

Zeile Creek Canyon Defensible Space Training

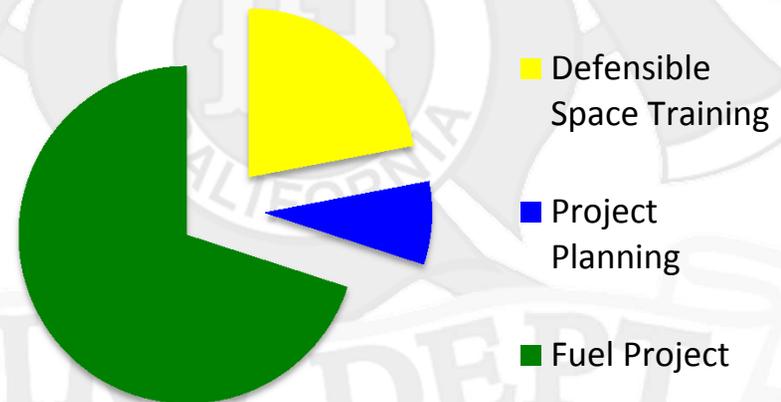


Overview of Grant for Ziele Creek Canyon Defensible Space Program

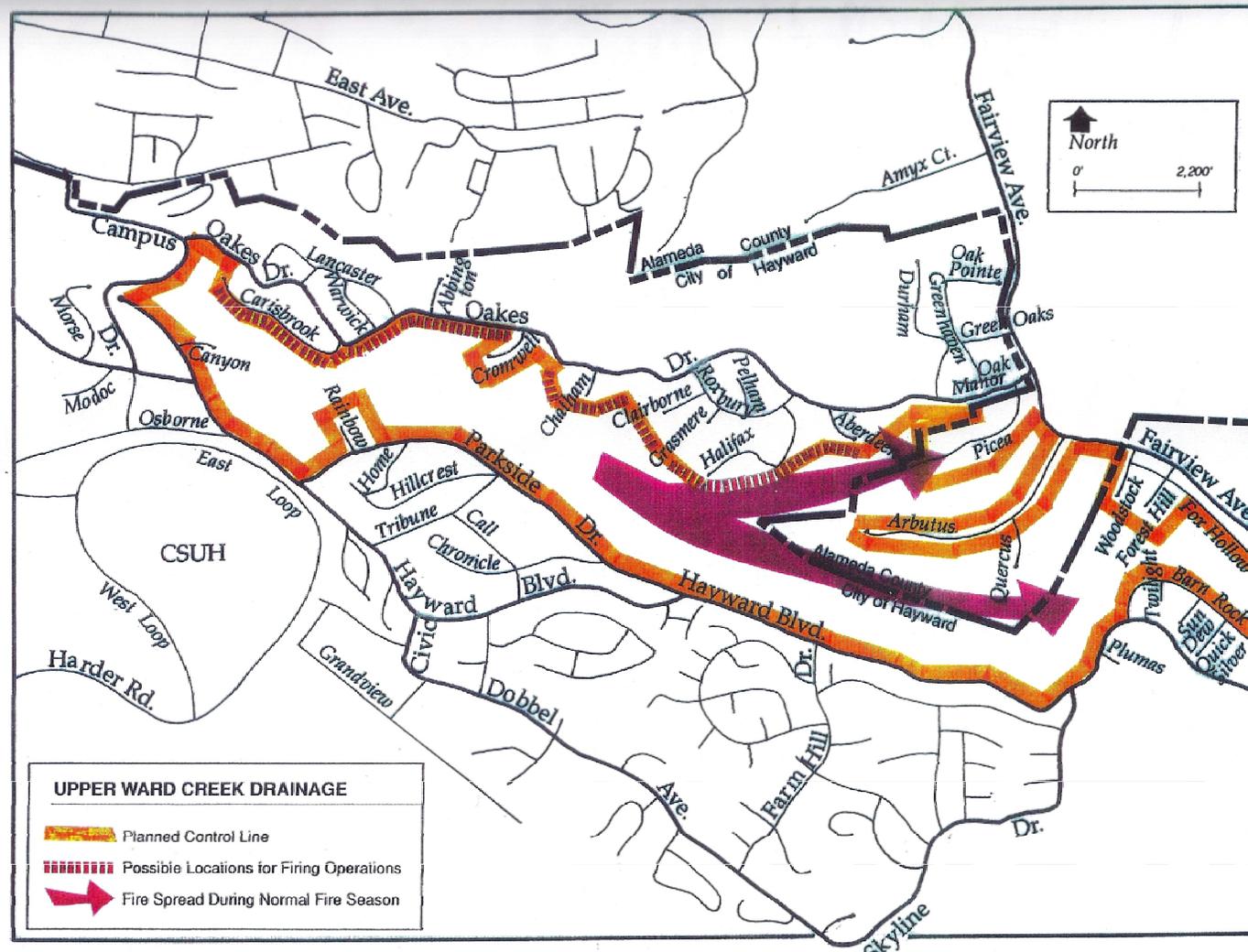
- Defensible space training with demonstration projects
- A planning session to identify and prioritize short and long term community fuel reduction projects.
- Funding for fuel reduction for short term priority projects and a chipping service for neighbors.



Grant Breakdown



Potential Fire in Hayward Canyons

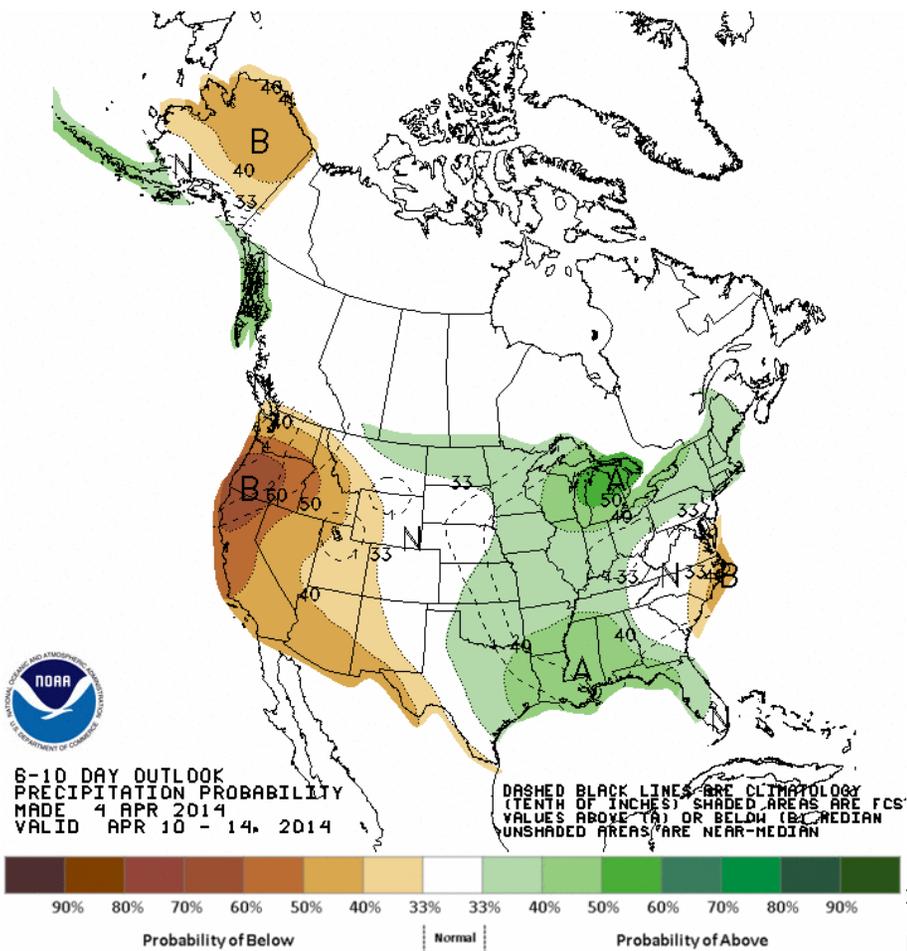


- Non-fire Season
- Normal Fire Season
- Red Flag Conditions

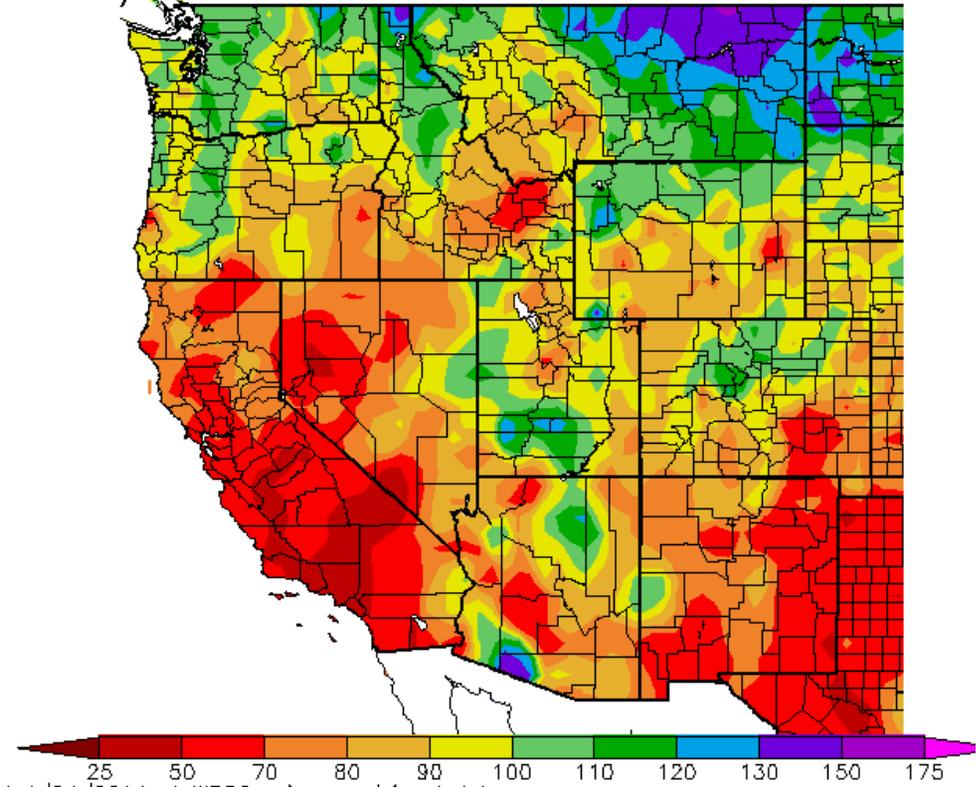
From: Fire Management Plan for Upper Ward Creek Drainage



especially during periods of drought ...



Percent of Average Precipitation (%)
4/4/2011 - 4/3/2014



dated 4/04/2014 at WRCC using provisional data.
Regional Climate Centers



And fire seasons that do not end

https://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=208523333872813891131.0004c02beb4f2788337d0&ll=37.055... ☆ ☰

Apps Homepage - KDFC - DFSC foundation gra Sacramento Metro p My Fitness Log (flog) Oakland Public Libra Other Bookmarks

Google Sign in

Get directions My places Save to My Places

California Fire Map

This map created by CAL FIRE provides general locations of major fires burning in California. The fires locations are approximates.

Public · 5,882,631 views
Created on May 16, 2012 · By CALFIRE · Updated Jan 27
★★★★★ 22 ratings · 21 comments · KML

- Colby Fire**
#ColbyFire [final] near Morris Reservoir, north of Glendora (Los Angeles County) is not 1,952 acres and 100% contained. @LACo_FD @AngelesNF
- Lake Fire**
#LakeFire [final] off Trimmer Springs Rd & Sunnyslope Rd near Pine Flat Lake (Fresno County) is now 100% contained at 106 acres.
- Campbell Fire**
Campbell Fire [update] Ishi Wilderness east of Red Bluff in the Lassen National Forest. (Tehama County). ***This was NOT a CAL FIRE incident. For more information please visit: <http://inciweb.nwccg.gov...>
- Red Fire**
#RedFire [final] South of Berry Summit, West of Willow Creek (Humboldt County) is now 100% contained at 333 acres.
- Grant Fire**
#GrantFire [final] off Mount Hamilton Road near Grant Ranch County Park (Santa Clara County) was 40 acres and 100% contained.
- Bridge Fire**
Firefighters battled an 18 acre fire near the community of Bridgeville. (Humboldt County) The #BridgeFire is 100% contained.
- Brewer Fire**
#BrewerFire [final] off South Brewer Road, west of Roseville (Placer County) is now 120 acres and 100% contained.

Report a problem

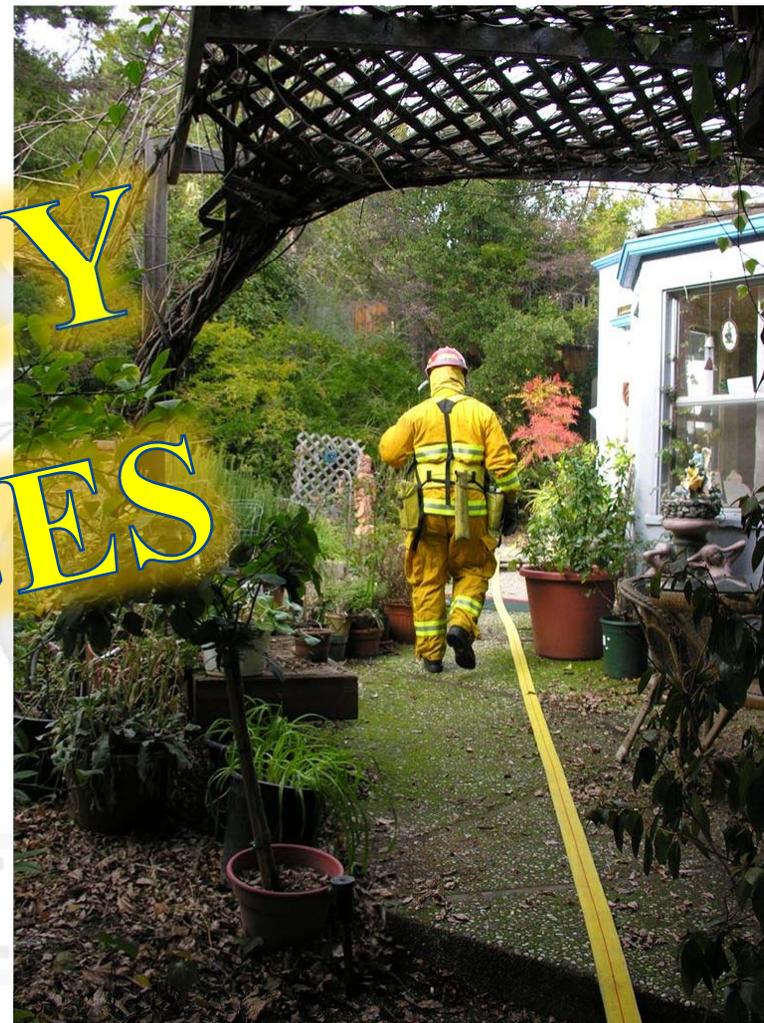
100 mi 200 km

Imagery ©2014 NASA, TerraMetrics, Map data ©2014 Google, INEGI Report a problem



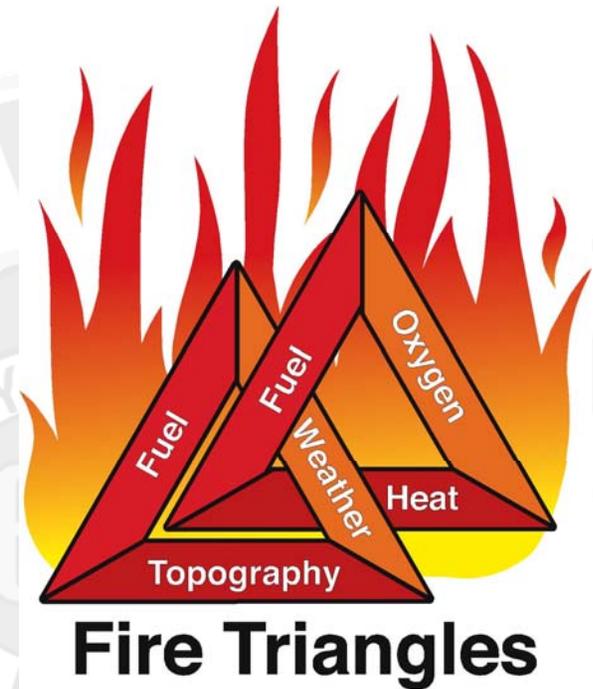
Fire Prevention Goals

LIFE
PROPERTY
RESOURCES



Understanding Wildfire Behavior

- In Order to Burn, Fire Needs:
 - Heat, fuel and oxygen
 - Can't do much about heat and O₂, but we can control **fuels**...
- Wildfire Behavior is Determined by:
 - Fuel
 - vegetation, combustible material, or structures
 - Topography
 - Slope, aspect, geographic features
 - Weather
 - RH, wind speed and direction, air temperature



Wildfire Fuel Characteristics

Fuel Classifications

- 1 hr
- 10 hr
- 100 hr
- 1000 hr

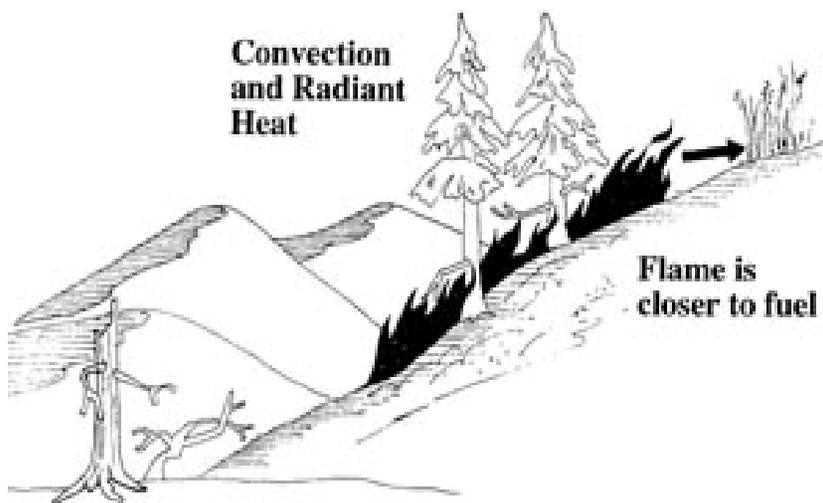


Photo by JOHN GIBBINS / Union-Tribune
Cedar Fire about to engulf the Scripps Ranch residential community



Topography

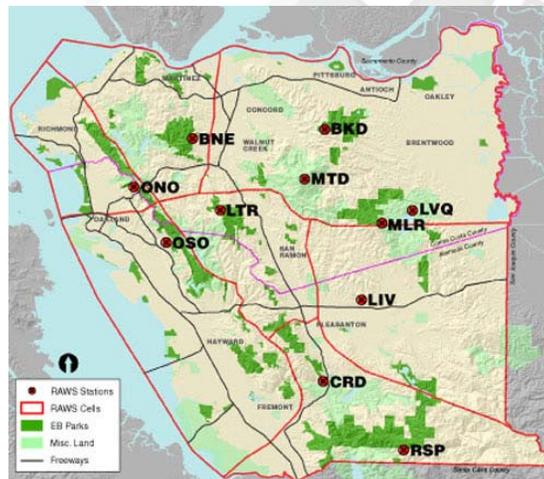
- The greater the slope, the greater the intensity of the fire.
- Fire moves faster and hotter up a slope.



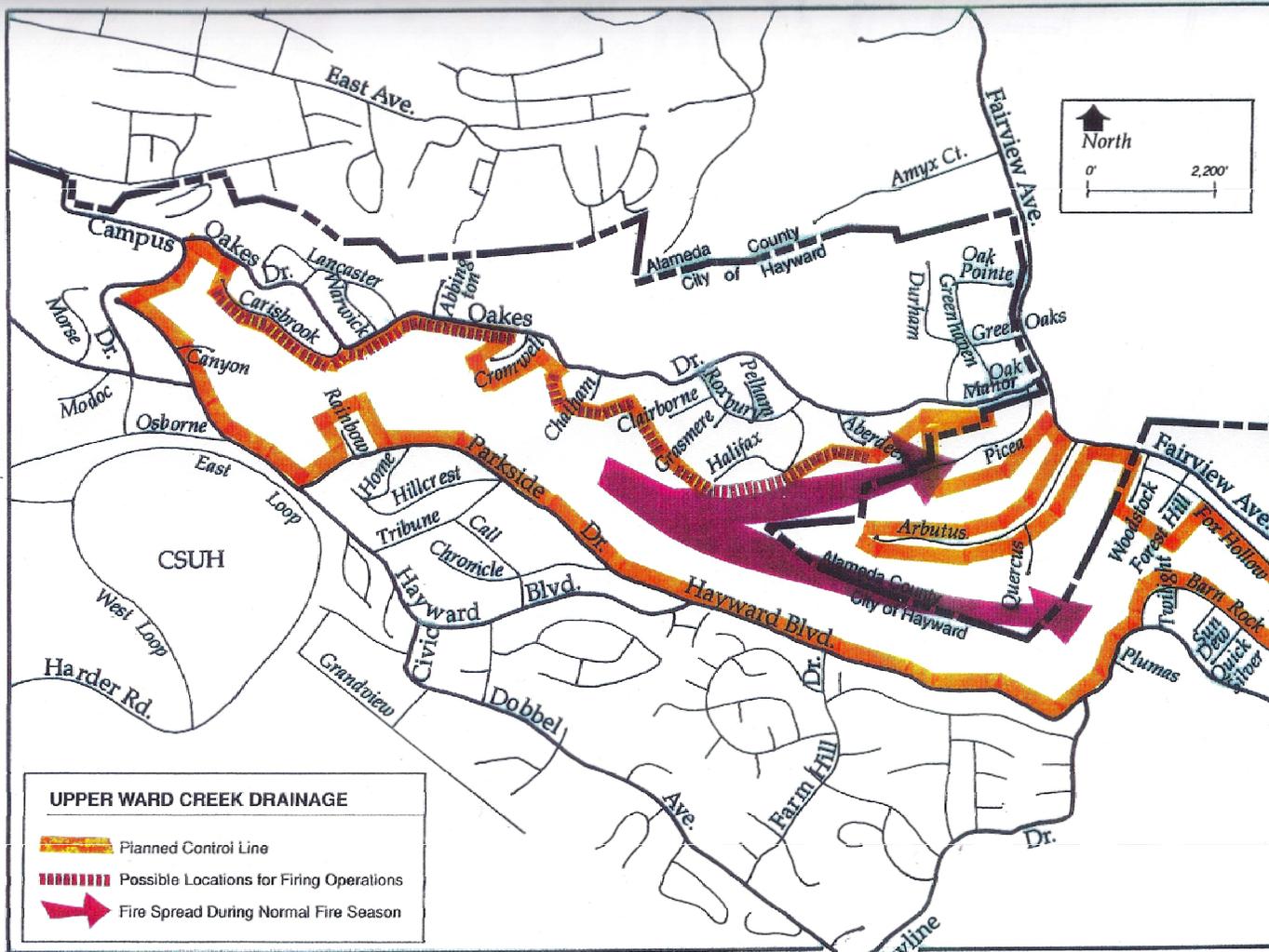
Weather

Fire Weather = *Diablo Winds + low rH + high temp = dry fuels*

- Dry, hot northeast winds affect fuels ahead of flames
- Push fire down hill
- Rapidly change direction of fire
- Readings @local FS
- www.nws.gov



Potential Fire in Hayward Hills



From: Fire Management Plan for Upper Ward Creek Drainage



How Does Wildfire Spread?

Direct Flame Impingement



How Does Wildfire Spread? Ember/Firebrand Exposure



What Else Causes Ignition? Radiant Heat



Understanding Wildfire Behavior

BEST FIRE

Fire Types



Ground

Ground fires burn in natural litter, duff, roots or sometimes highly organic soils.

Once started they are very difficult to detect and control.

Fire may rekindle.

Surface

Surface fires burn in grasses, and low shrubs (up to 4' tall) or lower branches of trees.

Surface fires may move rapidly.

Ease of control depends upon fuel involved.



Crown

Crown fires burn in the tops of trees.

Once started they are very difficult to control since wind plays an important role in crown fires.



Spotting



Spotting can be produced by crown fires as well as wind conditions and topography. Large burning embers are thrown ahead of the main fire.

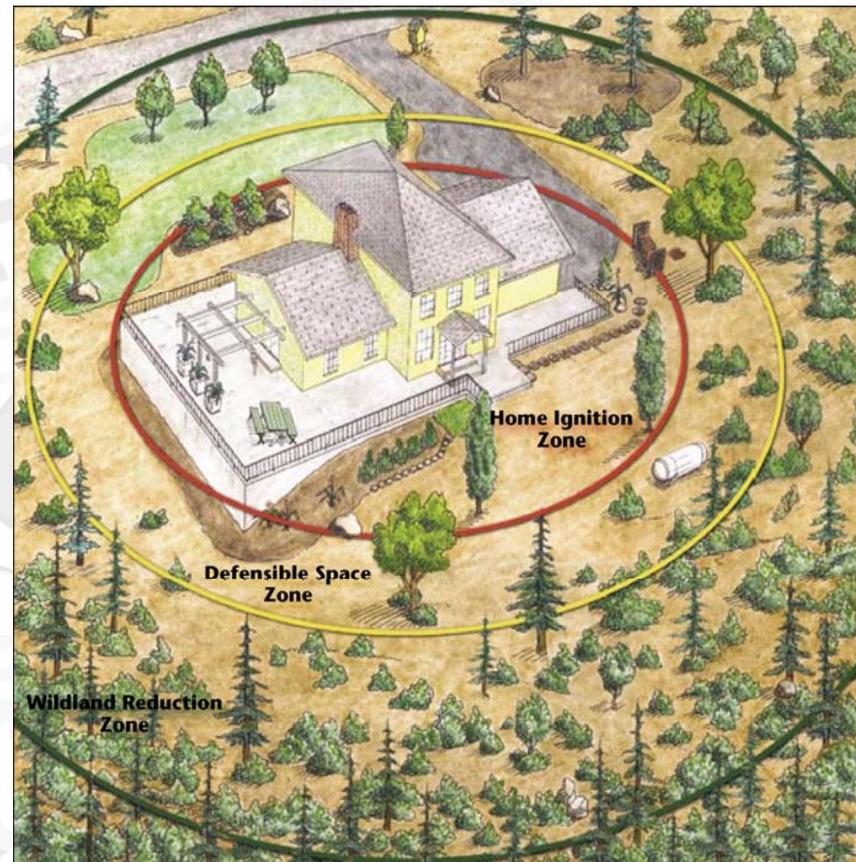
Once spotting begins the fire will be very difficult to control.



Protecting your Home from Wildfire

Defensible Space = Zones of reduced fuel outwards from home

- Landscape features spaced and maintained to prevent fire spread vertically and horizontally
- Spacing determined by the potential flame lengths expected from vegetation or structure materials
 - 0-6' is most restricted home ignition zone
 - 6-30' zone defensible space
 - 30'-100' is the reduced fuel zone



Objectives of Defensible Space

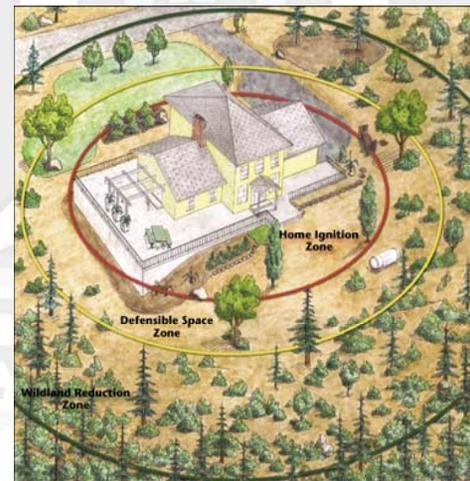
- Help structure resist ignition =
Reduce fuel and fire intensity
- Provide a safe working
environment for firefighters



Creating Defensible Space

Key Features: **Protect your home first!**

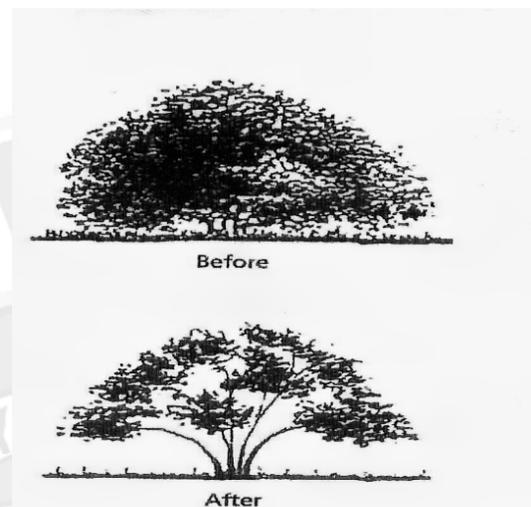
- Fuels closest to homes increase chance of ignition & damage
- Limit vegetation to minimize potential heat output; maximize hardscape
- Provide defense at structure's weakest spots (vents, decks, roofs, windows)



Key Features: **Break fire's path!**

Break up horizontal continuity

- Selectively thin plants and prune
- Thin number of plants or prune amount of material in each plant
- Increase spacing due to topography and plant type



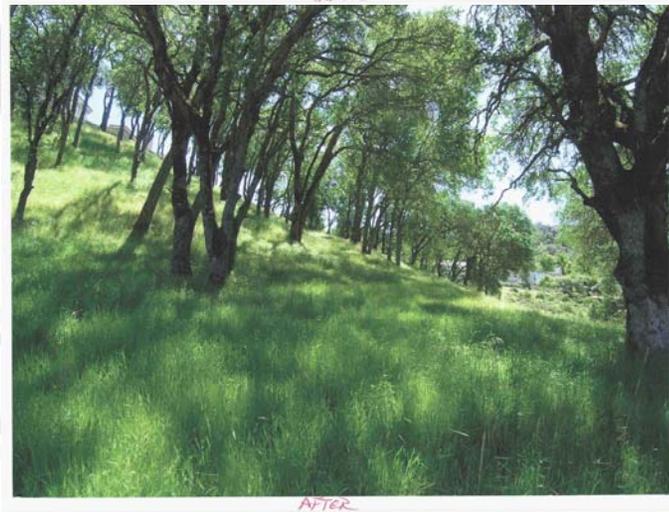
Key Features : Remember the Embers!

Reduce overall fuel load:

- Remove dead, downed materials
- Use informed pruning to rejuvenate plants that are woody or loaded with dead material



Ceanothus spp.



Key Features: *Friend or Foe?*

Plant characteristics in relation to wildfire

Desirable Characteristics

- Mineral content
- Little dead matter
- Thick or large leaf
- High moisture content
- Open airy form/ low fuel load

Undesirable Characteristics

- Aromatic oils
- Build up of dead matter
- Tiny leaves (easily ignites)
- Loses moisture easily
- High fuel load/ size of plant



Fremontodendron hybrid



Quercus lobata



Eucalyptus globulus



Juniperus species

Key Features: **Keep fire out of the trees!**

Remove Ladder Fuels

- Provide a separation between the vegetation layers - Make canopy fuels unavailable
- 3 times the height of the lower fuel layer is recommended



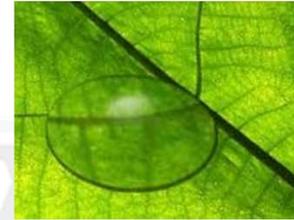
Key Features : *Healthy landscapes!*

Moisture content can reduce ignitions

Even during drought,

healthy landscapes are possible:

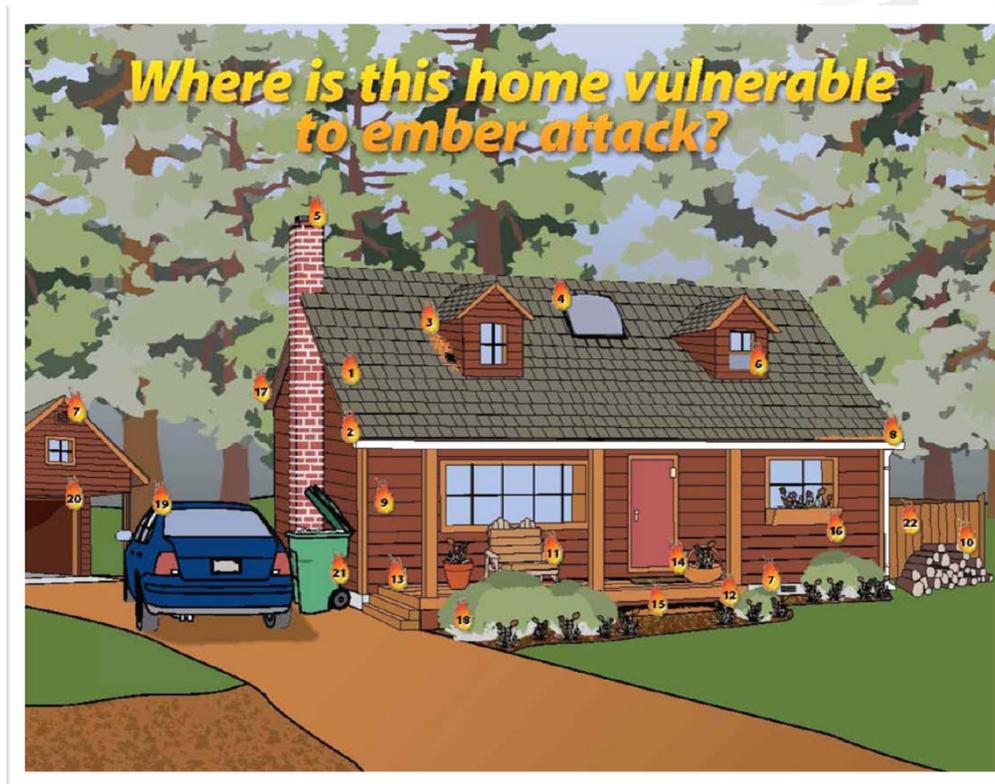
- Removal of dead material results in overall higher moisture levels
- Foliar moisture can be kept high without a lot of water (Some native plants will not tolerate excessive water)
- Less fuel is more important than high water content



Creating Defensible Space

Key Features: **Protect your home first!**

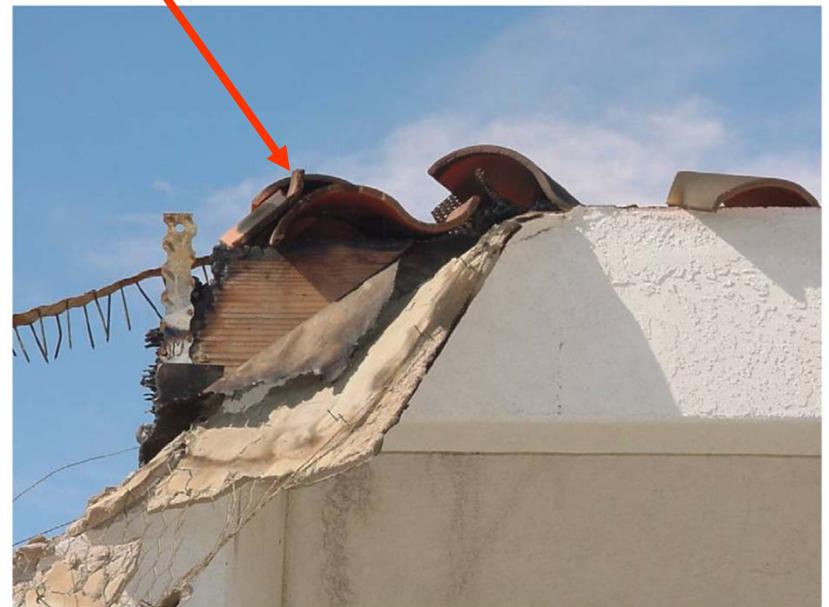
- Provide defense at structure's weakest spots (vents, decks, roofs, windows)



How Can Fire Enter Homes?

Ember/Firebrand Exposure to Roof Coverings and Assemblies

UNPROTECTED EDGE



How Can Fire Enter Homes?

Through Vents & Unprotected Openings

VENT
BLOCK



LAUNDRY
ROOM VENT

GABLE END
VENT



How Can Fire Enter Homes?

Embers Landing in Material at Bottom of Exterior Walls

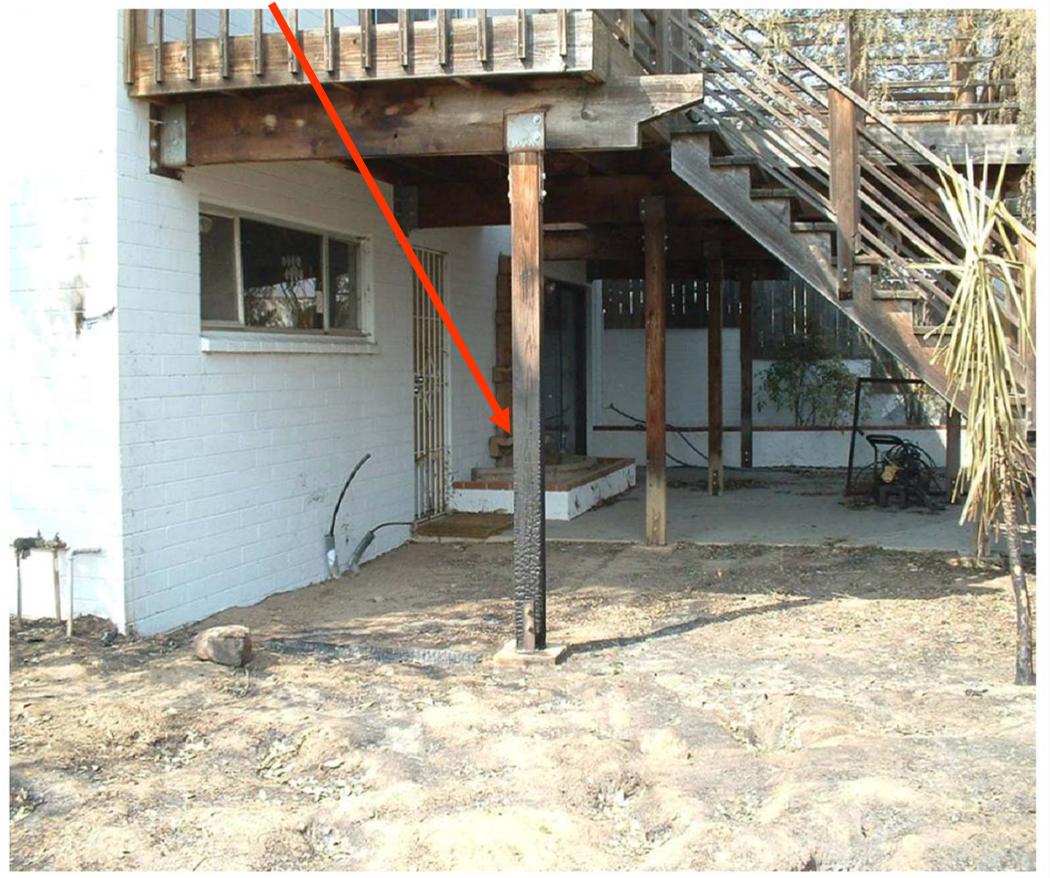


FIRE STARTED HERE



How Can Fire Enter Homes?

Ember/Firebrand Landing on DOOR OR WOOD DECK



How Can Fire Enter Homes?

Radiant Heat at Exterior Windows

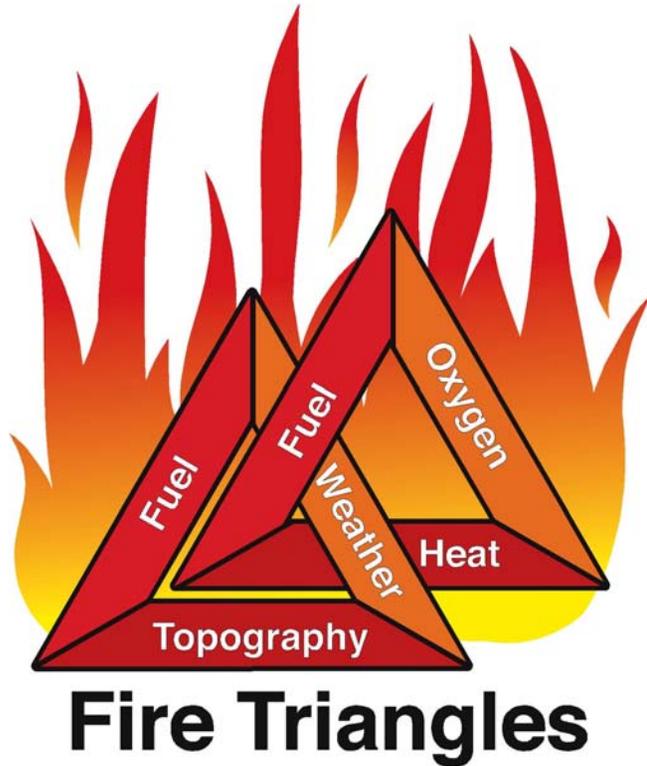
VINYL WINDOW
FRAMES OR VINYL
COMPONENTS OF
ALUMINUM WINDOWS



DUAL PANE
WINDOWS



Final Thoughts



90% of all ignitions are caused by humans



Don't be the cause of a wildfire

ONE LESS SPARK ONE LESS wildfire

CAUSED BY: HOMEOWNERS

Use the Right Equipment
Use string vegetation trimmers to cut tall, dry grass.

Remove Rocks
Remove rocks from dry grass or weeds. Metal mower blades hitting rocks start wildfires.

Be Ready!
Have water and a fire extinguisher readily available.

Only You Can Prevent Wildfires.

Scan this QR code with your mobile device to visit www.PreventWildfireCA.org

HAVE WATER AND/OR A FIRE EXTINGUISHER AVAILABLE AND KNOW HOW TO USE THEM.






ONE LESS SPARK ONE LESS wildfire

CAUSED BY: VEHICLES

Safe Towing
Dragging chains will throw sparks. Never substitute parts when towing. Only use appropriate safety pins & hitch ball.

Nothing Dragging
Make sure your vehicle is properly maintained, with nothing dragging on the ground.

Be Wheel Safe
Check tire pressure. Driving on an exposed wheel rim throws sparks.

Only You Can Prevent Wildfires.

Scan this QR code with your mobile device to visit www.PreventWildfireCA.org

CARRY A FIRE EXTINGUISHER IN YOUR VEHICLE AND LEARN HOW TO USE IT.







Equipment Use

Equipment Use Safety

Are You doing the right thing, the wrong way?

Are you doing the right thing the wrong way -for example, trying to eliminate the fire hazards around your home and in the process starting a wildland fire? Each year CAL FIRE responds to more than 1,600 fires started by Californians using equipment the wrong way.

Whether working to create a defensible space around your home, just mowing the lawn, or pulling your dirt bike over to the side of the road, if you live in a wildland area you need to use all equipment responsibly. Lawn mowers, weed eaters, chain saws, grinders, welders, tractors, and trimmers can all spark a wildland fire. Do your part, the right way, to keep your community fire safe.

Here's how to do it the **Right Way**:

- Do all yard maintenance that requires a gas or electrical motor before 10 a.m. **Not in the heat of the day, or when the wind is blowing!**
- Lawn mowers are designed to mow lawns. **Never** use lawn mowers in dry vegetation.
- Use a weed trimmer to cut down dry weeds and grass.
- Remove rocks in the area before you begin operating any equipment. A rock hidden in grass or weeds is enough to start a fire when struck by a metal blade.
- In wildland areas, spark arresters are required on all portable gasoline powered equipment including tractors, harvesters, chain saws, weed eaters, mowers, motorcycles, and All Terrain Vehicles (ATVs).
- Keep the exhaust system, spark arresters and mower in proper working order and free of carbon buildup. Use the recommended grade of fuel and don't top off.
- Keep the engine free of oil and dust, and keep the mower free of flammable materials.
- In wildland areas, a permit may be required for grinding and welding operations, and spark shields may be required on equipment. Be sure to have 10 feet of clearance, a 46" round point shovel, and a backpack water-type fire extinguisher ready to use.
- Hot exhaust pipes and mufflers can start fires you won't even see, until it's too late! **Don't pull off into dry grass or brush.**
- Keep a cell phone nearby and call 911 **immediately** in case of a fire.



www.fire.ca.gov



When you see the red flag Here's What To Do:



Firefighters will raise red flags at fire stations in Alameda and Contra Costa Counties to warn residents of extreme fire weather, as warnings are issued by the National Weather Service. These Red Flags, created by the Diablo FireSafe Council, are part of the effort to make homes and communities safer from wildland fire.

Lack of rain, dry vegetation, low humidity and strong winds make fire seasons especially severe. Several days a year, typically during the Fall, these factors combine, making it easier for fires to start and more difficult to put them out. When these weather conditions reach critical levels we all need to take extra care. On these Red Flag Days local Fire Chiefs urge you to follow these important guidelines:

- DO: Be alert and report any small fires immediately by calling 911. Be prepared to provide information on the fire's exact location.
- DO: Have a plan for gathering family members, pets and valuables in case an approaching wild-fire requires evacuation.

- DO: Always mow before 10 am when grass has the most moisture.
- DO: After use, place tools and vehicles with hot catalytic converters (mowers, weed eaters, chain saws, motorcycles) only on paved or dirt areas (not grass).
- DO: Use extra caution with charcoal and gas barbecues. Be sure to use your barbecue in a clear area, away from dry grass or brush. Make sure coals are cold before disposing of them.
- DO: Obey park or trail closure signs and any other restrictions (such as no campfires, barbecues, or smoking).
- DO: Contact your local fire agency for specific concerns and requirements.
- DO NOT: Discard cigarettes or other smoking materials on bushes or dry grass. Dispose of them properly in a non-combustible container.
- DO NOT: Shoot off fireworks. All fireworks are a potential hazard, including the "safe and sane" types, such as Sparklers. In some communities, ALL fireworks are illegal.

- DO NOT: Park cars on woods or dry grass. Weeds and grass are highly combustible, so use caution where you park.
 - DO NOT: Use lawnmowers on dry woods. Lawnmowers are for lawns.
- Here are some tips on what to do BEFORE fire season arrives:
Remove tree limbs within 10 feet of any chimney or overhanging eaves. Remove pine needles and leaves from roofs, eaves, and rain gutters. Clear flammable vegetation to a minimum of 100 feet or to the property line. Clear pathways to allow firefighters easy access to your house. And always be alert!



FOR MORE INFO CHECK OUT WWW.DIABLOFIRESAFE.ORG OR CALL 1-877-725-8803



Take Home Messages

- Protect area around your home with Defensible Space
- Spacing, size (fuel load) and maintenance (dead to live ratio) more important than species
- Fuel is fuel – homes and plants will both burn
- Don't be the cause of a wildfire



