both a statement and questions if you wish, Senator.

STATEMENT OF HON. JON KYL, U.S. SENATOR FROM ARIZONA

Senator KYL. I am just going to make a very brief statement because we have this vote. It is now getting close to the end of it, and we will have opportunity to visit.

But I really appreciate the chairman just now mentioning what he did. What I would like to do is to offer the committee an opportunity for a field hearing perhaps in August, at which members and staff and others from the administration can visit the work that has been ongoing now for about a decade, primarily through Northern Arizona University, Wally Covington and his group, which I think you are familiar with. It demonstrates what can be done. They now have got plots that have been there almost a decade.

You can see the control plot, which looks exactly like the forest that Senator Domenici mentioned, the dog hair thicket. It got the name because a dog cannot even run through there without losing half its hair. It is so thick. No trees more than a very small diameter because they are all competing for the same soil, nutrients, water, et cetera. And it is a fire waiting to happen. It is disease prone. Nothing is healthy. No critters at all.

Then you see the plots that were either just burned or the plot over here that was thinned and then burned. And they are lush. There are not as many trees, but the trees that are there are pretty. They are bigger. They are healthier. The pitch content of the trees is substantially higher so the bark beetle does not get them. The grasses are growing all over so the critters are running around. The protein content of the grass is substantial, and therefore it attracts all of the elk and the deer and everything else.

The point is we know this can work, but here is the challenge before us. Last year, 7 million acres burned in 13 States, more than

double the 10-year average, \$10 billion losses. The 1999 GAO report reminds us that there are 39 million acres at risk, and they say it has got to be treated within a 15- to 20-year period.

The challenge that you and we have is to identify what can and should be done within that time frame and to get the money to do it. We have got to do that because what we have been doing so far are just small area treatments. They are nice to look at. They say to us, wow, we can really make this thing work, but we have not applied it to the large area treatments that are going to be necessary to save our forests.

So, I am very much looking forward both with Interior and Ag to demonstrate to our colleagues what can really work so that we can generate the support here in the Congress. I would hope, Mr. Chairman, that we can put such a hearing together and that we will all have the opportunity to see what a benefit this can be for everything, for the environment. There has to be some small industry to help with the thinning. There is nothing wrong with that. They can help us out here. There is no way we can hire people or get AmeriCorp volunteers to do it all. So, some small amount of industry has to be available. But everything is so much more environmentally sound at the end of the day.

Then the good news is that when you are all done, you have returned it to the state of nature, that enables nature to take care of it with burns occasionally as occurred 100 years ago, but going through the forest floor burning whatever fuel is there and not crowning as it goes up that ladder of fuel.

I know you all know this better than I. But I just wanted to make a little speech, and I hope that the chairman will find a way for us to put such a hearing together and that you could all help us participate in it.

Senator CRAIG. Jon, thank you. We will do that only if Dr. Wally Covington will be the guide.

Senator KYL. He will do it with great pleasure, I am sure.

Senator CRAIG. We do have a vote on. I am going to recess the committee for a bit while we vote. Then we will be back to take the balance of the testimony. Thank you and excuse us, and of course, this panel is excused. We have completed our questioning of you. The committee will stand in recess.

[Recess.]

Senator CRAIG. The subcommittee will be back in order.

Thank you all very much for being a part of the hearing this afternoon. I apologize for the breakup, but we are in the midst of a series of votes and potentially a conference that I may have to attend. But we will proceed. We want your testimony and we appreciate the distances you have traveled and the time you spent to prepare it.

So, let us lead with Nils Christoffersen, Wallowa Resources, Enterprise, Oregon.

Mr. Christoffersen, welcome.

**STATEMENT OF NILS D. CHRISTOFFERSEN, FIELD PROGRAM
MANAGER, WALLOWA RESOURCES, ENTERPRISE, OR**

Mr. CHRISTOFFERSEN. Thank you very much, Mr. Chairman. Thanks for the opportunity to speak here.

It has been thrilling so far. The previous questions and discussions of the previous panel pretty much covered most of my testimony, so I need to move on to other points in my written testimony. I really appreciate the understanding and the interest that your subcommittee has given to our issue.

I also would like to specifically give thanks to Senator Wyden for the attention given to our community in his comments.

Our situation is familiar to much of the West. We currently have the highest unemployment rate in the State of Oregon at 15 percent. It is because of the transition in emphasis from timber supply to restoration across our national forests that this has resulted. That transition has hit our community very hard and we believe that there is an imperative for all interest groups, State and Federal agencies to work together to deal with the implications of that transition, that transition from an extractive economy to one geared towards restoration and stewardship.

Due to the 90 percent reduction in timber harvest from public lands in Wallowa County since 1992, we have lost 350 forest sector jobs with average wages in excess of \$27,000. The only significant replacement of jobs has been in the service sector. 130 jobs have been added with wages less than \$15,000.

During that same period of job loss, we have had six wildfire events, exceeding 40,000 acres in scale, and last year over 100,000 acres burned in our county. To suppress those fires, \$85 million have been spent on fire suppression in our county alone. That exceeds the amount spent on restoration contracts by a factor of 10 and on payments through the Economic Action Plan by more than 100.

Our community fully shares the national concerns about the condition of our forested landscape. We appreciate what got us in the condition they are in today. It was excessive logging. It was the fire suppression history. We have directly borne the costs of past logging and fire suppression.

We need to work with all partners to assist our remaining workforce and the private sector in our county in the transition to community stewardship and restoration. Toward this end, we desperately need to develop a stewardship workforce and the local value-added processing capacity that generates increased jobs and income from the tasks and byproducts of stewardship.

With this background in mind, our community welcomed the National Fire Plan. We would, as a general comment, like to see it integrated in a longer, sustained, and predictable commitment from the Federal Government to the restoration and stewardship across the public lands. We are encouraged that the plan clearly targets both forest and community needs and directly encourages collaboration with community organizations and micro-businesses.

However, we are concerned by a number of planning and implementation constraints that will limit, if not prevent, the intended benefits. Allow me to focus on a few of these.

The first, as most of you know and you have spoken to, is the implementation of NEPA. In our region, it is still a very long, cumbersome process. It takes more than 24 months to complete, and therefore few, if any, of the projects implemented this year were designed to achieve the integrated forest and community benefits called for in the fire plan.

It is very critical that the Forest Service and the relevant regulatory agencies receive sufficient funding to perform the tasks required by law in an efficient and in an effective manner. We would also like to see the regulatory agencies working on the ground with us up front in the identification and design of projects so that we can push through that consultation process and design better projects in a more streamlined fashion.

We are concerned that in our community that none of the fuel reduction work scheduled, both through regular contracting means and through stewardship contracting, will allow for any removal or commercial use of byproducts. This approach greatly streamlines the NEPA processes, but it means that the acres most in need of treatment will not be treated because those acres most in need of treatment with the heaviest fuel load need to have the removal of that, which will be a ground-disturbing activity, which will extend the NEPA process. And we need to commit resources to get through that.

Part of it also relates to benchmarks. When the agency only targets benchmarks, like we saw earlier today on the boards, of annual acres treated or acres treated through the course of a program such as the National Fire Plan, there is a disincentive to invest extra time and effort to provide for the removal and commercial use of byproduct. This undermines local initiatives to develop small log processing capacity that, if established, would offset the cost of restoration.

Local entrepreneurs in my county have invested scarce resources in low impact processing and small diameter manufacturing capacity. Further investments have been made in the utilization and recycling of biomass. We have the opportunity to generate green energy at an appropriate scale for our landscape and we have supported these investments with market research, product trials, and business planning assistance, which has been financed through the Economic Action Plan and private foundations.

We desperately need to deal with the serious conditions on our landscape that have resulted from lack of attention and management, as you have all discussed. We urge you to make permanent the stewardship contracting in title IV contracting authorities and to insist that they are utilized. We urge you to ensure that the Forest Service remains accountable not only for the forests and ecological part of its mission but for the community health and human service part of its mission as well.

Thank you very much.

[The prepared statement of Mr. Christoffersen follows:]

PREPARED STATEMENT OF NILS D. CHRISTOFFERSEN, FIELD PROGRAM MANAGER,
WALLOWA RESOURCES, ENTERPRISE, OR

Dear Mr. Chairman and members of the committee: Thanks for the invitation to speak today. I am Nils Christoffersen, Field Program Manager for Wallowa Resources—a community based non-profit organization serving Wallowa County in

Northeast Oregon. Wallowa Resources emerged after a period of crisis and polarization in the mid-1990's when the last three mills in the County closed due to the decline in timber harvest on public lands. With support from the County Commissioners and a broad range of local interest groups, Wallowa Resources was created in 1997 to identify and promote a new relationship with the land. The community's vision calls for the generation and maintenance of family-wage jobs and business opportunities from natural resource stewardship. The vision is based on broad recognition of the need to adapt our community livelihoods to the opportunities and constraints offered by the ecosystem within which we live. Wallowa Resources Board of Directors consists entirely of County residents and Nez Perce Tribal members. On behalf of my community, I am very pleased to provide our local perspective on the National Fire Plan to this committee.

Wallowa County has a long history of Federal, State, Tribal and Local collaboration in land and resource stewardship. Wallowa County and the Nez Perce Tribe cooperated in the development of a Salmon Restoration Plan that targeted the needs of anadromous fish before Chinook and Steelhead were listed under the ESA in 1992-93. Currently, collaborative efforts led by the Grande Ronde Model Watershed Council, the Wallowa Soil and Water Conservation District, and Wallowa Resources are uniting public and private landowners in forest, range and riparian stewardship programs, as well as an innovative community-led landscape assessment and planning process.

This is real grass-roots collaboration, involving farmers, ranchers, loggers, mill-workers, artists, retailers, civil servants and many others. The collaboration is driven by both a remarkable vision of community stewardship, and by our local economic depression.

The USFS has a critical role to play in our pursuit of community stewardship. The northern half of the Wallowa Whitman National Forest accounts for 59% of Wallowa County's total land base. To achieve the ecological and social objectives envisioned in the National Fire Plan, and those underlying the USFS' central purpose, several critical constraints need to be addressed. After summarizing the current crisis and opportunity in Wallowa County, I will review general problems in the planning and budgeting processes guiding federal land management activities, and the specific problems these constraints pose to the National Fire Plan.

WALLOWA COUNTY: CRISIS

Wallowa County currently has the highest unemployment rate in the State of Oregon at 15%. Over the last eight years, Wallowa County's unemployment rate has averaged about 11%. The much talked about "longest economic expansion in US history" has not touched our corner of Oregon. While much of the U.S.—in particular the metropolitan areas of the East and West Coast—benefited from increasing standards of living throughout the 1990's, the people of Wallowa County experienced a continuing decline in average wages, a reduction in jobs, increasing claims on public assistance, marital break-ups, depression, and mass emigration of working age families. School enrollment has dropped nearly 20% over the last 6 years. The percentage of Medicare/Medicaid patients at our local hospital has increased from 40% to 80%—reflecting a loss in private sector jobs with health insurance and a replacement of working age families by retirees and second home owners. Due to the Balanced Budget Act of 1997, Medicare and Medicaid no longer pay the real costs of medical treatment, and we are now in jeopardy of losing our hospital.

The listing of a variety of salmonoid fish species under the ESA in 1992-93 initiated a significant reduction in the program of work in the Wallowa Whitman National Forest. The timber harvest from public lands in the County dropped from an annual average of about 70 million board feet for the ten years prior to the listing of Chinook salmon, to an average of about 4 million board feet per year since 1993. This trend continues; as no timber sales have been offered in the last two years.

Other management constraints have contributed to this result including: uncertainties in management direction while the Interior Columbia Basin Ecosystem Management Project dragged on, the hesitant birth of the Blue Mountain Demonstration Area, policy decisions to not cut any tree within riparian buffers or any tree over 21 inches in diameter, the listing of lynx, etc. Of the 1.2 million acres of National Forest land in the County, less than 100,000 acres remains available for timber harvest. Most, if not all, of the existing constraints to timber harvest (and more generally to the commercial use of wood products) are dictated by politics and process—not science. This is of course normal in a democracy, but those of us in small, impoverished, rural communities feel marginalized by the urban, affluent majority.

The decline in public timber supply since 1992 contributed to the loss in over 340 wood and lumber product jobs with an average salary of over \$27,000 and private health insurance. The county's average salary is less than \$21,000. The only significant replacement of jobs has been in the service sector, which has added 130 jobs over the same period at an average salary of less than \$15,000 without medical benefits. Today even these service jobs are threatened by the continued economic stagnation.

Under current policies, the commercial use of wood products is currently possible from about 8% of our public land area. This restricts local economic opportunities, and, more importantly, it limits our ability to pursue ecological restoration. Federal and other public funding is required to cover all of the costs of restoration and management on 92% of the public lands in Wallowa County. Is this sustainable? Does this accurately reflect the nation's intentions for National Forest management? We believe the answer to both questions is no. Therefore, we urge the Federal Legislator to commit the time needed to forge a new strategic consensus on the management of our National Forests, and respond to the significant wildfire risk in the Western States.

WALLOWA COUNTY: OPPORTUNITY

Local entrepreneurs have been progressive in their response to the shift from resource extraction to resource stewardship. Considerable investments have been made by our small private sawmill to retool to process smaller diameter logs and increase its value-added processing capacity.¹ By July 2001, this mill will have the capacity to process logs down to a 3 inch top diameter. No other mill in Eastern Oregon has this capacity. Over the past two years the average diameter of all pieces processed in the mill has been 7.2 inches. This mill is uniquely positioned as a tool to support fire, insect and disease risk reduction in our forested landscapes, as well as support the promotion of healthy mature stands by under story thinning.

Local processing capacity generates the ability of the private sector to offset the costs of restoration efforts on public land. In the transition phase from resource extraction to resource restoration on public lands, private businesses need clearer signals on the future opportunities that might arise from public land management activities. Where investments are made which clearly respond to and support the restoration needs of the land, it is judicious to merge ecological treatment goals with local economic benefit goals.

Our forest contractors have retrained themselves to take on service and stewardship contracts instead of logging contracts, and they've invested in new machinery—machines that are light on the land (less than 10 pounds per square inch), and can perform a wide variety of restoration tasks including slash treatment, wetland and riparian restoration, etc. Other ex-loggers have geared up with draft and pack horses to handle forest restoration activities in sensitive sites, noxious weed management on steep slopes, and riparian fencing in remote areas.

In an effort to make use of our workforce and help catalyze the move to restoration, Wallowa Resources has secured private funding and invested it in habitat restoration on public and private land. This past field season Wallowa Resources invested over \$100,000 of non-federal funding in the restoration of Aspen stands, critical wetlands, and riparian areas in the Wallowa-Whitman National Forest, and in assisting the USFS with field assessments (e.g. lynx and soil surveys) required by NEPA.

However, local investments in restoration are at risk from a wide variety of planning and implementation problems affecting federal agencies. These problems are discussed below. Many of the risks to forest stewardship work and value-added processing of restoration by-products also affect tourism and cattle grazing in our County. Income from both tourism and grazing on public land has declined along with timber receipts over the last 6 years due in part to new limitations on the number of people in our wilderness areas and cattle in the national forest. We don't all dis-

¹Disclosure: On March 19, 2001, Wallowa Resources invested in the last operating mill in our County. The investment agreement provides us with a small equity position (6010%), and a 50% share of the management. This arrangement ensures that our charitable purpose (watershed, forest and community health) will be met by the investment. Any resulting revenues to Wallowa Resources will be re-invested in restoration. The decision to invest came about abruptly. Two years of work with the mill on small diameter log processing, waste product recycling and secondary manufacturing were at risk due to market conditions. Efforts to find "angel" investors failed due to broad spread concerns about log supply and lumber prices. With time running out on the workers' unemployment benefits in a depressed local economy, and with an eye toward the restoration role possible for this mill, we stepped to the plate. Nothing else we could do would generate 40+ family-wage earning jobs and contribute to forest stewardship.

agree with the ecological basis for these limits; we raise this point merely to illustrate that there are no easy alternatives to our socio-economic challenges.

A LOCAL PERSPECTIVE ON THE NATIONAL FIRE PLAN

The National Fire Plan is long overdue. Numerous scientific assessments of the ecological conditions in Eastern Oregon have commented on the declining health of our forests, and the increasing risks from fire, insect and disease. These assessments have been confirmed by the rapid escalation in wildfire damage. Of the 462,035 acres burnt in Wallowa County between 1955-2000, 89% (or 411,200 acres) have burnt since 1986. A total of \$85 million in federal funds have been spent on fire suppression in our County over the last 15 years, with expenditures exceeding \$8 million dollars per year in 1986, 1989, 1994, 1996, and 2000.

Cost of Fire Suppression (in \$ millions) in the Wallowa Fire Zone (1986-2000) was as follows: 1986, 12.7; 1987, 0.4; 1988, 4.5; 1989, 19.4; 1990, 1.7; 1991, 1.8; 1992, 0.7; 1993, 0.01; 1994, 22.7; 1995, 0.7; 1996, 8.3; 1997, 0.1; 1998, 0.1; 1999, 0.1; 2000, 11.1.

During the period of local economic decline (1992-2000) discussed above, over 227,000 acres of public land in our County have been lost to wildfires and \$44 million dollars have been spent on wildfire suppression. The 2000 Fire Season was significant in Wallowa County: 102,000 acres burnt and \$11 million spent in suppression. US Forest Service and University ecologists have been warning (without results) the federal government and the general public of the increasing risk of wildfire in our County since the late 1970's.

The Federal Government must address its land stewardship responsibilities seriously. As a nation, we should be able to admit past errors - timber extraction did exceed ecologically sustainable limits even up into the 1980's, as did grazing in many areas, and fire suppression has only increased fuel loads and generated increasingly catastrophic fires. We must learn from these errors. We are an indelible and inseparable part of our nation's ecosystem. With care, commitment and adaptation we can chart a course towards more sustainable livelihoods - learning from both errors and successes. We will never chart such a course by disengaging from our natural landscapes.

Locally, the community is dismayed by the lack of investment in "preventive care" for the Public Lands, a strategy that would benefit the National Forest and the local community. From our perspective, the last ten years of increasing environmental regulation, reduced public land stewardship, acute economic decline in the face of national prosperity, and recurrent devastating wildfires, suggest dysfunction in our system of governance. I think I speak on behalf of many rural communities in the Interior West when I say that we feel politically ignored. There appears to be a lack of concerted effort to understand the challenges we face, and to construct a legislative and policy environment that stimulates viable solutions. We are excited about the opportunity this hearing provides to express our opinion, and hope we can continue to work constructively with this committee on these issues.

The National Fire Plan is a step in the right direction but it needs refinement and focused follow-up if the intended outcomes are to be achieved. Specifically, we offer the following recommendations:

- **Ecological vs. Human Interface Priorities:** The focus on larger populated communities in the "wildlands interface" criteria of the National Fire Plan should be balanced with a broader effort to address the declining health of public lands across the country—including those in rural and poor communities. The ecological dynamics that have generated the risks of catastrophic wildfires across the public lands of the western States are not correlated with population densities.

The inclusion of smaller, impoverished communities situated in landscapes characterized by high wildfire risk—such as Wallowa County—is consistent with the ecological restoration priority in the new USFS Planning Rule, and will generate significant socio-economic returns.

- **Legislative and Planning Constraints:** The current planning process guided by the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA) and environmental regulations addressing water, air, and endangered species issues is complex, often confused, and always time consuming. Recent legal interpretations of the legislative web dictate an avoidance of any short-term risk without regard to the threats from lack of action or the potential long-term benefits of a particular restoration treatment. These constraints will affect results under the National Fire Plan. Little of the vast acreage warranting fuel reduction treatment in Wallowa County has made it through the various analytical and decision-making steps required by law. These steps cur-

rently take 24 months or more to complete. So the bulk of the work that will be accomplished this field season under the National Fire Plan is work that was initially proposed in 1999 or earlier. None of these projects were designed to meet the full intent of the National Fire Plan—which seeks to generate local jobs and accomplish priority rehabilitation and fuel reduction activities.

Regulatory agency representatives should be located closer to the districts for which they are responsible and encouraged to participate in all phases of project design and development. This will stimulate innovation, creativity, and collaboration. Legislative and policy review should accommodate short-term risks where long-term benefits can be achieved. These steps are critical to the pursuit of adaptive management. The current system of review from afar, and blind aversion to short-term risk, generates frustration and hampers restoration efforts.

- **Inefficiencies in Federal budgeting:** The USFS budget process is complex, confusing, and incessantly delayed. The delays and the lack of strategic, long-term commitments, stifle local work planning. To the best of my knowledge, our local USFS district still does not know what its budget is for the coming field season. If they do know, confirmation has only been received recently. The inadequacies of this system defeat efforts to generate a local “restoration workforce”. Our highest qualified workers cannot afford to wait for the USFS to issue contract notices in May or June, and therefore find work elsewhere in the region. Even worse, local entrepreneurs investing in modern harvesting and processing machinery designed for restoration activities are victimized by unpredictable shifts in program funding.

Clear, long-term funding commitments for land and resource management should be established. Restoration and economic objectives associated with funding should be spelled out broadly with authorities devolved for (i) the definition of local priorities consistent with national values, and (ii) the definition and implementation of appropriate restoration activities. Collaborative reviews of local work programs and accomplishments should be conducted periodically to assess consistency with national values, and revise as necessary the guidelines accompanying the delegated authorities.

- **Inappropriate Performance Targets:** The collaboration with community organizations and micro-businesses called for in the National Fire Plan is hampered by the over-arching emphasis on “acres treated” as a performance indicator. Collaboration takes time to generate trust, relevant skills, and strong working relationships. When performance is measured in annual acres treated, collaborative efforts are perceived as costly. Furthermore, the singular target of acres treated discourages extra effort to provide for opportunities to test new technologies, and develop new value-added processing systems.

Accountability benchmarks must integrate ecological and socio-economic performance targets. Congressional review should be structured to reward accomplishments that demonstrate effective collaboration, generate local economic benefits, and achieve ecological objectives. While this incentive structure will increase the costs of ecological restoration over the short-term, it should reduce the long-term costs as partnerships strengthen and local resources (financial, technical, and technological) are committed to collaborative stewardship of our public lands.

- **Federal Authorities Exceed Capacities:** The lack of bipartisan consensus on environment and resource management issues has generated increasing disparity between federal authorities and federal capacity. Environmental regulations have increased while funding to federal management and regulatory agencies has decreased. Insufficient capacity in the federal agencies results in long delays in project decision-making and implementation, or worse—a complete avoidance of decision-making and a never-ending process of planning and consultation.

Congress should not cut funding to the management and regulatory agencies before laws are revised. Otherwise, rural communities, other resource users, and the resources themselves get hurt. The effective and efficient execution of current authorities in response to the National Fire Plan, and public land stewardship in general, requires immediate additional funding for the USFS, USFWS, NMFS, and EPA.

- **Mechanical Treatment vs. Prescribed Burning:** The funding allocation bias to prescribed burning as opposed to mechanical treatment and other forms of fuel reduction is inconsistent with field conditions and with local economic benefit objectives. The ecological impacts of past logging and fire suppression, combined with the management constraints discussed above, have resulted in a landscape

in our County where stands characterized by the stem initiation and stem exclusion stages currently exceed their historical range of variability by about 50%. In a majority of these young stands, shade tolerant species (especially White/Grand fir) generating higher fuel loads are crowding out the species generally associated with our area (Ponderosa pine, Douglas fir, and Western larch). Wallowa-Whitman National Forest vegetative data lists 80,000 acres of backlog thinning. The majority of these acres exceed historical ground fuel loads by eight to ten times or more. Prescribed burning is the cheapest treatment option, but it also carries considerable risks in high fuel load stands. No one wants to see a repeat of the Los Alamos disaster. Prescribed burning in our area falls under an "Indefinite Delivery Indefinite Quantity" contract with a large contractor based in Western Oregon. This, and a range of licensing and insurance requirements, precludes any significant local employment benefit from prescribed burning.

Mechanical treatment (with machines and/or by hand) of fuel loads is an ecological necessity in many high fire risk stands, and will generate significant local economic benefits—both in terms of labor and the potential to add-value to any woody materials removed from the land. Where commercial use of low value species and small logs develops, restoration costs will be reduced.

SUMMARY COMMENTS ON THE NATIONAL FIRE PLAN

The numerous planning and budgetary problems affecting public land management preclude the short-term response envisioned in the National Fire Plan. In Wallowa County, there is no NEPA ready work that captures the mix of ecological and socio-economic objectives desired by Congress and the previous Administration when it formulated this Plan. Given the significant time required (averaging 24 months or more) to get projects through the legislated planning and review process for activity on public lands, it is unlikely that any National Forest will undertake work specifically targeting the integrated National Fire Plan goals with this years funding. Performance targets emphasizing acres of treatment per year are jeopardizing local community benefits and undermining local investment in small log harvesting, processing and manufacturing. As a result, the incentives influencing the USFS program of work undermine local opportunities to reduce the costs of restoration to the federal government and the tax-paying public.

Clear policy guidelines and appropriate funding should be packaged to promote USFS collaboration with local organizations, as well as the utilization of local workforces. The effective utilization of local resources as appropriate under existing law should generally be prioritized over increased federal agency staffing—with the exception of the current imbalance in staffing required to streamline NEPA's planning requirements.

Local planning processes should be guided by long-term national objectives (matched by longer-term funding commitments), and defined in a site-specific manner relevant to each landscape or watershed. Planning processes should be structured to generate targeted (and typically small scale) restoration objectives for each field season, and implementation should happen fluidly and consistently from year to year. Practical and scientifically valid assessment programs should be required for all restoration work, and findings should be fed back into annual planning cycles. Collaborative or multi-party assessments should become standard operating procedure.

To the extent justified by local ecological and socio-economic conditions, priorities under the National Fire Plan should focus on the mechanical treatment of fuel loads and ladders. Private sector investments in the processing and secondary manufacturing of the small diameter logs that will result from mechanical fuel reduction efforts should be facilitated. This will require additional investments in NEPA preparation and ESA consultation to accommodate product removal and commercial use. Research programs in the USFS (especially the Forest Product's Lab), within universities, and by local partners, should currently be targeted (and funded appropriately) at small diameter log utilization and marketing. As forest conditions and public values change, research programs should be adjusted to support new restoration activities.

Thank you for the opportunity to share these views and perspectives on the National Fire Plan today. All of us in Wallowa County are eager to continue working with Congress and the Federal Agencies to improve public land management through the country. While this concludes my formal comment on the National Fire Plan, the following issues relevant to community forestry in Wallowa County are provided for your further consideration.

GENERAL COMMENTS ON PUBLIC LAND MANAGEMENT

1) Procurement/Grants and Agreements: Clear policy support and direction is required to stimulate full use of the existing authorities in Stewardship Contracting and other innovative contracting arrangements. Optimum solutions are often found when contracting and procurement officers participate in the initial project design discussions, but such participation is not standard. It should be.

Stewardship Contracting is still "outside of the box" for many within the USFS. Stewardship Contracting offers the ability for local forest contractors, with a vested interest in the health of the forest and significant local knowledge, to transition into family wage-earning jobs in restoration rather than logging.

2) Wyden Amendment: The Wyden Amendment is a critical piece of our legislation that is stimulating broader public and private collaboration on watershed restoration. Knowledge of the opportunities and benefits of this amendment is still developing. It should be continued for at least five more years, and then reviewed.

3) Economic Action Program: The Economic Action Program of the Forest Service is under funded and politically marginalized within the Department of Agriculture. It needs increased funding, with far fewer earmarks. The staff of this program must have effective representation at all levels of planning and decision-making. This is critical to the stimulation of collaborative efforts, and to the merger of ecological and environmentally appropriate economic benefits.

4) Strike Team: The Strike Team sent out to Northeast Oregon in October 2000 to review the progress and constraints of the Blue Mountain Demonstration Area was considered locally to be a huge success. It resulted in greater awareness of and support for collaborative efforts, established accountability benchmarks for the USFS Regional Offices and Supervisor's Office, and encouraged broader public participation. This type of effort, with the full backing of the Administration, should be repeated everywhere collaborative efforts are occurring—and as a top priority in those areas experiencing policy barriers to progress. This approach generated results whereas the award of a National Reinvention Lab Charter two years ago generated nothing but confusion.

5) Blue Mountain Demonstration Area: Demonstration Areas are mixed blessings. They generate a lot of promise and expectation, but also become the target of political opponents. The Blue Mountain Demonstration Area that covers much of our County has taken time to establish its planning systems, priority criteria, and mode of operation, but it is now positioned to generate results and maintains broad support from the community. If the new Administration values the original intent and objectives of these Demonstration Areas (which our community does), we strongly encourage continuation of this initiative for 3-5 more years. Anything short of this time-frame will provide insufficient experience to distill lessons learned, and models for replication elsewhere.

6) Small Business Set-Aside: With the decline in the Timber Sale program on public lands, the Small Business Set-Aside program needs to be revised. It is currently built on 6-month intervals, but our forest regularly goes 6 months or more without offering any commercial contracts. If the Set-Aside program is not adjusted to the current frequency of log supply availability on public lands, it does not serve its purpose.

7) International Trade: The proponents of free trade as the purveyor of increased public value from private investment need to reconsider. Price competition on the international market is greatly affected by national and local regulations and enforcement. The USA has some of the most prohibitive and costly environmental regulations in the world. While acknowledging the need for some regulations, it is obvious that our regulatory environment puts our local producers at a disadvantage in the face of international competition. The environmental benefit of our regulations is undermined if we allow cheaper goods produced in a less appropriate manner to flood our markets and eliminate our producers. Furthermore, the ability of the federal government and private landowners to act as real stewards of the land will diminish if no private sector exists to off-set the costs of restoration and conservation. We strongly encourage the maintenance of import quotas and/or tariffs on wood and lumber products. We support the proposed sliding scale for tariffs correlated with the market price for lumber.

Once again, thank you.

SUPPLEMENTAL STATEMENT OF NILS D. CHRISTOFFERSEN, FIELD PROGRAM MANAGER,
WALLOWA RESOURCES

Dear Mr. Chairman and members of the committee: Upon returning to Wallowa County, Oregon, and further reflection on the hearing, I would like to submit the following supplemental statement to my testimony.

1. Our unemployment rate jumped to 19% by the end of February 2001—the highest level in several decades. This was driven by the first significant reduction in retail employment in over 20 years. The sustained decline in manufacturing jobs, with and additional 130 wood and lumber products jobs lost in 2000, is having significant impacts on the rest of the economy.

2. The intention of my testimony was to emphasize the opportunities that exist to address both forest and community health concerns. Our community workforce and the local wood-processing infrastructure have adapted to the current need to treat small diameter trees in suppressed stands and to clean up heavy fuel loads. This should not be interpreted as a push to remove saw logs from the public lands. We are committed to improve forest and watershed health as a top priority. However, we want to take advantage of any employment and value-added processing opportunities that result from forest restoration and stewardship.

3. Our community is committed to its partnership with the USFS. We appreciate the commitment, expertise and experience of our local Forest Service employees—who are valued members of our community. We are frustrated by the legislative, policy and budgetary constraints affecting our ability to deal with serious forest health concerns in our County and across Eastern Oregon. To the best of our understanding, these constraints are not purely a function of USFS operations and management, but reflect more broadly the national political tensions surrounding public land management. We want to see priority given clearly to a balanced, integrated land management approach that generates both forest and community health benefits. We do not want to see a return to the past where forested public landscapes were subjected to output based forest management, nor the maintenance of the present where rural communities and forested landscapes suffer from inattention and neglect.

Thank you.

Senator CRAIG. Nils, thank you very much for that very observant testimony. I think much of what you are saying is part of the “can we crawl before we walk” part of where we might be in some of this new strategy right now.

With that, let me turn to Betty Vega, Cooperative Ownership Development Corporation, Silver City, New Mexico. Welcome before the committee.

STATEMENT OF BETTY VEGA, CEO, COOPERATIVE OWNERSHIP DEVELOPMENT CORPORATION, SILVER CITY, NM

Ms. VEGA. Thank you, and good afternoon, Mr. Chairman, and members of the subcommittee.

I am Betty Vega, chief executive officer of the Cooperative Ownership Development Corporation in Silver City, New Mexico, located in Grant County. I want to thank you for the congressional support of the National Fire Plan. It provides an opportunity to better serve community needs and we greatly appreciate it.

The Cooperative Ownership Development Corporation was formed in 1987 and is a nonprofit organization dedicated to social, economic, and environmental justice, committed to job creation, and finding opportunities for sustainable and livable wages. It was formed by people from the low income and Mexican-American community in Grant County in response to economic and unemployment conditions in the area.

I am going to focus today on opportunities for Congress to further assist communities in taking care of the land through small business development and other forms of investment in the community by acquainting you with the work that a small rural community organization is doing to promote community economic development using local resources and assets.

New Mexico and specifically Grant County are rich in cultural diversity and natural and human resources. Grant County is located

in southwest New Mexico on the southern end of the Gila National Forest and close to the Mexican border. It has a population of approximately 30,000 people and is over 50 percent Hispanic. Approximately 21 percent of its population are living below the poverty level. Though the human communities adjacent to the forest are small, their impact have been significant.

We share your concern about forest restoration, hazardous fuel reduction, and the sustained health of our communities. The recent catastrophic forest fires have emphasized the need for attention to the condition of our forests and the direct and indirect impacts of these conditions on surrounding communities.

We also recognize that forest restoration requires an integrated, holistic approach. An integrated approach begins with a community vision of forest restoration. Reestablishing sustainable human connections to the land through quality restoration jobs and conservation-based economy is part of this approach. This must also include a sensitivity to cultural values and community needs.

Second, an integrated approach requires strategic application of various restoration techniques. This may require a combination of prescribed fires, conservative thinning, grazing deferment, erosion control, and road closures, native seed planting, and intensive ecological monitoring. It helps to minimize disturbance and allows for the introduction of positive natural processes. It can also protect the old trees remaining.

Third, it is important to think of this strategic restoration as experimental in the beginning. This is an entirely new way of thinking about forests, and we have few of the answers needed to attempt it on a large scale. A conservative approach will allow us to employ restoration models that respond to problems plaguing forests today without causing more harm than help. These same principles apply when considering hazardous fuels reduction. Through natural resource management, our interest has been in retaining those natural resources for quite some time. We have some experience to share, but we have a great deal to learn.

These challenging environmental and economic conditions provide opportunities. The removal of small diameter material may help restore ecosystems and allows CODC and local community members to develop jobs and create economic uses for wood wastes. In other words, a confluence of interests is turning the excess small diameter timber of the forest and the ready labor of our communities into assets.

A planning grant and subsequent funding from the Ford Foundation resulted in the development of the Jobs and Biodiversity Project, a community-based forestry initiative. It brings together an impressive group of cooperators and assets from environmental groups, educational institutions, the business community, small industry, nonprofits, and government agencies.

Two of the central pieces of this project are Tierra Alta Wood Products Plant, an incubated business of CODC organized to become a worker-owned cooperative, and Gila WoodNet, another nonprofit organization with specific experience in small timber removal.

Tierra Alta Fuels uses wood waste and small diameter thinning to produce an environmentally clean, renewable, nonfossil, premium wood pellet fuel for home heating use.

Gila WoodNet will establish a wood sort lot, provide a local supply of raw material for Tierra Alta and develop other wood products.

So, government assistance and participation is crucial to success. For example, the programs created by the Community Forest Restoration Act provide an opportunity for our organization and the community to coordinate projects with the Federal Government. These projects will greatly improve the social and economic conditions in our community, as well as the conditions in our forest.

We ask that you consider the following areas in defining Government's role in the process: to provide long-term appropriations to ensure continued implementation of community-based restoration projects based on sound ecological principles; find ways to fund the pioneering work of rural nonprofits and small businesses to develop markets and products from restoration byproducts; and provide necessary personnel and funding to complete the NEPA process in a timely, cost effective manner.

We have formed a community of interest and of place with a vision for the future. It brings together people interested in working to create livable wages by investing in the forest for future generations.

Thank you.

[The prepared statement of Ms. Vega follows:]

PREPARED STATEMENT OF BETTY VEGA, CEO, COOPERATIVE OWNERSHIP
DEVELOPMENT CORPORATION, SILVER CITY, NM

Dear Mr. Chairman and members of the subcommittee, I am Betty Vega, Chief Executive Officer of the Cooperative Ownership Development Corporation in Silver City, New Mexico located in Grant County.

The Cooperative Ownership Development Corporation (CODC) is a non-profit organization dedicated to social, economic and environmental justice, committed to job creation and finding opportunities for sustainable and livable wages. It was formed by people from the low income and Mexican-American community of Grant County in response to perennial cyclical layoffs in the copper industry. The community founded the organization with the goal of forming cooperative businesses and creating other forms of economic ownership in the area. CODC has combined traditional methods with innovative community economic development techniques to affect social and economic change.

Since its beginning in 1987, CODC has been actively involved in areas affecting the state of rural communities. Cooperative business development began in 1989 with a worker controlled housing rehab construction company. This led to later development of Adobe Southwest Community Land Trust in 1995-96 with the goal of providing affordable housing and rehabilitation to area homes. In 1993, a 3,000 square foot business incubation center was built to offer the community a bilingual setting in which to give business training and support services to the low-income community.

The commitment to develop local resources led to subsequent feasibility studies and research. Use of area natural resources and the economic benefits became apparent. Tierra Alta Fuels, a second incubated business of CODC, was begun in 1998. This business produces wood pellets and other wood products from small diameter timber and wood by-products.

I am going to focus today on opportunities for Congress to assist communities in taking care of the land through small business development and other forms of investment in the community. I am also going to acquaint you with the work that a small rural community organization is doing to promote community economic development using local resources and assets.

BACKGROUND AND VISION

New Mexico and specifically Grant County are rich in natural and human resources and cultural diversity.

Grant County is located in southwest New Mexico on the southern edge of the Gila National Forest and close to the Mexican border. Its ecosystems range from semi-arid Sonoran desert in the south, at 4,000 feet above sea level, to alpine ranges of 11,000 feet above sea level in the north.

Grant County's population of approximately 30,000 people is over fifty percent Hispanic. Additionally, over twenty-one percent of the population is living below the poverty level. We share your concern about forest restoration, hazardous fuel reduction and the sustained health of our communities. The quality of life affected by economic, social and environmental conditions drives CODC's mission and is the center of community action and planning.

The Gila National Forest is home to a wide variety of wildlife and forest cover including Ponderosa Pine, Douglas Fir, Juniper, Pinon, Spruce, Oak and Cottonwood trees. Though the human communities adjacent to the forest are small, their impact has been significant. The recent catastrophic forest fires have emphasized the need for attention to the condition of our forests and the direct and indirect impacts of these conditions on surrounding communities.

Forest restoration requires an integrated, holistic approach.

First, an integrated approach requires a community vision of forest restoration. Reestablishing sustainable human connections to the land through quality restoration jobs and conservation-based economies is part of this approach. Sensitivity to cultural values and community needs is also essential.

Second, an integrated approach requires strategic application of various restoration techniques. This may require a combination of prescribed fires, conservative thinning, grazing deferment, erosion control, and road closures, native seed planting and intensive ecological monitoring. It helps to minimize disturbance and allows for the introduction of positive, natural processes. It can also protect the old trees remaining.

Third, it is important to think of this strategic restoration as experimental in the beginning. This is an entirely new way of thinking about forests, and we have few of the answers needed to attempt it on a large scale. A conservative approach will allow us to employ restoration models that respond to problems plaguing forests today without causing more harm than help. These same principles apply when considering hazardous fuels reduction. Natural resource management has been our concern for quite some time and we have some experience to share but a great deal to learn.

BUILDING COMMUNITY CAPACITY

Challenging environmental and economic conditions of the communities surrounding national forests provide opportunities. The removal of small diameter material may help restore forest ecosystems and allows CODC and local community members to develop jobs and create economic uses for wood wastes. In other words, a confluence of interests is turning the excess small diameter timber of the forest and the ready labor of our communities into assets.

A planning grant and subsequent funding from the Ford Foundation resulted in the development of the Jobs and Biodiversity Project; a community based forestry initiative. The planning process brought together a coalition that includes The Cooperative Ownership Development Corporation, Gila WoodNet, The Upper Gila Watershed Alliance, The Silver City Grant County Economic Development Corporation, The Southwest Forest Alliance, The Center for Biological Diversity, The Nature Conservancy and the U.S. Forest Service. In addition, religious organizations, community foundations and other nonprofit organizations are assisting in the implementation of the project. The purpose of the project is to develop economically viable forest products while implementing forest restoration projects that help to reestablish the functioning of natural systems. Removal of small diameter timber in this thinning process will help reduce the high density of small trees and help restore the diversity of forest cover. It can also aid in protecting large old trees remaining on the landscape by reducing the risk of high intensity uncontrolled fires.

One of the central pieces of the Jobs and Biodiversity Project is the Tierra Alta Wood Products Plant. Tierra Alta is a significant wood industry and an incubated business of CODC and is organized to become a worker owned cooperative. The business uses wood wastes and small diameter thinning to produce an environmentally clean, renewable, non-fossil premium wood pellet fuel for home heating use. Vigas and playground fiber are examples of other products from Tierra Alta.

Another central piece and partner of the project is Gila WoodNet. This non-profit organization has specific experience in small timber removal and will establish a wood sorting lot, provide a local supply of raw material for Tierra Alta and develop other wood products.

Training in the areas of forest restoration, wood product development, business development and ownership and natural resource management is necessary. This will not only provide sustainable, livable wages throughout the year, but will also create an assurance of sustained natural resource management.

Another form of building community capacity is to create business partnerships. This can provide technical expertise and guidance to organizations and community groups limited in resources and skills.

FEDERAL GOVERNMENT ROLE AND ASSISTANCE

Government assistance and participation is crucial to success. For example, the programs created by The Community Forest Restoration Act provide an opportunity for our organization and the community to coordinate projects with the federal government. These projects will greatly improve the social and economic conditions in our community as well as the conditions in our forests.

3 We ask that you consider the following areas in defining government's role in this process:

1. Provide long-term appropriations to ensure continued implementation of community based forest restoration projects based on sound ecological principles.
2. Find ways to fund the pioneering work of rural non-profits and small businesses to develop markets and products from restoration byproducts.
3. Provide necessary personnel and funding to complete the NEPA process in a timely, cost effective manner.

The Jobs and Biodiversity Project forms a community of interest and of place with a vision for the future. It brings together people interested in working to create livable wages by investing in the forest for future generations. Protecting natural resources and restoring resiliency in forested ecosystems is possible through restoration efforts. The log sort yard and forest product development will get the most value of each log. Producing wood pellets from wood byproduct provides an affordable and environmentally clean, alternative heating fuel and is the highest and best use of a waste material.

CODC has effectively developed and sustained an environment of cooperation and partnership between business, government entities, other nonprofits and the community.

This effort is making the dream of a healthy environment for our children a reality in our community.

Thank you for your time and the invitation to tell you about the progress we are making in our local communities.

Senator CRAIG. Ms. Vega, thank you very much.

Now let us turn to Nancy Farr, Forest Stewardship Project, Partnership for a Sustainable Methow, Twisp, Washington.

STATEMENT OF NANCY FARR, PROJECT COORDINATOR, FOREST STEWARDSHIP PROJECT, PARTNERSHIP FOR A SUSTAINABLE METHOW

Ms. FARR. Thank you, Mr. Chairman.

The project that I coordinate in interior Washington State is a nonprofit research and demonstration effort that aims to restore the health of the forest while providing new living-wage jobs for our rural communities. Participants include loggers, environmental advocates, ranchers, scientists, and others.

Much of my area's landscape consists of dry forests and streams that serve as maternity wards and nurseries for salmon and other endangered fish. Our dry forests and our watershed are closely interlinked, and both are in trouble.

Today I will first give you an idea of how much at risk the forests in my own community are, and second, I will recommend ways that

Federal programs and investments can help reduce the risk of catastrophic forest loss, restore ecosystem health, and relink our community welfare with the land.

More than 82 percent of the dry forest in the Okanogan is currently classified as dense dry. This is dangerously different from its historically open condition which was created by frequent low-burning fires. The extreme risk of catastrophic fires threatens not just our trees, but also the soils, the streams, and rivers and everything that depends on the intact ecosystem.

With funds budgeted for the Okanogan Forest this year, less than 1 percent of the high-risk lands will be thinned. At that rate, it will take more than 100 years to thin all the currently overstocked land, during which much of it will burn in high intensity stand-replacing fires. The ecosystem, including trees, productive soils, and watershed functions, will be severely altered.

Preventive maintenance through thinning and slash treatments is effective at reducing the risk in dry forests like ours, and it is cost effective. Wildfire suppression and emergency rehabilitation averages at least \$1,000 per burned acre. Forest Service costs for thinning in our area average \$450 per acre.

These comparative figures, while compelling, do not tell the whole story. High intensity fires also cost the public in follow-up vegetation management, lost lives, property, habitat, water quality, and sometimes even future soil productivity.

On the other hand, investments in hazardous fuels mitigation have additional benefits, including improved tree and forage growth, and increased stream flows and groundwater retention. As an agency silviculturalist told me recently, it is either pay a little bit now or pay a whole bunch later. Congress needs to make a more significant and a more sustained investment in preventive hazardous fuels treatments.

A fundamental principle of the forest stewardship approach is that forests should be looked at from a holistic perspective with a long view. The interrelationship between forests, water, fish, and the local economy in my own area illustrates the holistic nature of the forest ecosystem.

So, my first recommendation on wildland fire strategies is to put this subject in its larger context and check each proposed action relative to its long-range impacts on the entire ecosystem, which includes the human social system.

Second, we need long range, sustained programs and investments because the problems in our forest, workforce, and communities are systemic and long-term.

My last three recommendations relate to how fuels reduction and related strategies should be implemented. Here our Forest Stewardship Project can serve as a concrete example of how a restoration system that combines low-impact techniques, skilled workers, and proven best practices can meet sustainability objectives. We believe that using conventional logging machinery in dry type forests is highly detrimental to the ecosystem and has no place in forest restoration. We are demonstrating that low-impact machinery, combined with well-trained workers, can benefit the forest and community economics. Significantly our "light on the land" approach impacts no more than 5 percent of the ground. This is one-

fifth the impact of conventional machinery on soils and watershed functions. Funding for research and demonstration of low-impact methods, for example, integrating small machines and horses, is essential to gaining the support of environmental advocates and to meeting sustainability objectives.

Another benefit that we are able to demonstrate is that our labor-intensive versus machine-intensive approach enables tree fallers to decide which trees are best to leave as they move through the landscape. Training in ecosystem functions is critical for the workers who will implement ecologically beneficial fuels treatments. Congress needs to help us invest in workforce development. Our project's investment is providing three times as many jobs as the conventional "big machine" approach.

My last point is the importance of an inclusive process that integrates diverse perspectives on an ongoing basis in treatment planning, monitoring, and adaptive management. Education and involvement of the community in assessing and treating the land leads to more learning and better practices.

To recap, I ask you to create and support programs that, first, address the wildland fire problem within its larger context, the degraded condition of the whole ecosystem. Second, provide sustained funding for restoration planning and implementation. We need to know that this Nation is committed to sustained restoration work. Third, require and invest in development of low-impact restoration treatment methods. Fourth, invest in community education, worker training, and living-wage jobs. And fifth, finally, mandate and fund ongoing multi-party participation in treatment monitoring, evaluation, and adaptive management.

Thank you very much.

[The prepared statement of Ms. Farr follows:]

PREPARED STATEMENT OF NANCY FARR, PROJECT COORDINATOR, FOREST STEWARDSHIP PROJECT, PARTNERSHIP FOR A SUSTAINABLE METHOW

Dear Mr. Chairman and members of the subcommittee, I am Nancy Farr, Coordinator of the Forest Stewardship Project in Okanogan County, rural Washington state. Our project is a non-profit based research and demonstration effort that aims to achieve sustainable forest management while providing living wage jobs for our rural communities. Our project addresses the needs of the forest and community as a whole system—where ecology, economy, and social concerns are linked together very tangibly. The Forest Stewardship Project is a collaboration of local and regional organizations and individuals who embody the full spectrum of interests in natural resources. Participants include loggers, environmental activists, ranchers, natural resource management professionals, and other residents who cherish the ecosystem of which we're a part. Together, through the Forest Stewardship Project, we are finding common purpose and developing a restoration treatment system that will help return the forest ecosystem to balance.

Okanogan County is physically the third largest county in the United States. Much of the landscape is made up of dry forests and rivers and streams that serve as maternity wards and nurseries for salmon and other endangered and threatened fish. Okanogan's forest lands cover 48% of the county and receive approximately 75% of the annual precipitation, so our dry forests and our watershed are closely interlinked. Both are in trouble, as is agriculture and even hydropower on the Columbia River, the destination of water flowing out of our forests.

Today, I will address my comments in two directions. First, I want to give you an idea of how much at risk the forests and associated resources are in my own community. Second, I will talk about strategies that our project is demonstrating which, with your support, can reduce the risk of resources lost in catastrophic fire, restore ecosystem health and provide economic opportunities to local communities.

FORESTS AT RISK

More than 80% of the forested land in my county is public. The majority of that is in the Okanogan National Forest, where there are more than 400,000 acres of "dry forest." This means that historically they were open, with widely spaced large trees, little underbrush and only occasional clumps of smaller trees. Typically these forests experienced natural low-burning fires every 5-15 years.

These forests are dramatically and dangerously different now. 82% of forested acres are currently classified as "dense dry forest." They are at highest immediate risk of wildfire, because they are crowded with small, poorly growing trees—so crowded that 40% or more of the crown space is closed. This condition has many negative effects, one of which is the extreme risk of catastrophic wildfire that threatens not just the trees and timber values but also the soils, streams and rivers, and all the human uses and the biodiversity that depend on the intact and balanced functioning ecosystem.

ALTERNATIVE STRATEGIES AND COSTS

With funds budgeted in FY 2001, if all goes well, some 2,500 acres¹ will be thinned in commercial and non-commercial projects in the Okanogan National Forest. This is less than 1% of the high risk forest. At that rate, it will take more than 100 years to treat all the currently dense acres, during which many of them will burn in very hot stand-replacing fires. Many of the resources, including productive soils and watershed functions, will be severely degraded or lost.

Preventive maintenance, through thinning of the dense trees plus various forms of dealing with thick underbrush and slash, is effective at reducing the risk of catastrophic fire in dry forests like those of the Okanogan. And it is cost effective when looked at from several perspectives. Total cost to the Forest Service for non-commercial thinning in our area is averaging \$410 per acre, \$486 net cost for commercial thinning projects. Wildfire suppression and immediate, emergency rehabilitation work to prevent or minimize damage to streams is running an average of at least \$1,000 per acre burned. These comparative figures, while compelling, do not tell the whole story.

Wildfire suppression and emergency rehabilitation cost at least \$1,000 per acre + plus:

- state and local firefighting expenses;
- damage to roads, culverts, fences and soils from emergency equipment movement;
- followup vegetation management and other rehabilitation expenses; and
- lost lives, property, habitat and water quality, and in the hottest fires, soil productivity.

On the other hand, hazardous fuels mitigation costs approximately \$450 per acre—and it has additional benefits in:

- the value of improved timber and forage production;
- the value of increased streamflows and ground water retention; and
- the value of improved aesthetics and recreational opportunities.

As a Forest Service silviculturalist told me, "With the forest conditions we've got on the dry sites, we are really in a situation of 'pay a little bit now or pay a whole bunch later.'" Congress needs to make a more significant and a more sustained investment in preventive hazardous fuels treatments.

RECOMMENDATIONS TO CONGRESS

I am really glad that the subcommittee is looking at how hazardous fuels can be reduced in ways that restore ecosystem health and provide economic opportunities to local communities. One of the fundamental principles of our approach in the Forest Stewardship Project is that forest management should be looked at from a holistic perspective, with a long view. My earlier description of the interrelationships between forests, water, fish, agriculture, hydropower and local economies in my own area illustrates the holistic nature of the forested ecosystem.

Whole System, Long-Term View

So my first recommendation regarding strategies for wildland fire management is to put this subject in its larger context and check each proposed action relative to

¹Management of the Okanogan and Wenatchee National Forests was recently combined. The FY 2001 budget covers both forests. The thinning estimate above assumes that the thinning budget allocation for the Okanogan will reflect its share of dense dry acreage.

its long term impacts on all ecosystem functions and resources, including the human social ones. For example, Forest Service policies and practices should ensure accountability to local communities.

Sustained Programs and Investments

My second request of Congress is for multi-year, sustained programs and investments, because the present problems and needs in our forests, workforce and communities are systemic and long term. For example, appropriations for hazardous fuels mitigation and community capacity building through the Rural Community Assistance program should be increased and sustained. Over some time, the tax savings in reduced needs for emergency fire suppression and long term resource rehabilitation, as well as tax revenues from new rural jobs and stronger local economies, may offset the near term costs.

I want to briefly tell you why sustained investment in programs like the USDA Forest Service's Rural Community Assistance (RCA) program is so important. RCA has been instrumental in our organization's progress on local sustainable economic development over the past two and a half years. One grant has enabled the Forest Stewardship Project to begin implementing worker training, restoration monitoring and community education programs. A \$26,000 RCA grant was leveraged to support a total first year operating budget of \$170,000—84% of which went to wages in new jobs. The job creation potential of this project is enormously important to our formerly timber-dependent economy, and the environmental and natural resource benefits of well targeted federal support are similarly enormous.

We are applying this month for Forest Service administered grants for project expansion, from the Rural Community Assistance program and from the Title IV National Fire Plan appropriations. These types of grants can provide a financial base on which private, community and foundation funding can be added along with program income and in-kind and volunteer labor to make efforts like ours sustainable. I want to emphasize the importance of the language in Title IV of 2001 Interior Appropriations Bill that authorizes the Forest Service to enter into contracts, grants and cooperative agreements with nonprofit entities. This will make a significant difference in our efforts locally and our development as a model for other communities.

My last three recommendations for the subcommittee relate to how hazardous fuels reduction and other wildfire strategies are implemented. In brief, in addition to the two recommendations above, I recommend that Congress:

3. Require that hazardous fuels treatments be done using low impact methods that benefit rather than damage ecosystem functions. Invest in research and demonstration efforts that show how this can be done effectively in all forest types;
4. Invest in building local knowledge of the landscape and how to care for it, because the most logical base for stewardship is the local community;
5. Require multi-party planning, monitoring and adaptive management decision making, because no stakeholder group sees the whole picture on its own.

I will now discuss the Forest Stewardship Project (FSP) as a concrete example of how hazardous fuels can be reduced in ways that restore ecosystem health and improve the local economy. In short, we are developing and demonstrating a forest restoration system that meets sustainability objectives by combining low impact machinery and techniques, skilled workers and proven best practices.

Insistence on Low Impact Treatment Methods

My stand on low impact forest restoration methods is very strong. My colleagues and all of our supporters, who include both environmental activists and traditional natural resource users like ranchers, believe that using conventional logging machinery, typically cut-to-length processors and large skidders, in dry type forests is highly detrimental to the ecosystem and has no place in holistic forest restoration. Our project is beginning to demonstrate that the combination of low impact machinery and well trained tree fallers and other woods workers can reduce hazardous fuels in efficient ways that have acceptable impacts and benefit the community economically as well as ecologically.

Conventional logging machinery directly impacts approximately 25% of the forest. Machinery impacts affect soil structure, water retention, spread of noxious weeds, standing trees, and the appearance of the forest. The low impact, light on the land machinery that we use in our work impacts no more than 5% of the ground, one-fifth the ground impact of the conventional machinery.

Another very important benefit of our approach is that the faller makes the decisions about which trees are best to leave as he or she moves through the landscape. This requires understanding ecosystem functions, and it means that park-like tree clusters, openings and snags for wildlife are left in patterns similar to what nature

creates in the dry forest landscape. The natural selection method cannot be implemented by a machine operator who is motivated primarily to keep his huge capital asset on the move.

To reiterate, funding for research and demonstration of low impact methods is essential to gaining the support of environmental activists and meeting sustainability objectives.

Investment in Workforce Knowledge and Skills

As I indicated, a good understanding of ecosystem functions is critical for the workers on the ground to implement ecologically beneficial fuels treatments. This means that broad based job training and sustained experience in the particular ecosystem are important factors in who conducts the treatments. Low-impact treatments are relatively labor intensive, substituting skilled labor for high cost, high-impact machinery. This means that the workforce is not only good for the land. It is also good for the local economy.

Our project's approach is providing three times as many jobs as the conventional big machine approach. And our workers can be eyes and ears for the Forest Service out on the ground, providing helpful observations on the forests' response to treatments and changing conditions. Wildfire strategies and programs should address development of a local workforce that is capable of taking on the long term responsibility for forest ecosystem restoration and maintenance.

Multi-Party Community Based Process

Finally, I want to talk briefly about the importance to ecosystem restoration and to community well-being of using an inclusive process that integrates diverse perspectives on an ongoing basis in treatment monitoring and adaptive management. In our project, we have a multi-party technical advisory group that includes resource management specialists, environmental advocates, educators and ranchers. We also provide landowner and community education through monthly "Walks in the Woods," because stewardship ultimately has to involve the whole community. As we do more post-treatment monitoring, all interested parties will participate in observation, evaluation and adaptive decision making. We welcome scrutiny from all perspectives because it leads to more learning and better practices.

An important validation of our approach is that we have gained trust and participation from environmentalists—what some call "tree huggers." We're cutting down lots of trees (albeit most are skinny ones), yet they are hugging us! The multi-party stewardship approach holds great promise for enabling us to improve the productivity of our natural resource assets and to spend the dividends, without fighting each other in our communities or in court.

To recap, I ask you to create and support programs that:

1. Address the wildland fire problem within its larger context—the whole ecosystem and all of its stakeholders over the long term;
2. Provide sustained funding for forest restoration planning and implementation—including, of course, thinning of dry forests at high risk;
3. Require and invest in development of low impact restoration treatment methods;
4. Invest in local capacity for sustained stewardship of all forest resources—community education, worker training, and living wage jobs; and
5. Mandate and fund ongoing multi-party participation in treatment monitoring, evaluation and adaptive management.

Thank you.

Senator CRAIG. Thank you very much.

Now let us turn to Cece Headley, Alliance of Forest Workers and Harvesters of Eugene, Oregon. Cece, welcome to the committee.

STATEMENT OF CELIA HEADLEY, VICE PRESIDENT, ALLIANCE OF FOREST WORKERS AND HARVESTERS, EUGENE, OR

Ms. HEADLEY. Thank you very much. My name is Cece Headley, and I am a forest worker and contractor. I participated in service contract work on Federal lands for over the last 20 years in the Pacific Northwest and Alaska. My comments come from my own personal experience in the field. And when I say the field, most people here think, oh, that is Portland or Eugene, but drive from Eugene several hours, come to the end of the road, and that is where I am.

So, I am giving you what we call the tree roots perspective on contracting.

My perspective comes from the 20 years that I have been working in the woods and contracting with mainly the Forest Service but also the Bureau of Land Management.

Historically service contract work, such as fuels reduction work, was accomplished by contracting on a low-bid basis. Though these contracts were subject to the Service Contract Act, it has been my experience that Federal agencies never felt the responsibility to monitor or enforce those worker protection provisions in the Service Contract Act, such as prevailing minimum wage.

Due to this, often contracts were awarded below the cost of doing business, and that is the cost to the private sector, not to the Government. This situation led the Federal agencies to contribute to the creation of an underclass industry in doing service contract work.

So, we have some ideas and strategies to maybe remedy the situation.

First, we would like to see the Forest Service conduct a collaborative assessment of the current and historic procurement program. Ask the question how many contracts are awarded below cost, below the Government estimate of what it really costs to do the work. Initiate mechanisms within the agency to monitor this part of the contracting, not just how much work is accomplished, but what it really meant to the private sector to accomplish it.

Second, direct the Forest Service to refrain from continuing to award contracts below the cost to accomplish them.

Third—and this is my most important point—is that I believe to accomplish the goals in the fire plan, the Congress needs to direct and fund a much larger investment in in-house personnel in the procurement program of Federal agencies. At this time, I believe that the implementation of the goals, particularly community goals, cannot be achieved without substantial investment in more procurement officers and personnel.

The good news is there actually is a model within the Forest Service system, albeit on a very small scale, of these mechanisms working, and this is in the Willamette National Forest where I live and work in the Jobs in the Woods program where many of the mechanisms that are proposed in the fire plan have been successful. These include best value contracts awarded based on other criterion than just low bid, where contracts are designed taking into account the capacity of the workforce, and also designed to increase that capacity, mechanisms such as multi-task, longer duration.

Also, the Willamette has recognized the need to assign adequate personnel to implement these programs. This is what I would suggest all forests that plan to implement these programs, particularly to have benefit to the local communities and workforce, need to do.

So, that is about all I have to say. Thank you.

[The prepared statement of Ms. Headley follows:]

PREPARED STATEMENT OF CELIA HEADLEY, VICE PRESIDENT, ALLIANCE OF FOREST WORKERS AND HARVESTERS, EUGENE, OR

Dear Mr. Chairman and members of the subcommittee, I am Celia Headley, a forest worker and contractor from Eugene, Oregon, and Vice President of the Alliance of Forest Workers and Harvesters. The Alliance is a multicultural organization pro-

moting social, environmental, and economic justice for non-timber forest workers and harvesters in the Pacific West.

I have participated as a worker on Service Contracts with Federal agencies in the Pacific Northwest and Alaska for over 20 years. My comments are based on my own experience and those of the many other workers in the Alliance. I do not bring an overview of policy, but rather the voice of a grassroots practitioner whose work and life is greatly affected by policy decisions. I will be referring to details of procurement and forest work which, I imagine, are usually outside the scope of hearings but which are critical to understand what is happening on our public forest lands and to forest workers in the Pacific West.

We want to thank the Chairman and the subcommittee for holding this hearing and for inviting us to testify. We appreciate this opportunity to provide our perspective, gained from years of direct contact with federal land management agencies.

HISTORICAL ROLE OF FEDERAL AGENCIES WITH RESPECT TO THE SERVICE WORKFORCE

Historically, the federal land management agencies strove to accomplish service work in what appeared to be a least-cost fashion by awarding contracts to the lowest bidder. These contracts, which mostly involve mostly labor intense work, are subject to the Service Contract Act, which contains worker protection provisions such as a prevailing minimum wage. To my experience, the federal agencies have never felt much responsibility to monitor or enforce these worker protection provisions. This is understandable given the lack of in-house personnel and the perceived mission of the agencies, which focused more on providing a continuous supply of timber than ensuring economic or social equity. However, it cannot be denied that the agencies, by their actions and inaction, have played a major role in the creation of an "underclass industry" among service contract workers, and have contributed to worker exploitation, particularly with respect to labor-intensive work such as reforestation. Let me give you an example of how this works. The Forest Service puts out a contract for tree planting and 18 companies put in bids. Fourteen of the bids are at least 40% under the government estimate of what it should cost to do the work. Nonetheless, the Forest Service awards the work to the lowest bidder. One of many things can happen at this point. In order to accomplish the work at such a low price, the contractor can: demand unreasonable production and unpaid overtime from the workers; pay less than the stated contract minimum wage; or declare only a percentage of the workers on the books, thereby avoiding worker's compensation, unemployment, and other tax payments. No one really knows what happens because the only entities in a position to monitor are the contract-issuing agencies, and these agencies do not see monitoring as their responsibility. Furthermore, the practice of awarding service contracts to below-cost bids often produces low quality results on the ground. In the case of reforestation, the result can be that acreage needs to be replanted, which is not cost effective for the government.

STRATEGIES FOR THE FEDERAL AGENCIES

In order to remedy this situation we suggest that the federal land management agencies institute some of the following strategies:

- Reflect on this historical situation and conduct an assessment of the procurement program, both internally and in collaboration with contractors and workers. The assessment should look at more than just the bottom line of how much work was accomplished and how much it cost. Ask questions such as how many contracts were awarded at costs below the government estimate and what were the results and consequences of these contracts with respect to the land and the workforce.
- Talk to the government personnel who work most directly with the contracts, contractors, and forest workers to gain an understanding of the true conditions. Key personnel are the "on the ground" inspectors who often have daily contact with a project and are aware of the work conditions and results.
- Develop open information on how the agencies have played a role in creating an underclass service industry, and design strategies to address this situation. One key strategy is to refrain from awarding below-cost service contracts. In the long run, below-cost contracts are neither cost effective nor in the interest of land stewardship.
- Invest in increased personnel and training for the procurement program so that the federal agencies have the capacity to work with forest workers to promote land stewardship and community well being. This is my most important point so I will state it again. Without the commitment to invest much more in the "in house" capacity of the agency procurement offices on all levels, I believe there is little hope of achieving the reforms and goals set out in the national

fire plan legislation in terms of workers, communities, and land management. This is a major obstacle that needs to be addressed.

A SUCCESSFUL MODEL

There is a model within the Forest Service, albeit on a small scale, that illustrates a better way.

I have the privilege of working in the Willamette Province in Oregon in the “Jobs in the Woods” contracting program set up through the Northwest Economic Adjustment Initiative. This program incorporates many of the same contracting mechanisms as proposed in the national fire plan including a “best value” criterion for contract award, which takes into account factors other than just price. There is also an attempt to focus not only on benefits to the land, but also on benefits to the workforce and community as well. Contracts are structured to take into account the capacity of the workforce and to increase that capacity by such mechanisms as offering multi-task contracts of longer duration. Most importantly, however, is that the Willamette Province has understood the need to assign personnel to make this program work. The most essential of these is the Contracting Officer’s Representative, Brad Leavitt. Brad is the connection between the people who design the work (e.g. the biologists, silviculturalists, engineers, and planners), the procurement officers, and the contractors and workers. From the inception of a project through all phases of implementation to completion, Brad remains with the project, to insure that all objectives are met. I cannot overstate the importance of this point: Every National Forest should create and maintain a similar position in order to work towards procurement reforms which can only benefit the agencies, the land, and the communities and workforce.

THE CURRENT SERVICE CONTRACT WORKFORCE

Having spoken about the federal agencies and their impact on the service contract industry and workforce, I would like to now provide some understanding of the current workforce that performs service contract work. This workforce is often referred to as the “mobile workforce” due to the fact that we have had to travel throughout the West in order to keep working. This workforce is predominately composed of Latinos, especially those who perform labor intensive work, and many of these workers have done forest contract labor for several years. While many forest-based workers from rural communities historically were involved in timber harvest activities, the mobile workforce was engaged in service work on our National Forests. This service work and the mobile workforce have been and remain today highly invisible. The work includes all aspects of reforestation, timber stand improvement (thinning), wild land fire fighting, trail construction, restoration, wildlife habitat enhancement, and technical surveys as well as harvesting of non timber forest products such as mushrooms and floral greens. Our work has been differentiated from the timber-harvest activities of traditional forest-based workers in that it has been accomplished through service contracts rather than timber sale contracts.

It is important to note that even though we—the mobile workforce—are not a “community of place,” we are a “community of interest.” We share concerns about the land and, particularly, about our ability to continue to make a living and support our families through our work. As the agency makes changes in its programs and the ways it contracts for forest work, we believe that those who wish to continue working in the woods, whether they have historically harvested trees or planted trees, should all benefit from the changes. With the movement towards a more holistic or integrated approach to forest work—towards ecosystem management that encompasses restoration and use of the byproducts of restoration—there will hopefully be a corresponding integration of the workforce. Though we might come from different backgrounds and have different skin color, we are all forest workers who want to do right for the land and our families and communities. A measure of success of legislative and agency initiatives would be the development of an “ecosystem management industry” that provides “quality livelihoods” for whomever participates, no matter which of the historically differentiated industries they were in. Those of us from all communities affected by federal forest policy understand that we need to work together toward realizing our goals of healthy ecosystems, healthy communities, and healthy families.

SUMMARY

In summary, I would like to restate my key points:

- The federal land management agencies have contributed to the creation of an underclass workforce doing service contract work on the federal forests. This is

not only detrimental to the current workforce, but it is one of the major obstacles to communities trying to access service contract work and help make the transition to ecosystem management.

- The federal agencies need to assess and build a clearer understanding of their role, and put mechanisms in place to make reforms.
- The federal agencies need to look at and learn from successful models of contracting and collaboration. They also need to invest in “in-house” capacity for procurement.
- The federal agencies need to develop better information about the existing “mobile workforce” doing service contract work, and develop mechanisms through which this workforce and traditional timber-related forest workers can both make the transition to an integrated, ecosystem management workforce.

Senator CRAIG. Well, Cece, thank you very much. We appreciate that.

Now we turn to Lynn Jungwirth. Of course, Lynn has been before our committee before with valuable testimony and heads up the Watershed Research and Training Center at Hayfork, California. Let us see. That is on the eastern side of the mountains, is it not?

Ms. JUNGWIRTH. No. It is just about 50 miles inland from Eureka. We are in the coast range. No, we are not over in those Sierras where it is all hard stuff. But you are close.

Senator CRAIG. I thought I had you located on my mental map, but I guess I do not quite.

Ms. JUNGWIRTH. You will just have to come visit.

Senator CRAIG. I know. I am going to. Thank you.

**STATEMENT OF LYNN JUNGWIRTH, EXECUTIVE DIRECTOR,
THE WATERSHED CENTER, HAYFORK, CA**

Ms. JUNGWIRTH. Thanks for having this hearing.

I think it is pretty clear that the community forestry folks have figured out a lot of the economics around the National Fire Plan, how do you make it work economically, how do you make it integrate with rural development. We have done that on a small scale because of two reasons.

There was a very small scale of activity on the public lands. Big industry went away because there was no supply. And we were all that was left. We had very little access to capital. We had very little access to materials, and we needed to rebuild our economies based upon a restoration management direction.

So, we did not leave the mountains. We stayed and said, we can learn how to fix these roads. We can learn how to help with these streams. We can learn how to help with this habitat. We can learn about sustainable forestry. And so we stayed and we figured out small scale approaches and we invested in that.

You are going to find incredible support from communities throughout the West for this fire plan not only because they are worried about their communities burning up, but because we will integrate for you your other goals besides community protection. We will integrate the rural development goal. We will integrate the conservation goals, and we will build a system that will work for those people and our people in the forests.

It is a good thing we will do that because you cannot implement this National Fire Plan without us because we have done the numbers. Let me explain.

The Forest Service will put a lot of money into building their suppression capacity. Congress gave them a lot of money to do that. It was time. They needed to reinvest in that. It had been ignored.

But no matter how many suppression dollars you put into the Forest Service, if you do not have a workforce in the field to mobilize, if you think your volunteer fire department is standing around because it is waiting for a fire to start they could go put out, you are mistaken. The volunteer fire department is there because the workforce is there. Your volunteer fire department shows up when the whistle blows. They do not stand around waiting for a fire. If they are not there working, they are not going to be there for the volunteer fire department. So, you have to have us out there.

So, if you do not help structure the utilization and the procurement mechanisms so we can be out there, then when you have a fire and you want to call the workforce that came in and did the thinning, you are going to have to call somebody from several hundred miles away. You are going to have to call somebody from down in the valley at the big ethanol plant and ask them if they want to release their crew to come up and fight that fire. The answer is going to be: I do not think so.

So, as we have developed these systems, integrated the service contract piece, which you and your committee have taken leadership in—you have given us those tools. You have given us the title IV authorities. We have the opportunity to make this work now and institutionalize it. Because the big guys left, we had the opportunity to build some of these other scales. We have built systems that now will work.

Right now, it is wonderful to be in front of you. You are the Energy and Natural Resources Committee. If 1 million of those acres were treated with mechanical treatment and that biomass was brought out to small biomass plants throughout the West, you would have 3,000 megawatts on the grid. They could build these biomass plants within 1 year. If those biomass plants are situated in our communities where our small scale processing is happening, it makes the sort yards, the post and pole peelers, the pellet plants, the small log processing, the little furniture things that are happening more economically viable. It gives a market for that material that is much closer to where the trees and the vegetation are coming from, which makes it more valuable. If that million acres went to those little biomass plants by little sort yards, where they could take a better and higher use off the posts and poles and the small logs, you would generate \$750 million.

The processing plants are not out there to process 3 million acres worth of activity. They cannot be built overnight, but the small processing plants can be built overnight. They are being built overnight. These people are doing it.

So, you need us. We need you. You have given us all the tools. This is a wonderful opportunity for rural development. The 18 people from community forestry who came here this week are ready to stand with you guys and do this.

[The prepared statement of Ms. Jungwirth. follows:]

PREPARED STATEMENT OF LYNN JUNGWIRTH, EXECUTIVE DIRECTOR,
THE WATERSHED CENTER, HAYFORK, CA

Dear Mr. Chairman and members of the subcommittee:

Thank you for the opportunity to comment on the implementation of National Fire Plan from a community perspective. The perspectives I bring to you today are as Director of the Watershed Center in Hayfork, California. In this role, I have helped develop community infrastructure for the transition from a timber-based economy to an economy dependent upon ecosystem management, watershed restoration, and the health and welfare of threatened and endangered species, such as the Northern Spotted Owl and the Coho Salmon. My county, Trinity County, has helped develop worker training programs, small-diameter timber utilization projects, collaborative stewardship projects, county level fire plans, and a county Natural Resource Advisory Committee. We have implemented restoration plans for the Trinity River and forest health projects in the Trinity and Six-Rivers National Forests. We are a community of innovators and implementers, trying to take the evolving science and policy direction and help develop practical programs that sustain both the forest and our community.

As Chairperson of the Communities Committee of the 7th American Forest Congress, I have worked over the last five years with a network of community leaders and practitioners from around the country to help heighten awareness and understanding of the interdependence between forests and communities. Many of us have worked on projects to restore healthy forests and watersheds, while building local capacity through workforce training and the development of small nonprofit groups and business enterprises.

When Congress passed the FY 2001 Interior Appropriations bill with its emergency wildfire provisions (Title IV), many of us involved in community-based forestry were very excited about the investment being made in wildfire protection strategies. We were especially pleased about authorities encouraging the federal land management agencies to help build local community capacity through funding mechanisms such as contracts, grants, and cooperative agreements. These authorities fell under the hazardous fuel reduction provisions and were intended to provide job training and employment opportunities as well as stimulate small or micro-businesses in rural communities. In response to these provisions in Title IV, The Watershed Center put together a framework for a community-based wildfire strategy, and we worked with American Forests and others to describe what such a strategy might look like. I have attached an editorial describing this strategy.

As we began working with the federal land management agencies at the start of this year, many community-based forest practitioners were hopeful that we would be able to work a number of our ideas into the National Fire Plan. Our discussions and efforts to collaborate with agency leadership seemed promising. As the Plan has moved into implementation, however, the level of excitement in many communities has diminished.

The focus of the 2001 Fire Plan strategy appears to be rebuilding the fire suppression infrastructure within the Forest Service to its "most efficient level," which means investing in new crews, new equipment, and new air attack infrastructure. We at the Watershed Center support some reinvestment in suppression forces as long as it includes engines and engine crews stationed within the forest. We support local Forest Service and BLM "brush disposal" crews who can work on fuels reduction projects when they are not fighting fire. We understand that rebuilding the federal agencies is essential for implementation of fuels reduction projects as well as implementation of other forest and watershed restoration projects. But, we believe the long-term approach must be focused on vegetation management and the restoration of forest ecosystems to conditions in which wildfire plays a regenerative rather than a destructive role.

Four other issues my community asked me to bring to you regarding the National Fire plan include:

1. The long-term focus of the National Fire Plan should be on vegetation management, not increased suppression forces. In fact, a long-term increase in the use of suppression forces is an indication of a failed wildfire management strategy. In Oregon and Washington the Forest Service and BLM spent a good deal of resources training the National Guard and volunteer fire departments. If you add that capacity to a complimentary local industry, then the agency can call up emergency forces when it needs them. Today the agencies have to try and maintain funding levels for in-house, specialized fire crews who are not multi-skilled enough to help them do off-season planning, watershed restoration, and sustainable forestry. This approach is not sustainable over the long term.

2. The National Fire Plan identifies urban-wildland interface areas as high priorities for hazardous fuel reduction. However, these areas around communities-at-risk and key ecological areas will not be treated in 2001 and they might not be treated in coming years because the agencies can't get the NEPA planning accomplished in a timely, cost effective fashion. We want NEPA to stay intact and consultation under ESA to take place, but the Forest Service needs to find ways to use programmatic approaches to fuels reduction projects when those projects are of a common type on a common landscape. BLM has found a way to tier their NEPA analysis to a landscape plan and to get a Declaration of NEPA Adequacy from the U.S. Fish and Wildlife Service. The Forest Service needs a similar device.

3. Monitoring of the National Fire Plan needs to be funded and it needs to be done through partnerships with State and Local Government and use a local workforce. The monitoring report needs to focus on effectiveness, not implementation.

4. A mechanism needs to be identified within the Endangered Species Act (ESA) to determine whether and when to permit a short-term risk for a long-term gain in terms of strategic project implementation under the National Fire Plan. We have allowed Spotted Owl and Coho Salmon habitat to burn up in stand replacing fires when the stand was old growth in key watersheds. It is not logical to save habitat from logging and then lose it to fire because we would not remove blow down and fuel ladders. Someone must be authorized to compare the risk of management to the risk of no management and make a reasoned decision. Right now, ESA prohibits that approach because of an assumption that "no management" is more beneficial to species and habitat. We need a concerted effort to validate that assumption and a commitment to make a change if it is no longer valid.

Finally, I would like to provide specific responses to the questions I received for community practitioner at this hearing:

12. What is your vision for improved wildland fire strategies? Our vision for improved wildland fire strategies include:

- a. Bring the agency up to the most efficient level
- b. Complete community-based strategic fire plans, fully integrated with agency plans and integrated into county general plans.
- c. Implement an aggressive fuels reduction program, consistently funded, which includes an appropriate mix of prescribed burns, mechanical thinnings from below, and fuel breaks.
- d. Develop local industry for implementation of the fire strategies through service contracts.
- e. Develop local value-added processing of the by-products of fuels reduction strategies.
- f. Develop a federal program for the local use of biomass for small-scale (less than 5 megawatt) co-generation to provide energy for the electrical grid and heat for local small-scale industrial use. Explore small-scale wood gasification as an alternative for better air quality from co-generation.
- g. Develop and maintain a local workforce able to be mobilized for fire emergencies. Regional forces like National Guards and volunteer fire departments receive training and equipment for emergency response.

13. How would you characterize the wildland fire threats facing your community? Are new strategies needed to address these threats? Wildland fire threats in our community include:

- a. winter blowdown not removed has allowed excessive fuel loads on ridge tops around town.
- b. fire killed vegetation not removed has allowed excessive fuel loads on slopes around our communities.
- c. bug killed vegetation not removed has allowed excessive fuels loads in the forests and adjacent to forest roads.
- d. skilled professionals are no longer available within the agency or within the private sector to quickly respond to fire emergencies.
- e. intense fires endanger and destroy ESA species' habitat, which puts more restrictions and habitat pressure on intact habitat on other public and private lands.

14. What is your perspective on the language in Title IV encouraging federal agencies to help build community capacity through training and employment opportunities and to assist in the development of small businesses that may lead to a sustainable restoration economy? How could agency efforts to use these new authorities be improved? My community has developed the capacity to provide training and workforce development because of the Northwest Economic Adjustment Initiative and the Forest Service Economic Action Program. Other communities who have not had access to that help have a hard time finding funding for retraining projects and industry development.

15. How would you characterize your community's involvement in federal efforts to develop plans and activities under Title IV? My community initiated a county-wide fire planning effort. The Forest Service and BLM participated as landowners. The agencies are using that information for their out-year planning efforts.

16. How could agency efforts to involve communities in carrying out activities under Title IV be improved? Agency efforts to involve communities could be improved if the Fire Management Officers were required to participate in community-based fire planning; if only projects identified through community-based planning were fundable; and, if only projects identified in a landscape level strategic plan were fundable.

17. What is the current and potential capacity in your community for developing training programs to provide skills for planning, implementing, and monitoring hazardous fuels reduction activities? We have good capacity to participate in the planning and implementation, but it has taken us seven years to develop that capacity. Our contracting capacity for this work needs to be developed, but we do have a small skilled workforce left upon which to build.

18. What is the current and potential capacity in your community for utilizing small-diameter trees from hazardous fuels reduction activities? What types of small businesses are using or could use these materials in your community? We have some capacity to utilize small diameter trees but only because of extensive help from the Forest Products Lab, the PNW Research Station, and private Foundations who have helped us with R&D over the past five years. (We anticipated this need.) Small-scale bio-mass/co-generation plants are an important part of this equation and the lessons from Vermont need to move to the western states. We currently have a post and pole processing plant, a small log processor, a furniture plant and we are working on a fencing kit project. With the exception of the furniture plant, these are development projects of our non-profit corporation. A consistent program of work and a consistent supply of raw material from federal lands are issues, even when you work on a small scale. Although our business viability requires only 1.5 million board ft. we cannot be assured of that volume of small diameter material because it is not in the current Forest Service program of work. The Forest Service and BLM manage over 75% of the 2.2 million acres in our county. We have developed markets for small diameter, sub-merchantable material.

19. What types of federal financial and technical assistance does your community need to develop training programs and small businesses? Please discuss both primary and secondary businesses (on-the-ground work, mill work, value-added processing, special forest products, etc.). We need funding from the U.S. Department of Labor for worker re-training. We need access to work on agency land for our small contractors. We need education dollars for training in value-added processing. The agencies need to be funded for monitoring implementation, validation, and effectiveness and that monitoring needs to be performed by a local collaborative and a local workforce.

20. What type of skill training is needed to create a workforce capable of doing hazardous fuels reduction and ecosystem restoration? How are the skills required of ecosystem restoration workers different from those of loggers and traditional forest workers? Traditional forest work is about productivity and extraction. Restoration work is about analysis and precise repair. A restoration worker needs a very broad range of skills, from landscape analysis, to data collection and analysis, to restoration practices including habitat rehabilitation, road improvements and obliteration, riparian rehabilitation and monitoring. Restoration often takes specialized, low impact equipment. Restoration forestry is very labor intensive and therefore, very costly. Costs could be lowered through some mechanization, but without constancy of work no business can capitalize even a small investment.

21. What opportunities exist for developing training programs for local workers and contractors in your community? Training programs are only possible if the agencies allow the use of some of their projects for training purposes. Other partners like Small Business Development Centers can provide business training, but fieldwork preparation can only happen if you DO field work.

22. What types of long-term strategies are needed to develop and retain an industry and an ecosystem restoration workforce (resident and/or mobile) trained to reduce wildland fire threats (i.e., trained to undertake hazardous fuels reduction, firefighting, and burned area restoration activities) and to help sustain ecosystem health and community well-being? What could Congress do to make that possible? We cannot develop a local industry around restoration/fuels reduction/forest health until there is constancy in funding (the demand side must be there) for those activities. Today the perceived cuts by the administration in next years National Fire Plan budgets is hampering the implementation of this years program, which focuses mainly on hiring suppression crews. No one, not even the Forest Service, wants to

develop an infrastructure which will only last one year. Local contractors will not purchase thinning equipment and chippers when they believe the work will only last a season.

23. What types of businesses are likely to benefit from a greater emphasis on involving the local community, small businesses, and a trained workforce? Under what conditions could a successful industry devoted to fire management and restoration work develop in your area? What are the current gaps? All facets of restoration, from analysis to mapping to project design to project implementation can be done by local businesses. But industry will not develop if there is no long-term commitment to forest restoration coupled with sustainable forestry. It will also not develop if we succumb to the historic “boom/bust” model of forest management and centralize service contracting firms and processing plants in the most urban areas of the rural counties. If we want to have a local workforce to use in times of fire emergencies, then we must have a local workforce in place doing the stewardship work of forest management.

Thank you for the opportunity to comment. You will find no more willing partners in the stewardship and restoration of public lands than the workers and families in your rural forest communities. We have knowledge and skills to bring to the work and are committed to the long-term health and vitality of our national forests.

Senator CRAIG. Lynn, thank you very much.

Time is not going to allow for me to ask the series of questions we developed. So, in the spirit of the baseball season, I am going to ask a jump question for all of you. Basketball. I am sorry. I was never quite the athlete.

[Laughter.]

Senator CRAIG. Lynn, what you were saying and clearly what all of you have said begs certain questions that we are sorting through at the moment as we look at changes and reform and how the Congress will support it or will not support it and how we communicate that message and build an understanding of some of the new forestry practices that will have to go forward.

So, I guess my question of all of you would be under what conditions could a successful industry devoted to fire management and restoration develop in your area and remain a sustainable industry without the need for Federal financial grants. Do any of you wish to respond to that?

Ms. JUNGWIRTH. I think every person at this table has answers for you. I will just lead it off.

When you have a consistent program of work for fuels reduction, forest restoration, and watershed maintenance—all of those things—then you have an ability to finance, have a predictable future and do that. We have developed the markets. We have developed the products. Those right now work economically. That is what we need now to take those models and let other communities find out about them and move that out into the larger rural areas of the West and the Southeast.

Senator CRAIG. Anyone else?

Ms. FARR. I would like to add. Lynn talked about the market side of things. I would like to talk about the forest restoration side of things. I think it is really critical for community capacity long term that there be emphasis early on, right now, in ensuring that the methods that are used to thin the forests and to do that restoration work are low-impact methods. We are doing it now with the long-term view in mind because there is the potential to have a tremendous negative impact over the long term if the work that is done is done in a large-scale, large machine, large workforce that swoops in, takes care of it in the short term and then leaves town. That

is not going to serve us over the long term, and there are ways to get this work done that have low impact to the forests and have a tremendous positive impact to workers and the whole economy locally.

Mr. CHRISTOFFERSEN. I think there is good justification for some government support in the short term for the transition that is needed from the large-scale extractive economy we were in to this new vision that we have. I think when you look at the total balance of cost to the Government, that it is still going to come out in the Government's favor. What I mean is as I said. We spent \$85 million in Wallowa County alone on fire suppression in 14 years. If you spent a fraction of that helping micro-businesses develop that could contribute to restoration and offset the costs of getting the work done on the land, over the long term you would have tremendous savings.

But I think there are other sources of funding which organizations such as mine have been able to secure. We had support from the Ford Foundation and other private foundations, plus the State of Oregon. We have secured funding that has allowed us to invest in a range of very small-scale, diversified processing, machines that allow us to process logs down to a 3-inch top. We are also looking at getting into the cogeneration of electricity and the fermentation of ethanol, all again on a very small scale.

What we would like to be able to do is produce a range of products at a small scale, that we can then adapt that processing system to whatever the land's needs are because the land has different needs at different periods of time, depending on different conditions, ecological changes. Right now there is a need to deal with the small stands that are going to produce 3-inch to 9-inch poles that are going to come off, and we have the capacity to process marketable products. We want to be able to position that we can shift with the land's needs.

But the other thing is that long term, we are going to need support on trade policy. The NAFTA discussions with Canada are critical. There is a range of issues related to trade with other countries that we need to take into consideration if we are going to maintain these small micro-businesses.

Senator CRAIG. Yes, Ms. Vega.

Ms. VEGA. Mr. Chairman, I would like to respond from the point of view of developing small, independent businesses and particularly with the group of people in Grant County which we serve, the low income, minority people. It is very difficult to start a business with wood products and based on wood products and raw material without any kind of support at all. We do get some support from other agencies and other funders. But Government support is almost critical to us, and it is critical because the pricing of our raw material depends on what the market is doing in wood products. The finished product, of course, the pricing depends on developing a market for it. The access to the raw material is very critical to us.

I think that is possible without government support, but it is very difficult. You almost have to have some type of additional support for these businesses to begin and to be sustainable for the communities.

Senator CRAIG. Yes, Cece?

Ms. HEADLEY. We have talked about the marketing and the environmental. I do want to say, in terms of the workforce, that there be a commitment to quality jobs and family wage jobs and they are sustainable in themselves. From our part, we have never been in the grants part. We have always just contracted with the Government and made our money through wages and contracting. But that is not sustainable. When there is service work to be done, the Government has to have a commitment to paying family wages for skilled workers.

Senator CRAIG. Well, thank you all very much for your insight and the experience you have built into our record. That is extremely valuable as we go forward. Thank you all.

Now let me ask our third panel to come forward: Tom Bancroft, Steve Holmer, Tom Nelson, and David Smith. Thank you all for your patience. We will proceed, first of all, with Tom Bancroft, Ecology and Economics Research Department, The Wilderness Society here in Washington.

STATEMENT OF G. THOMAS BANCROFT, Ph.D., VICE PRESIDENT, ECOLOGY AND ECONOMICS RESEARCH DEPARTMENT, THE WILDERNESS SOCIETY

Dr. BANCROFT. Thank you very much, Mr. Chairman. I appreciate the opportunity to testify today and thank the committee members for their interest in this important issue.

The major fires of last summer unfortunately caused substantial damage to homes. Clearly a comprehensive and strategic fire program is needed. However, it is important to remember that fire is a natural and necessary process as sunshine or rain to a healthy forest. In the interior West, the problem is that many people are now living in the low elevation, dry forests where forest composition and structure has changed as a result of fire suppression, grazing, and logging. These older forests now respond differently to fire.

We need a program that protects people and their homes and, second, restores forest ecosystems in which management practices of the last century have dramatically changed them from their natural condition.

The Wilderness Society feels that the majority of these new monies should go to programs that protect people's homes in the wildland/urban interface. The structure of the home and how close the fire can come to the home determines if it will burn. If we reduce the probability that the fire will burn right up to a house and reduce the flammability of the house's building material, we will reduce the possibility of the house being destroyed.

According to a Forest Service analysis, a number of the houses in the Los Alamos fire burned when low ground fires spread across dry leaves, needles, and low brush to the edge of homes, igniting the siding of the house and then the entire house. Had the dry leaves and needles been cleared, it is probable that fire would not have reached these houses.

The Forest Service's structure ignition assessment model suggests that large wildland fires, such as forest ground fires, would not ignite a wooden house at distances greater than 40 meters.

Fire Wise reports that flammable roofs are the number one cause of home loss in the wildland fires. Firebrands, or flying burning material, can come from wildland fires greater than 1 kilometer away and start a home on fire. According to Stanford Research Institute, if a house has a nonflammable roof and a defensible space of a low flammable material 10 to 20 meters out from the house, over 95 percent of the homes survive a wildland fire.

Clearly, society needs a major educational outreach program on protecting homes. We strongly urge the Federal Government to build up the Fire Wise program to be a major educational and outreach program.

County governments should be advised of the opportunity for joint projects between this program and title III of the County Payments bill for fire prevention and county planning. We suggest that the Forest Service look for counties developing defensible space education and regulations and work closely with them.

We agree with the recommendations of the National Association of State Foresters, that local and State governments use their regulatory authority to recommend structural siding, the use of Fire Wise construction materials and methods, and creating a defensible space.

Ecological monies should be focused on the low elevation, dry forests where structure and composition has changed as a result of decades of fire suppression, logging, and grazing. Reducing fuel levels and using fire appropriately is key to restoring healthy, resilient conditions, sustaining natural resources, and protecting people.

Credible efforts will be ecosystem based, protect rare habitat and species, focus on thinning small diameter classes, retain all old large trees, protect soils in roadless areas, and avoid constructing new roads.

We think the Forest Service has some very promising restoration projects defined in areas like the Lakeview Federal Stewardship Unit in Oregon and several other projects in Idaho's Boise and Sawtooth National Forests.

On the other hand, projects like the Bitterroot Fire Recovery Project in Montana and the Upper South Platte Watershed Protection and Restoration Project in Colorado do not appear to be ecologically sound restoration projects.

In summary, we are supportive of Congress and the Forest Service's efforts to protect homes in the wildland/urban interface and to restore a more natural pattern of fires in wildland ecosystems where fire regimes have been altered because of past management practices. We think this program offers a lot of hope for people and the environment, and we will continue to support projects that protect homes and restore ecosystems.

To provide significant protection to homes, much of the work needs to be focused on the area within 100 meters of homes and on the flammable properties of houses. Extensive wildland fuel reduction is inefficient and ineffective at reducing home losses because fuel reduction for greater than 100 meters around homes is greater than necessary for reducing ignition from flames and because it is not sufficient to reduce firebrands, or that flying fire material.

We will continue to follow this program closely and try to help make sure the money goes to good projects.

Thank you very much.

[The prepared statement of Mr. Bancroft follows:]

PREPARED STATEMENT OF G. THOMAS BANCROFT, PH.D. VICE PRESIDENT, ECOLOGY AND ECONOMICS RESEARCH DEPARTMENT, THE WILDERNESS SOCIETY

I am Dr. Thomas Bancroft, Ecologist and Vice President of the Ecology and Economics Research Department for The Wilderness Society, a 200,000-member national conservation group that focuses on public land issues. I appreciate the opportunity to testify today and thank the committee members for their interest in this important issue.

The major fires of last summer unfortunately caused substantial damage to homes. Dry conditions this winter and spring in the west and southeast suggest that if spring rains fail to materialize this summer may also be a severe fire year. Large fires have already occurred in Florida as a result of drought conditions there. Last year's fires and the threat of a second major fire year emphasize the need for a comprehensive and strategic fire program. However, it is important to remember that fire is as natural and necessary a process as sunshine or rain to a healthy forest. In the interior west, the current problem is that many people are now living in the low-elevation dry forests where forest composition and structure have changed as a result of fire suppression, grazing and logging. When fires do occur, they tend to be severe. The mid- and high-elevation forests of the interior west have not been significantly altered because their fire cycles are so long—>35 or >200 years—and have always been characterized by either mixed severity or large, hot, stand-replacing fires. Fortunately, people don't tend to live in these forests but rather in the low-elevation dry forests and my discussion will concentrate on low-elevation forests.

These dry-site forests of mainly ponderosa pine have changed for a combination of reasons. Livestock grazing depleted the fine fuels that carried the light, frequent fires, while their hooves exposed mineral soil seedbeds for increased pine generation. Fire suppression allowed far more of these trees to persist, while logging removed most of the large old trees. These forests may have been deprived of ten or more natural fire cycles. The result is forests that, due to continuing fire suppression, tend to burn less frequently, but when they do burn, the fire is much more likely to reach the forest canopy and spread as a crown fire, killing many or all of the overstory trees. A historically low-severity fire regime has turned into a high-severity or mixed-severity fire regime, a change that has occurred over millions of acres in the West. These higher severity fires are more apt to have detrimental effects on soils and watersheds, as well as wildlife habitat. They can also have serious implications for humans who have chosen to settle in and around these forests.

We can increase our ability to protect human dwellings and restore more natural composition and structure of forests by restoring low-intensity fires to these habitats. In fire-adapted ecosystems, prescribed fire at appropriate intensity, frequency, and time of year should be part of management strategies intended to protect watershed, species, and other natural values. We agree with the Forest Service premise "that fire-maintained forests should be inherently safer for firefighters and the public than in forests in which fire is excluded."

Before we hasten toward significant policy changes as a result of the fires, let's review what burned last year. These are national numbers:

	Acres ¹	Percent
National Forest	2,333,672	32%
BLM	1,694,407	23%
Other Ownerships	3,364,414	45%
Total	7,393,493	100%

¹National Interagency Coordination Center 2000 Statistics and Summary. <http://www.nifc.gov/news/yearendreport2000.pdf>

This is not just a Forest Service or just a public-lands issue but an issue on all lands, forested and non-forested lands, public and private. An analysis of the 2000 fire season shows that only 32% of the acreage burned was on National Forest land, much of the land that burned was not forested, much of the forested acreage which

burned was managed timberland, and in the interior west much of the burning occurred in forests where intense fires are natural. An analysis of five of the largest fires (Valley/Skalkaho (MT), Kate's Basin (WY), Canyon Ferry (MT), Burgdorf Junction (ID), and Clear Creek (ID)) shows that for these fires 36% of the acreage was non-forested, 57% was in naturally high intensity burn forest types, and most of the acres were in roaded, managed forests.²

There are two critical issues here. First, protecting people and their homes and second, restoring forest ecosystems in which management practices of the last century have dramatically changed them from their natural condition.

Substantial research shows that extensive wild land vegetation management does not effectively change home ignitability and therefore will not necessarily protect homes. No matter how much thinning and logging are used as a management tool, we are never going to be able to "fire-proof" our forests. Fires will always occur in the Wildland-Urban Interface. It is therefore critical that these two issues are addressed separately and with a focused program that meets the respective objectives. People's homes should be the initial focus of efforts to prevent and fight fires not the remote forests where fire is necessary and beneficial.

HOME DEFENSIBILITY

The Wilderness Society feels that the majority of these new moneys should go to programs that protect people's homes in the Wildland-Urban Interface. To most effectively target these moneys, it is critical to have a mechanism that identifies areas at highest risk. Forest Service Research shows that the most important mapping unit for doing this is the "ignitability" of homes. The current mapping effort is very interesting and good for ecological restoration, but we question whether it helps in protecting human habitation.

Ignitability of homes and immediate surroundings is a key determinant of whether a house burns during a fire in the Wildland-Urban Interface. Thinning more than 40 meters from homes does not change home ignitability. Fire fighting success strategies should focus on defensible space and areas immediately around homes in so called defensible zones.

The ignitability of homes is determined by two factors. The structural characteristics of the home and how close the fire can come to the home. Heat and fuel determine whether combustion will occur. Scientific analyses show that fire spreads as a continually propagating process. Locations along the path must meet the requirements of combustion to ignite. Reducing the chance that a house will burn requires reducing the chance that flames and heat will come right up to the house. A second issue is firebrand, or burning material that flies on the wind to a house and can cause a house to catch on fire.

If we reduce the probability that the fire will burn right up to a house, we will reduce the possibility of the house being destroyed. Similarly, if we reduce the flammability of the house's building material, then we can decrease the chance of loss. According to a Forest Service analysis, a number of the houses in the Los Alamos fire burned when low ground fires spread across dry leaves, needles, and low brush to the edge of homes, igniting the siding of the house and then the entire home. Had the dry leaves and needles been cleared, it is probable the fire would not have reached the house.

The Forest Service's Structure Ignition Assessment Model suggests that large wildland fires such as forest crown fires will not directly ignite wooden houses at distances greater than 40 meters. The model indicates that at 40 meters the intense flame would need to last for 10 or more minutes to ignite the side of a wood house, but a typical crown fire only lasts about 1 minute in a given tree.

In summary, extensive research has shown that the area within 40 meters of the house is the most critical for determining whether flames come right up to the house and ignite the house. Homeowners should reduce the amount of fuel immediately around their house by cleaning up dead leaves and needles, removing flammable brush, and keeping woodpiles away from their houses.

FIREBRANDS

Firebrands are also a major concern. Highly ignitable homes, especially flammable roofs, can catch on fire during wildland fires without fire spreading near the structure. This occurs when burning material, firebrands, is carried by the wind and lands on a house. The flying burning material can ignite flammable materials on or immediately adjacent to a house.

²Morrison, Peter et al. 2000. Assessment of Summer 2000 Wildfires: Landscape History, Current Conditions and Ownership. <http://www.pacificbio.org/pubs/wildfire2000.pdf>

Firebrands that result in ignitions can originate from wildland fires that are at a distance of 1 kilometer or more. For example, during the 1980 Panorana Fire (San Bernardino, California), the initial firebrand ignition to homes occurred when the wildland fire was burning low shrubs about 1 kilometer from the neighborhood. Firebrand ignitions are particularly evident for homes with flammable roofs. Often these houses ignite and burn without the surrounding vegetation also burning, suggesting that homes can be more flammable than surrounding vegetation. For example, during the 1991 fires in Spokane, Washington, houses with flammable roofs ignited without adjacent vegetation already burning. "Although firebrands may be lofted over considerable distances to ignite homes, a home's material and design and its adjacent flammables principally determine the firebrand ignition potential."³ Reduce the flammability and one reduces the chance of losing the house to a fire.

According to the "FireWise"⁴ "the number one cause of home losses in wildland fires is from untreated wood shake roofs." Wind-blown sparks can land on these untreated wood shake roofs and catch the roof on fire. Given nonflammable roofs, Stanford Research Institute found 95% survival with a clearance of 10 to 18 meters, and Ethan Foote and Keith Gilless⁵ at Berkeley found 86% home survival with a clearance of 10 meters.

Further, people must realize that the type of roof they have can dramatically affect whether their house survives the inevitable wildland fire. Some have suggested that more than three-quarters of the homes lost in the Los Alamos fires might have survived had homeowners raked up leaves and needles, cleaned needles and leaves off their roofs, kept woodpiles and brush away from their homes, and had non-flammable roofs. Clearly, society needs a major educational-outreach program on protecting homes.

MAPPING

The Strategic Assessment describes a Wildland-Urban Interface hazard mapping effort that may not be necessary for home fire losses. Home ignitability is the principal cause of home losses during wildland fires. If the focus is to protect property then we need to map home ignitability as a measure of the threat. Areas with high home ignitability should be the focus of efforts under this program.

RECOMMENDATIONS ON DEFENSIBLE SPACE

Clearly, homeowners and local communities have a major responsibility in protecting their homes from fire. They need to be informed that having a non-flammable roof and keeping brush, dried leaves and needles, and woodpiles away from their homes will have a major impact on preventing home ignition. We strongly urge the federal government to develop and implement a strong "extension and outreach" program. The "FIREWISE" site and program is a major start in this direction and should receive increased focus and money.

This effort cannot be limited to the federal government, but must include state and local governments, as well as homeowners. We suggest you encourage joint projects between local communities, states and the federal government to help improve the defensible space around homes and the construction and maintenance of homes. Homeowners have a major responsibility here, but we need to provide them with the information and tools they need to make wise decisions.

County governments should be advised of opportunities for joint projects between this program and Title III of the County Payment Bill (Public Law 106-393) for fire prevention and county planning. A county may use these funds for (A) efforts to educate homeowners in fire-sensitive ecosystems about the consequences of wildfires and techniques in home siting, home construction, and home landscaping that can increase the protection of people and property from wildfires; and (B) planning efforts to reduce or mitigate the impact of development on adjacent Federal lands and to increase the protection of people and property from wildfire. We suggest that the Forest Service look for counties developing defensible space education and regulations and work closely with them to leverage resources and protection for people's homes.

³ Cohen, Jack D. 1999 DRAFT: Reducing the Wildland Fire Threat to Homes: Where and How Much? <http://www.fs.fed.us/rm/pugs/cohen/cohen.html>

⁴"FireWise" is a collaborative program designed to bring information to the public on how they can live or recreate more safely in fire-dependent ecosystems. The web site is developed by the National Wildland-Urban Interface Fire Program. More information can be found at <http://www.firewise.org>

⁵Foote, E. I. D., K. J. Gilless. 1996. Structural survival. In: Slaughter, Rodney, ed. California's-zone. Sacramento, CA: CFESTES; 112-121.

Through education, we can encourage the care of land within 40 meters of homes, but vegetation treatment alone will not suffice. Structures must be built or retrofitted to incorporate fire-safe elements such as metal roofs, shutters and fire resistant sides. Human values at risk may suggest that the interface zone is a priority for attention, but without investment in these structural modifications, forest treatment is virtually meaningless. Zoning laws that encourage fire resistant construction may be needed. Enactment of zoning laws for fire-prone areas is not new—Frederick Law Olmstead suggested it 70 years ago as a means of protecting lives, property and resources from fires that sweep down from the fire-dependent, fire-created chaparral in the area around Malibu, California.

We agree with the National Association of State Foresters' recommendation for local zoning initiatives: "There is a need for local and state governments to use their regulatory authorities to strike a safe balance between siting structures, the use of fire-wise construction materials and methods, and the creating of defensible space." When a person buys a house in the Wildland-Urban Interface, they should know what the fire risk is for the house they are buying. This should include some understanding of the consequences of the house's structure as well as the surroundings. People should know how the local or county governments provide fire protection.

ECOLOGICAL RESTORATION

Much of the low-elevation dry forest landscape in the Intermountain West has been transformed. Beginning with livestock grazing in the second half of the 19th century and continuing with decades of logging, road-building and fire exclusion through the 20th century, these changes have degraded watersheds and habitat for fish and wildlife. These altered forests now respond very differently to fire, sometimes to the further detriment of fish, wildlife, and watersheds, as well as endangering the lives and property of people who have chosen to live within and adjacent to forest lands.

Creating the situation where fire can be re-introduced as a natural component of these low-elevation forests is critical. In these fire-adapted ecosystems, we agree with the Forest Service's basic strategy that "reducing fuel levels and using fire at appropriate intensities, frequencies, and time of year are key to restoring healthy, resilient conditions, sustaining natural resources, and protecting people. Science supports the use of prescribed fire and other management treatments in ecosystems where low intensity fires were the norm to reduce risk of catastrophic wildland fire, to restore plant community composition and structure, to restore landscape patterns, and improve ecosystem resilience."

We also agree with the Forest Service position that the first priority for restoration should be the millions of acres of already roaded and managed landscapes that are in close proximity to communities. Thinning projects outside the Wildland-Urban Interface zone should not occur in roadless areas or old growth, because science shows they would be highly ineffective. These projects need to focus on the low-elevation, dry pine ecosystems that have been heavily roaded and logged. It is critical that prescribed fire be an integral part of these efforts and must continue following any mechanical thinning to maintain lasting benefit. I have attached a report by ecologists Rick Brown and Greg Aplet, Ph.D., titled, "Restoring forests and reducing fire danger in the Intermountain West with thinning and fire." It describes in detail our position on how to restore desired ecological conditions in our forests. Based on current knowledge, it appears that the most credible efforts will:

1. Be part of a comprehensive ecosystem and watershed restoration plan;
2. Consider landscape context, and protect rare habitats, such as old growth, and populations of rare fish and wildlife;
3. Protect riparian areas by avoiding major manipulations in these areas;
4. Focus on low-elevation dry forest types;
5. Focus thinning efforts on the smallest diameter classes and retain all large, old (presettlement) trees and provide for their replacement over time;
6. Treat thinning slash and other surface fuels with prescribed fire;
7. Have negligible adverse effects on soils and prevent the spread of invasive plants;
8. Protect roadless areas and avoid construction of new roads;
9. Concentrate resources on the Wildland-Urban Interface and incorporate monitoring as an essential element and cost of the project.

BARRIERS TO SUCCESS

We are supportive of the national fire program but are concerned that there might be some serious barriers to success.

First is the notion that this program will fire proof the forests. Humans can not change weather patterns and therefore will never prevent fires from occurring. A properly designed program will help provide defensible space around human communities and restore the structure of low-elevation dry forest ecosystems so that fire will act more the way it did historically.

Second, after dealing with the defensible space around homes, the focus should be on removing small diameter trees and brush from altered low-elevation dry forest ecosystems. After a century of logging, large diameter trees are too rare to be removed. We emphasize that prescribed fire must follow any thinning in order to achieve ecological restoration. Plans and funding need to be in place to maintain an appropriate prescribed fire regime in these areas.

We think the Forest Service has some very promising restoration projects defined in areas like the Lakeview Federal Stewardship Unit in Oregon's Fremont National Forest, the Silver Creek Danskin/Gallagher project in Idaho's Boise National Forest, and the Lime Creek Aspen and Trail Creek projects in the Boise and Sawtooth National Forests. The Idaho projects are a mixture of prescribed burning and fuel reduction, including thinning, and near private property and/or private homes. The thinning activities are limited to the Wildland-Urban Interface and the prescribed fires are several thousand acres in size. These projects are primarily in the low-elevation dry forests.

On the other hand, projects such as the Bitterroot Fire Recovery Project in Montana are not ecologically sound restoration projects nor do they provide significant protection to the Wildland-Urban Interface. The Bitterroot project proposes substantial logging, including some from roadless areas far from human habitation. Similarly, we do not support the Upper South Platte Watershed Protection and Restoration Project on the Pike-San Isabel National Forests in Colorado. This project proposes to log over 17,000 acres including over 5,000 acres in roadless areas and over 4,000 acres of clearcuts. The plan places no limits on the size of trees that may be logged in the name of restoration. The project has a number of significant environmental concerns including alteration of critical habitat for Mexican Spotted Owls and low standards of protection for Goshawks.

Third, we are concerned that performance measures for Forest Service personnel tend to emphasize acreage treated rather than the reduction in risk areas. These measures tend to encourage managers to focus their efforts on lower risk areas. In doing so, they can treat more acres for the same money and include the sale of large trees to increase the acreage treated. These incentives to managers decrease the effectiveness of this program and should be changed.

Fourth, we are concerned that the budgeting and contracting process prohibits the Forest Service from developing the most effective program it could. We recommend that Congress appropriate money for this fire program over a multi-year time frame so that the Forest Service can develop a strategic protection and restoration program. We are concerned about the legal parameters of stewardship contracting. The current system encourages the removal of large trees. This tends to defeat restoration and protection efforts. We suggest that the contracts for thinning and restoration be separate from a process to sell these materials.

SUMMARY

We are supportive of Congress's and the Forest Service's efforts to protect homes in the Wildland-Urban Interface and to restore a more natural pattern of fire in wildland ecosystems where fire regimes have been altered because of past management practices. We think this program offers a lot of hope for people and the environment. We will continue to support projects that protect homes and/or restore ecosystems. We will follow this program closely to make sure the money goes to where it does the most good.

Senator CRAIG. Tom, thank you.

Now let us turn to Steve Holmer, American Lands Alliance here in Washington.

STATEMENT OF STEVE HOLMER, CAMPAIGN COORDINATOR, AMERICAN LANDS ALLIANCE

Mr. HOLMER. Thank you, Senator. I appreciate this opportunity to testify. I am just going to use my statement to address some recent events and some of the things I heard today.

We try to look at these things very broadly, and when we look at global climate change, we do see a real risk for our forests. The scientific analysis suggests that we are going to see shifting of climate zones. We are also going to see a likely increase in fires.

So, I would just like to point out it is very disappointing the recent changes in government policy where the Bush administration said that we are not going to work to regulate CO₂ and where we are going to pull out of the Kyoto Protocol. I think that is just downright disgraceful. The Kyoto Protocol was an opportunity to write forest-friendly rules that could have actually provided significant amounts of money for reforestation and restoration on public and private lands. So, I see that as a huge missed opportunity.

Now going directly to some of the fire issues that are before us right now, scientists have collected evidence determining that the primary causes of increasing fire intensity and severity of the past century's land management policies of road-building, aggressive fire fighting, commercial logging, and livestock grazing. So, I think we see it as very important to get at the root causes to address these issues. So, that means looking at the fire suppression program, looking at the timber program, looking at the grazing programs to see what role they could play in alleviating this issue.

Specifically, we are also very concerned that the hazardous fuel projects and the program in general is lacking environmental safeguards. Our comfort for this program would be raised significantly if old growth forest, roadless areas, critical habitat for threatened and endangered species would be explicitly protected under the law for these projects.

We are also very concerned that the projects do not seem to be focusing on the urban/wildland interface. The Forest Service has testified that only 25 percent of the projects are in what they would call the urban/wildland interface, and we see that as a rather broad definition. We strongly agree with The Wilderness Society's testimony that the emphasis should be immediately adjacent to the communities.

There was a chart up here before that showed that there would be some 1.8 million acres treated on Federal lands and some 400,000 on private lands. Most of these lands that we see at risk are on private lands. So, we think the program should be largely shifted to sending grants to community forest groups, et cetera so that the private lands could be where treatment happens first.

We also want to support efforts for contracting reform to support community groups so that we are not in this low bid system that is encouraging the use of illegal immigrants and transient labor and other things that are not supporting communities. So, I think some contracting reform is another area that if we are going to really make this work, I think the communities' groups have a lot to suggest there.

Another key area is the issue of fire planning. In the 1995 wildland fire management policy, it says that there should be a fire plan for every burnable acre. Right now only about 5 percent of the forests have these plans. In our view, we could increase the safety of fire fighters, for example, if we had these plans.

The fire policy states that public and fire fighter safety is the first priority on every wildland fire. Yet, fire fighting is extremely

hazardous duty, and the lack of fire management plans compels the agency to aggressively attack every fire and do an extended attack even in areas where the risks to human communities are low and the ecological benefits of burning are high. So, this is unnecessarily putting fire fighters at risk.

It also is a way that we are spending incredible amounts of money that does not need to be spent. For example, there was a fire in California, the Big Bar fire where the Government spent some \$170 million. Now, this fire was mostly in roadless areas and in wilderness. So, this high level of expenditure is really questionable for the outcome of it.

We are also concerned now about the issue of salvage logging becoming a part of this program. In the case of this California fire, we now have the Six Rivers National Forest proposing the Megram fire salvage in this area. There is really no scientific evidence that salvage logging is going to do anything to help the fire situation.

In fact, there was a 1995 report, *Wildfire and Salvage Logging, Recommendations for Ecologically Sound Post-Fire Salvage Management and Other Post-Fire Treatments*. It is known as the Beschta Report. This report found considerable evidence that post-fire salvage logging would likely result in persistent, significant, and adverse environmental effects. The report was prepared by an expert team of agency and university scientists and endorsed by the Forest Service. The report's key recommendation is that there should be a complete prohibition of salvage logging in severely burned areas. So, the notion that we should go in there and do this intensive salvage in recently burned areas is not supported by the scientists, and it is really just based on economic grounds.

In the case of the Megram fire sale, the agency is actually asking for an emergency exemption, and it is based on economic grounds. They want to get in there as quickly as possible to get the salvage out. Well, this is not going to do anything to help fires. It is not going to do anything to help protect communities. So, in our view it is a misguided example of really why we are concerned about this, which is essentially that instead of going out there and reducing fuels to protect communities, we are basically seeing an extension of the timber sale program.

That is why in our view how these projects are funded is extremely important. We would rather see service contracts than commercial timber sales or goods for services stewardship contracts. We think that is the way to maintain the highest level of accountability and assurance that the ecological objectives of these projects are going to be the actual outcome.

So, that is the general direction that we would like to propose for this policy. Last year the environmental community submitted a letter, which has been included as part of our testimony.* This really outlines where and when we think that these projects would be appropriate. Thinning projects in the urban/wildlands interface, if they are not in old growth and cutting big trees or in roadless areas, I think are something that you are going to see a lot of flexibility from our community about in terms of appeals, protests, and litigation. But when we have projects that fall outside of those

* Retained in subcommittee files.

areas that we do feel are putting the ecosystem at risk, we view that as an illegitimate project and we are going to be fighting it.

So, we would like to see this program go in a direction that is actually going to work, that is going to lay the foundation for real ecological restoration, and is not simply going to repolarize the situation and be salvage rider part 2. So, when we hear discussions about expediting NEPA, we think that that is just completely out of bounds and something that is in the end going to undermine the program, undermine the agency's credibility, and lead to a great deal of environmental harm.

So, I would just like to conclude my testimony with that, that we are willing to work with the community groups, work with the agencies and the Congress to make this program work and establish a real restoration program.

[The prepared statement of Mr. Holmer and Dr. Ingalsbee follows:]

PREPARED STATEMENT OF STEVE HOLMER, CAMPAIGN COORDINATOR, AMERICAN LANDS ALLIANCE AND TIMOTHY INGALSBBE, PH.D., WESTERN FIRE ECOLOGY CENTER

INTRODUCTION

The wildfires of 2000 have become the most recent flashpoint in the debate surrounding federal land management policies. Dramatic news photos of homes burning in Los Alamos, New Mexico and the Bitterroot Valley in Montana brought the issue of wildfire protection in the urban/wildland interface zone to the nation's attention.

Unfortunately, many of the policy discussions about last summer's fires revolved around "who is to blame?" rather than focusing on real solutions based on sound science. Scientists have collected evidence determining that the primary causes of increasing fire intensity and severity are the past century's federal land management policies promoting aggressive firefighting, commercial logging, livestock grazing, and road building. The real issue is not "who is to blame?" for past mismanagement of public lands, but "who is going to lead?" in creating management policies that will restore degraded lands and altered fire-adapted ecosystems that need more low-intensity prescribed fires, while at the same time providing real protection for rural communities at risk from high-intensity wildland fires.

While several of the fires of 2000 were uncharacteristically severe due to past abuses, several other fires including some of the mammoth fires in Idaho and Montana burned at natural intensities, with ecologically beneficial effects. Fire has always been a vital, essential part of western forest and rangeland ecosystems. As a natural disturbance agent responsible for recycling nutrients, regenerating plants, and sustaining diverse wildlife habitats, fire is necessary for the continued health and productivity of these fire-adapted ecosystems.

In response to the wildfire season last year the Forest Service has announced a new National Fire Plan which the agency is using to justify a massive increase in yearly Congressional appropriations to pay for more mechanical fuels reduction treatments, more commercial "thinning" projects, more equipment, more fire crews, and less system wide fire planning. The Plan sets the stage for the industrialization and mechanization of forest restoration by advocating a massive ten to fifteen year hazardous fuels reduction program that will eventually affect most National Forests.

Without additional analysis, development of criteria and environmental safeguards, we are concerned that forest ecosystems will be put at risk by mechanical fuels reduction projects. Unless changes are made in federal fire policy, ecosystems will continue to be degraded, the costs of wildfires will continue to increase, firefighters lives will be put in jeopardy, and homes will continue to be threatened.

HAZARDOUS FUELS PROJECTS LACK ENVIRONMENTAL SAFEGUARDS

There is a real risk that ecologically harmful projects will be common place because there are no safeguards to exclude projects from roadless, old growth, and other ecologically important areas that don't need fuels reduction treatments. Projects are already emerging and there is growing concern about the emphasis on commercial commodity production and the lack of emphasis on doing projects—where the work needs to be done—in the urban/wildlands interface.

ROOT CAUSES NOT BEING ADDRESSED

According to a Dec. 5 Congressional Research Service report "Forest Fire Protection," historic grazing and logging practices (by encouraging growth of many small trees) and especially fire suppression over the past century, appear to have contributed to unprecedented fuel loads in many areas. However, under the current Fire Policy, it appears that grazing is being ignored and that more logging (mechanical fuels treatment) and fire suppression are being prescribed as the solution. This contradicts common sense and will in the end lead to further degradation of forest ecosystems. If we are to seriously talk about how to restore ecosystems it is necessary to reform the logging, grazing, and fire suppression programs that are at the root of poor ecosystem conditions.

THE 2001 FEDERAL FIRE MANAGEMENT PLAN

In response to the wildfires of 1994, the Forest Service created the 1995 Federal Fire Policy to help coordinate their response. Following last year's fire season, this policy document was updated by the 2001 Federal Fire Management Plan.

In the new Plan, the original 1995 Federal Fire Policy was reaffirmed, and in some cases even strengthened with new policies covering the role of science and education in fire management. However, the 2001 Plan discovered that substantial action items such as creating Fire Management Plans for each National Forest had not been completed, and that there were no mechanisms for oversight or accountability to implement the Federal Fire Policy. "There have been no meaningful consequences for failure by agency administrators at any organizational level to fully implement all aspects of the 1995 Federal Fire Policy," says the report.

Major Policy items that were not implemented over the last five years include the failure to adopt Fire Management Plans (FMPs), and the failure to minimize the costs of fire suppression on large wildland fires. The 2001 Policy reaffirmed that "Every area with burnable vegetation must have an approved Fire Management Plan." FMPs cover such critical issues as responses to and uses of wildland fires, burned-area rehabilitation, fuels reduction, and ecosystem restoration activities. Accordingly, FMPs "are the principal foundation for implementation of the 2001 Federal Fire Policy."

Congress appropriated a disproportionate amount of funds for mechanical fuels reduction. While the majority of the funding goes toward mechanical fuels reduction (and a great deal in the regular appropriation goes toward aggressive fire suppression), little funds go toward fire planning even though it should be the first step in implementing a sound National Fire Plan.

FIRE PLANNING NECESSARY TO LIMIT FIRE SUPPRESSION TO WHERE IT IS NEEDED

The 2001 Federal Wildland Fire Policy mandates that "every area with burnable vegetation must have an approved Fire Management Plan." However, the agency seems to be ignoring this requirement—only 5% of National Forests have fire management plans and the National Fire Plan provides little funding for National Forests to complete new plans. Without these Plans, the Forest Service will continue to commercially thin, even in roadless areas, and aggressively suppress fires, even where they should be allowed to burn naturally.

The paradigm of aggressive fire suppression is still rampant. For example, the Forest Service is beefing up its fire teams and hotshot crews to deal with future fires. The Forest Service has so far hired over 850 permanent fire personnel and plans to hire about 4,000 new fire fighting personnel total. Also a great deal of funds will go to new hardware such as helicopters, fixed-wing aircraft, fire engines, bulldozers, chainsaws, etc. to prepare the new staff to "win the war on fire." This beef up in personnel and hardware is testimony to the fact that the Forest Service is stuck in the old paradigm of aggressive fire suppression at any cost. The Forest Service continues to stifle real forest restoration by failing to make fire planning one of their top priorities. Without fire plans fires will almost always be suppressed rather than allowed to burn.

According to the Federal Wildland Fire Management Policy (Fire Policy), "Every area with burnable vegetation must have an approved Fire Management Plan (FMP)." However, it has been six years since the Fire Policy was first signed by the Secretaries of Agriculture and the Interior, and yet over 95% of the National Forest do not have approved FMPs that comply with the Fire Policy. There has been a systematic neglect within the Forest Service to do required fire management plans. The National Fire Plan could fund this critical need, but Congress is going to have to give clear, explicit direction to the agency to complete FMPs and fully implement the Fire Policy.

LACK OF FIRE MANAGEMENT PLANS INCREASES SAFETY HAZARDS FOR FIREFIGHTERS

The Fire Policy states that public and firefighter safety is the first priority on every wildland fire. Yet, firefighting is inherently hazardous duty, and individuals are exposed to health and safety risks on every incident. The lack of FMPs in the U.S. Forest Service compels the agency to engage in aggressive initial attack and extended attack even in areas where the risks to human communities are low, the ecological benefits of burning are high, but the hazards to firefighters can be very high to extreme. Avoiding unnecessary fire suppression actions would decrease hazards to firefighters.

The highest priority action item needed to implement the Fire Policy is for land managers to develop new FMPs that would allow a full range of “appropriate management responses” to wildland fires. These responses could range from simple aerial monitoring of fires burning in remote roadless or wilderness areas, to aggressive fireline construction where fires threaten to encroach upon human communities. FMPs thus enable managers to place firefighters where they would be most safe, effective, and needed. Without these FMPs fire managers have only one option: total suppression. Consequently, firefighters are often exposed to prolonged, unnecessary risks and hazards on “siege-like” campaign fires that, in many cases, defy human control efforts and are only extinguished by changes in the weather.

LACK OF FIRE MANAGEMENT PLANS INCREASES COSTS FOR TAXPAYERS

The Fire Policy mandates that fires are to be suppressed at minimum cost. Yet, in the internal report, “An Agency Strategy for Fire Management,” the Forest Service acknowledges that “there are no well-defined guidelines or direction that specifically lead to minimum-cost strategies or tactics;” consequently, the agency manages emergency firefighting funds as “unbudgeted, unlimited, unallocated, and without benchmarks on acceptable spending levels.” Fire suppression lacks fiscal accountability and restraint because it is run as a “carte blanche” deficit-spending program. The Forest Service gets reimbursed for firefighting expenses through emergency supplemental appropriations; however Congress routinely “rubber stamps” these requests without ever scrutinizing the expenditures of fire managers. In 1999, the Forest Service spent fully 30% of its firefighting budget attempting to suppress two lightning-caused wildfires burning in designated wilderness areas. Lack of FMPs for the two affected National Forests compelled managers to engage in total suppression devoid of any economic analysis of projected suppression costs compared to the values at risk.

Forest Service studies reveal that from 1970 to 1995 the agency spent \$11.8 billion on fire suppression (adjusted for 1995 dollars). The total costs of suppression have been increasing at an average rate of 15.5% annually. During the 1980s, the average annual cost of fire suppression was \$492 per acre, but during the 1990s, this increased to \$743 per acre (adjusted for inflation). The Fire Policy was developed after officials were shocked by the expense of the 1994 fire season—an unprecedented \$950 million. However, the 2000 fire season has topped \$1.3 billion—and the bills are still being counted. FMPs can reduce suppression costs by restricting inappropriate actions from inappropriate places, and helping to focus firefighting action to the times and places it is most safe, effective, and necessary.

LACK OF FIRE MANAGEMENT PLANS INCREASES DAMAGES TO ECOSYSTEMS

Fire suppression programs and practices have never undergone environmental analysis under the National Environmental Policy Act; yet, there are significant direct, indirect, and cumulative environmental impacts caused by firefighting. In some cases, the effects of firefighting can be more significant and enduring than the effects of the fire itself. For example, bulldozers cutting firelines into steep erosive slopes or roadless areas can cause scars that last for decades. Backfires ignited under extreme weather conditions can increase the intensity and severity of wildfires, and in some cases, can start whole new wildfires when they fail to meet up with the main intended fire front. Some fire retardant chemicals degrade into cyanide at levels highly toxic to fish and frogs. And the presence of large numbers of firefighters and their equipment and vehicles can spread invasive weeds, harass wildlife, and damage sensitive lands.

Fire Management Plans can prohibit certain aggressive suppression methods where they would be most damaging (e.g. bulldozers in roadless areas, chemical retardants in riparian areas). Alternately, FMPs can prescribe “Minimum Impact Suppression Tactics” where they would be most safe, effective, and least damaging. Without FMPs providing such guidance to fire managers, there is no limit to the kinds of destructive practices that managers can and do order firefighters to wage

on wildland fires. FMPs enable managers to set priorities for suppression in ways that decrease the short- and long-term damages that firefighting can inflict upon the landscape.

WHAT FEDERAL FIRE MANAGERS SAY ABOUT THE NEED FOR FIRE MANAGEMENT PLANS

“Fire management planning has not been a priority, with less than 5% of the National Forests having current, approved fire plans. The agency is not in compliance with the National Fire Management Policy. When asked would a Fire Management Plan have made a difference in the effectiveness of the suppression efforts for the Big Bar and Kirk Complexes, the answer was ‘YES.’ When asked why there was no approved Fire Management Plans for the two involved Forests and other National Forests in general, the most common reason is lack of priority and resources.”

—*Policy Implications of Large Fire Management: A Strategic Assessment of Factors Influencing Costs (USFS; 2000)*

“Consistent with Land and Resource Management Plans, develop fire management plans that provide for suppressing fires that would threaten public safety, communities, species habitat, or degrade ecosystems. Increase the management of natural ignitions for resource benefits where values and resources will be increased or improved.”

—*Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy (USFS; 2000)*

“Fire Management Plans that implement Federal Fire Policy must be completed as soon as possible. All land management agencies should place a high priority on completion of these plans. If necessary, land management plans should be updated, revised, or amended to allow full implementation of Federal Fire Policy.”

—*Review and Update of the 1995 Federal Wildland Fire Management Policy” (USDA/USDI/DOE/DOD/DOC/EPA/FEMA; 2001)*

URBAN/WILDLANDS INTERFACE UNDEFINED

An issue that is of primary importance in the Forest Service’s presentation of the National Fire Plan is their unwillingness to define the urban/wildland interface zone. The Forest Service has failed to set hard criteria about how to choose the communities in most need for fuels reduction. One of the major components to the National Fire Plan is to carry out most of the first and second year projects in the communities most “at risk.” However, the communities that the Forest Service is evaluating as the most “at risk” comes from a laundry list of communities published in the Federal Register on January 4, 2001. The Governors and the National Association of State Foresters created this community list without any criteria about what a community at risk is.

We are very concerned that to date, the Forest Service has ignored the intent of Congress to focus fuel reduction projects on the urban/wildlands interface to save lives and property. Instead, the Forest Service recently admitted that only 25% of the current projects are in the area they define as the interface/zone. In addition, we are also concerned that the definition being by the agency is overly broad by including power lines, roads and other structures.

INCREASED PRIORITY NEEDS TO BE PLACED ON PROTECTING COMMUNITIES

Homeowners must be educated about the danger associated with the wildland-urban interface zone and the necessity to do their part to reduce the risks, Jack Cohen, research scientist at the U.S. Forest Service’s Fire Sciences Lab in Missoula, Montana, has demonstrated that to reduce fire risks in the urban/wildland interface zone, removing fuels from within 40 meters of a structure and reducing the flammability of the structures are more effective and efficient than landscape wide thinning. According to Cohen, “The evidence suggests that wildland fuel reduction for reducing home losses may be inefficient and ineffective. Inefficient because wildland fuel reduction for several hundred meters or more is greater than necessary for reducing ignitions from flames. Ineffective because it does not sufficiently reduce firebrand ignitions.”

Congress should encourage state and local governments to require homeowners living in the interface zone to protect their own private property through common-sense fire safety practices, such as the use of fire-resistant roofing material and the clearance of brush and other flammable materials near homes.

CONDUCT ECOLOGICAL ASSESSMENTS FOR ALL FUEL REDUCTION PROJECTS

The Forest Service should be required to identify restoration priorities before any restoration or fuels reduction activities take place. This assessment should involve the public and provide a broad array of alternatives—not just commercial thinning—to address priority needs in the area. For many areas, removing roads, invasive species, and cows combined with prescribed burning would be the best prescription for ecological restoration.

HAZARDOUS FUELS PROJECTS SHOULD NOT MIX WITH THE TIMBER PROGRAM

We are concerned that fuels reduction projects are being conducted as part of or conjunction with timber sales. This could allow funds intended for fuels reduction to be used to subsidize logging on the National Forests. Mixing these funds, are allowing for the appearance that hazardous fuels reduction is being used to bolster the timber program could ultimately undermine public support and the program's effectiveness.

Attached to this testimony is a sign on letter endorsed by over seventy-five national, regional and local environmental and grassroots forest protection groups urging environmentally responsible direction for the FY 2001 fuels reduction funding. It represents a consensus from the environmental community on the types of projects we will support. Projects that fall outside of these guidelines are considered fair-game by environmentalists for protests, appeals and litigation.

Congress should prohibit the use of commercial timber sales and stewardship contracts for hazardous fuels reduction projects. Commercial logging removes the most ecologically valuable, most fire-resistant trees, while leaving behind highly flammable small trees, brush, and logging debris. The use of "goods for services" stewardship contracts also encourages logging larger, more fire-resistant trees in order to make such projects attractive to timber purchasers. The results of such logging are to increase fire risks and fuel hazards, not to reduce them. The financial incentives for abusive logging under the guise of "thinning" must be eliminated.

ESTABLISH SEPARATE CONTRACTS FOR FIRE HAZARD REDUCTION PROJECTS

All fuels reduction projects should be paid for with appropriated dollars. Any material of commercial value must be sold in a separate contract and all revenues must be returned to the Treasury. This would eliminate the current incentive to include larger, more valuable, fire-resistant trees in order to make timber sales a.k.a. "fuels reduction projects" more attractive to timber companies.

COMMERCIAL LOGGING INCREASES FIRE RISK

There is strong evidence that commercial logging increases fire risk. According to the Congressional Research Service, the remaining limbs and tree tops or slash substantially increase fuel loads on the ground, at least in the short term, until the slash is removed or disposed of through burning. The government's Interior Columbia Basin Management Project found that logging slash increased fire risk for up to thirty years. The Sierra Nevada Ecosystem Project confirmed that commercial logging had been the single greatest contributor to higher fire risks in the region stating, "Timber harvest, through its effects on forest structure, local microclimate and fuel accumulation, has increased fire severity more than any other recent human activity."

POST FIRE SALVAGE LOGGING SHOULD BE PROHIBITED

There is no scientific evidence that post-fire salvage logging reduces the future risk or severity of wild fires. There is also substantial evidence that this form of logging causes significant environmental harm by disturbing already impacted soils and vegetation, removing canopy cover, removing woody debris needed to create new soils, harming wildlife and plants that depend on recently burned areas. Post-fire salvage logging should have no place in the hazardous fuels program.

The 1995 report, "Wildfire and Salvage Logging, Recommendations for Ecologically Sound Post-Fire Salvage Management and Other Post-Fire Treatments" known as the Beschta Report found considerable evidence that post-fire salvage logging would likely result in persistent, significant adverse environmental impacts. The Beschta Report was prepared by an expert team of agency and university scientists and was endorsed the Forest Service. The report recommends the complete prohibition of salvage logging in severely burned areas, on erosive sites, on fragile soils, on steep slopes and any other sites where accelerated erosion is possible.

The Six Rivers National Forest has released a Draft Environmental Impact Statement (EIS) outlining a proposal to salvage log in the 1999 Megram Fire area west

of the Trinity Alps Wilderness. The proposed “Fuels Reduction for Community Protection-Phase I” project would log approximately 1,050 acres of ancient forests in the Mill, Horse Linto, Sharber, and Quinby Creek watersheds, including within unprotected roadless areas. Approximately 0.4 miles of new temporary roads would be constructed, and another 2.65 miles of previously used roads would be reconstructed, to facilitate the logging.

Despite the name, the project has nothing to do with either fuels reduction or community protection. The proposed logging and road construction is located miles away from any community, and will more likely increase the risk of fire rather than decrease it. The forests and streams in the area provide critical refuge for a host of plants, fish and wildlife species, including rare orchids, salamanders, northern spotted owls, goshawks, fishers, steelhead, chinook, and coho salmon. The proposed logging and road construction threatens to severely impact these species, as well as domestic water supplies in Hoopa and other Trinity River communities.

To avoid citizen challenges, the Six Rivers NF has announced that it is seeking an “Emergency Situation” determination that would exempt 863 acres of the project from the appeals and litigation process. The Six Rivers NF is claiming that unless an emergency situation is declared, the administrative appeals process could prevent them logging for another year, at which point the burned trees would be so decayed that it would not be economical to log them. The Six Rivers NF is attempting to circumvent the ability of citizens to force the agency to obey the law, and are using a thinly-veiled “emergency” to get the cut out.

There is no need to log within the Megram Fire area. The agency should instead work to restore past impacts the area from logging, roads, grazing, and fire suppression. The Forest Service should also withhold the emergency exemption for the proposed timber sale. There is no “emergency” in the area, the only reason the Six Rivers NF is seeking the exemption is for economic purposes, and that the proposed exemption would seriously undermine the public’s trust in the agency.

ENVIRONMENTAL LAWS AND PUBLIC PROCESSES MUST BE FOLLOWED

Environmental laws, the NEPA process or ESA consultation should not be suspended, expedited, or streamlined. According to the Congressional Research Service, the extent to which fuel management might reduce the extent, damage and control costs of wildfires has not been precisely quantified. Given this uncertainty and lack of scientific evidence that mechanical fuels reduction benefits forest ecosystems, it is necessary that a complete review of each project take place. Streamlining laws and shutting the public out of these projects will only lead to mistrust and a greater likelihood for public opposition, appeals, and litigation.

ROADLESS AREAS AND FIRE RISK

The roadless policy contains broad exemptions for fuel reduction and restoration projects and the Forest Service has testified that the roadless policy will not prevent the agency from meeting its fire fighting responsibility. In addition, agency research indicates that roadless areas are in general not the areas most at risk and contain few communities nearby. In addition, increased human access leads to more fire ignitions—88% of the fires from 1988-1997 were caused by humans, with only 12% caused by lightning. Scientific analysis of the 2000 fire season revealed that the vast majority of burned acres were located in previously logged and roaded areas, not in roadless or wilderness areas.

REMOVING COWS NEEDED FOR PROPER FIRE MANAGEMENT

According to the Congressional Research Service, in the inter-mountain west livestock grazing has affected ecosystems by reducing the amount of grass and changing the plant species mix in forests and on rangelands. This reduced the fine fuels that carried surface fires, encouraged trees to invade traditionally open grasslands and meadows, and allowed non-native species to become established, all of which experts believe induce less frequent but more intense wildfires. Therefore it is essential that livestock be removed from all areas at high risk of fire or where fire risk reductions projects are undertaken. Otherwise the problem will continue to worsen.

FIRE SUPPRESSION HARMS THE ENVIRONMENT—COSTS OUT OF CONTROL

For most federal programs, Congress sets an annual spending level that may not be exceeded by the federal agency. However, in the case of fire suppression and the federal budget, these rules do not apply. The Forest Service is permitted to take money from other Forest Service programs and spend it on fire suppression. Then Congress fully reimburses the Forest Service for the difference. Due to this system

Congress does not set a realistic budget for fire suppression and the agency has little accountability or incentive to get serious about fire planning and preparedness because it knows Congress has a carte blanche policy for funding fire suppression.

In the aftermath of the 1994 fire season, a very heavy fire year similar in intensity as the 2000 fires, Agriculture Secretary Dan Glickman and Department of the Interior Secretary Bruce Babbitt signed the federal Wildland Fire Policy which requires the creation of fire plans for "every burnable acre" on National Forest Lands. The agency report "Policy Implications of Large Fire Management" concludes that fire plans are needed to efficiently respond to wildfires.

According to the report, "Estimates have shown that for every dollar of appropriated preparedness dollars received, there is a savings of five to seven dollars in fire suppression and emergency rehabilitation funds spent." However, only 5% of the National Forests have developed such plans, causing the Forest Service to continually waste tax dollars, degrade ecosystems, and jeopardize firefighters by systematically fighting all fires with aggressive suppression tactics.

For more information contact Lisa Dix at 202-547-9267, <mailto:ldix@americanlands.org> or Timothy Ingalsbee, Ph.D. at 541-302-6218, <mailto:fire@efn.org>.

Senator CRAIG. Steve, thank you.

Now we go to Tom Nelson, director of Timber Lands for Sierra Pacific Industries, representing the American Forest and Paper Association of Redding, California.

Tom, welcome.

STATEMENT OF TOM NELSON, DIRECTOR OF FOREST POLICY FOR SIERRA PACIFIC INDUSTRIES, ON BEHALF OF THE AMERICAN FOREST AND PAPER ASSOCIATION

Mr. NELSON. Good evening, Mr. Chairman. My name is Tom Nelson and I am the director of Forest Policy for Sierra Pacific Industries in Redding, California.

I have already submitted written comments to your committee, but I wish to highlight portions of that testimony during the time frame allotted here today. Specifically, my testimony focuses on four issues associated with the National Fire Plan and some suggestions for addressing them.

While I will mention timber harvesting in my testimony, my objective is not simply to advocate a more robust timber sale program on the Federal lands. The focus of my testimony is on sound management practices that help promote the long-term sustainability of national forest system and other public lands. It is imperative that our public lands are managed to promote healthy forests and healthy communities and ensure the Federal Government is a good neighbor to adjacent landowners.

Issue number one, the need for continued fuel hazard reduction efforts. Increased fuel reduction efforts by the Forest Service and Department of the Interior are badly needed. The number of acres of public land that require hazardous fuel reduction far exceeds the number of acres treated by the Forest Service and the Department. For example, in 1994, the Department and the agency treated about 500,000 acres out of a total of 39 million acres declared at risk. In 2000, they estimated that 72 million acres were now at risk and reduced fuel loads on approximately 2.4 million acres, almost five times more than the acres treated during 1994.

That sounds very impressive. However, the combined total acreage treated by the Forest Service and the Department in fiscal year 2000 was still just over 3 percent of the Forest Service lands that

require treatment. At this pace it will take more than 30 years to treat the existing areas at risk.

A significant portion of the fiscal year 2001 Interior appropriation for hazardous fuels reduction work was directed to alleviate immediate threats to urban/wildland interface areas. Congress should continue to support the Forest Service's and Department's efforts to reduce fuel loads in urban/wildland areas and provide assurances to communities that enter into cooperative agreements. At the same time, fuel reduction efforts outside of these areas, where the bulk of these high-risk acres actually occur, must not be ignored.

According to the Forest Service, most of the 72 million acres of national forest system lands at risk are not in the wildland/urban interface, but in these outside areas.

The risks and effects of catastrophic wildfire are not confined to public lands. On the contrary, they spill over onto private inholdings and onto adjacent homes and structures not part of the urban/wildland interface. For example, in my written testimony, I have attached a map showing ownership patterns in California, specifically the private lands owned by our company, Sierra Pacific, and the neighboring Federal lands. You will note that these two ownerships, as is common throughout the western United States, are intertwined and intermingled.

Private forest product companies like ours, as well as non-industrial forest landowners, have aggressively tried to reduce the risks for catastrophic wildfires on our own holdings for many years, largely through the use of thinning. However, these efforts cannot be effective without the cooperation of our Federal neighbors since wildfires do not recognize property boundaries.

AF&PA respectfully suggests that increased appropriations in fiscal year 2002 must be provided for hazardous fuel reduction work in urban/wildland interface communities at high risk of catastrophic wildfire and on a greater percentage of areas outside the interface. Additionally, collaborative partnerships with owners of inholdings, State foresters, and other entities should be pursued to design long-term fuels treatment strategies outside of the urban/wildland interface.

Issue number two, the need for timber harvesting as one tool available to the Forest Service and Department of the Interior to maintain forest health.

In a recent statement to the House Subcommittee on Forests and Forest Health, Mr. Lyle Laverty of the U.S. Forest Service stated that excessive vegetation and dead fuel will be removed "through thinning, prescribed fire, and other treatment methods." I believe Lyle reaffirmed that position earlier today.

We concur with this assessment and wish to emphasize that timber harvesting must be a hazardous fire reduction tool available to the Forest Service and the Department of the Interior. After 50 to 80 years of fire suppression in the West, timber harvest is a prerequisite activity before fire can ever be safely reintroduced into the natural ecosystem.

Issue number three, implementation of the National Fire Plan must not reduce or eliminate the Forest Service's or the Depart-

ment of the Interior's ability to conduct other agency and departmental programs. I will skip over that one in the interest of time.

Issue number four, the Forest Service must carry out its mission and be held accountable for its operations. Language in the National Fire Plan calls for the Forest Service and Department of the Interior to be accountable for oversight, coordination, program development, and monitoring performance for fire fighting, restoration and rehabilitation, hazardous fuels reduction, and community assistance.

While progress is being made toward accomplishing these goals, more can be done by the agency and Department to ensure that accountability is achieved. In particular, two elements appear to be missing.

To ensure that the Forest Service and Department establish a credible system of accountability, AF&PA respectfully suggests that the Forest Service and Department of the Interior, one, provide a clear link between National Fire Plan goals and performance measures to the overall mission of both the Forest Service and the Department of the Interior; and two, develop more specific performance measures to permit evaluation of program effectiveness, both from a financial standpoint and from the standpoint of improvement in forest health conditions.

Thank you, Mr. Chairman, for the opportunity to present these comments on behalf of the American Forest and Paper Association. I would be glad to answer any questions.

[The prepared statement of Mr. Nelson follows:]

PREPARED STATEMENT OF TOM NELSON, DIRECTOR OF FOREST POLICY FOR SIERRA PACIFIC INDUSTRIES, ON BEHALF OF THE AMERICAN FOREST AND PAPER ASSOCIATION

EXECUTIVE SUMMARY

- The Department of the Interior and the Forest Service's efforts to reduce hazardous fuel loads are not keeping pace with the increase in these materials. At risk are unique ecosystems, urban-wildland interface communities, in-holdings, and homes and other structures outside interface areas. Support in the Fiscal Year 2002 Interior appropriations bill is needed for increased hazardous fuels reduction work.
- Timber harvesting should be a tool available to the Forest Service and the Department of the Interior to maintain forest health.
- Personnel must not be reassigned from their core functions to conduct National Fire Plan-related activities.
- The Forest Service and the Department of the Interior have an obligation to carry out their missions and to be held accountable for their operations.

TESTIMONY

Good afternoon Mr. Chairman. My name is Tom Nelson and I am the Director of Forest Policy for Sierra Pacific Industries in Redding, California. I am presenting my testimony today on behalf of the American Forest and Paper Association's (AF&PA) member companies, associations, and allied groups. AF&PA members include forestland owners, manufacturers of solid wood products, and producers of pulp and paper products. The U.S. forest products industry has sales of over \$195 billion annually and employs 1.6 million people, more than one percent of the U.S. work force. AF&PA members are committed to sustainable forestry for all forestlands, public and private.

My testimony focuses on four issues associated with the National Fire Plan and suggestions for addressing them. The issues are: the need for continued support of fuel hazard reduction efforts; use of timber harvesting as one of many tools for fuel reduction efforts; the impact implementation of the National Fire Plan has on other Forest Service programs; and accountability.

While I will mention timber harvesting in my testimony, my objective is not simply to advocate a more robust timber sale program on the federal lands. The focus of my testimony is on sound management practices that help promote the long-term sustainability of National Forest System and other public lands. It is imperative that our public lands are managed to promote healthy forests and healthy communities and ensure the federal government is a good neighbor to adjacent landowners.

Issue #1: Need for continued fuel hazard reduction efforts.

Increased fuel reduction efforts by the Forest Service and Department of the Interior are needed. The number of acres of public land that require hazardous fuel reductions far exceeds the number of acres treated by the Forest Service and the Department. Given their limited resources, hazardous fuels reduction projects focus on alleviating threats to urban-wildland interface areas. Congress should continue to support the Agency and Department's efforts to reduce fuel loads in urban-wildland areas. At the same time, fuel reduction efforts outside of these areas must not be ignored.

The Forest Service's and Department of the Interior's hazardous fuel reduction efforts have not kept pace with the steady increase in over-accumulation of vegetation, outbreaks of insect infestations and disease, and accumulation of fine fuels. During the past decade, the Forest Service and the Department of the Interior accelerated their efforts to reduce hazardous fuel loads. For example, in 1994, the Department and Agency treated about 500,000 acres.¹ In 2000, they reduced fuel loads on approximately 2.4 million acres, almost five times more than the acres treated during 1994.² The figure appears impressive until one realizes that in 1998, the Forest Service estimated that "approximately 39 million acres of National Forest System lands [were] at high risk from damaging, high-intensity, wildland fire" due to over-accumulation of vegetation and high mortality from insects and disease.³ The combined total acreage treated by the Forest Service and Department in 2000 was less than 6 percent of the total Forest Service lands requiring treatment in 1998 and today, the Forest Service estimates that 72 million acres of the land it manages is at risk. At this pace, it will take more than 30 years to treat the existing areas at risk.

As hazardous fuel loads increase, so too does the duration, severity, and intensity of the fires fueled by them. For example, assessment teams in the Interior Columbia River Basin "concluded that over all forest types, fires have become less frequent and more intense and fire severity has shifted from non-lethal to lethal."⁴ As the number of intense wildfires increases, our ability to control them decreases. As documented in the *Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement*, "current technology is not capable of eliminating the high-severity fires."⁵ Hiring additional fire fighters and purchasing more equipment is not enough. We must aggressively attack the problem: hazardous fuel loads.

A significant portion of the Fiscal Year 2001 Interior appropriation for hazardous fuels reduction work, about \$120 million under Title IV, was directed to alleviate immediate threats to urban-wildland interface areas. To help stretch appropriations for hazardous fuel reduction work, efforts will be made to "match, where possible, joint projects with state cooperators."⁶ However, as one representative of the National Interagency Fire Center noted, community representatives are concerned there is no guarantee the federal government will continue to provide needed funding for their projects and, thus, communities worry they will be left to pay the entire cost of hazardous fuels reduction work.

Congress should continue to support the Forest Service and Department's efforts to reduce fuel loads in urban-wildland areas and provide assurances to communities that enter into cooperative agreements. At the same time, fuel reduction efforts outside of these areas, where the bulk of these "high risk" areas actually occur, must not be ignored.

¹The Forest Service treated about 385,000 acres across the U.S. Statement of Lyle Laverty, National Fire Plan Coordinator, USDA Forest Service, before the House Subcommittee on Forests and Forest Health, March 8, 2001.

²The Forest Service treated about 750,000 acres in 2000. Statement of Lyle Laverty, National Fire Plan Coordinator, USDA Forest Service, before the House Subcommittee on Forests and Forest Health, March 8, 2001.

³Janice McDougle, USDA Forest Service Associate Deputy Chief, State and Private Forestry, prepared statement before the House Subcommittee on Forests and Forest Health, September 28, 1998, <http://www.fs.fed.us/intro/testimony/19980928.html>. Accessed 3/22/01.

⁴*Roadless Area Conservation Final Environmental Impact Statement*, Vol. 1, page 3-73.

⁵*Roadless Area Conservation Final Environmental Impact Statement*, Vol. 1, page 3-77.

⁶*USDA Forest Service National Fire Plan: Action and Financial Plan—Title IV Funding*, <http://www.na.fs.fed.us/nfp/pa/financial—plan/overview.htm>, Accessed 2/22/01.

According to the Forest Service, most of the 72 million acres of National Forest System lands at risk of uncharacteristic wildfire are not in the wildland-urban interface.⁷ However, because of limited resources, hazardous fuel reduction in many of these areas will be deferred for years. Accumulation of fine ground fuels and encroachment of shrubs and other vegetation beneath dominant canopies will continue. As a result, the likelihood of severe fire behavior in these areas will escalate. The forest industry is very worried about this situation.

The risks and effects of catastrophic wildfire are not confined to public lands. On the contrary, they spill over on to private in-holdings and onto adjacent homes and structures not part of the urban-wildland interface. For example, I have attached a map showing ownership patterns in California—specifically, the private lands owned by our company (Sierra Pacific Industries) and the neighboring federal lands. You will note that these two ownerships, as is common throughout the Western United States, are intertwined and intermingled. Private forest products companies, like ours, as well as non-industrial forest landowners have aggressively tried to reduce the risks for catastrophic wildfires on their own holdings for many years, largely through the use of thinning. However, these efforts cannot be effective without the cooperation of our federal neighbors, since wildfires do not recognize property boundaries.

Throughout the West, private landowners, state fire experts, and rural communities are poised and ready to implement management activities that will reduce the potential risks of devastating wildfires like we witnessed last summer in Montana and Idaho. A good example of this is the State of California's program to implement Fire Safe Councils in rural counties. We believe that this type of partnership between private forest landowners, the State, and local county officials is the most effective way to combat the inherent dangers to the 72 million acres now at risk within our National Forest System lands. But this cannot, and will not, occur without the key player at the table the federal land managers.

Reversal of fuel conditions cannot occur overnight. Clearly, however, there is an urgent need to prevent fuel conditions from advancing at their current pace. It is not enough to provide funding for additional fire fighters and equipment. AF&PA respectfully suggests that increased appropriations in Fiscal Year 2002 must be provided for hazardous fuel reduction work in urban-wildland interface communities at high risk of catastrophic fire and on a greater percentage of areas outside the interface. Additionally, collaborative partnerships with owners of in-holdings, state foresters, and other entities should be pursued to design long-term fuels treatment strategies outside of the urban-wildland interface.

Issue #2: Need for timber harvesting as one tool available to the Forest Service and Department of the Interior to maintain forest health.

The Forest Service states that excessive vegetation and dead fuels will be removed “through thinning, prescribed fire, and other treatment methods.”⁸ Timber harvesting should be a hazardous fuel reduction tool available to the Forest Service and the Department of the Interior. After 50 to 80 years of fire suppression in the West, timber harvest is a prerequisite activity before fire can ever be safely reintroduced into the natural ecosystem.

The condition of the forests determines the risk of catastrophic wildfire. The prescription for disaster is ignoring overcrowded forests, with many dead and dying trees. As mentioned previously, 72 million acres of national forests are at risk for catastrophic fires. As the Government Accounting Office reports, “timber harvesting may make useful contributions to reducing accumulated fuels in many circumstances.”⁹ Consider thinning. A Forest Service research report states, “well-thinned, relatively open areas scattered across the landscape, interspersed with denser, less intensively managed areas, would provide a wide array of wildlife habitat, and would be a forest less prone to large-scale catastrophic wildfire.”¹⁰

It should be noted that use of best management practices may help reduce the risk of catastrophic wildfire. For example, as noted in the Sierra Nevada Ecosystem Project Report, “when slash is adequately treated and treatments are maintained, logging can serve as a tool to help reduce fire hazard.”¹¹

Certainly, depending on local conditions, hazardous fuel reduction through prescribed burning or other means may be more effective than timber harvesting.

⁷Lyle Laverty, USDA Forest Service National Fire Plan Coordinator, Statement before the House Subcommittee on Forests and Forest Health, March 8, 2001.

⁸Lyle Laverty, Statement before the House and Senate Subcommittees on Interior and Related Agencies, March 14, 2001.

⁹Ann Bartuska, Letter to John Talberth, November 6, 2000.

¹⁰Dahms and Geils, 1997.

¹¹Ann Bartuska, Letter to John Talberth, November 6, 2000.

Nonetheless, harvesting should not be precluded as one of many tools available to the Forest Service and Department of the Interior for reducing hazardous fuels. AF&PA respectfully suggests that language should be included in the National Fire Plan and in relevant related documents specifically stating that timber harvesting is a tool available to the Forest Service and Department of the Interior to maintain forest health.

Issue #3: Implementation of the National Fire Plan must not reduce or eliminate the Forest Service's or the Department of the Interior's ability to conduct other Agency and Departmental programs.

There are indications that certain National Forest Districts are shifting personnel, including biologists and NEPA coordinators, from their core functions to National Fire Plan-related work. The shift in personnel's priorities may result in the slowing or cessation of other critical Forest Service programs. While AF&PA members agree that the implementation and long-term goals of the National Fire Plan are important, they should not be the sole priority of the Forest Service.

The Forest Service is working with the Fish and Wildlife Service to secure funding necessary to hire biologists needed to perform Section 7 Consultations. Efforts to identify the kinds of positions and the number of personnel needed, such as this, are steps in the right direction. Actions to ensure accountability may help address concerns, as well, and are discussed in the next section of my testimony.

The bottom line is that Forest Service personnel must not be reassigned from their core functions to conduct National Fire Plan-related activities. AF&PA respectfully suggests that efforts to identify the kinds of positions and the number of personnel needed to implement the National Fire Plan should be continued and supported as needed in Fiscal Year 2002 Interior appropriations. But it is also important that other funded programs don't suffer because of the National Fire Plan.

Issue #4: Accountability.

Language in the National Fire Plan calls for the Forest Service and Department of the Interior to be accountable for oversight, coordination, program development, and monitoring performance for firefighting, restoration and rehabilitation, hazardous fuels reduction, and community assistance. While progress is being made toward accomplishing these goals, more can be done by the Agency and Department to ensure that accountability is achieved.

As has been noted during recent Congressional hearings, the Agency and Department are making progress to ensure accountability. For example, the Agency and Department are developing a database designed to track accomplishments for projects funded under Title IV. According to the Forest Service, "once it is fully operational . . . [the Agency] will be able to report" project data in specific national forests, by state, or congressional district.¹²

The Forest Service and Department of the Interior are to be commended for their efforts to ensure accountability. However, a clear link between National Fire Plan goals and objectives to the Forest Service's and Department of the Interior's overall strategic plans must be articulated. Such an explanation will facilitate the early identification of conflicts between programs, needed resources, and staff responsibilities. As a result, confusion about program implementation, duplicative efforts, and unnecessary delays in implementing program objectives may be reduced or avoided.

In addition to providing a clear link between National Fire Plan goals to their overall mission and other core programs, specific performance measures need to be developed further for each National Fire Plan goal. The performance measures, or objectives, should explain how the agency intends to accomplish each goal and include action plans for achieving each objective. Most important, performance measures must be developed in a manner that will enable Agency and Department personnel evaluate program effectiveness based on financial and forest health considerations.

Certainly, such an undertaking is time-consuming and will require Congressional support. However, developing and articulating specific information on how to accomplish National Fire Plan goals and timeframes for completing activities helps ensure the most efficient use of Agency and Department resources.

The Forest Service and Department of the Interior must be held accountable for achieving National Fire Plan goals, as well as other Agency and Departmental core functions. AF&PA respectfully suggests that, as part of those efforts, the Forest Service and Department of the Interior:

¹²Lyle Laverty, Statement before the House Subcommittee on Forests and Forest Health, March 8, 2001.

1. Provide a clear link between National Fire Plan goals and performance measures to the Forest Service's and Department of the Interior's overall mission and strategic plans; and
2. Develop more specific performance measures to permit evaluation of program effectiveness both from a financial standpoint and from the standpoint of improvement in forest health conditions.

CONCLUSION

Over-accumulation of vegetation, outbreaks of insect infestations and disease, and accumulation of fine fuels are outpacing the Forest Service's and Department of the Interior's hazardous fuel reduction efforts. As such, the risk of cataclysmic wildfire is escalating on public lands as well as on private in-holdings and adjacent homes and structures. Aggressive action must be taken to reduce hazardous fuel both within the urban-wildland interface and outside of the interface. It is imperative that all appropriate tools to reduce hazardous fuel loads be available to the Forest Service and Department, including timber harvesting. Lastly, it is important that the National Fire Plan be linked to the broad strategic plans of the Agency and Department and accurate and reliable performance measures be developed and implemented.

AF&PA looks forward to working with the Subcommittee and others to help ensure that the Forest Service and Department of the Interior have resources necessary to address immediate threats to forests and grasslands and develop long-term strategies for protecting them.

Thank you for the opportunity to testify, Mr. Chairman. I would be happy to answer questions from the Subcommittee.

Senator CRAIG. Tom, thank you very much.

Now let me turn to Dr. David Smith, professor emeritus, Virginia Tech at Blacksburg.

STATEMENT OF DAVID WM. SMITH, Ph.D., VICE PRESIDENT, SOCIETY OF AMERICAN FORESTERS

Dr. SMITH. Mr. Chairman, my name is Dave Smith, and I am here today as vice president of the more than 17,000-member Society of American Foresters.

I would like to make five points.

Number one, a long-term commitment is absolutely essential.

Number two, there are barriers to the Forest Service accomplishing some of the fire plan goals.

Three, commercial harvests need to be considered on a case-by-case basis.

Four, decisions need to be made in concert with State and local communities.

And five, an enhanced research effort is essential.

Going back to number one, a long-term commitment, I want to thank the committee and Congress for providing last year's emergency appropriations. There is no doubt that the additional funding helped the forestry community and, indeed, the country get through a difficult fire season and to begin to prepare for another difficult one this summer. It took us nearly 100 years to get into this situation. It is going to take more than 1 year to get out of it. We need a long-term continuing commitment to truly address this management issue.

Arguably, the most significant aspect of last year's unprecedented emergency appropriation was the explicit acknowledgment on the part of Congress, the administration, and the land management agencies that fire is not only a suppression problem, but also a land management problem.

We hope this year's appropriations bill will follow through on the commitment to a national long-term solution and that this committee will continue to perform the oversight to make sure the land management agencies follow through on that commitment.

The barriers. In the fiscal year 2001 appropriations bill, Congress provided \$401 million for fuel reduction projects in the wildland/urban interface. It has come to our attention that a significant portion of Forest Service fuel reduction projects will be outside of these areas and have not adequately involved communities in the decision making process. While this is understandable, it is also regrettable. The Forest Service has to show progress with this significant increase in funding, but to be successful, they have had to resort to projects that have already been through the NEPA process and, in some cases, section 7 consultation under the Endangered Species Act. This has caused SAF to ask what are the barriers to the Forest Service being the responsive agency we know it wants to be and one that involves local communities. In fact, we have developed a proposal to examine that issue and we hope to report back to you on our work.

Commercial harvest. Simply stated, we want to ensure that commercial timber harvest will be considered as one tool among many to address the hazardous fuel problem. If trees that need to be removed are of commercial size and the land management agencies follow environmental safeguards, then there is no reason that agencies should not sell the timber. Selling the materials that result from fuel reduction projects will reduce the burden on taxpayers and stimulate economies. Currently the United States is a net importer of wood products. It seems inappropriate not to utilize forest products here in our own country.

Local decision making. While we believe the partnership between the State and Federal Governments continues to improve, we are anxious to see similar partnerships with local communities. Communities must be part of the solution to our wildland fire issues and we must build their capacity to be involved in these discussions. In many ways, they have the most at stake, but the fewest resources and the smallest voice. This must change if the National Fire Plan is to be viewed as a success. We must remember that early detection and quick response are the answers in many cases.

Research. Cost effective and sustainable fire management depends on sound science. This research should include partnerships with colleges, universities, and private sector research units in order to reap the best and most effective results. Many of the key barriers to the implementation of the National Fire Plan stem from the lack of scientific knowledge about the effectiveness and the effects of fire and fuels management. Because of the increased incidence of extreme fires, the growing complexity of the fire management situation, and the vital link between fire management and land management policy, it is imperative that we have a strong research and development program.

In conclusion, the last summer's fires raged in part because policy gridlock has prevented forest managers from doing what it takes to address the conditions that lead to catastrophic fire. A forest manager can take steps to alleviate these conditions by removing combustible materials and mechanically removing dead and

dying trees from at-risk forests, particularly in the wildland/urban interface.

The current situation guarantees failure as managers are resigned to do very little to address these problems. We hope that this committee will continue to urge for adequate funding and to explore changes in authority that will help end this gridlock.

Our Nation's forests cover one-third of the land area of the country and are unequalled in their value to people and our economy. They are far too valuable not to manage utilizing the best science and experience possible. Forest resource management decisions that we make today will be reflected in the forests of the 22nd century and beyond. We must do it right today if we are to maintain the integrity and productivity of these forests for our grandchildren and their grandchildren.

Our profession of forestry is a dedicated partner in this endeavor, and we will shoulder a significant part of the responsibility for implementing this plan. Thank you.

[The prepared statement of Dr. Smith follows:]

PREPARED STATEMENT OF DAVID WM. SMITH, PH.D., VICE PRESIDENT,
SOCIETY OF AMERICAN FORESTERS

Mr. Chairman and members of the committee, my name is David Smith, and I am here today as Vice President of the Society of American Foresters. Many of our 17,000 members are involved in reducing the risks associated with wildfire, and working to implement the National Fire Plan. The Society of American Foresters holds sustainability of forest resources as a core value. Sustainability means meeting environmental, economic and community aspirations simultaneously. It requires the development and protection of natural resources at a rate, and in a manner, that enables people to meet their needs while providing future generations with the means to do the same. Our goal is to see that all the forests of this nation are managed sustainably.

I would like to make five brief points today. The first is that Congress, the Administration, and the land management agencies need to make a long-term commitment to the National Fire Plan, and that treating fire requires land management. The second is that there are significant barriers to the Forest Service being a responsive agency. Next, that commercial timber harvest, can, and should be part of a fuels reduction program. Fourth, that the land management agencies must make decisions at the local level, involving the states and local communities. And finally, we must make a significant commitment to improving our fire research capacity.

LONG-TERM COMMITMENT TO LAND MANAGEMENT AND FIRE PREPAREDNESS

First, I want to thank the Committee and the Congress for providing last year's emergency appropriations. There is no doubt that the additional funding helped the forestry community, and indeed the country, get through a difficult fire season, and to begin to prepare for another difficult one this summer. It took us nearly 100 years to get into this situation; it is going to take more than one year to get out of it; we need a long-term commitment to truly address this management problem. We hope the Administration will request, and the Congress will provide the funding necessary to continue the commitment to effectively deal with wildland fire now and in the future. Investments made today in reducing the risks associated with wildland fire will eventually reduce the need for the massive emergency appropriations made last year.

We believe Congress and the Appropriations committee recognized the need for a long-term commitment to reducing the risks associated with wildfire. The Congress included language in the Conference report of the FY 2001 Appropriations bill that stated, "the managers strongly believe this FY 2001 funding will only be of value . . . if it is sustained in future years." It went on to request the Administration work with the states to develop a long-term solution to the fire problem, and restoration needs.

Fire exclusion has directly contributed to fuel buildup. In addition many forests are currently beyond the natural range of tree stocking, and endemic and exotic pests have reached epidemic proportions. This combination of excessive basal area

or tree density and increased pests results in fuel loads considerably above what historically occurred. The greatest problems we are facing in regard to wildland fire are high forest density developed from nearly a century of fire protection, lack of active management that can encourage fire adapted species, and the introduction of exotic species.

The Forest Service has stated that nearly 73 million acres of national forests (61 million in the West and 12 million in the East) are at high to moderate risk of catastrophic fire. Cost estimates of treating this problem are in the tens of billions of dollars. That acreage does not necessarily account for lands off national forests that also have significant problems. In the past few years we have seen major fires in Texas, Florida, Virginia, New York, and New Jersey, states with little or no national forests. This truly is a national problem that requires national solutions.

In addition to the development of heavy fuel loads, the jobs of contemporary firefighters have been complicated by the growth of the wildland-urban interface. Developed properties, frequently people's homes, stand in the way of today's wildfires. From last year's fires in Montana, where homes and other property were destroyed in the Bitterroot Valley, to the 1999 Fire Siege in Florida, where firefighters spent a great deal of time "steering" fires around development, the interface complicates firefighting and increases the values that are at stake.

Arguably the most significant aspect of last year's unprecedented emergency appropriation was the explicit acknowledgment on the part of Congress, the Administration, and the land management agencies that fire is not only a suppression problem but also a land management problem. Last year, the SAF expressly requested Congress provide increases in restoration, rehabilitation and fuels reduction projects over and above the administration's emergency request. We were pleased to see Congress do just that by providing \$648 million for restoration and fuel reduction efforts in the appropriations package.

Our intention is not to minimize the necessity of suppression activities. There is no doubt that we will have to continue to fight fire, even if we had endless resources to address land management needs. There is too much at stake, particularly in the wildland-urban interface where we will have to continue building capacity to fight fire due to the risks to people and property. However, focusing attention on the health of ecosystems and the land management activity necessary to reduce the risk of fire is a welcome change. We strongly encourage the Congress to continue and increase this funding.

Since we will have to prioritize where the limited funding available for this work will be most effective, we suggest focusing on the wildland-urban interface. This does not mean that we should not treat more remote areas. There are compelling reasons to work on other areas of our national forests, however, our first priority ought to be to protect human life and property. Though much of the fuel problem is on federal lands, the solutions rest with a range of stakeholders. We are encouraged that the Administration and the land management agencies are working cooperatively with the state forestry agencies, state land boards, volunteer and local fire departments, and local communities both to determine priority treatment areas, and to conduct the work where possible.

We need coordinated leadership from all federal agencies, not just the Forest Service and BLM. The National Fire Plan provides a framework for that coordination, and other federal agencies should be engaged in a dialogue about fire priorities. The Departments of Defense, Energy, and Commerce, and agencies such as the National Marine Fisheries Service, Federal Emergency Management Agency, National Weather Service, United States Fire Administration, United States Geological Survey, and other agencies all play important roles in wildland fire management. The federal family needs to work in a coordinated fashion, as we will not have success if federal agencies work independently of each other and their state and community partners.

In addition, some adjustments will likely be needed in the federal agencies' Most Efficient Level (MEL) analysis system. Currently the method for determining MEL only considers likely suppression needs on federal lands and therefore does not adequately address the wildland-urban interface.

We hope this year's Appropriations bill will follow through on the commitment to a national long-term solution, and that this committee will continue to perform oversight to make sure the land management agencies follow through on that commitment. Additionally, we believe there are certain barriers to the BLM, and the Forest Service in particular, to treating our fire problems with greater efficiency. We hope this committee will continue to examine those issues, and possibly offer bipartisan legislative solutions.

BARRIERS

In the FY 2001 appropriations bill Congress provided \$401 million for fuel reduction projects in the wildland-urban interface. It has come to our attention that a significant portion of Forest Service fuel reduction projects will be outside of these areas, and have not adequately involved communities in the decision-making process. While this is understandable, it is also regrettable. The Forest Service has to show progress with this significant increase in funding, but to be successful they have had to resort to projects that have already been through the NEPA process, and in some cases Section 7 consultation under the Endangered Species Act. The Agency has had to resort to implementing preplanned projects because they cannot implement fuels reduction projects in less than one year. This has caused SAF to ask what are the barriers to the Forest Service being the responsive agency we know it wants to be, and one that involves local communities. In fact, we have developed a proposal to examine that issue, and are currently seeking funding to conduct that work.

The Forest Service plans to conduct fuel reduction projects on 1.8 million acres using \$205.6 million. We know that in subsequent years the Forest Service will do a better job of implementing fuel reduction projects. However, we believe there are authority changes that may help them better implement their goals. For fuel reduction projects we believe Congress could:

- Adopt the BLM appeals process for the National Forest System, including the administrative law functions currently in use by the Interior Board of Land Appeals.
- Increase the requirements for filing an administrative appeal by requiring participation in the decision process related to the specific decision.
- Revise the National Environmental Policy Act decision process in the following way. First, publish a scoping document that lists alternatives but does not propose a preferred option. Second, propose a resource management plan or management action based on the scoping document and public comments received in the first round. The proposed plan or action is then subject to public comment and review. Third, make a formal decision.

Once we conduct our analysis of the barriers the Forest Service faces, we will make more concrete suggestions. Mr. Chairman, we believe this Committee has done an excellent job exploring these issues in recent years, both by examining our report entitled *Forest of Discord*, and your past focus on comprehensive reform. We hope this Committee will continue to explore the ideas in our report, this committee's thoughts on reform, and of the ideas of those who want to find solutions to these challenges. We believe many of these barriers could be removed by implementing some of the concepts that have come before this committee in the last few years.

COMMERCIAL TIMBER HARVEST

Simply stated, we want to ensure that commercial timber harvest will be considered as one tool among many to address the hazardous fuels problem. If trees that need to be removed are of commercial size, and the land management agencies follow environmental safeguards, then there is no reason the agency should not sell the timber. Selling the materials that result from fuel reduction projects will reduce the burden on taxpayers, and stimulate economies. Currently the United States is a net importer of wood products. It seems inappropriate to not utilize forest products here in the United States.

As a practical matter, mechanically treating stands will include commercial logging. Some critics characterize logging as wholesale ecological destruction. This is just not true. The science is clear: Logging can help us out of this overstocked situation by removing materials that intensify wildfires. While the majority of these fire problems cannot be addressed through commercial logging, it is one tool available to managers, and it should be utilized. Much of the work will consist of pre-commercial thinnings as well as potentially commercial thinnings. Additionally, much of the immediate fire problem we are facing is on shrub and grasslands that do not have much timber. We agree that innovative contracting mechanism such as Stewardship Contracting and other efforts that do not focus on merely offering timber volume for sale will be needed, and we believe you should direct the Forest Service to pursue these efforts vigorously including working with Congress where new authority may be necessary.

We understand that former Chief Dombeck has stated that no emergency money will be used to conduct commercial timber sales. We hope that on-the-ground managers do not interpret this prohibition to mean that they are not to conduct commercial timber sales, nor to interfere with their management prescriptions. According

to Forest Inventory and Analysis data, in the state of New Mexico, if every tree twelve inches in diameter and less were harvested, the forests of the state would still be significantly overstocked. We stress the need for environmental safeguards and proper planning when conducting management activities. Additionally, as Americans we should be proud to use timber from our national forests. Some of the best natural resource professionals in the world plan national forest management activities. They do so with an extensive public involvement process, and ensure strict adherence to environmental laws. Consumers should feel good about using forest products from national forests.

LOCAL DECISION-MAKING AND CAPACITY BUILDING

State governments share responsibility with their federal counterparts for the administration of many resources and public services within their boundaries. This intergovernmental partnership is critical for providing safe and effective responses to wildland fire, especially in the wildland-urban interface where initial attack is conducted by volunteer, local, county, state or federal firefighters regardless of where the fire started.

We fully support the overall approach to the issue espoused by the Western Governors Association. The Governors met face-to-face with the Secretaries of Agriculture and Interior in September 2000 and emphasized that their priorities for both short and long-term wildfire response are as follows:

- Full state involvement in all relevant planning, prioritization, decision-making and implementation processes at the national, regional and local levels;
- Funding and implementation of rehabilitation, hazard reduction, and ecosystem restoration projects across all lands, regardless of ownership; and
- Development and funding of a long-term (10+ years), intergovernmental strategy to address “the wildland fire and hazardous fuels situation as well as the needs for habitat restoration and rehabilitation in the Nation.”

Congress also recognized the importance of involving state decision-makers in the FY 2001 appropriations bill by stating in several instances that their involvement and capacity building was critical to the success of the effort. It appears that the states and the federal agencies have heard Congress on this point. There is an enhanced level of state-federal partnerships beginning to develop in many states as federal agencies are faced with the task of identifying projects and allocating increased levels of funding according to both Congressional and Administrative direction. We hope this process continues, and that the states and federal government begin to work together on many aspects of land management.

It is important to note that each of these partnerships has been strengthened by the availability of increased funding to state and community assistance programs. These additional dollars for cooperative fuels reduction on non-federal lands, for training and equipping of local fire departments, and for assistance to communities impacted by wildland fire greatly increase the ability of non-federal entities to participate fully in large-scale project planning and prioritization. Moreover, these are the critical components to reducing the risk to life and property in the wildland-urban interface, which is creating unprecedented levels of complexity for wildland firefighters from coast to coast.

While we believe the partnership between the state and federal governments continues to improve, we are anxious to see similar partnerships with local communities. Communities must be part of the solutions to our wildland fire issues, and we must build their capacity to be involved in these discussions. In many ways they have the most at stake, but the fewest resources and the smallest voice. This must change if the National Fire Plan is to be viewed as a success.

RESEARCH

Cost-effective and sustainable fire management depends on a sound and vigorous program of scientific discovery, validation, and application, and should include partnerships with colleges, universities, and private sector research units in order to reap the best and most effective results. Many of the key barriers to the implementation of the National Fire Plan stem from the lack of scientific knowledge about the effectiveness and the effects of fire and fuels management. Because of the increased incidence of extreme fires, the growing complexity of the fire management situation, and the vital link between fire management and land management policy, it is imperative that we have a strong research and development program.

Fire operations today benefit from wise investments made in fire research in previous years. But improvements to meet the future demands in fire management will

also require aggressive investment. Unfortunately, the R&D capacities of the USDA Forest Service and the Department of Interior have been severely constrained.

Examples of some of the key research questions that need to be explored include:

- Improving long-term forecasts for fire season severity and extreme fire events.
- Improving organizational effectiveness and safety practices.
- Effectiveness of Burn Area Emergency Rehabilitation (BAER) treatments on the risk of extreme water and mudflows.
- The effects of wildfire (with or without post fire treatments) on habitat for terrestrial, aquatic, and riparian species.
- Development of integrated silvicultural, processing, and marketing systems to economically reduce fire hazards.
- Utilization research at the Forest Products Laboratory designed to find value-added opportunities for small diameter wood.
- Effects of fuel treatment options on air quality, watersheds, habitat for threatened and endangered fish and wildlife, and public opinion.
- Better understanding of public knowledge, beliefs, and attitudes about fire and fire management.
- Knowledge of social and economic impacts of hazardous fuels reduction, fire rehabilitation and restoration activities.
- Understanding the barriers to fuel reduction—and the opportunities for utilizing economically marginal by-products of fire management.
- Learning new ways to reduce the vulnerability of communities and home.
- Fire behavior in complex fuels—understanding the impact of variability in fuels.
- Fuel moisture dynamics—live fuels and moisture effects that are not covered in existing models.
- Predicting fire injury to plants and soil—the basis for estimates of higher level, more integrated prediction.

The base fire research budget (FY 2000 and pre-Fire Plan 2001) for the Forest Service is about two percent of its fire expenditures. Total investment in fire research is only 1/4 to 1/2 of one percent of the total economic activity caused by fire, including suppression costs by federal and state agencies, estimated at \$5-10 billion per year. This is a pitifully small foundation effort for a so-called “science-based” program. The consequences of under funding R&D include inefficiency, vulnerability to litigation, reduced safety of firefighters and the public, and the possibility of large-scale ecological and economic mistakes. Congress, the administration, and the land management agencies need to work together to secure increases in funding, improve accountability, and restructure how these funds are allocated.

CONCLUSION

For this plan to be successful we must make long-term commitments to funding, remove barriers that prevent success, use all the management tools available, treat fire as a land management problem, involve local decision-making, and strengthen our research efforts. Too often we have searched for short-term solutions. Twelve years ago Dr. Jim Agee, a fire ecologist with the National Park Service, cautioned that:

“ . . . the large wildfire years, such as 1987 and 1988 in the West, will encourage innovative fuel treatments, but in several years’ time the threat of such fires will have diminished in the public’s eyes, while anxiety about potential prescribed fire control and smoke problems [as well as other fuel control methods] will be freshly renewed each season.”

While the challenges may seem huge, there is no doubt that failure will result in major damage to communities and our nation’s forests.

Last summers’ fires raged in part because policy gridlock has prevented forest managers from doing what it takes to address the conditions that lead to catastrophic wildfires. A forest manager can take steps to alleviate these conditions by removing combustible material and mechanically removing dead and dying trees from at-risk forests, particularly in the wildland-urban interface, and sensibly reintroducing fire to a landscape that has been starved of it for years. Forest managers have made mistakes in the past, and there is no doubt that we will make some in the future, but the current situation guarantees continued failures as managers are resigned to do very little to address these problems. We hope that this committee will continue to urge for adequate funding, and to explore changes in authority that will help end this gridlock.

Our Nation’s forests cover one-third of the land area of the country and are unequalled in their value to people and our economy. They are far too valuable not to be managed utilizing the best science and experience possible. Forest resource

management decisions that we make today will be reflected in the forests of the 22nd century and beyond. We must do it right today if we are to maintain the integrity and productivity of these forests in perpetuity.

Senator CRAIG. Doctor, thank you very much.

A couple of questions. I know the hour is late and you all have been very patient. I apologize for the timing here today.

For the record, I am curious. How many of you as individuals or organizations supported the Clinton administration's National Fire Plan and what is now known as the Domenici-Feinstein Happy Forest Urban Interface Fire Reduction Program? Did The Wilderness Society support those, do you know?

Dr. BANCROFT. We support the fire plan. We think it is a very impressive plan and it needs some more work on it. I am not familiar with the other. I would have to get back with The Wilderness Society and ask some other people on that.

Senator CRAIG. I would like to know.

Steve.

Mr. HOLMER. American Lands feels like the fire plan could be improved.

Senator CRAIG. Did you support it originally when it was being talked about and implemented and then we were funding it?

Mr. HOLMER. Yes, we were very involved in the discussions about it. There is a serious lack of accountability. If the agency does not do the fire plan, for example, there is no repercussion. So, we would like to see a little greater accountability built into the plan.

We opposed the Domenici amendment last year primarily because it lacked the kind of environmental safeguards that we felt were necessary to allow us to support it. If there had been a clear definition of the urban/wildlands interface, a clear limitation on the cutting of large trees, limitations on entering roadless areas and riparian zones and habitat for threatened and endangered species, we could have probably supported that, but none of those safeguards were written into the language.

Senator CRAIG. Mr. Nelson.

Mr. NELSON. I believe we have supported it, yes.

Dr. SMITH. As a society, we do not support per se. We are looking at and evaluating the implications of the bill and how it might impact on the resource from a biologic aspect, from a social aspect, and from an economic aspect. So, there are parts that we agree with based on those three parts and parts that we do not agree with.

Senator CRAIG. I asked the question for what probably is the obvious reason. To support the plan and be effectively critical of it is one thing. To not have supported the plan and be critical of it in my, I hope, objective opinion is somewhat different. If you are critical in the beginning and you are still critical, it means you cannot be very objective in offering good advice. I am being a bit blunt, Steve.

I find it fascinating at a time when we are struggling to change the entire dynamics of forest management in a direction that you have been an advocate of for some time, that there does not seem to be anything that quite works, at least in your definition. I do not mean to single you out.

I spend a great deal of time with climate change. I spend a great deal of time in Western Europe trying to keep the Europeans and everybody else from disallowing us to use our forests as credits for sequestration. I do know that a healthy vibrant forest is much greater a sequester of carbon than an old, dead or dying forest. In fact, the sequestration models that we are working on now I think are going to come back even suggesting scientifically that our forests may even sequester more carbon than was originally thought.

So, I am not quite sure I understand the dynamics. If we are interested in using our forests for environmental purposes and one of those being the ability to sequester carbon—because as hard as we try, I doubt that we will ever get our carbon levels down, unless we shut our economies down to a post-99 or less level, but we should work to try through technologies and all other things and through the vibrance of a healthy forest that has a capacity to sequester. I do not know how you get there if in the end you have forests that are going to be subject to catastrophic fires that wipe out vast acreages and put millions of tons of carbon in the air when we might be able to extract carbon and keep it from getting into the atmosphere if we are cautious about how we handle it.

It is a bit of a side note from where we are with forests, but I believe, my friend, it directly relates today more than it ever has before.

Mr. HOLMER. Yes. I think we do need to take a broad perspective. It is our understanding on the sequestration question that in fact old growth forests are where you have the highest level of carbon. In fact, in logging of old growth forests, you see a substantial release. I know that some people would argue that by keeping things in forest products, that in fact we will sequester the carbon that way.

Senator CRAIG. A little.

Mr. HOLMER. When this stuff goes into a landfill, it creates methane which is an even more powerful greenhouse gas. So, I do not think the science will really support that view either.

We are interested in seeing real restoration, but in our view that often means taking what we consider to be harmful things out of good places. So, that might mean taking the cows out because the cows have been shown to increase fire risk over time. That means possibly taking roads out because the roads are not being maintained, but also humans are the highest reason you have fires. Some 88 percent of all fires are human caused. So, if you remove a road from an area, you might actually reduce the risk of an ignition in that area.

We just think that there are other areas where the emphasis should be prioritized. If we are talking about thinning and the cutting of trees, again if that is happening in the urban/wildland interface and there is not a commercial incentive to cut big trees, to cut too many trees, that is something that our community is likely to say, okay, you can go ahead and do that.

But if it gets outside of those boundaries, I would say we are going to have to look at each project. Some of the projects that you mentioned are not acceptable and they are going to be subject to the usual contestation appeals and litigation, et cetera.

Senator CRAIG. Well, Steve has kind of suggested the jump ball question. Do any one of you wish to comment on that before we adjourn the committee?

Yes, Dr. Smith?

Dr. SMITH. I would like just to amplify your comment concerning the sequestration and all the issues involved in old growth. I think we have to keep in mind that old growth dies and something has to take its place. It is like any population. There are new individuals, medium-aged, old-aged, and they keep rotating from place to place. We have choices. We can use wood or it will burn or turn to carbon dioxide and water. That is the cycle. That is going to happen.

And we have to be very much aware if we do not use wood in a manner that we know we can, environmentally sound, then we have to look at the substitutes and what are their costs environmentally in terms of energy, carbon, when we go to using steel, aluminum, plastics, oil products and so on that do much greater in terms of their energy consumption than using wood which we know is recyclable and we can grow it and we know how to do that.

Senator CRAIG. Thank you.

Yes.

Dr. BANCROFT. I just wanted to say that we have been very supportive of several of the projects. We have worked a lot over the last year on the Lakeview project in Oregon. Mike Anderson, who has been here and talked in front of you several times in the past, has been down there working extensively on that. We think that was a great opportunity.

We also liked some of the projects in Idaho, the Silver Creek project in Boise National Forest and the Danskin and Gallagher fuel reduction projects. All of those appear to be good restoration projects focusing on thinning and reintroducing prescribed fire.

We are also concerned on other projects like the Upper Platte project in Colorado where it is proposing, under the guise of restoration, to actually take out a lot of timber, including extending into roadless areas. So, we are really concerned when you get some of those big projects and they are not focused on restoration but more focused on timber harvesting.

On your earlier question, I just wanted to say we are also very concerned about the contracting procedures in that we need to separate the actual removal of thin material from the selling of that. We think we may need to readdress some of those contracting procedures.

We also agree that we need multi-year funding. It is hard for the Forest Service and these communities to plan into the future without some multi-year funding.

Senator CRAIG. Thank you.

Mr. Nelson, any additional comments?

Mr. NELSON. Yes. I agree with your comments on the sequestration, but I think that that is a bit more complicated than really the issue at hand here. The fact remains there are 72 million acres that the Forest Service has identified that are at risk of burning up in a wildfire. What we are trying to do—we being foresters and the Forest Service itself—are trying to come up with a strategy to reduce that risk. So, if nothing else, I want to make sure that we

leave you with the magnitude of this problem. That is a lot of acres out there, and even though the Forest Service is doing 2 million acres a year, it is going to take a long time even at that rate.

I would also like to add that the community panel that was up here—I have been involved with the Quincy Library group since 1993, 8 years.

Senator CRAIG. I know you have.

Mr. NELSON. We have done all those things. We excluded the California spotted owl areas. We excluded the riparian areas. We excluded the old growth areas, the roadless areas. We did all that. There were still a number of groups, two of which are on this panel, that opposed it right down the line, and it has yet to be implemented. So, I would say to you that we are on the right track, but we have to keep pushing forward here.

Senator CRAIG. Well, thank you all very much for your time and your testimony. We appreciate it.

Before I adjourn the committee, I wanted to introduce this group of young people who came in. Last year as Idaho citizens, some of them, they witnessed our skies turn black in Idaho with wildland fires that burned nearly a million acres of land in my State of Idaho, and to devastating environmental results, tragically enough.

They happen to be an ag class from the College of Southern Idaho, and a few of them might end up being ranchers that would want to graze a few cattle, Steve.

[Laughter.]

Senator CRAIG. That is the options in this business that we have to work with.

Anyway, thank you all very much for your testimony, and we will stand the committee at adjournment.

[Whereupon, at 5:42 p.m., the hearing was adjourned.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

OWENS & HURST LUMBER CO., INC.,
Eureka, MT, March 13, 2001.

Senator CONRAD BURNS,
Chairman, Appropriations Committee Subcommittee on Interior, Dirksen Senate Office Bldg., Washington, DC.

DEAR SENATOR BURNS: I submit my testimony today on behalf of my community, a town that is laden with fear, apprehension, insecurity and distrust. Quite simply, Eureka, Montana, is going broke. Federal land management policies are bankrupting our schools, our historic way of life and more tragically, our spirit.

Central to our community is a sawmill. A mill that for the past 20 years has produced a majority of its product from dead and dying trees harvested initially from the Kootenai National Forest and more recently from the burned forest of Northern Alberta.

On January 18, 2001, the mill permanently laid off approximately 40% of its workforce, the primary reason being the unavailability of reasonably priced logs. Certainly, the current poor lumber market, brought about by foreign imports, was a contributor; but the fact remains, if the mill can process a cheap log, it can produce cheap lumber. Owens and Hurst has a dwindling supply of timber and most of it is expensive as a result of declining timber sales which fosters intense competition.

Seven miles from the mill is the beginning of a charred forest created by last summer's fires, 25,000 acres containing enough timber to run the local mill for 3 to 4 years, 25,000 acres with a transportation system in place, none of it in roadless designation. The blackened and deteriorating timber still stands as the Forest Service plods through the lengthy NEPA process. Forest officials estimate the timber will be offered for sale this fall after it endures a long hot summer which will cause a massive amount of deterioration and a resultant loss of value. By their own estimates, nearly one third of the timber will be wasted this summer, a loss to the Federal treasury of over \$2,000,000.

In summary, as it now stands, the process is not acceptable, there are 25,000 acres of burned trees in a roaded area of the forest that need to be treated immediately. There is a willingness within our community supporting such an effort in addition to urban interface fuels reduction work. The pieces, parts and players are all in place, now the USDA Forest Service needs to perform their duties as responsible and responsive forest managers. Otherwise, while the Forest Service fiddles, Eureka will burn—again.

Thank you for allowing me the opportunity to provide input to the subcommittee.
Sincerely,

JIM HURST,
President.

PYRAMID MOUNTAIN LUMBER INC.,
Seeley Lake, MT, March 14, 2001.

Senator CONRAD BURNS,
Chairman, Interior Appropriations Sub-Committee, Dirksen Senate Office Bldg., Washington, DC.

DEAR SENATOR BURNS: Pyramid Mountain Lumber, Inc. is a small, family owned business in the rural community of Seeley Lake, Montana. We have survived without a fee land base by developing and maintaining long term relationships with landowners, professionalism, vision and through the commitment of the Johnson Family and the Mood Family for over 50 years. Pyramid is proud of its 140 employ-

ees and the more than 200 related jobs in logging, trucking, road building and various other support positions. We are optimistic about the potential for the Forest Products industry in Montana but, very concerned about the continued neglect of National Forest Lands and lack of active forest management.

Fires of 2000, which blackened thousands of acres of Montana landscape, produced challenges but, also opportunities. The opportunities come from the strong broad based public support for active management to reduce forest fuels—including green sawlogs and salvaging forest products as soon as possible. The Forest Service is responding under the same tedious, cumbersome process which not only wastes natural resources but also, delays actions on the ground which would facilitate the recovery of these burned forests, reduce the public safety hazards, and restore healthy forests.

Example:

Pyramid Mountain Lumber, Inc. third partied a Forest Service timber sale named Bear T.S. on the Bitterroot National Forest from Derby Lumber, Inc. in the fall of 1999. The entire 5300 acre sale area located between Sleeping child and the Skalkaho burned in August, 2000. Although Pyramid had not planned any harvest on Bear T.S. in 2000, we immediately expressed our interest in salvaging as soon as possible to recover the value in Ponderosa Pine and Douglas Fir. Approximately 50% of the logs we process in our converting facility are Ponderosa Pine which lose a minimum of 25% of their value when the logs become blue stained the next Spring after death by fire.

Forest Service Foresters, Fire Specialists, Hydrologists, Soil Scientists, Wildlife and Fisheries Biologists, Engineers and Landscape Architects quickly reviewed the burned over Bear Drainage and came to resolution on treatments to salvage log and rehabilitate the drainage, including our 5300 acre sale area. Under the Catastrophic Damage Clause in all Forest Service contracts, the Contracting Officer has a great deal of flexibility and authority to resolve situations such as the Bear T.S. Historically, the agency would modify the contract—taking into account loss in values, increased, logging and manufacturing costs, and the need to act promptly to treat the sale area and expedite the recovery process on their forested landscapes.

November, 2000 Pyramid was offered 3 options which OGC was willing to defend the Forest Service on in court as advised by the Department of Justice.

Option 1: “Cancellation by Mutual Agreement” which is always an option and requires no decision.

Option 2: Remark sale unit boundaries and trees to cut on 275 acres to represent the exact harvest prescription before the area burned and adjust contract rates to reflect increased logging and manufacturing costs and loss in value. This option includes harvesting green Douglas Fir which did not burn but, were to be cut under the original sale design. No new decision made.

Option 3: Do Nothing. Wait for at least 12-18 months until the EIS is complete for the entire Bitterroot, assuming no appeals or litigation.

Pyramid preferred Option 2 even though, the logic behind this alternative was incredibly conservative and not consistent with Professional Forester’s and Specialist’s opinions. The options were constrained by process and political agencies in Washington, D.C. but, Option 2 did provide a small volume on 5% of the burned over sale area which helped Pyramid operate its plant through the winter and provide high paying jobs in the small town of Seeley Lake. A normal interpretation and implementation of the Catastrophic Damage Clause would have produced enough additional volume in merchantable sawlogs to operate our mill for 4½ months.

Small mills, such as ours, not only provide employment and the basis for economic diversification in rural communities but, also, we provide the infrastructure for Federal, State and Private Forest Landowners to actively manage their forested lands and maintain forest health, reduce forest fuels, provide defensible space, and implement restoration forestry treatments. We provide the outlet for forest products produced from such treatments which helps offset the tremendous cost of forest management. At the same time, we are supplying solid wood products to meet the demands of society and also, we’re providing raw materials in the form of chips, shavings, sawdust, and hog fuel to plants producing paper, particleboard and power.

Senator Burns, Pyramid appreciates your interest and attention in expediting salvage, active forest management and restoring our nations forests to a healthy condition. Time is of the essence, consequently, I have included a list of possible solutions to help expedite the processes which have constrained the Forest Service Profes-

sional's performance in managing this country's forests on behalf of the public. Should you or your staff have any questions, please contact me at your convenience. Respectfully,

GORDON SANDERS
Resource Manager.

OWENS & HURST LUMBER CO., INC.,
Eureka, MT, March 15, 2001.

BOB CASTANEDA,
Forest Supervisor, Kootenai National Forest, 1101 U.S. Hwy. West, Libby, MT.

DEAR BOB: Thank you for requesting my economic evaluation regarding the 25,000 acres of burned timber near Eureka from an action versus no action perspective. As you know, over six months have elapsed and the charred timber still stands, losing value every day. By the Forest Service's own admission, at least 11,000,000 board feet of timber will be ruined if removal isn't expedited, a volume that would supply our mill for five months on our current reduced operating schedule. As you are aware, this timber is located in an area that has a transportation system in place.

If the 11,000,000 board feet were saved, it would in essence save 65 jobs for nearly half a year, producing wages of approximately \$1,500,000 at the mill plus another \$500,000 or more in the woods for harvesting and restoration efforts, not to mention the Forest Service jobs associated with the project. Using the revolving multiplier, that could mean seven to ten million dollars worth of economic activity in Eureka and surrounding communities. Coincidentally, the Forest Service will lose the revenues from the sale of timber, revenues that could be returned to the land in the form of forest restoration activities, activities that will eventually be a cost to the Forest Service if no action is taken.

In addition, had the burned timber been offered for sale in the fall of 2000 (as the state of Montana did) it would have probably prevented the permanent layoff of 40 workers at our company, a loss of over \$1,500,000 in wages annually in the Eureka area. As a sidebar, local businesses have also been reducing their workforce and their hours, of operation, not to mention the school district has amended its free lunch program to accommodate residents who no longer can afford to provide lunches for their children.

I have addressed the projected waste of wood, delayed restoration efforts and job losses resulting from the loss of 11,000,000 board feet; at the same time, I am very concerned about the continued deterioration of the wood left standing. You should realize by now that as our forests deteriorate so does our customary way of life. Social values change, crime becomes more predominant and county government incurs the burden of providing more and more services with less revenues.

There will be a substantial negative economic consequence to the Eureka area if the remaining burned timber is not advertised for sale in an expedited fashion, while it still has enough value to turn it into lumber of a quality that allows our company or others to compete with lumber produced and imported by foreign countries.

To be quite blunt, I will assess the direction of the USFS timber sale program this summer, focusing on the fire areas. Based upon your performance I will make a decision either to go to auction or keep operating. In good conscience I cannot let the lives of my employees hinge on false hopes created by flawed projections and missed deadlines which have become all too common within the Forest Service. The devastation caused by our closing would be of a magnitude not felt in this area since the Great Depression. To elaborate, the job count would go like this:

Owens and Hurst Lumber Company	65
Lone Pine Timber Industries	35
Four logging contractors	20
Independent log haulers	10
Eureka Pellet Mills	30
Total industry related jobs	160

The elimination of one hundred and sixty jobs would suck approximately six million dollars, in wages only, from a local economy that is already staggering from the loss of forty positions. The societal upheaval that would result from such an unnecessary event is unimaginable.

From a forest health standpoint, the demise of yet another mill creates problems of a huge magnitude for the Forest Service. If the agency takes an aggressive move

toward forest health restoration projects the necessary infrastructure to do the work and process the material will be lost, as evidenced by similar situations in New Mexico and Arizona. What will be the resultant cost to the government and the environment?

Your people openly admit that without a mill in Eureka their opportunities for improving forest health diminish greatly. They have also expressed deep concern about their ability to fight wildfires without the expertise and equipment provided by our local logging contractors.

In summary, facts indicate that if 11,000,000 bf of timber is wasted, a loss of \$7,000,000 to \$10,000,000 in economic activity plus other negative consequences will be the result. Regarding the remaining volume of burned timber, it is imperative to remove fiber and begin the reforestation process rapidly, to delay has ominous consequences neither you or I can fully comprehend.

Thank you,

JIM HURST.

FOREST TRUST,
Santa Fe, NM, March 29, 2001.

Senator LARRY CRAIG,
Subcommittee on Forests and Public Land Management, Attention: Calli Daly, Hart Senate Office Building, Washington, DC.

DEAR SENATOR CRAIG: Enclosed are comments of the Forest Trust on implementation of the National Fire Plan. Please include these comments in the record for the Subcommittee on Forests and Public Land Management's hearing of Thursday, March 29, 2001.

Sincerely,

LAURA FALK MCCARTHY,
Assistant Director.

[Enclosure].

STATEMENT OF LAURA MCCARTHY, ASSISTANT DIRECTOR, FOREST TRUST

On behalf of the Forest Trust, a New Mexico-based organization dedicated to protecting forest ecosystems and improving the lives of people in rural communities, I am pleased to share our observations about how the national fire plan is being implemented in the Southwest. Our staff includes seven professional foresters and we work principally with rural communities, landowners, and Forest Service personnel to meet our goals.

We have noted several wide discrepancies between the plans and progress reports prepared by the national fire team and implementation of the national fire plan in the Southwest. In this testimony, I will provide specific examples of what we have heard the national fire team say and how we have seen their direction carried out in our region and in New Mexico in particular.

FOCUS ON REDUCING FIRE THREAT TO COMMUNITIES AT RISK

The national fire team published a preliminary list of communities at risk in the Federal Register of January 4, 2001 as a first step to ensure that agency efforts focus on reducing fire risk in the areas adjacent to these communities. The national fire team also requested that each national forest provide a list of fuel reduction projects analyzed in accordance with the National Environmental Policy Act (NEPA). Projects on these lists are considered top candidates for implementation in FY 2001 with Title IV funding. However, the Forest Service has not outlined a procedure to ensure that these projects will benefit the communities at risk.

To illustrate this concern, I compared the list of NEPA-ready fuel reduction projects for the Santa Fe and Carson National Forests to the list of communities at risk that was published in the Federal Register. I found that only 6 of the 40 proposed NEPA ready projects are in communities at risk. The implication is that it is more important to meet the fuel reduction target for 2001 than to ensure that the funds for fuel reduction treatments benefit the communities most at risk.

TAKING ACTION IN THE URBAN WILDLAND INTERFACE

The Federal Register publication suggests that one definition of the urban wildland interface be adopted. However, some regions and national forests have already created their own definitions of urban wildland interface and are using them to plan fuel reduction treatments. I asked a number of Forest Service personnel in

Region 3 their opinion of the proposed definition. Most were unaware that a draft definition had been published in the Federal Register. One person who knew of the definition informed me that the selection would make little difference to decisions about where to implement fuel reduction treatments. I found this comment disturbing because without a standard definition of urban wildland interface, there will be no consistency in the use of emergency fire funds. Furthermore, the attitude that such a definition will make no real difference is indicative of the disconnect between the national fire team's rhetoric and the way the fire plan is being carried out on the ground.

The selection of a definition of urban wildland interface will guide the agency's decisions about where to apply fuel management treatments and how to expend the emergency funds. For example, the definition of urban wildland interface will determine whether emergency funds can be used to thin forests that are categorized as high-risk but are miles from population centers. In another example from the Southwest, the Forest Service drafted a preliminary list of fire prescriptions for vegetative types within the urban wildland interface. The prescriptions call for using basal area standards instead of silvicultural guidelines to thin a diverse range of ponderosa pine and mixed conifer forest types. Reducing basal areas to 40 to 60 square feet per acre may be indeed be needed in densely populated areas, but is not necessarily appropriate in rural settings with scattered structures.

The definition of urban wildland interface is a significant policy decision and the Forest Service needs to involve the public in its formulation. The process proposed in the Federal Register is reasonable and should be taken seriously within the agency. Once a definition is adopted, the Forest Service will need to assure that all levels of the organization use the definition in the same manner.

COLLABORATION WITH CITIZENS AND GOVERNMENT AT ALL LEVELS

The conference report for the 2001 Interior and Related Agencies Appropriation Act explicitly directs the agencies to collaborate with state, local, and tribal governments and citizens. My observation of the Southwest is that some collaboration is taking place, but that it is limited to relationship building among the various levels of government. While many see interagency collaboration as welcome progress, the Forest Trust is concerned that citizens and community groups are being left-out of the process. For example, a recent meeting in Albuquerque, NM to kick-off national fire plan implementation in the Southwest was well attended by State, Tribal and local government officials, but few community representatives were informed of the meeting. When I learned of the meeting, I made three attempts to get information about it. I was first told, by a regional fire plan coordinator, that the meeting was by invitation only. Despite the fact that the regional fire team intended the meeting to be open to the public, the message I received was that the process was closed.

Collaboration is a Congressional expectation that is hard to measure. Furthermore, it takes a considerable amount of time to foster. Yet, the Forest Service needs to be accountable for the collaborative goals in the Appropriation Bill, even if that means emphasizing relationships with communities over quick accomplishment of targets.

Experience in the Southwest has demonstrated that projects that are planned and implemented without collaboration are more likely to end up in an appeal. By contrast, when planning proceeds slowly and involves many stakeholders, there tend to be fewer impediments to implementation. Thus, we recommend that the Forest Service be asked to create some measures of successful collaboration to accompany the accomplishment reporting to Congress.

FOCUS OF FIRE-RELATED RESEARCH

The Title IV funds present a great opportunity to shift the Forest Service's focus away from research-as-usual to address the compelling need for information about the effectiveness of fuel management treatments. Ross Gorte of the Congressional Research Service pointed to one of the most significant research needs in his memo of September 20, 2000, where he states that "It is logical, and widely accepted, that reducing fuels will reduce the severity of wildfires, but no research literature documenting this relationship has been found." Therefore, we were surprised to learn how few of the research projects funded by Title IV address the effectiveness of fuel management treatments at reducing fire intensity and the frequency and severity of crown fires. The majority of research projects are not directly linked to the issues raised by the 2000 fire season, for example research about fire in Northeastern oak forests. We are concerned that little of the authorized research will be useful to inform management decisions in the forests that are most at risk of catastrophic fire.

VIEW FROM THE FIELD

The view from the field is that implementation of the national fire plan is progressing rapidly and unevenly. The Forest Trust appreciates the difficulty of the implementation task and commends the Forest Service for its efforts to get the job done. We are grateful for the opportunity to share with the Subcommittee our observations of the discrepancies between the intent of the national fire team and how the fire plan is being carried out on the ground. We do this not to be critical, but to provide information that will be useful to evaluate the progress of program.

THE WATERSHED RESEARCH AND TRAINING CENTER,
Hayfork, CA, March 31, 2001.

Senator LARRY CRAIG,
Chairman, Subcommittee on Forests and Public Land Management, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: Thank you for the opportunity to testify at the hearing on March 29, 2001 on the National Fire Plan. Your commitment to ensuring that communities have a voice in the process is extraordinary. It was empowering to be on a panel with four other community leaders struggling with the same issues my community faces.

The purpose of this letter is two-fold. First, I would offer some additional thoughts on how the fire plan can serve as a component to our greater efforts to rebuild rural communities. Second, I would like to augment my answer to your final question regarding the National Fire Plan and the criteria for building a sustainable local industry to utilize the by-products of fuels reduction and ecosystem restoration projects.

While we are very enthusiastic about the National Fire Plan, and applaud the investment that Congress has made, we recognize that the land management agencies need a consistent program of work for all aspects of forest restoration and maintenance. These include vegetation management to restore water quality and quantity, protection of wildlife and aquatic species habitat, soil integrity and other critical components that are necessary for critical ecological processes to take place. We hope that the National Fire Plan serves as a way to focus work around hazardous fuels reduction but recognize that its effectiveness will depend on the agency having a consistent program of work in all its program areas.

In response to your question, I would like to add the following into the record:

1. Working Together for Rural America: 2000 and Beyond

Part A—Integrating Natural Resource Management and Rural Community Assistance A strategic plan for the USDA Forest Service Economic Action Programs September 2000—FS-681 (attached)

This strategy was written through a collaborative stakeholder process, which provided information for the formation of this plan. It outlines an approach to reconnect people in rural America to a working landscape through activities of the Rural Community Assistance Program, the Forest Products Conservation and Recycling Program, and the Market Development and Expansion Program. The current challenge is to integrate these EAP (Economic Action Program) components with the land management activities of the National Forest System. Please ask the National Forest System leaders to help you understand how they are helping to implement the goals of this strategic plan as they carry out the National Fire Plan.

2. Our sense of the essential elements to help create community-based approaches to economically sustainable and self-financing small scale industries in rural areas in relation to the fire plan are:

A. A consistent program of work from the Forest Service and BLM, including vegetation management for hazardous fuels as well as other necessary watershed restoration work, including wildlife habitat rehabilitation, stream restoration, noxious weed removal, road work data collection, sustainable forestry, and monitoring.

B. The expansion of the Economic Action Programs of Cooperative Forestry. These programs are usually under-funded and heavily earmarked. They are extremely critical to the development of community-based, small-scale business development. They need to be available to more rural forested communities. Community assistance to both federal lands communities and private forest land communities is essential for the successful implementation of a fire plan integrated with landscape level restoration activities and community fire protection.

C. The expansion of the amount of technical expertise available from the Madison National Forest Products Laboratory, the Forest Service Research Stations, and University Extension Research Units. These institutions have proven invaluable as

local communities have searched for the highest and best use of bio-mass from fuels reduction and forest restoration activities.

D. Credit, business assistance, and marketing assistance from focused application of existing EDA, RDA, and SBA programs, including revolving loan funds.

E. Pilot projects in small-scale bio-mass electrical generation plants integrated with local value-added manufacturing plants. A percentage of the net revenue from each plant should contribute to a “watershed restoration and maintenance trust fund” for long-term forest health activities (through the FERC license negotiations).

F. Focused application of SBA Hub-zone contracting authorities for both BLM and the Forest Service as they award service contracts related to the National Fire Plan Title 4 projects.

G. It is essential for us to understand the outcomes of the implementation of the National Fire Plan and specifically how the social, economic, and ecological goals are being met. A monitoring report for Congress should show:

MEASURES OF SOCIAL IMPACTS: WHO GETS THE WORK AND WHO BENEFITS

1. How many BLM and FS new hires under the Fire Plan came from HUB-Zone counties? Hub-Zones are census blocks which significantly exceed the state averages in poverty and unemployment. They are a SBA designation.

2. How much bio-mass was utilized in businesses within the county where the fuels reduction project was implemented.

3. What percentage of contracts were awarded locally (within the county where the work was implemented)? What percentage of contract dollars were awarded locally.

4. What percentage of contracts were awarded using the new Title IV Authorities.

5. How many acres were treated which were identified in a community-based fire plan integrated with an agency strategic fire plan or another landscape level strategic fire plan.

MEASURES OF ECONOMIC IMPACTS OF THE FIRE PLAN

1. How many new businesses were established in value-added manufacturing and service contract work.

2. What percentage of bio-mass removed in fuels reduction projects was utilized.

MEASURES OF ECOLOGICAL IMPACTS OF THE FIRE PLAN

1. How many communities-at-risk have completed fuels treatments adjacent to them which significantly alter the behavior of fire on the landscape as revealed through fire behavior modeling, comparing pre-treatment behavior to post treatment behavior. (In other words, was the scale of the fuels reduction treatments sufficient to alter fire behavior. The only way to check is through fire behavior models.)

2. What percentage of the fuels reduction treatments (prescribed fire, mechanical treatments, mechanical treatments with fire) met the full management prescription. How many treated areas met with water quality soil covering standards and water quality “best management practices”.

Thank you for the opportunity to add to my testimony of March 29th. Together we can re-build the workforce and manufacturing infrastructure for a sustainable rural America as we continue to use “small-scale” approaches on a large scale.

Sincerely,

LYNN JUNGWIRTH,
Executive Director.

STATEMENT OF RICK BROWN, CONSERVATION SCIENCE SUPPORT CENTER, AND
GREGORY APLET, PH.D., THE WILDERNESS SOCIETY

INTRODUCTION

Much of the forest landscape in the Intermountain West has been transformed. Beginning with livestock grazing in the second half of the 19th century and continuing with decades of logging, road-building and fire exclusion through the 20th century, these changes have degraded watersheds and habitat for fish and wildlife. These altered forests also respond very differently to fire, sometimes to the further detriment of fish, wildlife, and watersheds, as well as endangering the lives and property of people who have chosen to live within and adjacent to forest lands.

While these problems can appear daunting, methods to address many of them are being developed and refined. Unfortunately, progress lags behind potential for a host of reasons including institutional inertia, commercial pressures, inter-agency

conflicts, budgetary limitations, lack of political will, and the aesthetic preferences of individual landowners. Ecological problems are pervasive, and in one sense restorative actions taken almost anywhere would provide some benefit. In light of the risk of loss of populations and species of fish and wildlife, the needs of local human communities, and limited resources available for restoration efforts, what is needed are strategically focused, integrated approaches that will get maximum benefits for a given cost while minimizing unintended adverse effects. Focusing treatments in high priority areas while integrating aquatic, terrestrial, and socio-economic considerations should increase the probability of success of restoring healthy landscapes.

Neither haste nor hesitation is acceptable. Millions of acres in the Intermountain West could use some form of treatment (including simple rest from past and ongoing abuses) if we are to avoid unacceptable effects on wildlife, fish, and human communities. Problems 150 years in the making will take many decades to correct. The needs are great and our knowledge is adequate to begin but the gaps in our knowledge are so substantial that these tasks must be approached with humility and a commitment to learn from both our successes and mistakes.

FOREST TYPES AND CONDITIONS

While the character and distribution of forests are determined by a complex of factors, including differences in slope and aspect, the distinctive responses of each species of tree to environmental factors, fire history (including burning by Native Americans), and climatic variation, discussion of the role of fire can be facilitated by a simplifying characterization of Intermountain forests. Generally, lower elevations are dominated by dry forests of ponderosa pine (and sometimes larch and Douglas-fir). Historically, these forests were shaped by what is sometimes referred to as a "stand-maintenance" fire regime of low-severity, frequent fires that generally burned grasses, brush, small trees, and fallen needles and branches, but had little effect on older trees with thick insulating bark. Death of lower branches from shading or the effects of fire raised the bottom of the canopy to the point where it was not adversely affected by the typical fire. Periodically, small groups of older trees were killed by bark beetles and, often after falling, would be consumed by fire. This would leave exposed mineral soil and an opening in the canopy, ideal conditions for establishment of a group of young pine trees, which would be thinned by competition, insects, disease and fire as they grew older, eventually replacing the patch of older trees that previously occupied the site. This dynamic would repeat across the landscape, producing extensive stands of large old trees that appeared even-aged but were actually comprised of many patches of trees of different ages (Weaver 1943). The clearing effects of fire produced the classic "park-like" stands of old-growth pine described by early settlers.

While some areas still resemble historic conditions, it is these dry-site forests of ponderosa pine that typically have been changed the most by human activities in the last 150 years. Livestock grazing depleted the fine fuels that carried the light, frequent fires, while their hooves exposed mineral soil seedbeds for young ponderosa pine (Swetnam et al. 1999). Fire suppression, beginning after 1910 and becoming effective around 1940, allowed far more of these trees to persist, while logging removed most of the large old trees. These forests may have been deprived of ten or more natural fire cycles. The result is forests that, due to continuing fire suppression, tend to burn less frequently, but when they do burn, the fire is much more likely to reach the forest canopy and spread as a crown fire, killing many or all of the overstory trees. A historically low-severity fire regime has turned into a high-severity or mixed-severity fire regime, a change that has occurred over millions of acres in the West (USDA Forest Service 2000a, Skinner and Chang 1996). These higher severity fires are more apt to have detrimental effects on soils and watersheds, as well as wildlife habitat. They can also have serious implications for humans who have chosen to settle in and around these forests.

Mid-elevation forests are more difficult to describe in general terms. Cooler, moister conditions allow less drought- and fire-tolerant species such as grand fir and white fir, as well as Douglas-fir, western larch and ponderosa pine, to grow in these areas. In some areas presettlement fire patterns produced ponderosa pine-dominated stands similar to the drier forests at lower elevations. Complex species distributions and variable environmental conditions produce a "mixed" fire regime in which fires could range from low to high severity, depending on fuel buildup, weather conditions, and topography, producing a "mosaic" of stand conditions and wildlife habitat that would shift across the landscape over time. These mid-elevation forests, which tend to be the most productive, have been heavily altered by logging and road-building, and fire suppression has allowed the development of more dense, multi-storied forests on more of the landscape. The fire regime can still be described

as mixed, but the relative proportion of fire types has shifted, and severe fires are more likely to occur on more of the landscape than they would have historically.

At still higher elevations, forests of subalpine fir, Englemann spruce, mountain hemlock and lodgepole pine predominated. These forests are slower-growing, but cool, moist conditions generally caused significant fires to be infrequent, allowing greater accumulations of wood. The fire regime for these forests can be described as weather-dominated in that high fuel loadings are typical and the fire events that determine forest patterns occur under uncommon, extreme weather conditions that can result in stand-replacing fires over large areas (Agee 1997b). While logging and road-building have had some very detrimental effects on these forests, the fundamental dynamics are relatively little-changed since fire suppression has been effective for less than one natural fire cycle. Fuel levels may suggest a high fire "hazard" under conventional assessments, but negative ecological consequences of wild-fire are likely to be minimal, as demonstrated by the Yellowstone fires of 1988 (Romme and Despain 1989, Knight and Wallace 1989).

RESTORATION GOALS AND PRIORITIES

There appears to be broad agreement that some form and degree of restoration of habitats, populations of fish and wildlife, productivity of soils, integrity of watersheds is appropriate. One commonly suggested approach is to restore landscapes to some semblance of "presettlement" conditions, within their "historical range of variability." As Swanson and others (1994) put it, "A key premise of ecosystem management . . . is that native species have adapted to and, in part, evolved with the natural disturbance events of the Holocene (past 10,000 year) environment. Accordingly, the potential for survival of native species is reduced if their environment is pushed outside the range of its natural variability." While attempts to strictly recreate conditions of the past will often be neither desirable nor feasible (Hessburg et al. 1999, Swanson et al. 1994), careful determinations of past conditions can help clarify the types and extent of changes that have occurred in ecosystems, and help inform the identification of management objectives and restoration priorities. Understanding historical condition is also critical to the concept of "ecological integrity" (Angenheier and Karr 1994), which looks beyond forest structure to incorporate the essential components basic to ecosystem sustainability: soils, water, species and habitat diversity, resistance to disturbance and evolutionary potential (Perry 1998). Effective communication across traditional disciplinary boundaries will be essential to the determination of appropriate restoration goals based on historical conditions.

Ecological restoration efforts are often categorized as either active or passive. Passive restoration is the "cessation of . . . activities that are causing degradation or preventing recovery," (Kauffman et al. 1997) and can be considered the first step in restoration (National Research Council 1996). The primary techniques employed in active restoration include thinning of undesired trees and other vegetation, the intentional use of fire, closure and obliteration of roads, control of off-road vehicles, improved livestock management, in-stream work, and noxious weed control. Though all of these actions are critical to comprehensive ecosystem restoration, we focus our discussion here on the two techniques most frequently discussed for the Intermountain West, thinning and prescribed fire, and we offer recommendations for their use.

Focus on water and watersheds

The high value of water, the widespread degradation of watersheds, and the prevalence of at-risk populations of fish require that these values receive special consideration in forest management decisions, including forest restoration. Strategies for conserving both aquatic and terrestrial resources at multiple scales are based on similar principles: secure areas with high ecological integrity ("anchor habitats"), extend these areas, and connect them at the landscape level (Lee et al. 1997, Gresswell 1999). An approach that simultaneously considers the condition of a watershed and its associated forests, and the status of aquatic populations (Rieman et al. 2000) appears to offer the best prospects for balancing potentially competing objectives. Simplistic assumptions that what's good for the forest will be good for watersheds and fish will not suffice. Successful forest restoration may help improve watershed resilience and thus aquatic habitats, but active forest restoration carries a risk of further degrading watersheds, especially if it involves road construction or other soil disturbance (Gresswell 1999, Lee et al. 1997). Healthy fish populations can be quite resilient to the effects of wildfire (Gresswell 1999). Most often, healthy populations are associated with roadless or wilderness areas and cool moist forests that have been relatively little affected by logging and fire suppression (Lee et al. 1997, Rieman et al. 2000). Prescribed fire (ignited either by humans or lightning) may be the best means of managing and restoring these areas (Rieman et al. 2000).

Active restoration involving both thinning and prescribed fire may be more appropriate in more heavily roaded, lower elevation forests and in areas adjacent to more intact watersheds (Lee et al. 1997).

Account for rare ecosystem elements

Determination of restoration goals needs to recognize potential conflicts or tradeoffs among reasonable objectives. Aggressively modifying stands to be highly resistant to severe fire may unintentionally degrade watersheds and habitats for fish and wildlife (Rieman and Clayton 1997, Gresswell 1999). Heavily thinning stands to reduce canopy density and the risk of spread of crown fire may degrade habitat for wildlife needing more closed-forest conditions. For example, on the east side of the Cascades, fire suppression has resulted in the development of northern spotted owl habitat uncharacteristic of dry forests, but these "unnatural" stands now provide habitat critical to the species' survival. In other places, opening the canopy may increase erosion and degrade aquatic habitats. Watershed analysis should provide a mechanism for identifying and resolving potential conflicts among objectives.

Protect riparian areas

Riparian areas provide habitat benefits for wildlife far out of proportion to these streamside areas' relatively limited distribution on the landscape, notably for migratory birds (Marcot et al. 1997). Riparian areas and the vegetation they support are also essential to the quality of water and aquatic habitats and contribute many functions to ecosystem integrity (National Research Council 1996). Logging in riparian areas can cause ground disturbance resulting in sediment delivery to streams, and can reduce shade and the input of large wood to streams, thus degrading aquatic habitat. Riparian areas and their relationship to broader landscapes are highly complex, as are the risks of wildfire, which may be the same, less or greater than in adjacent uplands (Agee 1999). While precommercial thinning may have some application in riparian areas (Gregory 1997), restoration treatments should initially focus on uplands (Johnson et al. 1995, Lee et al. 1997). Larger trees may not need to be thinned in riparian areas, but if they are, they can be left on the floodplain or placed in the channel (Gregory 1997). Prescribed fire, carefully applied based on site-specific analysis, may be the most appropriate treatment in riparian areas (Kauffman et al. 1997, Agee 1999).

Stay low

Thinning for restoration does not appear to be appropriate in higher elevation, cold, moist forests (Agee and Huff 1986). These forests have often not yet missed a full fire cycle and the historical dynamic of generally high fuel loadings and a fire regime dominated by weather-driven, lethal fires has not changed significantly. Efforts to manipulate stand structures to reduce fire risk are apt not only to be futile (Agee 1996, 1998a), but also to move systems away from presettlement conditions to the detriment of wildlife and watersheds (Johnson et al. 1995, Weatherspoon 1996).

Low elevation, dry forests appear to offer the clearest opportunities for thinning—in conjunction with prescribed fire—to contribute to restoration of wildlife habitat while making forests more resistant to uncharacteristically severe fire. Within this zone, high forest integrity will generally be associated with the presence of old growth trees, especially ponderosa pine. Highest priority should be given to securing high-integrity "anchor habitats" that still closely resemble historic conditions, which can be maintained with prescribed fire alone. Adjacent areas that have developed dense post-settlement understories are apt to be a priority for restoration treatment with thinning and/or fire to help reduce the likelihood of crown fire spreading into the high integrity stands. Treatment of these areas could help to secure the remnant intact stands from wildfire risks while extending more natural stand conditions across the landscape, eventually connecting high-integrity areas. In general, protection of remnant old growth pine, from stands to individual trees, should be a top priority, in light of how depleted these trees have become and their importance not only as habitat but also as genetic and scientific resources (Henjum et al. 1994, Wickman 1992). On the other hand, reproduction of ponderosa pine is infrequent and unpredictable (White 1985), and care should be taken to retain young pine trees necessary to replace old trees as they eventually die.

Mid-seral ponderosa pine stands (roughly 60 to 100 years old) may represent a secondary priority for restoration treatments. These stands are often well on the way to developing old growth characteristics, and treatments to help ensure that this trend is maintained can increase the probability that old growth habitats are restored more quickly than they would be otherwise. Thinning to remove smaller trees can reduce the risk of fire spreading into the canopy, while improving the growth rate of remaining trees. Variable density thinning can help mimic the

clumped distribution and associated processes found in pre-settlement stands (Harrod et al. 1999). Conventional silvicultural treatments tend to thin to a density low enough to have a low likelihood of attack by bark beetles. Leaving some areas at a density greater than this would allow bark beetles to continue to function as a source of mortality, providing a key food source for woodpeckers and influencing subsequent decay of snags (George and Zack in press). Rather than taking stands to desired densities in a single treatment, it may be more appropriate to use thinning to make stands less vulnerable to severe wildfire (Stephenson 1999, Agee and Huff 1986) while allowing fire, insects and disease to maintain a trajectory toward old growth conditions.

Stay below

“Thinning” generally refers to “understory thinning,” “thinning from below” or “low thinning” to describe the cutting and removal of small trees that may be necessary to meet objectives for restoration of habitat and fire regimes. Some have argued that thinning from below does not sufficiently open the canopy to breakup fuels and reduce fire danger, and they have proposed the removal of large trees in what is known as a “crown thinning.” However, in most cases, it is the vertical continuity of fuels, not the continuity of the canopy that most needs to be disrupted. As Agee et al. (2000) note, “Fuel fragmentation does not have to be associated with structural fragmentation or overstory removal, but must be associated with . . . reduction of surface fuels and increases in height to live crown as a first priority, and decreases in crown closure as a second priority . . . Thinning must be linked with surface fuel reduction and increases in height to live crown to be an effective fuel treatment.” Thinning from below directly addresses this need by removing the fuel ladder that can carry fire up into the canopy. In those instances where restoration requires opening of the canopy, the effect can be achieved by an aggressive low thinning. After more than a century of commercial logging of western forests, large trees are simply too rare on the landscape to allow them to be removed in a “restoration” treatment.

Treat fine fuels with prescribed fire

Restoration objectives may be accomplished by prescribed fire alone in some forest types (Agee and Huff 1986, Weatherspoon 1996). However, thinning alone, which may successfully reduce fire hazard, is very unlikely to meet ecological objectives unless it is combined with prescribed fire (Weatherspoon 1996) since thinning cannot replicate many of the beneficial ecological effects of fire (National Research Council 1999). Thinning can also lead to more severe fires (Agee 1996, Weatherspoon 1996), especially through inadequate treatment of logging slash. Thinning without subsequent prescribed fire to consume fine fuels, like needles and small branches, will likely do nothing to reduce fire danger or restore ecosystem health (van Wagtenonk 1996, Stephens 1998). Of course, neither thinning nor fire will be a panacea; both must be used, but used thoughtfully. Nothing will make forests fire proof, but it appears feasible to make some forests more “fire safe,” as long as prescribed fire is used to reduce fine fuels.

Avoid disturbing soils

One potential problem with understory thinning operations is that the low value of the wood being removed encourages the use of low-cost logging methods. This typically means ground-based equipment, which can have seriously detrimental effects on soils. Soil compaction, which can take decades to recover (Harvey et al. 1989), both reduces plant growth and inhibits infiltration of water, increasing erosion, sedimentation and spring run-off. Fire can also adversely affect soils, but these effects are relatively short-lived (Rieman and Clayton 1997), and should not be presumed to give license to unnecessarily degrade soils during thinning operations. To maintain both ecological integrity and management credibility, it will be essential to employ low-impact equipment and use it properly (Johnson et al. 1995).

Avoid roads and protect roadless areas

The adverse ecological effects of roads are legion (Furniss et al. 1991, Trombulak and Frissell 2000), and road construction to access thinning sites is highly unlikely to be justified either ecologically or economically. Limitations on road construction and other soil disturbance will also help limit the spread of invasive exotic plants (noxious weeds). In the interest of getting necessary work done, restoration efforts should focus on already roaded portions of the landscape, where controversy is less and there is no shortage of stands appropriate for treatment. Roadless watersheds have the highest levels of ecological integrity and the greatest resiliency to wildfires largely due to the absence of logging and road construction (USDA Forest Service and USDI BLM 1997). Accordingly, they are the lowest priority for restoration.

Concentrate on the wildland-urban interface

The wildland-urban interface or “intermix zone” is often not very precisely defined but generally describes areas where human housing intermingles with mostly forested land. The dramatic fires of the 2000 fire season have put the interface zone fully in the national public eye. Growing political attention, although tardy and prone to misdirection, may be appropriate. Not only are human property and lives at risk, but the interface zone most typically occurs in the dry forest types that are most amenable to restoration efforts combining mechanical and prescribed fire treatments. The presence of people, their developments, and their pets mean that habitat values are already somewhat compromised, reducing the severity of some of the unintended consequences that may accompany restoration efforts. On the other hand, the close proximity of people can complicate prescribed burning programs. Perhaps the most important consideration regarding efforts to make the interface zone fire safe is that treatment of public forest lands alone will not be enough. The crucial area for treatment is within 40 yards of structures (most apt to be private land), and even here vegetation treatment alone will not suffice (Cohen 1999). Structures must be built or retrofitted to incorporate fire-safe elements such as metal roofs and shutters. Human values at risk may suggest that the interface zone is a priority for attention, but without investment in these structural modifications, public investment in forest treatment is pointless.

CONCLUSION

While there is much to be learned about the current status of forested ecosystems on National Forest lands and about the efficacy of thinning and prescribed fire to make these forests more sustainable, it appears clear that action must be taken to reverse trends of degradation, and that thinning and fire can play a role in these restoration efforts. Because thinning is a form of logging, and because of decades of Smokey Bear’s education about the evils of forest fire, both techniques will be controversial with at least some portions of the public. Every effort should be made to apply these tools thoughtfully, in ways and in locations where they will have the highest prospects for success and the lowest likelihood of unintended consequences. Based on current knowledge, it appears that the most credible efforts will:

- be part of comprehensive ecosystem and watershed restoration;
- consider landscape context, and protect rare habitats, such as old growth, and populations of rare fish and wildlife;
- avoid riparian areas;
- focus on low-elevation, dry forest types;
- focus thinning efforts on the smallest diameter classes and retain all large, old (pre-settlement) trees and provide for their replacement over time;
- treat thinning slash and other surface fuels with prescribed fire;
- have negligible adverse effects on soils and prevent the spread of invasive plants;
- protect roadless areas and avoid construction of new roads;
- concentrate resources on the wildland-urban interface and incorporate monitoring as an essential element and cost of the project;
- learn from monitoring and adapt management accordingly.

It may not be feasible to address all of these considerations for every area, but managers who focus their attention on areas where these criteria can be met will have greater prospects for building the experience and credibility that will allow greater discretion in the future. It will also be essential to acknowledge how little empirical scientific study supports assumptions of the efficacy of thinning to restore habitat and reduce fire risk. While additional scientific research is necessary, much can also be learned from routine monitoring, especially if it is structured to reflect a more consistent case studies approach, which could be facilitated by regional guidance from Forest Service research stations. Support within the Forest Service and from the Congress for research, administrative studies, and monitoring will be crucial to refining techniques and building public trust. As much as scientific knowledge, that trust must form the basis for successful action.

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STATEMENT OF THE NATIONAL ENVIRONMENTAL AND RELIGIOUS ORGANIZATIONS AND COALITION, AND THE REGIONAL AND LOCAL GRASSROOTS FOREST PROTECTION ORGANIZATIONS

Hon. DAN GLICKMAN,
Secretary of Agriculture, Washington, DC.

Hon. BRUCE BABBITT,
Secretary of the Interior, Washington DC.

DEAR SIRs: On behalf of the undersigned national and grassroots forest protection organizations, we are writing to express concern about provisions in the Interior Appropriations bill which threaten to increase logging and undermine good stewardship on the public lands. We were pleased with the Administration's efforts to underscore the importance of avoiding another salvage logging debacle, protecting roadless areas and prioritizing the noncommercial removal of brush and shrubs in the recent report to the President.

We feel that similar efforts are required in preparing for the expenditure of the significant funds provided for hazardous fuels reduction and rehabilitation in the Interior Appropriations bill. Of particular concern are the provisions concerning me-

chanical treatments for hazardous fuels reduction, timber sale funding levels and the stewardship contracting rider.

HAZARDOUS FUEL TREATMENTS LACK ENVIRONMENTAL SAFEGUARDS

Our community strongly supports a scientifically sound fuels' reduction program targeted to protect communities in the urban wildlands interface. However, the fuels reduction language lacks adequate environmental safeguards to protect Wilderness, roadless areas, old growth forests, endangered species habitat and riparian areas. We request the Secretaries issue a directive to ensure that these ecologically critical areas will be excluded from mechanical fuels reduction projects.

In addition, we believe direction is needed to ensure that fuels reduction projects focus on the fine and surface fuels which create the greatest fire risks. Forest Service fire staff indicate the priority for treatment should primarily be trees below 4" inches in diameter. We urge the Secretaries to direct the agency to develop ecologically-sound treatment criteria to prevent the logging of large trees.

The Interior bill also includes language providing the Administration with an option to develop expedited NEPA procedures within the next 60 days. We are strongly opposed to any weakening of the current NEPA procedures and public involvement in decision-making for fuels reduction projects. Instead, we urge you to utilize existing NEPA regulations, which have been carefully developed and time-tested in planning and reviewing projects to be conducted with these funds. Moreover, fuels reduction options entail great uncertainty about effectiveness and often—especially in cases of mechanical removal of vegetation—are accompanied by significant environmental harm. As practiced to date, therefore, they generally are among the land management activities most needing careful consideration and public input. We respectfully urge the Administration not to exercise this authority to expedite NEPA procedures.

We also believe the funding increase for fuels reduction could be better targeted to protect communities at risk from wildfire. Forest Service research indicates that to protect homes and communities, the focus for treatments should be within 200 feet of the structure, not in distant wildlands or forests located miles away. We urge the Administration to adopt this standard and to redirect emergency fuels reduction funds to support the Firewise program and other cooperative efforts for community protection. In addition, to property owners and communities, to fireproof their homes and businesses are needed to help clear brush and replace wooden roofs with metal ones.

There is a significant increase in funding for preparedness activities. We urge the Administration to make the completion of fire management plans the top priority for these funds. Currently only 5% of the National Forests have completed fire management plans which were mandated by the Fire Management Policy of 1995.

The Interior bill directs that \$15 million in fuels reduction funds shall be used to implement the Quincy Library Group Plan which could allow these funds to be used for commercial logging. This Plan calls for extensive logging in the name of fuels reduction in the Sierra Nevada and is strongly opposed by the environmental community. We are concerned that funds intended for fuels reduction will go instead for a logging program that will cause environmental harm and not reduce fire risks. We urge the Secretaries to direct that none of the Quincy funds, or other emergency hazardous fuels funds will be spent on or in conjunction with commercial timber sales.

We are concerned that the Forest Service and BLM will attempt to take old projects off the shelf including timber sales, that are not environmentally sound fuels reduction projects. We urge the Secretaries to direct the agency to not spend emergency fuels reduction funds on timber sales and to ensure that all old projects are reviewed to ensure that they have an exclusive fuel reduction objective.

There is serious concern about language in the Administration's fire policy supporting salvage logging to recoup fuels reduction costs. There is strong scientific opinion that salvage logging does more harm to forest ecosystems than good. Focusing on economic recovery could undermine the ecological restoration goals of this program and encourage harmful resource extraction. We urge the Secretaries to exclude salvage logging from the fuels reduction program.

We are also concerned that funds intended to address hazardous fuels issues in Western forests, will be spent on Eastern forests which do not have the same, ecological needs. The relatively moist Southern Appalachian forests, for example, naturally limit the spread of fire. Fuel reduction bears little relevance to the decline of native forest types, which is a major threat confronting the Southern Appalachians. We urge the Secretaries to not spend emergency fuels reduction funds in Forest Service regions 8 and 9.

TIMBER TARGET LANGUAGE AND INCREASED SUBSIDIES PROMOTE
IRRESPONSIBLE LOGGING

We appreciate that the Administration opposed and was able to remove the timber target bill language. However, the Interior bill still contains timber target language that attempts to urge the Forest Service to prepare for sale 3.6 billion board feet of timber. This represents a significant increase in timber sales above the current level of 2.1 billion board feet.

The timber targets language is backed up by a significant increase in funding for logging. The bill contains a \$40 million increase in logging subsidies, including \$5 million earmarked specifically targeting Alaska's Tongass National Forest. This \$40 million in additional logging subsidies will lead to more harmful timber sales on the National Forests. We urge the Secretaries to use this un-asked for increase to mitigate the environmental degradation from timber sales by spending it on forest restoration through road decommissioning and obliteration.

STEWARDSHIP CONTRACTS, NEW VEHICLE FOR INCREASED TIMBER PRODUCTION

We appreciate the Administration's efforts that resulted in the removal of two anti-environmental riders affecting the White River and White Mountains National Forests from the bill. However, the Interior bill still contains language that authorizes the Forest Service to enter into an additional 25 "end-result" stewardship contracts.

The "goods-for-services" authority in stewardship contracts allows the Forest Service to trade National Forest trees for contracted services and could encourage large-scale logging in conjunction with restoration projects. One current stewardship project in Idaho using goods-for-services proposes to log 173 million board feet in the name of "elk restoration." This is one of the largest logging projects in the nation right now. We urge Secretary Glickman to direct the agency to forgo this authority and not to issue any additional stewardship contracts, and to oppose the use of "goods-for-services."

When viewed together, the stewardship contracting rider and these substantial funding increases for timber sales and mechanical hazardous fuels treatments open the door to a significant increase in logging on public lands thereby threatening clean water and habitats for endangered fish and wildlife. We look forward to working with the Administration to mitigate the potential impacts of these provisions in the Interior bill.

Sincerely,

NATIONAL ENVIRONMENTAL AND RELIGIOUS ORGANIZATIONS AND COALITIONS

Alaska Rainforest Coalition, Matt Zencey, Washington, D.C.
 American Lands Alliance, Steve Holmer, Washington, D.C.
 Defenders of Wildlife, Mary Beth Beetham, Washington, D.C.
 Earthjustice Legal Defense Fund, Marty Hayden, Washington, D.C.
 Endangered Species Coalition, Brock Evans, Washington, D.C.
 Friends of the Earth, Courtney Cuff, Washington, D.C.
 John Muir Project, Rene Voss, Washington, D.C.
 National Audubon Society, Dan Beard, Washington, D.C.
 National Catholic Rural Life Conference, Robert Gronski, Des Moines, IA
 National Environmental Trust, Robert Vandermark, Washington, D.C.
 National Forest Protection Alliance, Jeanette Russell, Missoula, MT
 Native Forest Network—Public Lands Project, Matthew Koehler, Missoula, MT
 Natural Resources Defense Council, Nathaniel Lawrence, Olympia, WA
 Network for Environmental and Economic Responsibility of the United Church of Christ (USA)
 Pacific Rivers Council, David Bayles, Eugene, OR
 Sierra Club, Melanie Grifflin, Washington, D.C.
 The Wilderness Society, Michael Francis, Washington, D.C.
 U.S. Public Interest Research Group, Tiernan Sittenfeld, Washington, D.C.
 World Wildlife Fund, Dominick Dellasala, Ashland, OR

REGIONAL AND LOCAL GRASSROOTS FOREST PROTECTION ORGANIZATIONS

100 Percent Natural Productions, Scott Whinery, Tarzana, CA
 Allegheny Defense Project, Rachel Martin, Clarion, PA
 Alliance for the Wild Rockies, Mike Wood, Missoula, MT
 American Wildlands, Deb Kmon, Bozeman, MT
 Audubon Society of Corvallis, Jim Fairchild, Corvallis, OR
 Blue Mountain Audubon Society, Chris Howard, Walla Walla, WA

CAFIG (Corvallis Area Forest Issues Group), Claudia McCue, Monroe, OR
 California Trout, Inc., R. Brett Matzke, Coarsegold, CA
 California Wilderness Coalition, Paul Spitler, Davis, CA
 Cascadia Fire Ecology Education Project, Catia Juliana, Eugene, OR
 Cascadia Forest Alliance, Donald Fontenot, Portland, OR
 Cascadia Wildlands Project, James Johnston, Eugene, OR
 Center for Biological Diversity, Todd Schulke, Tucson, AZ
 Center for Native Ecosystems, Jon Jenson, Boulder, CO
 Center for Sierra Nevada Conservation, Craig Thomas, Georgetown, CA
 Center for Social Justice and Global Awareness, James Facette, San Antonio, TX
 Central Cascades Alliance, Kimberly Burkland, Hood River, OR
 Central Oregon Forest Issues Committee, Steve Huddleston, Bend, OR
 Citizens for Better Forestry, Susan Hope Bower, Hayfork, CA
 Civilian Filibuster, Erik Holland, Reno, NV
 Clearwater Biodiversity Project, Chuck Pezeshki, Moscow, ID
 Coast Range Association, Chuck Willer, Corvallis, Oregon
 Colorado Wild, Jeffrey Berman, Durango, CO
 Columbia River Conservation League, Bob Wilson, Richland, WA
 Cumberland Greens Bioregional Council, Howard Switzer
 Dakubetede Environmental Education Programs, Laurel Sutherland, Jacksonville, OR
 Deerlodge Forest Defense Fund, Paul Richards, Boulder, MT
 Drake Environmental Action League, Rose Winkeler, Des Moines, IA
 Forest Conservation Council, Bryan Bird, Boca Raton, FL
 Forest Guardians, Sam Hitt, Santa Fe, NM
 Forest Unity Network Jay Gerring, Seattle, WA
 Friends of the Abajos Dan Kent, Moab, Utah
 Friends of the Boundary Waters Wilderness, Kevin Proescholdt, Minneapolis, MN
 Friends of the Bitterroot, Larry Campbell, Hamilton, MT
 Georgia ForestWatch, Randall F. White, Ellijay, GA
 Green-Rock Audubon Society, Bill Hallstrom, Beloit, WI
 Headwaters, Inc., Jim Ince, Ashland, OR
 Heartwood, Alison Cochran, Bloomington, IN
 Helping Expressions, Guy Errickson
 The Highlands Chapter of the Western North Carolina Alliance, Dave Barstow, Highlands, NC
 Hoosier Hikers Council, Suzanne Mittenthal, Martinsville, IN
 Illinois Student Environmental Network Laura Huth, Urbana, IL
 International Primate Protection League, Shirley McGreal
 Kalmiopsis Audubon Society, Jim Britell, Pt. Orford, OR
 Kettle Range Conservation Group, Timothy J. Coleman, Republic, WA
 Klamath Forest Alliance, Carol Wright Etna, CA
 Lake Region Audubon Society, John Perry, Lake Superior Greens, Jan Conley, Superior, WI
 League of Women Voters, Pat MacRobbie, Sequim, WA
 Leavenworth Audubon Adopt-a-Forest, Pat Rasmussen, Leavenworth, WA
 Madison Audubon Society, Karen Etter Hale, Madison, WI
 Madison Greens, John E. Peck, Madison, WI
 Magic, Robin Bayer, Stanford, CA
 Marion County Water Watch, Barbara Warner, Lebanon, KY
 The Minnesota Project, John Lamb, MN
 Montana Wildlife & Habitat Conservation Project, Seth Wilson, Missoula, MT
 Mt. Adams Adopt-A-Forest, Marc Harvey, Lyle, WA
 Northcoast Environmental Center, Tim McKay, Arcata, CA
 Northeastern Californians for Wilderness, Carl H. Schwarzenberg, Etna, CA
 Northeastern Minnesotans for Wilderness, Will Rhodes, Duluth, MN
 Northwest Environmental Defense Center, Eric Wilborn, Portland, OR
 Oregon Natural Resources Council, Ken Rait, Portland, OR
 Pacific Crest Biodiversity Project, Michael Clossen, Seattle, WA
 Palos Verdes/South Bay Audubon Society, Jess Morton, Palos Verdes Peninsula, CA
 Pennsylvania Audubon Society, Carmen T. Santasania, Harrisburg, PA
 Physicians for Social Responsibility-Oregon Chapter, Catherine Thomasson, MD, OR
 Regional Association of Concerned Environmentalists, Mark Donham, Brookport, IL
 RESTORE: The North Woods, Michael Kellett, Concord, MA
 Rev. Douglas B. Hunt, Ph.D., Wheaton NO
 Rocky Mountain Recreation Initiative, Roz McClellan, CO
 Rogue Valley Audubon Society, Ted Cassidy, OR
 SAFE: Save Our Ancient Forest Ecology, Dr. Rob Schaeffer, Modesto, CA
 Seattle Audubon Society, Helen Ross, Seattle, WA

Siskiyou Project, Kelpie Wilson, Grants Pass, OR
Sky Island Alliance, Matt Skroch, Tucson, AZ
South Carolina Coastal Conservation League, Caitfin Winans, Charleston, SC
South Carolina Forest Watch, Kathy McDeed, Westminster, SC
South Yuba River Citizen's League, Shawn Garvey, Nevada City, CA
Southern Appalachian Biodiversity Project, Andrew George, Asheville, NC
Southern Oregon Nature Excursions, Jack Leishman, Talent, OR
Southwest Forest Alliance, Todd Schulke, Flagstaff, AZ
Sublette Riders Association, Jonathan Ratner, Pinedale, WY
The Fyke Nature Association, Hugh Carola, Ramsey, NJ
The Lands Council, Mike Petersen, Spokane, WA
The Ecology Center, Inc., Jeff Juel, Missoula, MT
The Waldo Inn, Robert E Lee Jr., OR
Threatened & Endangered Little Applegate Valley, Chant Thomas, Jacksonville, OR
TN Forest Defense Council, Katey Culver, Nashville, TN
Trillium Community Land Trust, Susanna Bahaar Thomas, Jacksonville, OR
Umpqua Watersheds, Inc., Francis Eatherington, Roseburg, OR
Western Fire Ecology Center, Timothy Ingalsbee, Ph.D., Eugene, OR
West Virginia Rivers Coalition, Jeremy Muller, Ekns, WV
Wild Wilderness, Scott Silver, Bend, OR
Wild Alabama, Lamar Marshall, Moulton, AL
Wildlands Center for Preventing Roads, Bethanie Walder, Missoula, MT
WildLaw, Ray Vaughan, Montgomery, AL
Yosemite Area Audubon, Richard Kuntsman, Mariposa, CA