

**TESTIMONY  
OF  
DR. PETER DAUGHERTY  
ON BEHALF OF  
THE SOCIETY OF AMERICAN FORESTERS  
AND  
THE OREGON DEPARTMENT OF FORESTRY  
BEFORE  
THE SUBCOMMITTEE ON NATIONAL PARKS, FORESTS, AND PUBLIC LANDS  
OF  
THE COMMITTEE ON NATURAL RESOURCES  
UNITED STATES HOUSE OF REPRESENTATIVES**

Chairman Grijalva, Ranking Member Bishop, and Members of the Committee, my name is Peter J. Daugherty, and I am the Director of the Oregon Department of Forestry's Private Forests Program. I am pleased to have the opportunity to provide testimony on an issue critical to the sustainability of our Nation's forest. I am providing this testimony on behalf of the Society of American Foresters, the Oregon Department of Forestry (ODF), and myself. The Society of American Foresters (SAF) is the national scientific and educational organization representing the forestry profession in the United States. It is the largest professional society for foresters in the world. The mission of the Society includes advancing the science, education, technology, and practice of forestry to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society. The Oregon Department of Forestry serves all Oregonians by practicing and promoting sustainable forestry intended to produce a wide range of benefits. The department offers on-the-ground guidance and other services to private landowners, helping them to improve and maintain forest health and productivity. ODF protects 16 million acres of private and public forestlands from wildfire.

Historical practices have created vast areas of unhealthy forest ecosystems in the western United States. The overly dense conditions, exacerbated by drought, have increased bark beetle mortality and the size and frequency of stand-replacing crown fires. These interconnected symptoms warn society of the jeopardy of losing these forest ecosystems.

Although it has become increasingly apparent that an ounce of prevention activity is worth a pound of suppression funds, federal land-management agencies continue to allocate vastly more funds to suppression activities than to prefire hazard reduction. Without large-scale implementation of fire-hazard reduction treatments, the costs of uncharacteristic crown fires in western forests will continue to increase.

In a study conducted with Ph.D. candidate, Gary Snider, and Dr. Brent Wood, we examined the economic rationality of continuing the policy of emphasizing fire suppression activities over restoration-based fire-hazard reduction treatments. We conducted an avoided-cost analysis to answer the question of how much can we invest in prevention to avoid the continued cost of large fire suppression and rehabilitation.

We compared treatment plus fire suppression costs to the cost of fire suppression without treatments over 40 years for southwestern forests. This avoided-cost analysis estimates the amount one could invest in treatments to avoid future suppression costs for large fires. We only included the variable costs directly associated with large fire suppression; we assumed that fixed preparedness cost would continue. We assumed no increase in average number and size of large fires or in average per-acre fire suppression cost. We did not include losses and damages associated with structures, private land value, and other infrastructure associated with the wildland-urban interface in the avoided costs. We did not include changes in ecological and social values associated with restoration-based treatments. We essentially assumed that there is no difference between the value of a burned and restored forest.

Using these very conservative economic values, we found that avoided future costs justifies spending \$238–\$601/acre for hazard reduction treatments in the southwest. We conclude that the policy of under funding hazard reduction treatments does not represent rational economic behavior, because funding hazard reduction would pay for itself by lowering future fire suppression costs.

In Oregon, the current policy has resulted in analogous conditions. On federal lands, there are 13 million acres of over-dense forests outside of wilderness and inventoried roadless areas that are a high priority for treatment in Oregon. The majority of these acres are now outside their historic range of variability in terms of stand density and fuel loads, and are at risk of losing key ecosystem components to uncharacteristically severe wildfire or uncharacteristic vegetation succession. The current forest conditions constitute an extremely large problem that continues to get worse with time.

The lack of active management on federal lands is also putting many private forestlands at risk. Fires and insect outbreaks are moving from federal forestland into private forest and associated communities. The current conditions in Oregon's forests are not sustainable with respect to fire and insects, and can only be corrected with active management. The lack of active management allows current conditions in these forests to worsen, leading to a train wreck that will affect many ecological, economic and social values.

There are no risk-free management actions. Indeed, under present forest conditions, the no-action or go-slow alternative may very well be the most risky of all. Our results indicate that the ever-increasing ecological and economic costs resulting from high-severity, ecosystem scale fires in the southwest far exceed the cost to society of proactive restoration-based thinning treatments. The current sociopolitical condition of continuing to spend dollars on fire suppression while implementing limited treatment of high-risk forest areas represents an irrational ecological and economic decision.

We no longer face the question of whether society will spend the money or not. We are going to pay, one way or another, unless we make the unlikely choice not to spend money trying to fight and contain unnatural crown fires. We now face the choice of how we are going to spend the money and what are we likely to obtain from that expenditure.

If we invest in restoration-based hazardous fuel treatments, we invest in the future; we invest in healthy, sustainable ecosystems for our children and grandchildren. By not investing in restoration-based fuel treatments, we continue the depreciation of our forests, increasing the risk of radical shifts in their structure and function because of uncharacteristic crown fire. This lack of investment indicates that our nation lacks a clear vision and policies that promote the sustainable management of the nation's public and private forests as an integrated and high priority.

Given these choices, it makes a great deal of economic sense to conduct forest restoration on a large scale today to retain future ecological and economic values. Our analysis shows that the fire suppression costs that can be avoided in the future are sufficiently large by themselves to justify restoration-based fuel treatment expenditures today.

### **Recommendations**

Significantly increase the investment in active forest restoration and management to achieve healthy, sustainable ecosystems for our children and grandchildren.

Increase active management on Federal forestlands in collaboration with state and private forest lands to promote sustainable forestry.

Develop a national policy on sustainable forests to clarify and enhance the roles of federal, state, and local governments in relation to sustainable forests, promoting regional collaboration, joint planning and coordinated action.

## **Peter Daugherty**

Peter Daugherty joined the Oregon Department of Forestry (ODF) as the Director of the Private Forests Program on January 1, 2007. Prior to joining ODF, Daugherty was an associate professor of Forest Management and Ecological Economics at Northern Arizona University (NAU), where he worked from 1991 through 2006. While at NAU, Daugherty served as the Graduate Coordinator and Chair for the School of Forestry. He also took leave on two occasions to work as a research forester at the U.S. Forest Service, Pacific Northwest Research Station and as a forest economist for the Campbell Group, an Oregon-based timberland investment management organization. Daugherty received a Bachelor of Science in forestry and Ph.D. in Forest Management and Economics from the University of California at Berkeley. Daugherty has research experience in management science, forest economics, forest operations, and policy. His most recent research has focused on the economics of forest restoration and hazardous fuel reduction, and the forest biomass energy potential from fire hazard reduction treatments in Oregon and Northern California.