

# San Marcos Pass- Eastern Goleta Valley Mountainous Communities Community Wildfire Protection Plan

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Board of Supervisors Hearing  
March 5, 2019

# Presentation Overview

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- ▶ **Community Wildfire Protection Plan Overview**
- ▶ **Background**
- ▶ **SMP-EGV CWPP Overview**
- ▶ **Fire Department Recommendation**

# What is a Community Wildfire Protection Plan (CWPP)?

A plan for at-risk communities that-

- ▶ Is developed collaboratively
- ▶ Identifies and prioritizes areas for hazardous fuel reduction treatments and recommends *Best Management Practice*
- ▶ Recommends measures to reduce structural ignitability



# A Community Wildfire Protection Plan is not...

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- ▶ A Decision Document
- ▶ A Vegetation Management Plan
- ▶ An Environmental Analysis Document
- ▶ A Project

**CWPP's are educational documents that make recommendations but do not commit agencies or the public to a course of action.**





# Plan Requirements

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- ▶ Minimum Requirements
  - ▶ Regional collaboration
  - ▶ Develop prioritized hazardous fuel treatment units
  - ▶ Develop strategies to reduce structural ignitability
- ▶ Plan Approval
  - ▶ Local Government (Santa Barbara County Board of Supervisors)
  - ▶ Local & State Fire Agencies (Santa Barbara County and CAL FIRE)
- ▶ Benefits of an Approved Plan
  - ▶ Identify and clarify priorities for the protection of life, property, and critical resources
  - ▶ Access to federal and state grant funds to accomplish wildfire hazard mitigation work

# Background

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- ▶ Eastern Goleta Valley Community Plan (EGVCP) October 2016
- ▶ Mountain area residents formed an initial steering committee
- ▶ Santa Barbara County Fire and US Forest Service Involvement
- ▶ Geo Elements LLC selected as consultant
- ▶ Public Workshop held on January 26, 2017
- ▶ The SMP-EGV CWPP Development Team formed January 30, 2017
- ▶ Grant funding secured by the Santa Barbara County Fire Safe Council
- ▶ The Initial Draft Plan was released in July, 2017
- ▶ The Final Draft (Version 10) released on December 1, 2018
- ▶ Final Public Workshop held on February 7, 2019

# Purpose of the Plan

To enhance community wildfire preparedness and protection by identifying fire hazard risk reduction strategies that are in balance with sustainable ecological management and fiscal resources



# Goals and Objectives

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- ▶ Reduce the wildfire threats within the wildland urban interface/intermix (WUI) to promote life safety
- ▶ Enhance protection of values at risk from wildfire
- ▶ Balance wildfire protection strategies with natural and cultural resource sustainability
- ▶ Identify funding opportunities including grants for wildfire risk reduction



# Major Components of the Plan

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- ▶ **Wildfire Hazard Assessment**
- ▶ **Wildfire Risk Assessment- Community Based**
  - ▶ Building construction- roofs, siding, windows, eaves
  - ▶ Proximity of structures to wildland fuel
  - ▶ Road access
  - ▶ Availability of water
  - ▶ Wildfire ignition history
- ▶ **Identification of values at risk** including life, property, critical infrastructure, natural and cultural resources, and recreational amenities threatened by wildfire

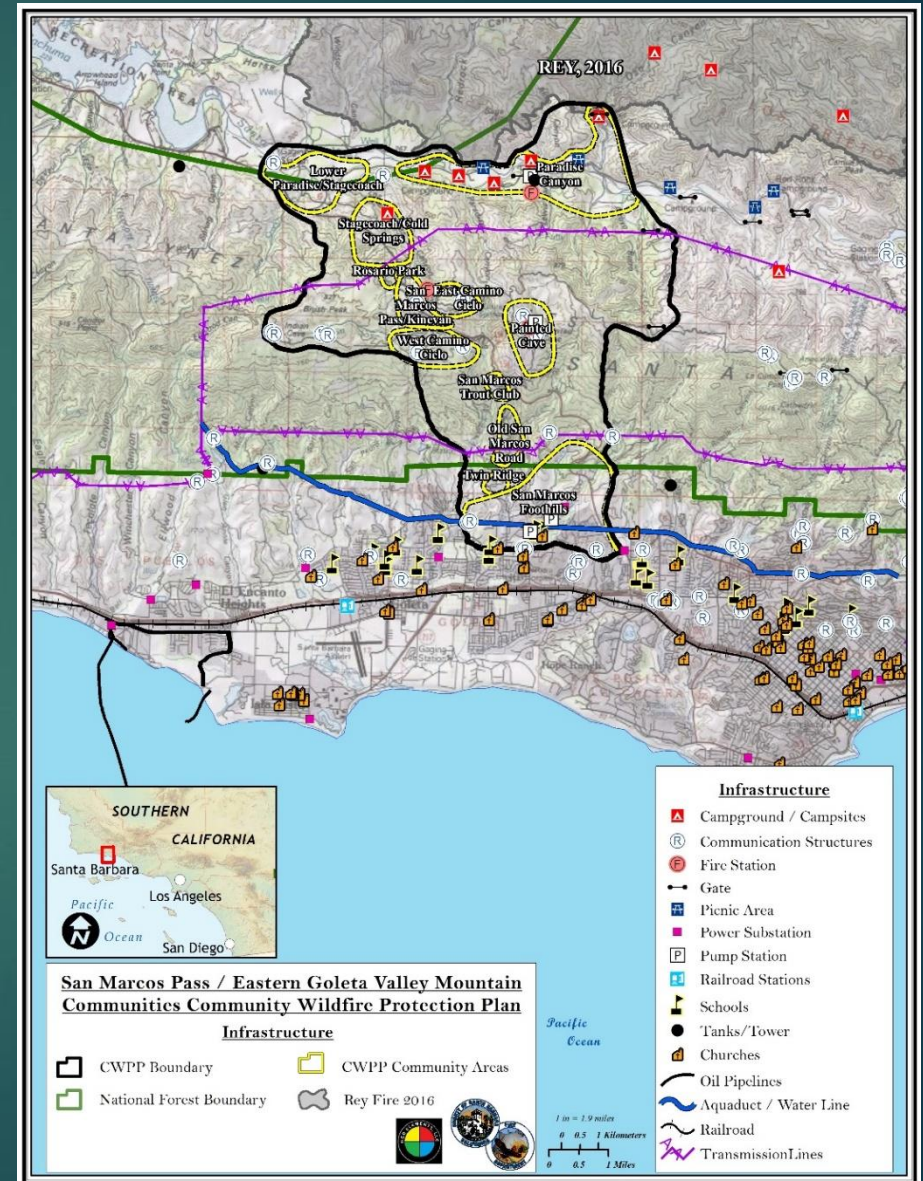
# Major Components of the Plan

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- ▶ **Identification of structure hardening measures**
- ▶ **Identification of potential hazardous fuel reduction treatments**
- ▶ **Best Management Practices** to minimize and mitigate potential adverse environmental impacts that could result from fuel reduction activities
- ▶ **Recommendations**

# SMP-EGV CWPP Plan Area

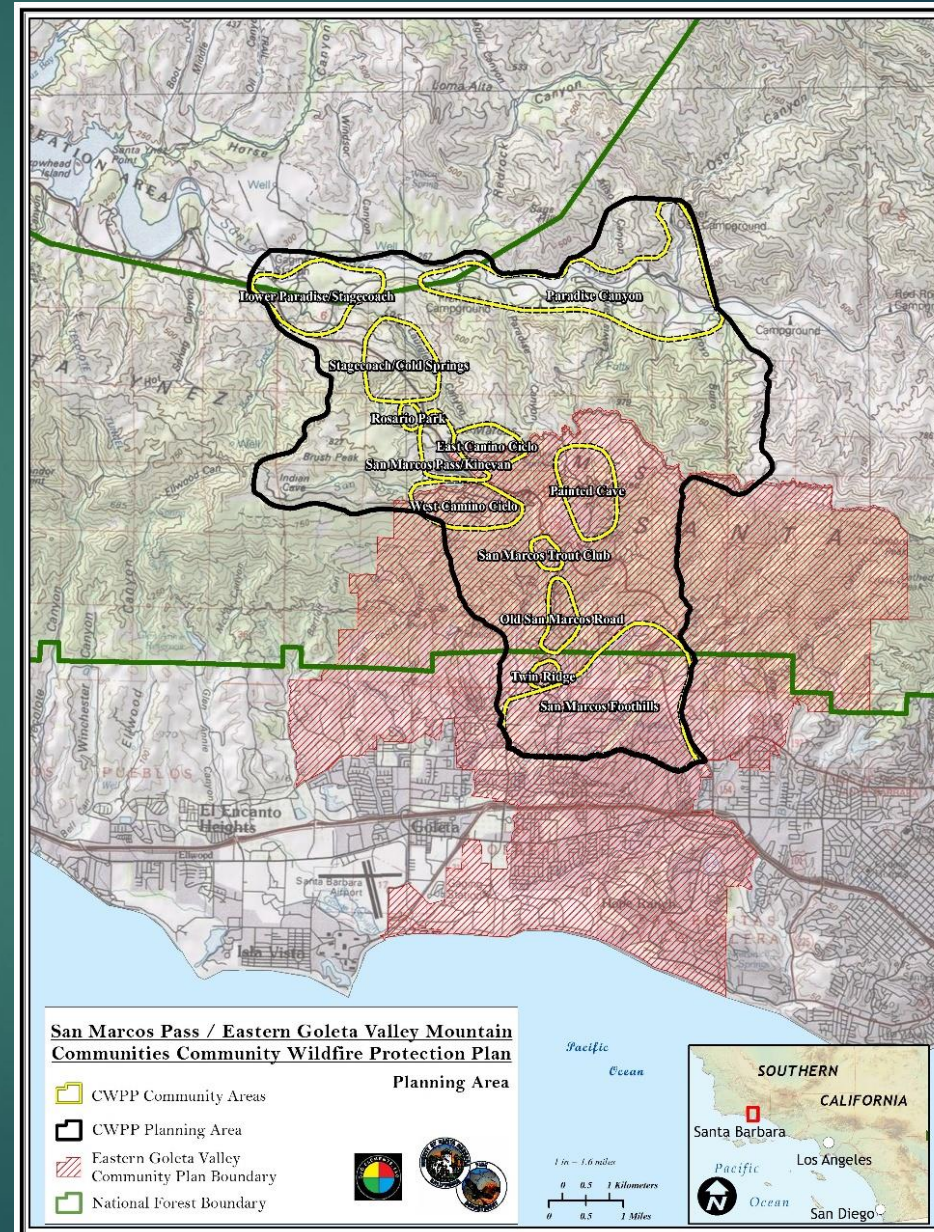
- ▶ 29 Square Miles
- ▶ 19,588 Acres
- ▶ Population 7,322
- ▶ 12 communities
- ▶ 1,121 structures
- ▶ 16 recreation facilities
- ▶ Santa Ynez Recreation Area
- ▶ Highway 154
- ▶ Regional high-voltage transmission lines





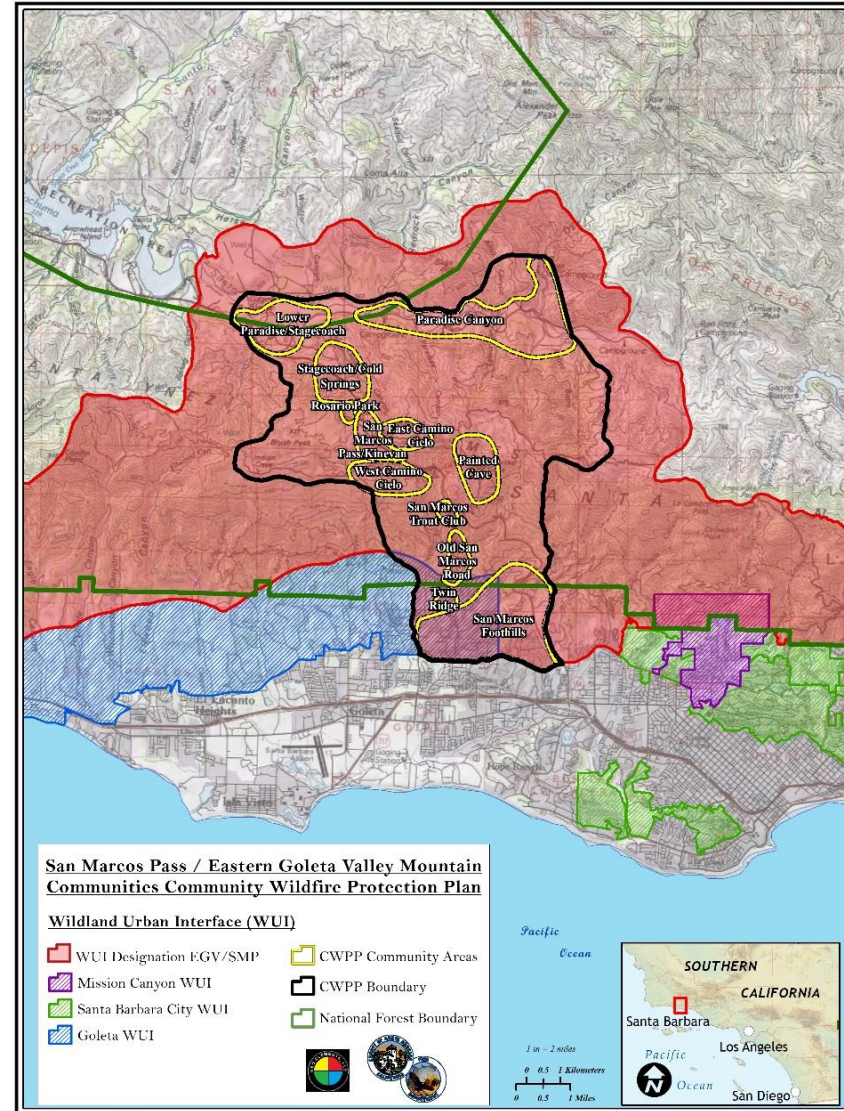
# SMP-EGV CWPP Plan Area

- ▶ San Marcos Foothills
- ▶ Twinridge
- ▶ Old San Marcos Road
- ▶ San Marcos Trout Club
- ▶ Painted Cave
- ▶ East Camino Cielo
- ▶ West Camino Cielo
- ▶ San Marcos Pass/Kinevan
- ▶ Rosario Park
- ▶ Stagecoach/Cold Springs
- ▶ Paradise





# SMP-EGV CWPP Wildland Urban Interface



# Wildfire Analyses

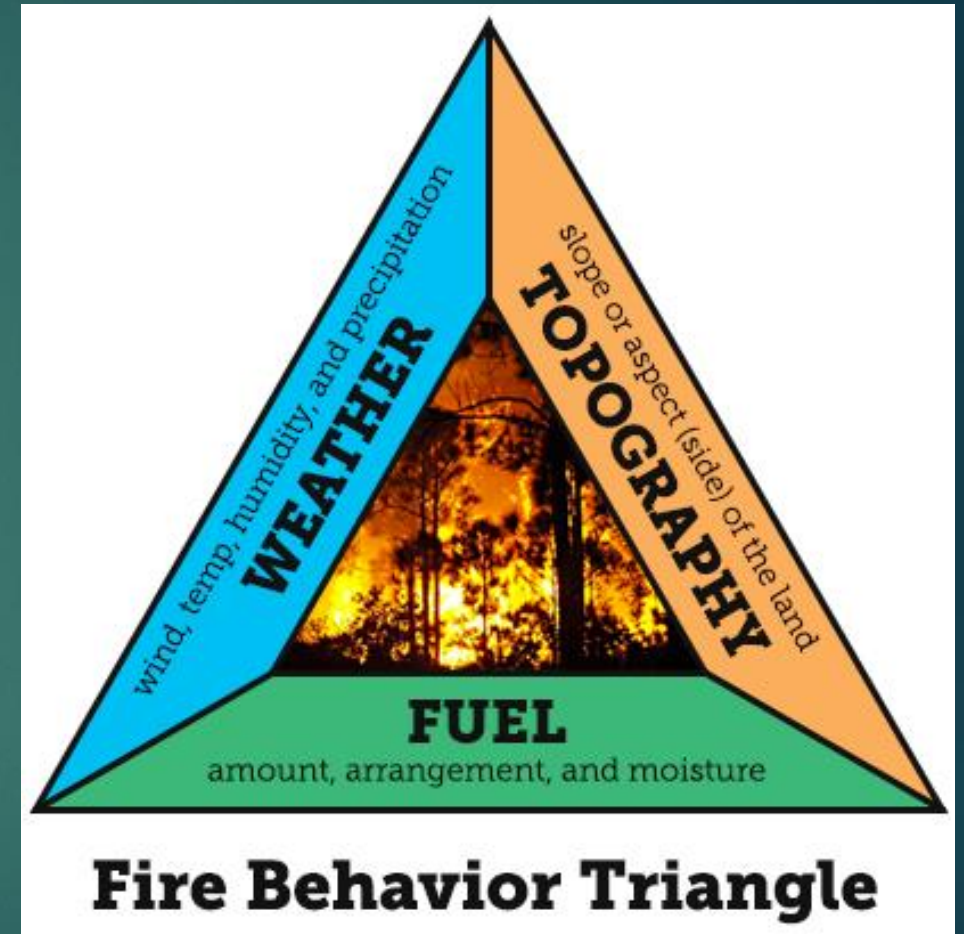
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## ▶ Hazard Assessment

- ▶ Fuel, Weather, Topography
- ▶ Fire Behavior Modeling
- ▶ Very High, High, Moderate, Low

## ▶ Risk Assessment

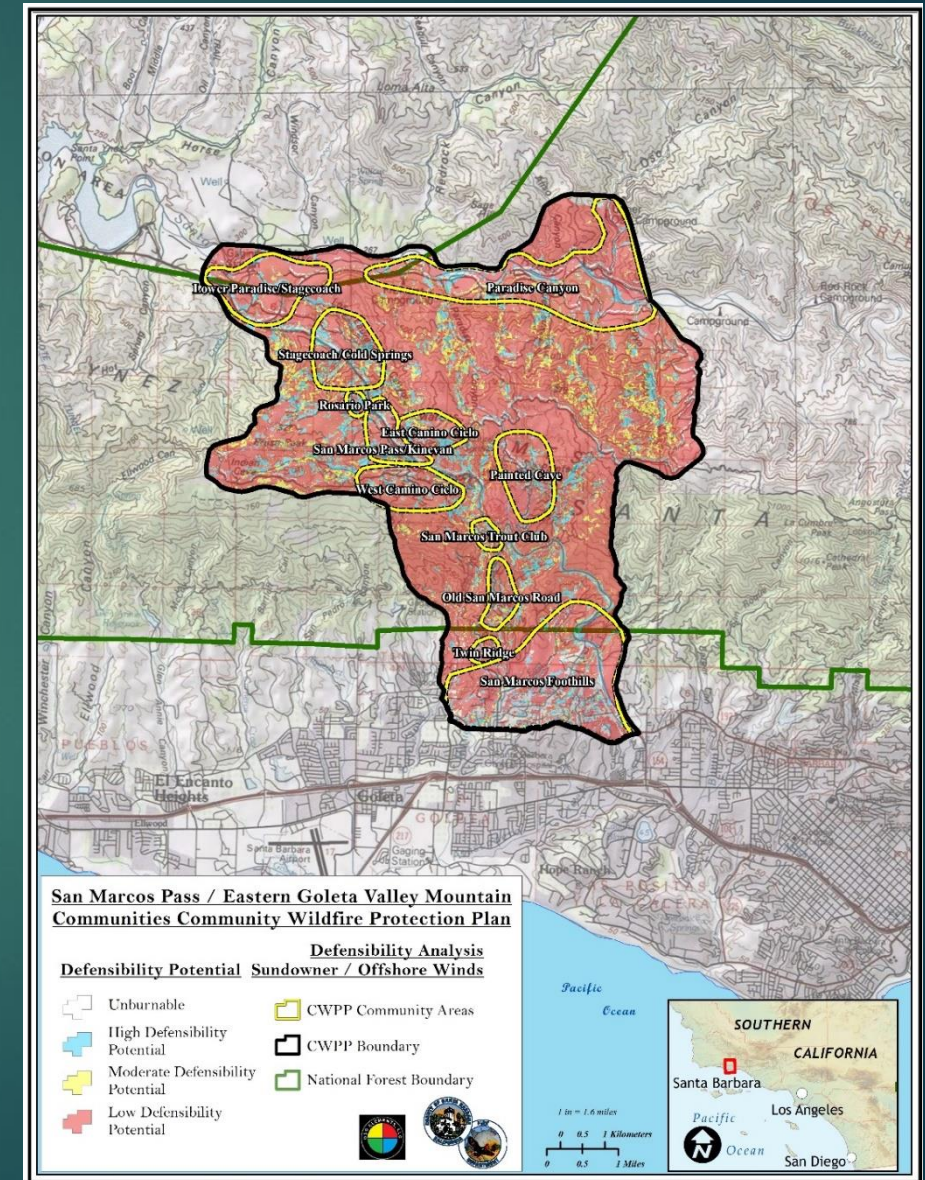
- ▶ 75 years of fire history data  
*Burn frequency - Ignition density*
- ▶ 77 percent of all wildfires started within 50 feet of a road





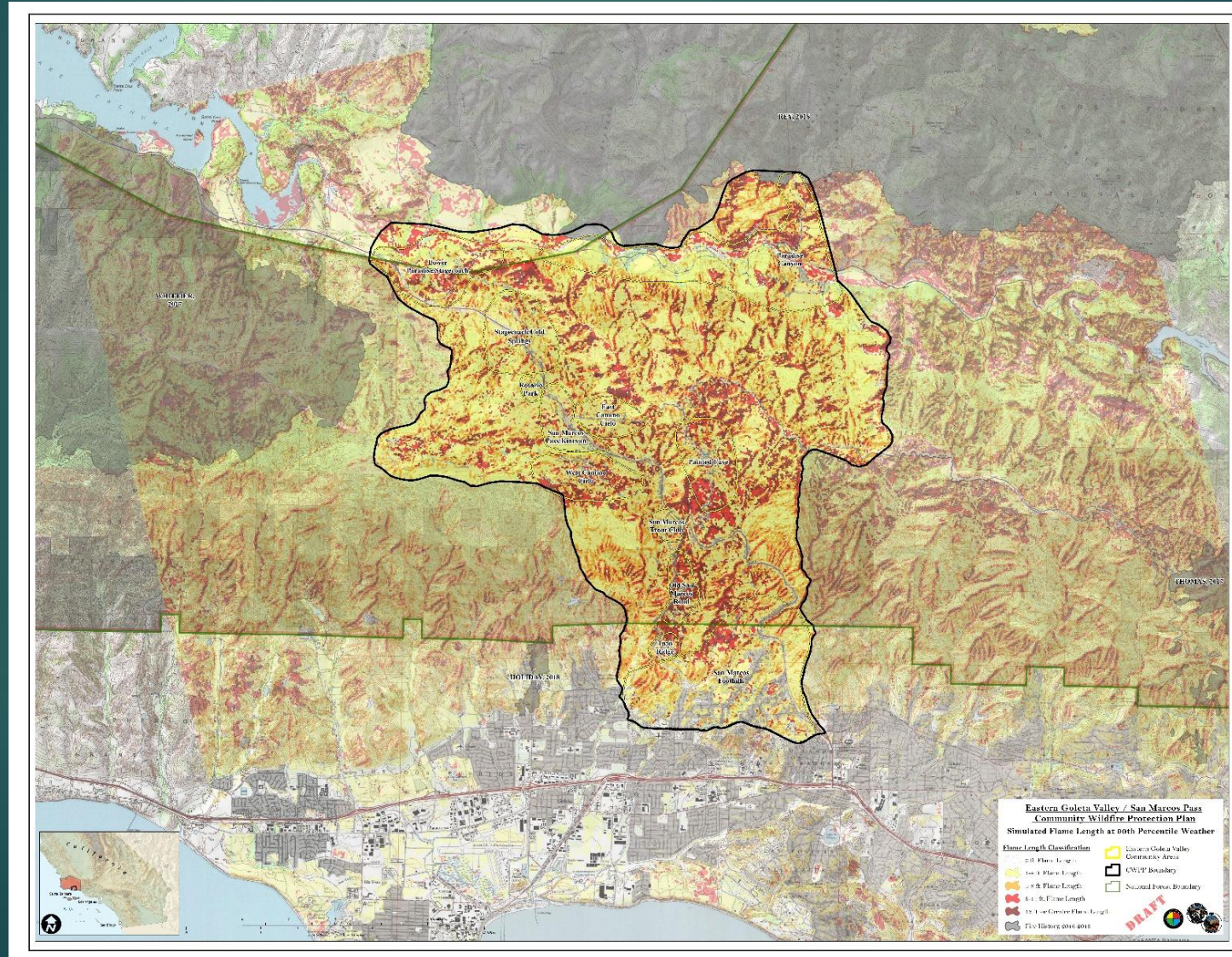
# Wildfire Analyses

- ▶ **Firefighter Safe Operational Space Analysis**
  - ▶ Safety Zone concept
- ▶ **Structural Vulnerability and Defensibility**
  - ▶ Comprehensive structural assessment
  - ▶ Assessed building construction and defensible space
  - ▶ 77 percent of structures in the Plan Area have low defensibility potential
- ▶ **Modeled Ember Exposure Zones**
- ▶ **Fire Run Damage Potential**





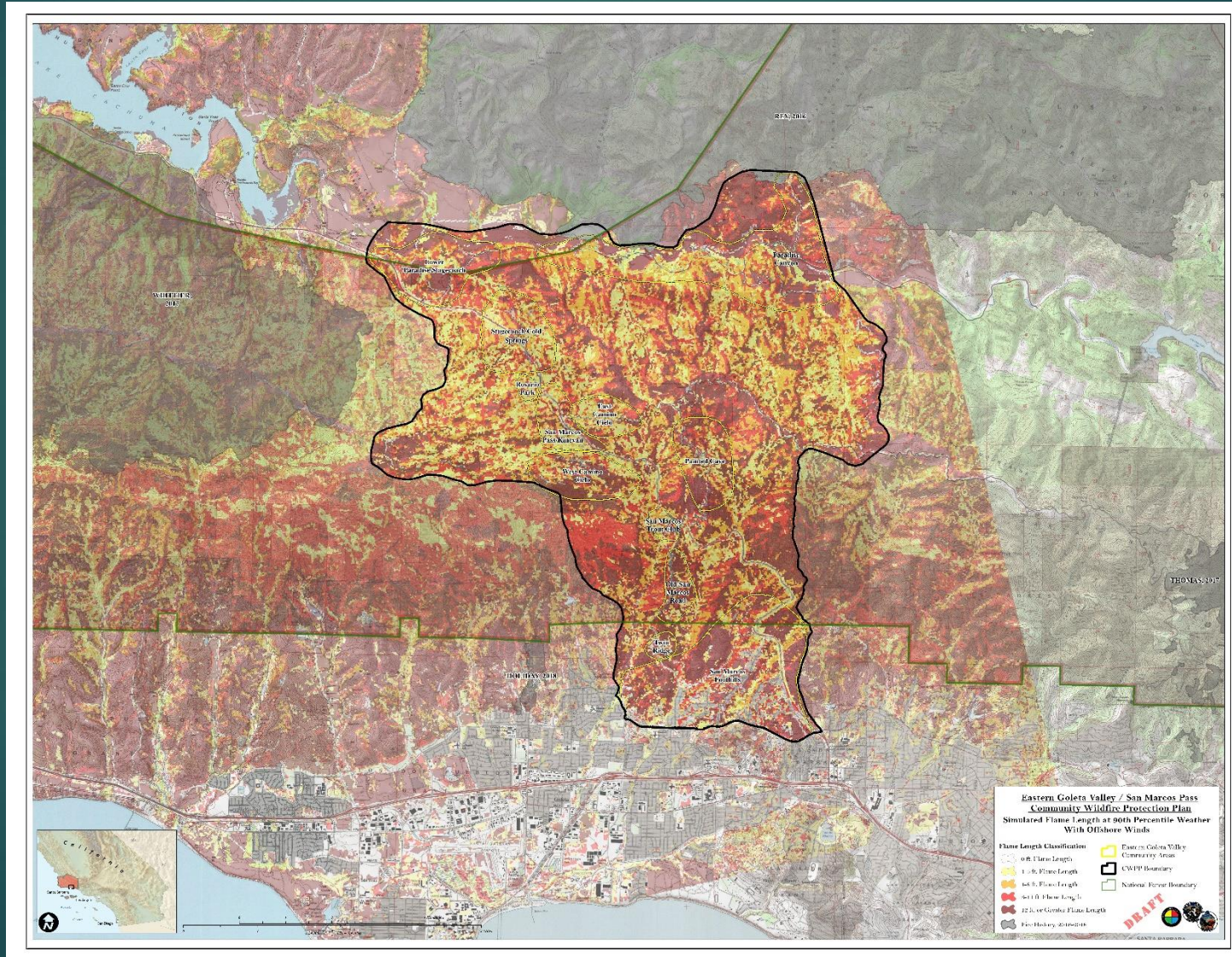
# Wildfire Potential Flame Lengths Based on 90<sup>th</sup> Percentile Weather Data





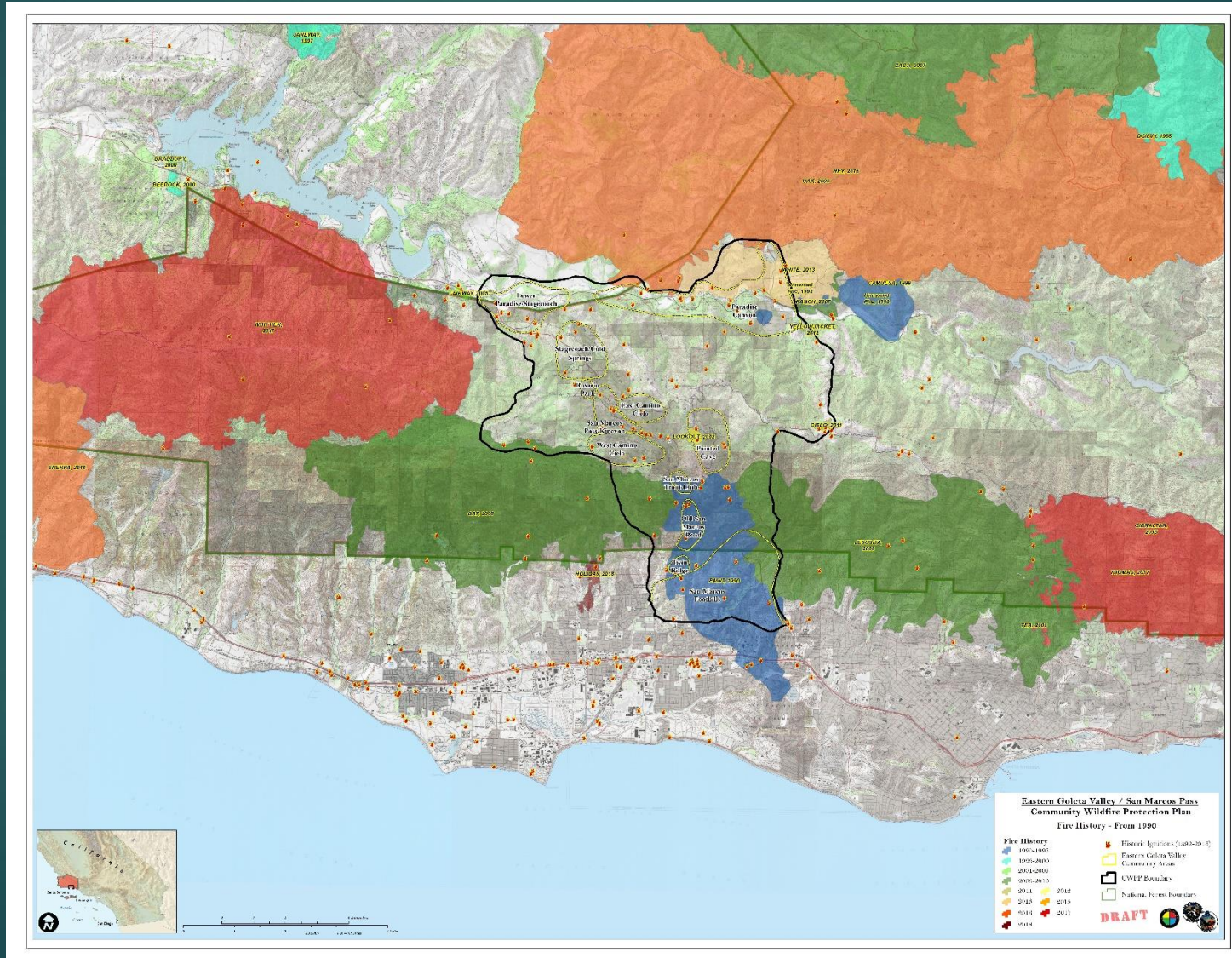
# Wildfire Potential Flame Lengths Based on Weather Recorded During the 2008 Tea Fire

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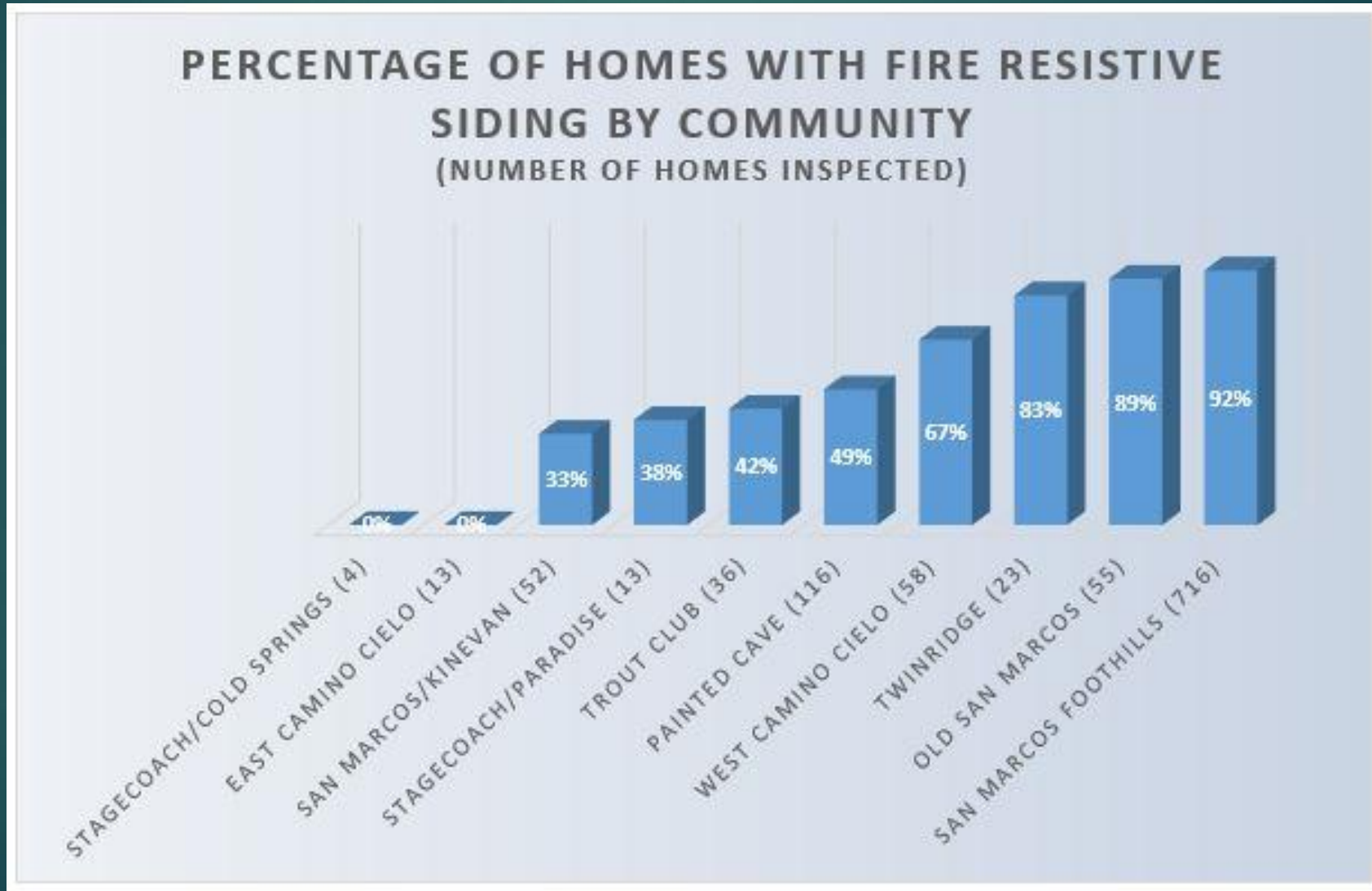




# Wildfire History 1990 - 2018

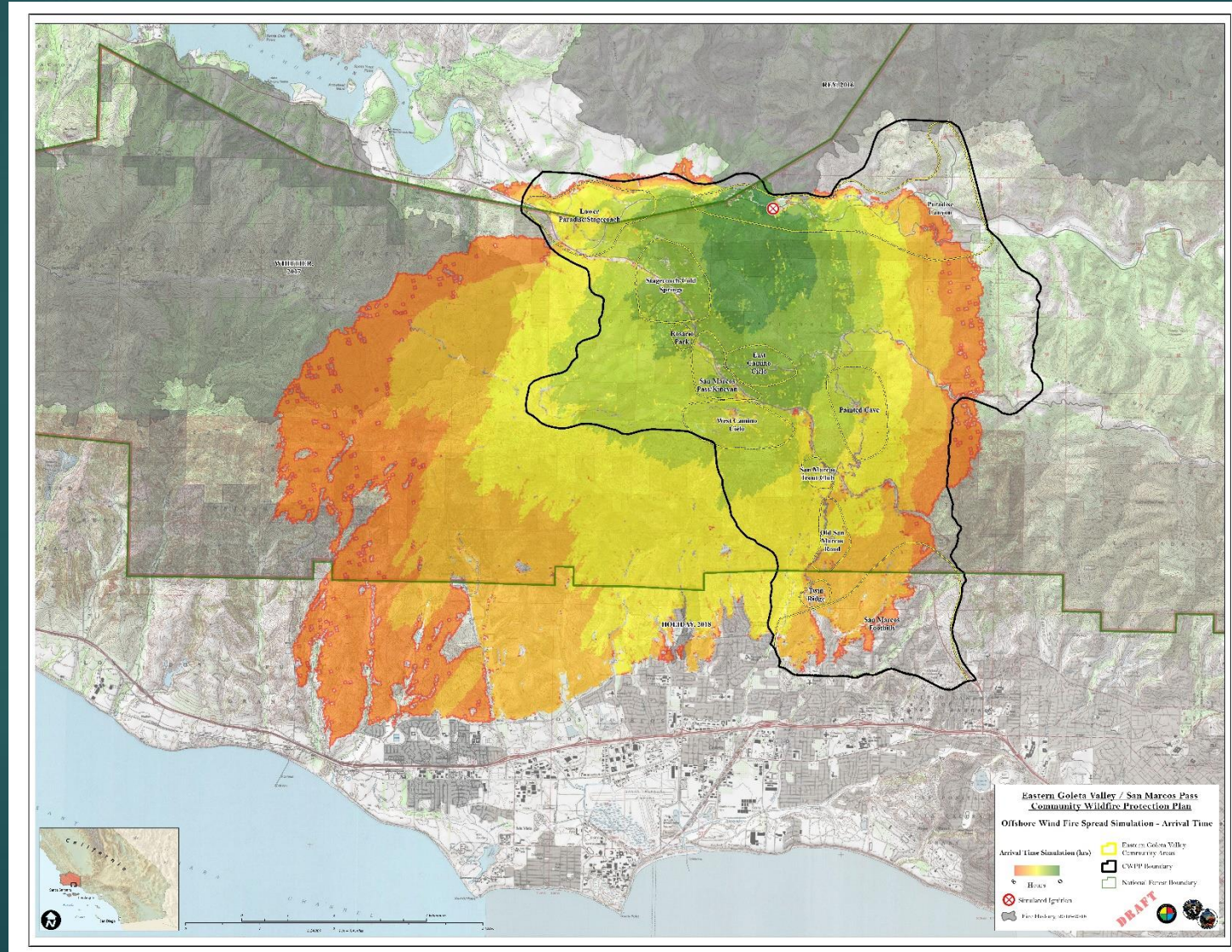


# Comprehensive Structural Assessment



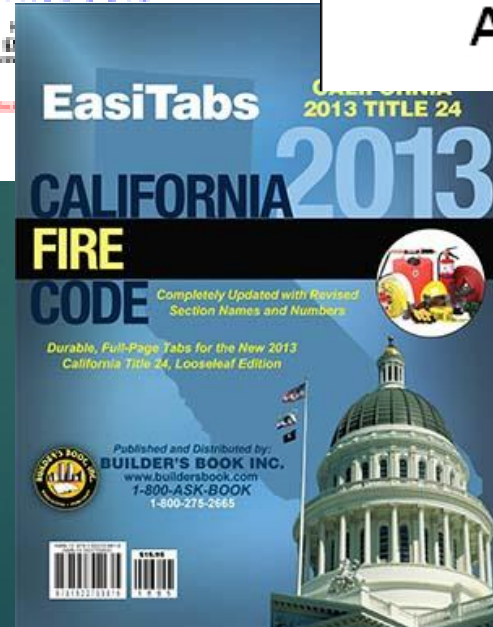
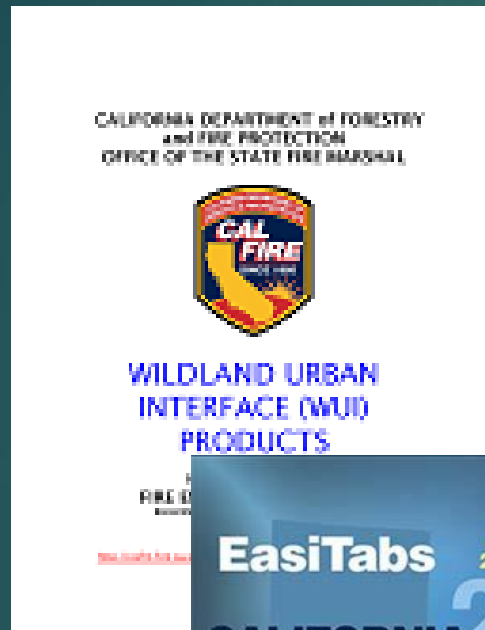


# Modeled 10-Hour Fire Spread Under Tea Fire Wind Conditions





# How Fire Risk Can Addressed



# Action Plan

- ▶ Community Preparedness and Education
  - ▶ Ready-Set-Go
  - ▶ Aware and Prepare
  - ▶ Community Emergency Response Teams
  - ▶ Santa Barbara County Fire Safe Council



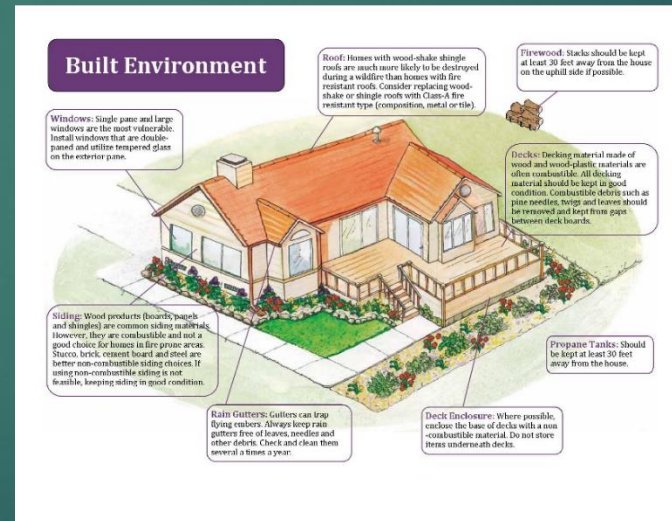
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# Action Plan

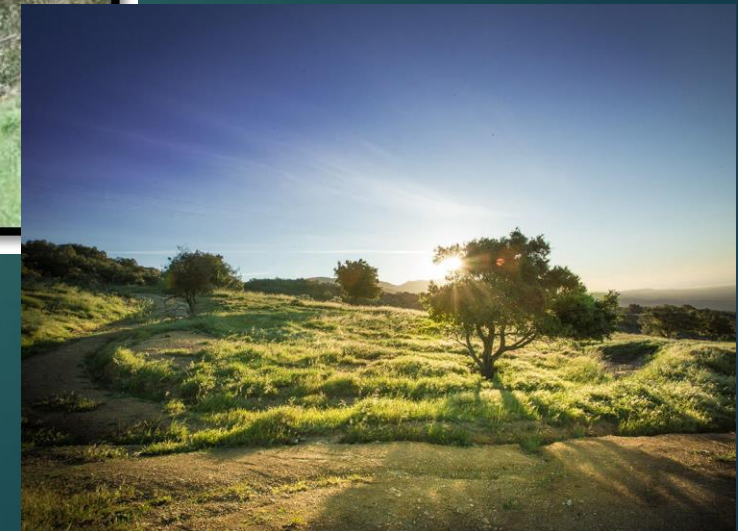
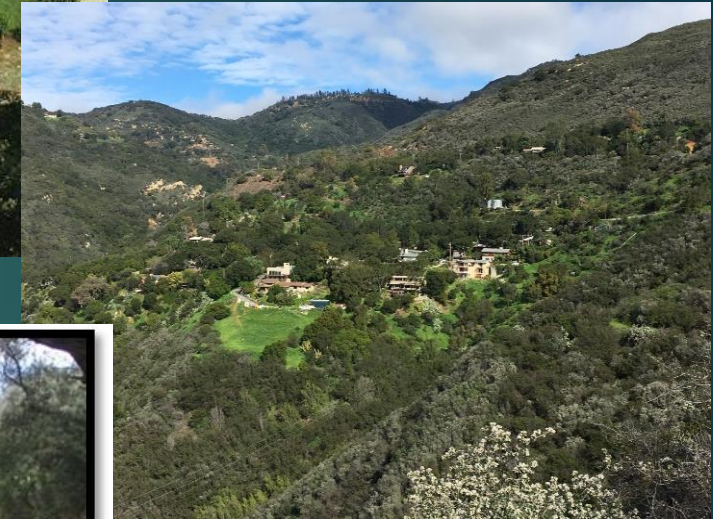
- ▶ Community Preparedness and Education
- ▶ Protecting Values
  - ▶ Life Safety
  - ▶ Enhancing Structural Survivability
  - ▶ Natural and Cultural Resources





# Action Plan

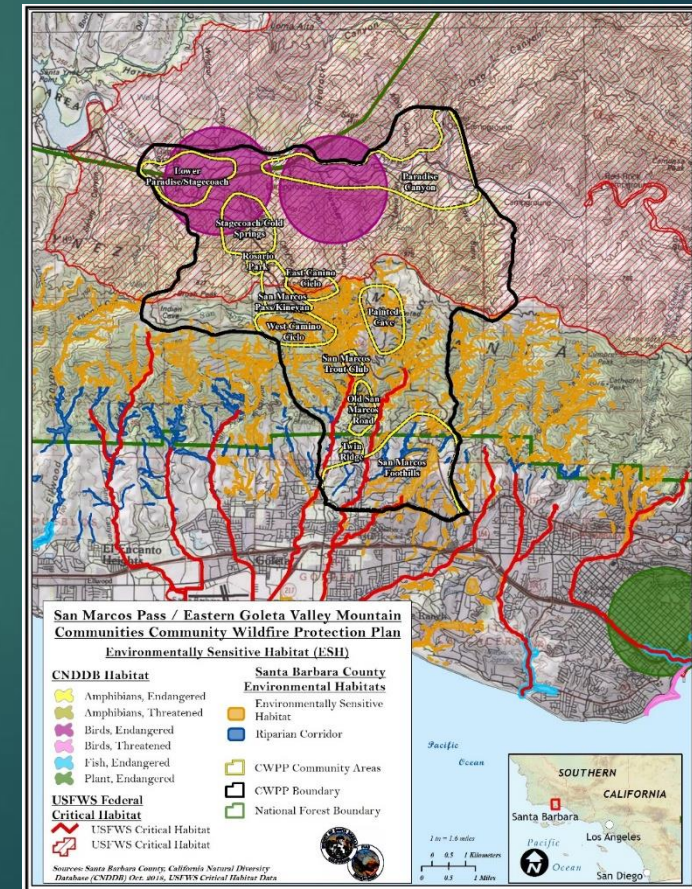
- ▶ Community Preparedness and Education
- ▶ Protecting Values
- ▶ Fuels Modification
  - ▶ Individual Defensible Space
  - ▶ Community Defensible Space
  - ▶ Evacuation Routes and Roadside Treatments
  - ▶ Staging and Temporary Refuge Areas





# Action Plan

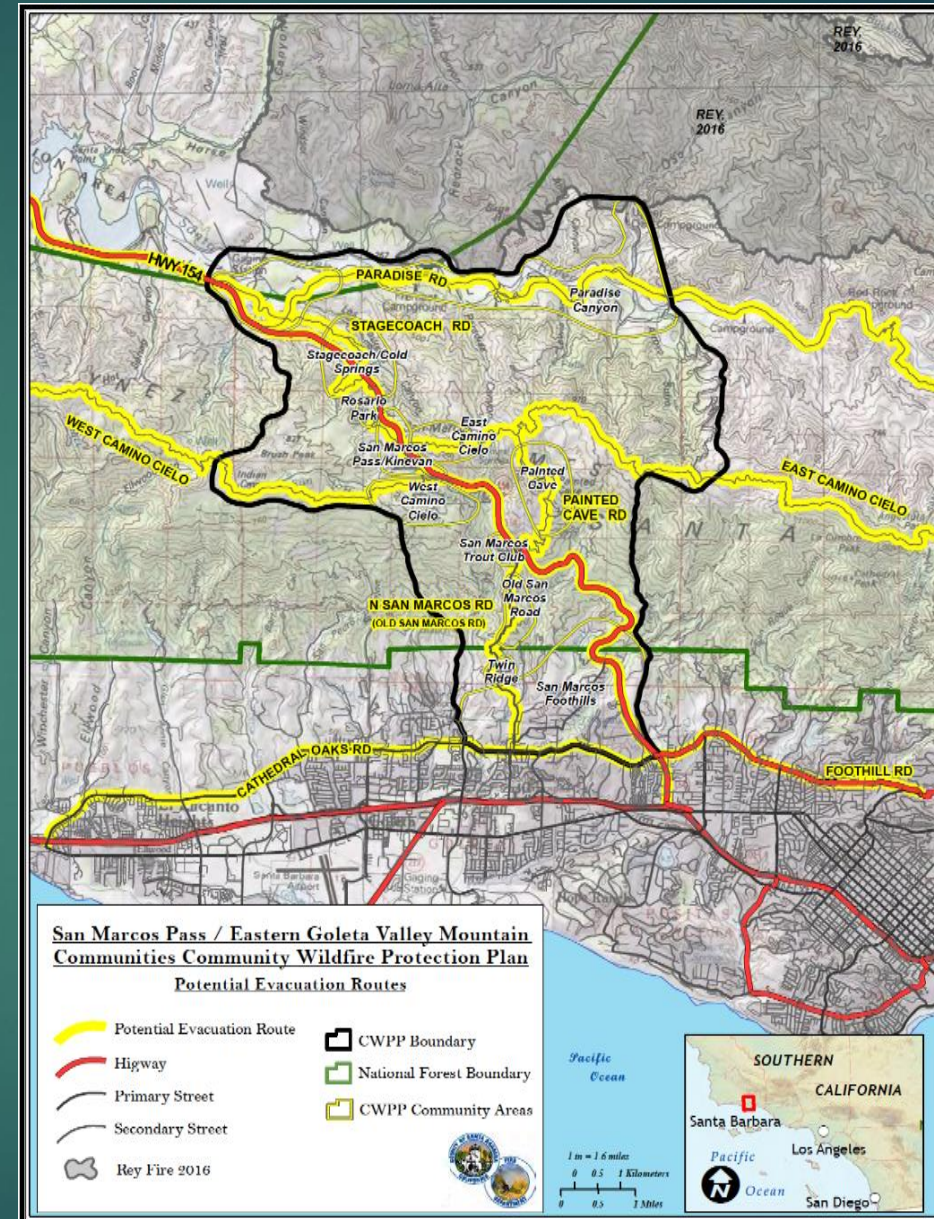
- ▶ Community Preparedness and Education
- ▶ Protecting Values
- ▶ Fuels Modification
- ▶ Fuel Treatment Prescriptive Guidelines
  - ▶ Best Management Practices
  - ▶ Protection of Environmentally Sensitive Resources





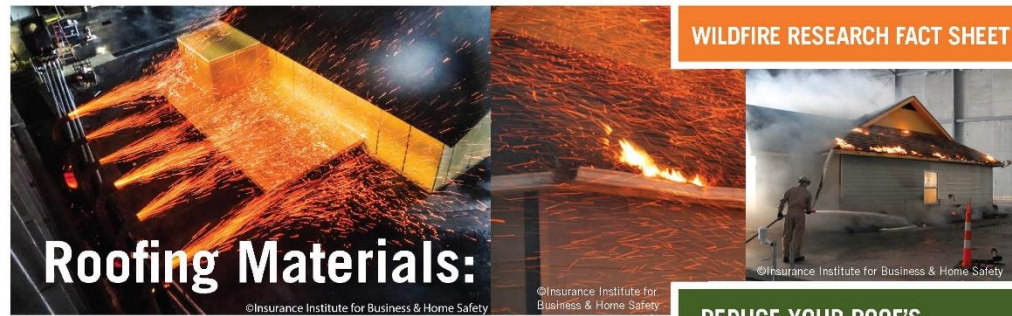
# Action Plan

- ▶ Community Preparedness and Education
- ▶ Protecting Values
- ▶ Fuels Modification
- ▶ Fuel Treatment Prescriptive Guidelines
- ▶ Community Evacuation
  - ▶ During a wildfire
  - ▶ Evacuation Preparedness



# Structure Hardening

- ▶ Roofs
- ▶ Under-Eave Construction
- ▶ Attic and Crawlspace Vents
- ▶ Skylights
- ▶ Decks
- ▶ Fencing
- ▶ Exterior Coatings
- ▶ Exterior Sprinkler Systems



## Roofing Materials:

### WILDFIRE RESEARCH FACT SHEET

**Roofs are a highly vulnerable part of a home during wildfires**

**HOMEOWNERS NEED TO IMPLEMENT RISK REDUCTION ACTIONS THAT MAKE HOMES BETTER ABLE TO SURVIVE A WILDFIRE - AND THE ROOF IS A GREAT PLACE TO BEGIN!**

#### HOW HOMES IGNITE

Homes ignite in one of three ways: embers/firebrands, radiant heat exposure or direct flame contact. An example of an ember ignition is when wind-blown embers accumulate on combustible materials such as a wood shake roof. An untreated wood shake or shingle roof covering is the greatest threat to a home.

#### ROOF COVERINGS AND ASSEMBLIES

Roof covering fire ratings are Class A, B, C, or unrated; with Class A providing the best performance. Common Class A roof coverings include asphalt fiberglass composition shingles, concrete and flat/barrel-shaped tiles. Some materials have a "by assembly" Class A fire rating which means, additional materials must be used between the roof covering and sheathing to attain that rating. Examples of roof coverings with a "by assembly" fire rating include aluminum, recycled plastic and rubber and some fire-retardant wood shake products. If a wood shake roof does not have the manufacturer's documentation specifying the fire retardant, assume it's untreated.

#### TILE AND ROOF COVERINGS WITH GAPS BETWEEN THE COVERING AND ROOF DECK

Flat and barrel-shaped tiles, metal, and cement roof coverings can have gaps between the roof covering and sheathing, which typically occur at the ridge and edge of roofs. These openings can allow birds and rodents to build nests with materials that are easily ignited by embers. Flames from this type of ignited debris can spread to the structural support members, bypassing the protection offered by a Class A rated roof covering. Plugging these openings between the roof covering and the roof deck, is commonly called "bird stopping". Regularly inspect and maintain these areas.

#### DEBRIS ACCUMULATION - ROOF AND GUTTERS

Wind-blown debris (including leaves and pine needles from nearby and overhanging trees) will accumulate on roofs and in gutters. Dry debris can be ignited by wind-blown embers. These flames can extend to the edge of the roof and adjacent siding. Even with Class A fire-rated roof coverings, vertical surfaces next to the roof edge will be exposed to flames from the ignited debris. Regularly remove vegetative debris from your roof and gutters.

#### ATTICS, CRAWLSPACES, SOFFITS AND EAVES

Post-fire research has shown attic vents, roof and gable end vents and under-eave areas are entry points for embers and flames. Reduce the size and number of embers that pass through vents into attic and crawlspaces by covering them with a 1/2-inch metal mesh screen. When wildfires threaten, vents can be covered with 1/2-inch or thinner plywood, or a thin metal plate. Ensure these are removed when the threat has passed.

### REDUCE YOUR ROOF'S VULNERABILITY TO WILDFIRE

**1** Roofs should be Class A fire-rated, such as asphalt composition shingles. If you're unsure about your roof's rating, hire a professional roofer to make a determination.

**2** Remove debris on the roof and in the gutters at least twice a year, or more often if necessary.

**3** Remove tree branches that overhang the roof.

**4** Periodically inspect exposed areas under eaves and soffits to ensure construction materials are in good condition.

**5** Cover vents, e.g., with noncombustible, corrosion-resistant 1/2-inch metal mesh screens.

**6** Inspect and maintain your roof on a regular basis. Replace when necessary.



**FIREWISE USA™**  
RESIDENTS REDUCING WILDFIRE RISKS



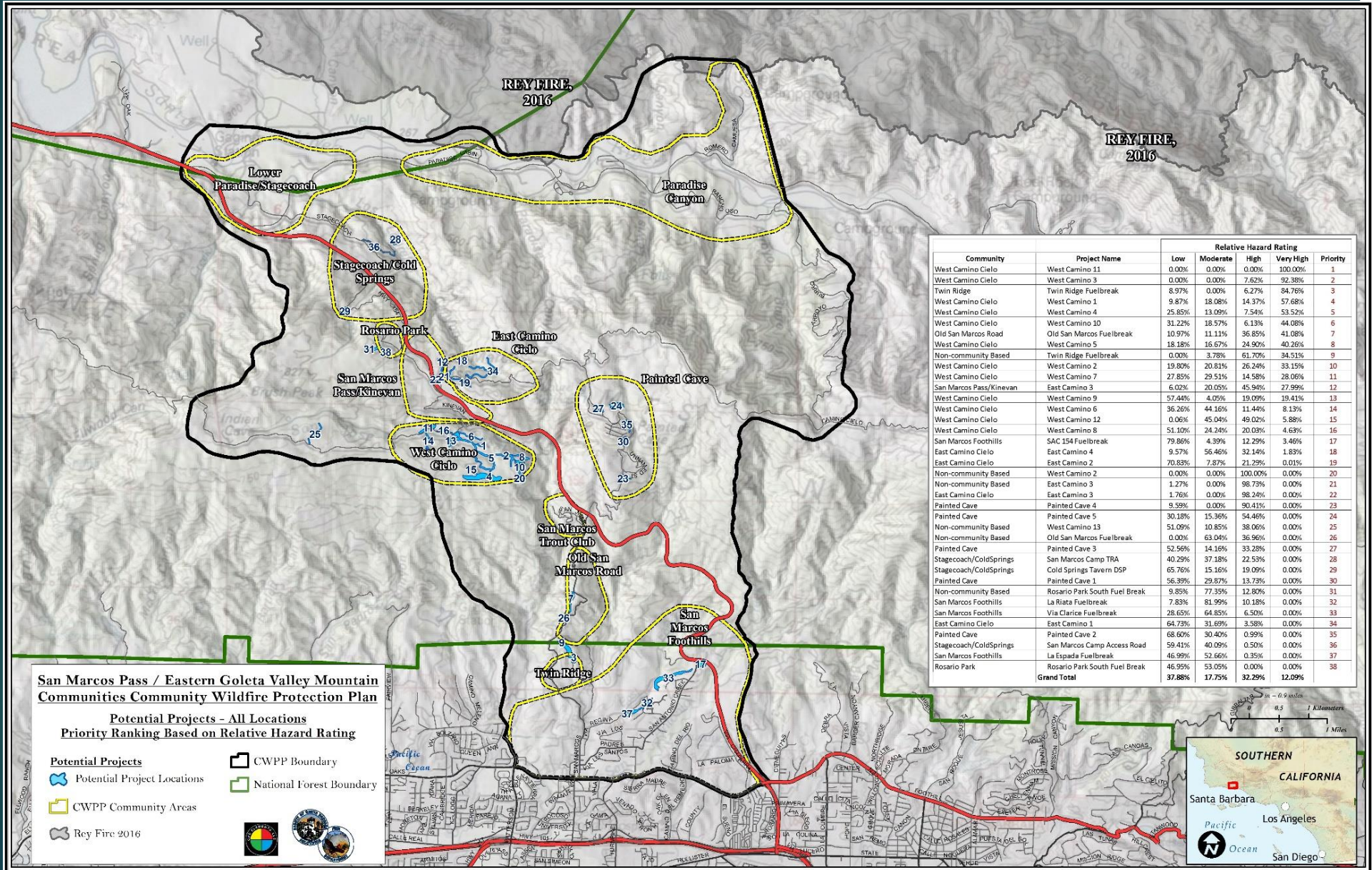
# Potential Fuel Treatments

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- ▶ **38 Potential fuel treatments identified**
  - ▶ **19 Community Defensible Space**
  - ▶ **19 Roadside/Evacuation Route**
  - ▶ **Total Area= 250 acres (1.2% of Plan Area)**
- ▶ **Private Existing fuel treatments- 522 acres**
- ▶ **SBC Fire Existing fuel treatments- 183 acres**
- ▶ **US Forest Service Existing strategic fuel breaks- 802 acres**

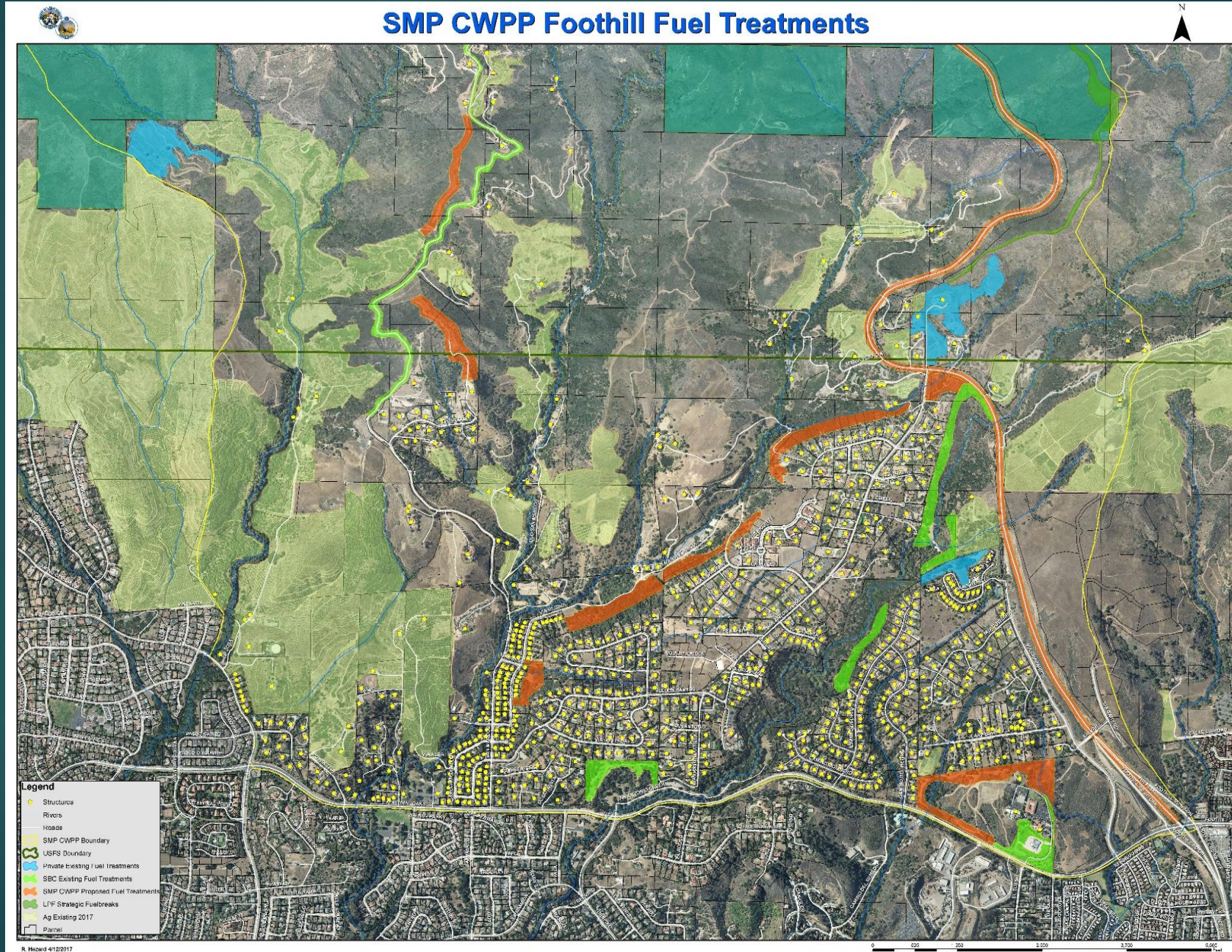


# Potential Fuel Treatments





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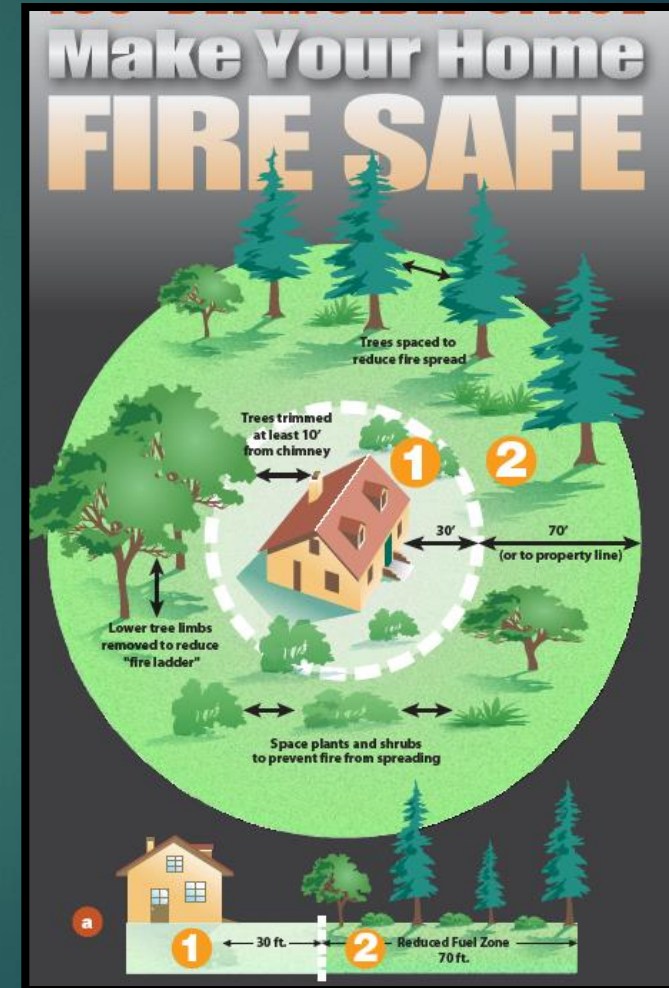




# How Can This Plan Help the Community?

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- ▶ Better identify fire risk
- ▶ Expand wildfire risk reduction options:
  - ▶ Vegetation/Fuels
  - ▶ Structures
- ▶ Access to grants
- ▶ Stakeholder coordination
- ▶ Integration of fuel treatments with cooperators
- ▶ Best Management Practices developed by and for the communities in the Plan Area



# Plan Recommendations



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- ▶ **Emphasize Individual Defensible Space**
- ▶ **Support efforts to harden structures in the Plan Area**
- ▶ **Support continued evacuation planning including vulnerable and special needs populations**
- ▶ **Establish a fuel treatment monitoring program**
- ▶ **Consider the implementation of parking restrictions during Red Flag Warning fire weather events**
- ▶ **Conduct a comprehensive water system assessment**
- ▶ **Maintain the CWPP Development Team as an Advisory Committee to meet annually**



# Fire Department Recommendations



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- ▶ **The Board of Supervisors Adopt the San Marcos Pass – Eastern Goleta Valley Mountainous Communities CWPP**
- ▶ **Determine that adopting the San Marcos Pass – Eastern Goleta Valley Mountainous Communities CWPP is not the approval of a project that is subject to environmental review under the California Environmental Quality Act (CEQA) and approve the proposed Notice of Exemption.**

# San Marcos Pass- Eastern Goleta Valley Mountainous Communities Community Wildfire Protection Plan

