

RPV FIRE HAZARD SEVERITY ZONE INFO SESSION

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





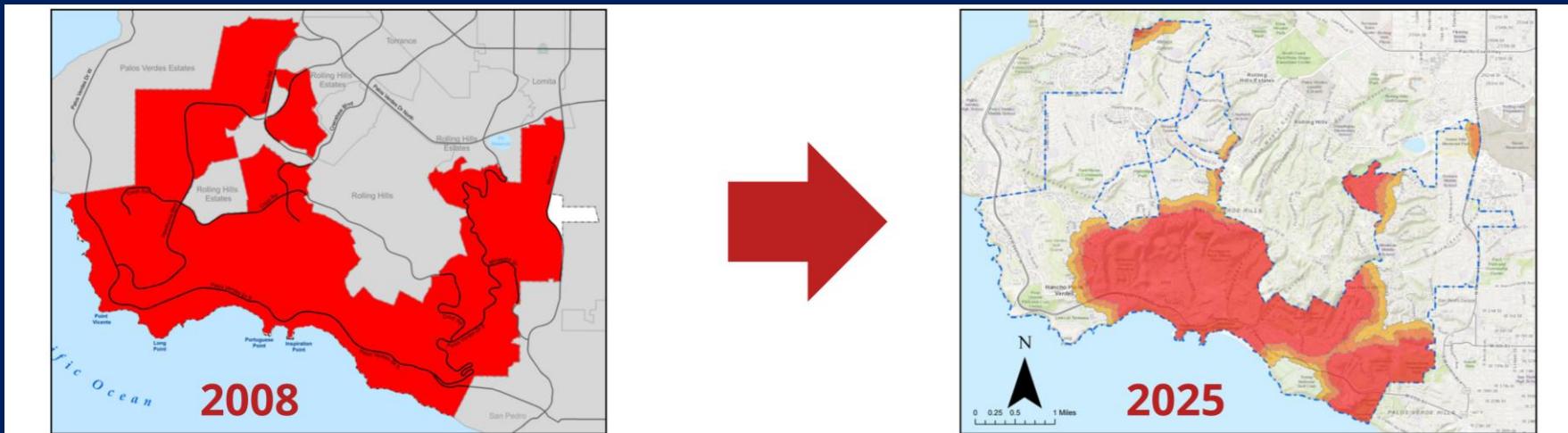
AGENDA

- 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

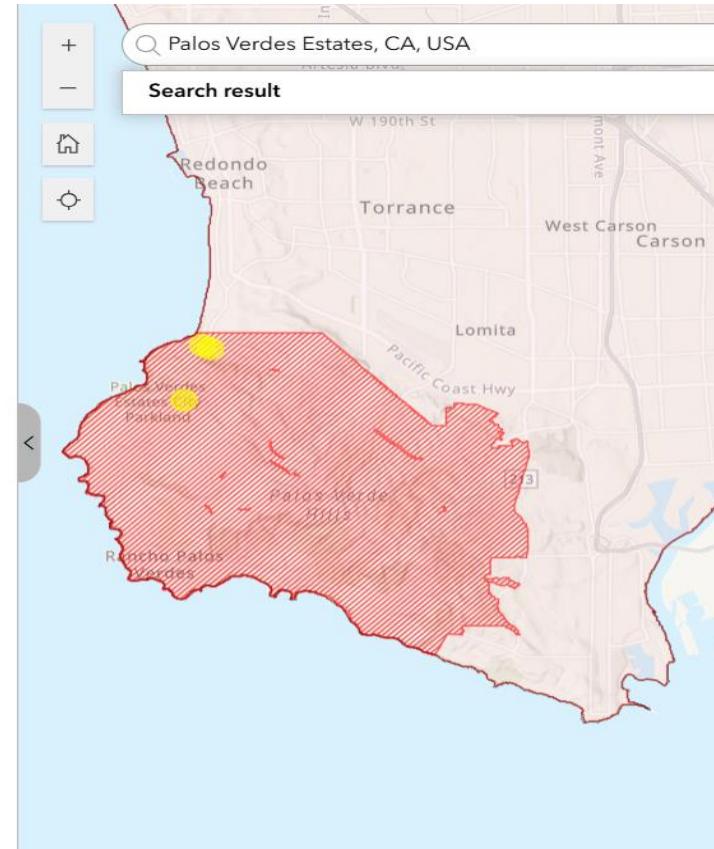
Drag the **slider** in the middle of this map back and forth to compare old (2007-2011) with new (2025) Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as recommended by the State Fire Marshal.

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

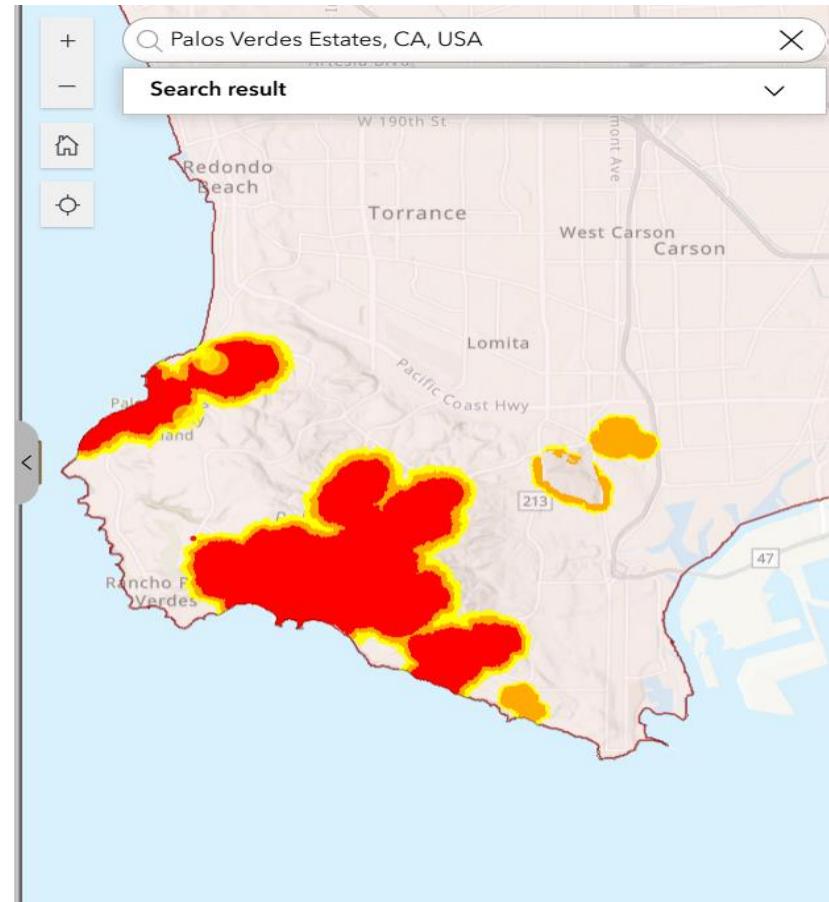
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FHSZ ROLLOUT PLAN

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 UPDATED

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



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

<u>ORDINANCE NO. _____</u>	
<u>An ordinance of the City (or County or District) of _____ to designate fire hazard severity zones.</u>	
<u>The _____ Council (or Board) of the _____ ordains as follows:</u>	
<u>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</u>	
<u>Or</u>	
<u><input type="checkbox"/> 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.</u>	
<u>(and/or)</u>	
<u><input type="checkbox"/> 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.</u>	
<u>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."</u>	
<u>Dated _____</u>	
<u>The official map is also located electronically on the following website: _____</u>	
<u>On the motion of Member _____, seconded by Member _____</u>	
<u>The roll call vote:</u>	
<u>Ayes: _____</u>	<u>Noes: _____</u>
<u>Abstain: _____</u>	<u>Absent: _____</u>
<u>The foregoing ordinance was passed and adopted this day of _____, 20_____</u>	
<u>Ordinance _____</u>	
<u>(Name) _____</u>	
<u>(City or County or Board of _____)</u>	
<u>Attest: _____ Approved as to form: _____</u>	
<u>(Name) _____ (Name) _____</u>	
<u>Clerk _____ City or County or District Counsel _____</u>	



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?
The State Fire Marshal shall identify areas in the State as Moderate, High, and Very High Hazard Severity Zones based on consistent statewide criteria and the severity of fire hazard that is expected to prevail in those areas. [CFRS 800](#)

What are Fire Hazard Severity Zone maps in Local Responsibility Areas?
Assembly Bill 337 (Gillis, 1992) required for the devastating Oakland Hills fire of 1991, calls for CAL FIRE to evaluate hazard severity in local responsibility area and to make a recommendation to the local jurisdiction where Very High FHSZ exist. [AB 337](#)

What do Fire Hazard Severity Zones measure?
The maps evaluate "hazard," not "risk." They are based on physical conditions that create expected fire threat 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 reduction (building construction). [CAL FIRE FHSZ](#)

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 models. Insurance companies use risk models to determine premiums, which change more frequently than those the CAL FIRE includes in its hazard mapping, which is built to remain steady. [CAL FIRE FHSZ](#)

What are the requirements within Fire Hazard Severity Zones?
• Materials and Construction Methods for External Wildfire Exposure – [CFC Chapter 1A](#)
• New hazard real estate disclosure at the time of sale – [CFC Chapter 1A, Sections 1024.43.108-10.4032](#)
• Wildland-urban interface (WUI) – [CFC Chapter 1A, Sections 1024.43.108-10.4032](#)
• Property development standards such as road widths, water supply, and signage – [CFRC 4200](#)
• Consideration during future development of Cities and Counties General Plan – [CFRC 42002](#)

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 current designation on the website. [www.fire.ca.gov/FHSZ](#)

Why are Fire Hazard Severity Zones being updated?
The maps are being updated to more accurately reflect the areas in California that are susceptible to wildfire. The process will incorporate the latest data and improved fire assessment modeling in determining hazard ratings. [PRC 4200](#) and [PRC 5112](#)

What are the key elements of the Fire Hazard Severity Zone Model?
The model has been developed based on an area's size and expected the behavior under extreme fuel and weather conditions. The factors considered in determining fire hazard within wildland areas include: slope, aspect, angle, and vegetation type. Outside of wildland areas, the model considers factors that might lead to buildings to be threatened, including terrain, weather, urban vegetation cover, blowing embers, proximity to wildland, and fire history. The model does not consider the use of structures made, as key information regarding structure ignition is not included. [CAL FIRE FHSZ](#)

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

What is the difference between the LRA and LSA?
State Responsibility Area (SRA) is a legal term defining the area where the State has financial responsibility for wildland fire protection and prevention. [CAL FIRE LSA](#)
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 LRA](#)

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 Area. The Local Responsibility Area hazard rating reflects home and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. [CAL FIRE LRA](#)

1980 Panorama Fire burns 28,800 acres, destroying 325 homes, and 14 fatalities in San Bernardino.
1982 PRC 4200 mandates that CAL FIRE develops Fire Hazard Severity Zones.
1985 Fire Hazard Severity Zone maps are created.
1991 Turner Fire burns 1,600 acres, destroying 2,000 structures and 25 fatalities in the San Joaquin.
1992 The "Bates Bill" calls for CAL FIRE to identify Very High Fire Hazard Severity Zones in LRA.
2007 CAL FIRE finalizes the Statewide Fire Hazard Severity Zones. These include Very High FHSZ in LRA.
2017 Tubbs Fire burns 36,810 acres, destroying 5,943 homes, and 44 fatalities in Santa Rosa.
2018 Camp Fire burns 153,356 acres, destroying 18,804 homes, and 85 fatalities in Paradise.
2021 AB 640 and SB 63 require CAL FIRE to identify Fire Hazard Severity Zones and FHSZ in LRA.
2022 AB 711 requires local agency to designate by ordinance Moderate, High, and Very High FHSZ in LRA.

Compare New and Old LRA FHSZ





Steps to Incorporate Maps

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
- Email feedback to 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

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

- June 17th Regular Item at City Council Meeting
- July 1st 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 with your questions and feedback.

Answers to all questions will be posted on the City website:

www.rpvca.gov/emergency