

The True Cost of **WILDFIRE** IN THE WESTERN U.S.



Wildfire costs extend far beyond suppression costs and structure loss. *The True Cost of Wildfire in the Western U.S.*, prepared for the Western Forestry Leadership Coalition by Spatial Informatics Group, LLC, demonstrates that these costs are vastly underestimated and often difficult to quantify.

REPORT OVERVIEW

Originally published in 2010 and updated in 2022, this report describes the full range of costs associated with wildland fire in the Western United States (U.S.) to help inform leaders and policymakers working to improve wildfire response and mitigation.

Information on the costs of wildfires is commonly reduced to the sum of suppression costs and structure losses; however, many other costs are commonly incurred, including compromised water supply, flood damage, lost economic opportunity, and declines in public health, among others. These costs are often overlooked because they are more difficult to quantify and their linkage to a wildfire event may be indirect.

This report aims to increase awareness of these costs, emphasize the need for action, and illustrate the benefits of proactive investments.

Throughout the report, costs are categorized across three broad categories:



- **Direct Costs:** which are incurred directly during an incident;
- **Indirect Costs - Losses:** which are incurred after an incident but attributable to it; and
- **Indirect Costs - Mitigation Investments:** which represent expenditures that would reduce the incidence of and damage from future catastrophic fires.

It is important to note that this report does not generate a single number representing the total cost of wildfire in the Western U.S. Given the limited information available today, such an undertaking is functionally impossible.

REPORT HIGHLIGHTS

- The **need for more cost-mitigating investments**, such as fuel treatments, home hardening, and fire-safe land-use planning, among others, has become increasingly evident as the rate of growth in suppression costs reaches previously unthinkable levels.
- Wildfires often result in **downstream impacts on the economy** due to evacuations, damage to crops and livestock, closures of schools and businesses, etc.
- **Eight case studies highlighting the long-lasting economic and societal impacts** of catastrophic wildfires, including costs related to watershed recovery, power outages, tourism decline, supply chain disruptions, and interruptions to major transportation corridors.
- There is a **growing need for strategic distribution of aid and compensation after wildfires**, particularly in rural communities, which often have less capacity and fewer resources to prepare, respond, and rebuild.



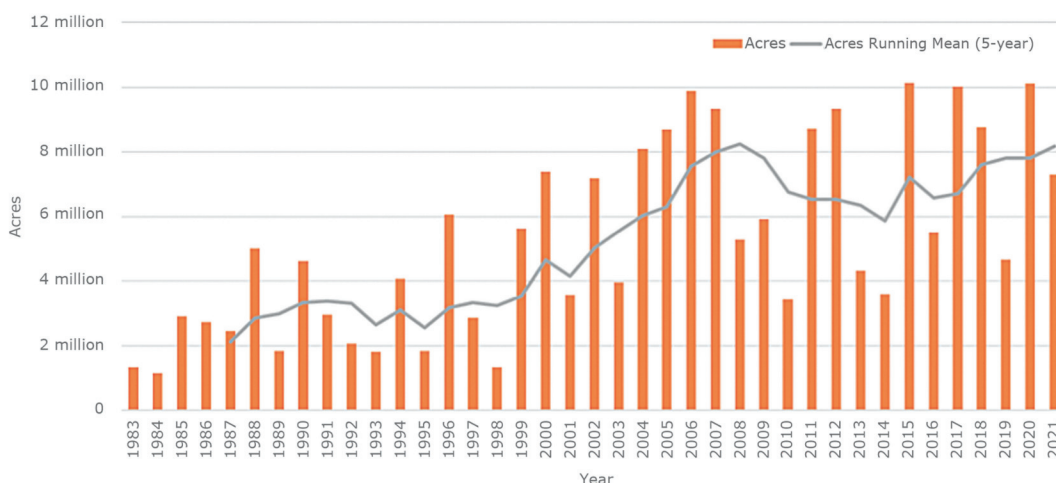
Photo: Taro Pusina/Spatial Informatics Group



THE GROWING PROBLEM

The historic pattern of frequently occurring, low-intensity wildland fire has been significantly disrupted through intentional wildland fire suppression over the past century or more. In turn, both dead and living fuels and vegetation have accumulated. Exacerbated by warming and drying conditions that have yielded more combustible fuels, this hazardous accumulation of fuels has resulted in larger and more frequent, intense, and destructive fires in recent years (*J. D. Miller & Safford, 2012*).

While fuel treatments can mitigate these trends, forest and rangeland management activities have not been able to keep pace. The result has been a pattern of growth in large and highly catastrophic fires.



Acres Burned Per Year 1983-2021

Acres burned per year from 1983 to 2021, indicating a steady increase in the 5-year running mean.

Source: National Interagency Fire Center, <https://www.nifc.gov/fire-information/statistics>

SUPPRESSION COSTS

Money for suppression covers a wide array of purposes, including pay for firefighters and support personnel; food, shelter and supplies; ground support equipment like water tenders and bulldozers; and air assets, like fixed-wing tankers and helicopters, which is frequently one of the largest cost items. Costs vary significantly depending on the extent to which a fire threatens urban areas, power lines and other infrastructure, fuels, remoteness, and topography, among other factors (*Gilpin & Print, 2016*).

While extensive data exists on suppression costs, it is inconsistent and incomplete, particularly for nonfederal partners in suppression. Data availability ranges from excellent to nonexistent for these nonfederal jurisdictions, meaning it is difficult to get a complete picture of suppression costs by fire nationally, although the largest fires typically have relatively complete suppression cost data.

Recognizing the **TRUE COST OF WILDFIRE** is a critical step toward prioritizing proactive investments and improving outcomes for communities and landscapes across the West.



Scan the QR code or view the report online → www.thewflc.org/truecostofwildfire
To request printed copies of the report, email info@westernforesters.org.