

Seven steps to prepare for a wildfire

Allianz Risk Consulting



Create defensible space



Reduce organic fuel



Use noncombustible materials for building signage



Consider the exterior walls



Consider the windows



Cover the roof with noncombustible material



Inspect vents and clear fuel from roofs

1. Create defensible space

Defensible space is both horizontal and vertical (low lying brush to bushes to low lying tree canopies to large tree canopies). The key is to disrupt continuity in the vertical dimension. Your property should be divided into three zones around your building.

Zone 1: 0 to 5 feet from the exterior wall of your building

This zone is closest to your facility, so it requires the most careful selection and intensive management of plants and materials.

- Install hard surfaces in this zone, such as a concrete walkway, or use noncombustible mulch products, such as rock mulch.
- Regularly water lawns and plantings to prevent dry vegetation.
- Remove dead plant material from plants.
- Remove plants adjacent to combustible siding and foundation vents, as well as plants under or next to windows, under-eave vents or interior corners.

Zone 2: 5 to 30 feet from your building, or to the property line

Maintaining plants in this zone will help prevent fire from climbing (laddering) into the top portion of trees or shrubs and burning directly to your facility.

- Maintain trees and shrubs in well-spaced groupings.
- Remove dead plant material and lower tree branches.
- Maintain trees by keeping a minimum horizontal spacing of 10 feet between crowns, with the distance increasing with increasing slope.
- Prune limbs and branches to a height of up to 15 feet. For shorter trees, pruning should not exceed 1/3 of the tree height.

Zone 3: 30 to 100 feet from your building, or to the property line

Maintaining plants in this zone will help reduce the energy of wildfire, slowing its advance to your building. Tree and brush spacing should force any fire in the tops of the trees, brush, or shrubs to drop to the ground.

- Remove dead plant material and tree branches from vegetation on a regular maintenance schedule.
- Create islands or groupings of vegetation.
- Remove lower tree branches.
- Maintain trees with a minimum horizontal spacing of 10 feet between crown edges.

2. Reduce organic fuel

Create a Vegetation Maintenance Plan (VMP) to reduce ignition sources. If using plants around the building, select ones with low combustibility characteristics such as high moisture content, low oil or resin content, deep roots with thick heavy leaves, and minimal production of dead vegetation. When developing a VMP, consult a landscape professional such as a forester, range manager, or natural resource specialist.

3. Use noncombustible materials for building signage

Avoid materials such as wood, plastic and vinyl as they will act as fuel to further the spread of fire.

4. Consider the exterior walls

Select exterior wall cladding made of noncombustible siding materials such as concrete and brick. Ensure the start of siding is a minimum of 6 inches above the ground.

5. Consider the windows

Select windows that are dual-paned with tempered glass. For operational windows, install screens to cover sections that can open. Windows should be closed when wildfire threatens.

6. Cover the roof with noncombustible material

Select roof covers with a Class A fire rating based on testing to ASTM E108 or UL 790. Class A fire rating means that the building material is highly resistant to fire and does not spread flames quickly. Select gutters and downspouts made of noncombustible materials such as aluminum.

7. Inspect vents and clear fuel from roofs

Install a minimum of 1/16" and maximum of 1/8" noncombustible mesh screening over all vents to prohibit wind-blown embers from entering your building (1/4" mesh is ineffective, according to California Building Code Chapter 7A). Regularly remove debris from roof and gutters, since it can easily be ignited by wind-blown embers.