



Wildfire: A Fearsome but Manageable Peril

By: Joseph S. Harrington, CPCU, ARP

Wildfires of near-biblical proportions have consumed millions of acres in states along the Pacific Coast in 2020, a year of plagues if there ever was one. So, it comes as no surprise that anyone would have second thoughts about acquiring or maintaining property in any location even remotely prone to wildfire.

With three months left to go in the year, and still in the middle of the traditional wildfire season, over four million acres had burned in California, more than double the previous annual record of 1.67 million acres burned in 2018. At least 31 Californians have died in 2020 as a result of the fires.¹

In mid-September 2020, Moody's estimated that wildfires in California, Oregon, and Washington had damaged or destroyed nearly 10,000 structures, and drove occupants out of countless others in response to evacuation orders, resulting in \$5-\$8 billion in insured losses.²

Sound bad? It is, but not nearly as bad as other catastrophes in terms of human casualties, economic losses, and insured losses.

In comparison with the wildfires, Hurricane Harvey in 2017 is estimated to have damaged some 300,000 structures, led to nearly 70 deaths, and caused well more than \$100 billion in losses.³ National Geographic reported that 2012's Superstorm Sandy destroyed about 600,000 housing units in New York and New Jersey alone.⁴



When it comes to wildfire, some perspective and careful property management is in order.

Wildfires and Wildland Fires

When thinking about wildfire, it's important to distinguish between wildfire losses to property and wildland fires that occur in relatively uninhabited areas. While wildland fires may increase in frequency and intensity with a warming climate, their impact on property losses can generally be mitigated through means that are well understood and relatively straightforward to implement.

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Among other things, there are indications that a warming climate causes snowmelt to occur earlier in the year and proceed more rapidly, extending the time and area for dry tinder to develop. That condition is further aggravated by prolonged droughts, which are also attributed to climate change.



Wildland fires may even be contributing to the climate conditions that create them.

The insurer Allianz reports that “fires themselves are now contributing to the rise in greenhouse gas emissions” and that “some fires are even creating their own weather systems, making winds more erratic and conditions too dangerous for firefighters to protect people and properties.”⁵

Yet the US Department of the Interior notes that as many as 90% of U.S. wildland fires are caused by

humans. It follows that the incidence of wildland fires can be reduced by regulating human behavior, and that vigorous management of natural fuel loads can reduce wildfire severity.⁶

An “Interdependent” Risk

More to the point for property owners, however, the *effects* of wildfire on areas occupied by humans can be controlled by individual and collective efforts that are not as costly as those needed to address other hazards, and don’t require efforts as far-reaching as addressing climate change.

Verisk Analytics, a leading provider of risk information to property/casualty insurers, identifies four key factors to determining a property’s exposure to wildfire loss: vegetation in the vicinity, road access to the location, the nature of the terrain, and a structure’s susceptibility to wind-borne embers.⁷

Other than terrain, these factors can be managed by humans individually or at the level of a local community. Vegetation can be cleared, roads can be built or extended, and vents can be installed to repel embers.

Howard Kunreuther, a well-known scholar of risk at the Wharton School, refers to wildfire as an “interdependent risk” in that one property owner’s level of risk is highly dependent on the risk mitigation measures implemented (or not) by nearby property owners.

“The behavior of others is not necessarily the primary barrier preventing individuals from adopting sufficient mitigation measures,” he writes, “[but] it does influence the insurability and the affordability of wildfire.”⁸

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Regarding residential property, Kunreuther writes that “since the risk of a homeowner depends in part on the mitigation actions of everyone in the area, insurers cannot typically offer property-level mitigation discounts on pricing.

“If an entire community invested in wildfire mitigation, however, that could be an input to lower insurance premiums.”

Insurance Options

Even in the absence of collective community efforts, fire risk mitigation efforts by individual property owners can pay off for them.

Zesty.ai, an analytics firm, recently released an application that supplements location information with data from the Insurance Institute for Business and Home Safety related to human-controlled factors. These include the amount of defensible space at a location, landscape designs that impede the spread of fire, the use of fire-resistant materials, and the installation of vents to repel airborne embers.

Zesty claims that “homes in a level 10 (unprotected) fire risk area may rank at level 1 (highly protected) for survivability.”⁹

That’s quite a claim, but some property owners in areas affected by wildfire are upgrading their fire protection on their own. In a revival of a practice of the early fire insurance companies, modern property insurers serving commercial accounts and high net worth households are providing private proprietary fire protection services along with property coverage.¹⁰

The use of private companies to combat wildfires has grown steadily since the USFS and other public agencies first began contracting with them in the late 1990s, according to the National Wildfire Suppression Association (NWSA), a trade association for private firefighting companies. The NWSA estimates that its member companies account for roughly 40% of wildfire fighting capacity in the country, and nearly two-thirds of capacity in certain areas.¹¹



Consuming Their Fuel

There’s something else about wildfires that should allow property owners to have confidence in their ability to address the risk: Wildfires consume their own fuel. Therefore, wildfires are — or should be — highly unlikely to happen in the same location any time soon, unless occupants and public agencies neglect to manage the terrain after a fire.

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In contrast, there is no reason why a flood, tornado, hurricane, or earthquake will not reoccur in the same location at any time. Indeed, we actually expect earthquakes and their aftershocks to reoccur in the same location.

By creating a “clean slate,” albeit in blackened ash, wildfires allow us to rebuild better and smarter, to the point of almost guaranteeing that the loss will not be suffered again. That should be reassuring to property owners, if they and their neighbors act wisely.



¹ Jocelyn Gecker and Suman Naishadham, “Record-breaking California wildfires surpass 4 million acres,” Associated Press, Oct. 4, 2020

² Moody’s Investor Service, P&C insurers face significant losses from Western wildfire, Sept. 16, 2020

³ Amanda Cochran, “By the numbers: Report details Hurricane Harvey’s massive punch,” KSAT.com, Jan. 25, 2018

⁴ Sarah Gibbens, “Hurricane Sandy, explained,” National Geographic, Feb. 11, 2019

⁵ Allianz, *Future Fires: Weathering the Storm, Wildfire Report 2020*, May 2020, p. 4

⁶ *Ibid.*, p. 2

⁷ Verisk Analytics, *Wildfire Risk Insight: Analysis of property exposure and wildfire damage in 2019*, May 2020, p. 2

⁸ Howard Kunreuther and Erin St. Peter, “What Are the Most Effective Ways to Insure and Mitigate Wildfire Risks,” at <https://knowledge.wharton.edu/article/effective-ways-insure-mitigate-wildfire-risks/>

⁹ Jim Sams, “Zesty.ai Refines Fire Risk Model by Adding IBHS Data on Building Materials,” *Claims Journal*, May 18, 2020

¹⁰ See Lyle Adriano, “PURE Programs launches high wildfire risk insurance program,” *Insurance Business America*, Nov. 13, 2019; see also Avi Asher-Schapiro, “Cadillac insurance? Hunt for private firefighters as California burns,” Thomson Reuters, Aug. 28, 2020

¹¹ See <https://www.nwsa.us/about-us/our-history/>



About the Author

Mr. Harrington is an independent insurance writer and communications specialist. He served for over 20 years as communications director for the American Association of Insurance Services (AAIS). His work has been published in *Best’s Review*, *Rough Notes*, publications of The Institutes, and elsewhere.