

**Draft Recommendation on Mapping  
Wildfire Subgroup  
May 2020**

**1) Proper and timely wildfire risk identification is critical for state and local planning efforts**

State law directs the California Department of Forestry and Fire Protection (CalFire) to map areas of fire “hazard” based on fuels, terrain, weather, and other relevant factors. “Hazard” is based on the physical conditions that give 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 an area under existing conditions, including any modifications such as defensible space, irrigation and sprinklers, and ignition resistant building construction which can reduce fire risk. Risk considers the susceptibility of what is being protected.

CalFire maps identify hazard zones, referred to as Fire Hazard Severity Zones (FHSZ). These maps provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires. Fire Hazard Severity Zone maps are intended to be used for:

- Implementing wildland-urban interface building standards for new construction
- Natural hazard real estate disclosure at time of sale
- 100-foot defensible space clearance requirements around buildings
- Property development standards such as road widths, water supply and signage
- Considered in city and county general plans

CalFire defines FHSZ for both State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). An SRA is an area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. SRAs do not include lands within city boundaries or in federal ownership. An LRA is an area where local governments have financial responsibility for wildland fire protection. Only land in “very high” risk is illustrated in LRA maps (even though CalFire maps the different zones in LRA maps) , whereas SRA maps include designations “moderate,” “high,” and “very high.”

**a) A significant, ongoing state commitment is necessary to keep FHSZ maps up to date**

CalFire has an ongoing project to update the FHSZ maps. It is costly and time consuming. CalFire FHSZ maps for SRAs were last updated in November, 2007. FHSZ maps for LRAs were last updated in 2008 and are presented to local agencies as recommendations.

Questions:

- Is it necessary for state law to specify a particular interval for updating FHSZ maps?
- How do we keep up on determining how frequently to update?
- Should updates be triggered by changing science (e.g., availability of wind maps)?

**b) FHSZ maps should include additional considerations**

FHSZ methodology has historically included past ignition frequencies and fire patterns (ignitions do not always turn into big fires), but these change through time. Not only does this imply periodic updates on a faster cycle than at present, it raises the question of whether past mapping practices are appropriate for today's reality.

Significant areas of California are not included in FHSZ maps. The original maps were intended to guide new development and the building codes used, and did not include most pre-existing housing development. Lack of inclusion in the FHSZ maps should not imply that no fire hazard exists.

Questions:

- Should FHSZ maps include previously unmapped development, including the already-built environment? If so, should newly-mapped homes in high risk areas face heightened requirements for major renovations and/or rebuilding after fires in these areas?
  - Should use of FHSZ maps be required for local governments? Should FHSZ maps in LRAs be expanded beyond just “very high” risk designations? How should FHSZ maps impact land use decisions, if at all, in LRAs (at least in high- and very high-risk areas)?
  - Should updated climate change scenarios be included in FHSZ maps?
  - Should housing development patterns be included in the FHSZ methodology, since they influence fire frequency patterns?
- c) Should FHSZ maps trigger parcel-level fire mitigation considerations beyond building materials?**

Research is needed on whether the existing mapping program could also impact additional mitigation measures (beyond building materials) on a particular parcel. The sub-group plans additional study of systems like Australia's, where hazard is mapped in broad classes at the landscape scale (similar to current FHSZ classes that dictate building codes for new development), but then, at the finer parcel scale, the developer must then mitigate further by (for example) adjusting the building placement on the parcel to reduce exposure, ensuring on-site water supplies, designing with shelter-in-place in mind, etc. With the current FHSZ process, none of these mitigation measures are required or even considered, because once the building code requirements are met, the developer proceeds without consideration of these other issues.

Questions:

- Can the FHSZ map process guide additional risk mitigation at the parcel level beyond building codes?
- If so, what additional considerations should there be beyond construction methods and materials (ie, building codes)? Siting, layout, roadwork, water, etc?
- In which hazard zones would they apply?

- If so, would local fire marshals sign off on this?
- Is there or should there be a fire risk class that is “no build” or “not defensible” (i.e., too dangerous for fire fighters to access or work), to highlight extreme circumstances?

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