

# Safer from Wildfires



**Cal OES**  
GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES



GOVERNOR'S OFFICE  
OF  
**Planning and Research**



CALIFORNIA  
**Public Utilities Commission**

## Interagency Wildfire Mitigation Partnership Summary Document

### Partners

- Insurance Commissioner and the California Department of Insurance (CDI)
- California Governor's Office of Emergency Services (Cal OES)
- California Governor's Office of Planning and Research (OPR)
- California Department of Forestry and Fire Protection (CAL FIRE)
- California Public Utilities Commission (CPUC)

**Summary:** In February, 2021, Insurance Commissioner Ricardo Lara announced the Wildfire Partnership between the California Department of Insurance and Governor Gavin Newsom's Administration, including the Governor's Office of Emergency Services (Cal OES), the California Department of Forestry and Fire Protection (CAL FIRE), the Governor's Office of Planning and Research (OPR), and the California Public Utilities Commission (CPUC) to establish consistent, statewide home and community hardening actions that are applicable to insurance incentives. The [Office of Energy Infrastructure Safety](#), established in July 2021, also contributed to the process. While California has existing wildfire building standards for new development as established by CAL FIRE, this new partnership focuses on retrofits for older existing homes in order to help them reduce their individual risk and potentially seek and maintain affordable insurance coverage, thus giving policyholders and insurance companies a shared strategy for reducing overall wildfire risks for the State. This list advances a consistent approach for insurance that is based on the areas of strong consensus from the fire science of state experts and independent research groups.

Reducing wildfire risk has clear benefits to insurance availability and affordability, state emergency management, and community resiliency. It is difficult to incentivize broad-scale wildfire mitigation measures without consistent and achievable guidance to homeowners and communities. Therefore, a partnership to coordinate risk mitigation efforts and incentives will enhance the overall benefits of mitigation to Californians, and avoid potential inconsistencies across government. The Wildfire Partnership has an opportunity to increase clarity for homeowners and communities, communicated through state programs and insurance mitigation incentives, to promote systematic risk reduction among homeowners, communities, businesses, and local governments and increase insurance availability in the state, especially for existing homes in the wildland-urban interface.

## Wildfire Partnership List of Home and Community Protection Measures

**Rationale:** The list is consistent with the Commissioner's goals of a science-based, effective, achievable and consistent approach to insurance incentives for home and community hardening that is understandable to homeowners. To determine the below list, the Wildfire Partnership (California Department of Insurance, the California Public Utilities Commission, Cal OES, CAL FIRE, and the Governor's Office of Planning and Research) met internally to apply existing expertise, and then with the Insurance Institute for Business and Home Safety (IBHS), representatives of the California Fire Chiefs Association, United Policyholders, Consumer Federation of America, American Property Casualty Insurance Association, and the Personal Insurance Federation of California. Upon engaging with experts and scientists, this action list was created to represent a consistent approach to insurance incentives.

This list of measures is consistent with substantial portions of a home hardening proposal by United Policyholders Wildfire Risk Reduction and Asset Protection (WRAP) initiative and the recent research of IBHS (Insurance [Institute for Business and Home Safety Wildfire Prepared Home](#)). This list aligns with portions of the [Low-Cost Retrofit List](#) published by the Office of the State Fire Marshal, and portions of the California Building Code Chapter 7A. All actions on the Low Cost Retrofit List are important for fire risk reduction, however, a subset are recommended for the following list of measures to account for what actions can be readily verified. For example, caulking and plugging gaps (greater than 1/8<sup>th</sup> inch) around exposed rafters and regularly cleaning the roof gutters, decks, and at the base of walls to avoid accumulation of flammable materials enhance a hardened structure.

The California State Hazard Mitigation Plan (SHMP) represents the State's primary hazard mitigation guidance and establishes the California's commitment to reduce or eliminate potential risks and impacts of natural and human-caused disasters to help communities with their mitigation and disaster resiliency efforts. For community mitigation, there are many actions that cities and counties need to take to comply with state law or to be eligible for federal and state funding. For example, cities and counties must have a Local Hazard Mitigation Plan (LHMP) reviewed by Cal OES, approved by the Federal Emergency Management Agency (FEMA), and locally adopted to be eligible for State and Federal funding. Furthermore, communities should have an up-to-date Safety Element of their General Plan and a Community Wildfire Protection Plan.

### Protecting the structure:

- Class-A Fire rated roof
- Maintain a 5 foot ember-resistant zone around a home (including fencing within 5 feet)
- Noncombustible 6 inches at the bottom of exterior walls
- Ember and fire-resistant vents (See [Low-Cost Retrofit List](#), and Chapter 7A)
- Upgraded windows (Double paned or added shutters)
- Enclosed eaves

## Protecting the immediate surroundings

- Cleared vegetation and debris from under decks
- Removal of combustible sheds and other outbuildings from the immediate surroundings of the home, to at least a distance of 30 feet
- Defensible space compliance (including trimming trees, removal of brush and debris from yard, and compliance with state law (See [CAL FIRE Website](#)) or local ordinances

## Community Mitigation

- Important community mitigation elements:
  - A community with a clearly defined boundary and a local risk assessment in consultation with the local fire district or state fire agency.
  - A community with an identified evacuation route, cleared of vegetative overgrowth, and evacuation plan contingencies
  - Clear funding sources to implement community mitigation activities and meet clear risk reduction goals.
  - Integrated and up-to-date local planning documents pertinent to community wildfire risk. These plans should have measurable goals for risk reduction each year and specific annual education and awareness actions.
- Examples of community designations for wildfire safety applicable for incentives include:
  - Fire Risk Reduction Community designation as established in Public Resources Code 4290.1 (under development by the Board of Forestry and Fire Protection, See Appendix 1)
  - [Shelter-in-Place](#) designation, including rules for buildings and vegetation management, as designated by a local fire district.
  - [Firewise USA community](#) in good standing (recognized by the National Fire Protection Association), with an updated risk assessment and updated community action plan.
- Examples of California geographic tools used to focus wildfire risk reduction efforts:
  - [Communities at Risk](#) as listed by CAL FIRE
  - [Fire Hazard Severity Zone Maps](#), published by CAL FIRE
  - [State Hazard Mitigation Plan](#), administered by Cal OES

## Definitions and Resources

### Definitions

1. Upgraded windows – Multi-paned windows or added shutters, consistent with IBHS Wildfire Prepared Home.
2. Fire-resistant Vents – 1/16 inch to 1/8 inch noncombustible corrosion resistant metal mesh screens, which is consistent with the [Chapter 7A Building Standards](#) (2021) and the Office of the State Fire Marshal's [Low-Cost Retrofit List](#).
3. Outbuildings – For this document, outbuildings include, but are not limited to, sheds and storage buildings, but not garages.

### Research Resources

1. Application of Wildfire Mitigation to insured Property Exposure; November 2020 Report by: Center for Insurance Policy Research, National Association of Insurance Commissioners; Risk Management Solutions, Inc.; Insurance Institute for Business and Home Safety. Link to report: [RMS <document> \(naic.org\)](#)
2. Insurance Institute for Business and Home Safety, Suburban Wildfire Roadmap Website: [ibhs-suburban-wildfire-adaptation-roadmaps.pdf](#)
3. Insurance Institute for Business and Home Safety, Wildfire Prepared Home Website: [IBHS's Wildfire Prepared Home](#)
4. Office of the State Fire Marshal (OSFM) Low-Cost Retrofit List Website: [Low-Cost Retrofit List \(ca.gov\)](#)
5. Proposed Mitigated Dwelling Qualifications presented by United Policyholders on their Wildfire Risk Reduction and Asset Protection Initiative (WRAP). Draft Document included as Appendix 3.
6. A Case Study of the Camp Fire. Report from the National Institute of Standards and Technology.  
<https://nvlpubs.nist.gov/nistpubs/TechnicalNotes/NIST.TN.2135.pdf>

## Background

Wildfire resilience requires actions by individuals and their communities, and effective wildfire risk reduction makes local communities safer, and enhances the ability for multiple state agencies and departments to achieve their missions. Insurance availability and affordability respond to risk. Wildfire risks are driving up costs and reducing insurance availability, causing economic consequences for local governments through reduced tax revenues. Each partner brings valuable expertise to contribute to a deliverable such as consistent statewide home and community hardening measures. This partnership responds to the Insurance Commissioner Lara's call for insurance companies to reward mitigation efforts through administrative rate filings, and the 2020 [signing message](#) by Governor Newsom upon signing Senate Bill 872 (Senator Bill Dodd), sponsored by Commissioner Lara, and Assembly Bill 3012 (Assemblymember Jim Wood). The signing message stated that "we must do more" and directed the Governor's Office of Planning and Research, Cal OES, and CAL FIRE to "work with the Insurance Commissioner to evaluate and recommend ways that residents, communities and the insurance industry can work together to better mitigate wildfire risks." This partnership is in furtherance of the Governor's signing message and will help protect residents from the increasing risk of wildfires.

State and local governments have ongoing efforts to increase wildfire mitigation efforts. Recent legislation has enhanced the potential for such a partnership by providing some of the building blocks for wildfire mitigation. For example, SB 190 (Dodd, Chapter 404, Statutes of 2019) directed the establishment of a model defensible space law, AB 38 (Wood, Chapter 319, Statutes of 2019) directed the establishment of a financial assistance fund for home hardening, which are now being developed and implemented by CalOES and CAL FIRE. Furthermore, AB 2911 (Friedman, Chapter 641, Statutes of 2018) directed further fire safety planning efforts, AB 3074 (Friedman, Chapter 259, Statutes of 2020) directed the establishment of rules to implement a 5-foot ember-resistant zone around homes in wildfire prone areas, AB 9 (Wood, Chapter 225, Statutes of 2021) established the Community Wildfire Preparedness and Mitigation Division within CAL FIRE – Office of the State Fire Marshal, and AB 642 (Friedman, Chapter 375, Statutes of 2021), as well as SB 63 (Stern, Chapter 382, Statutes of 2021) directed additional prescribed burn and hazard mapping requirements. Regional and local guidance for the types of trees and plants that should be planted in the vicinity of electric infrastructure are often provided by electric utility providers and other groups, including some universities. For an example, see California Polytechnic State University, San Luis Obispo; [Tree Planting Guide](#). These resources should be considered in the development of community plans. In addition, beginning in 2017, the CPUC published High Fire Threat District Maps for use specifically by utilities in risk reduction. The 2021-2022 State Budget, enacted by the State Legislature and Governor Newsom, invested over \$1 Billion in actions focused on wildfire risk reduction. Through Cal OES, more than \$152 million dollars in Hazard Mitigation Assistance funds have been invested in wildfire mitigation throughout the state. In addition, local governments and communities are trying to strengthen wildfire mitigation, including through local ordinances and the over 480 Firewise USA recognize communities established in the state.

**Wildfire Partnership Methodology and Engagement:** The Wildfire Partnership engaged with wildfire experts both within state agencies and independent researchers to better understand and align existing expertise. The Wildfire Partnership also met with United Policyholders, representatives from the California Fire Chiefs Association, the Consumer Federation of America, the American Property and Casualty Insurance Association, and the Personal Insurance Federation of California. Additionally, the Wildfire Partnership considered recent reports from the National Association of Insurance Commissioners on the [economic case for home hardening](#), and the National Institute for Standards and Technology (NIST), to which CAL FIRE was a significant contributor.

**Step 1:** The California Department of Insurance, Cal OES, OPR, CPUC, and CAL FIRE met to agree upon the scope of work and timeline.

**Step 2:** As parts of seven meetings, the partnership heard intra-agency briefings to avoid any duplication of efforts and to learn what existing programs may be applicable to insurance regulation and leveraged in developing a list of home and community hardening measures for insurance.

**Step 3:** The partnership engaged with additional wildfire mitigation specialists, including a proposal prepared by United Policyholders through a collaborative process that included input from University of California and Cal Poly San Luis Obispo Researchers. In addition, the Wildfire Partnership heard a presentation from the Insurance Institute for Business and Home Safety.

**Step 4:** The partnership engaged with additional wildfire mitigation stakeholders, including the Personal Insurance Federation of California (PIFC), the American Property Casualty Association (APCIA) and Consumer Federation of America.

**Step 5:** The partnership established a document of home and community hardening measures that can be used to create a consistent approach for the insurance sector incentives and empower communities to reduce wildfire risks before disasters strike.

## Appendices

### Appendix 1. Applicable Code Sections.

- **Public Resources Code Section 4290.1.**

(a) On or before July 1, 2022, the board shall develop criteria for and maintain a “Fire Risk Reduction Community” list of local agencies located in a state responsibility area or a very high fire hazard severity zone, identified pursuant to Section 51178 of the Government Code, that meet best practices for local fire planning.

(b) The board shall consider all of the following when developing the criteria for the list required under subdivision (a):

(1) Compliance with the board’s regulations, including minimum fire safety standards.

(2) Participation in the National Fire Protection Association’s “Firewise USA” or the National Wildfire Coordinating Group’s “Fire Adapted Communities” programs.

(3) Adoption of the board’s recommendations to improve the safety element pursuant to subdivision (b) of Section 65302.5 of the Government Code.

(4) Recently developed or updated community wildfire protection plans.

(c) The board shall post the “Fire Risk Reduction Community” list on its internet website.

*(Amended by Stats. 2019, Ch. 399, Sec. 3. (AB 1823) Effective January 1, 2020.)*

### Appendix 2. Building Code References.

**California Building Codes, Chapter 7A** – This chapter applies to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area. The most recent version of the Chapter 7A codes was published in 2021 and can be found at: [CHAPTER 7A \[SFM\] MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE, 2019 California Building Code, Title 24, Part 2 \(Volumes 1 & 2\) with July 2021 Supplement | ICC Digital Codes \(iccsafe.org\)](#)

**Appendix 3.** Draft Mitigated Dwelling Qualification Standards. United Policy Holders, [Wildfire Resilience and Asset Protection \(WRAP\) working group](#)).

#### MITIGATED DWELLING MEASURES

The following list identifies effective means for protecting a dwelling from wildfire loss. The list is not an exhaustive catalogue but is a focused compilation, created through United Policyholders “WRAP” initiative, of the key recommendations from an array of experts in residential wildfire risk reduction.

United Policyholders is encouraging all insurers to expand eligibility for coverage and to offer discounts in recognition of the reduced risk presented by homes that have incorporated these mitigation measures.

### **Roof**

- The dwelling has a well-maintained Class A roof. Where gutters are present, the roof includes a metal drip edge.
- For homes with metal or tile roofs, gaps greater than 1/8 inch between roofing and sheathing have been blocked to prevent debris accumulation and ember entry.

### **Vents**

- Exterior vents (e.g., foundation, gable, under eave, and roof vents) incorporate a 1/8 inch metal mesh or are designed for flame and ember resistance (Wildland Flame and Ember Resistant (WUI) vents approved and listed by the California State Fire Marshall or WUI vents listed to ASTM E2886).

### **Fences**

- Any wooden fences that attach to the dwelling structure shall incorporate only noncombustible materials (fencing or gating) in the last 5 feet before the attachment point(s) to the structure.

### **Decks**

- All combustible materials (e.g., grass, shrubs, or stored materials) must be removed from underneath attached wooden decks or stairways and maintained at least 5 feet away from the decks' or stairways' perimeters.

### **Other Attached Structures (arbors, pergolas, trellis)**

- Any other structure that is attached to the dwelling structure must be made of noncombustible materials.

### **Buildings less than 25 feet from the Dwelling Structure or Attached Decking**

- If another structure (e.g., a dwelling, garage, barn, shed or commercial building) is within 25 feet of the dwelling, the dwelling's exterior wall that faces the nearby structure meets a one-hour fire rating and includes noncombustible cladding.
- Where windows face the nearby structure, the windows either include dual-paned glass with at least the exterior pane is tempered glass or the windows have deployable metal shutters.

## **Defensible Space and Landscape**

- There is at least 6 inches of noncombustible clearance between the ground and the exterior siding of the dwelling.
- Within the first 5 feet of any dwelling or attached decks, no combustible materials (e.g., woody plants, combustible mulch, stored items) are present around the building or deck(s) or below the deck(s).
- For the landscape from 5-30 feet from structure (or property line if closer), the connectivity of vegetation leading to the dwelling structure has been eliminated. The lower branches of trees have been limbed up at least 6 feet above underlying or adjacent shrubs to eliminate fuel ladder connectivity. The landscaping is irrigated and maintained. Vegetation may be grouped and surrounded by areas of irrigated and mowed grass or hardscaping.
- For the landscape from 30-100 feet from the structure (or property line if closer), there is separation between shrubs and trees, dead branches and leaves have been removed, lower branches of trees are pruned to curtail the spread of fire and to eliminate fuel ladders.
- For dwellings on or adjacent to steep slopes (e.g., slopes greater than 35 degrees), landscape mitigation has been extended downslope and beyond the 100 feet perimeter, where possible, to reduce direct flame contact with or preheating of the dwelling or the underside of any decking.