

# RPV FIRE HAZARD SEVERITY ZONE INFO SESSION

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April 30, 2025  
6:00-8:00pm







# AGENDA

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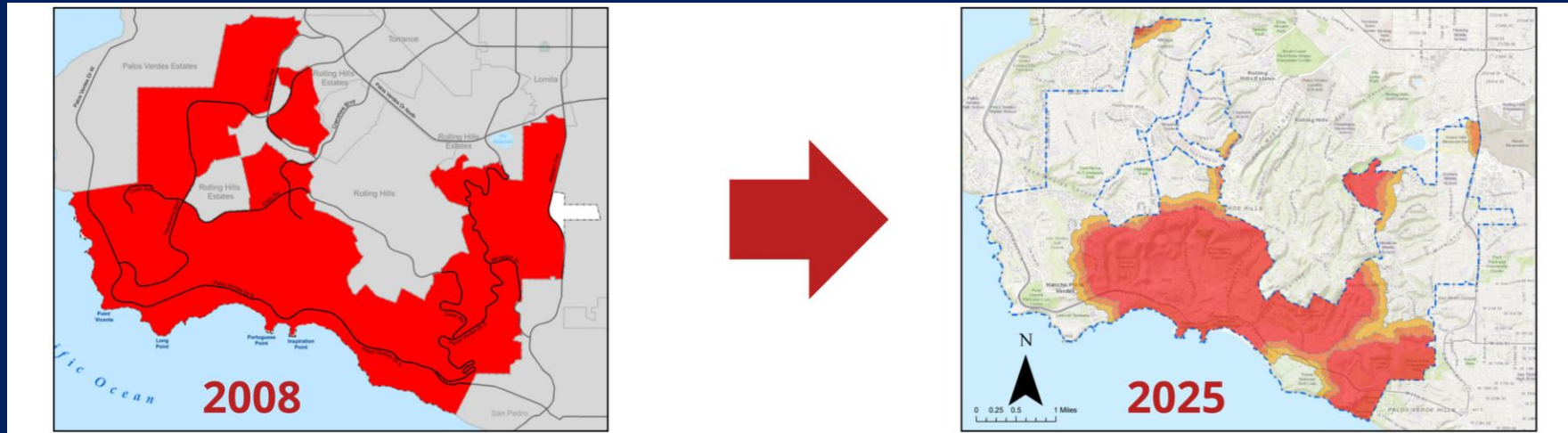
- 1. Introduction by City Staff and brief background of FHSZ Map and update**
- 2. Presentation by County Fire**
  - ✓ **FHSZ Map Update and Methodology**
  - ✓ **Current defensible space and fuel modification regulations and inspections**
  - ✓ **Implications and changes caused by FHSZ Map Update**
- 3. City steps for FHSZ Map adoption and close out of presentation**
- 4. Q & A directly after presentation, to be complete no later than 8pm**





# Overview of the change

RPV was almost entirely placed in a “Very High” Fire Hazard Severity Zone in 2008. The 2025 update would take a large portion of the City out of any zone and downgrade some areas to “Moderate” and High” FHSZs



Changes based on fuel conditions, weather patterns, terrain, & fire behavior modeling.



# Local Responsibility Area Fire Hazard Severity Zone Map

2025 Update

ASSISTANT CHIEF KANE





# LRA FHSZ MAPS 2025

What's Happening: Cal Fire has updated the Local Responsibility Area (LRA) Fire Hazard Severity Zone (FHSZ) Map

The State Fire Marshal will be releasing the Updated Recommended LRA FHSZ maps starting February 10, 2025, in four phases.





# 2007-2011 FHSZ MAP

## How to use this map

*Scroll down in this panel to view all instructions.*

### Compare old and new FHSZ in LRA

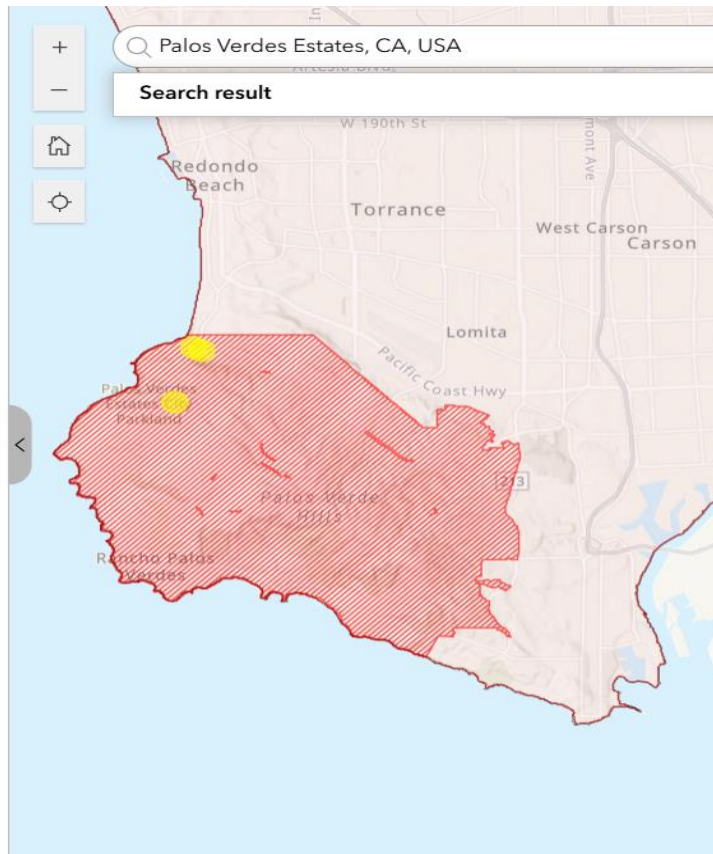
Drag the **slider** in the middle of this map back and forth to compare old (2007-2011) with new (2025) Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as recommended by the State Fire Marshal.

Moving the slider to the **left** will reveal the **new** recommendations. Moving the slider to the **right** will reveal the **old** recommendations. Additionally, you may refer to the **map legend** at right to differentiate between old and new recommendations.

### Find your address

Use one of the following search methods:

- Click in the **Find address or place** box at the top of the map and type in your address, city, or county, then click the desired result or press Enter on your keyboard.
- Click the **Find my location** button (target icon) near the top left of the map.





# 2025 PROPOSED FHSZ MAP

## How to use this map

*Scroll down in this panel to view all instructions.*

### Compare old and new FHSZ in LRA

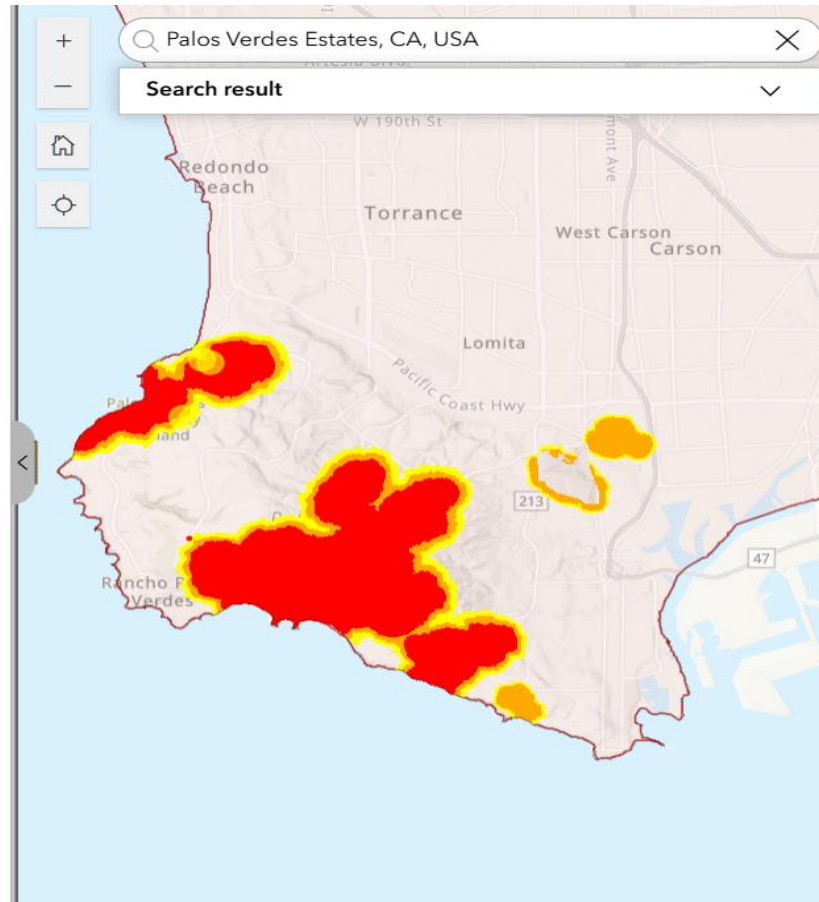
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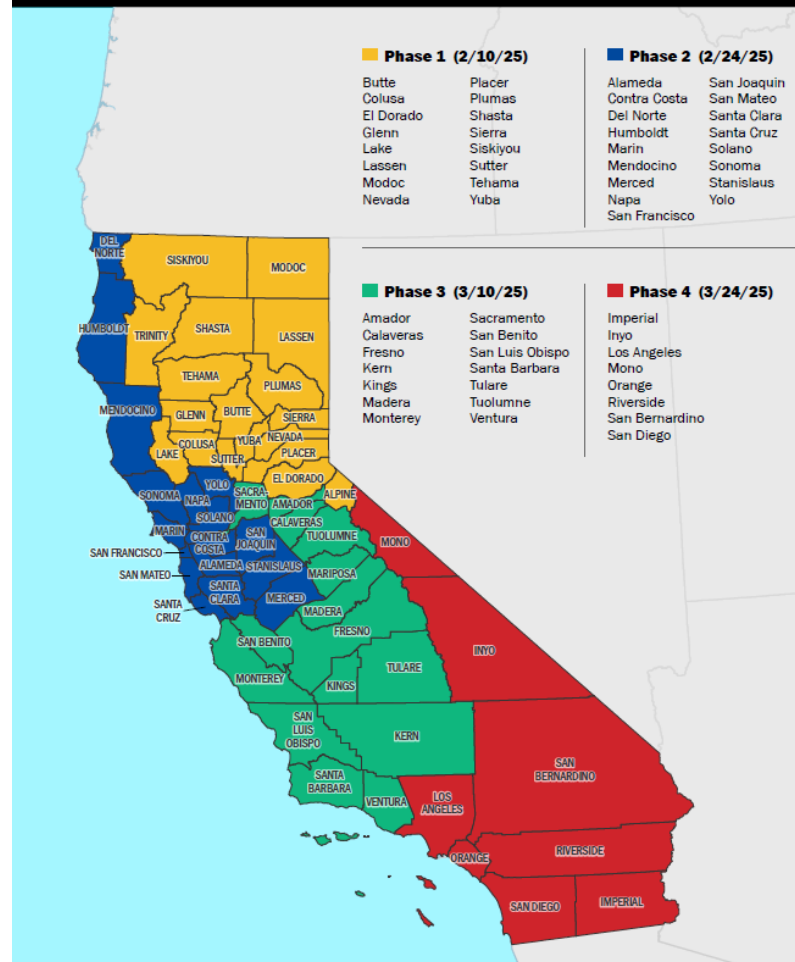




# FHSZ ROLLOUT PLAN

Maps have been shifted to be released in phases, starting on 2/10/25

Roll out of FHSZ Map for Los Angeles County: 3/24/25





# BACKGROUND

The State Responsibility Area (SRA)  
FHSZ was completed in 2024

The recommended LRA FHSZ maps  
will be expanded to include the High  
and Moderate FHSZs that were not  
previously mapped in 2010





# BACKGROUND

- A 2 km grid of climate data covering the years 2003-2018 is being used in the update
- Updated model will adjust fire intensity scores based on the most extreme fire weather at a given location
- Ember transport is being modeled based on local distribution of observed wind speed and direction values instead of using a generic buffer distance for urban areas adjacent to wildlands





# BACKGROUND

- Local Cities can add to or increase the FHSZ.
- Any additions to the Very High FHSZ requires substantial evidence of record to make the change.
- The local agency cannot remove or decrease the FHSZs as recommended by the SFM per State Law.





# WHY ARE THE FHS MAPS BEING UPDATE

The hazard maps are being updated to more accurately reflect the zones in California that are susceptible to wildfire.

The hazard mapping process will incorporate new science in local climate data and improved fire assessment modeling in determining hazard ratings.





# WHAT DO THE FHS MAPS MEASURE

Fire Hazard Severity Zone map evaluates “hazard,” not “risk”.

“Hazard” is based on the physical conditions that create a likelihood and expected fire behavior over a 30 to 50-year period without considering mitigation measures such as home hardening, recent wildfire, or fuel reduction efforts.

“Risk” is the potential damage a fire can do to the area under existing conditions, accounting for any modifications such as fuel reduction projects, defensible space, and ignition resistant building construction.





# HOW ARE FIRE HAZARD SEVERITY ZONES DETERMINED?

CAL FIRE uses the best available science and data to develop, and field test a model that served as the basis of zone assignments.

The model evaluated the probability of the area burning and potential fire behavior in the area.

Many factors were included such as fire history, vegetation, flame length, blowing embers, proximity to wildland, terrain, and weather.





**WHAT NEW DATA WILL  
BE INCLUDED IN THE  
NEW MODEL, AND HOW  
DOES THIS DIFFER FROM  
THE PREVIOUS  
MODEL?**





**A 2 km grid of climate data covering the years 2003-2018 is being used in the update.**

**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.**





# WHAT IS THE DIFFERENCE BETWEEN THE VARIOUS FIRE HAZARD SEVERITY ZONES?





**Classification of a wildland zone as Moderate, High or Very High fire hazard is based on the average hazard across the area included in the zone, which have a minimum size of 200 acres.**

**In wildlands, hazard is a function of modeled flame length under the worst conditions and annual burn probability. Both these factors generally increase with increasing hazard level, but there may be instances where one value is Very High and the other is low, pushing the overall hazard into a more intermediate ranking.**

**On average, both modeled flame length and burn probability increase by roughly 40-60% between hazard classes.**

**Classification outside of wildland areas is based on the fire hazard of the adjacent wildland and the probability of flames and embers threatening buildings.**





# WHY DOES THE MODEL PLACE AN EMPHASIS ON THE SPREAD OF EMBERS?

Embers spread wildfire because they can travel long distances in the wind and ignite vegetation, roofs, attics (by getting into vents), and decks.





# IS MY PROPERTY IN VHFS ZONE

You can search by address to find your current designation  
on the web at: [osfm.fire.ca.gov/FHSZ](https://osfm.fire.ca.gov/FHSZ)





# What are the key elements of the Fire Hazard Severity Zone model?





**Two key elements: probability of an area burning and expected fire behavior under extreme fuel and weather conditions.**

**The zones reflect areas that have similar burn probabilities and fire behavior characteristics. The factors considered in determining fire hazard within wildland areas are fire history, flame length, terrain, local weather, and potential fuel over a 50-year period.**

**Outside of wildlands, the model considers factors that might lead to buildings being threatened, including terrain, weather, urban vegetation cover, blowing embers, proximity to wildland, fire history, and fire hazard in nearby wildlands.**





# WHY IS MY PROPERTY IN A DIFFERENT ZONE THAN THE ADJACENT AREA, WHICH LOOKS SIMILAR?





**In non-wildland areas, zone edges occur based on distance to the wildland edge.**

**Because hazard in these areas is largely determined by incoming embers from adjacent wildland, urban areas that are similar in vegetation type and housing density may have a change in FHSZ class as the distance to the wildland edge increases.**

**Areas immediately adjacent to wildland receive the same FHSZ score as that wildland where fire originates, and the model then produces lower scores as the distance to wildland edge increases.**





**In wildland areas, zone edges are a result of the way zones are delineated. Specifically, zones represent areas of similar slope and fuel potential. Zone boundaries divide zones based on geographic and vegetation features that align with fire hazard potential;**

**Although, at a local scale, it may appear that the immediate area is similar on both sides of the edge. The class value within a zone is based on the average hazard score across the whole zone.**

**Areas that are in the same zone but not immediately adjacent to a local area can have an influence on the final zone classification.**





# LEGISLATIVE PROCESS

- The State Legislature has passed a law for Cities and Counties to implement
- City must ratify (though we can too)
- AB 211-Requires local agency to “designate by ordinance” the Zones

## Assembly Bill No. 211

CHAPTER 574

An act to amend Sections 11891, 11893, 12581, 12996, 12998, 12999.4, and 12999.5 of, and to add Sections 12999.6 and 13001 to, the Food and Agricultural Code, **to amend Section 51179 of the Government Code**, to amend Sections 44274.10, 44274.11, 44274.12, 44274.13, and 44274.14 of the Health and Safety Code, to amend Sections 3113, 4799.05, 14503.5.1, 14538, 14549.2, 14581, 42052, and 42060 of, to add Sections 14537.5, 14548, 14555, and 21166.3 to, to add Part 5 (commencing with Section 75250) to Division 44 of, and to repeal Section 75250.1 of, the Public Resources Code, to amend Section 43152.6 of, and to amend and repeal Section 43152.10 of, the Revenue and Taxation Code, to amend Section 13198 of the Water Code, to amend the Budget Act of 2021 (Chapters 21, 69, and 240 of the Statutes of 2021) by amending Item 8570-002-0001 of Section 2.00 of that act, and to amend the Budget Act of 2021 (Chapter 44 of the Statutes of 2022) by amending Items 3540-101-0001 of Section 2.00 of that act, relating to public resources, and making an appropriation therefor, to take effect immediately, bill related to the budget.

*[Approved by Governor September 27, 2022. Filed with Secretary of State September 27, 2022.]*

**AB 211**, Committee on Budget. Public resources trailer bill.

(2) Existing law requires the State Fire Marshal to identify areas of the state as moderate, high, and very high fire hazard severity zones based on specified criteria. Existing law requires a local agency to designate, by ordinance, very high fire hazard severity zones in its jurisdiction within 120 days of receiving recommendations from the State Fire Marshal. Existing law authorizes a local agency, at its discretion, to include areas within the jurisdiction of the local agency, not identified as very high fire hazard severity zones by the State Fire Marshal, as very high fire hazard severity zones following a finding supported by substantial evidence, as provided.

This bill would additionally require a local agency to designate, by ordinance, moderate and high fire hazard severity zones within 120 days of receiving recommendations from the State Fire Marshal. By expanding the responsibility of a local agency, the bill would impose a state-mandated local program. The bill would additionally authorize a local agency, at its discretion, to include areas within the jurisdiction of the local agency, not identified as moderate and high fire hazard severity zones by the State Fire Marshal, as moderate and high fire hazard severity zones, respectively. The bill would prohibit the local agency from decreasing the level of fire hazard severity zone as identified by the State Fire Marshal for any area within the jurisdiction of the local agency, as provided.



51178

Government Code  
Amended by SB 63  
Effective January 1, 2022

51178.5

Government Code  
Amended by SB 63  
Effective January 1, 2022

51179

Government Code  
Amended by AB 211  
Effective September 27, 2022

\$1280.02

Title 14  
California Code of Regulations  
Registered April 1, 2020



# LEGISLATIVE PROCESS

- Cal Fire strongly recommends cities to ratify as 51 State Statutes tied to FHSZ (building, insurance, real estate, CEQA, etc.)
- Can affect City's General and Safety plan

SECTION 4911  
MODEL ORDINANCE FOR FIRE HAZARD SEVERITY ZONE ADOPTION

ORDINANCE NO. \_\_\_\_\_

An ordinance of the City (or County or District) of \_\_\_\_\_ to designate fire hazard severity zones.

The \_\_\_\_\_ Council (or Board) of the \_\_\_\_\_ ordains as follows:

The City (or County or District) hereby designates the Fire Hazard Severity Zones as recommended by the California Department of Forestry and Fire Protection pursuant to Government Code Section 51178.

Or

☐ The City (or County or District) hereby designates areas not identified as Very High Fire Hazard Severity Zones by the State Fire Marshal, as Very High Fire Hazard Severity Zones following a finding supported by substantial evidence in the record that the requirements of Government Code Section 51182 are necessary for effective fire protection within the area \_\_\_\_\_

(and/or)

☐ The City (or County or District) hereby designates areas not identified as Moderate and High Fire Hazard Severity Zones by the State Fire Marshal, as Moderate and High Fire Hazard Severity Zones, respectively.

The map, approved by the city (or county or district), is hereby incorporated by reference, and entitled "City (or County or District) Fire Hazard Severity Zones."

Dated ( \_\_\_\_\_ ),

The official map is also located electronically on the following website: \_\_\_\_\_

On the motion of Member \_\_\_\_\_, seconded by Member \_\_\_\_\_

The roll call vote:

Ayes: \_\_\_\_\_ Noes: \_\_\_\_\_ Abstain: \_\_\_\_\_ Absent: \_\_\_\_\_

The foregoing ordinance was passed and adopted this day of \_\_\_\_\_, 20\_\_\_\_

Ordinance \_\_\_\_\_

(Name) \_\_\_\_\_

(City or County or Board of \_\_\_\_\_)

Attest \_\_\_\_\_ Approved as to form \_\_\_\_\_

(Name) \_\_\_\_\_ (Name) \_\_\_\_\_

Clerk \_\_\_\_\_ City or County or District Counsel \_\_\_\_\_





# TIMELINE

Two concurrent events:

The recommended LRA FHSZ maps must be made available for public review and comment within 30 days of receipt from the State Fire Marshal.

The recommended LRA FHSZ maps must be adopted by Ordinance within 120 days of receipt from the SFM.





# TIMELINE

- **March 24, 2025:** SFM releases recommended LRA FHSZ Maps.
- **March/April 2025:** Cities review with guidance from Fire Department for any recommended changes (Additions or increase FHSZ) Not allowed to remove or decrease FHSZ. **April 2025:** Maps with any recommended changes posted by cities for public review and comment. It must be within 30 days of release of Maps by SFM.
- **May 2025:** Prepare final maps with any recommended changes.
- **June 2025:** Adoption of maps by cities. It must be within 120 days of the release of maps by SFM.
- **July 22, 2025:** Send approved maps and ordinance to BOF within 30 days of adoption and before this date.
- **Effective Date of new maps:** 30 days after adoption unless specified by SFM.





# MORE INFORMATION

From Cal Fire



## Fire Hazard Severity Zones

**What is a Fire Hazard Severity Zone?**  
 Unincorporated fire-prone areas in the State are Moderate, High, and Very High Fire Hazard Severity Zones based on consistent statewide criteria and the severity of fire hazard that is expected to prevail in those areas. [CAL FIRE 51.125](#)

**When did Fire Hazard Severity Zones begin in Local Responsibility Areas?**  
 Assembly Bill 327 (June 1992), passed by the Legislature, directed Cal Fire to evaluate fire hazard severity in local responsibility areas and to make a recommendation to the local jurisdiction where Very High FHSD exist. [CAL FIRE 51.125](#)

**What do Fire Hazard Severity Zones measure?**  
 The maps evaluate "hazard", not "risk". Hazard is based on physical conditions that create expected fire behavior over a 50-year period without considering short-term modifications. Risk is the potential damage a fire can do to the area under existing conditions, including fuel reduction projects, defensible space, and ignition resistant building construction. [CAL FIRE 51.125](#)

**Will the new Fire Hazard Severity Zone maps affect my insurance?**  
 Insurance companies use risk models, which differ from hazard models, because they consider the susceptibility of a structure to damage from fire and other short-term factors that are not included in hazard modeling. Insurance risk models incorporate additional factors that change more frequently than those the CAL FIRE includes in its hazard mapping, which is built to remain steady. [California Department of Insurance](#)

**What are the requirements within Fire Hazard Severity Zones?**

- Materials and Construction Methods for Exterior Wildfire Exposure – [CAL Chapter 1A](#)
- Natural hazard risk assessment and disclosure of the fire hazard severity zone – [CAL FIRE 51.125](#)
- 100-foot defensible space clearance requirements – [CAL FIRE 51.125](#)
- Property development standards such as road widths, water supply, and signage – [CAL FIRE 42.02](#)
- Consideration during future development of Cities and Counties General Plans – [CAL FIRE 51.125](#)

## Frequently Asked Questions

**Is there an easy way to determine the Fire Hazard Severity Zone of my property?**  
 You can search by address to find your local responsibility area and the zones in California that are susceptible to wildfire. The process will incorporate new science in local climate data and improved fire assessment modeling in determining hazard ratings. [CAL FIRE 51.125](#)

**Why are Fire Hazard Severity Zones being updated?**  
 The hazard maps are being updated to more accurately reflect the zones in California that are susceptible to wildfire. The process will incorporate new science in local climate data and improved fire assessment modeling in determining hazard ratings. [CAL FIRE 51.125](#)

**What are the key elements of the Fire Hazard Severity Zone Model?**  
 The model has two key elements: probability of an area burning and expected fire behavior under extreme fuel and weather conditions. The factors considered in determining fire hazard within wildland areas is fire history, flame length, terrain, local weather, and potential fuel over a 50-year period. Outside of wildlands, the model considers factors that might lead to buildings being threatened, including terrain, weather, urban vegetation cover, blowing embers, proximity to wildland, fire history, and fire hazard in nearby wildlands. This is not a structure loss model, as key information regarding structure ignition is not included. [CAL FIRE 51.125](#)

**Why does the model place an emphasis on the spread of embers?**  
 Embers spread wildfire because they can travel long distances in the wind and ignite vegetation, roofs, areas (the getting into vents), and decks. [CAL FIRE 51.125](#)

**What is the difference between SRA and LRA?**  
 State Responsibility Area (SRA) is a legal term defining the area where the State has financial responsibility for wildfire fire protection and prevention. [CAL FIRE 51.125](#)  
 Local Responsibility Area (LRA) includes incorporated cities, urban regions, agriculture lands, and portions of the desert where the local government is responsible for wildfire protection. [CAL FIRE 51.125](#)

**How are Fire Hazard Severity Zones determined in Local Responsibility Areas?**  
 CAL FIRE uses an extension of the state responsibility area Fire Hazard Severity Zone model as the basis for evaluating fire hazard in Local Responsibility Areas. The Local Responsibility Area hazard rating reflects fire and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. [CAL FIRE 51.125](#)

**1984**

Paradise Fire burns 28,800 acres, destroying 125 structures and resulting in 23 fatalities in San Bernardino.

FHC 4201 mandates that CAL FIRE develop Fire Hazard Severity Zones.

**1982**

**1991**

Tunnel Fire burns 16,800 acres, destroying 2,500 structures and resulting in 29 fatalities in the Oakland Hills.

Fire Hazard Severity Zone maps are created.

**1985**

**1992**

The "Better Bill" calls for CAL FIRE to identify Very High Fire Hazard Severity Zones in LRA.

**1997**

**2007**

CAL FIRE releases the Statewide FHSD Model to include Very High FHSD in LRA.

**2021**

**2022**

AB 642 and SB 63 require CAL FIRE to identify Moderate and High FHSD in LRA.

AB 211 requires local agencies to designate to determine Moderate and High FHSD in LRA.

Compare New and Old LRA FHSZ







# Steps to Incorporate Maps

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On March 24, 2025, the maps were published

The City is informing the public and soliciting feedback through:

- 4/30 Info Session
- Webpage: [www.rpvca.gov/emergency](http://www.rpvca.gov/emergency)
- Email feedback to [Lmohammad@rpvca.gov](mailto:Lmohammad@rpvca.gov)

City staff will assess maps with local fire department and make suggestions to City Council on potential modifications (can increase, but not decrease zones)





# Steps to Incorporate Maps

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By July 22<sup>nd</sup> the City must adopt, by ordinance, the recommended map, with or without modification

- June 17<sup>th</sup> Regular Item at City Council Meeting
- July 1<sup>st</sup> Consent Item at City Council Meeting

The Map will be incorporate into City Plans, including during this year's regular update of the

- Multi-Jurisdictional Hazard Mitigation Plan and
- General Plan Safety Element





# QUESTIONS?

Please line up at the mic to ask any questions.

If you are watching remotely, please email [Lmohammad@rpvca.gov](mailto:Lmohammad@rpvca.gov) with your questions and feedback.

Answers to all questions will be posted on the City website:  
[www.rpvca.gov/emergency](http://www.rpvca.gov/emergency)