	<p style="text-align: center;">MARIPOSA COUNTY RESOURCE CONSERVATION DISTRICT</p> <p style="text-align: center;">P.O. Box 2403, Mariposa, CA 95338 (209) 966-0970 MariposaCountyRCD@gmail.com</p>
---	---

HOME HARDENING COMMUNITY RETROFIT PLAN

The Mariposa Resource Conservation District Home Hardening Community Retrofit Program is a public education program that provides technical assistance to help residents harden their homes against wildfire, and improve their defensible space free of charge. The program launched in March 2023, and includes a team of technical experts to perform an onsite assessment, and create a list of recommendations specific to the home and private property. Mariposa County, in the southern portion of the Sierra Nevada, has been hard hit by the effects of climate change. Our lands have been impacted by multi-year extreme drought conditions, massive tree mortality, an increase in the number and severity of wildland fires, and destructive flooding and erosion attributable to changing weather patterns and a changing landscape. The small population of 17,020, includes 30% over the age of 65 and 12.4% disabled persons. It is a low-income community in a very high fire risk location in need of assistance to improve its resiliency to wildfires.

In 2019, a collaborative group worked to update the Mariposa County Community Wildfire Protection Plan (CWPP) and the Board of Supervisors established the Mariposa County Fire Advisory Committee (MCFAC) to implement and maintain the CWPP, as well as providing a forum for project prioritization and collaboration in project implementation. This home assessment program was identified in the CWPP as Action Item 11, and its creation by MCRCD was supported by the members of MCFAC. It is an education-centered technical assistance program to help private landowners in the WUI protect their homes and defensible space. It prioritizes providing assistance to the most vulnerable members of the community first, including properties located in High and Very High Fire Severity Zones, residents who are low-income elderly or disabled, and communities who have come together to seek FireWise status.

After many years of focusing on the importance of clearing the 100 feet of defensible space, recent research has shown that a major threat to homes is wind-driven embers striking the walls of a building and dropping to the ground, where they collect and ignite anything flammable. According to a September 19, 2023, press release from CAL FIRE:

"Based on the latest wildfire research mitigations to the three most vulnerable areas of a home; the roof, specific building features such as gutters and vents, and Zone 0- meaningfully reduce their homes risk of ignition..."

In wildfire events, 60 to 90 percent of home loss is due to embers. Embers can ignite materials in an attic after entering through a vent or ignite nearby vegetation, a wood pile, or storage shed causing radiant heat or direct flame contact with the home. Reducing the vulnerability of homes to ember ignition will increase the chance of homes and neighborhoods surviving a wildfire.

Program Goals:

- Free Home Hardening Assessments
 - Over 200 assessments completed to date.
 - Ongoing goal: 10 assessments per month.
 - Each participating homeowner receives a tailored report with recommendations based on CalFire and UCCE best practices.
 - Free upgraded vent screen installation (crawl space and eave vents).

Mariposa RCD worked with University of California Cooperative Extension (UCCE) expert Yana Valakovic, to train our staff and contractor crews, create an assessment document to address resilient home and lands mitigations, and launched a program in March 2023. We are also enrolled in OFSM's qualified entity training program to ensure consistency of home assessment methods and messages with other agencies across the State. The program is publicized in the local newspaper and on the radio station, and RCD staff attend workshops and events in conjunction with UCCE staff. CAL FIRE Madera-Mariposa-Merced Unit also distributes flyers and brochures for the program as part of their PRC 4291 defensible space inspection program and at community events. Participants complete an application and a right of entry form, and onsite assessments are scheduled via email. When a sufficient number of homes have signed up in any geographically convenient area, a 2-person work crew goes to the site.

Once onsite, the crews do a walk around of the homes exterior to evaluate:

1. Firefighter access - clearly marked address, turnaround space, driveway clearance
2. Zero zone clearance - vegetation, combustible materials
3. Defensible space - 30' perimeter status, presence of adequate garden hoses, condition of vegetation, presence of discontinuous plantings
4. Defensible space - 100' perimeter status, ladder fuels, dead grass or vegetation, spacing of plantings
5. Slope - determine if additional mitigations are required due to slope
6. Decks - condition and presence of combustible materials underneath
7. Roof and gutters - presence of combustible materials on roof and rain gutters, presence of flashing
8. Skylights - type and condition, presence of vegetation or combustible material
9. Fencing - ensure that fencing connected within 5 feet of home or outbuildings is not combustible
10. Attic and crawl space vents - ensure all vents are 1/8" mesh:
11. Install Kwik Mesh or Wildfire Defense Mesh:
 - a. Housed vents (90° angle): cut mesh ½ cm larger than opening, press-fit into form.
 - b. Flat vents: cut to size and secure behind vent using staples or self-tapping screws.
12. Eaves - assess for gaps and enclosure status
13. Chimney - assess for integrity and spark arrestor
14. Siding - assess for vertical and horizontal clearance of combustible materials
15. Windows - assess for single or double-paned, tempered or non-tempered
16. Outbuildings - perform same assessment for outbuildings
17. Evacuation - assess preparedness, route knowledge, status of Go Bag

While there, crews clear the 0 Zone, clean debris from roofs and gutters, and typically install 1/8 mesh over attic and crawl space vents - the three most critical actions that can be taken to improve the building's resistance to wildfire.

After the onsite assessment, the form is taken back to the office and a comprehensive report with specific recommendations for mitigations the homeowner can take to harden their home and increase adaptation to wildfire is prepared and returned via email. The homeowner may implement additional measures on their own, or participate in future incentive-type programs that may be offered by OES or CAL FIRE.

When a property meets the criteria for additional work, we can also implement measures such as removal or relocation of flammable materials, junk removal, mesh deck skirting, defensible space clearance and other tasks.

Support for Disadvantaged Homeowners:

- Junk removal
- Relocation of flammable materials
- Ember-screening installation for low-height decks
- Hazardous fuel removal
- Remove lattice on homes, outbuildings, or decks; replace with metal or ember-resistant screen if desired.

As of Sept 2025, we have assessed 213 properties. Assessments provide residents with recommendations for hardening, fire fighter access, defensible space and evacuation preparedness.

August 26, 2025

MCRCD Home Hardening

OCT 2025 Compliance Expansion Program with CHIPS Native Work Crew

Homes served: 11

Hazardous buildings/attachments removed: 6.5

tons of waste lumber removed: 4.35

tons of green waste removed: 4.05

Average cost per home: \$1,492.60

Defensible space improvements: 11

Ember screening installed to vents/skirting: 3

All vegetation removed from zone zero: 2

Summary of Costs		
Total		\$16,418.57
Labor MCRCD		\$4,497.00
Labor CHIPS		\$7,820.00
CHIPS Admin		\$782.00
Materials		\$805.92
Dump Fees		\$1,213.65
S&S dump service		\$600.00
Travel reimbursements	Estimated cost	\$700.00

Invasive blackberry infestation removal:



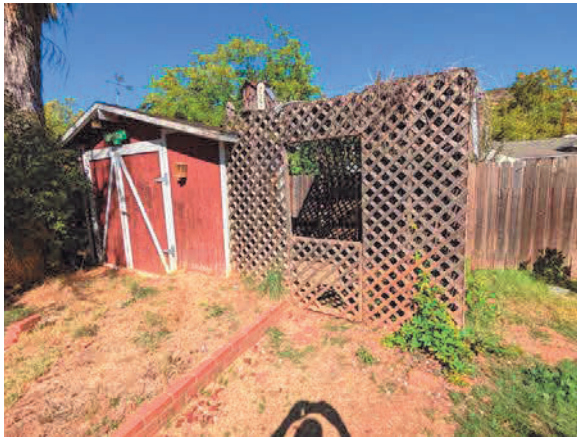
Ember screen installed over open sections of home skirting:



Zone zero vegetation removal:



Hazardous attachment removal:



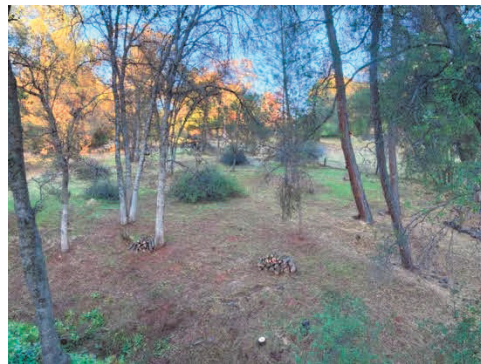
All Zone 0 vegetation removed.



Duff removed and gravel installed.

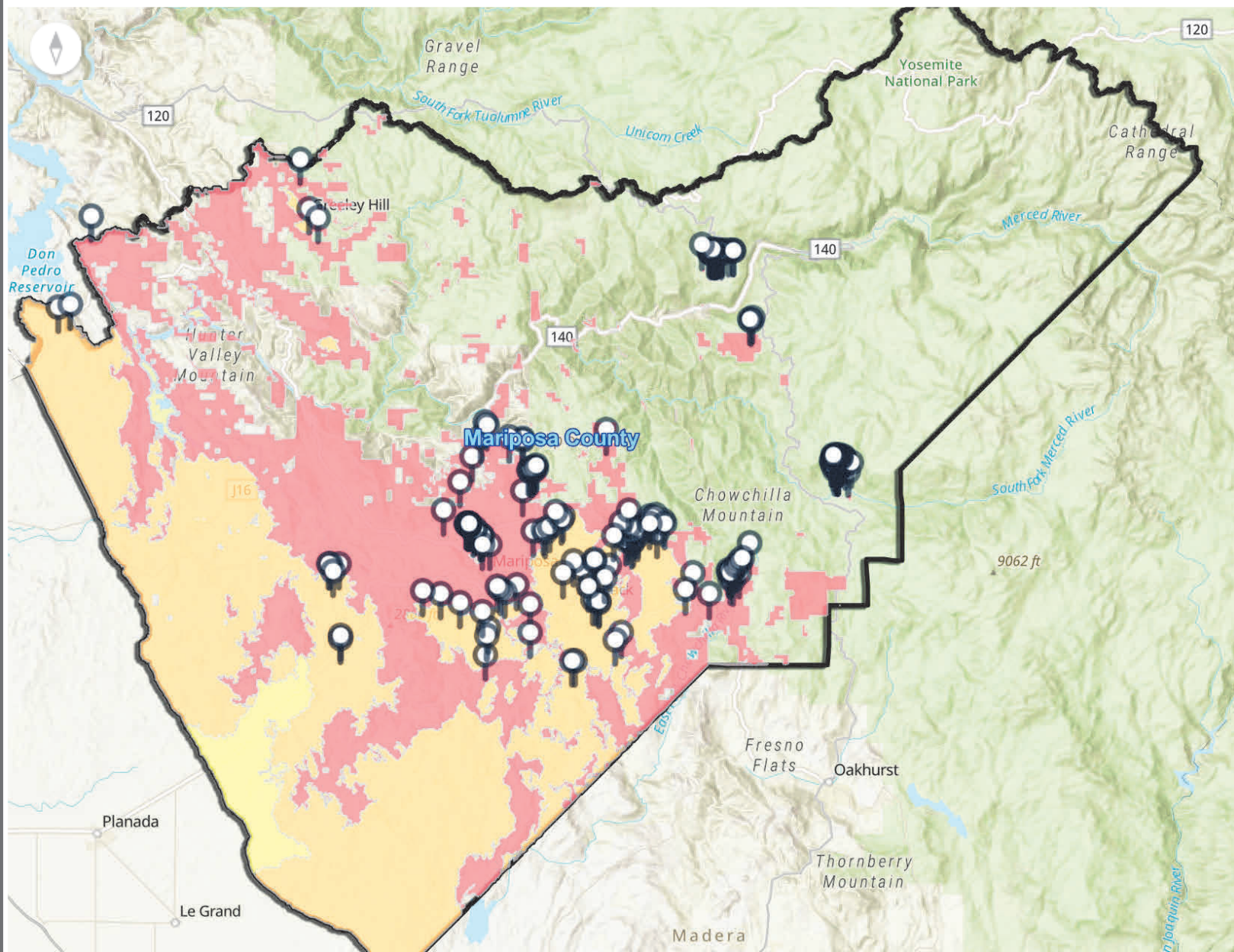


Removal of dead/downed wood in the creekbed in Zones 1 and 2





Mariposa County Home Hardening with SRA FHSZ



Esri, CGIAR, USGS | Fresno County Dept. PWP, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

Home Hardening List Fire Hazard Severity Zones SRA CAL FIRE Mariposa County Boundary (Public)



FHSZ_Description

High Moderate Very High

