



**CAL FIRE**

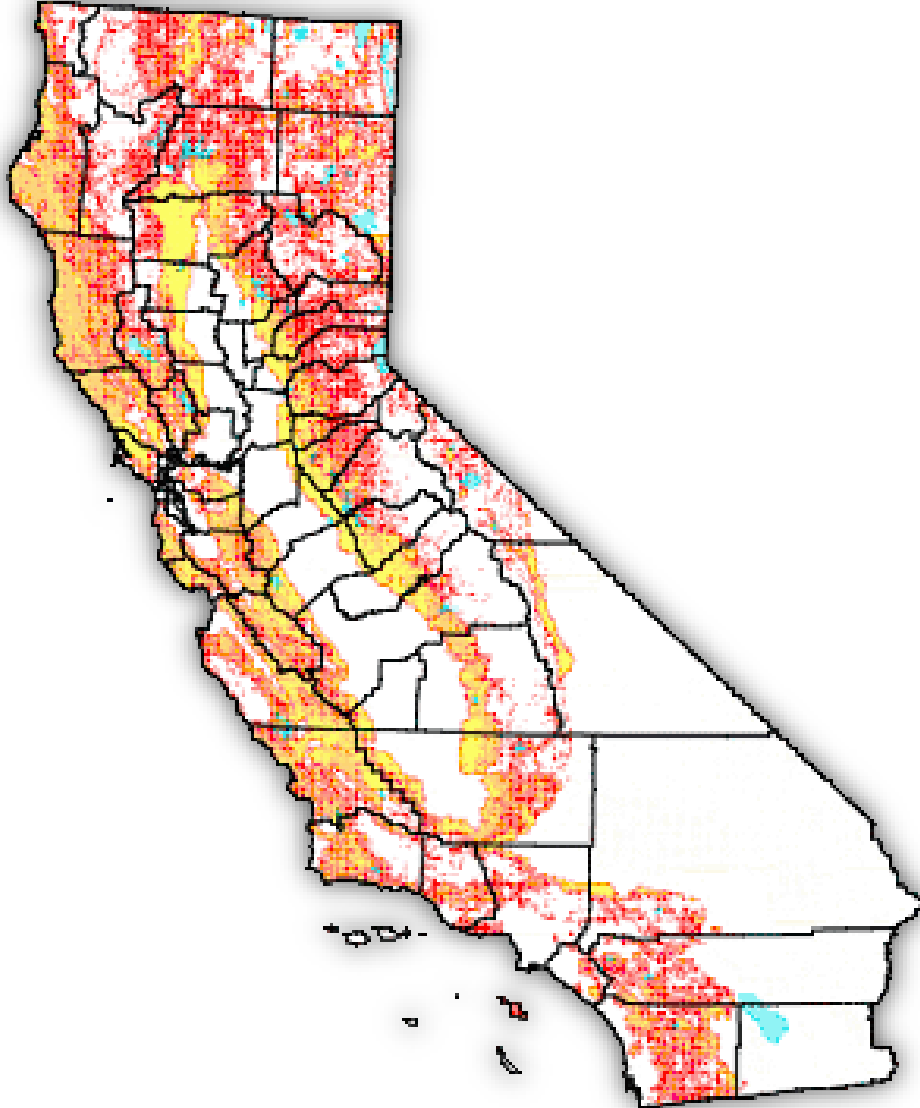
**Office of the State Fire Marshal**

**Community Wildfire Preparedness and Mitigation Division**

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**December 13, 2023**

# Fire Hazard Severity Zones (FHSZ)



## What are the Zones?

- The maps are required by law
  - ✓ CCR 1280.0, PRC 4201-4204
  - ✓ CCR 1280.2, Gov Code 51178-51179
- Maps Hazard not “RISK”
- Identify levels of fire hazard
- 3 levels (Moderate, High, & Very High)

# Fire Hazard Severity Zones (FHSZ)

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## What is the map for?

- ❑ Building standards for new construction in the Wildland-Urban Interface
- ❑ Natural hazard real estate disclosure
- ❑ Property development standards such as road widths, water supply and signage
- ❑ Consideration in city and county general plans





# Fire Hazard Severity Zones (FHSZ)

## Why is it important?

		Responsibility Area			
		Local (LRA)	State (SRA)	Federal (FRA)	
Fire Hazard Severity Zones	Existing				
	New				
	Very High	Existing	Fire Hazard Severity Zone Maps	Fire Hazard Severity Zone Maps	
		Existing	CBC Chapter 7A	CBC Chapter 7A	
		Existing	State Fire Safe Regulations	State Fire Safe Regulations	
		Existing	Defensible Space (GC 51182)	Defensible Space (PRC 4291)	
		Existing	Real Estate Hazard Disclosure	Real Estate Hazard Disclosure	
		Existing	Dspace Real Estate Compliance	Dspace Real Estate Compliance	
		Existing	Subdivision Review	Subdivision Review	
	High	New	FHSZ Maps (AB 642 and SB 63)	Fire Hazard Severity Zone Maps	
		New	CBC Chapter 7A (SB 63)	CBC Chapter 7A	
		New	Dspace Real Estate Compliance	State Fire Safe Regulations	
		Existing		PRC 4291 Defensible Space	
		Existing		Real Estate Hazard Disclosure	
		Existing		Dspace Real Estate Compliance	
		Existing		Subdivision Review	
	Moderate	New	FHSZ Maps (AB 642 and SB 63)	Fire Hazard Severity Zone Maps	
		New	CBC Chapter 7A (SB 63) TBD	CBC Chapter 7A	
		Existing		State Fire Safe Regulations	
		Existing		PRC 4291 Defensible Space	
		Existing		Real Estate Hazard Disclosure	
		Existing		Subdivision Review	
		Existing			



# How are the Zones Determined

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- ❑ Developed using a science-based model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior.
- ❑ Factors:
  - ✓ Fire history
  - ✓ Vegetation
  - ✓ Topography
  - ✓ Climate
  - ✓ Ember production and movement







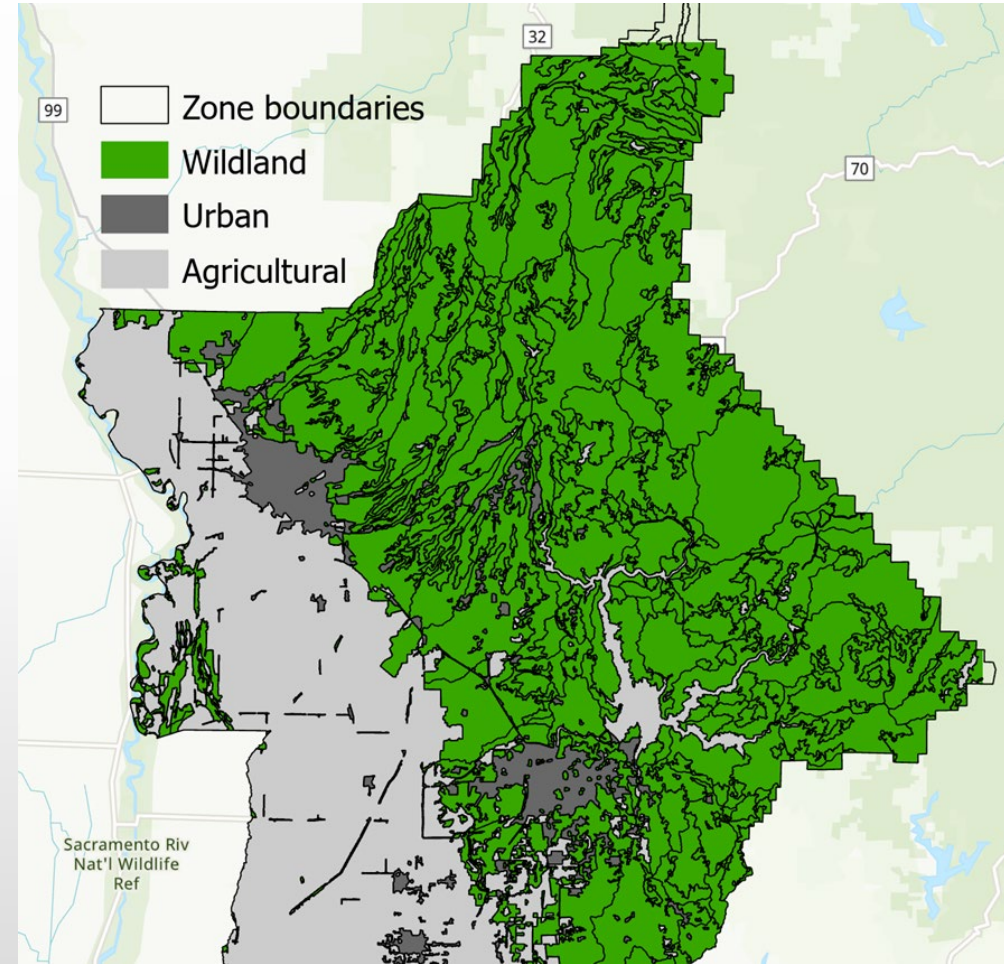
## New Updates

- ✓ Updated burn probabilities for wildland areas (inclusive of 2020 fires)
- ✓ Updated fire environment footprints (urban/developed)
- ✓ Updated Vegetation density for urban areas
- ✓ Inclusion of slope in the urban zoning model
- ✓ **Localized fire weather used in both wildland and urban models**
- ✓ **New firebrand production and transport model using discrete local wind vector distributions**

# Fire Hazard Severity Zones (FHSZ)

## Wildland vs. Non-wildland Zones

- ❑ Zones are areas  $\geq 200$  acres with relatively homogeneous slope and vegetation
- ❑ Hazard map is produced at 30 m resolution
- ❑ Scores are averaged within a zone
- ❑ Wildland is scored independently of urban and agricultural
- ❑ Urban zones scored using additional model steps



# Fire Hazard Severity Zones (FHSZ)

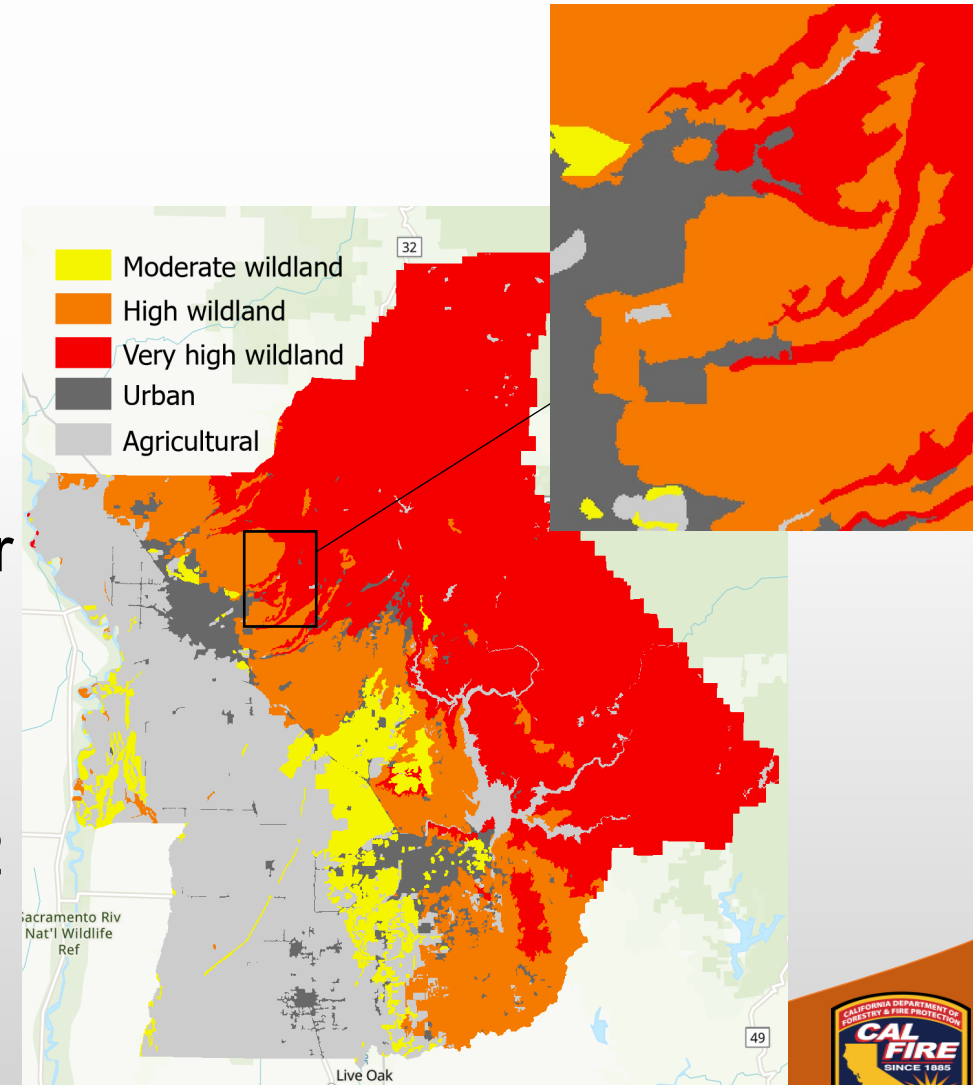
## Wildland FHSZ

### □ Burn probability

- ✓ Based on fire occurrence from 1991-2020

### □ Fire intensity

- ✓ Vegetation type (potential; does not account for fuel treatments)
- ✓ Slope
- ✓ Local fire weather – how hot/dry/windy are the worst conditions at a given location (based on 2 km data from 2003-2018)

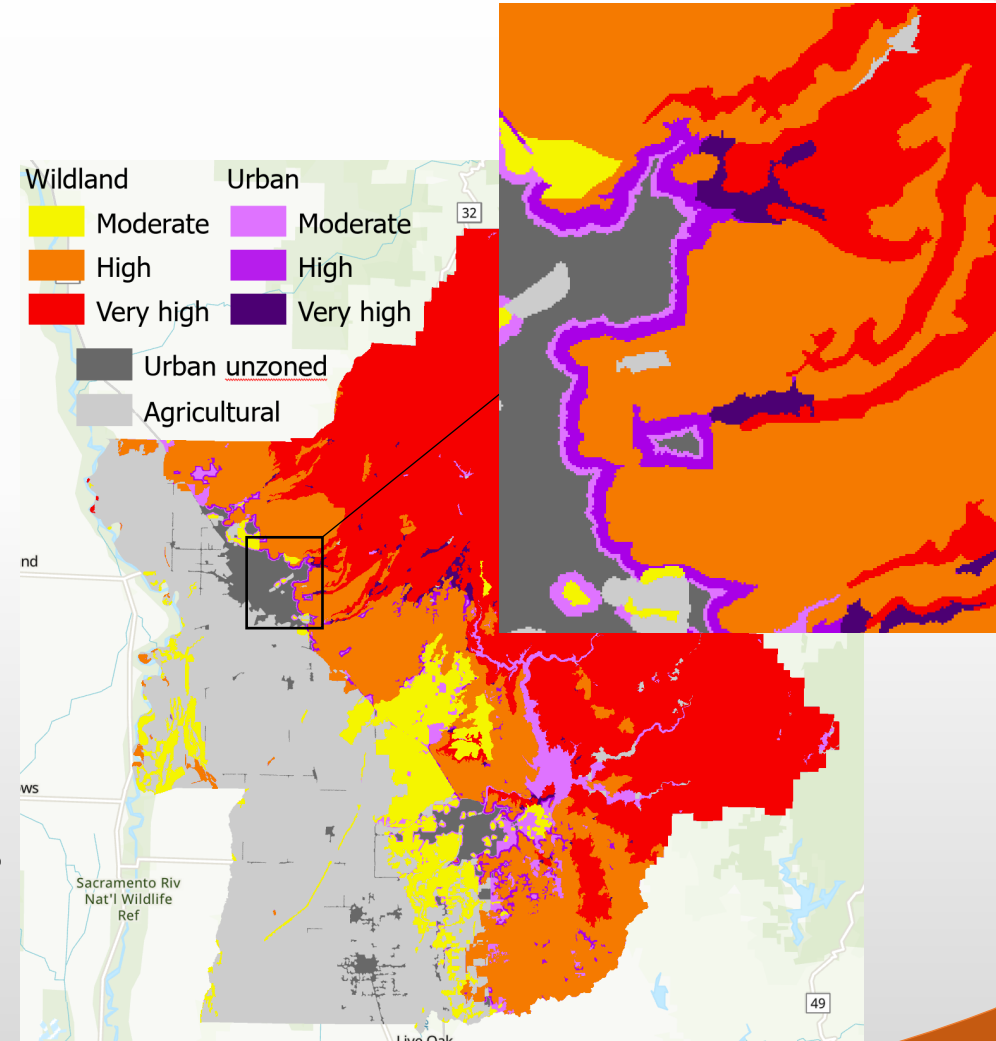




# Fire Hazard Severity Zones (FHSZ)

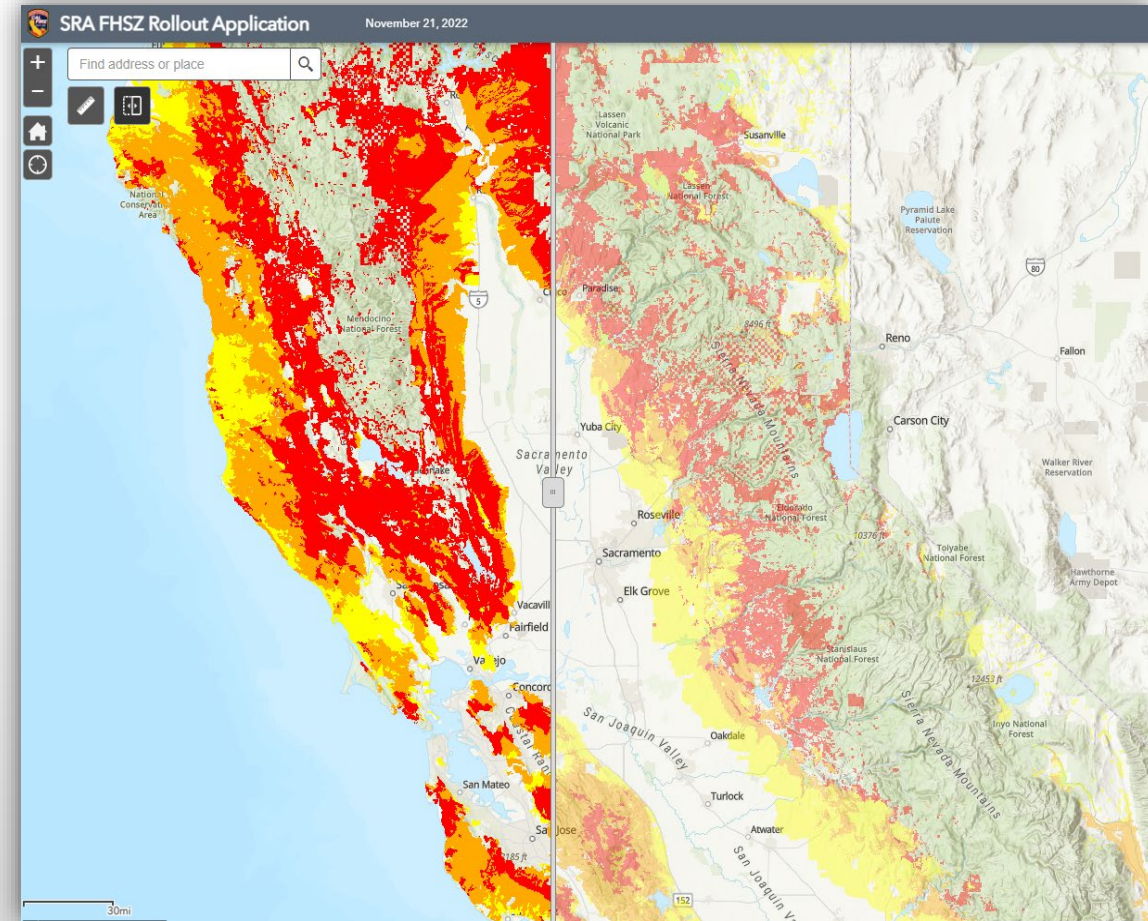
## Urban FHSZ

- ❑ Based on distance to wildland and hazard level of adjacent wildland
- ❑ Ember production based on vegetation type and fire weather
- ❑ Ember transport based on wind speed/direction observed under the most extreme fire weather at a given location
- ❑ Width of moderate, high and very high bands in urban based on ember load, urban tree cover and slope
- ❑ All unclassified SRA → Moderate



# Fire Hazard Severity Zones (FHSZ)

- ❑ CAL FIRE has been working on the update of the FHSZ maps for some time.
- ✓ First public comment began on the new regulation December 16, 2022, and ended April 4, 2023
- ✓ Public Hearings in each County with SRA completed February 3, 2023
- ✓ Two additional public Comments
  - ✓ June 26 to August 9, 2023
  - ✓ October 16 to November 1, 2023
  - ✓ Over 1400 comments received
- ❑ Final OAL package to be submitted by December 15, 2023





# LRA Adoption Process

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- ❑ 60-day notice prior to start of local review process
  - ❑ Initial meeting to describe process
  - ❑ Set training dates
- ❑ 60-day local review
- ❑ FRAP review of comments
- ❑ Final recommendation submitted to governing body





- ❑ City / County has 30 days to set public comment and 120 to adopt through ordinance
- ❑ A local agency may, at its discretion, 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.
- ❑ The local agency shall transmit a copy of the adopted ordinance to the State Board of Forestry and Fire Protection within 30 days of adoption



# Wildfire Mitigation & Insurance

## Safer from Wildfires in

1

2

3

### 1 Protecting the structure



- Class-A Fire rated roof
- Maintain a 5 foot ember-resistant zone around a home (including fencing within 5 feet)
- Noncombustible 6 inches at the bottom of exterior walls
- Ember and fire-resistant vents (See Low-Cost Retrofit List, and Chapter 7A)
- Upgraded windows (Double paned or added shutters)
- Enclosed eaves

### 2 Protecting the immediate surroundings



- Cleared vegetation and debris from under decks
- Removal of combustible sheds and other outbuildings from the immediate surroundings of the home, to at least a distance of 30 feet
- Defensible space compliance (including trimming trees, removal of brush and debris from yard, and compliance with state law and local ordinances)

### 3 Working together as a community

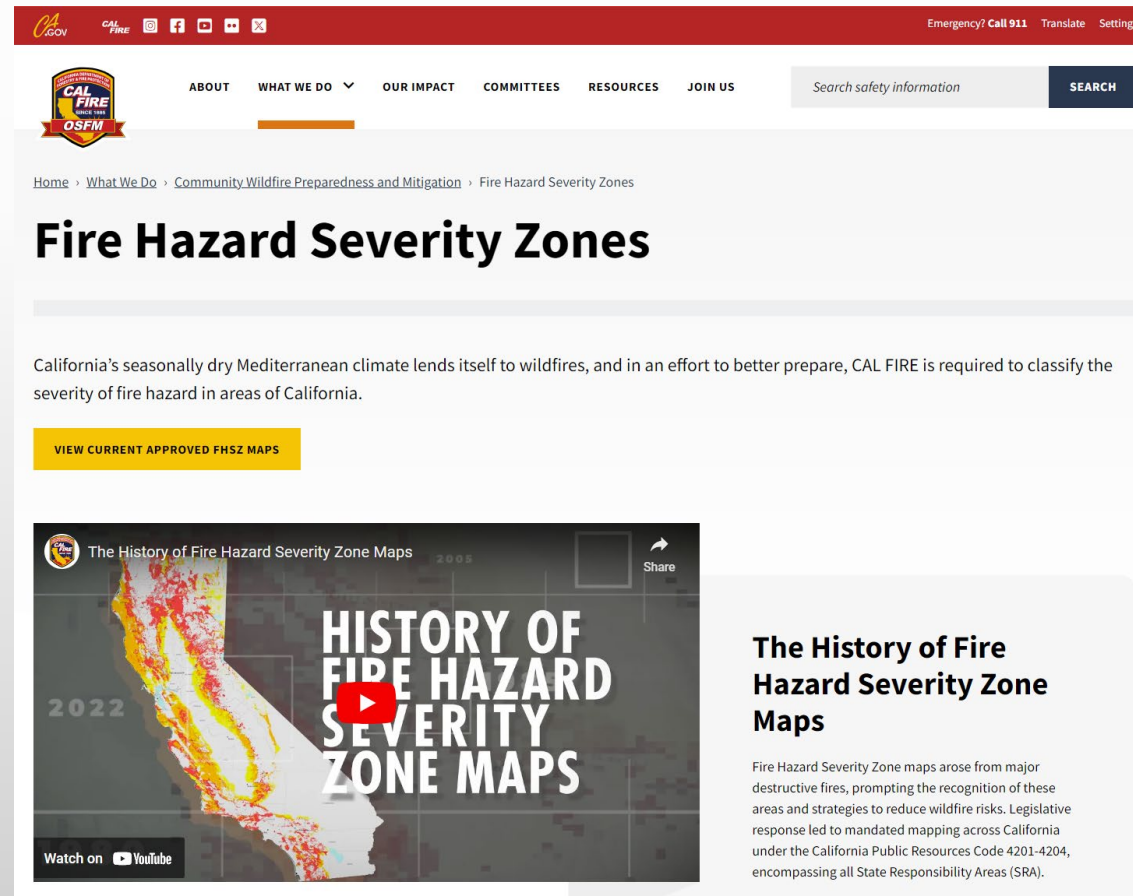


- A community should have clearly defined boundary and a local risk assessment in consultation with the local fire district or state fire agency; an identified evacuation route, cleared of vegetative overgrowth, and evacuation plan contingencies; clear funding sources to implement community mitigation activities and meet clear risk reduction goals; and integrated and up-to-date local planning documents pertinent to community wildfire risk.
- Current examples include the Fire Risk Reduction Community designation under development by the Board of Forestry, Firewise USA communities in good standing, and Shelter-in-Place designations.

# Questions?

## Web Information:

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



The screenshot shows the CAL FIRE website page for Fire Hazard Severity Zones. The page features a navigation bar with the CAL FIRE logo, social media icons, and a search bar. The main content area includes a breadcrumb trail, a title, a paragraph of text, a yellow button, and a video player.

Emergency? Call 911 Translate Settings

ABOUT WHAT WE DO OUR IMPACT COMMITTEES RESOURCES JOIN US Search safety information SEARCH

Home > What We Do > Community Wildfire Preparedness and Mitigation > Fire Hazard Severity Zones

## Fire Hazard Severity Zones

California's seasonally dry Mediterranean climate lends itself to wildfires, and in an effort to better prepare, CAL FIRE is required to classify the severity of fire hazard in areas of California.

[VIEW CURRENT APPROVED FHSZ MAPS](#)

The History of Fire Hazard Severity Zone Maps

2022

HISTORY OF FIRE HAZARD SEVERITY ZONE MAPS

Watch on YouTube

The History of Fire Hazard Severity Zone Maps

Fire Hazard Severity Zone maps arose from major destructive fires, prompting the recognition of these areas and strategies to reduce wildfire risks. Legislative response led to mandated mapping across California under the California Public Resources Code 4201-4204, encompassing all State Responsibility Areas (SRA).

