

# Willis Re Wildfire Hazard Score

WillisRe 

Willis Re has developed a wildfire assessment approach that capitalizes on the most recent science available.

Utilizing a robust simulation of over 50,000 years of stochastic wildfires developed by the US Forest Service (USFS), the preeminent source of wildfire research in the U.S., Willis Re built a tool that returns location level hazard scores and has applications for risks in all contiguous states, not just California.

## United States Forest Service Data

The USFS employs cutting edge fire physics and the latest and highest resolution data sources available to produce a comprehensive set of wildfire events that is updated annually. This data set takes into account key inputs such as hourly weather characteristics and other physically based fire propagation elements such as elevation, slope, and vegetation, all updated regularly and at the highest resolution available.

## Development of the Willis Re Wildfire Hazard Score

To further enhance the USFS research and make it applicable to the insurance industry, we include the following key components in the development of our Willis Re Wildfire Hazard Score:

- Historical small fires not modeled stochastically
- Crown fires – the most extreme type of wildfire risk
- Regional efficiency of suppressing wildfire risk
- Adjustments to account for a locations proximity to either the Wildland Urban Interface (WUI), an intermixed zone, or other vegetation



Wildland Urban Interface

## Applications for Wildfire Management

We normalize all available hazard rankings of locations on the same 0 to 4 scale to compare our Willis Re Wildfire Hazard Score against other wildfire metrics (e.g. ISO FireLine, CoreLogic, FRAP, WHP, RQE, AIR, RMS). Back-testing against the 2017 California fires, we found that **our score is much more predictive than all other measures for determining loss.**

Using just an address or latitude/longitude, Willis Re can produce a Wildfire Hazard Score for your consideration. This score allows you to make more informed decisions about accumulations and portfolio management, underwriting and risk selection, and offers the ability to leverage the better predictive nature of our score against other scores available in the marketplace.

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