House Committee on Natural Resources, Subcommittee on National Parks, Forests, and Public Lands, Hearing on "Wildfire Resilient Communities"

May 9, 2019

Thank you Chairman Grijalva, ranking member Bishop, and members of the committee. I am pleased to join you today to discuss how land use planning promotes wildfire resilient communities.

I am the Executive Director of Headwaters Economics, an independent, nonprofit research group based in Montana. We work to improve community development and land management decisions.[1]

I am here to share with you what we have learned through our Community Planning Assistance for Wildfire (CPAW) program.[2] To date we have worked with communities throughout the U.S. to help them improve their land use planning practices with the goal of reducing wildfire risk.

Let me start by giving examples of what we mean by land use planning. By this we mean regulations and incentives that are applied by local governments and their planning departments, in collaboration with fire departments. Examples include landscape regulations that require property owners to manage hazardous vegetation; building codes that require the use of wildfire-resistant construction materials on new homes; subdivision design standards for minimum road widths, secondary access, and adequate water supply; and incentives to encourage development in areas with lower wildfire risk. These are examples of what we mean by improved land use planning to reduce wildfire risk.

The reason we focus on land use planning is because the wildland-urban interface—the area where the built environment mixes with flammable natural vegetation—is now the most common form of development in the U.S. From 1990 to 2010, 43% of new homes were built in the wildland-urban interface. Currently more than a third of homes in the U.S. are on these flammable lands.[3]

Wildfires today kill more people, destroy more property, and cost more to fight than ever before. On average, federal agencies spend more than $3 billion per year to fight wildfires.[4] One reason wildfires have become more expensive to fight is due to the high cost of defending an increasing number of homes. Estimates of the costs of defending homes from wildfires vary, from around 30 percent of total fire costs to 50–95 percent.[5] In some fires in Northern California, the cost of defending homes can range as high as $400,000 to $600,000 per home.[6]

Where we build, how we build, and under what conditions we permit development: these are key determinants of whether we will be able to control the rising costs, dangers, and damages from wildfire.

Reducing wildfire risk to communities is largely a question of reducing the chances that homes and other structures will catch on fire. Post-fire analyses and laboratory research have proven that the area immediately around the home and the home itself are the primary determinants of wildfire survival. The most effective way to survive a wildfire is to put in place regulations—and, importantly, enforcement of regulations—that increase a community's chances of surviving a wildfire.[7] [8]

Let me explain how the Community Planning Assistance for Wildfire program works. Every year communities apply to be part of the program. The application is submitted by a diverse group that includes the planning department, fire department, and elected officials. When a community is selected, we sign an MOU with local government that spells out that the services we provide are free, and that the recommendations we deliver are voluntary.

When a community is selected to participate in the program, they receive four areas of assistance. We review their planning documents, such as the county comprehensive plan, the hazard mitigation plan, development codes and ordinances, and we offer advice on how to strengthen these based on reducing wildfire risk. Some communities also receive detailed, neighborhood-scale wildfire hazard mapping. We offer training programs to increase the capacity of local planning staff. And, we provide custom research support. For example, research we conducted recently with Dr. Quarles documents how building a home to wildfire resistant standards costs about the same as traditional construction.[9]

To date we have worked with more than 30 communities, nine have received wildfire hazard assessments, and more than 700 planners, fire personnel, elected officials, and others have participated in training workshops.

Allow me to end with a description of what we are hearing from community leaders. They need help with land use planning to reduce wildfire risk. Their planning staff—if they have them—are already overworked and are not experts in wildfire. When we offer free assistance and expertise, we help them accomplish something they could not do by themselves.

Communities also need easy access to neighborhood scale wildfire hazard maps. Planning and fire departments are using these to encourage and incentivize development in places that are safe. And they use the maps to identify areas of high risk, where development, if it proceeds, is done with the latest science on how to build to wildfire-resistant standards.

The wildfire problem will get worse, and people will continue to build in harm's way. We are not suggesting that we stop development. But the science and experience are clear. This is a problem we can solve because we know how to build wildfire-resistant communities.

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About Headwaters Economics

Headwaters Economics is an independent, nonprofit research group that assists the public and elected officials in making informed choices about land management and community development decisions in the West, https://headwaterseconomics.org/.

End Notes

[1] Headwaters Economics. https://headwaterseconomics.org/

[2] Community Planning for Wildfire (CPAW) program: https://planningforwildfire.org/

[3] Volker C. Radeloff, David P. Helmers, H. Anu Kramer, Miranda H. Mockrin, Patricia M. Alexandre, Avi Bar-Massada, Van Butsic, Todd J. Hawbaker, Sebastián Martinuzzi, Alexandra D. Syphard, and Susan I. Stewart. 2018. Rapid growth of the US wildland-urban interface raises wildfire risk. PNAS. https://www.pnas.org/content/115/13/3314.short

[4] Headwaters Economics. 2013. The Rising Cost of Wildfires. https://headwaterseconomics.org/wp-content/uploads/fire-costs-background-report.pdf

[5] U.S. Department of Agriculture. Office of Inspector General. November 2006. Audit Report: Forest Service Large Fire Suppression Costs. Report No. 08601-44-SF (OIG 2006); and Headwaters Economics, studies on cost of defending homes can be found here: http://headwaterseconomics.org/wildfire/fire-research-summary

[6] Headwaters Economics, Northern California, Homes, and Cost of Wildfires. https://headwaterseconomics.org/wildfire/homes-risk/northern-california-homes-and-cost-of-wildfires/

[7] Cohen, J. The Wildland-Urban Interface Fire Problem: A Consequence of the Fire Exclusion Paradigm. Fall 2008. *Forest History Today*. https://www.fs.fed.us/rm/pubs_other/rmrs_2008_cohen_j002.pdf

[8] A recent analysis showed that homes in Paradise, California built to comply with wildfire-resistant building codes had a survival rate nearly three times higher than homes built before the building code was implemented. Source: AP/McClatchy. 2019. Dissecting data: Pinpointing houses threatened by wildfire. https://www.apnews.com/e688e34240bb4217a13d9ddbe5062ffe

[9] Headwaters Economics. 2018. Building a Wildfire-Resistant Home: Codes and Costs. https://headwaterseconomics.org/wp-content/uploads/building-costs-codes-report.pdf