STAKEHOLDER BRIEFING:
California’s Fire Hazard Severity Zone
Update and Building Standards Revision

California Department of Forestry and Fire Protection
Office of the State Fire Marshal

The Department of Forestry and Fire Protection (CAL FIRE) is revising maps that identify wildfire hazard in areas for which the State has financial responsibility for wildland fire protection (state responsibility areas). Early next year recommendations will be made for very high fire hazard zones in areas where locals provide fire protection (local responsibility areas).

CAL FIRE is mandated by Public Resources Code 4201-4204 and Govt. Code 51175-89 to identify fire hazard severity zones statewide. These are areas of significant fire hazard based on fuels, terrain, weather, and other relevant factors. In state responsibility area, CAL FIRE has mapped three hazard ranges - moderate, high and very high. In local responsibility area, the law only requires identification of very high fire hazard severity zones. These state statutes arose out of legislation following large, catastrophic urban conflagrations and are designed to implement mitigations to reduce damages from wildfires.

The existing fire hazard severity zone maps in state responsibility area were last approved in the mid-1980s. Maps in local responsibility area were completed in the mid 1990s. CAL FIRE is now updating the maps because they will be used to implement the new wildland-urban interface building standards adopted by the California Building Standards Commission to take effect January 1, 2008. The new building codes establish ignition-resistant construction for roofing, walls, decks, windows and other building elements for homes in the wildland-urban interface based upon the area’s fire hazard severity zone classification.

The maps will be the basis of legal requirements affecting property owners in state responsibility areas, very high fire hazard severity zones in local responsibility areas, and other fire-prone areas zoned by local government. The updated fire hazard severity zones will influence choice of construction materials and techniques for new buildings in the wildland urban interface. The new wildland-urban interface building codes will increase the cost for new construction an average of $1,800 per home.

The updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of sale of property. In addition, it is possible that the fire hazard severity zones will be used by local governments as they update the safety element of general plans. The re-mapping project is funded in part by a $250,000 Federal Emergency Management Agency grant facilitated by the Governor’s Office of Emergency Services.

There are separate maps for state responsibility area and local responsibility area; each requires a different adoption process. The adoption process for the state responsibility area maps will include public hearings in the 56 counties that have state responsibility areas. The hearings will be conducted throughout the fall and the maps are scheduled for adoption under CCR Title 14 regulation by December 31,
2007, in time for the January 2008 building codes to take effect. Following the hearings, the CAL FIRE Director may elect to amend the maps or adopt them without revision.

Release of the local responsibility area maps, which only identify very high fire hazard severity zones, will follow next year. Local governments will conduct public hearings and adopt local ordinances based on recommendations from the Director for implementing the ignition resistant construction standard.

The draft state responsibility area maps have been reviewed by the 21 CAL FIRE units statewide and six contract counties. Recommendations for changes have been provided. The recommendations were reviewed by Cal FIRE technical staff, and all the state responsibility area maps have been released. The public hearing process will take place in June and July 2007.

The Department anticipates public concern for map accuracy, perceived conflicts with prior mapping efforts and locally assigned fire hazard or fire risk designations, and potential use of the maps for unintended purposes. Contention may arise when individuals and local governments disagree with the hazard rating for a given area. This is especially likely to occur when they do not understand the criteria used in developing the maps or when they attempt to use the hazard maps for risk assessment.

The fire hazard severity zone maps evaluate hazard, not risk. Hazard is based on the physical conditions that give us a likelihood that an area will burn over a 30- to 50-year period without considering modifications such as fuel reduction efforts. Risk is the potential damage a fire can do to the area under existing conditions, including any mitigation taken. The model used to develop the fire hazard severity zone maps focuses on hazard alone, which only takes into account the probability of the area burning and potential fire behavior in the area based on elements such as fire history, potential fuel over a 30- to 50-year period, blowing embers, terrain and weather. It is not an evaluation of the level of risk the area faces because it does not consider modifications such as defensible space, irrigation and sprinklers.

The existing state responsibility area maps were developed in the mid-1980s, using available mapping techniques and information. Local responsibility area maps were developed in the mid-1990s. For several reasons, existing maps have been updated and now reflect improved fire science, mapping techniques, and data.

The assumptions used were developed to create a scientifically-based hazard map for one use - to reduce structure losses in the case of wildland fires by instituting more protective fire resistant building requirements in areas where the fire hazard is greater. However, it is possible that maps could be used for purposes for which they are not suited. For example, maps could influence home insurance premiums or could be used to depict the need to do fuel clearance as part of fire planning or grant proposals. In addition, state law requires property owners to disclose hazards when selling a property so there is a potential for the maps to influence property transactions. Local governments may use the maps in zoning and scheduling vegetation clearance, both decision-making efforts that might be better served by risk evaluation than by hazard evaluation.

Representatives from stakeholder groups including the California Building Officials Association, the California Building Industry Association, California Fire Chiefs Association, California League of Cities, Regional Council of Rural Counties, product manufacturers, the insurance industry and the Sierra Club have been involved in development and implementation of the building standards throughout the process.

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