Ready! Set! Go!
Wildfire Preparedness

Martinez Area

Community Emergency Response Team

July 1, 2021

Today's Workshop

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Martinez Area CERT

Content Credit

Cal Fire

UC Cooperative Extension

Housekeeping

- **Participant audio and video OFF**
- **Use the CHAT for questions**
- **Q & A at the end of section**
- **STANDBY if connectivity is disrupted**
- **Workshop is NOT recorded**
- **Slides available at: martinezcert.org**

Visit us at the Martinez Farmers' Market, 2nd Sunday, July-October

What You Will Learn

- ✓How to determine your fire hazard severity risk
- ✓Types of fire hazard exposure
- ✓The elements of defendable space and home hardening
- ✓Home hardening priorities
- ✓The 6 P's of evacuation readiness
- ✓Resources for additional information

Wildfire! How will you respond?

Salmon Fire - May 1, 2021, Pilot Hill, CA (32ac)

What's At Risk?

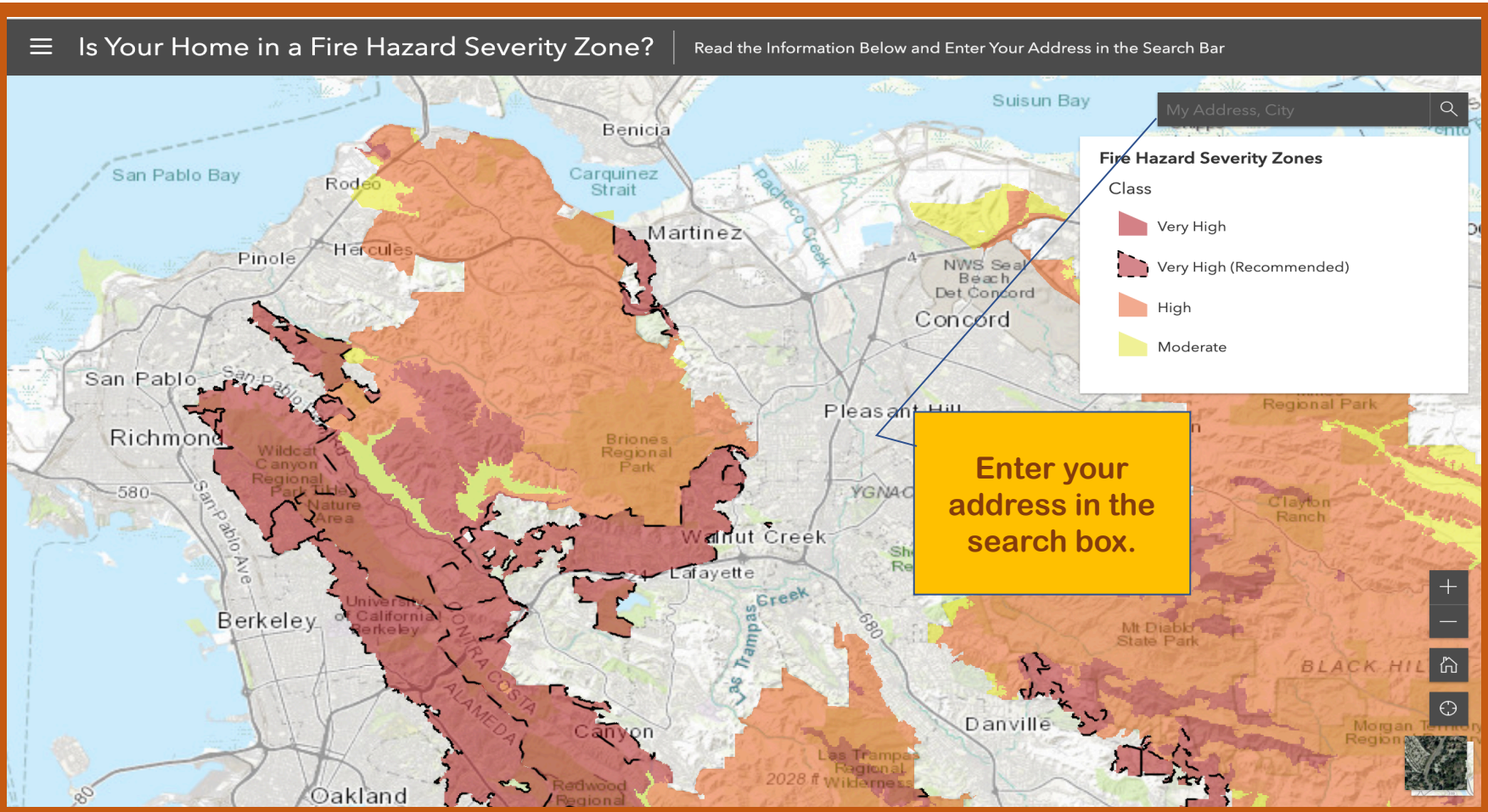
- ***2.7 million Californians*** live in an area of very high hazard for wildfire
- ***1 in 12 homes*** of the state's homes is at risk
- ***Fire is a part of California*** – it's destined to burn – failing to recognize this reality will lead to continued catastrophic fire events

Learn more about California's history with fire in this Sac Bee series;

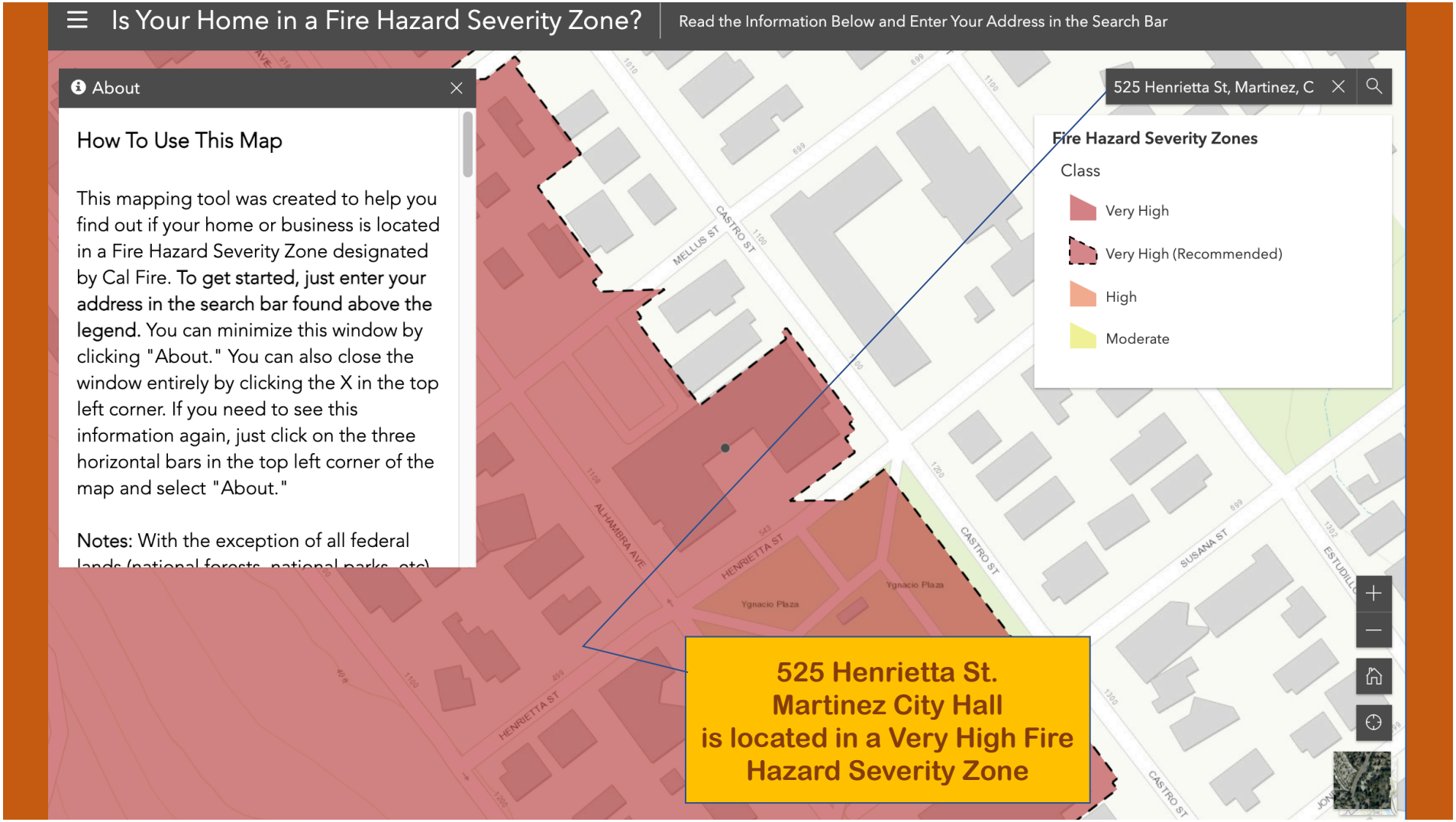
https://www.sacbee.com/news/california/fires/article228475464.html

Wildfire!
Are you… READY?

Do You Know Your Wildfire Hazard Risk?



Use this link to identifty your fire hazard severity zone.
https://www.arcgis.com/apps/Styler/index.html?appid=5e96315793d445419b6c96f89ce5d153

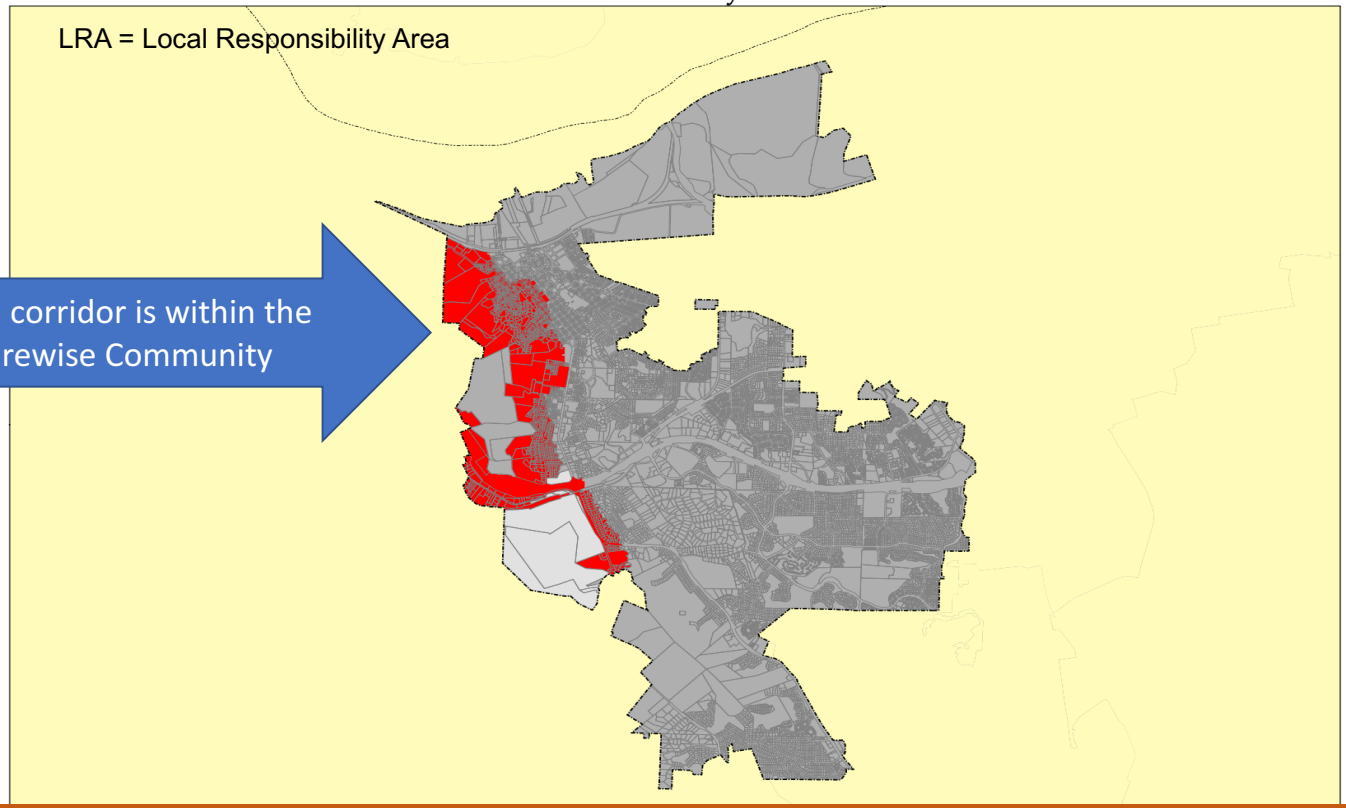

Is Your Home in a Fire Hazard Severity Zone?
Read the Information Below and Enter Your Address in the Search Bar
About
How To Use This Map
This mapping tool was created to help you find out if your home or business is located in a Fire Hazard Severity Zone designated by Cal Fire. To get started, just enter your address in the search bar found above the legend. You can minimize this window by clicking "About." You can also close the window entirely by clicking the X in the top left corner. If you need to see this information again, just click on the three horizontal bars in the top left corner of the map and select "About."
Notes: With the exception of all federal
525 Henrietta St, Martinez, C
Fire Hazard Severity Zones
Class
Very High
Very High (Recommended)
High
Moderate
525 Henrietta St.
Martinez City Hall
is located in a Very High Fire
Hazard Severity Zone
HENRIETTA ST
CASTRO ST
MELLUS ST
ALHAMBRA AVE
SUSANA ST
Ygnacio Plaza

FRAP

Martinez

Very High Fire Hazard Severity Zones in LRA
As Recommended by CAL FIRE

LRA = Local Responsibility Area

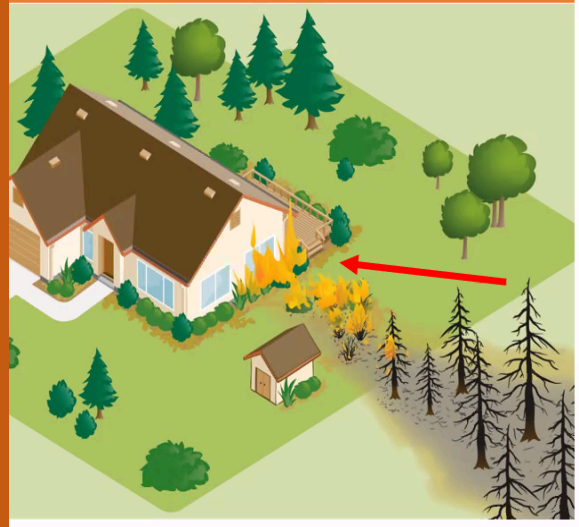


The Alhambra corridor is within the Martinez Firewise Community

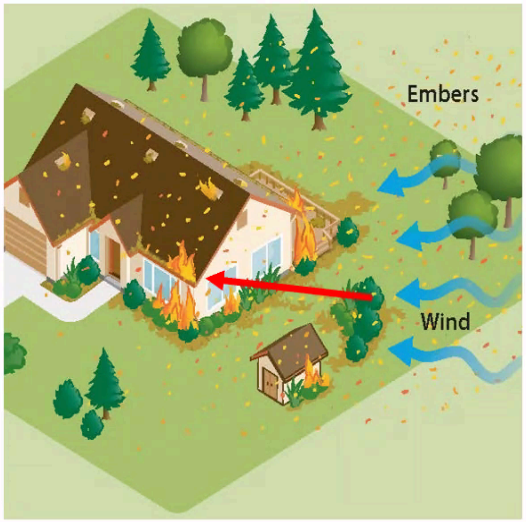
Know Your Fire Hazard Exposures

UC CE

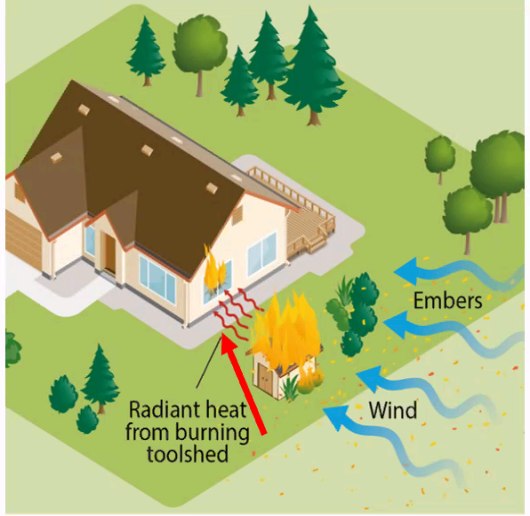
Direct flame contact



Embers



Radiant heat



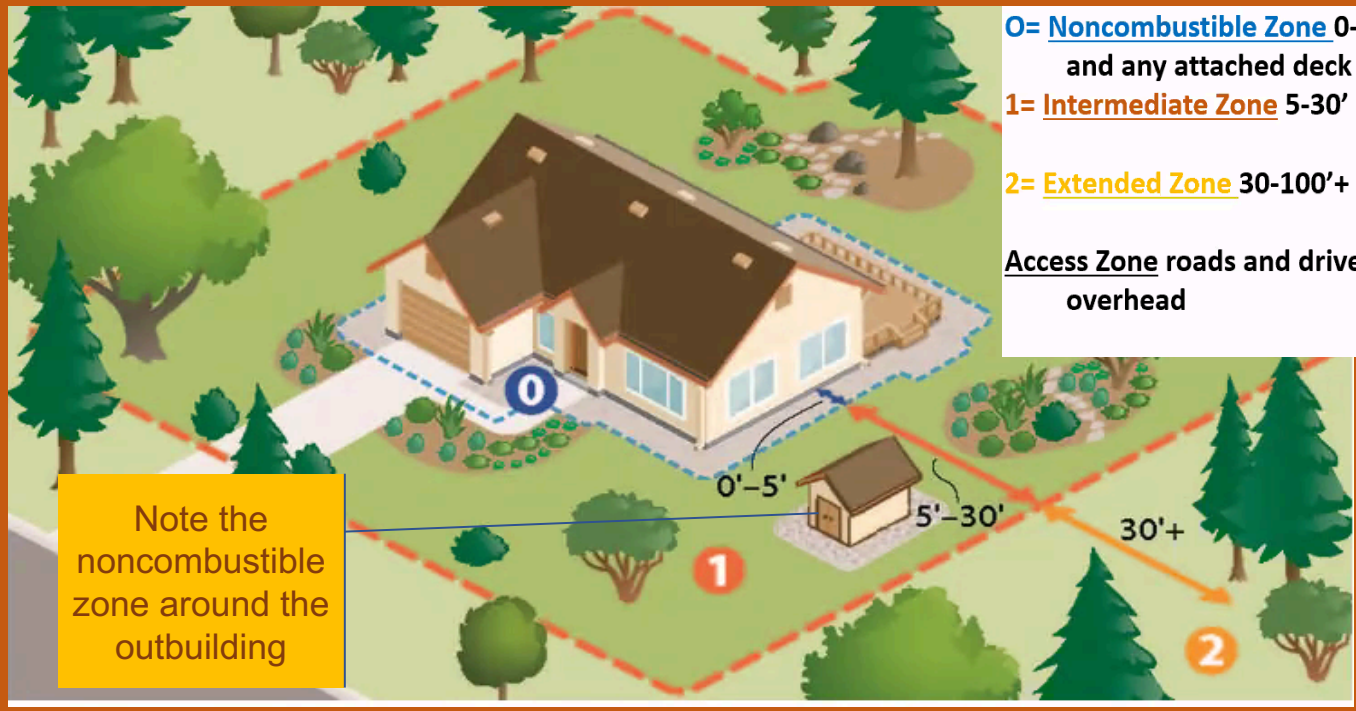
Wind-blown embers are responsible for the majority of building ignitions

Angora Fire – South Lake Tahoe
2007

This property is located on Alhambra Ave.

This property is located on Alhambra Ave.

Maintain Defensible (*Defendable*) Space



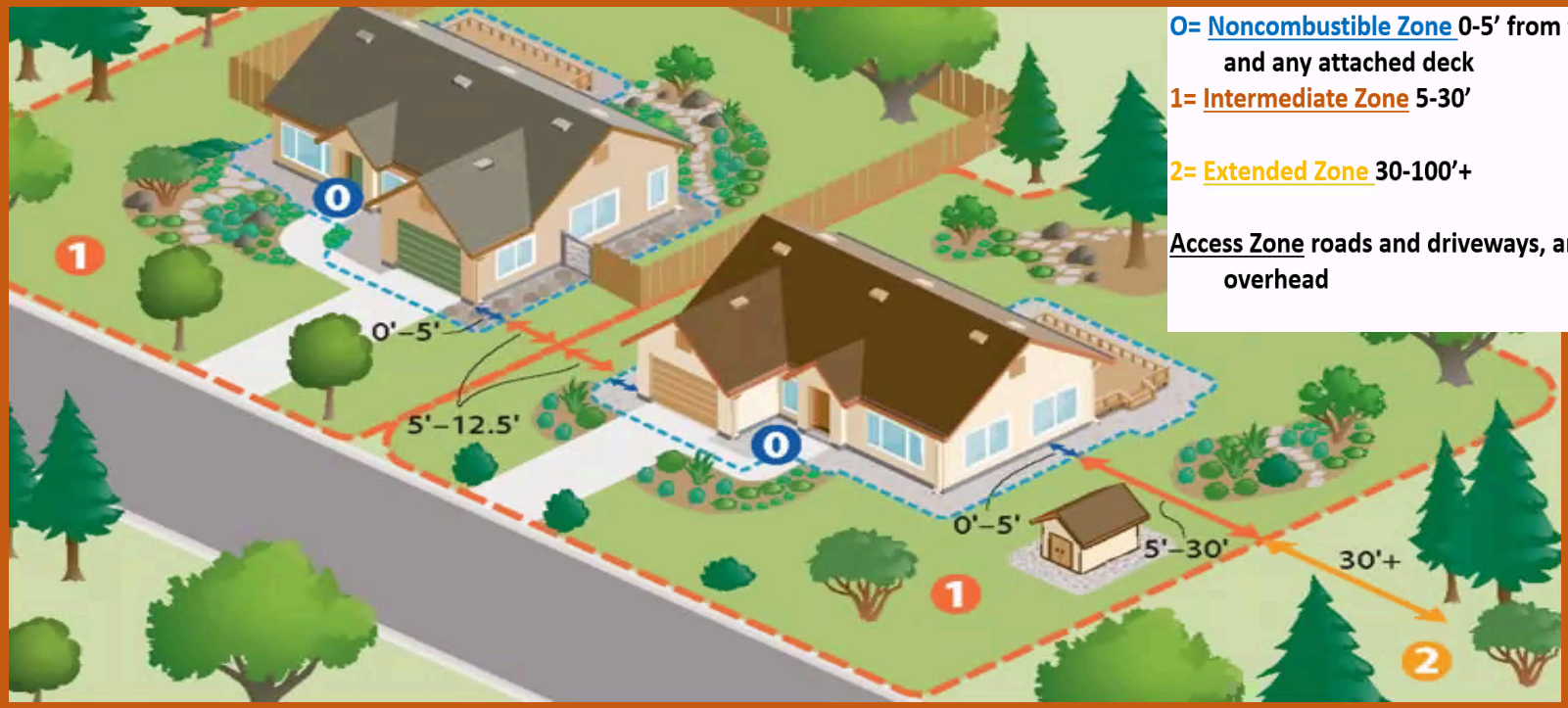
O= Noncombustible Zone 0-5' from the house and any attached deck

1= Intermediate Zone 5-30'

2= Extended Zone 30-100'+

Access Zone roads and driveways, and overhead

Maintain Defensible (*Defendable*) Space with Your Neighbors



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Defensible (*Defendable*) Landscape Space

VERTICAL SPACING

Remove all tree branches at least 6 feet from the ground.

If shrubs are under trees, additional vertical space is needed. Lack of vertical space can allow a fire to move from the ground to the shrubs to the treetops like a ladder.

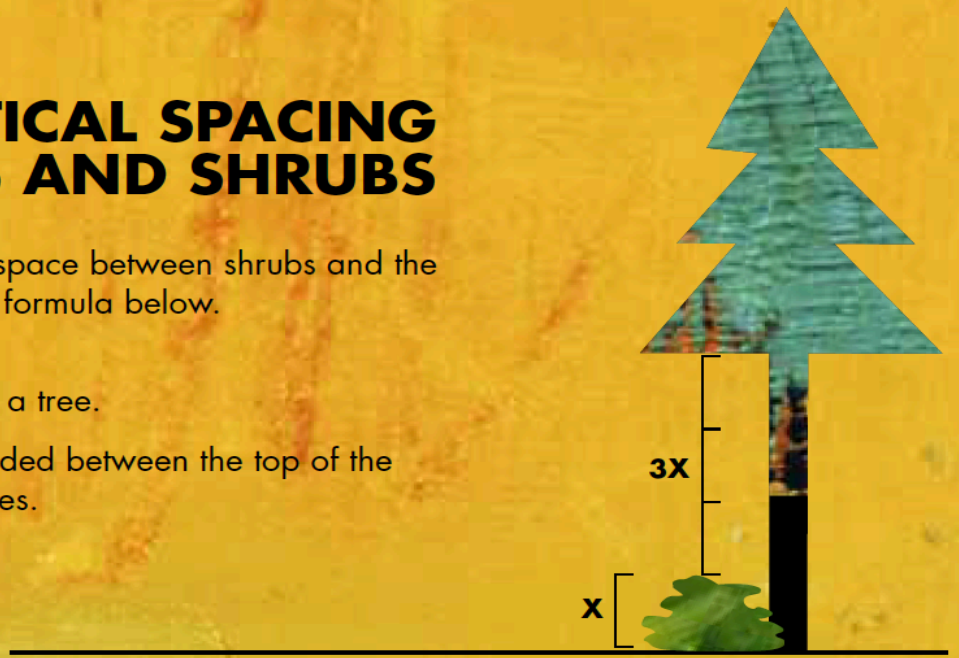
Defensible (*Defendable*) Landscape Space

MINIMUM VERTICAL SPACING BETWEEN TREES AND SHRUBS

To determine the proper vertical space between shrubs and the lowest branches of trees, use the formula below.

Example:
A five-foot shrub is growing near a tree.

3 x 5 = 15 feet of clearance needed between the top of the shrub and the lowest tree branches.



Defensible (*Defendable*) Landscape Space

MINIMUM HORIZONTAL SPACING FOR TREES AND SHRUBS

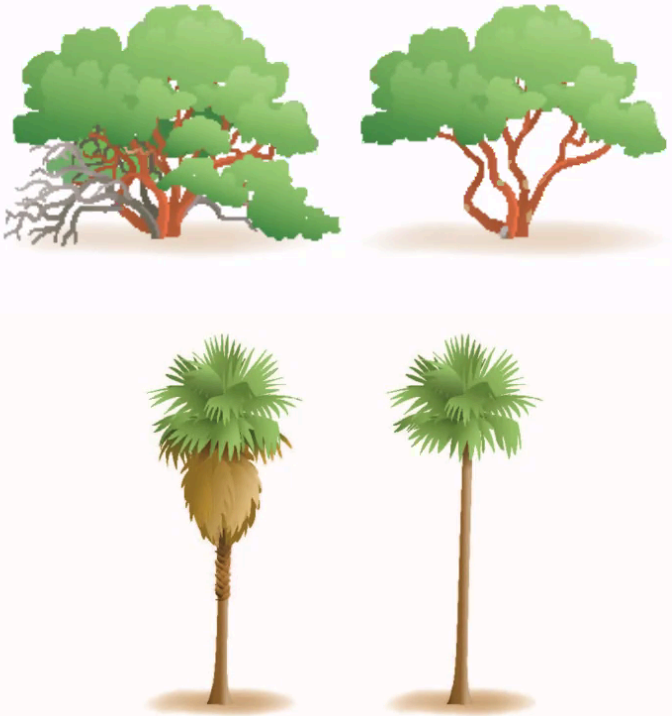
Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. Check the diagrams below to determine spacing distance.

FLAT TO MILD SLOPE (LESS THAN 20%)

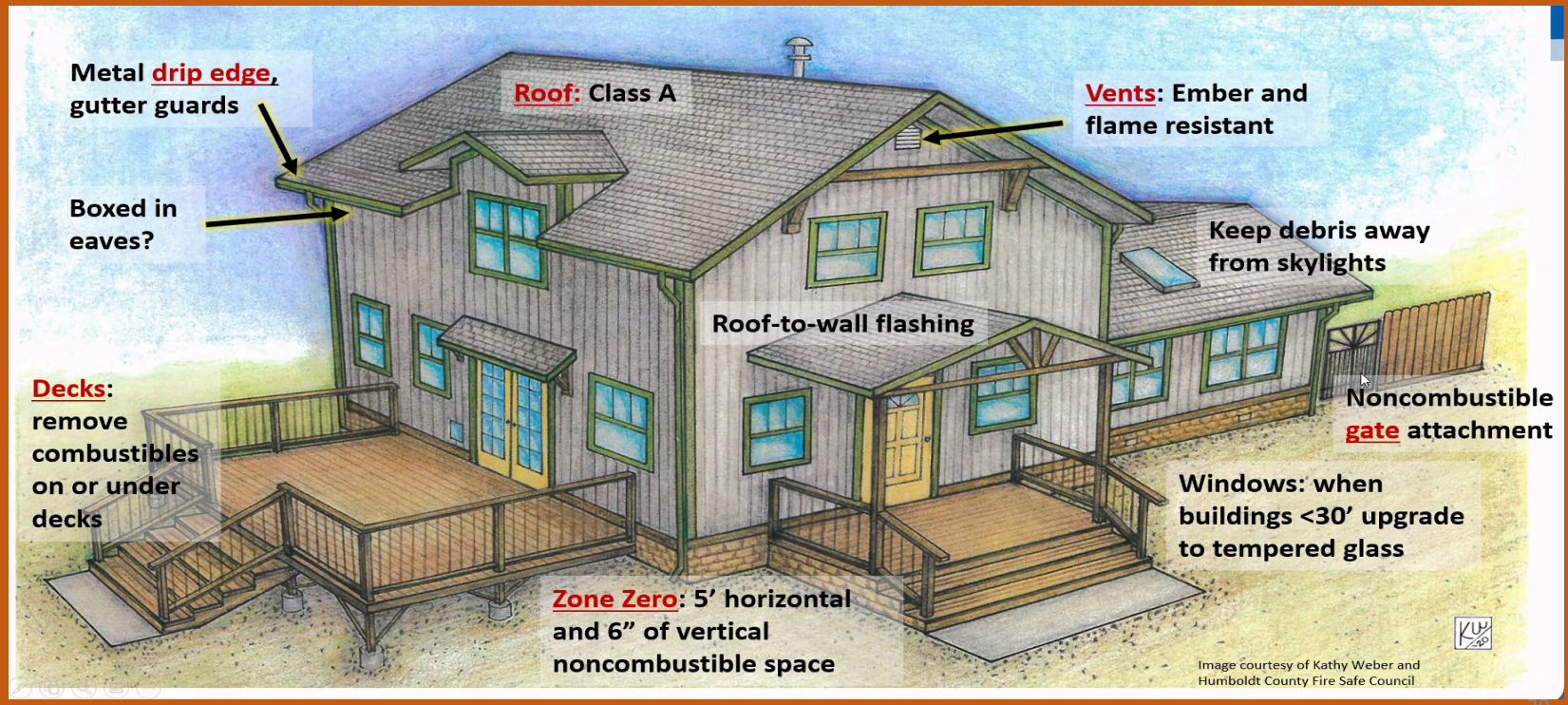
Moderate slope = 4x shrubs, 20ft trees. Steep slope = 6x shrubs, 30ft trees.

Plant placement is more important than plant type

- ✓All plants can burn regardless of how they are marketed
- ✓Fire safe landscaping requires maintenance (pruning, irrigation, clean-up)
- ✓Select low growing, open structured, less resinous, higher moisture content plants
- ✓Native and drought tolerant can be options, if maintained well
- ✓More info: Research Literature Review of Plant Flammability Testing, Fire-Resistant Plant Lists and Relevance of a Plant Flammability Key for Ornamental Landscape Plants in the Western States (Bethke, et al 2016 UCCE San Diego)



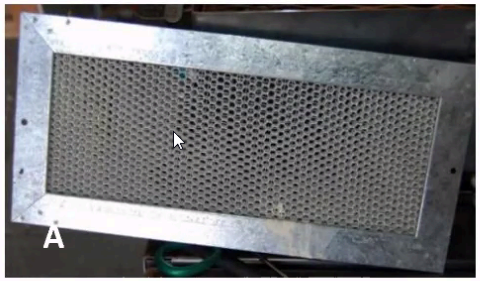
Defensible (*Defendable*) Space
Home Hardening



Roof maintenance challenges and weak areas

Litter accumulation creates exposure to the wall unit (not protected with roofing).
Flash the wall-to-roof intersection or upgrade to meet a one-hour fire rating (e.g., gypsum board or mineral wool insolation).

Vents – California's Chapter 7A



A = screening (embers) and intumescent honeycomb mesh (flame)
B = steel wool mesh (embers and flame)
C = screening and baffles (embers and flame)
D = screening and steel wool mesh (embers and flame)

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Deck: Attachment Detail

WILDFIRE RESEARCH FACT SHEET

Decks

Reduce the Vulnerability of Your Deck to Wildfire

MANY HOMES LOCATED IN WILDFIRE-PRONE AREAS HAVE ATTACHED DECKS, WHICH CAN POTENTIALLY SPREAD FIRE TO THE HOUSE WHEN IGNITED DURING A WILDFIRE.

A burning deck can ignite siding or break the glass in doors or windows, allowing fire to gain entry into the house. Consequently, making decks less vulnerable to wildfire also makes your house less vulnerable. Reducing the deck's vulnerability requires an approach that focuses on the materials and design features used to build the deck, and creating a noncombustible zone around and under the deck.

EMBER EXPOSURE AND IGNITION

Walking surfaces of decks are either solid surface or constructed using deck boards (with between board gaps). Solid surface decks are commonly light weight concrete or tile. Combustible deck board types include: solid wood and wood-plastic composites (these products are more widely used than noncombustible deck boards). Noncombustible deck board types include: metal and fiber cement.

Recent testing at the IBHS Research Center showed embers mostly lodge between deck board gaps and where deck boards rest on joists. Embers can accumulate and potentially ignite decking and combustible joists. Embers can also fall through board gaps and land on materials stored beneath the deck. It's critical to remove all combustible materials from the under-deck area to minimize the opportunity for ignitions, where resulting flames would impinge on the decking (some wood-plastic decking products are vulnerable to flaming exposures).

IBHS tests also showed that even without vegetative debris in between deck gaps, medium density softwood decking products, such as redwood or western redcedar are vulnerable to ember ignitions. Most wood-plastic composites, along with higher density tropical hardwood, and fire-retardant treated decking products are less vulnerable to embers. The vulnerability to embers in these locations is a reminder to remove debris that accumulates in these areas.

BUILDING CODE REQUIREMENTS

The International Wildland Urban Interface Building Code (IWUIC) and the California Building Code are the most commonly referenced construction codes for wildfire-prone areas; both include requirements that focus on the walking surfaces of decks. Noncombustible products are allowed by both codes.

The California Code provides provisions for accepting combustible decking products. These types of products are more commonly used by homeowners living in wildfire-prone areas across the country. Their requirement governs the amount of heat released when combustible decking is ignited by a gas burner. This mimics burning debris that could be located under the deck, or burning vegetation impinging on the underside of the deck, but does not mimic ember exposure. Combustible decking products that comply with the California Code can be found at: http://osfm.fire.ca.gov/licensinglistings/licenselisting_bml_searchcotest.

The IWUIC prohibits common combustible deck boards with the exception of fire-retardant treated decking (rated for outdoor exposure) and other materials that meet the requirements of an Ignition Resistant Material. However, as of this date, no other materials meet these requirements. The IWUIC allows an enclosed deck option that uses a horizontal construction attached to the bottom of the deck joists. This option should only be used with a solid surface deck. Using this option with deck boards (and the associated gaps), will cause moisture-related degradation problems (corrosion of fasteners and wood rot). Water from rain or melting snow will easily get into the enclosed space and will have a much harder time getting out.

RECOMMENDATIONS FOR YOUR DECK:

1. Combustible materials should not be stored beneath decks. This will effectively create a noncombustible zone under the entire footprint of the deck.
2. Routinely remove debris that accumulates in between deck board gaps and debris that can accumulate at the intersection between the deck and house.
3. If the deck is a non-fire-retardant treated softwood deck, consider removing and replacing deck boards within a few feet of the house. Be careful to match the deck board thickness.
4. When building new decks, select deck boards that comply with the California Building Code requirements. If using wood joists, cover the top and part of the sides with a foil-faced bitumen tape product.

Maintenance is critical and consider:

- Non-combustible boards adjacent to the siding
- Foil faced tape on deck joists, ¼ gap between deck boards, 24” on center

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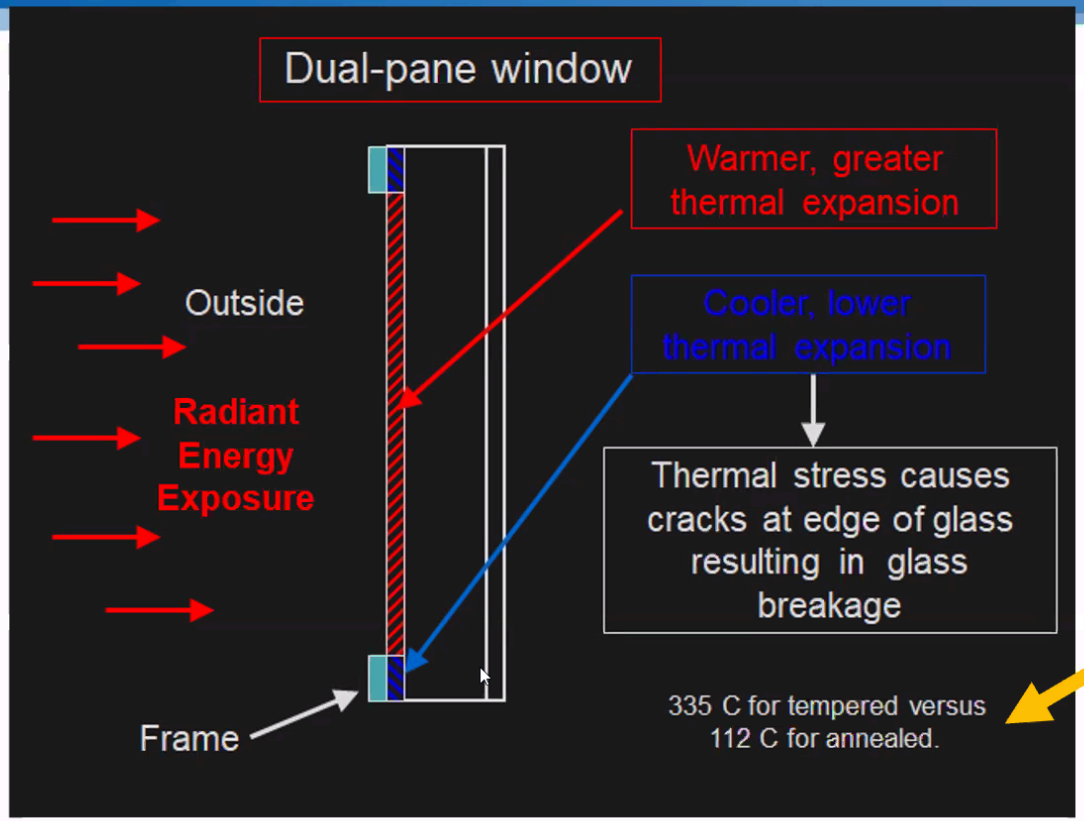
Windows and Doors



Upgrade windows to tempered glass where radiant heat exposure are likely

Break the fence to house connection

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Fence Vulnerability

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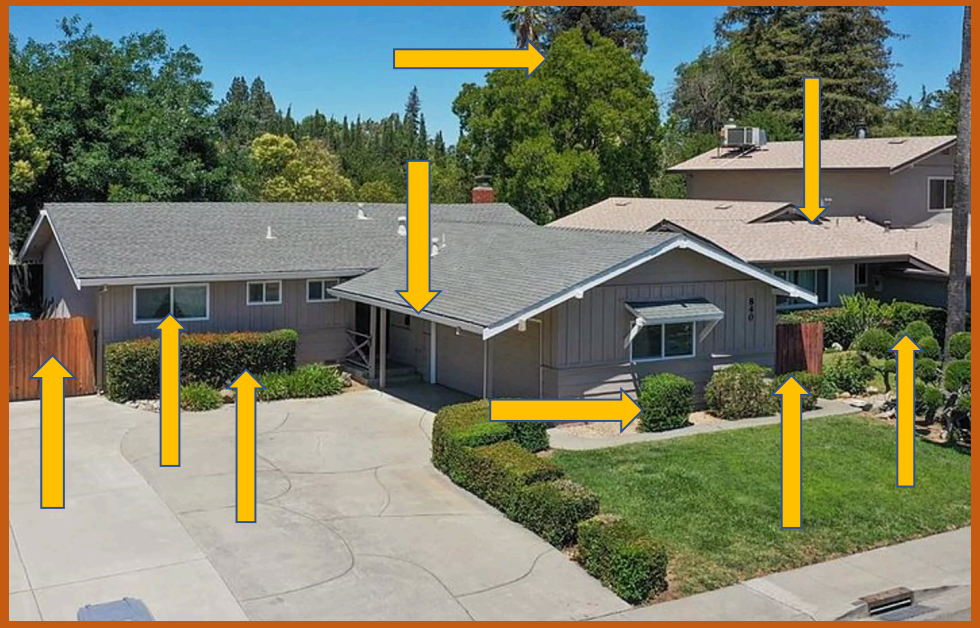
Self Check Question

What are the opportunities for home hardening and defendable space in this image?

Self Check Question

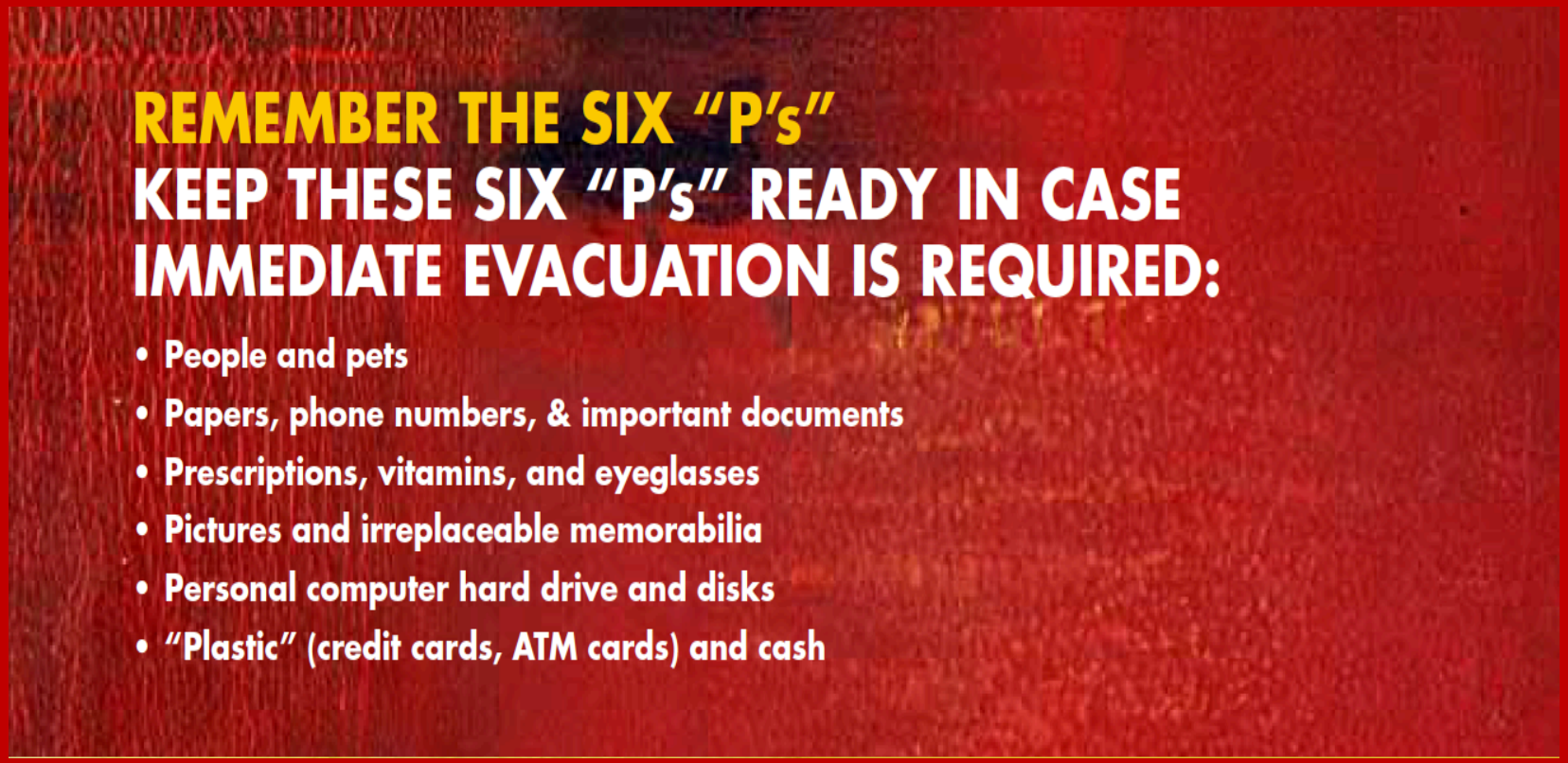
What are the opportunities for home hardening and defendable space In this image?



Wildfire is coming.
Are you… SET?

Create A Wildfire Action Plan

KNOW THE LAW
BE READY TO EVACUATE
CALIFORNIA LAW AUTHORIZES OFFICERS TO RESTRICT ACCESS TO ANY AREA WHERE A MENACE TO PUBLIC HEALTH OR SAFETY EXISTS DUE TO A CALAMITY SUCH AS FLOOD, STORM, FIRE, EARTHQUAKE, EXPLOSION, ACCIDENT OR OTHER DISASTER. REFUSAL TO COMPLY IS A MISDEMEANOR. (PENAL CODE 409.5)


REMEMBER THE SIX "P's"
KEEP THESE SIX "P's" READY IN CASE IMMEDIATE EVACUATION IS REQUIRED:
• People and pets
• Papers, phone numbers, & important documents
• Prescriptions, vitamins, and eyeglasses
• Pictures and irreplaceable memorabilia
• Personal computer hard drive and disks
• "Plastic" (credit cards, ATM cards) and cash

Pre-Pack Your Go Bag

- ✓ Documents flash drive
- ✓ Cash (≤ $20 bills)
- ✓ Map with 2 evacuation routes (practice these)
- ✓ Emergency contacts list
- ✓ PPE – masks, goggles, gloves

Wildfire is coming.
Are you ready to… GO?

Evacuation

Don’t Wait! Get Out!!

- ✓Get your Family
- ✓Get your Pets
- ✓Get your Go Bags
- ✓Know the roads to escape from the area
- ✓Go to your evacuation meeting place
- ✓Always keep at least a ½ tank of gas in your vehicle

Resources

WILDFIRE IS COMING PREPARATION GUIDES:

Resources

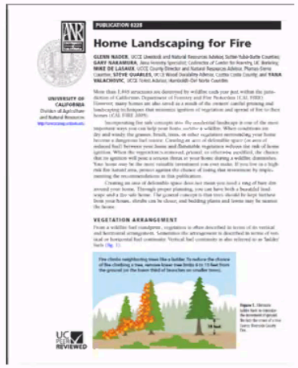
CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885
Go to ReadyForWildfire.org for more detailed information on all three guides to prepare for and survive a wildfire.

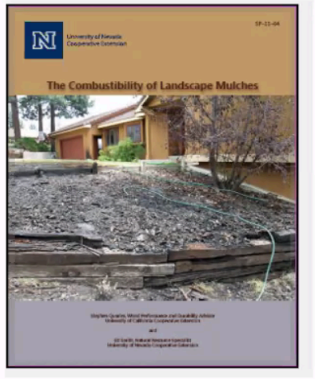
Resources

- https://ucanr.edu/sites/fire/
- https://disastersafety.org/wildfire/
- https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA/Firewise-USA-Resources/Research-Fact-Sheet-Series
- https://firesafemendocino.org/homehardening/
- http://www.readyforwildfire.org/wp-content/uploads/Wildfire_Home_Retrfit_Guide-1.26.21.pdf
- https://www.firesafemarin.org/

CA Building Code Chapter 7A WUI construction

- http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes
- http://osfm.fire.ca.gov/codedevelopment/wildfireprotectionbuildingconstruction
- https://osfm.fire.ca.gov/divisions/fire-engineering-and-investigations/building-materials-listing/bml-search-building-materials-listing/





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Questions & Answers
www.martinezcert.org