

Amador-El Dorado-Sacramento-Alpine Unit Structure Ignitability

The following section will discuss structure ignitability within the Amador-El Dorado Unit. Structure ignitability is a building's susceptibility to catching on fire. This is a growing concern as more homes and businesses continue being built in the wildland-urban interface. Measures can be taken to reduce the ignitability of structures in wildland areas by:

- Proper planning, which locates homes and communities such that their exposure to wildfire is minimized.
- Use of building design techniques that prevent flames or windborne embers from entering the structure, and use of building materials that are fire and heat resistant.
- Managing and reducing the flammable vegetation around the structure.

PLANNING: The Amador-El Dorado Unit has seen rapid growth over the last couple of decades with homes and businesses being built farther away from population centers creating new areas of wildland-urban interface. Improper planning in regards to minimizing a structures exposure to wildfire has allowed many of the structures to be built in areas that increase their exposure to the effects of wildfires, such as building on steep slopes and within or at the top of both large and small drainages. Drainages act as chimneys and funnel heat and energy from wildfires. Homes within these drainages are subjected to a lot more heat and embers during a wildfire increasing the structures chance of igniting. Many times firefighters are unable to defend structures within these drainages from an oncoming wildfire because of the amount of heat. Unfortunately, new construction continues to occur within these areas increasing the number of structures with a high susceptibility to igniting during a wildfire. The Amador-El Dorado Unit Fire Prevention Bureau works with county planning and building departments to locate new construction in areas that minimize a buildings exposure to wildfire.

CONSTRUCTION: How a structure is constructed and the type of material is just as important as where a structure is located. The California Department of Forestry and Fire Protection/ Office of the State Fire Marshal has developed wildland-urban interface building standards for new construction. The objective of the Wildland-Urban Interface Fire Area Building Standards is to establish minimum standards for materials and material assemblies and to provide a reasonable level of exterior wildfire exposure protection for buildings in Wildland-Urban Interface Fire Areas. The use of ignition resistant materials and design to resist the intrusion of flame or burning embers projected by a vegetation fire (wildfire exposure) will prove to be the most prudent effort California has made to try and mitigate the losses resulting from our repeating cycle of interface fire disasters. The new standards became effective on January 1, 2008 for all areas within State Responsibility Areas and on July 1, 2008 in Local Responsibility Areas classified as Very High Fire Hazard Severity Zones. The new standards address such things as roofing, attic ventilation, ignition resistant siding, decking, windows, and wall vents. The new standards will help to reduce the number of

burning embers that enter a building and ignite fires. Burning ember intrusion is the main reason homes are destroyed in wildland-urban interface fires.

Fire Hazard Severity Zone Maps

In 2007-2008 CAL FIRE updated the existing Fire Hazard Severity Zone maps to coincide with the adoption of the new wildland-urban interface building standards. The updated maps have incorporated improved wildland fire behavior science, data sets, and understanding of structure ignition mechanisms during conflagrations. These fire hazard severity zones will be used by building officials to determine appropriate construction materials for new buildings in the wildland-urban interface. The updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of property sale. It is likely that the fire hazard severity zones will be used by local government as they update the safety element of general plans. The Fire Hazard Severity Zone maps and new building standards for each county can be obtained from the CAL FIRE website, www.fire.ca.gov.

DEFENSIBLE SPACE: Managing and reducing the flammable vegetation around structures will also reduce the number of structure ignitions from wildland fires. Clearing vegetation and maintaining that clearance is required by section 4291 of the Public Resources Code (PRC 4291). In 2005 PRC 4291 was amended to increase the minimum vegetation clearance requirement from 30 feet to 100 feet around structures. Although this law requires it, many landowners fail to maintain adequate clearance around their structures. CAL-FIRE's fire safe inspection program is used to enforce compliance with PRC-4291. Additionally, the fuel reduction projects within AEU are aimed at reducing wildland fuels and educating the public on what they can do for themselves to protect their homes from wildfires and reducing structure ignitability.