

104  
RESOURCE MANAGEMENT AND FIRE CONTROL  
POLICIES

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Y 4. R 31/3:104-99

T HEARING

Resource Management and Fire Control... RE THE

SUBCOMMITTEE ON NATIONAL PARKS, FORESTS,  
AND LANDS

OF THE

COMMITTEE ON RESOURCES  
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

ON

HOW THE NEW FEDERAL WILDLAND FIRE POLICY WILL ENABLE  
THE FOREST SERVICE TO REDUCE THE MAGNITUDE AND SEVERITY  
OF WILDLAND FIRES IN THE FUTURE, AND HOW THE AGENCY  
WILL INTEGRATE THE POLICY

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SEPTEMBER 12, 1996—WASHINGTON, DC

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**Serial No. 104-99**

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Printed for the use of the Committee on Resources



U.S. GOVERNMENT PRINTING OFFICE

35-089 CC

WASHINGTON : 1996

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For sale by the U.S. Government Printing Office  
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402

ISBN 0-16-053806-8



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# CONTENTS

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	Page
Hearing held September 12, 1996 .....	1
Statements of Members:	
Chenoweth, Helen, a U.S. Representative from Idaho .....	2
prepared statement .....	3
Hansen, Hon. James V., a U.S. Representative from Utah, Chairman, Subcommittee on National Parks, Forest and Lands .....	1
Herger, Wally, a U.S. Representative from California .....	12
Thomas, Hon. William M., a U.S. Representative from California (pre- pared statement) .....	45
Statements of witnesses:	
Cornell, Blaine, Sonora, California .....	6
prepared statement .....	61
Lavin, Mary Jo, Director of the Fire and Aviation Management Staff .....	20
Lyons, James R., Under Secretary for Natural Resources and Environ- ment, U.S. Department of Interior .....	20
Neuenschwander, Dr. Leon F., Professor of Forest Resources, University of Idaho .....	4
prepared statement .....	49
Thomas, Jack Ward, Chief of the Forest Service .....	20
Wilson, Richard A., Director California Department of Forestry and Fire Protection (prepared statement) .....	46
Additional material supplied:	
Hon. Wally Herger submission for the record .....	14
Memorandum dated September 4, 1996, from James R. Lyons, to Jack Ward Thomas .....	17
Press Release dated September 6, 1996, Scientists Criticize Suppression of Calowl Report .....	18
Letter dated September 9, 1996, To Chief Thomas, from Jonathan Kusel .	18
Letter dated August 27, 1996 to Dr. James Space, from Constance Millar P.H.D. ....	19



# RESOURCE MANAGEMENT AND FIRE CONTROL POLICIES

THURSDAY, SEPTEMBER 12, 1996

U.S. HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON  
NATIONAL PARKS, FORESTS AND LANDS, COMMITTEE ON  
RESOURCES

*Washington, DC.*

The Subcommittee convened at 3:10 p.m. in room 1334 of the Longworth House Office Building, the Honorable James V. Hansen, Chairman of the Subcommittee, presiding.

Chairman HANSEN. The Committee will come to order.

## STATEMENT OF THE HON. JAMES V. HANSEN, A U.S. REPRESENTATIVE FROM UTAH

Chairman HANSEN. The Subcommittee on National Parks, Forests and Lands will now convene its oversight on the Forest Service's resource management and fire control policies. This issue certainly deserves more time than we can provide today. However, the severity of the current fire season and a number of related land management issues compel us to take an initial look at how we got to the current condition and what is needed to reduce fire danger in the future.

I am particularly interested in learning how the new Federal Wildland Fire Policy will enable the Forest Service to reduce the magnitude and severity of wildland fires in the future, and how the agency will integrate that policy into its land management process.

Who will determine where and when fires should be allowed to burn, or where prescribed fires will be introduced? Who will determine what actions should be taken to reduce fuel loads before they go up in smoke?

Will District Rangers have the authority to determine when burned or damaged timber may be salvaged, and whether conditions warrant emergency actions?

A 1994 study of customer satisfaction on the Dixie National Forest in Southern Utah, where bark beetle infestations have destroyed much of the forest, found that most people feel that timber harvest should be used to maintain healthy forests and that dead and dying trees should be salvaged.

As the Forest Supervisor has explained to me, prescribed fire as an alternative would be most difficult to use on the Dixie because of the heavy vegetation and large amounts of dead fuels. Instead, I am told that salvage sales remain the first and best option for removing large quantities of flammable fuels from timber stands, and that the use of prescribed fire would be viable only after sal-

vage has reduced the volume of heavy fuels. I am sure that this is the case in many other places.

If the agency decides to limit the use of salvage and other timber harvests, as the June 2nd direction from Secretary Glickman indicates is the Administration's preferred choice, then I am concerned that the new Federal fire policy would be doomed to failure, since we will not have the manpower or the money to control fires that do burn.

I look forward to the testimony today from two experts in the field of fire and resource management. We had planned also to hear from the Director of the California Department of Forestry and Fire Protection, but at the last minute Director Wilson had to cancel his travel plans. He has instead submitted his statement for the record.

Finally, we look forward to hearing from Under Secretary of Agriculture Jim Lyons, who will explain the current policies and I hope he will be able to answer a few questions.

[Prepared Statement of Director Richard A. Wilson maybe found at the end of hearing.]

Chairman HANSEN. Mr. Herger was our first witness. I'll turn to Members of the Committee for any opening statements they may have.

I'll turn to the gentlelady from Idaho, Mrs. Helen Chenoweth.

**STATEMENT OF THE HON. HELEN CHENOWETH, A U.S.  
REPRESENTATIVE FROM IDAHO**

Mrs. CHENOWETH. Thank you, Mr. Chairman, and I want to thank you for holding this very important hearing.

In my State of Idaho we are currently in a crisis. It might be difficult for some of my colleagues from other parts of the country to appreciate the peril of these fires and the peril that it poses to the people of the West.

Let me tell you that when I was home in Idaho this past August no matter where in the State you were there was smoke everywhere you looked. In the city of Boise you could look out the window downtown and see flames in the foothills. My constituents' lives and properties were at risk.

I thank you for holding this timely crucial oversight hearing. Before I continue I would like to welcome Dr. Leon Neuenschwander, Professor of Fire Ecology at the University of Idaho's Department of Forestry Resources. He has come a long way to be here today and I look forward to listening to his testimony.

Mr. Chairman, as I said before, we are in a crisis. As of today 5,868,980 acres have been burned this year and the fire season is still weeks from ending. This is a staggering number and represents the worst fire season in modern history. Even worse, however, is that my State, Idaho, has taken the brunt of the fires. 866,627 acres have burned in Idaho alone. Idaho is the No. 1 fire damaged State in terms of acres burned.

Three new large fires were reported yesterday in Idaho. Don't let anyone tell you differently. We are in the midst of a crisis. This is frustrating for me as I am sure it is for other Members of the Subcommittee as well. We knew this was coming, it has been building for years, and between the seven-year drought in the Western



United States insufficient harvesting of the dead and dying trees and the years of fire suppression fuels have been building in our forests and building to extremely dangerous levels.

The Clinton Administration has numerous forest management tools available to it. They are rejecting the salvage timber sales and prescription burning after a timber harvest.

Mr. Chairman, with that I would like to submit the balance of my statement to the Committee for the record.

Thank you very much.

[The Prepared statement of Hon. Helen Chenoweth follows.]

PREPARED STATEMENT OF HON. HELEN CHENOWETH

Additionally, we the Congress made it even easier for the Administration to remove the fuel load by passing the Emergency timber Salvage Sale Program This was a program that expedited timber salvage sales to get the dead and dying timber out of the forests. Yet, the Administration chose to ignore it.

Interestingly, we had this same debate in 1995, and nearly a carbon-copy hearing, after the nearly as devastating 1994 fire season The Administration made all types of promises, including salvage timber sales. yet, the Administration has engaged in a pattern of obstruction when it comes to salvage timber sales.

I personally asked Secretary Glickman to reconsider his July 2, 1996 directive that effectively killed the Emergency Timber Salvage Sale program. On no fewer than three occasions the Members of this Committee requested Secretary Glickman to act in accordance with the law (Public Law 104-19). We have either been told no or simply ignored.

And now where are we? Nearly six million acres have burned. Mr. Chairman, that's six million acres of harvestable timber that could have gone a long way toward putting the timber families of the Pacific Northwest back to work. Now what Secretary Glickman? Now what President Clinton?

I don't want to take up much more time, Mr. Chairman. However, I do want to point out that salvage harvesting and forest health are not mutually exclusive options. In fact, I think we can all agree that salvage harvesting has tremendous benefits, both in terms of forest health and economics.

I am not convinced that this Administration has done all that it can do to protect our forests or my constituents who have dealt with these fires up close and in person. In fact, given the promises that were made after the 1994 fires, it appears to me that the Administration has actually obstructed certain forest health efforts.

So why is the Clinton Administration refusing to move salvage timber? Why did the Clinton Administration kill a program that could have been used as an effective tool to move salvage timber? Now, its just going up in smoke.

Each salvageable tree going up in smoke in each of those six million acres is literally jobs and money going up in smoke.

Mr. chairman, it would be disingenuous of me to argue that the Administration is completely at fault here. However, from my perspective, Secretary Glickman's refusal to use all forest management tools at his disposal indicates that the Administration must shoulder most of the responsibility for the current fire crisis.

With that being said, Mr. Chairman, let's hear from our witnesses. Again, thank you for holding this hearing.

Chairman HANSEN. Thank you very much.

Our friend from California, Mr. Frank Riggs is with us. He is not a Member of the Committee, but one who has shown a tremendous interest in forest health problems and issues.

Do you have any opening statement you would like to make, Frank?

Mr. RIGGS. No. Thank you, Mr. Chairman.

Chairman HANSEN. Well I surely don't see Wally Herger here. So we'll go to our first panel. Dr. Leon F. Neuenschwander from Idaho and Mr. Blain Cornell from California, if you two would come up. We appreciate your being with us.

Dr. Neuenschwander, we'll turn to you first if that's all right. Can you handle it in five minutes?

Mr. NEUENSCHWANDER. Well would you give me 10?

Chairman HANSEN. Give it your best shot, would you.

Mr. NEUENSCHWANDER. Five minutes. Thank you, Mr. Chairman.

Chairman HANSEN. We're going to turn the lights on you, and I won't hit the gavel, but we'll get real antsy if you go much over that.

**STATEMENT OF DR. LEON F. NEUENSCHWANDER, PROFESSOR OF FOREST RESOURCES, UNIVERSITY OF IDAHO**

Mr. NEUENSCHWANDER. Thank you, Mr. Chairman, and distinguished Members of the Committee. It's certainly my privilege to be here.

I would like to start by saying that in my opinion the increased wildland fire activity is a symptom of the declining health in our western forests and rangelands. While there are contributing reasons for this, I will just talk about one of them, and that is the exclusion of fire in our forests.

I have provided to you a set of photos and plates, and if you would look at those as I talk we'll go quickly.

The first one is from National Geographic, this month's issue, and it illustrates here, well it's a computer diagram and it illustrates the change in the intensity of the fires. The above part here, the fire is burning through the forest in which trees have encroached since fire exclusion. The lower portion has had frequent fires and is a forest of the past.

Plate 2 is the State of our forests today in many areas showing the young trees that have come in with the exclusion of fire.

Plate No. 3 here, this one, shows how these fires are burning today. Now compare that to the use of prescribed fire where forests have not had fire exclusion. Now this is a group of Idaho students burning an area with prescribed fire, and notice that the flames are similar to that with the National Geographic. This costs less than 10 acres to do and it is safe.

The slide is from the American Forest Magazine. I think it was about 1911. This is a firefighter easily controlling this fire. This is how fires burned in the past before fire exclusion in many of our ponderosa pine and douglas fir forests, not all.

Unfortunately, with fire exclusion we will now look at an example of the Star Gulch fire. It burned very much like this one. Fire had been excluded since 1889. It had not burned and the result was a very high intensity and tree-killing wildfire.

Let me show you that in terms of a computer graphic, a GIS graphic of a landscape of this Star Gulch fire where fire was excluded. Now you have to use your imagination just a little bit here because this is showing you that the black areas are where all of the ponderosa pine and douglas firs were killed. There are no live trees, or very few.

The yellow is where the fire intensities were relatively low and some trees survived, and the green unburned. All of the gold and black would have been green before this fire, and had the fire exclusion not been present the 10,000 acres in which all the trees were killed would not have taken place. This cost well over \$100 per acre to suppress the fire.

Now I need to take you to what I call the virtual forest. It's not real. It's computer generated from data. For example, the first part shows you a ponderosa pine fire forest that has had fire exclusion. This is the case much across the West.

Now the second one shows you how these fires burn. They're all dead.

The next, and I'm on Plate 10 here, this was a harvest of the past, logging and taking the large fire resistant trees out. Any trees over 20 inches have been removed by the computer.

Plate No. 11 shows you how those forests burn. They do not survive. The trees are dead.

Now I want to give you an example, and it's only an example because there are other alternatives, but this is a dense ponderosa pine, the same as our beginning virtual forest with the fire exclusion. It has had the young trees that came in with fire exclusion removed and has left the larger trees, over 20 inches in diameter.

With prescribed fire or with wildfire the result of that is Plate No. 13, and I want to refer you back to the little flames in the 1911 American Forest Magazine. This is easy to control and we still have a forest. It is what I call fire resistant resilient. It is sustainable.

Now I want to take you back to the real forest, the real ponderosa pine forest. In the real forest there are many alternatives, many options that exist to manage for fire resistance and resilience that would lead to sustainability and reduce costs in the long run. In my opinion, not one of these options include a continued policy of fire exclusion.

Please, we must not make a mistake. Fire cannot be excluded from these forests forever and attempts to do so have enormous economic and ecological consequences which this Committee is well aware of.

The last plate is what is going to happen to most of these forests, in my opinion, if we do nothing. Of course, the fires will continue to get larger, they will be more intense and they will be more expensive.

Thank you for the extra time, Mr. Chairman.

Chairman HANSEN. Go ahead. Your testimony is fascinating. Do you need any more?

Mr. NEUENSCHWANDER. Well thank you very much. You know, my students never say that, Mr. Chairman.

[Laughter.]

Chairman HANSEN. I've always wanted to say that to a Professor.

[Laughter.]

Mr. NEUENSCHWANDER. I have included additional questions that are frequently asked me and I would like to have it submitted as part of the record.

Chairman HANSEN. OK. We'll give you some more time when we get to questions.

[Prepared statement of Leon F. Neuenschwander may be found at the end of hearing.]

Chairman HANSEN. Mr. Cornell.

**STATEMENT OF BLAINE CORNELL, SONORA, CALIFORNIA**

Mr. CORNELL. Thank you, Mr. Chairman and Members of the Committee. It's my pleasure to be here today.

As a way of introduction of myself, my background is as follows. I have a bachelor of science degree from the University of Idaho, which is I understand an excellent facility. I served 33 years in various positions in the Forest Service on the National Forests in Idaho, Wyoming, Nevada and California, and that included responsibility for fire management in some situations. I have had the full spectrum of fire management training and have qualified for and operated on all levels of the incident management system. I've been involved in the application of prescribed fire, many, many episodes of fire suppression in the western United States, and I have participated in the pretreatment of conifer stands for the introduction of prescribed fire and I've been involved in prescribed fire.

I participated for a number of years in the training of managers in advanced incident management at the national level. I participated as a member of the Fire Management Policy Review Team appointed to review the application of fire polices of the USDA and the USDI following the 1988 fire season. I retired from the position of Forest Supervisor of the Stanislaus National Forest in December of 1989. Since that time I've done consulting work and have remained involved in land management issues, including wildfire and prescribed fire. I am also professional forester in the State of California.

The years, such as the last few, certainly have raised a lot of serious questions, and I think some of the answers to those are fairly apparent. Consequently, it has been a practice to sit down and review policies. I've had an opportunity to review the Fire Management policy statement issued by the Forest Service, the Department of Agriculture, the Department of the Interior and others, and I guess I have some concerns.

Just as a way of trying to summarize this without going through my whole presentation is the loss of fire management skills in these agencies is really a critical problem. It was a problem in 1988 in the Northern Rocky Mountain region, and it's a problem now as these issues get more complex, and certainly they are.

Now I'm going to spend most of my time talking about the Sierra Nevada because it's an area I'm very familiar with. The Sierra Nevada Ecosystem Project has provided a lot of interesting information summaries that haven't been available before about the situation that has resulted. Of course, the decade of the 1980's and 1990's have been characterized by large fires, many of which resulted from lightning. Typically since the early 1900's human-caused fires have burned more acreage in the Sierra, but in the 1980's and 1990's it was lightning.

The treatment of fuels to deal with this issue is an expensive and long-term process. In California, a Forest Service study indicated it would require the treatment of about a million acres a year for 30 years to get on top of the problem just on National Forest land, and that involves repeated entries to adequately take care of the job so at some point you could allow fire ignitions to burn without the kind of damage you see today.

But the application of prescribed fire just simply isn't going to do the job. In fact, with the complexity now of landownerships and the movement of the urban wildland interface further and further into the mountains there are a lot of other methods that have to be considered.

Mechanical treatment is one of those, and there are methods available that are working very well in some places, but there are of course some barriers to the accomplishment of those kinds of programs. One is typically the involved private industry, and the lack of consistent programs to provide areas to work in and is a very serious problem. Local communities and local goal setting needs to be dramatically involved much more in this process, and that needs to be picked up and done.

There is failure to resolve issues so the policies and programs can be carried forward. And an excellent example of that is the failure to move forward with the California Spotted Owl issue. The revised draft environmental impact statement that was to be put out for public review to get on with this issue was pulled back by the Administration, and it simply puts another barrier in the way of getting on down the road with these kinds of programs.

In addition, some of these treatment programs contribute jobs and contribute to the economic viability of the communities and the counties, and that's really important. Just to demonstrate what you see a lot of and some of the opportunities, you have some photos before you.

Photo 1 shows a typical conifer stand resulting from logging back in the early 1900's. The introduction of prescribed fire into a stand like this would be extremely risky. You would probably lose much of it and it might not be acceptable.

Photo 2 shows a similar stand that has been mechanically treated that's very fire resistant and healthy.

Photo 3 shows a mechanically thinned conifer stand that was backfired through to contain the August/September 1996 Ackerson Fire in the Stanislaus National Forest and Yosemite National Park. As a result they were able to save the City and County of San Francisco Recreation Facility. Most of that stand survived that fire as hot as it was. You wouldn't introduce prescribed fire into that stand under the same kind of conditions that burned there.

And Photo 4 shows an unthinned stand that burned in that same fire as a result of the fuel loading that was present, and none of the trees, including very large trees, survived that. And that's typical.

That concludes my remarks and I'll be happy to answer your questions.

Chairman HANSEN. Thank you very much.

[Prepared statement of Blaine L. Cornell may be found at the end of hearing.]

Chairman HANSEN. The gentlelady from Idaho.

Mrs. CHENOWETH. Mr. Chairman, I have some graphs that I would like to use as I ask Dr. Neuenschwander some questions. May I have your permission for that?

Chairman HANSEN. Absolutely.

Mrs. CHENOWETH. Thank you.

Dr. Neuenschwander, these graphs were prepared by Boise National Forest in cooperation with the University also as I understand it.

The average annual wildfires by the decade's average from 1940 to 1994 has in the Rocky Mountains expanded greatly. Between the 1980's and 1990's we are up at rates of natural wildfires that are just very devastating, and then in the Pacific States we have less wildfires in the 1980's and 1990's. Can you explain the difference as to why the Pacific States have been more immune from the wildfires than the Rocky Mountain States?

Mr. NEUENSCHWANDER. Well I think I would prefer to have you defer that question to the Forest Service. I would like to make a point that I did not talk about the invasion of exotic species and especially cheat grass onto our rangelands. The invasion of cheat grass on our rangelands has really increased not only the size, but the frequency of fires. We have areas that burn every single year now in which the historic record is that it would not have burned. Some of the large fires in Utah, this year, Mr. Chairman, cheat grass contributed to many of those fires.

But the second major point is that the fire exclusion has come to a crescendo such that the fuel beds are continuous over the landscape and the fires are no longer on the ground and they are very dangerous and very expensive to fight because these fires get to be so large so fast.

Mrs. CHENOWETH. Could we see the next graph there.

Wildfire fuel in the Boise National Forest, we saw that a hundred years ago we had very little crown fires. Most of the fires were litter fires or other. Why are we seeing so many more crown fires now?

Mr. NEUENSCHWANDER. Well in my Plate No. 2, which by the way is Ponderosa State Park in Idaho, and going back to the National Geographic one, it is the small diameter trees and their biomass. They are very flammable and when the flames hit them, the flames reach through the tops of the little trees into the big trees and the crowns of the trees are consumed by the fire, and we also have additional material, debris, organic debris that is dropped from the number of trees on the ground. We call those the woody fuels, and those woody fuel loads is the red there, and they call it litter, but that's caused by the needles and the twigs that are on the ground. So we have more stuff to burn and many of these forests do not survive the fires of today.

Mrs. CHENOWETH. In the next one, Dr. Neuenschwander, they have provided me with a graph showing the nature and severity of fires and what occurs as fires get hotter. We see that water vaporizes at a hundred degrees, and that's awfully hot, but some of these fires have reached above 750 degrees. What happens then in terms of nature being able to restore itself when we see those high intensity fires?

Mr. NEUENSCHWANDER. These high intensity fires are putting a lot of the nutrients that are needed to sustain these forests at risk either going up into the smoke column or eventually washing off the site, and sometimes they create soils that repel water and the water carries the nutrients off of the slopes and puts them into the rivers and affects the long-term productivity of our forests.

Mrs. CHENOWETH. Then the next one is the cost of the wildfires. We've seen that the incidence of heavy wildfires have gone up dramatically in 1994 and then again this year. Then the green ribbon is the cost of these wildfires. It looks like the cost so far in 1996 for the fires that is demonstrated by the red line to the right of the cost, and that's on an angle, is exceeding what it did in 1994 and that we truly have historically large wildfires in the West that are more costly per acre than they were even in 1994. Is that correct?

Mr. NEUENSCHWANDER. That's correct.

Mrs. CHENOWETH. And then the final one, Mr. Chairman, is trees per acre in douglas fir western snowberry habitat type. This is a sample in the Boise National Forest. We apparently had the indigenous species of ponderosa pine for a very long time, and then we begin to see the intrusion of douglas fir and other species. So that now we're seeing far more fires because those species are not native to that area. Is that what is happening?

Mr. NEUENSCHWANDER. Well they are native. They're just increasing in density, and the net result of that, going back to the National Geographic, is what I call a current condition, which is many young trees per acre, and when the forests can no longer support all those trees as they grow up they die. In fact, on this particular slide here that you're showing somewhere around half of those trees are dead already because of insects, disease, drought and so forth. So the fires would stay on the surface in the 1700's to 1906 and then jump into the crowns in 1993, 1994, 1995 and 1996.

Mrs. CHENOWETH. Thank you, Dr. Neuenschwander, and thank you for coming so far and giving such valuable testimony.

Mr. NEUENSCHWANDER. Thank you very much.

Chairman HANSEN. Mr. Herger, do you have any questions for these two panelists?

Mr. HERGER. No. Thank you, Mr. Chairman.

Chairman HANSEN. I want to thank you for coming. I think this has been very informative. A lot of us are very frustrated over the amount of fires we've had in the area.

I recently was in the Dixie National Forest with the Forest Supervisor, Hugh Thompson, and I couldn't believe how many dead trees we've got. I mean I've lived my entire life in Utah on and off when there have been various places I've had to go, but that has always been looked at as one of those beautiful, beautiful forests. Now we've got dead trees all over the place in Iron County and Garfield County, and a lot of that is because of the pine beetle that has been in there and killing those areas, and then lawsuits from environmental groups have restricted the use of harvesting.

Harvesting traditionally has been the way we've gone in and gotten these things out, and now we've got dead trees. I've got pictures of dead trees and green trees that are dead, and that's going to take years and years to come back. Not to editorialize, but I really worry sometimes about the mentality that says just let mother nature take care of it.

In my experience of 16 years on this Committee we have been manipulating the forests for many, many years, and out of that we've had prescribed fires, cleaned out the dead wood, pretreated

the forests, and whatever it may be, killed out the pine beetle, and now all we've got is dead, dead forests all over the West.

Now also because of environmental problems Kaibab Industries is pretty well gone as is Escalante Sawmills. So now after they finally defeated that lawsuit which took 16 months they're taking the timber out with helicopters. They tell me the cost of that is \$500 an hour. And then they're taking it to these trucks and they're moving it to Montana and to California to mill these logs when there is a perfectly good mill just 30 miles away. So as a result of that we've got dead forests all over America, and people ask the question why do we have fires?

Now in my last two trips to Southern Utah I was stopped on I-15 because there were fires on both sides. A couple of places we went through it was so dense I was worried about a traffic accident because the smoke was so dense right on Interstate 15 through Utah.

As my forester friends tell me out there, the fire load has never been so heavy. I find this extremely disturbing, and I think people of the West find it very disturbing. We sent a letter to Secretary Glickman signed September 6th, 1996 where we pointed out that more than 5.6 million acres of our public land has been burned by forest fires at a cost of \$330 million per month to fight these forest fires.

I can't understand this procedure. I'm worried about it, and we're very concerned.

Do you want to comment on any of those statements I've made, either one of you?

Mr. CORNELL. There is ample evidence to support that in a lot of instances. There are current examples that could be shown rather readily. These pictures just show one, but in this same area there are other situations where there was timber salvaged and fire introduced after that have survived very well in this current onslaught.

The other thing that it does, as you pointed out, is it really impacts the communities, you know, the kind of things that occur there. For example, it cost about \$475 an acre this year to fight some of the fires in Central California, and a lot of that cost comes, for example, from the use of aircraft, particularly where you have high values to protect. And probably 40 percent of the cost to fight a fire comes from helicopters, air tankers and so forth. Then you have personnel and all that.

An alternative to that would be to treat those stands and remove some of the material. You know, for \$150 an acre you can probably prepare, sell and administer the kind of timber sales that would remove the fuels and prepare those stands for reintroduction of fire. But on top of that then you'll probably get some value returned. So the contribution of the Federal Government is going to be reduced dramatically, and you're going to take the necessary steps then to help restore the economic viability to some of those communities that have really been hit hard by the inability to find a resource to process.

The reduction in the amount of resources available in many cases is a decision. It's not a consequence of some other economic shift.



It's a conscious decision by somebody, and that makes the impact all the harder to take for those folks.

Chairman HANSEN. Dr. Neuenschwander, did you want to comment?

Mr. NEUENSCHWANDER. Yes, I would like to comment on that, sir. I believe that we must fix the underlying problem and not just treat the symptoms, and to do that we need to examine the variability that exists between forest to forest and even within a forest. One prescription, one method will not fix all of the problems everywhere.

The use of prescribed fire is one tool. It's a valuable tool, and in my opinion the agencies are getting started and are developing programs, but they need to do more. There are areas in which we can use some thinning crews and do some cutting of the non-commercial trees, and then of course I've shown you one example here today of how we can use harvest in a different way to maintain our goals.

But the problem is very, very large, and because it's so large we really need to get a handle on it and realize that we can't treat everything right now at the same time, but I believe we should get started.

Chairman HANSEN. In my experience on this Committee we have had a lot of people here and literally gone through hundreds of hearings in the 16 years I've been here. I get a lot of people in here who are members of organizations who talk in emotional terms about how beautiful it is and preserve it for our grand kids. Then we get the other side of the coin, and that is the professionals that come out of land grant colleges like Utah State and other areas, and it just amazes me the difference we get on this. I almost wish we could convert some of these people because you get the idea if you leave it alone, mother nature will take care of it, and all we get is a charred, burned, dirty mess with erosion all over.

I don't think a lot of people realize that we've manipulated the forests for a long time. I would like a dollar for every hour I've spent with professional foresters in the last 16 years on what we have to do to take care of the forests. And I'm really kind of disturbed with this Administration, and I'm looking forward to Mr. Lyons' comment on why we're not going in and taking out some of this old dead stuff and why it is that now two by fours and four by fours and all those things have gone sky high.

I mean I would be the first to admit that sometimes we've overcut the forests, no question about it, and made a lot of mistakes, but I would also say it's probably worse the way we're doing it now just leaving it as it is. We're going to have that beautiful West looking like a junk heap of burned out timber in a short time which really disturbs me. If that's what those folks want, then I'm really disturbed.

And I can show example after example. I'm willing to take anyone who is open, honest and not emotional and put them in an airplane and I'll fly it myself and fly them over some of these areas, I mean if they're dumb enough to fly with me.

[Laughter.]

I used to be good in my younger years. I'll show them these areas and see if that's what they really want out of the forests, a dead,

straggly, stinky mess with acrid smell all the way through it for years and years.

Anyway, with that said I feel better, and since I have the mike and control this meeting I can pretty well do what I damn well please. Therefore, I will excuse the two of you. Don't go away though. We would like you to stay here and listen to the last part of this hearing.

Before we turn to Secretary Lyons, we have been joined by one of the most enthusiastic and hard working Members of Congress we have regarding forest health who has become a real expert all by himself and a man we turn to for a lot of good information, the gentleman from California, Mr. Wally Herger.

Wally, we will recognize you if you want to stay right where you are for your opening comments, and then we'll turn to Mr. Lyons.

**STATEMENT OF THE HON. WALLY HERGER, A U.S.  
REPRESENTATIVE FROM CALIFORNIA**

Mr. HERGER. I thank you very much, Mr. Chairman, for inviting me to address your hearing this afternoon. As always I appreciate the hard work your Subcommittee puts into the issue of forest management, particularly during this historic fire season.

Mr. Chairman, I appear before the Committee today to protest the Clinton Administration's mistreatment of our forests, scientists and professionals within the U.S. Forest Service and the public in California.

California forests are hovering on the verge of environmental catastrophe. Aggressive fire prevention and downward spiraling timber harvests have made our forests unnaturally dense, at least 82 percent denser today than they were in 1928. Overdense timber stands are dying in epidemic proportions from the effects of disease, insect infestations in 7 out of 10 years of drought. In some areas 70 percent or more of the forest is dead or dying.

These deplorable conditions have turned our forests into time bombs. With our two most severe months remaining in the catastrophic fire season of 1996 fire storms have already consumed over 580,000 acres in California, eclipsing the 525,000 acre total of the historic 1994 fire season. Uncontrollable wildfires have whipped through Yosemite National Park, threatened the giant redwoods of Sequoia National Park and have incinerated tens of thousands of acres of old growth, key watersheds and critical wildlife habitat in the Mendocino National Forest.

Disasters of this magnitude demand immediate action. Yet, instead of declaring an emergency in our forests, the Clinton Administration has declared war on them. Yielding to the heavy handed election year politics of a billion dollar national environmental lobby, the Clinton Administration has preempted the decisionmaking of local experts, obstructed scientific and public processes and prohibited forest management activities that would reduce the risk of catastrophic wildfire in the State. In short, you could sum up the Clinton Administration election year policy for California forests as "suppress the science, gag the public and let the forests burn."

Last summer Congress gave the Administration a short-term emergency timber salvage law as a tool to treat the massive backlog of dead and dying trees in our forests and thereby reduce the

risk of catastrophic fires. Rather than allowing local forest managers to use this tool to prevent fire, the Clinton Administration consist with its policy of "Washington knows best," first delayed implementing the law and then blocked it altogether.

On July 2nd of this year Secretary of Agriculture Dan Glickman directed local forest managers in California to cancel 85 million board feet of the 103 million board feet of additional salvage sales prepared in the State under the law. As a result the sales you see in these photos will never go forward even though the local Forest Supervisor describes these forest conditions as "a true emergency of vast magnitude" and has appealed to Washington directly for special permission to treat the forests. So far Washington has stone-walled her request.

Then on August 20th of this year the Clinton Administration took its command and control forest policy to an unprecedented extreme when White House Chief of Staff Leon Panetta and Secretary of Agriculture Dan Glickman suppressed and refused to release to the public a draft environmental statement on the California spotted owl. This document, which has been four years and \$5 million in the making, would give local managers more flexibility to prevent catastrophic wildfire in California's Sierra Nevada forests.

The billion dollar national environmental lobby has applauded the move. However, scientists and the public, who have been denied access to the document, have not. In fact, six key scientists from the Sierra Nevada Ecosystem Project team have condemned the Administration's action stating that they are "repulsed for their obvious political motive and lack of professional basis,<sup>1</sup>" that they are "foolish and an obvious way of avoiding tough decisions that would not be popular with everyone,<sup>2</sup>" and that they "seriously cheapen the scientific work to date."<sup>3</sup> Local newspapers in the Sierra Nevada have described the White House move as "predicated on the fact that when tough ecological decisions arise President Clinton listens to hard-core environmentalists first and all others second."<sup>4</sup>

This Congress must not tolerate such disrespect for science, the professionals within the U.S. Forest Service and the public. Our forests must be managed by environmental science, not political science. Otherwise dangerous forest conditions like these in the Six Rivers National Forest will explode in catastrophic wildfires that will reduce our forests to a lifeless moonscape.

I call upon President Clinton to do the responsible thing, to allow local forest managers to fully implement the timber salvage law and to immediately release the revised draft environmental impact statement for the California spotted owl for public review and comment. Our California forests and forest communities are waiting.

Thank you, Mr. Chairman.

Chairman HANSEN. Thank you, Mr. Herger.

[Hon. Wally Herger submitted the following for the record.]

<sup>1</sup> August 27, 1996 letter to Dr. James Space, Station Director, USDA Forest Service, PSW Research Station, Albany, CA from Constance Millar, Research Geneticist, SNEP science team member, and former Chair of the SNEP Coordinating Committee.

<sup>2</sup> September 6, 1996 press release from six prominent members of the SNEP scientific team.

<sup>3</sup> Ibid.

<sup>4</sup> *Feather River Bulletin*, August 28, 1996, page B8.

U.S. DEPARTMENT OF AGRICULTURE,  
SIX RIVERS NATIONAL FORES,  
*Eureka, CA, July 24, 1996.*

Subject: Salvage Direction  
To G. Lynn Sprague, R-5 Regional Forester

The Six Rivers National Forest received the July 2, 1996, Memorandum from the Secretary of Agriculture giving Revised Direction for Emergency Salvage Sale Conducted Under Section 20001(b) of P.L. 104-19. I concur with the intent of the direction to ensure that sales prepared under this law meet required environmental standards and are able to withstand normal review and appeal. I am also committed to sustaining the public's confidence in our stewardship of national forests.

Attached to this letter is a Blowdown Situation Analysis for a portion of the Six Rivers and Shasta-Trinity National Forests that received extreme damage from storms this past winter. I am requesting that you review this analysis and forward to the Washington DC office and the Department for their consideration. The work proposed is not consistent with the Secretary's direction to avoid salvage sales in inventoried roadless areas.

To highlight the points made in the Situation Analysis, I believe that an extreme threat of fires exist as a result of the fuels brought down in this uncommonly severe season of storms. I am proposing treatments in the areas of heaviest concentration of down timber across a much larger affected area, to reduce the probability of catastrophic fire. The values at risk include a large Late Successional Reserve, the Trinity Alps Wilderness, and the Hoopa Valley Indian Reservation. Our concerns focus on public and fire fighter safety on the event of fire within this area.

The Forest has undertaken a major public involvement effort. I have hosted several field trips, a public meeting, and solicited the views of local scientists and advisors, including the Salvage Subcommittee of the Klamath Provincial Advisory Committee. In addition to these groups, we have had the involvement of the Fish and Wildlife Service and the National Marine Fisheries Service who concur with our concern for potential loss of fish and terrestrial habitat.

The affected area is adjacent to the Hoopa Reservation and overlays areas of spiritual significance on national forest lands. We have consulted with the Tribal Council and individual spiritual leaders and are incorporating their interests and concerns in our proposed actions.

REGIONAL FORESTER

I believe that the treatments proposed in the severely affected areas are consistent with the objectives of the Northwest Forest Plan. Activities will be consistent with the Aquatic Conservation Strategy and enhancement of habitat for old growth dependent species in LSD's.

If we do not go forward with the proposed sale of some of the merchantable timber in these areas, the forest will be faced with dealing with the fuels buildup using only appropriated funds which, on this Forest, are not typically sufficient to manage this massive occurrence. It seems far preferable to be able to utilize KV and BD funds generated from the sale of the down timber, augmented with PF2 funds, to administer the follow-up work that will be required to reintroduce natural fire in this area. Without fuels reduction, a catastrophic fire very likely and would damage the resources we are committed to protect.

I appreciate your review of the Situation Analysis and request that you forward it to the Department for their consideration. I will be happy to provide any additional information or field review of the proposed actions that may be required in the consideration of this request.

MARTHA J. KETELLE,  
*Forest Supervisor.*

SITUATION ANALYSIS UNDER SECRETARY GLICKMAN'S SALVAGE DIRECTION SIX RIVERS  
AND SHASTA-TRINITY NATIONAL FORESTS, 7/24/96

CURRENT SITUATION

During the winter of 1995/1996, several storms resulted in extensive damage to high elevation forests stands on the Lower Trinity and Orleans Ranger Districts of

the Six Rivers National Forest. The heavy blowdown and breakage across entire hillsides has created a critical fuels situation with extremely high potential for catastrophic damage due to wildfires.

Since snow melt in June, efforts have been moving forward to reduce the potential hazard through the use of the timber sale process. Most of the damaged material is white fir. Due to the rapid deterioration of this species, the proposed timber sales need to be completed before the value of this material is lost. If the merchantable material is not slash treatment and BD collections would be lost.

The NEPA process is well underway. The public has been involved through letters, news articles, a public meeting, and field trips. Local tribal governments have been consulted, as well as tribal religious leaders. Biologists from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service have visited the areas and strongly support the need for immediate action.

No new permanent road construction is proposed. Temporary roads would be kept to a minimum, and closed after project completion. The material to be removed is blowdown and damaged trees that exceed Land Management Plan Standards for snags and logs. Green trees would only be removed if needed for access (temp roads, skyline corridors, etc.) Special prescriptions designed to achieve all Aquatic Conservation Strategy objectives have been developed for riparian areas.

Approximately half of the areas proposed for treatment is located in released roadless areas which have been identified in the Forest Plan as having retained their roadless character. Under the Secretary's direction of July 2, 1996, no salvage sales in inventoried roadless areas may go forward under the Salvage Legislation unless the trees are "imminently susceptible to fire", and near local communities or occupied structures. The closest communities to proposed project areas are the towns of Denny and Orleans, each of which is located approximately three air miles away. By limiting fuels treatment to roaded areas only, the Secretary's direction severely limits our ability to reduce the extreme fire risk to the entire affected area.

#### FUEL LOADING AND FIRE RISK

The majority of the affected area is composed of natural, untreated stands between 80 and 120 years of age. These stands originated from fires occurring between 1870 and 1910. Stand density typical of these relatively young age classes has created competition induced mortality, which produces high levels of naturally-generated ground litter. Prior to the Wind event, expected fire behavior would have been a low, creeping ground fire with increasing intensity in fuel concentrations. Because white fir is easily damaged by fire, there would likely be high levels of mortality in the event of a large fire. Fires of this nature have traditionally been fought with high levels of success. Total number or acres damaged would remain relatively low. Under these average burning conditions, riparian areas would normally have reduced fire damage because of higher levels of fuel moisture and humidity.

Fuel Models are used to classify vegetation types for purposes of fire behavior analysis. Prior to the storms, fuel configuration would be classified at 60% closed timber litter, 30% timber litter and understory and 10% other. Due to the additional fuel loading caused by the wind event, the stands currently are classified as heavy logging slash. The tops, limbs, chunks, and merchantable material resulting from the wind storm contribute to the total fuel loading, which is currently in the hundreds of tons per acre.

The larger fuels (which would be removed under a timber sale), contribute to the intensity of a fire, while the fine fuels contribute to the rate of spread. This combination will result in extreme behavior and catastrophic effects in the event of an unplanned ignition. Suppression strategists will be severely hampered and stand replacing fires would occur over extensive areas. Potential fire size would be in the tens of thousands of acres burned. Smoke emissions due to the tremendous fuel loading could cause severe health impacts to residents of local communities downwind. Riparian areas would also be consumed under these extreme conditions. If fuel treatment does not occur, risk to these stands will continue at the current level for about three years. After three years, rates of spread should decrease, but intensity levels will remain.

Based on historical records, the wind damaged areas of the forest have a very high potential of receiving lightning activity. Since 1911, within the affected area of just the Lower Trinity Range District there have been 166 documented fires; 83 percent have been lightning caused. The smaller affected area on the Orleans Ranger District shows 70 percent of the 44 recorded fires as lightning caused. Several fired within and adjacent to the affected areas. The potential for much larger fires has increased dramatically due to the higher fuel loadings from the blowdown.

## VALUES AT RISK

*Fisheries resource*

Much of the area affected by the windstorm is located in Key Watersheds, which are part of a system of large refugia designed to provide high quality fish habitat. These watersheds are crucial for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species.

A catastrophic fire in the area would have a devastating effect on the quality of fish habitat for chinook and coho salmon and steelhead, all of which are currently proposed for listing under the Endangered Species Act. Sediment yield to fish bearing streams would be drastically increased, severely affecting spawning and rearing potential. Loss of riparian vegetation would result in higher peak flows, and could result in increased landslides within the active channel, further degrading habitat conditions. Stream conditions for other aquatic organisms essential to the maintenance of the aquatic ecosystem would be altered.

*Late successional reserve*

The majority of the area affected by the windstorm is within a Late Successional Reserve (LSR), which is approximately 90,000 acres in size and is shared by the Six Rivers and Shasta-Trinity National Forests. LSRs are a network of late-successional and old-growth related species, which on the Six Rivers and Shasta-Trinity include the northern spotted owl and the marbled murrelet. The values for which this LSR was designated would be severely affected should a catastrophic fire occur. Thousands of acres of suitable habitat for late-successional and old-growth dependent species would be lost.

*Wilderness*

All of the proposed projects located within released roadless areas are adjacent to or near the Trinity Alps Wilderness. Stand damage caused by the winter storms has occurred in the wilderness as well. Treatment of the areas outside of the wilderness would reduce the total area of continuous high fuel loading, thereby decreasing the threat to the wilderness.

*Trust responsibilities*

The U.S. Government has a trust responsibility to (1) facilitate access and use of the National Forest system lands by Indian people, (2) in a broad sense to protect the natural resources located on reservation land. The Hoopa Valley Indian Reservation is adjacent to National Forest land have also been damaged. Due to the contiguous nature of the blowdown pattern that elevated fuel levels on both National Forest and spread to the Reservation is real.

The area adjacent to the reservation is used for the gathering of basket materials, religious regalia, clothing, and food. The area is also spiritual activities. Fire would also affect the main source of water for the reservation, and would damage watersheds that bear anadromous fish which are harvested for subsistence use.

*Public safety and use*

The small mountain communities of Denny and Orleans are located within the National Forest boundary. Both communities are approximately three air miles from the affected area, and both rely on National Forest Watersheds for their use as a domestic source.

The affected areas has a high amount of public use for wilderness access, and general recreation use such as wood cutting. All access to the wilderness is one way in and one way cut through the affected area. In the event of a catastrophic fire, any public using the area could possible have escape routes cut off.

*Economic value*

As stated earlier, most of the stands affected are white fir. When damaged, white fir deteriorates rapidly and loses economic value quickly. As stated on page 5 of the Timber Salvage Questions and Answers" which accompanied the July 2, 1996 direction, " \* \* \* one of the main reasons for proposing a salvage sale is to recover the economic values of dead, downed, damaged, and threatened trees." Most of the sales proposed in the released roadless area would decrease to the point of making it un-

economical to remove. Economic value would be lost, as well as fuel treatment opportunities through the timber sale.

### *Conclusions*

Secretary Glickman's interim direction is designed to ensure that the salvage program is focused on true emergencies within the National Forest system. The damage that the forests received this past winter has created an extremely high risk of catastrophic fire with resultant effects to fisheries, wildfire, and wilderness values; in our ability to meet our trust responsibilities to Native Americans, and to provide for public safety and use of the National Forests; and economic loss.

This is a true emergency of vast magnitude. It is not a matter of if a fire will occur, but how extensive the damage will be when the fire does occur. Through the timber sale process, the hazard and risk can be reduced. Half of the area proposed for treatment is designed as released roadless and is not available for salvage under the Secretary's direction. All other aspects of the direction would be met. We ask that for this unique situation the direction be reconsidered.

\*Recreated by the Office of Representative Hon. Wally Herger

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LETTER'S SUBMITTED BY HON. WALLY HERGER

DEPARTMENT OF AGRICULTURE,  
OFFICE OF THE SECRETARY  
*Washington, DC, Sept. 4, 1996.*

MEMORANDUM TO JACK WARD THOMAS, CHIEF OF THE FOREST SERVICE

From: James R. Lyons, Under Secretary, Natural Resources and Environment

Subject: California Owl Revised Draft Environmental Impact Statement

Due to the significance of the California Spotted Owl Revised Draft Environmental Impact Statement (RDEIS) on the long term sustainability and multiple-use of the Sierra Nevada forests, I believe it is essential that we base our management proposals on the best science available. With the Sierra Nevada Ecosystem Project (SNEP) report nearing completion, it is important that the Forest Service assure that full advantage of this new information has been taken in making resource decisions affecting the Sierra Nevada ecosystem.

To continue our commitment to multiple-use based on sound science, the Forest Service should proceed according to the following direction:

1. You will assemble a scientific review team chartered under the Federal Advisory Committee Act comprised of representatives of the SNEP team, the California Spotted Owl Technical Team (CASPO), and other appropriate individuals from inside and outside the Forest Service with expertise in the management issues associated with the Sierra Nevada ecosystem.

2. This team will conduct an evaluation of the RDEIS alternatives in light of the SNEP, an analysis of the planning models used to support management decisions, and a review of any other scientific information brought to the team's attention which may bear on the future management of the Sierra Nevada ecosystem.

3. As a part of its review, the team should conduct public workshops to review the findings of SNEP and the DEIS to encourage discussion of how they might be applied to management plans in the Sierra Nevada forests.

4. After the team conducts its review and workshops, the team should prepare a draft report of their findings and recommendations.

5. The draft report should be peer reviewed before being finalized and submitted to you and the Secretary. This report should then serve as the basis for preparing a revised draft EIS and/or additional alternatives to guide management of the Sierra Nevada ecosystem.

I would expect the team to be assembled and its charter completed by November 1, 1996, and its final report to be delivered by February 1, 1997. Based on the results of this effort, I would hope that the revised EIS could be completed early next year.

Thank you for your attention to this extremely important issue. Please keep me apprised of your progress.

Sept. 6, 1996.

## Press Release: Scientists Criticize Suppression of CalOwl Report

Recent efforts by the Administration to postpone the release of the Forest Service's REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR MANAGING THE CALIFORNIA SPOTTED OWL (DRAFT EIS) are drawing criticism from former science team members of the Sierra Nevada Ecosystem Project (SNEP). The moves are criticized by key scientists within SNEP as an attempt to suppress the documents from open public and scientific review.

While emphasizing that they do not speak collectively for the SNEP effort, former SNEP science team members Richard Kattelmann, Jonathan Kusel, David Graber, Douglas Leisz, Constance Millar, and William Stewart condemned the move as a step away from open, scientific inquiry where the widest array of information is available to all. The release of the DRAFT EIS, scheduled for August 20, and intended for a 90-day public review period, has been blocked by the Administration on grounds that the report did not take into account new scientific studies produced by SNEP.

The release of the CalOwl draft had already been postponed for two years, with the latest postponement expressly for the purpose of reviewing the SNEP documents, which became available in early June this year. Immediately after the SNEP release, CalOwl team members formally met with the SNEP science team. As a result of three months review and consultation with SNEP team members, the CalOwl team developed the DRAFT EIS including Appendix Q, "Consideration of New Information, the Sierra Nevada Ecosystem Project", which explicitly and in detail compares the science bases and management interpretations of the two projects.

The former members of the SNEP science team, who have been informed about the CalOwl process through the 1994 draft EIS, from interactions during SNEP analyses, and from preprints of various parts of the DRAFT EIS which were available to some of the scientists, believe it is in the public interest to release the DRAFT EIS immediately. Withholding a draft report that has already been through major revisions after the initial draft of 1994 and through review of the SNEP report will not promote the open, scientific inquiry that is clearly necessary for the Sierra Nevada. Both teams worked with many of the same databases and science base. Different interpretations of the scientific information and management implications exist within the different chapters of the SNEP report, and will undoubtedly come out during review of the DRAFT EIS. But only after open public review of the full DRAFT EIS can the management conclusions and scientific interpretations be adequately evaluated.

The latest move (Sept 6) by the Administration to maintain the embargo on the DRAFT EIS and convene a new scientific panel is criticized by the former SNEP scientists as a further move to suppress information in the report from public scrutiny with a process that has dubious economic feasibility. Rather than convene a new panel, with the team members selected by political appointees in Washington, and delaying the process even more, the scientists believe the scientific process is best fostered by releasing the DRAFT EIS immediately, and allowing an independent science panel to help incorporate public comments into the final EIS after a sufficient public review period.

For further information, contact:

Dr. Richard Kattelmann, Hydrologist, Sierra Nevada Aquatic Research Laboratory, Mammoth Lakes, CA, (619) 935-4903

Dr. David Graber, Wildlife Biologist, National Biological Service, Three Rivers, CA, (209) 565-3173

Dr. Jonathan Kusel, Forest Community Research, Greenville, CA (916) 284-1022

Dr. Douglas Leisz, Consulting Forester, Placerville, CA, (916) 626-3377

Dr. Constance Millar, Geneticist, USFS Pacific Southwest Research Station, Albany, CA (510) 559-6435

Dr. William Stewart, Economist, Pacific Institute, Berkeley, CA (510) 251-1600

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Sept, 9, 1996

DEAR CHIEF THOMAS: I worked with you on FEMAT (with the community assessment group) and coordinated the SNEP social assessment and all SNEP public participation activities. I would like to share a few observations about the recent decision to further delay the release of California Spotted Owl Revised Draft Environmental Impact Statement (RDEIS).



Two things are absolutely clear: (1) No more study is needed—at least in the short term and for immediate decision-making purposes; and (2) panel the length that is being suggested whether it involves additional study or not is absurd.

To call for more study is foolish. It is an obvious way of avoiding tough decisions that will not be popular with everyone (as if that is possible), and it seriously cheapens the scientific work to date. The irony of the call for additional study is that it undermines itself. How with all the time and resources spent to date can an additional, extremely short-term study or expert panel be justified? An additional panel will not produce better science. And in the eyes of the taxpaying public and numerous elected officials, why should more money be devoted to yet another study? Worse, the call for additional study will lead to a public less inclined to support studies in the future, regardless of merit. As these studies become more politicized the work of scientists becomes irrelevant.

Perhaps most serious, the recent delay will re-polarize groups instead of building on the collaborative processes and good will that has been developed through SNEP. That would be a great loss. The decision to convene a new panel charts a course to re-polarize groups in a dramatically de-polarized environment, one which the SNEP public participation team and all the SNEP team scientists worked so hard to establish. The government but mostly the Forest Service will be blamed and claims like those of the Quincy Library Group—that it is the Forest Service that is at fault—will ring true to many.

What is clear is that scientists have done their jobs. There is more to do as we have raised at least as many questions in our studies as we have answered. We can quibble about how well the SNEP scientists or the Cal Owl Team carried out their respective charges, but that is not the issue at hand now. Nor will those issues be resolved with a panel with the likes and the duration of the one proposed. If there are contradictions between the SNEP and California Spotted Owl RDEIS, and we know there are some, the alternative to convene a very short-lived panel to review the discrepancies might be appropriate, though this panel is unlikely to resolve the discrepancies. Such a panel will have to be open and the California Spotted Owl RDEIS will have to be released before or by the start of the panel's work. To repeat, it cannot be a closed process, which means the public must have access to information, including the California Spotted Owl RDEIS, to ensure a legitimate review process. Since bringing in more or different scientists will not resolve the discrepancies, another logical outcome will be to embark on multi-course action that is intensively monitored to ensure learning from the results. This is similar to open-adaptive management suggested in SNEP.

Decisions still must be made based on the information at hand, now. The public, politicians of all stripes, and resource managers have patiently waited and have even supported the studies acknowledging their need and importance. It is extremely unfortunate the administration appears reluctant to move forward in the Sierra because these processes and goodwill in the region represent real opportunities for successes and are consistent with what the administration called for at the Portland Summit several years ago. Public patience and support will not extend to yet another study. The delay of the California Spotted Owl RDEIS and the call for additional study will make it far more difficult to maintain the dialogues and collaborative processes, and ensure the goodwill necessary for building new relationships. Delaying decision-making now will re-polarize and make for much more contentious decision-making in the future.

JONATHAN KUSEL

*Forest Community Research and Visiting Scholar*

U.S. DEPARTMENT OF AGRICULTURE  
PACIFIC SOUTHWEST RESEARCH STATION

*Berkeley, CA, August 27, 1996.*

*Dr. James Space, Station Director  
USDA Forest Service  
PSW Research Station  
Albany, CA 94701*

DEAR JIM:

Recent actions by the Administration to postpone the release of the REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) for Managing the Cali-

ifornia Spotted Owl repulse me for their obvious political motive and lack of professional basis.

Although the DEIS has not been distributed for review, I have read what is available, including preprints of (1) the Summary DEIS, (2) Appendix L, Direction for Managing California Spotted Owl Habitat, (3) Appendix O, Aquatic/Riparian Conservation Strategy, and (4) Appendix Q, Consideration of New Information, The Sierra Nevada Ecosystem Project. Further, I have attended briefings by members of the CalOwl Team given to the Sierra Nevada Ecosystem Project (SNEP) science team and a 6-hour overview for Sierran national forest managers.

From these reviews, I conclude that the CalOwl Team has had adequate access to current scientific information, and has seriously reviewed relevant information compiled in SNEP reports. Both teams worked with many of the same, databases and science base. The scope of the two projects is not the same, and thus different topics are addressed. Further, interpretations of scientific information and implications for management in some cases differ among the reports. This is the nature of science and land management.

The public, including the scientific community, deserves an opportunity to review the DEIS now. Only after serious review of the full documents can the management conclusions and scientific interpretations be adequately evaluated.

I find it disgraceful that stewardship of our Sierran national forests should become a political fate, and the professional efforts of scientists and managers disregarded.

Sincerely,

CONSTANCE I. MILLAR, PH.D.,  
*Research Geneticist.*

Chairman HANSEN. Secretary Lyons, I appreciate you coming in today. That middle one is the hot seat.

Under Secretary LYONS. I appreciate this opportunity to join you, Mr. Chairman.

Chairman HANSEN. Chief, do you want to join us up here, if you would.

Under Secretary LYONS. If I could, I would like to have Jack and Mary Jo Lavin, who is the Director of Fire, to join me, if that's all right.

Chairman HANSEN. Great. Nice to have you both here. I appreciate it. The floor is yours, sir.

**STATEMENT OF THE HON. JAMES R. LYONS, UNDER SECRETARY FOR NATURAL RESOURCES AND ENVIRONMENT, U.S. DEPARTMENT OF INTERIOR ACCOMPANIED BY: JACK WARD THOMAS, CHIEF OF THE FOREST SERVICE and MARY JO LAVIN, DIRECTOR OF THE FIRE AND AVIATION MANAGEMENT STAFF**

Under Secretary LYONS. Thank you very much, Mr. Chairman. I appreciate the opportunity to join you this afternoon.

As I indicated for the record, I'm accompanied by Dr. Jack Ward Thomas, Chief of the Forest Service, and Mary Jo Lavin, who is the Director of Fire and Aviation on the State and private staff.

We all know the fire situation in 1996, and I probably don't need to elaborate, but let me simply state that as of September 9th, 88,142 wildfires have burned 5 million almost 800,000 acres across all ownerships nationwide. Of this approximately 20 percent of the acreage burned is on national forest system lands.

These numbers, while the highest in recent memory, are generally consistent with Forest Service experience during the past decade. Clearly we are facing a prolonged period of abnormally high fire occurrence for a number of reasons.

One is prolonged drought in the Western United States. The period of 1985 to 1995 has been the driest 10-year period in the past 50 years. In fact, 1996 has been at least as dry. Arizona, for example, had its second driest year in recorded history in 1996. In spite of the heavy snow packs we experienced earlier this year, the spring and summer have been extremely dry, and that has in fact exacerbated the forest situation.

Exclusion of low-intensity fire from fire adapted ecosystems is also a contributing factor, and the panelists before us did an excellent job of explaining the effects of fire exclusion policies of the past. While these were well-intentioned policies, as a result we do in fact have overstocked drought-susceptible, stagnated forests in many parts of the West.

Stressed timber stands are particularly susceptible, as you know, to insect and disease infestations, which in turn lead to elevated levels of tree mortality.

And accelerated development in the wildland/urban interface, particularly in States like California, greatly complicates all aspects of fire management.

The factors working in concert have produced forests that are measurably more susceptible to catastrophic wildfire than we've seen in some time.

The Clinton Administration is responding to the increased incidence of catastrophic fire in a number of ways, and let me address the issue of forest health before turning to what we're doing to improve what I consider to be already the most outstanding firefighting organization in the world.

Forest ecosystem disturbance, be it through fire, insects and disease or other change mechanisms, is inevitable. We can better manage forest resources by accepting the reality that biological communities are in effect constantly changing and by managing forests to better mimic the changes that would naturally occur over time.

In fire-adapted forests of the West we must reduce stand densities by thinning from below, we must reintroduce periodic low-intensity fire, and extend the rotation age of timber stands to promote a more fire-tolerant stand structure, as it was illustrated by the panelists that preceded us. It is not a case of doing one thing or another, but rather selecting the best combination of measures that will accomplish the best result.

At an operational level the Forest Service is developing programs to mitigate the effects of fire exclusion through an expanded fuels treatment program. This program consists principally of prescribed fire and mechanical treatments. In fact, we have quadrupled our fuel treatment budget since 1987, an indication of our commitment to reintroduce fire into fire-adapted ecosystems. The long-term benefit of this fuels management effort should be reduced fire-suppression costs, fewer catastrophic wildfires, and reduced loss of life and property.

Thinning and salvage sales are additional tools that can be used to enhance forest health where site-specific conditions warrant. Both operations can be used to reduce the density of overstocked forests, help to remove dead and dying trees, reduce fuels that pose a fire hazard, reduce susceptibility to insects or diseases, and in-

crease the likelihood of a more desirable species mix. Quite often though material that needs to be removed is smaller and unmerchantable, and that has been a problem for us in attempting to move forward with our salvage sale program.

Finally, let me turn to the wildland/urban interface issue. The interface exhibits all of the forest health problems we've already discussed and, because of the values at risk, magnifies the challenges we face in avoiding catastrophic fire. To address these unique problems we are placing special emphasis on collaboration between Federal and State management agencies, work with local government entities and with private property owners to attempt to protect lands and resource values in that interface.

Now let me turn to the firefighting organization. I am extremely proud of the central role the Forest Service plays and has played in an interagency wildland firefighting effort. Upwards of 98 percent of all wildfires in a normal year are suppressed upon initial attack—98 percent. More importantly, I can say that we are fighting fire efficiently and effectively, but also in a safe manner.

Even though the agency does an outstanding job of combating wildfires, the program we believe can be made even better. One area that clearly needs attention is the way in which resources are allocated to fire activities, specifically the division between presuppression and suppression activities.

It is true that an ounce of prevention is worth a pound of cure. If we shortchange presuppression activities, we almost certainly increase the overall expense of fighting wildfires. To this end the Department of Agriculture in conjunction with the Department of the Interior is contemplating proposing to Congress the establishment of a permanent appropriation that would finance fire suppression and fuel reduction activities. It would move the Forest Service to a fire management posture where periodic fire is a regular part of the fire management regime. It is very important that we accelerate our efforts to develop defensible fire zones and to start reducing the risks of catastrophic fire. If a permanent appropriation were available, we believe work could proceed wherever the opportunity existed.

Also on the legislative front the Department of Agriculture this week forwarded to the Congress proposed legislation that would address the dire need for additional airtankers to assist us in wildland firefighting. Large airtankers owned and operated by private sector contractors have been a critical component of Federal wildland firefighting forces since 1954. A shortage of suitable airtankers is now evident. In 1996 the Forest Service was able to contract for only 39 aircraft in the face of a need for 41. As few as 35 of these planes may be flying at the end of the contract period.

Our proposed legislation is designed to ensure that a fleet of efficient, safe and cost-effective airtankers is available to support firefighting activities, and we're going to need your assistance in getting that legislation enacted this Congress.

I would like to mention one additional challenge to our firefighting capabilities, and this was mentioned again by one of the panelists before us, and that's our capabilities and our institutional ability to fight fire, specifically the availability of firefighters and peo-

ple with firefighting expertise. Budget cuts mean fewer bodies available to fight wildfires is simply and plain truth.

Since 1993 the Forest Service has eliminated over 5,000 full-time equivalent positions or FTEs. This year when we approach the limit of our personnel resources 22,000-plus people from all sources were actively engaged in firefighting. To address this shortfall we have emphasized the responsibility of all Forest Service personnel to make themselves for firefighting assignments. We are using contract crews and engines, and military crews, and are placing greater reliance on firefighting forces of State and local governments. What that means is when we have to allocate resources and personnel to firefighting then they can't do the other work of forest management that is necessary to help prevent future wildfires.

Let me close by emphasizing several key points.

First, as part of improving the health of many forest and grassland ecosystems we must restore fire to fire-adapted ecosystems on a large scale. This is consistent with and a cornerstone of our Federal wildland fire management policy.

Second, we must continue an aggressive program of fuels reduction and treatment, thinning and salvage. This is best done with full public knowledge and participation in management decisions, and it must be based on the best scientific information available.

Third, we must continue to emphasize collaboration in forest management as we do in fire suppression. The success of our firefighting efforts comes of the close working relationship between Federal, State and local agencies. This teamwork approach is equally important in prescribing management strategies to reduce fire risks on the landscape.

Fourth, we must invest in the resources necessary to further improve our firefighting capacity. We appreciate the Congress' rapid response to requests for supplemental funding to cover fire costs for this year, but we need your further assistance in establishing a mechanism to fund both fire presuppression as well as suppression efforts and to provide us the authority to get DOD tankers into private hands to aid in the firefighting effort in the near term.

And, finally, we must recognize after the smoke clears from this season's fires that we have a management job to do to restore fire-adapted ecosystems to their normal and more natural function. This doesn't mean, Congressmen, that we simply leave them alone. This means that we engage in active management of these resources. To do so takes understanding of sound science and research, it takes public understanding that we must in fact fight fire with fire, it takes humility to recognize the past policies of fire suppression possibly contributed to the situation, and it takes patience. We have millions and millions of acres to treat and we cannot fix this problem overnight.

One closing note, Mr. Chairman. We have an important role to play, the Administration and the Congress, to address these concerns, to deal with the forest health problems we face, and to restore these fire-adapted ecosystems to a more natural state to reduce the risk of catastrophic wildfire in the future.

While some may be tempted to politicize this situation, to use the 1996 season for some partisan political gain, I hope, as we have done in the past, we can avoid this. Now is the time for partner-

ship and not partisanship. I know that you agree, and I look forward to working with you to improve our ability to prevent catastrophic wildfires in the future.

Thank you very much.

Chairman HANSEN. The gentlelady from Idaho.

Mrs. CHENOWETH. Mr. Lyons, have you been to my State this year, specially this summer, to review the fires in Idaho?

Under Secretary LYONS. No, I haven't personally, Congresswoman. In fact, Dr. Thomas, was.

Mrs. CHENOWETH. Dr. Thomas, you may want to answer this. Mr. Lyons, the Under Secretary has just asked that I remain patient as we smell the smoke. I mean this certainly doesn't meet the standards of the Clean Air Act, and we're living under a pale of unhealthy situations in our air, plus we're losing the resource. I categorize the situation that we're living with in Idaho as a crisis when we're seeing the increase of acres that are lost to forest fires.

How would you categorize that situation?

Chief THOMAS. I've been to Idaho I think three times this summer, one before the fires, one when they were starting, and then of course I was there last week. The times runs together when you're having fun, 21 days straight, and keep in mind that we've had some crews on for four 21 straight-day tours.

I would categorize it as a situation that has evolved over a very long period and it's in a very dangerous situation as far as wildfire is concerned, particularly of extensive wildfire that burns very hot.

Mrs. CHENOWETH. Mr. Thomas or Mr. Lyons, back on February 10th of 1995 at a hearing in this Committee, Mr. Thomas, you did testify that you, Mr. Lyons, are committed, and this is in quotes "committed to develop a strategy to expedite preparation of salvage sales and other attacks on forest health problems." Yet, after my repeated requests to you, Mr. Lyons, and Secretary Glickman to utilize the salvage law Mr. Glickman finally said no, that he was putting it on hold.

It appears to me that you and the Administration are saying one thing and doing another, and I also find that the case in pre-fire suppression funding. You mentioned that you wanted a whole fleet of tankers to fight these fires. I just suggest we solve the problem and have more pre-fire suppression. As our funding in 1996 reflects, the President requested \$139,785,000. Do you think that's sufficient?

Under Secretary LYONS. Well I think we could use a lot more money, Congresswoman.

Mrs. CHENOWETH. Well that's what the Congress gave you to fight fire before it occurred. We gave you \$270,815,000 for pre-fire suppression funding.

Let me ask you on these tankers, the fire tankers, I assume you're talking about the C-130 tankers.

Under Secretary LYONS. Excuse me, I'm sorry. Could you repeat that.

Mrs. CHENOWETH. I assume that the fleet of tankers that you want are the C-130's.

Under Secretary LYONS. Well we'll take whatever we can get actually.

Mrs. CHENOWETH. Well do the C-130's work for you?

Under Secretary LYONS. The C-130's work very well and have been a very effective tool.

Mrs. CHENOWETH. Well our Idaho National Guard has some C-130's stationed at the base there in Gowand Field. Why can't you use the National Guard C-130's?

Under Secretary LYONS. Why don't I left Mary Jo answer that question.

Mrs. CHENOWETH. All right.

Ms. LAVIN. We have used very effectively National Guard aircraft, the C-130's, but they have been modified with what we call MAFFs, which are portable tanks that will allow them to effectively drop retardant or water. That is a very effective program with the National Guard. We use it in other States. Now I'm getting into other needs that we have to update the MAFF's equipment, and we would be very happy to look at that. That will take additional funding, and we are looking at the air tankers, and then we would be very happy to look at the MAFFs and look at how we could equip those in Idaho with the portable tanks that will make them even more effective. The C-130's have to be modified before they can be used for fire activities, but the MAFFs is an effective way to modify them and allow the National Guard still to use them in National Guard activities. It is a very good point.

Under Secretary LYONS. If I could, I just want to clarify one thing because we use C-130's, but we also use P-3s. I don't know what the Idaho National Guard has available, but certainly, as Mary Jo indicated, we're anxious to get the support and the assistance.

Chief THOMAS. Could I make one more comment on the Air National Guard. They're a standby reserve force. The military really doesn't like those aircraft equipped to fight fires on a routine basis. They will help us when we need help, but we also can't activate those tankers under contract until we've exhausted the contract tankers.

Mrs. CHENOWETH. I would like to work with you in the future on that to see if we can expedite some of that because we are asking for more C-130's in there.

Mr. Lyons, and I see my time is up, Mr. Chairman, but I wonder if for the Committee we might find out how the money has been used with regards to that section under pre-fire suppression, \$270 million that we've allocated to the Forest Service for that purpose.

Could we have a breakdown of how the money has been spent on pre-fire suppression?

Under Secretary LYONS. Certainly.

Ms. LAVIN. Yes, we do, and we could provide that to you if you would want. Let me just speak in general.

Mr. Chairman, is it all right to answer?

Chairman HANSEN. Go ahead.

Ms. LAVIN. All right. In general the presuppression dollars, and we were funded for \$24.5 million in this year for prescribed fire, and additional dollars for the total presuppression effort. They include prescribed fire activities and fuels management as well. They include training, the prepositioning of crews and equipment in order to be ready for initial attack. We would be happy to break that down though.

Under Secretary LYONS. Congresswoman, you know, throwing numbers around gets to be a complicated thing. I just want to be clear about one thing, and that is in terms of fuels management prescribed fire funding. In 1996 we received \$24.5 million, and I just want to clarify, since I made the statement in my opening remarks, that that represents roughly a quadrupling of the funds that were available for prescribed fire since fiscal year 1989. I want to compliment the Congress on helping us get the additional funds, but it reflects I think a joint effort in the request that we made to try and provide additional funds, and I would certainly acknowledge that we could use more.

Mrs. CHENOWETH. All right. Now I just want to clarify the record, with the Chairman's indulgence. You received \$24,500,000 for fuel removal.

Under Secretary LYONS. For fuel management prescribed fire.

Mrs. CHENOWETH. All right. But presuppression fire management, as I understand it, was \$270,815,000 and that's the figure that I'm asking for a breakdown on.

Under Secretary LYONS. I guess the point I want to make so we understand this is much of that money goes toward preparing for firefighting efforts. It doesn't go into reducing fuels. It goes to positioning equipment and people so as to be prepared to deal with fire where the fire organization anticipates a high likelihood of wildfire. So much of that in essence goes into the suppression effort when the fire strikes. It's prepositioning resources. That's different from what I think was addressed earlier, and that is the money that goes into restoring prescribed fire to ecosystems to hopefully prevent the need to use those suppression dollars at all.

Mrs. CHENOWETH. I just want to restate my request. The \$270,815,000 for pre-fire suppression activities is what I'm asking for a breakdown on, and it appears that that is 10 times the amount of the actual suppression activities, such as fuel removal, that occurred.

Mr. Chairman, that is my request.

Ms. LAVIN. We would be happy to provide that because it's an important part of our budget. The dollars spent in presuppression reduces the dollars that we will eventually have to spend in suppression. So we would be happy to supply it.

Chairman HANSEN. Mr. Herger, I recognize you for five minutes if you want to take it.

Mr. HERGER. I'll take it, thank you, Mr. Chairman.

Mr. Thomas, I want to thank you for the work that you did with us about a year ago on our salvage bill. Yourself and your department worked with us in drafting that and putting that together. I listened to the testimony of Mr. Lyons who mentioned the 7 to 10 years of drought of the dense forests that need to be thinned. Could I ask you, do you share this concern, that we have a forest that is overstocked, that is dead and dying in many areas and where we have situations on the Six Rivers as portrayed by our pictures, that this is a major problem?

Chief THOMAS. Yes, sir.

Mr. HERGER. And I want to commend you for the firefighting effort that the Forest Service does. I have some parts overall of eight national forests in my District, and I want to say the Forest Serv-



ice does an outstanding job of fighting them once they've started, but it would seem to me it would be much better to direct our efforts on trying to prevent these fires before they begin, than just taking all our time and spending all our money, as we did in 1994 where we spent almost a billion dollars fighting these fires.

I would like to ask you, are you familiar with this blow-down area that is pictured here in the Six Rivers?

Chief THOMAS. Yes, sir.

Mr. HERGER. It's a 30,000 acre area, 37 miles long and 7 miles wide.

Chief THOMAS. Yes, sir.

Mr. HERGER. Mr. Lyons, are you familiar with this blow-down area?

Under Secretary LYONS. Very much so, Mr. Herger.

Mr. HERGER. Are you aware that your Supervisor there has been requesting, and that under our salvage law your Forest Supervisor, the experts within the Forest Service on the ground, would have been able to have removed all these downed trees, which is a fire waiting to happen, a catastrophe waiting to happen, that under our salvage law we could have removed that, but yet because of the directive that you and Secretary Glickman made earlier that they are now unable to remove that. Are you aware of that?

Under Secretary LYONS. I'm aware that this particular sale or complex of sales was delayed and is being reviewed in the context of the Secretary's directive on the salvage rider, that's correct.

Mr. HERGER. Right. Now you had a wonderful presentation during which I agreed with virtually everything you were saying. The only problem is we don't see any of that taking place out in our area. You mentioned how you wanted to expedite and you recognized the problem, but yet here is an example of where the Administration is not working to prevent fires like this, but it would appear that you're doing everything you can to stop us from doing so.

Are you also familiar that the Forest Supervisor did request of Secretary Glickman and of the Administration to be able to move ahead with this despite your hearing and still there has not been a decision as of yesterday on the Six Rivers? Just how long were you planning on waiting until you came up with a decision?

Under Secretary LYONS. That's actually under review now, Mr. Herger. Those sales that were impacted by the directive and that the Supervisors and subsequently regional foresters felt warranted an exemption from the directive are currently being considered.

Mr. HERGER. Are you familiar that there is a timeframe that they have to move within, and if you're successful in delaying this long enough and reviewing it long enough that even if you at some time, and we may have reached that point now, that even if you say "yes", that because of the nature of the trees that are involved here that it will not be feasible to salvage this?

Under Secretary LYONS. I don't think that's the case with these sales, Mr. Herger.

Mr. HERGER. Well let me just read from your Forest Supervisor and quote her. "The damage that the forests received this past winter has created an extremely high risk of catastrophic fire with resultant effects to fisheries, wildlife and the wilderness values, in our ability to meet our trust responsibility to Native Americans

and to provide for public safety in the use of the national forests and the economic loss. This is a true emergency of vast magnitude. It is not a matter of if a fire will occur, but how extensive the damage will be when the fire does occur. Through the timber sale process the hazard and risk can be reduced."

Do you trust the judgment of those people that are your supervisors out in the forests?

Under Secretary LYONS. Well I believe you're reading from Barbara Holder, the letter that Barbara Holder wrote, and I would tell you that I have a great deal of respect for Ms. Holder. She is an outstanding Supervisor.

Mr. HERGER. And I agree. Now this is a letter actually from Martha Kattele.

Under Secretary LYONS. Oh, it's Martha's letter.

Mr. HERGER. They're both outstanding Supervisors. That's all right, they're forests are right next to each other, and I'm sure you probably received a similar letter, and as a matter of fact I know you have from her. I don't happen to have it in front of me, her letter.

Under Secretary LYONS. Yes.

Mr. HERGER. Do you feel there is a true emergency? Just how long is the Administration, and you said how we need to work with them, just how long are we going to take to look at something that we see pictures of? Maybe you haven't seen these. How much analysis does it take in looking at the pictures that we have here to come to a conclusion?

Under Secretary LYONS. Well I don't know that it takes a great deal of analysis, but we've asked that the package of sales under consideration for exemption from the Secretary's directive be prepared and reviewed, and it's being reviewed right now. I don't think it's a matter of months, Mr. Herger, I think it's just a matter of days.

Mr. HERGER. Well actually it has been nearly two months that she has been waiting.

Mr. Thomas, what is your thought on this. Should she be waiting two months on this? She made this request two months ago on whether she could proceed with this treatment.

You say Washington is planning on responding in the next couple of days now?

Under Secretary LYONS. That's right.

Mr. HERGER. Well thank you. I think again that this is shameful and it's outrageous that we have a situation like this. By your own testimony evidently you recognized the situation and it's not the case that you're not aware of what's taking place in our forests, but yet the Administration through Secretary Dan Glickman and through yourself and through evidently I presume the—well at least through your directives—are preventing us from going out and removing this type of emergency, and to quote again your Supervisor, it's not if a fire, but it's just when it happens. I think it's disgraceful, Mr. Lyons.

Under Secretary LYONS. Well, Mr. Herger, if I could respond. I think it's rather shameful to characterize the salvage program as if this were the typical situation, which you know it is in fact not. In fact, 90 percent of the salvage program in Region V under the

Rescission Act is proceeding. Only a small portion has been affected by the Secretary's directive, and the reason for the directive was to ensure that we did truly focus on those emergency situations. So we shouldn't mischaracterize the situation or allow misperceptions to drive public understanding of what we're trying to accomplish here.

Mr. HERGER. I couldn't agree more, and let us clear up the misperception because it seems like you repeatedly are attempting to do that. Let us look at what the facts are and not just what your comments are because they don't seem to match at all. Of what was proposed in California, some 80 percent of what had been proposed for California, and as a matter of fact of the planned 103, and let's be precise, 103.7 million board feet of additional salvage that was supposed to have been, or that the Forest Service had planned to harvest during '96, that because of your directive some 83 percent of this will not be harvested. So over 80 percent you have prevented. That's what the facts are.

Under Secretary LYONS. Those aren't my facts, Mr. Herger. I would love to see your facts.

Mr. HERGER. Well I will certainly provide them to you.

Under Secretary LYONS. I think we ought to take a look at them, and I think that would be very helpful.

Mr. HERGER. Thank you, Mr. Chairman.

Chairman HANSEN. Thank you.

Mr. Lyons, in your testimony on page 8 you spend some time talking about the airtankers—

Under Secretary LYONS. Yes, sir.

Chairman HANSEN.—which you say are from World War II and Korean War vintage, and that you would like some better airtankers. You say, "In 1996, the Forest Service was able to contract for only 39 aircraft in the face of a need for 41. As few as 35 of these planes may be flying at the end of the contract period. Our proposed legislation is designed to insure that a fleet of efficient, safe and cost effective airtankers is available to support firefighting activities."

What do you envision there, that Congress finds aircraft from the military that commercial people can buy or the Forest Service buys or what do you envision?

Under Secretary LYONS. Well, the best of all worlds, Mr. Chairman, would be a situation where the Department of Defense had the capability and the authority to simply transfer or sell military aircraft to private contractors for use in firefighting. Currently that authority doesn't exist, and as a result back in the early '90's, three or four years ago, there was an attempt to use another existing authority, the Historic Aircraft Exchange Act, as a mechanism to try and facilitate this exchange of DOD aircraft to private contractors. Some problems arose with that that actually in fact led to some legal actions, some allegations of illegalities in the use of the authority.

We need to correct that. You've been out I know and have seen some of the firefighting air resources we have, and many of them are older tankers, and in some instances we have difficulty getting spare parts.

Chairman HANSEN. But you don't envision the Forest Service actually having its own fleet of tankers.

Under Secretary LYONS. No, we would not want to do that.

Chairman HANSEN. So you either want help from the military or you want the military to have the right to sell older tankers to commercial people that you can then contract with. Is that what you have in mind?

Under Secretary LYONS. That would be what we would propose.

Chairman HANSEN. What kind of tankers would you have in mind? I mean you see everything from P-3s to old DC-6s up and down the Wasatch front, and I've thought it has been an air show for the last three months. Every time I turn around there is an old Korean dog, and I really enjoy watching them all go by, or lumbering by, and that's tough flying. What kind of aircraft do you envision that the military now has that can swoop down in these gullies with the temperature at 105 degrees and just right off the deck almost drop your load and get out of there safely? What do you have in mind?

Under Secretary LYONS. Well it's C-130's and P-3s primarily.

Chairman HANSEN. And the Lockheed P-3.

Under Secretary LYONS. Correct. Those, at least experience has shown, have served best in terms of being retrofit for retardant loads and fighting wildfire, and we have contractors with experience in doing those conversions which is what makes them so good.

Chairman HANSEN. I haven't seen your legislation, and I sit both on the Armed Services Committee and the Resource Committee, and let me respectfully say that with three crammed weeks coming up I wouldn't bet the farm on it that any one of those are ever going to make it and I don't think you've got a prayer. I probably would agree with you in how these aircraft become available, and of course they've got to be relatively good aircraft, especially when you're low and slow. That makes you kind of nervous when you're flying junk to go up and down these canyons, if I may respectfully say so.

Under Secretary LYONS. Well, as you know, it's not the farm, but it's the forests we're worried about, and maybe we could sit down and talk about a way to get this done. It's an important issue.

Chief THOMAS. If I could make a—

Chairman HANSEN. There's a possibility, and excuse me, Chief, but I think there's a possibility it can be done without the legislation because I've sure seen a lot of it end up in the hands of other people.

Chief.

Chief THOMAS. Well we've had enough trouble over the past three or four years with airtankers that I would like a nice clean situation where we don't have to be questioned about what we've done because it's our responsibility to have their airtankers up.

And you're certainly correct, we've got two problems. One is those are old airplanes and they're getting older. We've got a loss rate of about three percent a year, and that seems pretty low, but as those of us approaching your age or mine you know that your loss rate gets higher as the aircraft or the human being gets older. And certainly we are approaching a point where we've cannibalized all the parts we can cannibalize. Those airplanes are old and we

certainly need them. It's going to take us two to three years once we have acquisition of the aircraft before it flies doing this kind of work because, as you well know, low and slow everything better work just right and you don't have much room for error.

Chairman HANSEN. Well that's for sure.

We've heard, and I don't know if it's true or not, but we've heard that the Forest Service has recently developed a draft forest health policy. Is that correct?

Under Secretary LYONS. Some work is underway to look at the need for manual changes with regard to forest health and the definition of forest health, that's correct.

Chairman HANSEN. Now you have a forest health policy and a definition of forest health?

Under Secretary LYONS. Well actually I think the forest health policy would manifest itself. We have a team that has been looking at the manual, the Forest Service manual.

Chairman HANSEN. How does it differ from what we currently have?

Under Secretary LYONS. I think there is discussion about definition and issues related to how we would prioritize forest health projects, et cetera, in the context of our overall ecosystem system management goals.

I don't know if Jack wants to say anything about it.

Chairman HANSEN. Who developed the program, the Chief and his group, the Secretary and his group or all of you combined?

Under Secretary LYONS. Well we've been working together on this for some time, but I think it originates from one of the teams in the Forest Service who has been looking at this issue. As you probably are aware, it was about two years ago that Jack and I put together a team that worked on what we called the Western Forest Health Initiative and they've worked tirelessly. Ann Bartiska[sic] is the actual Chair of that team that has worked to come up with mechanisms to improve our entire forest health program.

Chairman HANSEN. When are those of us who appropriate your money and develop the policy going to get to see your policy?

Under Secretary LYONS. Well as soon as we have it cleaned up and ready to go. Actually what we are contemplating is administrative changes now that wouldn't require legislative action.

Chairman HANSEN. Does it get into some of the things that we've been discussing today about forest health and old growth and cleaning up the forests and fires and stuff such as that?

Under Secretary LYONS. It would provide the guidance for dealing with those issues, additional guidance beyond what we have already.

Chairman HANSEN. Last July or early August we had you up here and you made the statement that if we gave you a list of sales you would review them. We're still kind of waiting for that list. We sent you a list, but we haven't gotten any answers back. What's the holdup?

Under Secretary LYONS. Well I apologize for that. I wasn't aware that there was a holdup. So I'll have to check into that.

Chairman HANSEN. Actually that's from the other body, but we're very curious because we follow what the House of Lords does very carefully, you know, to see what we're going to find ourselves in.

Under Secretary LYONS. I think we're close to getting that out actually as I recall. So as soon as it is ready to go we'll make sure you have a copy of it.

Chairman HANSEN. I see. Do you think it would be within your heart to give us a copy of your new forest health policy before too long, or is it up to that point?

Under Secretary LYONS. It's not to that point yet, Mr. Chairman. We don't really have anything to share just yet.

Chairman HANSEN. Can you give us a projected date of when we may have the opportunity to go over that?

Under Secretary LYONS. I can't tell you right offhand because I haven't focused on the day-to-day review, but I assume we'll have something later this fall.

Chairman HANSEN. I was reading the resolution by the Sierra Club, and I love reading their stuff, where they pointed out in a resolution that they didn't think there should be any timber harvesting in the United States. Do you go along with that?

Under Secretary LYONS. No, that's not a policy that I agree with.

Chairman HANSEN. What's your comment on it?

Under Secretary LYONS. Well I think, as illustrated by some of the discussion we've had in the Subcommittee today, the forests in many parts of the United States are the product of many years of human intervention and management, and I think management is an important part of returning forests to a more naturally functioning state, which I think is what the Club's ultimate goal is.

We need to introduce management and use management to improve forest health, to reduce fire risk, in places to improve wildlife habitat and to reduce damage to watersheds from previous activities. Management is an important part of what we do. It's our business, and I know we would subscribe to continuing to have the tools and capability to manage the nation's forests and to improve their sustainability for all the goods and services that come from them.

Chairman HANSEN. Speaking of environmental groups, have any of these environmental groups had privy to seeing this forest health policy that you've come up with?

Under Secretary LYONS. Not to my knowledge.

Chairman HANSEN. Were they instrumental at all in the development of it?

Under Secretary LYONS. Not that I'm aware of.

Chairman HANSEN. Recently the President of the United States was up in Wyoming and made a declaration concerning the park, Yellowstone Park. He was talking about a gold mine that is north of the Park in the State of Montana and said that he would like to trade that out, and I would assume from what he said that the majority of that would be in the Forest Service, the trade would be. Under the NEPA Act how much sufficiency time was spent on that land trade?

Under Secretary LYONS. We actually haven't consummated the trade of assets as it stands now. That's under negotiation.

Chairman HANSEN. I'm sorry, I didn't hear you.

Under Secretary LYONS. We have not actually identified particular parcels. That discussion continues. There has been an agreement on values essentially and how this process would proceed. We

have not identified any Forest Service parcels that would necessarily be a part of this land trade. So I think we have that work to continue as it is now ongoing before we have identified particular parcels that would be traded in order to avoid the development of the New World Mine.

Chairman HANSEN. Don't you really plan on asking to waive sufficiency on that?

Under Secretary LYONS. No, sir.

Chairman HANSEN. So we've got 10, 12, or 15 years then before anything comes about; is that right?

Under Secretary LYONS. No. This is the new policy, Mr. Chairman.

Chairman HANSEN. I've sat here for 16 years on this Committee and we've waived sufficiency just like that, and now the President of the United States says it, and I have a hard time believing that we're not going to start waiving sufficiency again, but I won't get into that, Mr. Lyons, because I know we could embarrass one another and neither of us wants to do that. I'll let that one go for right now, but keep that in mind on the Snow Basin exchange, will you.

Under Secretary LYONS. I will, Mr. Chairman.

Chairman HANSEN. With that said, Mr. John Doolittle, Chairman of Water and Power, which I didn't go to today because I was sitting here, I would be happy to turn to you.

Mr. DOOLITTLE. Mr. Chairman, I have the same excuse for not being here earlier, and I beg your indulgence.

I have a constituent here, Mr. Blaine Cornell, and I want to welcome him. I'm sorry I missed your testimony, but I was chairing a hearing that the Chairman didn't attend. There's a lot going on today.

I'm interested, ladies and gentlemen of the panel, I have the impression that not much salvage logging has occurred in my Congressional District due largely to the interim guidelines in effect for the California spotted owl. My District stretches from Lake Tahoe on the North down to the Sierra Nevadas through Yosemite and into and including all of Mono County.

Could you give me just rough figures if you've got them today, but maybe in a submission later on to the Committee specific figures or precise figures of what percentage of the proposed salvage plan for California that affects our District has been accomplished.

Under Secretary LYONS. I'm going to have to provide that information to you for the record, Mr. Doolittle, but I'll be glad to do so.

Mr. DOOLITTLE. OK, because I had heard you say, or at least I think I understood you to say in response to Mr. Herger's question that 90 percent of what was proposed in Region V is on track and being accomplished. We've had mills close and people have just been devastated by what has happened in my District, and I don't have the sense that we've really experienced much effect from salvaged logging.

Chief, do you have any impression about that?

Chief THOMAS. Yes, sir. I have the numbers in front of me by region. Region V, we've sold 681 million to date with essentially 312 remaining out of a total available of 933.

Mr. DOOLITTLE. You don't have that broken down further than that, do you, other than just Region V?

Under Secretary LYONS. Well we don't have it by Congressional District.

Mr. DOOLITTLE. But you do have it by forests perhaps, don't you?

Under Secretary LYONS. Yes.

Mr. DOOLITTLE. For instance, in the Stanislaus Forest, what would be the figures for that?

Under Secretary LYONS. Salvage sold to date is 47 million, 38 million remaining.

Mr. DOOLITTLE. OK. That's maybe 60 percent. It looks like it's about maybe a 60/40 split there, but that's quite different, isn't it, than the figures you gave me for the region as a whole? Didn't you say 681 million had been sold and 312 million remained?

Under Secretary LYONS. Correct.

Mr. DOOLITTLE. Would you know what would account for that discrepancy between the general trend in the region versus this particular forest?

Under Secretary LYONS. I could caution you to draw any conclusions about general trends from the regional numbers as a whole. It varies widely from forest to forest, and I couldn't comment specifically on the situation in the Stanislaus.

Mr. DOOLITTLE. I'm just concerned because, as you can see, it's almost the exact opposite of what has gone on in the region where 60 percent of the timber to be salvaged has been salvaged in the region, and yet in the case of this forest 60 percent remains to be—excuse me—no, actually it looks like we're on track. I think that correlates. Go ahead.

Under Secretary LYONS. I was going to say I think you are, and just to clear up any question, by our estimates just under 5 million board feet was subjected to additional review by the Secretary's salvage directive. So it was a relatively small proportion.

Mr. DOOLITTLE. Five million in the Stanislaus was subjected to additional review?

Under Secretary LYONS. Yes, which may not meet the definition of imminently susceptible as was refined by the Secretary.

Mr. DOOLITTLE. We've had a lot of problems with this issue, the California spotted owl, which is neither threatened nor endangered, and yet we continue to live with these interim guidelines. They were going to release the new draft, the Forest Service was, and then we had the Administration announce through the Agriculture Secretary and the White House Chief of Staff that they had concerns that it was not supported by the best forest science and they withdrew the proposal.

I guess I would just ask you to comment. I've got a letter here from a member of the SNEP team, Constance I. Millar[sic], who charges that indeed the Clinton Administration itself is the one that has disregarded good science rather than acting in the name of good science. I think it's a rather strong quote that in this letter addressed to Dr. James Space[sic], the Station Director, USDA Forest Service, PSW Research Station, Albany, California where she says, and I'll just quote the highlights of it. "Recent actions by the Administration to postpone the release of the revised draft environmental impact statement for managing the California spotted owl



repulsed me for their obvious political motive and lack of professional basis.”

Skipping down in the letter. “I conclude that the Cal-Owl team has had adequate access to current scientific information and has seriously reviewed the relevant information compiled in SNEP reports. I find it disgraceful that the stewardship of our Sierra National Forests should become a political fate and the professional efforts of scientists and managers disregarded.”

Is it safe to assume that you disagree with her observations?

Under Secretary LYONS. I would say that Dr. Millar is entitled to her opinion. I would be glad to explain the situation. I know that you and Congressman Herger have a strong interest in this. I made a decision in light of a number of issues and questions that were raised about not just the Cal-Owl draft EIS, reviewed draft EIS, as well as the SNEP report that the best course of action ironically I think is consistent with what the five or six scientists from the SNEP team, who Mr. Herger referenced earlier, want to see happen.

There, as you know, was recently completed the Sierra Nevada Ecosystem Project report representing significant new information which could have a bearing on the management direction in the Sierra Nevadas, particularly as it relates to the California spotted owl. There has been wide and varied opinion about the adequacy of the time permitted to review SNEP, as it's known, in the context of this whole Cal-Owl decision.

Apparently, and I have not had the opportunity to talk to any of the scientists that you reference, nor with Dr. Millar, though I certainly look forward to it, they have not had the opportunity to discuss their concerns. Primarily though I think they are under the impression that for some reason the information contained in the RDEIS would not be made public and furthermore, at least in a draft press release I obtained from them, they indicated that the best process, scientific process is best fostered by releasing the information and allowing an independent science panel to help incorporate public comments into the final EIS after a sufficient public review period.

In fact, that's essentially what we have asked be done. I asked Jack to set up an independent scientific panel which would involve representatives of SNEP, others involved in preparing the scientific foundation for the EIS as well as perhaps members of the original CASPO team which developed the guidelines that are serving as the interim basis for management of the Sierra Nevadas, that that scientific team should conduct an evaluation of the information contained in the RDEIS as well as the information in the SNEP report, and as a part of their review, and I quote from the memorandum that I sent Jack. “The team should conduct public workshops to review the findings of SNEP and the DEIS and to encourage discussion of how they may be applied to management plans in the Sierra Nevada forests.”

Now that review is intended to basically look at all the information that is available and then make a determination as to whether or not the alternatives identified in the draft EIS should be modified if a new alternative is necessary and basically to affirm the sci-

entific foundation for that EIS so we can move forward expeditiously. That's what we seek to achieve.

Mr. DOOLITTLE. Mr. Lyons, let me say that I didn't hear what Mr. Herger cited, and it may be what I'm about to cite. But let me just say that these scientists really strongly take issue with the representation that either more time is needed or that a second panel should be charged with getting into this process. I mean Dr. Jonathan Kusel[sic], Forest Community Research and Visiting Scholar, Environmental Science, Policy and Management, University of California at Berkeley sent Chief Thomas a letter, which I think is dated September 9th where he says the following. "Two things are absolutely clear. One, no more study is needed, at least in the short term and for immediate decisionmaking purposes and, two, a panel, the length that is being suggested, whether it involves additional study or not, is absurd."

He goes on to say. "To call for more study is foolish. It is an obvious way of avoiding tough decisions that will not be popular with everyone, and it serious cheapens the scientific work to date. The irony of the call for additional study is that it undermines itself. How with all the time and resources spent to date can an additional extremely short-term study or expert panel be justified. An additional panel will not produce better science, and in the eyes of the taxpaying public and numerous elected officials why should more money be devoted to yet another study. Worse, the call for additional study will lead to a public less inclined to support studies in the future regardless of merit. As these studies become more politicized the work of scientists becomes irrelevant."

I guess I just would share my concern that your delay of this now is going to send us into I guess next February, and I don't know when you would actually be able to reflect the changes on the forest, but, we've got people dying on the vine. The mills are closing, they're losing their jobs, they're moving out of the area, and it just seems to me in the light of what these very respected scientists, many of them professors who've been involved in this for months, or several years I guess actually in the case of SNEP, and I've never seen statements like this from members of the scientific community who are specifically attacking the Administration's decision and characterizing it as politically motivated and not in the interests of good science.

Under Secretary LYONS. Well if I could respond, Congressman Doolittle, I would suggest in part that those scientists don't understand the process that has been put in place to review the findings of SNEP and the DEIS. We're not talking about a new scientific study. We're talking about analysis of the information that exists.

Mr. DOOLITTLE. You're talking about a new panel, and that's what Kusel is directly addressing himself to.

Under Secretary LYONS. That's correct, but for what it's worth and I think for the record we've heard from other scientists involved in SNEP who have a slightly different perspective from the SNEP scientists that you quoted, and I don't think anyone should be surprised that scientists like politicians can disagree.

I would suggest you consider some of the comments that were made by other members of the panel. Kay Norman Johnson from Oregon State University who was involved in the SNEP effort and

was a member of the team wrote to Secretary Glickman and stated the following. "The SNEP work makes original contributions in a variety of ways, including an inventory and analysis of the late successional old-growth forests, strategies for conservation of old growth and the modeling of fire effects. This work should also be an integral part of any future analysis. By combining the products of these two efforts and the expertise of the people that constructed them you will be able to develop the strongest possible conservation strategy for national forests of the Sierra Nevadas."

Also writing to Secretary Glickman was Dr. Jerry Franklin, also a member of the SNEP team. Dr. Franklin wrote and said. "I hope that this letter will be of value to you in considering whether or not to issue the modified draft EIS for public comment. It would appear to be that to do so will ensure that yet a third draft, which fully incorporates existing scientific and technical information, will have to be developed and run through a public review process."

In addition, we heard from Dr. Susan Harrison, who had some association with the effort and is at the University of California at Davis where the chairperson of SNEP is a professor. Dr. Harrison indicated. "As a scientist I would strongly urge that you ask the Forest Service to maintain the cautious, conservative CASPO-based management plan that is presently being used in the California Sierra Nevada until there has been time to assimilate the SNEP findings into a proposed management alternative."

And, in addition, an internal memorandum drafted by Dr. Jerry Vernon[sic] and Barry Noon[sic] and also signed by other members of the team involved in developing the CASPO guidelines raised concerns about the Cal-Owl DEIS and urged that these issues be addressed.

My point is simply this. The reason that we elected to step back and take another look at the scientific underpinnings of this report is precisely for this reason. There is strong difference of opinion within the scientific community, and I can assure you from many experiences with situations like this all that is going to assure is controversy and eventually litigation that will not get this issue resolved any sooner, but in fact will drag it out possibly for years. That's not good for the resource, it's not good for the communities that depend on the resource, and it certainly is not consistent with our goal in trying to get clear defensible scientifically sound resource management guidelines on the ground as quickly as possible.

This is the way to do it, and not to allow the controversy to continue to spin to the advantage of one side or the other. It makes no sense and it has no merit.

Chairman HANSEN. Do my two colleagues want an additional round?

Mr. DOOLITTLE. No.

Chairman HANSEN. Mr. Herger, did you want an additional round?

Mr. HERGER. Yes, briefly, Mr. Chairman.

Chairman HANSEN. In that case would Mr. Doolittle like to take the gavel because I've got an appointment and I don't want to keep these folks waiting.

Would that be all right with you, Mr. Doolittle?

Mr. DOOLITTLE. Yes, Mr. Chairman.

Chairman HANSEN. Thank you very much. I appreciate you being here, and if it's OK with everyone I'll leave. I'll leave anyway.

Mr. DOOLITTLE. [Presiding.] Mr. Herger.

Mr. HERGER. Thank you, Mr. Chairman.

Mr. Lyons and Mr. Jack Ward Thomas, I appreciate all of you for appearing before us. If it appears that I'm somewhat concerned here, I have to let you know and just relate a little bit of what's going in the District I represent which, as I mentioned earlier, has parts or all of eight national forests in it. Just this last month we had our 30th mill in my District close because of a lack of timber to be able to use in the mill, and that was in Hayfork.

I've put a couple of new pictures up here, and what we saw of the blow-down is not the typical out there, but it is what we feel is an incredibly flagrant example of just what is obvious that we should be getting out of the forests, and we can't even get that out.

So my concern is for the people I represent in Hayfork, which is Trinity County that Hayfork is in. We've had as high as 21.5 percent unemployment. So there are many, many real people with children and families that are affected by what we feel out in the field is a policy that just is not working. So again I apologize if I seem to come on strongly, but it's because of the very upset, to put it mildly, constituents who I represent.

Let me just get back if I could and, Mr. Lyons, maybe you're not aware of what is out here. Maybe that is it. I have to take you at your word. You mentioned when we were talking earlier that you felt the salvage program was working well, and you mentioned maybe the numbers weren't right. I have some letters from the Forest Service in front of me. So let me quote from the Forest Service here and from letters that we have to go over these numbers that I mentioned. Maybe I didn't state them correctly before. So let me restate this.

We have letter that was sent from Secretary Glickman to Chairman Young on September 1st of '95 in which he said at that time he felt for California we could get an additional 103.7 million board feet of salvage. So that was in addition to what the Forest Service normally would get out.

I also have in front of me an internal memo from Region V in which their opening paragraph is. Under our interpretation of the Secretary's memo of this last summer, the Chief's letter and the clarification notes the region would not sell the following sales that had been previously planned to be sold under P.L. 104-19.

And then we look at the total, and this is for California, which is 85,800,000 board feet, and that figures out to 83 percent of what we thought was going to be additional salvage timber that we would get out that we're not getting out.

Now let's look at a picture that is typical. The center one here is typical of the forests in my District, and I represent about 17 percent of the land area of the State of California. It's the north-eastern corner. And flying over our District, that center picture, those dead and dying trees that you see is very typical. That's about 40 percent I believe they estimated, and we have areas where we have 70 percent, up to 70 percent where it's dead and dying, again, because of, as you mentioned in your testimony, 7 out of 10 years

of drought and insect infestation. And then the photo to the left is where a fire occurred, which new fires can occur then after that. So our concern is that the program is not happening. I don't know if you have a response to that.

When we hear the statement that you made, which I know was made earnestly, that you feel the program is working great and that you're doing everything you can. I can tell you to talk to the people that live in my area and they feel 180 degrees opposite of that.

Under Secretary LYONS. Well I can understand that, Mr. Herger, when they can see stands like that and they wonder why they're not being harvested. I mean I would come to the same conclusion. But the fact of the matter is given the work objectives set by particular forests, and given their goals, which emanate from the forest level, our performance has really been excellent. You know, that's not to say there is not a tremendous amount more work to be done, but we do have limited resources and manpower, and furthermore we have shifted our program to try and focus on the forest health salvage issues.

I would offer this as an example. Back in 1986 salvage was 10 percent of the national forest system timber program, 10 percent. In 1996 it's 44 percent. So we have tried to shift resources and focus to what we consider a priority need. Salvage sales obviously have a high risk of loss of value over a very short period of time and obviously in some instances create a risk of fire. So we are trying to take those resources and refocus to where the priorities ought to be.

I think the only other thing I could offer is one of the difficulties we're having right now, and it's not true everywhere, but in some instances we simply can't sell these sales. The material that we're taking out of stands such as this aren't nearly as valuable and is oftentimes not merchantable in a traditional sense as what was the case. You know, nationally we've sold 1.2 billion roughly of salvage to this point in time. Only 816 million of that has been harvested.

Now there is always some delay because we have contracts that run two to three years to harvest this material, but one would assume that the salvage volume, particularly in situations such as you described where mills face closure because of a shortage of supply, would be harvested more quickly.

We have actually engaged the Forest Products Laboratory to work with—

Mr. HERGER. May I comment on that, Mr. Lyons, and I apologize, but we don't have a lot of time, but let me, because this is something that comes up all the time about all this product that has been put up for sale, and yet for some unknown reason what has put up is not purchased, and I think the prime example is what we're looking at in the Six Rivers.

When the Clinton Administration is successful in stalling this long enough when you have white fir as we have here, and you're successful by stalling it when it only has about 18 months life before the insects eat it up, it shouldn't be any wonder why no one is going to buy it—

Under Secretary LYONS. But, Mr. Herger—

Mr. HERGER.—because you have succeeded in stalling it long enough where it's not worth anything to anyone.

Under Secretary LYONS. But, Mr. Herger, we're not stalling the 933 million board foot program that constitutes the salvage program in California. We're talking about a small percentage, and the volume on the sales that you're talking about is under 10 million board feet I believe.

My point is simply this. These are all the characteristics. There is no one answer here, and I just want to be clear. You know, we're doing our best to prepare sales consistent with the direction that we receive from the Congress and consistent with the clarification that the Secretary provides us.

Mr. HERGER. Does that include the salvage bill?

Under Secretary LYONS. Yes.

Mr. HERGER. You're not implementing the salvage bill right now.

Under Secretary LYONS. Well I beg to differ.

Mr. HERGER. Well again I think you need to come out to California and see what's happening.

Under Secretary LYONS. I would be glad to come out to California, Mr. Herger.

Mr. HERGER. I can tell you we are not implementing the salvage bill because of the directives of the Secretary anyway.

Mr. DOOLITTLE. Let me just observe that I understand there is another example of a mill cutting back the Sierra forest products. A company at Terra Bella has just announced they're reducing operations to one shift with a permanent layoff of 30 or 40 people. The Sequoia National Forest had planned to sell about 50 million board feet of timber, mostly salvage, but only 4 or 5 million board feet has been sold, and thus we have the layoff. I mean that's typical, Mr. Lyons, of what we have going on in our area.

So, hearing these representations that the Forest Service has done an excellent job and this and that, that is not our experience in my part of California. This salvage bill has been hamstrung right from the start by the Administration's interpretation, and this is just an illustration. Fifty million board feet planned, but only 4 or 5 million actually is taken.

Under Secretary LYONS. Again I don't want to disagree with you, Mr. Doolittle, except my numbers don't reflect the numbers that you're quoting. So I would be glad to sit down with you and get those numbers ironed out.

Mr. DOOLITTLE. OK. Please give us your figures. I would actually appreciate, if you don't mind, having a breakdown of the Fourth Congressional District. Can you do that?

Under Secretary LYONS. Yes, sir.

Mr. DOOLITTLE. For your purposes I think it would be easy because the only split county is Sacramento, and I don't think you have anything going in Sacramento County anyway.

Chief THOMAS. Sir, we can provide that and provide it rather quickly, but the data I'm looking at indicates that we had a total available on the Sierra of 70.5, and 55.1 has been sold leaving 15.4 pending.

Mr. DOOLITTLE. This was the Sequoia I was saying.

Chief THOMAS. Sequoia?

Mr. DOOLITTLE. Yes.

Chief THOMAS. Sequoia, all right. We had 6.7 available and we sold 5.8 and we've got .9 to go.

Mr. DOOLITTLE. The figures I've got, I guess this was not just salvage, but the total amount of timber was 50 million board feet, most of it being salvage, but they sold only 4 or 5 million.

And you're saying—give me those figures one more time.

Chief THOMAS.

Mr. RIGGS. Well in terms of the salvage program we had intended to sell 6.7 million, and we've sold 5.8 leaving .9 in salvage. That doesn't include the green program.

Mr. DOOLITTLE. I guess the figures I have include the green program.

Chief THOMAS. I don't have that in front of me. I'll have to get it for you.

Mr. DOOLITTLE. OK. Include that and get back to us on it, will you, please?

Chief THOMAS. Yes, sir.

Mr. DOOLITTLE. In other hearings it has come out in testimony, and you can please confirm this or deny it, if you will, that I believe the figures are annually we have four times the amount of new board feet of timber being grown than are being harvested. Is that consistent with your understanding?

Chief THOMAS. I don't know the exact ratio, but certainly we are growing more timber than we're harvesting. I think the question is what size classes are involved, but I would certainly agree that we are growing timber much faster than we're harvesting it at the moment. We're growing wood I'll put it that way.

Mr. DOOLITTLE. That concerns me. I mean a lot of Sierra Nevadas look like that picture on the left when I fly over them. It's my understanding that we have more standing timber in this country than at any time in the 20th century. The forests are vastly overcrowded.

As forest managers for the both of you when we're growing four times as much timber as we're harvesting annually aren't we facing a crisis of enormous proportions? I mean it seems like we're just barely scratching the surface with this salvage program. Unless we had a massive logging effort, we're going to have forests that are in unbelievably bad condition, aren't we? Am I missing something? That's the conclusion that I derive just by those figures if they're right. In other words, there is a lot more timber being grown each year than we're harvesting each year.

Chief THOMAS. I think that's quite correct, but I think it's a bit more complex than that. That's wood that we're growing. Timber, if you relate that to saw timber, most of that would be a chip or something else.

Mr. DOOLITTLE. Right. That would be like undergrowth and stuff, too, right?

Chief THOMAS. No. If I could have about two minutes.

Mr. DOOLITTLE. Sure. I'm the Chairman.

Chief THOMAS. As Chief of the Forest Service I'm going to tell you that we've got a problem. I'm also going to tell you that we're nibbling around the edges of this. If we had cut 6 billion board feet of salvage instead of 3.8 or 3.9 it wouldn't have made a flick in the problem. Now it would have helped those mills, and I don't want

to misstate this, but in terms of the general overall approach we simply have got to move past this particular point in our history and start looking at the entire situation having some clear direction and mandates from the Congress and the Administration as to what the agency is expected to do, and given those mandates and clear direction we do very well.

We fumble around poorly, but we are engaged in a great debate in this country of what those national forests are to be managed for and how they're to be managed, and the professional managers are caught on the horns of that dilemma.

Basically we have moved to a point with a long progression of law and interaction of case law to the point of direction of how we should operate to say to take the brunt of the ESA on the Federal lands plus all the court actions where we have an overriding concern with biodiversity. Congress never said that. The Administration never said that. It just emerged. Now we need to consider that and decide if that's indeed the direction we are to accomplish, to recognize that as a goal and to set out to achieve it and to produce as many goods and services as we can I assume under those constraints.

Basically I see us bickering back and forth about things that are not the real issue. I understand every individual Congressman's concern with those people and those mills in their District, but in terms of the larger overall question we simply have got a situation that we need to sit down and address. It's not partisan, but it's a reality of a circumstance. I'm not a partisan. This didn't develop under the Clinton Administration, and I don't think I would like to lay it to the Republican Administrations before that or the Democratic Administrations before that. This has been a long time in development, and it will be a long time in solution.

It's about time we began to engage in real professional discourse about where we want to go, have the instructions clear on how to go and what we're to do, what it would take to do it and getting on with it. For example, when we talk about fire funding operations, for years the Congress and the Forest Service and all the Administrations from now on past have played a game that says fire doesn't cost anything, and when we have a big fire year, that's just an accident and it won't come again. It will come again, and it's time to quit pretending that it won't.

It's also time to understand that we need a fire management program and not a firefighting program. We do that beautifully. We can't solve these things with more and more acres of controlled burning unless we can get those acres, as Dr. Neuenschwander said, in a condition where we can actually apply it. At the rate we're going we're 50 years out in being able to address these questions. That's too long.

Mr. DOOLITTLE. Wait a minute, let me just understand, 50 years out?

Chief THOMAS. Fifty years out from being able to achieve a suitable condition of forest health and of an essential forest condition that we would consider acceptable. We have to prioritize, but we have to get there sooner than that, and it has to be through a combination of things. There will be some preservation, particularly of old growth in the short term, but then we have to talk about



thinning and we have to do it in the right places at the right time under priority in order to get the best protection as we go. We're talking about being able to use that material, we're talking about controlled burning, when it occurs and when we can handle it, and we're talking about a lot of silvicultural technique appropriately apply in the right places. I would love to get to the point where we're talking about that and the programs that would take us, for example, the forest health initiative and a number of others, which is a scratch at the surface.

These things are going to be far more expensive, but could turn far more money than we are now doing at the present time. I know the concerns because I lived in those communities and intend to go back there as soon as I can find a job, but we have to look further than that and we have to do it in a bipartisan fashion.

These things should not be partisan issues. They're really natural resources in this country, and the management of those national forests, which are a treasure like no other nation in the world has, simply has to be approached in a more cooperative fashion with better direction.

Mr. DOOLITTLE. Well I don't disagree with the spirit of that, but, unfortunately, it doesn't seem to be heading in that direction.

I'm really more interested in cutting green timber than I am salvage. Salvage is just a pathetic little stopgap until we can get to the green, but it's a necessary measure to be taken for the forests' health. You know how many of our forests look like that, and by the time they get to that point I don't think there is much commercial value left in the forest. Then of course when they finally do we have to spend tax dollars to go clean that up, and it doesn't return anything to the treasury. Then these very same groups will tell us that isn't it awful that we're subsidizing the timber industry and we have below-cost timber sales. Well of course we have below-cost timber sales. If we cut green timber they wouldn't be below cost.

You testified once, as I recall, and I don't know if this is still true because this was I think a year ago, but that the timber program paid for itself. Is that still the case?

Chief THOMAS. Overall, yes, sir. We have deficit sales. For example, if you're looking at that picture in the middle, it would be very difficult to enter that kind of a stand and remove all the dead trees without banging up the green trees, and these things get to be an interesting question. For example, if we were looking at that and said well, look at the percentage of green trees, because ordinarily the prescription in something like that would either be a seed tree shelter wood or a clearcut. But going in and just removing those dead trees would be a pretty difficult silvicultural prescription and pretty expensive to do.

Mr. DOOLITTLE. And yet let me ask you because you're touching on something I recall. Didn't the Clinton Administration come down with an edict that if you took a certain percent of green trees in the course of salvage that that was deemed to be outside the salvage law? What is it I'm referring to?

Chief THOMAS. In that particular case there was concern about some of the salvage operations that included a lot of green trees, mostly those that were imminently susceptible to insect disease or fire. The concern the Secretary had was well there is nothing that

says that has to be done in the next three months and that could be done under a standard process. Those trees are not going sour. They might burn and they might have an insect hit, but there is nothing going to happen within the next three months. So there was no reason we really could not proceed under full appeal process.

Mr. DOOLITTLE. OK, but see that to me, and I'm not going to ask you, and you can even vigorously object, but that to me is an unfriendly interpretation of the law if you're trying to maximize the salvage operation, because you and I both know that when there are these forest fires there are going to be a lot of good trees burned up in the process, too, and that to be is typical of this Administration's approach where they want to make everybody feel good about what they're doing, but in reality behind the scenes they're erecting every roadblock possible to carry this out. I'm very disappointed in the effect the salvage law has had, particularly in California. I guess in other areas it has had a good impact, but we're dying on the vine.

And you know, Chief, once these mills close up shop, I mean it's not like they show up some day and start it up again. We're losing the infrastructure, and we're becoming welfare havens. There is nothing for people to do. If they want to live in a beautiful area like that they're going to do something related to the public resource. I mean recreation, yes, that's a part of it, but that's only a part of it and you're going to have to have the high-paying jobs involved with the timber industry.

Unless Mr. Herger has further questions, I think I'm just going to wrap it up.

Mr. HERGER. No. Thank you, Mr. Chairman.

Mr. DOOLITTLE. I thank our witnesses for being here. I think these are important issues. I know you're frustrated, and I'm frustrated. You're right, you need a clear direction. The Congress has not been to the point where it can give a clear direction. The Administration is not giving a clear direction, although I guess they could if they chose to. Many of us would like the Congress to give a clear direction, but we're not strong enough yet without the support from the Administration where we could provide that direction and actually send a bill to the President's desk, and probably the kind of bill I would send he would veto anyway.

So I guess we're going to fight it out this November, but I certainly hope the issues become clear to people as to which direction we're going to go in, but you're right, the Forest Service is caught in the middle. Your charter is quite different than what you're being expected to perform today, and there is an awful lot of frustration with the present policies in the meantime.

It's my view that we're going to have a lot of very serious forest fires because the situation is out of hand and, yes, you're right, it didn't begin with the Clinton Administration. I am not sure exactly when in my mind it began, but it goes back to sometime I think into the 1970's and probably having to do with these broad, ill-defined laws like NEPA and there are two or three other regulatory acts specifically for the national forests and the interaction with the Endangered Species Act.

Frankly I wasn't that thrilled with the policies we found in the predecessor Administration of the Clinton Administration. But I think it's time for NEPA and ESA and FLPMA and a couple of those other acts to be seriously streamlined and revised with a view toward effectuating an effective policy for the national forests because it seems to me that we're going to end up increasingly with the sort of blight that we see in the picture on the far left which shows the charred stands of trees that have been burned by these catastrophic forest fires.

I thank the witnesses for appearing. There will be further questions perhaps we'll submit in writing that I would ask you to respond to in a timely fashion.

[The questions to be furnished and responded to follow.]

[Prepared statement of Hon. William M. Thomas follows.]

STATEMENT OF HON. WILLIAM M. THOMAS

Mr. Chairman and members of the subcommittee, I would like to thank you for the opportunity to comment on forest service resource management and fire control. This issue is of great concern to residents of my district, where fire has already consumed thousands of acres in the Sequoia National Forest and threatened Giant Sequoia groves.

Already this year, a total 88,142 fires have burned almost six million acres of wildlands, making 1996 one of the worst fire years in recent times. During the peak fire activity in August, the Forest Service estimated it was spending \$10 million per day for fire suppression. Secretary of Interior Bruce Babbitt indicated his agency was spending another one million dollars each day. The National Emergency Fire Center has estimated that the agencies will have spent \$515 million for emergency firefighting by the end of September. This cost does not include the costs of military aircraft and the two battalions of military personnel which were involved in the firefighting effort.

Yet as alarming as these figures are, the most disconcerting fact is that this fire damage would not have been so intense had the Administration taken proper precautions—such as forest thinning and salvage through the use of commercial timber operations—to help reduce fire risk. For example, in August, 1994, the Seattle Post-Intelligencer reported that the Clinton Administrations planned a major expansion of timber thinning and deliberate burning to reduce fire risk in the West. Jim Lyons, Under Secretary of Agriculture for Natural Resources and Environment, and Jack Ward Thomas, Chief of the Forest Service, said in interviews that these forest policy reforms could improve forest health and wildlife habitat while providing jobs and wood for needy sawmills.

The Sequoia National Forest had planned to sell approximately 40 million board feet this year, a majority of that under the Rescissions Bill, which was designed to expedite the harvest of dead trees and those trees imminently susceptible to fire or insect damage. Although the President signed the bill into law, he then rendered the law ineffective. As a result, the Sequoia has sold less than four million board feet of timber this year, weakening the Forest's ability to fight severe wildfire and forcing local timber mills to lay off dozens of employees.

The Clinton Administration cast further doubt on the future of forest management in the Sierra Nevada when he shelved the California Spotted Owl Environmental Impact Statement, which would have protected spotted owl habitat, improved long-term forest health, and potentially yielded more timber. The Administration ignored years of scientific research, thousands of public comments, and millions of dollars in costs.

The Clinton Administration needs to work on solving our forest health problems. Since the passage of the salvage legislation, the Administration has thwarted its effectiveness. In light of scientific consensus on the seriousness of forest health problems, the Administration should be acting as good stewards of our national forests, not using the people's lands to create headlines.

Mr. DOOLITTLE. With that this hearing is adjourned.

[The Subcommittee adjourned at 5:20 p.m. subject to the call of the Chair:]

## STATEMENT OF RICHARD A. WILSON

**State of California**
 THE RESOURCES AGENCY  
 SACRAMENTO

 RICHARD A. WILSON, DIRECTOR  
 DEPARTMENT OF FORESTRY & FIRE PROTECTION
**Building Cooperative State-Federal Solutions to California's Wildland Fire Challenges**
 Testimony to:  
 Subcommittee on National Parks, Forests and Lands  
 House Committee on Resources

Presented by:

 Richard A. Wilson  
 Director  
 California Department of Forestry and Fire Protection  
 September 12, 1996

California's wildland fire agencies have long recognized that shared decision making is a key way of getting more cost/effective wildfire protection. Over four decades of mutual aid shared decision making in overlapping initial attack areas have resulted in creating new concepts such as direct protection areas, the Incident Command System, shared communication frequencies, shared initial attack dispatch centers, regional multi-agency coordination centers, and integrated decision support systems like MIRPS - the Multi-Agency Incident Resource Processing System, all aimed at using the taxpayer's dollar more efficiently. Many of these concepts are now used nationally and by other states. The relatively new, California Fire Strategies Committee creates a forum for federal, state and local agencies, as well as private companies, environmentalists and other stakeholders to communicate and find better ways to share resources and program objectives

***USDA FS Washington fire management policies don't work at local levels:***

Current USDA Forest Service fire management policies coming out of Washington don't work for the state or local agencies and communities in California ... and they don't even work for the local US Forest Service fire managers in California. We believe that the Forest Service initial attack fire program in California is under funded. This under funded initial attack coupled with mandates from Washington cause our Forest Service partners to implement policies that allow fires to get larger, which in turn threaten public safety and private assets. CDF does help the Forest Service fight these large fires, at a cost of weakening our response to fires in our jurisdiction.

We are concerned that Washington's latest policies on fuels management are headed down the same wrong path. Any prescribed fire program in California impacts all of us. Our programs need to be coordinated to best use the available resources.

California's Board of Forestry recently completed the latest revision of California's Fire Plan. This strategic document describes a new, proactive fire planning process with an emphasis on PreFire Management. The process includes all wildland fire service providers. In fact, the California Fire Marshal is taking steps to take the process to local government's fire services. Our stakeholders are included early in the decision making process. Stakeholders are the ultimate



recipients of the service we provide, we want them to participate in defining the service they receive.

We recognize that the fuels problem in California is too large to be tackled all at once. The answer is to find those areas of California that will show the greatest return on investment given our limited budgets. The fire planning process includes a four part assessment process that identifies areas of high value federal, state, local, and private assets, hazardous fuel conditions, relatively low initial attack wildland fire suppression ability, and frequent severe fire weather conditions. These areas should benefit most from additional PreFire investments aimed at improving safety and reducing cost and loss.

PreFire Management is not a new government program. Rather, it is a new management approach. We have learned that single agency, broad brush solutions to problems do not always achieve the proper results on the ground. PreFire management focuses on the needs at the community or project level and allows the community and local fire managers to choose the appropriate mix of program activities to get the best results. The goal is to improve safety and reduce costs and losses. The PreFire Management toolbox includes prescribed fire, mechanical fuels treatments, fire prevention programs, fire safe engineering, land use planning, forest health activities, and more. Further, PreFire Management encourages a high level of coordination among government agencies and the private sector to achieve strategic goals that benefit all. For example, the insurance industry is very supportive of PreFire Management through their actions on our state and local Fire Safe Councils. They see a real solution.

California is making a major commitment to come to grips with the fuels problem in our wildlands. Governor Wilson and the California Legislature recently approved CDF's PreFire Management budget initiative. This \$2.4 million initiative will develop the management infrastructure within our organization to do PreFire Management planning and project development. Even with this fiscal support, we know we can not do this alone. We need Washington to give their California land managers the authority and resources to work with us on California's fire problem. These land managers need flexible guidelines, not strict mandates, that will allow them to make the appropriate local decisions.

The interdependence among California's wildland fire protection agencies caused California's Board of Forestry to change the focus of the 1995 Fire Plan for State Responsibility Area to a California Fire Plan for the Wildlands in California. Washington should support efforts to create a California Interagency Fire Planning Team under the general umbrella of the California Wildfire Coordinating Group. This team would have representatives from CDF, USDA Forest Service, BLM, NPS, and other key agencies, as appropriate. The Fire Planning Team would be charged with resolving implementation issues associated with the fire planning process. For example, the California Fire Strategies Committee is asking that a team be formed to develop a common fire hazard mapping system that could be used across agency boundaries. A fire hazard team would develop a common definition, standardize data, and coordinate implementation efforts. There are many other similar issues that will need to be addressed. We need Washington's support.

We need Congress to help remove the regulation barriers that hamper local cooperative efforts. Our federal and state fuels managers need to work with air quality regulators better together to integrate fuels management needs with air quality needs. Air quality regulations create a self-defeating push for strict air quality that will restrict the use of prescribed fire operations. The result will be an increased risk of a large damaging fire and the resultant smoke emissions. When this happens, the air quality program suffers, fire suppression is more costly, and our stakeholders suffer more damage. There are many such conflicting regulations that must be dealt with.

We need Congressional help for a proactive forest fuel utilization research and development program. Prescribed fire is our current most viable program for dealing with wildland fuels. Prescribed fire is risky and produces smoke. A viable biomass industry could give our managers an additional tool in their PreFire Management toolbox and create jobs for more citizens.

We ask that Congress support James Lee Witt's efforts to allow FEMA to take a pro-active stance toward improving public safety, reducing citizen losses, and reducing economic costs and destruction of natural resources that result from natural hazards. FEMA has long been the "deep pocket" of disaster relief funds following major wildland fire sieges. We agree with Mr. Witt that it is cheaper to prevent the damage than to pay for the repair after the disaster.

Our citizens pay local, state and federal taxes. They expect and deserve a government that delivers the best available service for the cost. I believe that coordinated cooperative planning and focused PreFire Management will go a long way toward delivering the best government service that we are able to deliver. The answer is not a CDF Fire Plan and a separate USDA Forest Service Fire Plan in California. The answer is a California Fire Plan.

## STATEMENT OF LEON F. NEUENSCHWANDER

**Testimony Presented to US House of Representatives,  
Subcommittee on National Parks, Forests and Lands****Chairman, James V. Hansen  
Testimony by Leon F. Neuenschwander**

September 12, 1996  
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Chairman Hansen, distinguished members of this committee, it is a privilege to have the opportunity to present my testimony to you today.

Every year more and more money is spent suppressing wildland fires. However, each year the number of acres burned and the amount of damage sustained also increases. Common sense says that it is time for a change. I am not suggesting that we abandon fire suppression activities. I am suggesting that we determine the underlying problems causing increased fire activity and then try to fix those specific problems.

There is a disturbing trend in the West in some, but not all, forested types in which the size, intensity, and frequency of wildfires is increasing. In my opinion, increased wildland fire activity is a symptom of declining health within our Western forests and range lands.

I believe that there are several contributing factors for this, including:

- the increase in the number of people living in the intermix between wildlands and human communities,
- the introduction of exotic species of plants, insects, and diseases,

- past human activities that have changed vegetation composition, structure, and function,
- the exclusion of fire in fire dependent ecosystems (also causing changes in vegetation composition, structure, and function).

In this testimony, I will only address the exclusion of fire in fire dependent forests, specifically, in the ponderosa pine / Douglas-fir forests. Because my time in front of this committee is short, at the end of my statement I have attached answers to questions frequently asked on this topic. (These questions and answers are modified from those asked by Shawn Church, Associate Editor of the "Random Lengths News Letter"). In this section you will find a synopsis consisting of a statement of the problem, and what I think we must do about it. Please enter my entire written statement into the record.

Plate 1 is from the September, 1996, issue of the National Geographic magazine. It is a computer image that illustrates:

1. the current conditions of a fire deprived ponderosa pine / Douglas-fir forest and the way it burns in a wildfire. The intensity of the fire is high, dangerous to fire fighters and residents, and destructive to natural resources. Old growth pines that survived past fires are killed by this crown consuming wildfire.
2. the historical forest when fire was a frequent visitor. It shows the way the forest would have naturally burned. Frequent fires maintained an open condition and assured that the historical forest did not convert to a dense forest as illustrated above. With fire restoration in the ponderosa pine / Douglas-fir forests, the high intensity fires portrayed above are prevented.

Fire is only temporarily suppressed in the dry, mixed conifer forests found in the western states. When wildfire finally erupts the results are greater fire intensities and rates of fire spread, flaming embers traveling farther igniting new fires, and increased quantities of fuels



consumed. For these reasons, Western wildfires are becoming larger, more dangerous, more destructive, and more expensive to suppress.

Plate 2 is a photo of a fire deprived ponderosa pine / Douglas-fir forest.

Plate 3 is a high intensity fire in a fire deprived ponderosa pine forest. Fire had been excluded since 1889. This fire was dangerous and expensive. It cost more than \$100 per acre to suppress.

Plate 4 is a photo of a Rx fire (Rx = prescribed) in a forest where fire burned about every 26 years. Fire had not been excluded. It is not dangerous and is easy to suppress. University of Idaho students ignited and controlled this fire and it cost less than \$10 per acre to burn.

Plate 5 is from American Forest magazine and illustrates a fire fighter suppressing a wildfire in the early 1900's in a ponderosa pine / Douglas-fir forest. The intensity of the fire is similar to that of the Rx fire in plate 4 and the natural fire in plate 1.

Plate 6 is the Star Gulch fire, a high intensity fire in 1994 on the Boise National Forest that burned approximately 20,000 acres.

Plate 7. All the trees marked in black were killed by high intensity fire. The orange color indicates areas where some trees survived due to fires burning at low intensities. Areas over 100 acres that did not burn are marked in green.

Prior to this fire the black areas were predominantly ponderosa pine. After the fire, black areas were converted to brush, leaving an extremely altered landscape mosaic. It will take more than 250 years for these black areas to return to a ponderosa pine forest if they return at all. Historically, this entire area would have burned approximately every 15 years and recovery would have taken another 10 years. The larger, more fire resistant trees survived under

historical fire intensities. Should another wildfire occur in these black areas it will likely convert them to a non forest type for several human lifetimes.

High intensity fires, such as the Star Gulch fire, produce negative effects on other natural resources as well as an economic burden. For example, eroded sediments wash into streams reducing water quality and diminishing fish habitat. Sediments also carry nutrients away reducing the long-term productivity of the forest. In 1994, the total suppression costs on the Boise National Forest from wildfires were \$68 million. Reforestation efforts are likely to continue for years to come increasing total expenses. All this because fire was excluded from a fire dependent ecosystem. Fires like the Star Gulch are occurring across the western states.

The next six plates are computer generated images based on fire prediction models. They illustrate what the management options are by creating a virtual forest that would burn with high intensity, much like the black areas in the Star Gulch fire.

Plate 8 is a fire deprived mixed forest. In less dense forests, cutting a few small diameter trees or Rx fire by itself may be all that is required to maintain the ecosystem. But, this forest is too dense to use Rx fire to burn safely without excessive tree mortality. Although we can try to continue to suppress fires, eventually the forest will burn.

Plate 9 is the result after a wildfire.

Plate 10. We could remove large trees, as in the past, to maximize economic return.

Plate 11. But, this forest will also eventually burn up. The resulting forest is not fire resistant and resilient.

Plate 12. Or, we can thin out the small trees that encroached during the period of fire exclusion and leave the large diameter, fire resistant trees.

Plate 13. I think the best results are obtained when harvest is followed by Rx fire. What is achieved is a fire resistant and resilient forest that can be maintained with Rx fire by burning the forest every 15 years or so. This virtual scenario is an example of managing for an historic ponderosa pine / Douglas-fir forest.

In the real ponderosa pine / Douglas-fir forest, many options exist to manage for fire resistance and resilience. In my opinion none of these options include a continued policy of fire exclusion.

You and your constituents must choose which forest you want. But, make no mistake, wildfire cannot be excluded forever, and attempts to do so have enormous economic and ecological consequences.

Plate 14. We are facing and will continue to face the deleterious consequences of fire exclusion. In my opinion, wildfires will get larger, become more intense, and more dangerous. These fires will continue to cost more to suppress and have more damaging effects on natural resources until we address the underlying problem of fire exclusion, or until there is nothing left to burn.

These eight frequently asked questions and my responses pertain to forest health and fire exclusion.

1. The forest health crisis has brought to light the mistakes of past forest management. A key issue has been the decades old crusade to suppress forest fires and how this effort has adversely affected forested ecosystems. Please explain the history and the consequences.

Forest health is a call for action to restore ecosystems altered by past and present human activities. These activities began with European settlers clearing the land, farming, ranching, lumbering, mining, road and rail building, and suppressing wildfires. At first, settlers used fire as a management tool but, with increasing urbanization, fire was excluded. Over time, shade tolerant trees and surface organic debris have accumulated. Rates of accumulation increased dramatically after W.W.II, as fire suppression became more effective. Had fire been allowed to play its natural role there would have been fewer shade tolerant trees and less surface organic debris. Today, the resulting late successional forests promote even more shade tolerant trees that are less fire, insect, and disease resistant.

Eventually, the land cannot support increased tree densities. Tree growth stagnates and mortality follows. Old growth fire resistant trees that survived past wildfires are either crowded out by smaller trees, succumb to insects and disease, or are killed by wildfire. Majestic old trees are replaced by a non forest type or become snag skeletons. Some forests in this condition are a ghostly gray, waiting their turn to burn.

Wildfires burn very differently in fire deprived forests because of fuel build-up. Fuel build-up is a collective term that includes the change in forest composition, structure, and surface organic material fuel accumulation. In forests altered by the exclusion of fire, wildfires no longer burn on the surface, creeping along the forest floor; instead, they are likely to burn the entire tree or the entire forest. Old growth

fire resistant trees can not withstand the intensity of these fires. In forests where fuels have built up, wildfires burn through the crowns of the forest consuming everything except trunks and larger branches. Within the perimeter of the fire, few areas are lightly burned. Some trees may survive in the lightly burned areas, but most trees perish due to the pervasive intense heat.

Following these wildfires, multi-age forests may either convert to even-age forests, leave single trees where the forest once stood, or convert to a non forest type. If re-burned before the post burn regeneration produces seed, the forest is replaced by brush. Most likely, the brush will last for a long time, and from a practical management perspective the resulting non forest community is permanent, or at least semi-permanent.

In addition to increased fire intensity and severity, the uniformity and size of wildfires increase. Such fires are more uniform because combustion is more complete. The subsequent landscape mosaic is less diverse. Complex spatial and temporal mosaics of historical fires are lost in a single fire. Tens of thousands of acres burn in a single fire where hundreds of acres would have normally burned.

The loss in diversity on the landscape and structural diversity within the fire perimeter causes decline in biodiversity and affects wildlife habitats over large areas. Large intense fires consume organic matter on the forest floor leaving the watershed exposed to erosion. Streams may clog with sediments affecting fish habitat. In addition, wildfires are dangerous to forest residents and to fire fighters. They are expensive to suppress and to rehabilitate. The loss of private property drives the costs up even higher. A single fire may burn for a month or longer and cost more than a million dollars a day to suppress. Rehabilitation and property loss may run into the millions.

2. What are the primary ecosystems that have been most affected by the exclusion of fire?

Fire exclusion affects all ecosystems, but the most affected are those where fire was a frequent visitor. Ecosystems with frequent fire include low elevation grasslands, shrublands, woodlands, savannas, warm/dry mixed conifer forests, and short-lived deciduous forests.

Specifically, the most seriously affected ecosystems in the western states are: juniper woodlands, seral ponderosa pine, giant sequoia, dry mixed conifer, interior dry cool Douglas-fir forests, and aspen patches.

I view the change in ponderosa pine forests as the most obvious and symbolic of forest health issues. Ponderosa pine is very resistant to surface fires when it is frequently burned, but fire exclusion creates forests with a different mix of species, overcrowding of shade tolerant trees, multi-layered canopies, and accumulated surface organic debris. In these fire deprived forests, even large trees have little or no chance of surviving a wildfire. The forest converts from multi-age pine to even-age Douglas-fir, or to brush. The conversion is highly unstable and may, in some cases, be permanent.

3. What can and should land managers do to correct this problem?

First do not generalize the problem. Be specific with respect to the forest area in question. If a decline in forest health is a natural succession event and the natural fire cycle has not been interrupted, then nothing may need to be done. However, if the natural fire cycle has been altered causing a change in species composition, forest structure, and fuel build-up, then the manager should take action or face the inevitable -- a large crown consuming wildfire.

For example, in the dry mixed conifer ponderosa pine forests, depending on the density and composition of the forest, I recommend:

- the use of prescribe fire (Rx fire),
- thinning followed by Rx fire, or

- selective harvest, leaving the large fire resistant tree species followed by Rx fire.

4. Specifically, what will prescribed burning accomplish and is it being used to any large degree in the West?

The most effective strategy to prevent catastrophic wildfires is preventive maintenance where it is appropriate, i.e., prescribed burning under controlled conditions. Periodic Rx fire in fire dependent ecosystems:

- reduces accumulated forest litter, thereby reducing the risk of catastrophic wildfire and protecting important resource values such as human life, property, timber, water quality, fish and wildlife habitat, and long-term air quality.
- rejuvenates grass and shrub understories and improves wildlife forage.
- recycles carbon and nutrients tied-up in forest litter.
- thins young trees, prunes lower branches on larger trees, favors fire resistant species and assures survival of the large diameter trees.
- restores the natural role of fire as an ecological process and the historical structure and function of fire dependent ecosystems where fire has been excluded.
- replaces severe, high intensity, and expansive wildfire with lower intensity, less severe and smaller prescribed fire.

And what happens if we do not burn in fire dependent ecosystems?

Answer: We will have larger, more expensive, more severe fires, with more floods, and fewer forests, fish, and wildlife.

Unfortunately, prescribed fire is not used to the extent it could be on most of the public lands to prevent catastrophic wildfires, maintain fire dependent ecosystems, or to restore ecological processes.

5. Why has it been used so sparingly in the West?

Public and agency attitudes toward the use of fire change slowly. The agencies have made a concerted effort to expand Rx fire programs in the last decade. They should be commended for that effort, but they must Rx burn more acres. We must develop landscape Rx burn plans and implement them. As yet, we are not burning enough acres across the landscape to reduce the size, damage, and expense of the catastrophic wildfires.

6. What are the shortcomings of using fire as a management tool? Are there risks? Please explain.

Like any management tool, Rx fire has shortcomings. Probably, the two most obvious are smoke and the possibility of escape. It is true that wildfires produce much more smoke and for a longer time, but Rx fires also produce smoke. People do not like smoke.

Rx fire is not as precise as some managers would like, and there is a risk of not achieving the desired result, or worse yet, the fire may escape confinement from public lands.

Risk is relative. Compared to the damage and expense of large wildfires, the damage and cost from lower intensity fires set under prescribed conditions is much less. However, if someone is harmed, or if private property is burned by Rx fire, then the agency is liable. Currently, agencies are not liable if property or human life is harmed because of wildfire.

I think we need additional, highly skilled Rx fire managers, and more training for risk adverse forest managers. After all, trees killed by Rx fire will surely be killed by wildfire and the acres burned by wildfire will be greater.

7. Salvage logging has been advocated by the industry as a key to solving the dense stocking problem. How and where can logging best be employed to help the forests?

Salvage logging treatments are intended to capture the economic value of dead timber and are not usually done for the purpose of



forest restoration. Salvage is a reactive approach to a realized forest health problem, that is, the trees are already dead. Restoration is a proactive approach to prevent forest health problems. We need to acknowledge that restoration and salvage have different objectives and different outcomes. Salvage logging is not a panacea. It does not restore resistance and resilience in fire dependent forests.

In fire dependent forests, we must restore the natural fire resistance, and resilience that these forests had before management actions altered the process of fire. Goals for management vary greatly; however, fire dependent forests should be able to survive wildfire. Where the use of Rx fire may not be possible, low impact restoration logging can be employed to reduce the density, change composition, and change forest structure to favor the large fire resistant trees. In these cases, I think the best results are achieved when Rx fire follows harvesting, thinning, chipping, and slashing. Periodic Rx fire maintains fire resistance.

8. Some environmentalists advocate a hands off approach -- a "just let nature take its course" response. Some contend there is no forest health problem. How do you respond?

In some forests *there is no forest health problem* in others there is. Some are unhealthy, they are dying, and converting to non sustainable forests. In high elevation cool mixed conifer forests, such as lodgepole pine, probably the role of wildfire has not changed. Nature's course with fire will likely be much the same as it was in the past before European settlement. Wildfire will restart succession and renew the forest. But, in fire excluded forests where fuels build-up, the forest composition shifts to late successional species and few fire resistant trees remain that produce seed. In these forests nature's course is death by wildfire. The forest that regenerates following the fire will not be the multi-age forest of the past containing large fire resistant trees, and it will not be fire resistant. The next wildfire is likely to produce a forest of snags and to convert to either a different forest, or, perhaps, to a non forest type. In fire dependent forests, such as ponderosa pine, the only sustainable management policy is to manage for fire resistance and resilience.

Restoration is needed in many fire dependent ecosystems. If we fail to undertake this challenge, the fire dependent forests of the future have little chance of survival. Our natural resource heritage and economies will eventually be lost to wildfires.

Forest health is a wake-up call and requires action. The restoration job is immense and time is short. Let us save fire dependent forests

from fire exclusion. Let us restore frequent fire dependent forests before they are consumed by wildfire. If we do, in the long run we will reduce the number of acres burned by catastrophic wildfire and save millions of dollars in fire suppression, rehabilitation, reforestation, and asset replacement.

Thank you for the opportunity to respond.

Dr. Leon F. Neuenschwander is a Professor of fire ecology at the University of Idaho. He teaches Rx burning, fire ecology, and management and is an instructor in many of the national fire training programs. He has been at the University of Idaho for 20 years teaching and conducting research. Many of his students are today's outstanding fire managers.

## STATEMENT OF BLAINE L. CORNELL

**STATEMENT OF  
BLAINE L. CORNELL TO THE  
HOUSE OF REPRESENTATIVES,  
COMMITTEE ON RESOURCES,  
SUBCOMMITTEE OF NATIONAL PARKS, FORESTS AND LANDS**

**SEPTEMBER 12, 1996**

Good afternoon Mr. Chairman and members of the Committee. I am pleased to have the opportunity to testify about the policies of the Forest Service that affect wildfire prevention and suppression. My background in this area is as follows: I have a BS degree in Forest Management from the University of Idaho, I served 33 years in the Forest Service in various positions on the National Forests in Idaho, Wyoming, Nevada and California which included fire management as a responsibility. I have had the full spectrum of fire management training and qualified for and operated in all levels of the incident management system. I have been involved in the application of prescribed fire, many episodes of fire suppression in the western United States, and I have been involved in the pretreatment of conifer stands for the introduction of fire. I participated for a number of years in the training of managers in advanced incident management at the national level. I participated as a member of the Fire Management Policy Review Team appointed to review the application of fire policies of the USDA and USDI following the 1988 fire season. I retired from the position of Forest Supervisor of the Stanislaus National Forest in December, 1989 and since that time have done consulting work while remaining involved in forest land management issues, including wildfire and prescribed fire. I am a registered professional forester in the State of California.

Recently mounting losses to and costs of suppressing wildland fires is of great concern to the nation. A number of studies have pointed out that acreage burned has accelerated greatly in the decades of the 80's and 90's. The effects of fire suppression for nearly 100 years resulting in less frequent fires and large fuel buildups is cited as a primary reason for this accelerated loss. Changes in ecosystems dependent on fire is cited as a concern. A review of Federal Wildland Fire Management Policy was initiated and a report issued December 18, 1995. The recommended policies stress the acceleration of fuel reduction and re-introduction of fire into the ecosystems as a substantial part of reducing the mounting losses to wildfire as well as to maintain the health of the fire dependent ecosystems.

The feasibility of the policy emphasis on the reintroduction of fire as a primary agent of change has to be put into perspective with the ability of the organizations to achieve the goals desired. Without a detailed plan and appropriations to facilitate the implementation of the policy, it is difficult to assess whether or not the goals can be reasonably met. However, one concern stands above most others-implementation of this policy will require a high level of expertise in the Forest Service and other Federal Agencies. This was clearly demonstrated in the 1988 fire situation in the Northern Rocky Mountains where adherence to fire management policies was questioned and in some

cases found wanting. The expertise level in these agencies has been reduced even from what it was in 1988.

The remainder of my remarks focus largely in California and the Sierra Nevada, an area I am familiar with.

**Fuels in the Forest.** Live and dead fuels in today's conifer forests are more abundant and continuous than in the past. The Sierra Nevada Ecosystem Project (SNEP) identified the many factors responsible including climatic variation, timber harvest, mining, grazing, human settlement patterns and land-use practices along with nearly a century of fire suppression. Timber harvest, through its effects on forest structure and fuel accumulation if not accompanied by adequate reduction of fuels, can result in increasing the severity of fires more so than any other recent human activity. **However, when accompanied by adequate slash treatment, logging can serve as an effective tool to reduce fire hazard.** Longstanding agency policy and state law require slash disposal as a part of timber harvest.

In the Sierra Nevada, the biggest share of large acreages burned in the decades of the eighties and nineties resulted from lightning ignitions where multiple ignitions occurred under very warm, dry conditions overwhelming the ability of suppression forces to respond, or when fire suppression forces were already scarce because of commitment to fires already occurring elsewhere. This pattern is a phenomenon of these two decades. Human caused fires have, since the early 1900s, burned more acres in the Sierra Nevada however, with peak years occurring from the mid 1920s to the mid 1940s.

**Prescribed Fire, Will It Do The Job?** It is estimated by the Forest Service that in the National Forests in California, the treatment of fuels on one million acres a year would be required for 30 years to create conditions where fire could substantially play its role in ecosystems without substantial intervention and suppression costs. These estimates include multiple entries on the land to reach a condition where fuel volumes and fire return frequencies are in balance to maintain something approaching pre-settlement conditions. The estimated cost of this regime is one billion dollars. The question of feasibility is raised from several standpoints. Was it assumed that prescribed fire was the only method to be utilized in reaching this condition? Would it require a major change in the way the agency is funded? Would the balance between resource outputs be acceptable? Is the level of fire expertise in the agency sufficient to implement this program? Would Land Management Plans need to be evaluated and materially revised? Are laws establishing air quality standards flexible enough to accommodate long periods of smoke pollution? Would the likely changes in public use patterns be acceptable? Would private land values in the Sierra Nevada be changed? Can cooperation and collaboration among all land owners in the Sierra Nevada gain the broad public support necessary for such a program to succeed? Would a return to presettlement fire regimes be an acceptable condition to the public and other landowners?

The development of intermingled, privately-owned forested lands for human habitation,

particularly in the Central Sierra Nevada, has introduced a high degree of complexity to the planning and execution of forest ecosystem management and protection programs. The ability of the Forest Service to reach the goals for the pattern and distribution of vegetative types and condition, including the late seral stage, old growth forest ecosystem is dependent upon cooperation and collaboration among landowners. The treatment of fuels must involve collaboration with the state, counties and local communities and agencies so that goals are agreed to. Without this essential step and consistent execution and communication by the cooperators, any efforts will be fragmented and goals will not be achieved.

Goal setting must be focused at the local level to succeed and may differ among geographic areas because of the conditions that exist there. Failure to coordinate programs at the local level could result in continued high-risk development that would continue to complicate protection and reduce flexibility of application of methods in ecosystem management. Land values could be affected negatively. Thus, a mix of methods to deal with the fuel buildup will be required to achieve acceptable results. The use of prescribed fire by itself would fall far short of accomplishing reduction of fuels and other management objectives such as output of forest products. The advent of more prescribed fire will result in more area restrictions on public use and may affect the quality of recreation experiences, resulting in changed patterns of public use. More frequent presence of smoke in populated areas could influence public acceptance of the use of prescribed fire, even with public education because of the health issues involved. Clean air laws may be violated. Nor will the re-introduction of prescribed fire guarantee that large, damaging wildfires will no longer occur. A case in point is the August, 1996 Rogge Fire on the Stanislaus National Forest. It was started by lightning and over several days, burned 21,000 acres with a suppression cost of nearly 8 million dollars. Nearly all of the Rogge Fire burned within the area burned by the Stanislaus Complex Fire nine years ago in 1987. The Rogge Fire escaped initial attack during a period of multiple ignitions and scarce resources because of commitments to fires in other areas. The fire burned through about 2000 acres of tree plantations established following the 1987 fire. Other types of fuel treatment may have protected these plantations until they were more fire resistant.

**Mechanical Treatment Alternatives.** Mechanical treatment methods are available which offer a means to treat conifer stands with high fuel loading, resulting in healthy, fire-resistant stands that can withstand the re-introduction of prescribed fire. Modern equipment is used to thin conifer stands, removing trees up to 20 inches in diameter, utilizing the trees removed for small sawlogs and biomass for fueling electric power generating plants. Within and adjacent to the Stanislaus National Forest, approximately 5000 acres of public and privately-owned timberlands are treated annually in this manner. Products harvested amount to an average of 2000 board feet of sawlogs and 20-30 green tons of biomass per acre or a total of 10 million board feet of sawlogs and 125,000 green tons of biomass annually. The value of the products is market-driven and fluctuates with demand, but at the present time, a residual value remains after harvesting costs are subtracted to pay some stumpage and allow a profit. The cost of biomass removal is subsidized by the value of the sawlogs, however. The amount of land treated in this manner could be expanded to 15,000 acres on public and private lands annually if the acres were made available for treatment.

Barriers to a mechanical treatment program exist which constrain the amount of land treated. Collaboration with state, county and local communities to set local goals for management of the lands of all ownerships, including goals for fuel treatment, has not occurred. The withholding of the Revised Draft Environmental Impact Statement (RDEIS) for the California Spotted Owl from public review and comment does not reflect a willingness to enter into the necessary collaboration with all of the affected publics or reflect concern for the economic viability of counties and local communities. Any additions to the scientific base of the RDEIS from new information could be handled during the public comment. The SNEP has strongly recommended that this collaboration occur as soon as possible.

The lack of a consistent program of multiproduct timber sales by the Forest Service gives little incentive for the investments needed by entrepreneurs to successfully conduct a business enterprise without undue risk. The complex environmental reviews and timber sale preparation processes keep agency costs high. A bill (AB1357) is currently moving through the California State Legislature to simplify the timber harvest planning process for private lands for thinning operations. The deregulation of the electric utility industry in California may result in the loss of markets for the biomass removal which has added significantly to the quality of the fuel treatment. The social value of the utilization of the biomass under conditions which result in cleaner air and production of energy needs to be considered. A number of environmental groups have opposed programs utilizing mechanical fuel treatment on the basis that they are typically some scheme to justify the cutting of green trees. Green trees can also be fuel. The influence of these environmental groups is often to the detriment of the setting and achievement of goals by the local communities. And the use of prescribed fire is advocated when it is not necessarily the best method. A stronger, more professionally-based education program is needed to educate the public and gain acceptance of alternative methods of fuel treatment.

**THERE ARE NO PANACEAS.** A combination of fuel treatment tools must be available for professional land managers to apply to accomplish the highly complex job of managing lands and ecosystems in the future. Local collaboration in goal-setting is a must. Adequate Agency staff with suitable skills, focusing their efforts on the ground to meet the goals that are acceptable to a broad range of the public are needed. The availability of highly skilled entrepreneurs who can utilize their expertise and capital to work to meet these goals is also necessary. Responsive federal programs which contribute to and support the effort are paramount to success.

I have some pictures that may help demonstrate the results and benefits of mechanical treatment of conifer stands. The first set shows before and after photos of mechanical treatment currently being done. The second page shows the results of the August, 1996 Ackerson Fire in the Stanislaus National Forest and Yosemite National Park in treated and untreated stands. The treated stand was used as a control line from which to backfire and contain the spread of the fire in that area, saving Camp Mather, a facility owned by the City and County of San Francisco that is used for recreation by its citizens.

This concludes my prepared statement. I will be happy to answer any questions you may have.



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