

2026 Marin County Community Wildfire Protection Plan – DRAFT San Rafael Summary

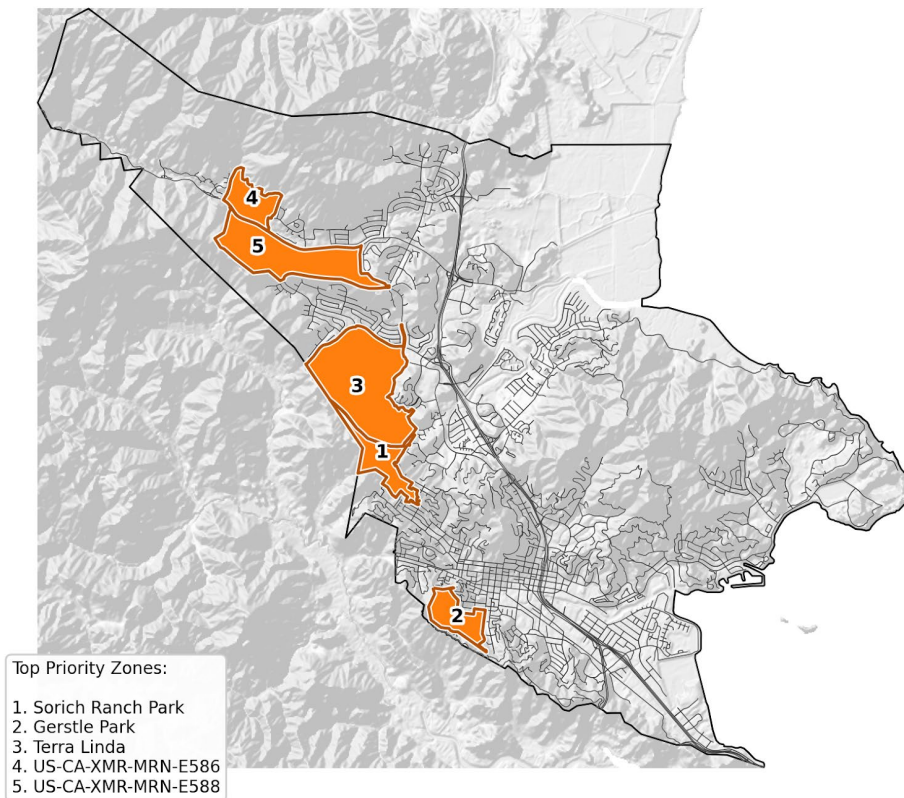
In San Rafael, high fire probability coincides with exposure to fire pathways and dense, closely spaced neighborhoods, resulting in elevated wildfire risk. Targeted fuel reduction and structure hardening within and adjacent to high-risk neighborhoods would reduce the risk of community fire spread, while strategic vegetation management in open spaces, including China Camp, could reduce the risk of transmission and protect critical infrastructure. Due to the concentration of residents with household characteristics that complicate evacuation and constrained roadway geometry in several neighborhoods, enhancing alerting systems and developing detailed, zone-specific evacuation playbooks would improve evacuation outcomes.

This zone-specific summary provides a brief description of the highest-priority zones within the San Rafael JPA zone. These recommendations are intended to be interpreted in conjunction with local knowledge and expertise to develop effective risk-reduction strategies in San Rafael.

Near-Community Vegetation Management

The highest-priority areas for Near-Community Vegetation Management are along the western edge of the JPA zone, including Sorich Ranch Park, Gerstle Park, Terra Linda, and the MRN-E586 and MRN-E588 evacuation zones along Lucas Valley Road. This corridor contains closely spaced residential development and limited existing vegetation management relative to other portions of the county. Modeled flame lengths in these areas are generally low to moderate. However, fire-spread modeling indicates potential exposure under both west and northeast wind events. Additional grazing programs and strategically located shaded fuel breaks within this corridor would interrupt fire pathways and reduce the likelihood of fire becoming established within nearby communities.

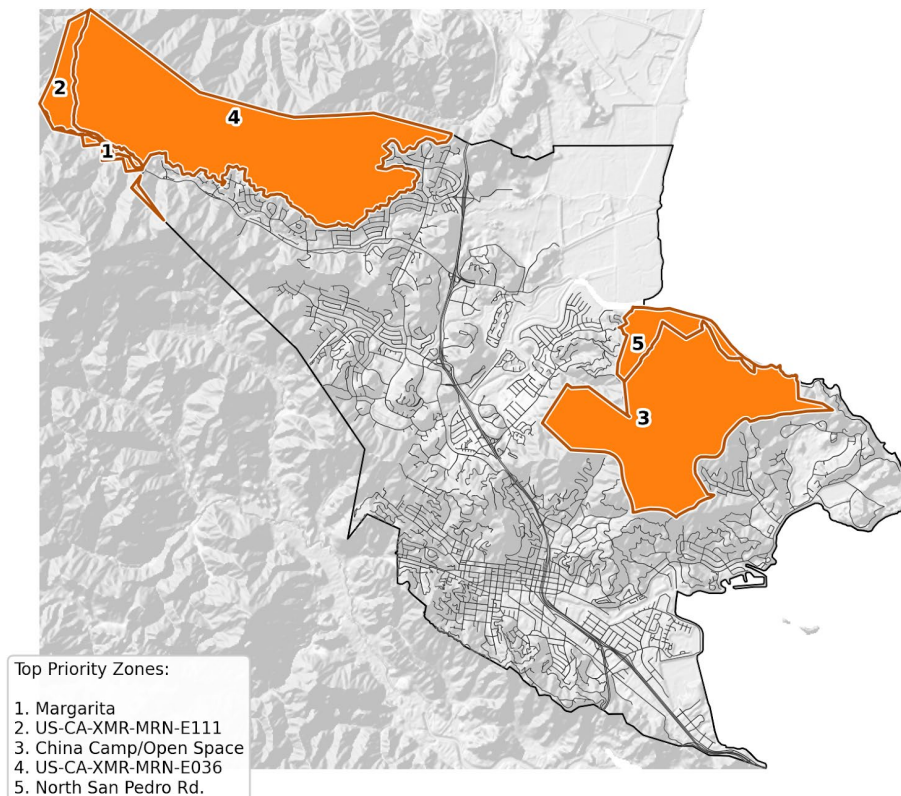
San Rafael Vegetation Management Near Community



Open-Space Vegetation Management

Open-Space Vegetation Management is recommended in the sparsely populated areas of the San Rafael JPA zone, including Margarita, MRN-E11 (along Lucas Valley Road), China Camp, MRN-E036 (north of Lucas Valley Road), and North San Pedro Road. These zones are anticipated to support very active fire behavior: flame lengths exceeding 20 feet are possible in some areas, rates of spread are high, and annual fire probability ranks among the highest in the county. The proximity of these zones to developed neighborhoods and transmission infrastructure increases both ignition likelihood and the potential for these areas to transmit fire into adjacent communities. Fire pathways are projected to move through these areas into Terra Linda, Marinwood, Lucas Valley, Dominican, and Bayside Acres. Strategically located SPLATs within these open spaces could moderate fire growth and reduce downstream exposure. In addition to transmission lines, several communications assets are located in these zones; targeted vegetation management around these facilities would improve continuity of service during a wildfire incident.

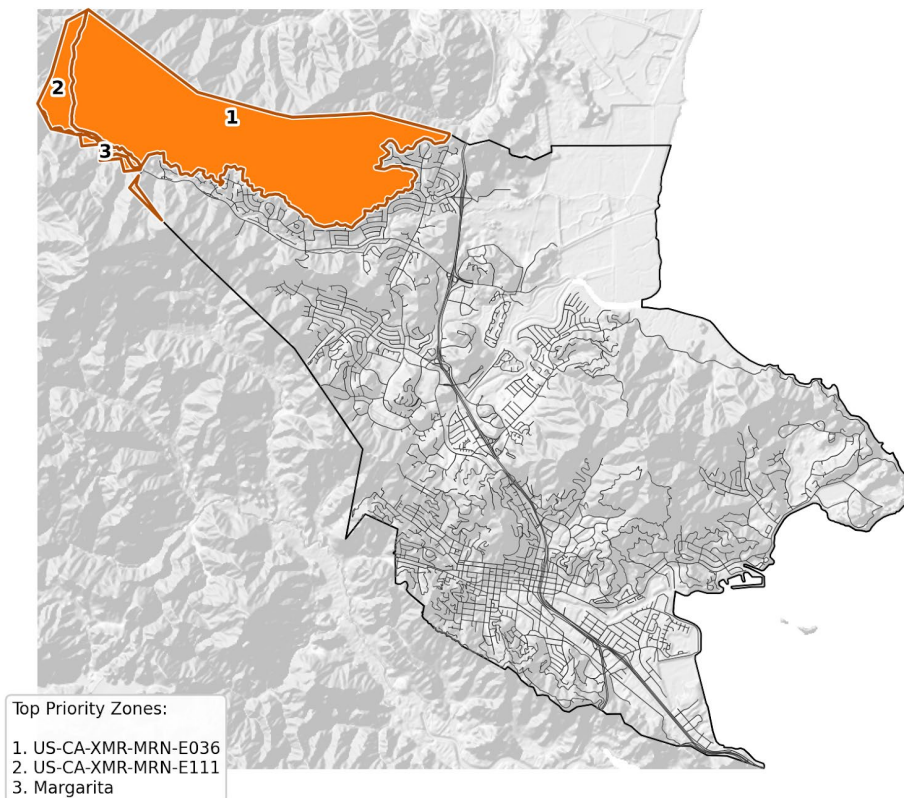
San Rafael Vegetation Management Open Space



Detection

Enhanced fire-detection capabilities are not a recommended priority in most of the San Rafael JPA Zone. Extensive fire-detection camera coverage and high population density indicate that new ignitions in most areas are likely to be identified quickly. If detection initiatives are pursued, the northwest portion of the JPA Zone, particularly along the Big Rock Ridge Fire Road, is the highest priority. Although largely within existing camera viewsheds, this area is far from primary roadways and may be less likely to generate public 911 reporting. Fire behavior and spread modeling indicate that ignitions in this corridor could spread quickly through grass and other fine fuels. Improvements to detection capabilities in this area would strengthen early awareness and support rapid initial attack.

San Rafael Detection



Alerting

The Alerting theme focuses on areas where residents may struggle to receive a wildfire evacuation alert or have difficulty mobilizing before travel begins. Initiatives to enhance existing Alerting systems are most strongly recommended in Marinwood, Santa Venetia, and Bret Harte.

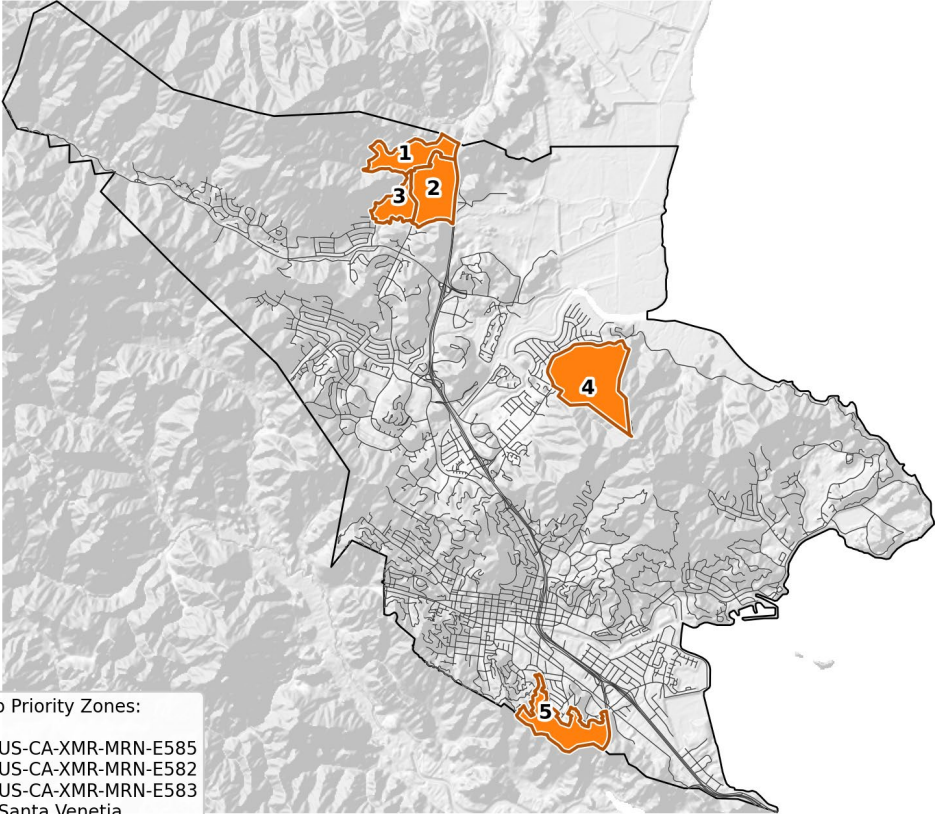
The Marinwood neighborhoods west of Highway 101 combine high structure density, rapid fire spread, and a substantial population of residents whose demographics¹ may complicate rapid evacuation. Fewer than half of residential parcels in this area have an active AlertMarin subscription. Modeling indicates a high likelihood of rapid spread, underscoring the importance of timely, effective notification.

The Santa Venetia and Bret Harte zones exhibit relatively low AlertMarin subscription rates (36 and 42%, respectively) and a high probability of wildfire occurrence with moderate-to-high wildfire spread rates. Furthermore, U.S. Census data show that these areas may be home to residents who struggle to receive, understand, and act on an emergency evacuation alert.

Note: The Spinnaker Point and the Canal/Pickleweed evacuation zones have very low AlertMarin subscription rates (less than 1 in 3 parcels, on average), underscoring the need for continued outreach efforts to increase subscriptions in these areas; however, wildfire-spread modeling indicates a very low likelihood of a wildland fire reaching these zones. Upon recommendation from San Rafael Fire Department, these areas were removed from this priority list in favor of zones with a greater wildland fire threat. Similarly, because the Saint Vincent zone is home to fewer than 20 permanent residents, San Rafael Fire Department stakeholders indicated that other zones with larger permanent populations would provide a more actionable list of Alerting priorities.

¹ Demographics incorporated into the Alerting theme include elderly populations, populations with children, and populations with disabilities. Data from the U.S. Census.

San Rafael Alerting

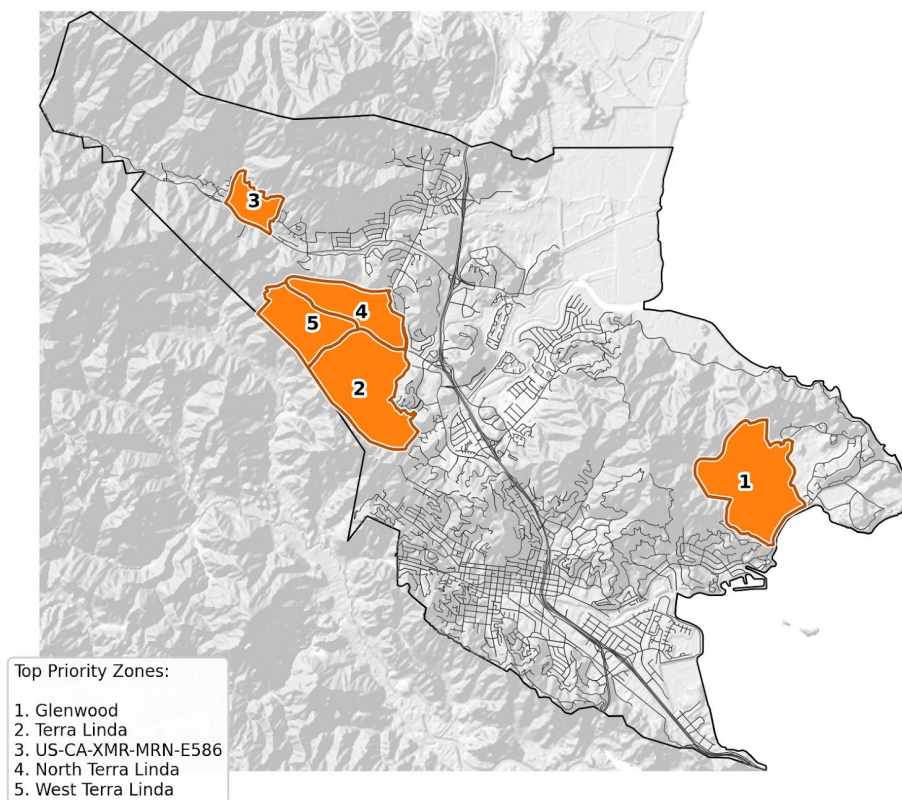


- Top Priority Zones:
- 1. US-CA-XMR-MRN-E585
 - 2. US-CA-XMR-MRN-E582
 - 3. US-CA-XMR-MRN-E583
 - 4. Santa Venetia
 - 5. Bret Harte

Evacuation Planning

Enhanced Evacuation Planning is recommended for the Glenwood Zone, Terra Linda, and portions of Lucas Valley. These areas face an elevated risk of fire exposure to both roadway networks and residential structures, increasing the likelihood that evacuation would be required compared with other zones in the county. Road network configuration and road conditions further increase the likelihood of evacuation bottlenecks and traffic jams. Many roads are winding, steep, and challenging to navigate under emergency conditions, particularly when driver behavior becomes unpredictable and visibility is reduced by smoke. Advance local planning, traffic management coordination, and zone-specific evacuation protocols would improve outcomes during evacuation from a fast-moving wildland fire.

San Rafael Evacuation Planning

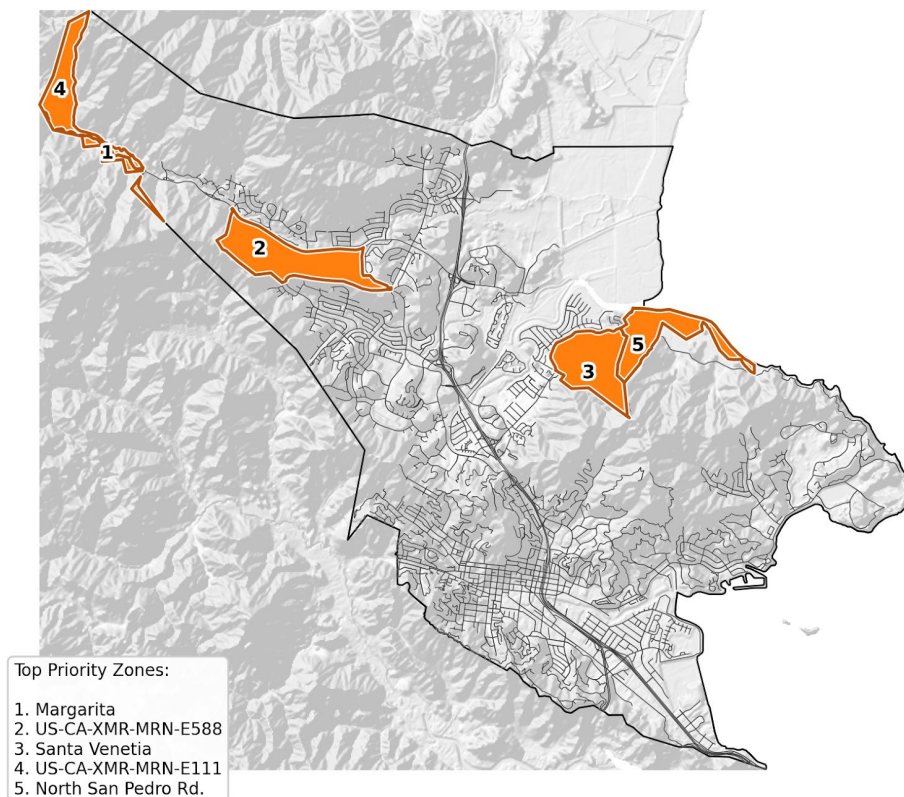


Roadside Clearance

The highest priorities for Roadside Clearance in San Rafael are north of China Camp, including Santa Venetia and North San Pedro Road, between Lucas Valley and Terra Linda (MRN-E588), and along Lucas Valley Road in the northeastern portion of the JPA Zone. Fire behavior along roadway corridors is anticipated to be very active: flame lengths exceeding 8 feet along roads are likely, and canopy fire activity adjacent to road segments is anticipated in many areas. On average, more than 15% of roads in these zones are modeled as not fire resilient, indicating a potential for unsafe evacuation conditions and limited first-responder access. Targeted roadside vegetation management would improve travel safety, support firefighter ingress, and can reduce the likelihood of roadside ignitions.

Note that while this summary focuses on zones, the roads themselves are the priority objective. Often, major roads form the border of the evacuation zone. Staff should review these maps carefully when considering roadside-clearance programs.

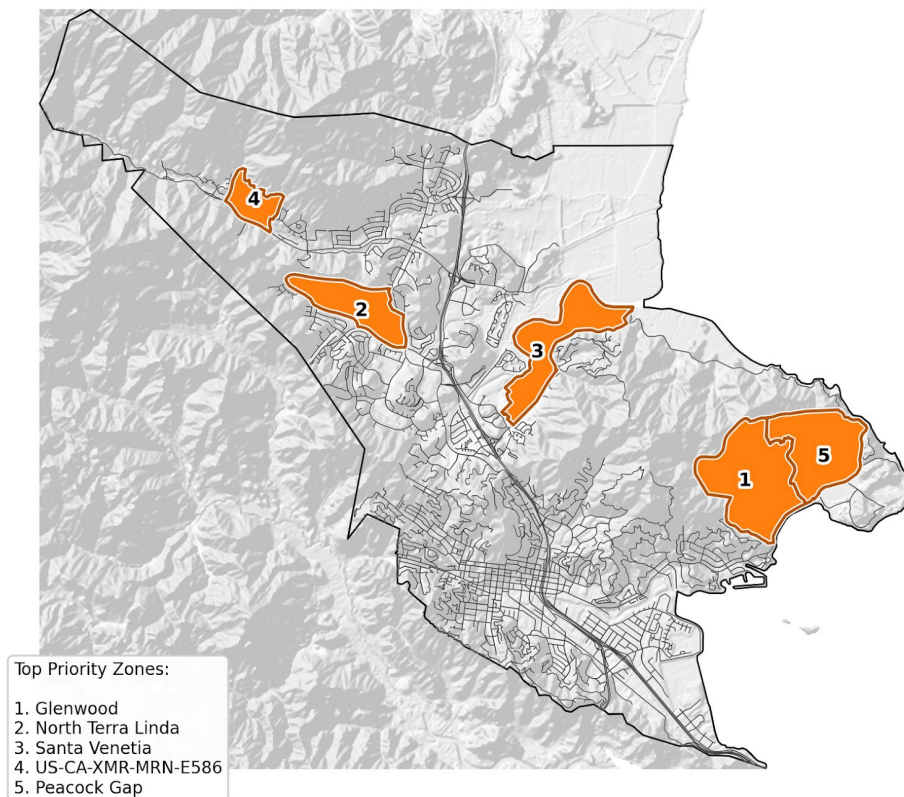
San Rafael Roadside Clearance



Residential Risk Reduction

The highest-priority areas for additional residential risk-reduction initiatives are the Glenwood and Peacock Gap zones, the Santa Venetia Zone, North Terra Linda, and MRN-E586 along Shasta Drive. These zones are characterized by a high density of unresolved defensible-space and home-hardening vulnerabilities, closely spaced structures, and a high likelihood of exposure to intense fire conditions. In many of these neighborhoods, the average structure separation distances are less than 12 feet, indicating the potential for structure-to-structure transmission once ignition occurs. Fire behavior suggests these neighborhoods will be exposed to rapid rates of spread, large flame lengths, and significant ember exposure during high-severity fire weather events. In the Peacock Gap and Glenwood zones, access constraints may limit the number of responders during the initial phases of an incident, increasing reliance on structure-level mitigation to reduce losses.

San Rafael On Parcel Risk Reduction



Countywide Comparison

The table below compares priorities in the San Rafael JPA zone relative to the rest of the county. Unlike the summaries above, which identify the top five zones for each theme, the data in this table indicate how often high-priority zones occur within each theme.

Theme	Number of Zones at or Above 75th Percentile Countywide
Near-Community Vegetation Management	21
Open-Space Vegetation Management	13
Detection	1
Alerting	6
Roadside Clearance	10
Evacuation Planning	17
Residential Risk Reduction	19