

RISK SIMPLIFIED

RESOURCES

[Defensible Space \(CalFire\)](#)

[California Fire Hazard Severity Zones \(CalFire\)](#)

QUESTIONS

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Fire Hardening Public Facilities

by Sarah Bruno

Wildfires have become an ever-growing and more dangerous reality in California. Due to the state's climate, geography, and seasonal conditions, wildfires are a frequent threat to communities, businesses, and public agencies alike. In recent years, the increasing frequency, intensity, and scale of wildfires have caused significant damage. Preparing public buildings for a wildfire is essential to minimizing losses and protecting critical operations. This process, often referred to as "fire hardening," involves modifying the structure and surrounding area to reduce wildfire risks. Below are key steps to help prepare public buildings to withstand wildfire threats:

- **Ensure Defensible Space:** Remove any flammable vegetation, dead leaves, pine needles, and debris from around the building, especially near vents, windows, and doors. Trim trees at least 10 feet away from structures and other trees. Remove all tree branches up to at least six feet from the ground. This helps prevent fires from spreading to a structure from nearby vegetation. Clear areas around outbuildings and propane tanks.
- **Protect Against Embers:** Cover vents, eaves, and roof openings with materials, such as wire mesh screens or ember-resistant covers. Ensure that windows and doors are properly sealed to prevent the entry of hot embers, which can start fires inside the building.
- **Gutter and Roof Maintenance:** Regularly clean gutters, eaves, and roofs to remove debris such as leaves and pine needles that can ignite. Inspect and reinforce roof penetrations such as exhaust stacks, duct outlets, and vents with fire-resistant materials. Consider replacing glass skylights with fire-resistant alternatives or installing protective covers.

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- **Maintain Clear Access Routes:** Wildfire emergencies require immediate access for emergency personnel. Keep driveways, roads, and fire lanes free of obstructions so that emergency personnel can quickly reach the facility.
- **Fire-Resistant Landscaping & Maintenance:** Select fire-resistant plants and materials to limit fuel sources and reduce the potential for a fire to ignite close to the building. Even with fire-resistant landscaping, ongoing maintenance is key. Regularly trim back dead or overgrown vegetation and remove dead branches or other hazards that could act as fuel for a wildfire. Replace mulch and bark with hardscaping options like gravel, pavers or concrete.



- **Create Firebreaks:** For facilities located in rural areas, work with local fire agencies to establish firebreaks which are vegetation-free zones designed to slow or stop the spread of wildfire. Firebreaks can include gravel roads, bare ground, or small ditches and must be maintained to be effective.

- **Backup Power Systems:** Ensure that backup power systems, such as generators, are in place and properly maintained. These should be capable of powering essential equipment to support communication systems, lighting, and safety equipment.
- **Install a Wildfire Detection System:** In high risk areas, installing a wildfire detection system can provide early detection of sparks or fires. These systems may include thermal sensors, alarms, and environmental monitoring to alert staff and first responders.
- **Use Fire-Resistant Materials:** If the building is due for renovations or updates, consider using fire-resistant materials for roofing, siding, and windows. Fire-resistant roofing materials (like metal or tile) and fire-rated windows can create an important barrier against flames and heat.
- **Fire Suppression System Maintenance and Training**
Regular inspection and maintenance of fire suppression systems are essential to ensure proper functionality. Staff responsible for facilities management should be trained on system operation, including how to test components, deactivate systems when appropriate, and respond if the system is triggered during an emergency.

Wildfire preparedness and building hardening are essential for minimizing the impact of wildfires on public agency operations and infrastructure. By proactively implementing fire-resistant strategies, agencies can reduce the risk of property damage, ensure continuity of services, and protect valuable resources. For additional questions on fire hardening public facilities, please contact [Risk Control](#).