Wildfire & How to Prevent Community Loss, Keep Insurance & Support Firefighters Before Fire Comes, and Prevent Trillion Dollar Disasters

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Re: Supporting Oregonians to Prepare Homes & Communities for Fire

Dear Chair Nathanson and Members of the Committee:

I have worked on wildfire issues for nearly two decades. I have spent the last seven years investigating and trying to understand how we interrupt and prevent home and community loss in fast moving wildfires that escape control and suppression efforts. During that time, a number of my close friends lost everything in the Camp fire in 2018, the 2020 Labor Day fires in Oregon and the 2021 Marshall Fire in Colorado. I deeply appreciate efforts in the Oregon legislature to find permanent funding sources that are equitable and fair to Oregonians, and solutions that are both durable and effective at protecting homes and communities.

I write to share what I have learned about how we can prevent home and community loss as we see a stepwise progression in wildfire activity in a hotter, drier world. After the Camp fire, our team visited the Insurance Institute for Business and Home Safety Facility in South Carolina and the Missoula Fire Lab. We filmed researchers as they crash tested buildings and ran experiments to figure out how to prevent homes from igniting in fast moving fires. We captured those experiments and the lessons learned in the award-winning documentary Elemental: Reimagine Wildfire (elementalfilm.com) (Avail. on Amazon, Apple TV, Google Play)

After completing the film, we were invited to screen the film at insurance conferences put on by the Casualty Actuarial Society and Milliman, a global insurance and reinsurance consultancy. We attended the conference and learned from insurance experts why they are pulling out of new and existing business. We also attended the Wildfire Resistant Homes Conference put on by experts from the University of California at Davis, Cal Fire, Underwriters' Laboratory's and others. Based on that research, we produced a piece for PBS Weathered entitled: ***The Insurance Industry Cannot Weather Another Wildfire Season Like This (PBS)***, available here: https://www.youtube.com/watch?v=ej94dKmo4Vw

Taken together, recent events, reports and scientific research all provide a strong case for increasing funding for permanent wildfire programs, particularly for those programs that go beyond what we have traditionally funded (e.g. suppression, vegetation management).

California - A Harbinger. In 2023, companies like Farmers, Allstate, USAA, and State Farm have limited any new business in California. In addition, seven of the 12 top home insurers in the state have paused or placed harsh restrictions on policy holders and raised premiums by nearly 10 times. The number of companies exiting California continues to grow, and the State's efforts do not appear to be stemming the tide. Just today, The Hartford announced it will be leaving California.

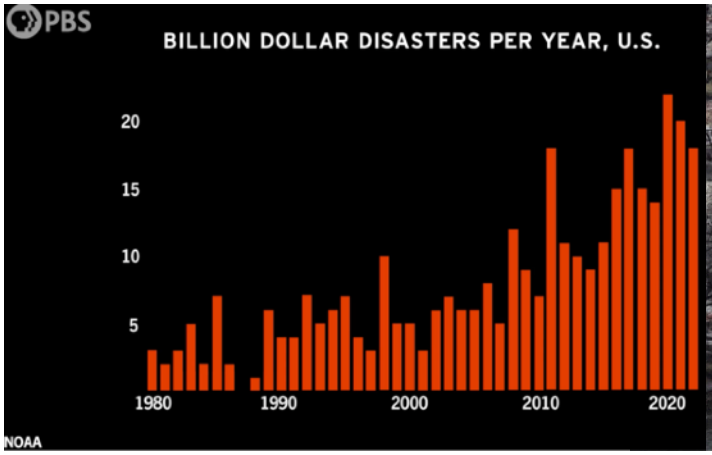
Insurance Exit Happing in Oregon. According to sources and based on my own investigation here in Oregon, I understand that a number of companies have exited all or part of Oregon, but not announced it publicly (Austin Mutual, Kemper, Nationwide Private Client, Oregon Mutual). Progressive has been exiting from southern Oregon and Eastern Oregon. Farmers has pulled back from new business. State Farm is not renewing business in parts of the state (Southern Oregon), or is raising premiums significantly.

Drawing Hard Lines Where They Will Write. The insurance brokers I have spoken to have indicated that outside of population centers like Portland, Salem, Eugene, and even in populated areas like Sisters, Bend, Medford, it is far harder to write insurance, particularly as the property is further away from a manned fire department. One broker said to me: “Most of the carriers used to use ISO Protection Class numbers for determining fire danger. Now they are drawing hard lines around where they will write.”

Extreme Weather, Housing Deficits. Building costs and home prices have gone up even faster than inflation for the last decade, and we are already at a housing deficit. Losing more homes to wildfire is far more expensive for communities than making investments to prevent the loss. Increasingly, weather is increasing the number of extremely destructive events per year. And each disaster decreases housing supply by making homes unlivable and by keeping builders busy with repairs instead of creating more homes.

Insurance and Climate Risk. Insurance is a lens into climate risk and wildfire hazard because the entire industry relies on accurate prediction and pricing of risk. If communities do not reduce their risk of exposure or insurance companies are unable to charge homeowners enough to pay for the risk of future damage, communities will lose access to insurance because insurance companies will not be able to price and weather the risk.

Homes Become the Fuel. Increasingly we are seeing fires burn into suburban communities - like the Marshall fire burning over 1,058 homes in less than 8 hours in December 2021. We also experienced urban fire disasters in Coffee Park in Santa Rosa and and Paradise CA when over 18,000 structures burned in under 10 hours. In 2020, Oregon had over 5,000 homes ignite and burn over a period of several days during a statewide downslope wind event. These are wind events with fire in them, where the homes become the fuel to ignite other homes. These fires escape control and exceed limits of firefighting capacity.



Billion Dollar Disasters. There have been a total of 25 billion dollar disasters in the US as of December 10, 2023, and one of them was a severe fire. In 2022, we had 18 billion dollar disasters. In the past two decades, Texas, Louisiana and Florida have been hit the hardest. California and Puerto Rico coming in second and New York, New Jersey, North Carolina, and Mississippi ranking high in the list. And there's a very clear upward trend since 1980.

Limits of Landscape Vegetation Management. Does managing vegetation more than 60-100 feet from the home matter from the standpoint of preventing home ignition? Does landscape scale management of forests make us safer? The cold hard facts are that 90 percent of homes are ignited by burning embers, not a wall of flame - and more than 80% of homes that are lost in the United States are burning in grasslands and shrub lands. The cost per acre of thoughtful vegetation management is between $2,000-$5,000 per acre, and we have hundreds of millions of acres of vegetated landscape in the West. Researchers have found that the odds that a thinned patch will burn before it grows back (expires) is less than 1%. In 2006, the Federal Office of Inspector General estimated that it would take 60-90 years to treat a portion of a portion of the highest risk landscapes, and this did not account for return maintenance.

Exceeding Limits of Firefighting. Most of the destructive and deadly wildfires in U.S. history were fast. Fast fires account for most of the structures destroyed (over 75%) and most of the suppression costs ($18.9 billion). The Dixie fire of 2021 cost over 620 million dollars, and burned over 100 days! From 2001-2020, the average daily growth rate for fast fires more than doubled (+249%, relative to 2001) in the western US. Understanding the dominant features of destructive fires is crucial for decided how to spend money. What is dominant is that the destructive and fast fires exceed what we can expect of our firefighters, and what we can afford.

Challenges with Fuelbreaks and Firebreaks. In the kinds of events that lead to community destruction, even if your fire break is 10 feet wide, the embers can be cast right over the top of it. Even if you have a 400 foot firebreak, the question is when's the last time you maintained it? The challenge with vegetation management is that it grows back, and even maintained areas can contribute to increased wind speeds and ember cast.

Expert Research on Stopping Community Conflagration. So what do we do? Over the past 7 years, I have had the good fortune to interview and learn from Dr. Jack Cohen and from Roy Wright and the other experts at the Insurance Institute for Business & Home Safety. Dr. Cohen ran the Missoula Fire Lab for nearly 40 years, and he was involved in the founding of the Insurance Institute for Building and Home Safety. He also developed the training used by the National Fire Protection Association for home assessors. I stand on the shoulders of Dr. Jack Cohen's work, the work of the Presidential Mitigation and Management Commission and many others. This collective body of work tells us that we have solutions, and that those solutions must focus on interrupting the house being ignited from fire brands.

Two Fire Years Wiped Out Double 26 Years of Profits. According to the leading insurance consultant Milliman, the combined 2017 and 2018 wildfire seasons wiped out more

than double the insurance industry profits for the previous 26 years (See attachment). The enormity of these disasters with immense payouts have rattled the insurance market and constrained their ability to do new business in California. Here are the key factors:

1. Premiums Not Keeping Pace With Risk. California limits, how quickly insurance premiums can be raised. The risk of loss has gone up faster than premiums are able to be adjusted, and so companies in California started to write fewer policies in the most hazardous areas. Reinsurance companies are not constrained by state regulations, they insure the companies and have raised the premiums. What is happening is the result of reinsurance companies keeping up with the risk, but primary insurers not being able to keep up with the risk.

2. Back-Up Plans are Overweight with Risk. California and other western states have created back-up plans for insurance. (Called the FAIR plan in California). All insurers that do business in the state play into the back-up plan to cover future payouts after disasters, and also cover the plan as a whole (reinsurance). The problem is the backup plan has been taking on all of the riskiest properties, it is overweight with high risk. The California plans are massively overweight in at least a dozens parts of community, and a single big event in one of these areas could take the back-up plan out, and lead to more exits of the insurers as well.

3. Back-Up Insurance Expensive, Inadequate Cover. Insurance coverage under the back-up plans can cost many times the market rate insurance coverage and provides far less coverage. The back-up market is supposed to be a market of last resort, a temporary solution - it is becoming the primary plan. As Nancy Watkins has said - this is like the crutch becoming your permanent leg. The crutch is not designed to be a permanent leg.

4. Insurance On the Hook for Failure of Back-up Plan. All insurance companies in California are required to pay a fee that supports the back-up plan and the plan is growing and continues to grow. Between 2018 and 2022, its total policies more than doubled. If there is a major loss, and there are not enough reserves in the back-up plan (which is currently the case) the deficit would have to be born by the insurance companies operating in California.

No New Policies. And that's exactly what's happening. All State, State Farm, Farmers and many others (nearly 85%) all stopped writing new policies in the state together. It is not hard to imagine two devastating fires in one year, like the Camp Fire, which destroyed 18,000 structures and cost over 10 billion in total direct losses. And those fires happening in areas overweight with the FAIR plan.

Risk of Market Collapse. If we don't change course, there is an increased risk that the whole insurance market in California will collapse because of it. The California situation appears to be a harbinger of what we might see happen in Oregon, and here in Oregon it appears to be significant already. And what happens if the insurance market in California collapses? Real estate transactions would be severely disrupted by the inability to get insurance and it could severely affect real estate values. It is possible that banks might not be able to lend in significant parts of California

What Happens to Real Estate. Over 63% of homes in the US have mortgages and mortgage holders are required to have insurance to mitigate the lender's risk. Mortgages and insurance are both fundamental underpinning of the real estate market and our economy. Can

banks keep offering loans for homes and businesses if the insurance market fails? What happens if an insurer drops a homeowners's policy after an extreme event?

National Implications. California's GDP is the fifth largest in the world, so impacts on California property values could have wide ranging implications on the global economy. And this is not happening in a vacuum. The insurance industry in Louisiana and Florida are also very fragile, making the risk national, if not global.

Research Driven Shift on How We Prevent Community Conflagrations. The research shows we can prevent homes and communities from burning in extreme conditions. What will it take to shift everyone's focus and action on the durable, effective ways to protect entire communities?

Spending on Fire Suppression, Vegetation Management Dominates. First, let's look at how California has been spending money on wildfire. In 2021 and 2022, California created a funding package of $1.2 billion for preparing for wildfires. That special budget was outside of and additional to firefighting and fire suppression - and 96% of it is spent on things like thinning forests, creating fuel breaks, and preparing for evacuation. Oregon, in total from state and federal sources, spend the vast majority of funds on suppressions and vegetation management. The ratios in Oregon are similar to those in California.

Spending on Wildfire Prepared Homes Is Very Small. Second, let's contrast that with the research from the Insurance Institute for Business and Home Safety, which shows how important the design of the home and its immediate surroundings are to preventing it from igniting - known as the Wildfire Prepared Home or home hardening. However less than 4% of California's fire budget is spent on home hardening.

Solutions Are Available, But Not the Focus. While many experts are advocating for a significant if not paradigm shift in how we currently spend money to protect homes and communities from wildfire, the solutions have not been receiving the level of public investment commensurate with the durability and effectiveness of those solutions. We need to flip from spending money in a reactive way, if not futile way to spending in ways that bends down the risk curve. The 1990s approaches - expensive suppression and landscape scale vegetation management - are not keeping up with the 21st Century climate.

Elements of a Wildfire Prepared Home.

1. A non-flammable roof. Almost 95% of homes in California are Class A rated already.

2. Next, the vents for the attic or the crawl space need to have a fine mesh on there so embers don't come in and ignite the house from inside the house.

3. And next the area that is within five feet of the home needs to be entirely non-flammable. This is probably the hardest part from a social standpoint but fairly easy to accomplish physically - disconnecting flammable fences, removing shrubs and bark mulch from areas adjacent to the house, below the siding, etc.

4. And then out to 30 feet, dealing with sheds, connected fences, wood piles, cypress, juniper, and all the other high heat, flash burning concentrations of materials.

Third Party Certification. The IBHS has adopted the Wildfire Prepared Home as an independent third party designation that is specific to each home and it tells the insurance industry this home is done exactly what the scientific research says will significantly limit the

odds that the home will. This designation focuses on the home out to about five feet and then to a lesser degree out to 30 feet.

What Matters for the Wildfire Prepared Home Certification. The Wildfire Prepared Homes designation is focused on the home and the immediate area. There is nothing in the Wildfire Prepared Homes designation that requires fuel breaks or fire breaks or asks about the conditions of the landscape or vegetation management away from the home. This is because the research shows that actions distant from the home do not bend down the risk curve of wildland or urban fire disasters.

The Good News. We have all the tools and technology for homeowners to take steps to reduce the risk of their homes being destroyed by extreme weather, and those mitigation efforts appear to be the key to preventing the whole insurance system from toppling over. IBHS has recommendations for fortifying your house against fire, wind, hail, and wind-driven rain. Home builders, homeowners, home buyers are no longer able to ignore climate risks, and many people and local communities are starting to take steps to ensure they are prepared.

I have included relevant charts and graphs in several attachments, please feel free to reach out if you would like further information on these subjects.

Sincerely,

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