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Hearing to Explore Ways to Improve Federal Wildland Fire Management

Chairman Wyden, Senator Murkowski, and members of the Committee, thank you for the opportunity to present conclusions from a recent study completed by the Ecological Restoration Institute at Northern Arizona University examining the ecologic and economic effectiveness of hazardous fuels reduction and restoration treatments.

My name is Diane Vosick. I am the Director of Policy and Partnerships at the Ecological Restoration Institute. Our Institute, under the direction of Dr. Wally Covington, is well known for scientific research on how to restore forest ecosystems and lower fire risk to communities. In addition to examining the biological responses to forest restoration, we also examine the economic and social implications of forest restoration throughout the West. Also, and perhaps most important, we take the best available knowledge about restoration and communicate it in a language that is accessible to a wide variety of audiences, including collaborative groups and land managers who are designing and implementing forest restoration approaches at large scales. I am joined today by my colleague and the lead economist on the report, Dr. Yeon-Su Kim, Professor at the School of Forestry at NAU.

In January 2012, the Office of Wildland Fire at the Department of Interior asked us to conduct a third-party analysis of several persistent questions asked by the Office of Management and Budget and the Government Accountability Office about the effectiveness of fuel reduction treatments. We assembled a group of wildfire economists to examine five questions:

1. Have the past 10 years of hazardous fuel reduction treatments made a difference? Have fuel reduction treatments reduced fire risk to communities?

2. What are the relative values of treatment programs at the landscape scale?

3. How can we improve current and future economic returns to restoration-based hazardous fuel reduction treatments?

4. What are the fuel treatment, wildland-urban interface, and climate change effects on future suppression costs?

5. When or will investments in fuel reduction treatments lead to a reduction in suppression costs?

Rather than going into detail on the answers to each of these questions, I will focus on the findings that pertain to the subject of this hearing, "How can we improve federal wildland fire management?"

The answer is straightforward: we need to be more aggressive about solving the underlying problems of forest health and excess fuels. Our study provides ample economic and ecological evidence for why this makes sense.

- Using an evidence-based approach that uses the best available science, similar to the approach used in medicine to identify effective therapies, we concluded that fuels and restoration treatments can reduce fire severity and tree mortality in the face of wildfire. Treatments also increase the amount of carbon stored on-site over the long term.
- In addition, various wildfire simulations show that treatments can change fire behavior and fire severity and increase fire-fighting effectiveness. Thus, suppression costs can be reduced.
- Treatments are shown to be effective in protecting communities in wildfire simulations and in real wildfire experiences. HOWEVER, if treatments occurred at broader scales—such as outside the wildland-urban interface, or WUI, then there would be a greater impact on reducing damage from large fires.
- We can improve the economic and ecological effectiveness of treatments by acting before forests become too departed from their natural conditions.
- If present trends of development in the WUI and warmer and drier conditions continue, we will see increases in suppression costs.

One of the key questions we were asked was when investments in federal fuel treatments will offset federal suppression costs. As I mentioned previously, well placed hazardous fuel reduction and restoration treatments can reduce suppression costs. However, the question is insufficient to illuminate all the collateral benefits of treatments that go beyond

suppression savings. Also, it does not address the full cost of catastrophic wildfire on all sectors of society if we fail to take action.

Studies conducted by the ERI demonstrate that treatments are beneficial to improving water resources, aesthetics and recreation opportunities, forest health and resilience, and wildlife habitat.

The case study of the Schultz Fire (which is included in the full report) provides a grim example of what happens when we fail to act. We sought to calculate the full cost of the fire and the post-fire flooding that impacted Flagstaff, Arizona, and Coconino County following the fire in June of 2010. Through surveys and interviews, we calculated that the full cost of the 15,000-acre Schultz Fire is between $133 and $147 million. The cost was spread across four federal agencies, three state agencies, three utilities, local municipalities, nonprofits, and citizens. One of the largest costs is nearly $60 million in lost property values associated with the event, and one of the most devastating costs was the loss of a 12-year-old child. In contrast, had we treated every acre that burned at the high cost of $1,000 per acre, we could have saved between $9 to $10 in avoided fire and flood cost per each dollar spent.

In conclusion:

- The evidence shows that fuels treatments are ecologically and economically effective. However, assessing the value of treatments only in terms of reducing suppression costs is an inadequate analysis

for understanding the full economic and ecological value of treatments.

- In order to get ahead of the cost of large and severe fire, more treatments will be needed outside the wildland-urban interface.
- By treating degraded landscapes sooner, we can maximize economic and ecological effectiveness.
- And finally, development in the wildland-urban interface and intermix should be managed to reduce risk.

Thank you for the opportunity to speak before the Committee.

We respectfully submit the two studies referenced in this presentation as part of our testimony (The Efficacy of Hazardous Fuel Treatments http://library.eri.nau.edu/gsdl/collect/erilibra/index/assoc/D2013004.dir/doc.pdf and a Full Cost Accounting of the 2010 Schultz Fire http://library.eri.nau.edu/gsdl/collect/erilibra/index/assoc/D2013006.dir/doc.pdf).

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