



BENDING DOWN THE RISK CURVE in New Mexico

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WHY?

Severe weather disrupts lives, displaces families, and drives financial loss. IBHS delivers top-tier science and translates it into action so we can prevent avoidable suffering, strengthen our homes and businesses, inform the insurance industry and support thriving communities.







**Wildfires become
CATASTROPHES
when they move into our
BUILT ENVIRONMENT
and a CONFLAGRATION
UNFOLDS.**

An aerial photograph of a city, likely after a major fire event. The foreground and middle ground are dominated by a large, dark, charred area, possibly a large industrial or commercial structure that has been completely destroyed. The surrounding residential areas show significant damage, with many buildings reduced to rubble and charred remains. The background shows a cityscape with some greenery and a body of water in the distance. The overall scene is one of devastation and the spread of fire.

CONFLAGRATION:

**Uncontrollable
Structure-to-Structure
Fire Spread**



Cerro Grande Fire
Los Alamos, NM



Camp Fire
Paradise, CA



Lahaina Fire
Lahaina, HI

IBHS & New Mexico: 2024



 Presentations in Santa Fe and Ruidoso



 OSI Superintendent Kane joins NAIC Western Zone Demo



 State Forester Laura McCarthy joins Wildfire Policy Discussions IBHS Research Center



***PARCEL
LEVEL
ACTIONS***



- 
- A photograph of a fire burning in a field, with a dark, semi-transparent rectangular overlay on the right side containing a numbered list. The fire is bright orange and yellow, with a large plume of white smoke rising from it. The background is a blurred landscape with green grass and trees.
- 1. Embers***
 - 2. Flames***
 - 3. Radiant Heat***

THE RACE IS ON

Witch Creek Fire Investigation



2007



Waldo Canyon Fire Investigation

Ember Attack & Radiant Heat



2012



Vents

2013



2014



Vulnerability of Decks

Ember Characterization

2015



2016

Fire Spread

SCIENCE IS CATCHING UP

Coatings & Gels



2017



Wine Country Fires & Camp Fire Investigations



Home Hardening



2018



Home Ignition Zone

2019

Roof Cover Performance



2020



Fuel Breaks

2021

Structure Separation & Wind-driven Fire



2022

Marshall Fire Investigation



Maui Fire Investigation

2023







5 feet

Zone 0

CRITICAL ACTIONS

ROOF

- ✓ Class A fire-rated roof

BUILDING FEATURES

- ✓ Ember resistant vents

BUILDING FEATURES

- ✓ 6-inch vertical noncombustible clearance at base of wall

DEFENSIBLE SPACE

- ✓ Replace combustible fencing

DEFENSIBLE SPACE

- ✓ Maintain yard clear of debris

DEFENSIBLE SPACE

- ✓ Maintain underdeck

DEFENSIBLE SPACE

- ✓ Enclose underdecks

DEFENSIBLE SPACE

- ✓ Maintain home ignition zone (0-5 ft)

DEFENSIBLE SPACE

- ✓ Maintain trimmed trees and removal of branches overhanging home ignition zone and roof

DEFENSIBLE SPACE

- ✓ No outbuildings near home



***NEIGHBORHOOD
LEVEL
ACTIONS***





Modeling

Field Observations

Experimental Testing





***CONFLAGRATION
FACTORS***

Structure Spacing

Connective Fuels

Building Materials

STRUCTURE SPACING



CONNECTIVE FUELS







Exterior **BUILDING
MATERIALS**

ROOF

- ✓ Choose a Class A fire-rated roof maintained clear of debris
- ✓ Choose noncombustible gutters & downspouts

WILDFIRE PREPARED HOME + PLUS

ADDITIONAL MITIGATION

- ✓ Remove back-to-back fencing
- ✓ Eliminate combustible siding
- ✓ Enclose eaves
- ✓ Enclose under bay windows
- ✓ Upgrade to a wildfire-resistant deck
- ✓ Upgrade windows & doors
- ✓ Cover gutters
- ✓ Move outbuildings at least 30 feet away

BUILDING FEATURES

- ✓ Install ember- & flame-resistant vents
- ✓ Ensure 6-inch vertical noncombustible clearance at base of wall

DEFENSIBLE SPACE

- ✓ Create & maintain the home ignition zone (0-5 ft) including the removal of branches that overhang this area
- ✓ Clear & maintain the underdeck area; enclose low-elevation decks
- ✓ Maintain yard clear of debris
- ✓ Replace combustible fencing within 5 ft of the home

**WILDFIRE
PREPARED**
— A PROGRAM OF IBHS —



*Wildfire Prepared
Neighborhood*

Develop a system of neighborhood protections that meaningfully reduces the probability of conflagration

Provide a benchmark for understanding the risk of conflagration in communities

Core Principles for Neighborhoods

An aerial photograph of a residential neighborhood with houses and trees, set against a backdrop of large, forested mountains. The scene is partially obscured by three semi-transparent colored overlays containing text.

Decrease probability of initial ignitions from direct flame/radiant heat

Protect the neighborhood from ember attack

Slow fire spread within the neighborhood if ignitions do occur

Allow the neighborhood to act as a fuel break, not a dense fuel source



WILDFIRE PREPARED NEIGHBORHOOD
MITIGATION APPROACH

EMBER ATTACK
EMBER RESISTANCE ZONE

DIRECT FLAME/RADIANT HEAT
FLAME RESISTANCE ZONE

External fuels

Connective fuels

Structure separation

Structure separation

Structure separation

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof

Class A Roof





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SHAPES, ICONS AND LABELS

Use the shaded line to build structure and depth

Bold, solid icons are best



Consider using rounded boxes with theme colors to layer in shapes

TEXT HERE CAN BE LONGER OR SHORTER, AS NEEDED

TEXT HERE

TEXT HERE

TEXT HERE RESIZABLE

1.Additional Labels

TEXT HERE

2.Additional Labels

These text boxes use theme colors and are resizable to fit more text