Testimony of Roy E. Wright
President & CEO
Insurance Institute for Business & Home Safety (IBHS)

Fix Our Forests: How Improved Land Management Can Protect Communities in the Wildland-Urban Interface

Before the U.S. House of Representatives
Committee on Natural Resources
Subcommittee on Oversight and Investigations

May 15, 2025

Members of the Subcommittee, thank you for the opportunity to speak with you today about the importance of strengthening the survivability and insurability of homes across regions impacted by wildfires. My name is Roy Wright, and I am President & CEO of the Insurance Institute for Business & Home Safety (IBHS). IBHS is a 501(c)(3) organization enabled by the property insurance industry's investment to conduct building safety research that leads to real-world solutions for home and business owners, helping to create more resilient communities.

Severe weather disrupts lives, displaces families, and drives financial loss. IBHS delivers top-tier research and translates it into action so we can prevent avoidable suffering, strengthen our homes and businesses, inform the insurance industry, and support thriving communities. The perils we study at IBHS are part of the natural world in which we live, but social and economic disasters occur when these perils meet human populations that live or work in harm's way.

To break the cycle of destruction, it is essential to address all aspects of the building performance chain: where you build, how you design and construct, and how well you maintain and repair. As a building science institute, IBHS focuses on the ways severe weather behaves, what makes homes and businesses vulnerable, and how our buildings can be more resilient. We exist to help ensure the places where people live, learn, work, worship, and gather are safe, stable, and as strong as the best research can equip them to be.

We put building science to practical use, providing homeowners, businesses, communities, and policymakers with disaster mitigation solutions that are achievable, affordable, and effective.

In doing so, we have a primary goal in mind: **make American homes and communities more survivable and insurable.**

- Survivable means homes and communities that can withstand the severe weather we know they will face, so that homeowners can return home after an evacuation and get on with their lives. It provides families with physical safety and economic security and supports strong communities, stable tax bases, and healthy insurance markets.
- Insurable means homes and communities that carriers want to insure because they have undertaken meaningful, verified risk reduction. It is not a guarantee of insurance from a particular carrier—but rather a risk that is more attractive to insurers.

Wildfires have long been part of the American landscape. However, in recent years they have become more frequent and intense, often spreading into densely populated suburban neighborhoods where the economic losses and human suffering are significant. This year, the Eaton and Palisades Fires—the second and third most

destructive wildfires in California history—demonstrated the devastating impact of wildfires when they reach into our communities and become urban conflagrations.

And yet, we understand how to reduce the risk of home ignitions and neighborhood conflagrations—how to make our families and communities stronger and safer when smoke fills the air.

Today, I would like to speak to you about what we know about wildfire risk and resilience and the actions that need to be taken by individuals, the public sector, and the private sector to reduce risk for homes and communities. To start, I want to highlight three key points:

1. Solutions to reduce wildfire risk for homes and communities are known. Homeowners and neighborhoods can act—*right now*—to reduce the likelihood that their homes will burn when embers, flames and radiant heat threaten their communities.
2. We must address communities as fuel sources that must be mitigated, as much or more than the surrounding natural environment. This requires engagement from federal, state, and local wildfire government—and the heaviest lifting will occur at the state and local level.
3. The private sector also must play a role in reducing wildfire risk, particularly the building industry and financial services sector.

Let me underscore my first point: we are not powerless.

Strengthening our resilience to wildfire is among the most pressing challenges faced by too many American families, but solutions are within our reach.

The State of Wildfire Science

Wildfire is one of the most important perils we study at the IBHS Research Center. Our facility is the only place besides real-world wildfire events that can expose full-scale buildings and building components to realistic thermal exposure of flames and embers. Our researchers meticulously recreate realistic wildfire scenarios to better understand the interaction of embers, wind, and the built environment. This lab-based work is then extended through field-based, post-event investigations. IBHS not only funds and leads these research endeavors, IBHS also partners with other wildfire science leaders – the California Department of Forestry and Fire Protection (CAL FIRE), the USFS's Rocky Mountain Research Station/Missoula Fire Sciences Laboratory, and NIST's Fire Research Division.

In the last decade, our research has covered topics including structure-to-structure fire spread, ember characteristics, decking, vents, fire-retardant

coatings and gels, and the home ignition (0-5 foot) zone around structures. *It's about solutions, not just studying the problem.*

Based on this research, we now understand the behavior of wildfire around the built environment far better than we did ten years ago. Generally, wildfire causes damage to homes through three channels: embers, flames, and radiant heat. Of these, it is the embers that cause most damage to homes and communities. Embers can be carried aloft by wind for a mile or more, bringing a wildfire well outside the predictable path of the flames. These embers are responsible for most home ignitions caused by wildfires. And once a home ignites, it will be a complete loss 90 percent of the time. These findings have taught us that wildfires are essentially a home ignition problem, and that embers are the primary driver of these ignitions. By finding ways to reduce the likelihood an ember ignites a home, we can meaningfully reduce that home's wildfire risk.

And yet, wildfire risk extends well beyond the initial ignition of homes. We know that mitigating wildfire risk requires actions undertaken at the property level *and* actions undertaken at the neighborhood level.

Today, we have a significantly better understanding of the community dynamics of wildfire risk than we did just three years ago. When they enter neighborhoods, wildfires can become urban conflagrations—characterized by uncontrollable structure-to-structure fire spread. This can occur extremely quickly. According to CAL FIRE incident data, the Eaton Fire reached approximately 76 percent of its final size within 16 hours of ignition and 98 percent of its final size within 46 hours, indicating extremely rapid growth.

The three factors that play the largest role in urban conflagrations are structure spacing, connective fuels, and building materials.

- **Structure separation.** Based on lab experimentation and post-disaster observations, we know that homes that are within ten feet of each other are at extremely high risk of fire spread. At that distance, fire spread along the wind direction is a given absent intervention by fire services. Homes spaced at least 20 feet apart create an opportunity for parcel-level mitigation measures to be effective.
- **Connective fuels.** Whether manmade (fences, vehicles, hoses, trashcans) or vegetative (hedges, bushes, etc.)—create avoidable pathways for fire to spread from property to property and home to home, even under non-extreme conditions.
- **Building materials.** When homes have sufficient structural separation and connective fuels are removed, non-combustible building materials are better able to withstand wildfires.

By pairing parcel-level wildfire mitigation with attention to these conflagration-enhancing factors, we can transform our neighborhoods from dense fuel sources to protective fuel breaks. *We cannot stop the damage from wildfire entirely, but we can narrow the path of damage*.

Wildfire Prepared: A Solution for Homeowners and Communities

Although American homeowners and communities remain vulnerable, we are not powerless. Solutions to make homes better able to withstand wildfires are known and available. IBHS has translated years of research into its Wildfire Prepared program to provide homeowners and communities **clear, achievable pathways to strengthen their survivability and insurability.**

Wildfire Prepared is a voluntary designation program designed to reduce the risk of home ignitions and the uncontrollable building-to-building fire spread associated with urban and suburban conflagration.

- **Wildfire Prepared Home** provides a system of mitigation actions that collectively reduce the risk of ignition from embers. It includes a Class A roof, flame- and ember-resistant vents, and—critically—a noncombustible five-foot area (Zone 0) around the structure.
- **Wildfire Prepared Home Plus** provides an additional set of mitigation actions, including building material choices, such as ignition resistant siding and dual-paned, tempered glass windows, to reduce the risk of ignition from radiant heat and direct flames.
- **Wildfire Prepared Neighborhood** provides a community scale approach to reduce the risk of urban conflagration by eliminating pathways of connective fuels, maintaining appropriate minimum separation between structures, and requiring individual accountability for risk reduction at the parcel level.

Featuring independent verification processes that ensure IBHS's science-based disaster mitigation solutions have been correctly applied, Wildfire Prepared provides a bridge to the property insurance industry. This helps property owners differentiate themselves from others, enhance their insurability, and in some cases, obtain insurance price considerations.

Currently available in California and Oregon, we expect that Wildfire Prepared will soon be available in other wildfire-prone states.

Living with Wildfire: The Role of Government

In California and beyond, more communities than ever are at risk of wildfires. Per a 2022 FEMA report, nearly 99 million Americans, one-third of our nation, live in areas considered the Wildland Urban Interface – the area where homes and communities intermingle with the undeveloped wildlands and vegetative fuels of the natural environment. A study from 2020 found that approximately 60 million homes in the U.S. are within an area that has already burned or are within a kilometer of previous fire. In light of the wildfires that have occurred in the last five years, this figure is surely higher today.

These startling statistics do not even fully capture the actual risk wildfire poses to people's homes and communities, given what we know about the behavior of wildfire. As I referenced earlier, embers can fly a mile or further ahead of the flames of a wildfire. As these embers land and ignite, they create more embers that winds carry even further ahead. What this means: more Americans than ever are moving into areas of known high wildfire risk, while wildfire risk encroaches outward.

Unlike any other natural peril, wildfires are strengthened when they reach the built environment. Buildings are literally fuel for the fire, meaning that our homes are not just at risk from wildfire, they contribute to its spread. In our post-disaster investigation of Colorado's December 2021 Marshall Fire, we saw a grassland fire turn into a suburban conflagration when it reached neighborhoods: it was flames and embers from burning homes – not from grasslands – that caused much of the destruction.

> **What this means: investing in wildfire risk reduction for our homes and communities is not only about protecting the vulnerable – it is about controlling the severity and scope of wildfires.**

Thus, our policy response must include making the built environment more resilient to wildfire. Wildfire resilience requires policy responses that recognize the complex interaction of the built environment and the natural environment. The federal government invests considerable resources into wildfire response and recovery – and most of these funds go to wildfire response and forest management. We also must manage the fuels created by our built environment.

The Fix Our Forests Act, already passed by the House of Representatives, strikes this balance. The bill is aligned with several major issues identified by the Wildland Fire Mitigation and Management Commission, such as the need to expand and speed wildfire risk reduction efforts on public lands and built environments, improve delivery of decision support and modelling tools to fire practitioners, and improve post fire recovery.

Critically, the bill would establish a Community Wildfire Risk Reduction program to help communities prepare for fire and harden structures against wildfires. This program would advance research and science, support local adoption of codes and standards, support local efforts to address wildfire impacts, including property damage as well as air and water quality, encourage public-private partnerships for fuel reduction, and provide technical and financial assistance to communities. It also would create a one-stop grant portal for certain wildfire funding from USDA, DOI, and FEMA—making the process of accessing federal resources easier for state and local communities.

Just as the mitigation actions to reduce property level wildfire risk must be undertaken collectively, so too must the actions of federal, state, and local policymakers to assist homeowners to achieve a higher degree of resilience. Three essential public policy lanes for reducing wildfire risk are:

- **Stronger codes and standards** for building and defensible space;
- **Appropriately tailored financial incentives and support mechanisms** to help homeowners invest in meaningful wildfire resilience; and
- **Public education and consistent messaging** about wildfire risk reduction – especially critical mitigation actions like removing anything combustible from the five feet around the home.

It is important to note that while the federal government can play a supporting role in each of these policy lanes, the role of state and local governments is more direct and essential than that of the federal departments and agencies. Recovery from the Los Angeles County Wildfires provides an important example. The Palisades Fire occurred in an area of California that is considered at "very high" risk of wildfire and, as such, is subject to California Building Chapter 7A (which contains its wildfire code provisions). The Eaton Fire, in contrast, affected the Altadena community, most of which is not mapped as "very high" wildfire risk and is not subject to Chapter 7A. As such, the two areas within Los Angeles County will be rebuilt very differently, unless the County acts to expand the application of Chapter 7A to the entirety of the Eaton Fire burn perimeter.

Likewise, financial incentives and financial support programs, like grants, are best planned and administered at the state and local level. While public education and messaging from federal sources is important, most homeowners will be more receptive to voices in their own community – highlighting the crucial role of the fire services in providing good information on wildfire resilience.

Stronger codes and standards

A 2021 study found homes that meet wildfire codes were 40% less likely to be destroyed, compared to older homes. Unfortunately, while codes and standards for

wildfire resilience have existed and evolved for decades, the adoption rates for wildfire codes and standards are even lower than the shamefully low adoption rates for modern versions of the International Residential Code, and far more sporadic in their usage. To strengthen the resilience of vulnerable homes and communities, adoption and enforcement of wildfire codes and standards must increase.

In the absence of state action, or in addition to it, municipal and county ordinances can enact and enforce wildfire resilience measures. For example, California has yet to create statewide defensible space requirements for Zone 0—the five feet closest to a structure—despite a statutory requirement to do so. In the absence of state actions, local jurisdictions like the County of San Diego and the City of Berkeley have adopted Zone 0 ordinances that prohibit combustible material from this critical area.

Appropriately tailored financial incentives and support mechanisms

As with other natural perils, financial incentives can help provide needed nudges to encourage wildfire resilience investments, and more significant financial mechanisms may be necessary to help low- and moderate-income homeowners mitigate their risk. Actions at the federal, state and local level can provide these financial mechanisms to spur resilience-enhancing actions by homeowners. Congress can play a role – by providing financial incentives, such as tax credits or tax advantaged disaster savings accounts, that provide additional nudges homeowners may need to invest in the mitigation actions that will protect themselves and their neighbors.

However, some people need more than a nudge – they need financial support to undertake mitigation actions that they cannot otherwise afford. For these individuals, mitigation grant programs can mean the difference between resilience and ignition when embers fly. For example, the California Office of Emergency Services and CAL FIRE have stood up a mitigation program that will help homeowners take necessary structural and defensible space actions on their properties. Earlier this year, New Mexico enacted legislation to create its own wildfire mitigation grant program.

Congress can help reduce the tax burden of state mitigation grants and encourage homeowners to save for retrofit projects. The bipartisan Disaster Mitigation and Tax Parity Act of 2025 would address a longtime quirk of the tax code that treats state mitigation grants as federal income. This would give homeowners the full benefit of state mitigation grants, rather than transferring funds from state to federal coffers, using at-risk homeowners as a go-between.

Public education and consistent messaging

As more states and communities confront wildfire risk, a multitude of public, non-profit, and for-profit programs have sprung up in response. In any given community, a homeowner may hear messaging about wildfire from the local fire department, a

wildfire prevention authority, town and county leaders, a neighborhood Firewise USA community, a local Fire Safe Council, their insurance company, nightly news reports, and advertisements from wildfire mitigation services companies. Even with the best of intentions, the signal can be lost in all this noise, particularly when the messages from these sources emphasize different things.

IBHS is not solely a research institute; we also put a strong emphasis on risk communications because we understand that our science is only as good as people's ability to understand it and act. We strongly encourage federal, state, and local policymakers to coalesce around a science-driven set of recommendations—the mitigations that matter—for wildfire resilience. A common message across multiple stakeholders will simplify and amplify the signal to homeowners, giving them clear guidance as well as a measure of hope.

Living with Wildfire: The Role of Government

Large scale change requires the private sector to invest in survivable and insurable homes and communities based on a clear value proposition. Key players include the building industry, the financial services sector, and the insurance industry.

Voluntary take-up of IBHS standards by major builders would have a market-moving effect on the construction of new homes across the United States. Initial movement in this direction is starting to occur. Last month, IBHS and KB Home celebrated the opening of Dixon Trail, a new community outside of San Diego that is being built to IBHS's Wildfire Prepared Neighborhood standard. Every home in the 64-house neighborhood will obtain a Wildfire Prepared Home Plus designation.

Executives at KB Home decided to apply Wildfire Prepared to building Dixon Trail after viewing a 2024 demonstration IBHS conducted in California that showed the effectiveness of wildfire mitigation actions. The demonstration sparked their interest, but it was the business case that drove the decision.

> Making new homes more survivable and insurable required relatively inexpensive changes and choices in building materials. Given the wildfire risk outside of San Diego, homes with verifiable risk reduction are easier to insure and, therefore, easier to sell.

Building a Wildfire Prepared Neighborhood was better for the safety of the community. Better for their customers. And better for business.

The financial services sector also has a role to play by providing financing options that incentivize the construction and purchase of survivable and insurable buildings. A 2022 study from IBHS and CoreLogic (now Cotality) concluded that homes built to modern building codes were less likely to go into delinquency following hurricanes, demonstrating the linkage between the physical risk to structures and the credit risk

of borrowers. Further analysis and application could create financial products that incentivize risk reduction through solutions like Wildfire Prepared.

* * *

In closing, I would like to thank you for recognizing the importance of wildfire mitigation for both resilient communities and healthy insurance markets, and the critical role of IBHS research to strengthen the survivability and insurability of American homes and communities.

Americans are not powerless against wildfires—it *is* possible to take actions today to meaningfully reduce the risk that one's home will ignite and burn. I appreciate the opportunity to share some of our ideas with you today.