

## **Old Growth Management in the Pacific Northwest Hearing**

Mr. Chairman and members of the subcommittee, thank you for the opportunity to testify on old growth management in the Pacific Northwest. I am Linda Goodman, Regional Forester for the Pacific Northwest Region for the USDA Forest Service. I am accompanied today by Dr. John Laurence, Program Manager of the Pacific Northwest Research Station's Ecosystem Processes Program.

I will submit my formal testimony for the record. I would also like to submit for the record this publication (**hold up copy of GTR-720 First-Decade Results of the Northwest Forest Plan**) – the summary of results from the first ten years of the Northwest Forest Plan upon which many elements of my testimony are based.

I would like to summarize for you our perspective on what we in the Forest Service have learned about the science of old growth forests, the threats they face today, and the principles of management we believe should apply now and into the future.

### **What is “Old-Growth” Forest?**

Old growth forests mean many things to people. They are often perceived as icons of stability, but they were not immune to disturbance by nature over the centuries. Today’s old growth forests result from a long journey through time and scientists are learning that the journey forests take as they become old matters. That journey is shaped by fire, insects, disease, weather and climate, and, of course, people.

What is an old growth forest? There is no one widely accepted definition of old growth. The term “old growth” did not come

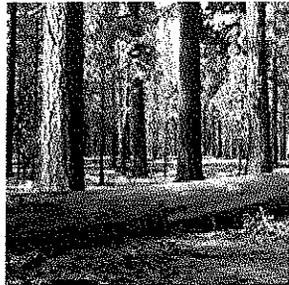
from science, but from foresters in the early days of logging.

One general definition developed by Tom Spies (Research Forester, Pacific Northwest Research Station) and Jerry Franklin (Professor of Ecosystem Analysis, College of Forest Resources, University of Washington) in 1989 for the Forest Service reads, in part:

“Old growth forests are ecosystems distinguished by old trees and related structural attributes...that may include tree size, accumulation of large dead woody material, number of canopy layers, species composition, and ecosystem function.”

To many people this translates to large trees, large downed logs, and a feeling of awe. Others think of relative islands of trees

that have been unchanged by time and disturbance. Our research has taught us that this last picture in particular, is not accurate. But what “old-growth” looks like depends on where you are - old forests look strikingly different across the Pacific Northwest, and different management is appropriate. Here are two examples: The first, a “wet” old-growth forest, is characterized by very large Douglas-fir and western hemlock trees, multiple layers in the canopy, and large dead logs on the forest floor. The second, a ponderosa pine stand, is more open and park-like with a simpler canopy and little undergrowth on the ground. You might notice that the bases of these trees are charred from a low-severity fire that burned fuels on the forest floor.



## Threats to Old Growth Forest

Although old growth forests developed in the face of natural adversity, they face many contemporary threats, particularly fire, insects, and disease. In the dry forests of eastern Oregon and Washington, fire and insects constitute the most important threats these days. Landscapes with too many trees, and not enough open space are vulnerable to high intensity fire, different than what occurred historically, that can kill large old trees.

Stands with too many trees may also be vulnerable to insect attack that can kill large old trees.

In moister areas, where the fire regimes are referred to as “mixed”, meaning historically fires were of higher intensity and lower frequency than in dry forest, fire still remains the greatest threat to old forest due to the accumulation of fuels.

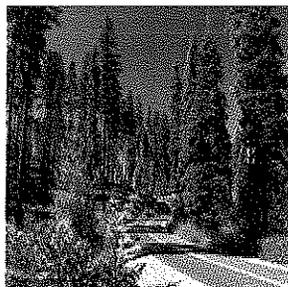
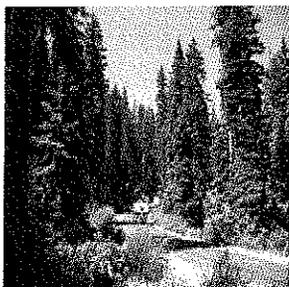
In wet forests, such as on the westside of the Cascades, large infrequent fires are the greatest natural threat, but typically, those fires occurred hundreds of years apart. For instance, the last major fire on the westside (Biscuit) occurred in July 2002 and burned approximately 499,965 acres across all jurisdictions (467,702 of the Siskiyou, 23,235 of the Six Rivers, and 9,028 of BLM).

An emerging threat that causes us a great deal of uncertainty and concern is a rapidly changing climate and how it will affect natural threats to old growth forests. For example, regional droughts could affect tree vigor across entire watersheds. This in turn could invite beetle infestations across whole landscapes, as we are seeing right now in Colorado and British Columbia.

## Management, Past, Present, and Future

For thousands of years, forests of the region developed without active management in a largely unpopulated area. In the 20<sup>th</sup> Century, management largely consisted of clear-cutting old growth to supply the demand for wood products. Our landscapes show the results of this management in plantation forests that have become old growth in the making.

Our current management, and that for the foreseeable future, will focus on accelerating the development of old growth *Diversity of stand ages across the landscape* characteristics and the biodiversity that goes along with it. In dry and moist forest that will mean fuels and density



management. This poster shows a before and after

example. The first picture was taken before a fuel reduction treatment, the second after the B&B fire in central Oregon burned through the treated stand, and the old trees survived as a result of that treatment.

In wetter forests it means trying a variety of silvicultural treatments to make plantations look (and function) more like natural old growth in a shorter time.

## **Balancing Science with Values of the Public**

Although science helps inform our management of current forests of all ages, it is only part of the equation. [Show the

final poster here]



The public's interest in the social, economic, and intangible values associated with old growth cannot be overlooked or underestimated. Some members of the public espouse the Precautionary Principle – don't touch the Forests - at all. Other members of the public expect us to be more aggressive in our management and want us to get the work done now. In an ideal world, we would have a balanced approach everyone could agree on. However, as we've seen through numerous appeals and litigation, the ideal world does not exist. As an agency, we continue to seek to strike a balance while fulfilling our professional responsibility to manage the land for the public good.

We all know that if we reduce fuels in and around forested ecosystems, including old growth forests, we will protect them from fire. Yet, there are those who say – let nature take its

course. Hundreds of years ago, that approach worked. But now that humans have become a large part of the old growth ecosystem, we must play an active role in managing those systems.

Science can and does help us devise a portfolio of management approaches to protect and develop diverse old growth forests.

We believe science holds the key to successfully ensuring old growth forests are always a part of our legacy. We also believe with the key of science comes the responsibility to use it properly. I'm proud to say, we do.

### **What Should We Do Now**

I believe we must use all the resources we have at hand to manage existing and future old growth forests. This means we

need to protect current old growth from fire, insects, and disease that are threats because of conditions that we know are not right—high fuel loads in old ponderosa pine on the east side, for instance. This means that we need to use the best science available, coupled with innovative management to implement new approaches to accelerate the development of complex forests that function as old growth, perhaps before their time. It is our duty to work with all the people to ensure the forests of today become vibrant, living legacies for future generations to use and enjoy.

Thank you for the opportunity to offer our perspective. I would be pleased to answer any questions the committee may have.