

**Addendum to the INITIAL STATEMENT OF REASONS (ISOR)  
Second 45 Day Comment Period June 26, 2023, to August 9, 2023**

**California Code of Regulations  
Title 14. Natural Resources  
Division 1.5. Department of Forestry and Fire Protection\* (Refs & Annos)  
Chapter 7. Fire Protection\* (Refs & Annos)  
Subchapter 3. Fire Hazard  
Article 1. Fire Hazard Severity  
Section 1280.01**

**Fire Hazard Severity Zone Designations and Ratings  
in the State Responsibility Area:**

**Introduction:**

Public Resources Code (PRC) Section 4204 requires the State Fire Marshal (SFM) to periodically review and revise the Fire Hazard Severity Zone (FHSZ) designations and ratings in the State Responsibility Area (SRA). If the review results in revisions to the designations or ratings, the Office of the State Fire Marshal (OSFM) is required to transmit the proposed regulations to each impacted county and hold a public hearing, compliant with PRC Section 4203.

There are three FHSZ designations, based on increasing fire hazard. Hazard is based on the physical conditions that create a likelihood and potential fire behavior over a 30 to 50-year period. Classification of a zone as Moderate, High, or Very High fire hazard is based on a combination of how a fire will behave and the probability of flames and embers threatening buildings. Each area of the map gets a score for flame length, embers, and the likelihood of the area burning.

The SRA is made up of areas of the state in which the financial responsibility of preventing and suppressing fires has been determined to be primarily the responsibility of the state.

The boundaries of the SRA are identified by the Board of Forestry and Fire Protection, as directed by PRC Section 4125, using the criteria provided in PRC Sections 4126-4135.

**Problem Statement:**

PRC Section 4201 requires that FHSZ classifications are used to identify the most effective measures for fire prevention, intensity, and spread; in order to reduce the threat to resources, life, or property. PRC Section 4202 outlines the technical requirements for the classification development.

Improved fire science, data, and mapping techniques are now available to identify the most effective measures for fire prevention, intensity, and spread. The technical requirements for the classifications, located in PRC Section 4202, have also been amended. The new FHSZ map is intended to map fire hazard based on fuel loading, slope, fire weather, and other relevant

factors present, including areas where winds have been identified by the department as a major cause of wildfire spread. These factors are combined into the term “hazard” to refer to the physical conditions that create fire behavior that can lead to damage.

Based on these factors, there is substantial evidence that the current FHSZ classifications must be updated to effectuate the purpose of PRC Sections 4201 and 4202. The current FHSZ classifications are incorporated by reference into CCR14 Section 1280.01, “Fire Hazard Severity Zones in [State Responsibility Area] SRA,” dated November 7, 2007.

**A Statement of the Specific Purpose of Each Adoption, Amendment, or Repeal:**

The adoption of an updated version of the FHSZ SRA map and the repeal of the current map as documents incorporated by reference will provide directly affected persons with improved resources to identify the most effective measures for fire prevention, intensity, and spread; based on their local conditions. These updates are necessary to effectuate the public safety purposes of PRC Sections 4202, 4203, and 4204.

The revisions will also be compliant with legislative mandates found in both Assembly Bill (AB) 9 (Wood, Chapter 255, Statutes of 2021) and AB 1595 (Kehoe, Chapter 366, Statutes of 2008). These statutes amended PRC Sections 4202, 4203, and 4204. New requirements include shifting approval responsibilities from the Director to the SFM and including “areas where winds have been identified by the department as a major cause of wildfire spread” in map development.

The requirements for legal compliance within the OSFM’s regulatory scope are not changed by the FHSZ classifications. In the SRA, fire prevention requirements within the OSFM’s regulatory authority are enforced uniformly. All locations in the SRA are subject to the same requirements, rights, responsibilities, conditions, prescriptions, or other regulatory elements within the OSFM’s jurisdiction.

However, separate statutory mandates outside of the OSFM’s regulatory scope require that all property in High or Very High FHSZs comply with Civil Code 1102.6f, real estate disclosures Assembly Bill 38 (Wood, Chapter 391, Statutes of 2019). These disclosures are known as “AB 38 Defensible Space Inspections,” and are not required for property in Moderate FHSZs. As a result of the proposed regulations, the boundaries of Moderate, High, or Very High FHSZs may shift, altering which properties are required to comply. However, every FHSZ in the SRA is already required to comply with the underlying defensible space requirements of AB 38 located in PRC Section 4291.

**Addendum Updates**

This addendum includes changes to the map which is incorporated by reference by the regulation. Adjustments were made to the November 21, 2022, FHSZ Map following public comment. These adjustments are reflected in the new map dated June 15, 2023, and resulted in 106,543 acres receiving an updated designation. In 15 counties, public comment revealed issues that supported a map edit, and specific change maps highlighting the nature and extent of these changes are located at [osfm.fire.ca.gov/FHSZ](https://osfm.fire.ca.gov/FHSZ) . Rerunning the hazard firebrand model

with updated input data impacted zones in non-wildland areas. Updates included changes to the number of modeled brands produced by montane hardwood and east side pine vegetation types. Also, some buffer edges have moved one cell reflecting a precision adjustment in those cases, to show zones in whole 30 meter cells. These model changes amounted to reclassifications statewide.

Additionally, data sets have been posted online and added to the Documents Relied Upon should the public wish to review and comment. The data is available at <https://osfmfhsz.blob.core.windows.net/public/index.html> and consists of additional technical data, including intermediate modeling steps and approximately 22 spatial datasets, and several associated tables.

### **Evidence Supporting Finding of No Significant Adverse Economic Impact on Any Business.**

The OSFM has initially determined that the proposed regulations will not have a significant adverse economic impact on business or incur a cost beyond what a reasonable person could expect. This determination is based on uniform enforcement of fire prevention requirements within the SRA.

Because standards and procedures used to judge compliance with fire prevention requirements are not changed by the FHSZ classifications, a change in the classifications does not create or incur a direct cost to businesses beyond what a reasonable person could expect.

#### **The creation or elimination of jobs within the state.**

The proposed regulations are not expected to have a significant impact on the creation or elimination of jobs within the State of California.

#### **The creation of new businesses or the elimination of existing businesses within the state.**

It is anticipated that the proposed regulations will not significantly impact the creation or elimination of businesses in California.

#### **The expansion of businesses currently doing business within the state.**

It is unlikely that the proposed regulation will encourage or discourage businesses from expanding their business in California.

#### **The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.**

The OSFM has determined that this regulatory proposal will benefit public safety by providing directly affected persons with improved resources to identify the most effective measures for fire prevention, intensity, and spread; based on their local conditions. Measures include elements such as 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, and State Minimum Fire Safe Regulations such as road widths, water supply and signage.

**Documents Incorporated by Reference.**

The maps incorporated by reference in this action are formal publications reasonably available from the OSFM at any time upon request and during the rulemaking action. The map will not be printed in the California Code of Regulations because to do so would be cumbersome, unduly expensive, or otherwise impractical. The map, including the Geographic Information System (GIS) data, are available on the OSFM website located at <https://osfm.fire.ca.gov/fire-hazard-severity-zones>. The link is also provided in the express terms of the proposed amendments to the regulation.

The map, approved by the OSFM, are documents incorporated by reference and entitled “State Responsibility Area Fire Hazard Severity Zones” dated June 15,2023.

**Technical, Theoretical or Empirical Study, Report, or Similar document relied upon.**

As part of the development process, a Technical Advisory Committee (TAC) reviewed the model that created the maps. TAC members included members from public agencies, academic institutions, and representatives from the Insurance Institute for Business and Home Safety. These were conversations only, and there were no documents relied upon in connection with these consultations.

The TAC was composed of external subject matter experts in wildland hazard and risk assessment, geospatial modeling, urban-interface fire mechanics, and mechanical engineering. Each TAC member was instructed to work independently, to maintain the perspective of each discipline. The TAC was provided a detailed methods and draft dataset for review for a subset of California and comments received were incorporated where possible into the model revision and development of the statewide SRA map.

A two-kilometer grid of climate data covering the years 2003-2018 was used as the foundation for the model. The previous model used stock weather inputs across the state to calculate wildland fire intensity scores. The updated model will adjust fire intensity scores based on the most extreme fire weather at a given location, considering temperature, humidity, and wind speed. In addition, ember transport is being modeled based on local distributions of observed wind speed and direction values instead of using a generic buffer distance for urban areas adjacent to wildlands. A FHSZ class is assigned based on the average hazard across the area included in the zone.

The fire hazard was modeled and the FHSZ map is built focusing only on fire hazard, which is best understood in terms of the nature of fire. Hazard is based on the physical conditions that create a likelihood and potential fire behavior over a 30 to 50-year period without considering mitigation measures such as home hardening, recent wildfires, or fuel reduction efforts.

Zones in this context are defined as areas that have similar potential fire behavior characteristics. Data used to determine hazard, including both fire behavior and burn probability, are averaged over a minimum zone size of 20 acres in urbanized areas and 200 acres in non-urbanized wildland areas.

The product of the FHSZ model is a GIS data set that can be used to assess hazard. Areas are mapped in Moderate, High, and Very High classifications.

The OSFM maintains an ongoing public outreach campaign to educate the directly affected public about the nature and impacts of FHSZs. This includes materials such as Frequently Asked Questions, an interactive viewer, and a link to the AB 38 Defensible Space Inspection Form/Real Estate Disclosure.

Pursuant to PRC Section 4203, before adopting the new map, the OSFM is required to transmit a copy of the proposed map to the Board of Supervisors of each county where a zone assignment of a rating is designated in the SRA. The transmittal must be at least 45 days before the adoption of the regulation and a public hearing must be held during the 45-day period in each county.

Background about fire prevention can also be found at the following websites:

<https://www.readyforwildfire.org/>

<https://osfm.fire.ca.gov/fire-hazard-severity-zones>

<https://frap.fire.ca.gov/>

#### **Documents Relied Upon:**

Vegetation. CAL FIRE FRAP. 2015. <https://map.dfg.ca.gov/metadata/ds1327.html>

Fire history (firep20\_1). CAL FIRE FRAP. 2020. <https://frap.fire.ca.gov/frap-projects/fire-perimeters/>

Climate data. Desert Research Institute, California and Nevada Smoke and Air Committee. 2018. <https://cansac.dri.edu/cofframe.php?page=reanalysis.php>

Climatic regions. CAL FIRE FRAP. 2017. [In] California's Forests and Rangelands 2017 Assessment. <https://frap.fire.ca.gov/media/4babn5pw/assessment2017.pdf>

Urbanized Areas. US Census. 2010. <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html>

Canopy Cover (source 1). Earth Define LLC. 2020. Tree Map. <https://www.earthdefine.com/treemap/>

Canopy Cover (source 2). Salo Sciences. 2020. California Forest Observatory Canopy Cover. <https://salo.ai/blog/2020/04/observatory-documents>

State Responsibility Area. CAL FIRE. 2020. <https://bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/>

Slope. US Geologic Survey. 2019. 1 arc-second (30 m) DEM.  
<https://apps.nationalmap.gov/downloader/>

Watershed boundaries. California Interagency Watershed Mapping Committee. 2018. Calwater 2.2.1.  
<https://gispublic.waterboards.ca.gov/portal/home/item.html?id=be2edf6d62f54e7a82594ad7f5464209>

Intermediary Data Sets, CAL FIRE FRAP. 2023.  
<https://osfmfhsz.blob.core.windows.net/public/index.html>

**Anticipated benefits from this regulatory action:**

While this regulatory action has very limited direct impacts, broad compliance with fire prevention measures by directly affected persons results in improved outcomes for the protection of life and property against wildfire.

Measures include more effective use of statutory requirements such as wildland-urban interface building standards for new construction, use of natural hazard real estate disclosure at time of sale, 100-foot defensible space clearance requirements around buildings, and State Minimum Fire Safe Regulations such as road widths, water supply, and signage.

**Benefits of the Regulations to the Health and Welfare of California Residents, Worker Safety, and the State’s Environment.**

These regulations will provide a direct benefit to the public safety of the people of California. The OSFM has determined that this regulatory proposal will benefit public safety by providing directly affected persons with improved resources to identify the most effective measures for fire prevention and mitigation.

**Small Business Determination:**

Businesses may self-identify as part of their public participation in the regulatory process. However, the public safety requirements of this program do not require disclosure of business details which would identify a “small business,” as it is defined by Government Code 11342.610.

The OSFM has made the initial determination that these proposed regulations will have no “substantial” effect to small businesses as identified.

**Alternatives:**

The OSFM has determined that no alternatives would be more effective in carrying out the purpose for which the action is proposed, would be as effective and less burdensome to affected private persons than the proposed action; or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

The requirements for legal compliance are not changed by the FHSZ classifications, therefore alternatives to the proposed regulations would not provide an option that would provide a benefit to directly affected persons.

In the SRA, fire prevention requirements are enforced uniformly. All individuals who are legally required to comply with these regulations are located in the SRA. Within the OSFM's regulatory authority, all locations in the SRA are subject to the same requirements, rights, responsibilities, conditions, prescriptions, and other regulatory elements.

**Use of Required Standards:**

The OSFM has not identified a performance standard which would replace the model used to determine hazard classifications in the SRA and prevent any unnecessary regulatory burden on private individuals. The model used for this development, and the future compliance with development requirements in PRC Section 4202 required a multiyear effort, participation and coordination across multiple governmental agencies, participation by a variety of science and technical professionals. There is no performance standard that can be reasonably expected to be as effective and less burdensome, than the standard included in the proposed regulations.

**Facts, evidence, documents, testimony, or other evidence relied upon to support an initial determination that the regulation will not have a significant adverse economic impact on business:**

The OSFM has initially determined that the proposed regulations will not have a significant adverse economic impact on business. In the SRA, fire prevention requirements are enforced uniformly. All individuals who are legally required to comply with these regulations are located in the SRA. Within the OSFM's regulatory authority, all locations in the SRA are subject to the same requirements, rights, responsibilities, conditions, prescriptions, and other regulatory elements. As noted above, because the requirements for legal compliance are not changed by the FHSZ classifications, the proposed regulations are not anticipated to have a significant economic impact on businesses.

**Coordination with Federal Law:**

The SFM has determined that this proposed regulatory action neither conflicts with nor duplicates any federal regulation contained in the Code of Federal Regulations.