

4.9 Fire Safety

Individuals can make an enormous contribution to fire hazard reduction and need to be educated about their important role. Homeowners are generally especially easy to enlist.

4.9.1 Homeowners Checklist to Reduce Fire Risk

Design and install a firewise landscape. Be sure to consider:

- Local area fire history;
- Site location and overall terrain;
- Prevailing winds and seasonal weather;
- Property contours and boundaries;
- Native vegetation;
- Plant characteristics and placement (water and salt retention ability, aromatic oils, fuel load per area, and size);
- Irrigation requirements.

The primary goal of a fire-resistant landscape is fuel reduction. It helps to assign zones:

- **Zone 1:** This well-irrigated area encircles the structure for at least 30' on all sides, providing space for fire suppression equipment in the event of an emergency. Plantings should be limited to carefully spaced fire resistant species.
- **Zone 2:** Fire-resistant plant materials should be used here. Plants should be low-growing, and the irrigation system should extend into this section.
- **Zone 3:** Place low-growing plants and well-spaced trees in this area, remembering to keep the volume of vegetation (fuel) low.
- **Zone 4:** Furthest from the structure is a natural area. Thin vegetation selectively here, and remove highly flammable vegetation.

Always remember to:

- Leave a minimum of 30' around the house to accommodate fire equipment, if necessary.
- Carefully space the trees you plant.
- Take out the "ladder fuels" — vegetation that serves as a link between grass and tree tops. It can carry fire to a structure or from a structure to vegetation.
- Give yourself added protection with "fuel breaks" like driveways, gravel walkways, and lawns.

When maintaining a landscape:

- Keep trees and shrubs pruned. Prune all trees 6' to 10' from the ground.
- Remove leaf clutter, and dead and overhanging branches.
- Mow your lawn regularly.
- Dispose of cuttings and debris promptly, according to local regulations.
- Store firewood away from the house.
- Be sure the irrigation system is well maintained.
- Use care when refueling garden equipment and maintain it regularly.

- Store and use flammable liquids properly.
- Dispose of smoking materials carefully.
- Become familiar with local regulations regarding vegetative clearances, disposal of debris, and fire safety requirements for equipment.
- Follow manufacturers' instructions when using fertilizers and pesticides.

When building, selecting or maintaining a home, remember:

- Slope of terrain. Be sure to build on the most level portion of the land, since fire spreads rapidly, even on minor slopes.
- Ridges and cliffs. Keep a single-story structure at least 30 feet away from edges; increase distance if structure exceeds one story.
- Use construction materials that are fire-resistant or non-combustible whenever possible.
- For roof construction, recommended materials are Class-A asphalt shingles, slate or clay tile, metal, cement and concrete products, or terra-cotta tiles.
- Constructing a fire-resistant sub-roof can add protection, as well.
- On exterior wall cladding, fire-resistive materials such as stucco or masonry are much better than vinyl which can soften and melt.
- Consider size and materials for windows; smaller panes hold up better in their frames than larger ones; double-pane glass and tempered glass are more effective than single pane glass; plastic skylights can melt.
- Cover windows and skylights with non-flammable screening shutters.
- To prevent sparks from entering your home through vents, cover exterior attic and underfloor vents with wire mesh no larger than 1/8 of an inch.
- A driveway should provide easy access for fire engines, be at least 12 feet wide with a vertical clearance of 15 feet and a slope that is less than 12 percent. The driveway and access roads should be well-maintained, clearly marked, and include ample turnaround space near the house.
- So that everyone has a way out, provide at least two ground level doors for safety exits and at least two means of escape (doors or windows) – in each room.
- Keep gutters, eaves, and roof clear of leaves and other debris.
- Occasionally inspect your home, looking for deterioration such as breaks and spaces between roof tiles, warping wood, or cracks and crevices in the structure.
- Also, inspect your property, keep 30 feet around your house clear of dead and dense vegetation. Move firewood away from the house and its attachments, like fences or decks.
- If an all-wood fence is attached to your home, a masonry or metal protective barrier between the fence and house is recommended.
- Use non-flammable metal when constructing a trellis and cover with high-moisture, non-flammable vegetation.
- Prevent combustible materials and debris from accumulating beneath patio deck or elevated porches. Screen, or box in, areas that lie below ground level with wire mesh no larger than 1/8 of an inch.
- Make sure an elevated wooden deck is not located at the top of a hill where it will be in the direct line of a fire moving up slope. Consider a terrace instead.