**FIRE & LIFE SAFETY POLICY INSTITUTE**

SAFETY THROUGH BETTER PUBLIC POLICY

# HOW TO PREPARE YOUR COMMUNITY FOR WILDFIRES

Wildfires in the US and around the world are becoming increasingly destructive, with fires that burn significantly more acreage than those of decades past. In the 1990s, fires burned an average of 3.3 million acres in the US each year. In the following decade, that number doubled to 6.6 million.[1] With millions of homes built in or near forests and other wildland areas, the risk to communities from wildfires has never been greater.

## KNOW THE FACTS

### Lives in Danger

**Wildfires can be deadly.** Residents need instruction on when and how to evacuate, and some may need help getting out.

**FACT** The 2018 Camp Fire in California resulted in 85 fatalities, many of whom were elderly citizens unable to evacuate on their own.[2] In the 2016 Gatlinburg, Tennessee, wildfire, late communication between jurisdictions slowed local evacuation and response efforts, contributing to the fire's 14 fatalities and underscoring the need for joint planning in advance for response and evacuation.[3]

**Wildfires are also dangerous for firefighters,** yet over 60% of fire departments that report responding to wildfires do not have wildfire training or equipment for all their responders.[4]

**FACT** Each year, an average of 17 firefighters die responding to wildfires and many more are injured.[5] For their safety, they need the right training and equipment, as well as the right infrastructure like roads and a sufficient water supply to safely reach—and retreat from—fires.

### Property at Risk

**Hundreds to thousands of homes and businesses can be destroyed** in a single wildfire event.

**FACT** Although wildfires destroy an average of 3,000 homes annually,[6] many communities are vulnerable to destruction on the order of five to ten times that number in a single event. In fact, the Camp Fire in California in 2018 destroyed nearly 19,000 structures in a single county.[7] Even in the face of this destruction, though, communities can take steps to limit losses. Communities that address their wildfire risk comprehensively may be more successful at reducing property loss than those that do not.

### Taxpayer Money & Communities Gone

**Many communities that have been through a destructive wildfire struggle** to reopen businesses, rebuild homes, and retain residents.

**FACT** Federal spending on wildfire suppression has now reached $3 to $4 billion per year[8]—spending driven in part by efforts to protect more development in the wildland-urban interface. However, federal suppression funding is minor compared to the costs of direct and indirect losses, which range from $63.5 to $285 billion per year in the US.[9] Over half of these costs are borne at the state or local level.[10] These are direct costs, like replacing infrastructure and restoring damaged landscapes, and indirect costs, like decreased tax-base and local business losses.

[1]US acreage burned in wildfires: data from the National Interagency Fire Center. [2]Death toll: Butte County Sherriff Press Release, June 3, 2019; Circumstances: Maria L. La Ganga et al "Many victims of California's worst wildfire were elderly and died in or near their homes, new data show" LA Times, Dec. 13, 2018. [3]Death toll and circumstances: Reporting from CBS News, December 4, 2016 "Death Toll from Tenn. Wildfires Rises to 14". [4]National Fire Protection Association, *Fourth Needs Assessment of the US Fire Service,* November 2016, p. 24-30. [5]Fire Administration, "Firefighter Fatalities in the United States in 2017," September 2018, p. 10. [6]Decadal trends: Alexander Maranghides et al., NIST Technical Note 1910, *A Case Study of a Community Affected by the Waldo Fire—Event Timeline and Defensive Actions*, November 2015, p. 3. [7]2018 California Wildfire Season: Insurance Information Institute (iii.org/fact-statistic/facts-statistics-wildfires). [8]Katie Hoover, Congressional Research Service: Wildfire Management Funding: Background, Issues, and FY2018 Appropriations. January 30, 2018. [9]Douglas Thomas et al. NIST Special Publication 1215, *The Costs and Losses of Wildfires: A Literature Survey*. November 2017, p. 45. [10]Headwaters Economics, *The Full Community Costs of Wildfire,* May 2018, p. 28-29.

## HOW TO PREPARE YOUR COMMUNITY FOR WILDFIRES *CONTINUED*

### PREPARE YOUR COMMUNITY

In the face of the growing wildfire risk, the government plays a critical role in keeping people safe. It's up to elected officials and policymakers to lead their communities in a comprehensive approach to wildfire safety. A comprehensive approach includes a vulnerability assessment, a regulatory framework, resident education, evacuation planning, and resources and training for the fire department. Failing to address any of these areas could leave the community's fate up to chance.

**Assess Vulnerability.** A community's vulnerability to wildfire depends on natural factors and human choices that influence the potential for a fire to ignite, spread, and cause damage. Identifying and mapping both natural hazards, like slope and vegetation, as well as risk factors, like building locations and materials, are important steps in the planning process.

**RESOURCES:** State forestry departments are an excellent resource to help identify at-risk areas, with many offering online tools like the Oregon Wildfire Risk Explorer or the Texas Wildfire Risk Assessment Portal. Communities in need of tools to create more specific risk assessments should check out the Community Wildfire Risk Assessment from the Firewise USA® program.

**Develop a Regulatory Framework.** A comprehensive approach addresses wildfire vulnerability at every scale, from the neighborhood to the individual structure, from new developments to existing homes. Once communities understand where they are most vulnerable, they can better decide where to build, how to build, and how to craft policies to prioritize wildfire mitigation efforts.

**RESOURCES:** There are many codes, standards, and best practice guides that address fire safety needs at each community level. To learn more about the available tools to address gaps in community regulations and requirements, check out NFPA's Community Wildfire Safety Through Regulation: A Best Practices Guide for Planners and Regulators and USFA's Wildland Urban Interface Toolkit: Codes and Standards.

**Educate Residents.** Regulations will fall short if the community's residents do not understand wildfire hazards, maintain their properties, and prepare to follow evacuation instructions from officials. Understanding the limits of local fire department capabilities in the event of a wildfire is also important for residents to be able to take appropriate action.

**RESOURCES:** Check out the Firewise USA program to find resources on educating and involving community members in wildfire preparation activities.

**Plan for Evacuations.** Most of the 85 people killed in the devastating 2018 Camp Fire that tore through Paradise, California, were senior citizens who were not able to evacuate from the fast-moving disaster. Evacuation plans need to consider how residents will be notified, how responders will manage the evacuation with other emergency response tasks, and how to assist vulnerable residents who cannot evacuate unaided. Evacuations must also be planned and practiced.

**RESOURCES:** Guides to help communities plan include NFPA 1616 Standard on Mass Evacuation, Sheltering, and Re-Entry Programs, Evacuating Populations with Special Needs from the US. Federal Highway Administration, and Emergency Preparedness for Seniors by Seniors from the Red Cross.

**Provide Fire Service with Training, Equipment & Access.** Responding to wildfires requires specialized training and equipment. Investing in these resources for their fire departments and make sure their infrastructure, like the roads and water supply, helps firefighters do their jobs safely and effectively.

**RESOURCES:** Check out the NFPA Needs Assessment Tool to learn about the training and equipment needs in your area. Assistance to Firefighter Grants through the US Fire Administration are another way to help address those gaps.

### Learn More

**Contact** the NFPA Fire & Life Safety Policy Institute at: 202-898-0222

**Access additional information:** nfpa.org/PolicyInstitute