

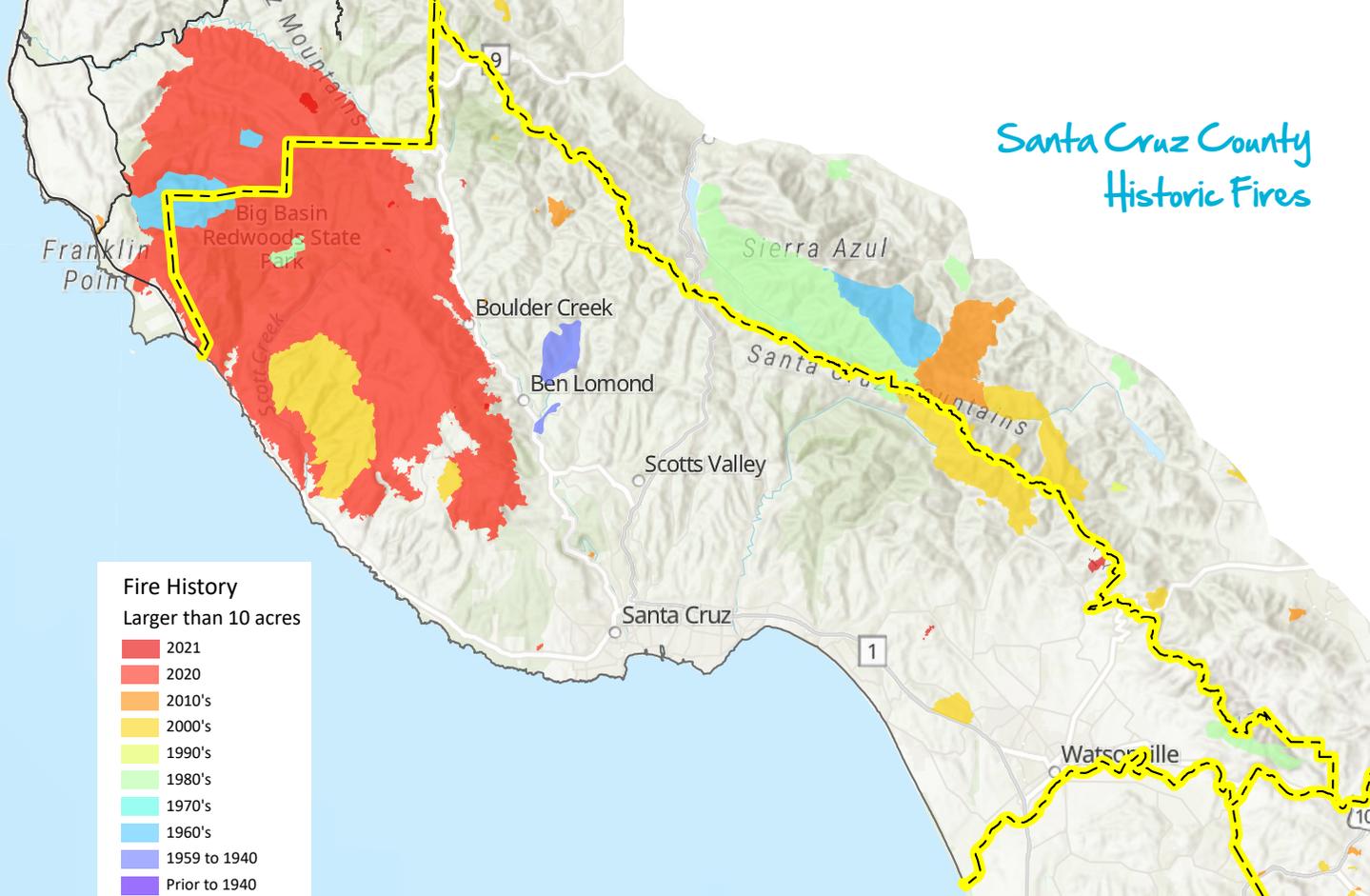
WILD FIRE

living with

A Guide for Residents of Santa Cruz County

Learn about what creates them, what fuels them, how to prepare for them, and how to live with them, along with tips on protecting your property, home, family and community against wild fires





Santa Cruz County Historic Fires



Never Be Out Of Touch During An Emergency - Register for Emergency Alerts

Registering for Emergency Alerts, through the regional reverse 911 service for Santa Cruz County, is one way to ensure that you will be informed and prepared in the event of an emergency. This is especially important to do if your cell phone has an out-of-area area code. You will

receive evacuation notices, bio-terrorism alerts, missing person reports, severe weather alerts and other important information.

Learn more or register today at www.scr911.org



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Special thanks to the Burn Institute for allowing the Resource Conservation District to customize this brochure for our local region. Updates were a collaboration of the Fire Safe Council of Santa Cruz, Resource Conservation District, Cal Fire and County of Santa Cruz Office of Response, Recovery & Resilience.

living with WILDFIRE

Learn how wildfire is a real threat, and the steps you can take to be prepared to meet that challenge.



This home was saved from burning because of advanced preparation by the homeowner long before a fire started.

Is your home prepared?

Much of coastal California is considered a high fire hazard environment. Throughout history, periodic fires have been part of an environmental cycle that renewed and invigorated living things.

All the environmental factors that were historically necessary to support large and intense wildfires remain. What's changed is an increase of permanent structures in rural areas, often built with little regard to historical fire patterns, and the loss of cultural practices that included regular low-intensity burning.

Result: greater fire threat to more people & property, greater loss of ecosystem function as a result of high fire intensity!

There are things you can do to understand the threat and prepare for wildfire. "Pre-" is a keyword here. This guide outlines steps you can take long before a fire to prepare your home and family to survive wildfire.

Fire is, and always has been, part of the dynamics of the beautiful area in

which we've chosen to live. Through advanced planning and preparation, we can be ready for wildfire.

Early preparation

Two of the most crucial early preparation steps you can take are:

- creating defensible space
- being prepared to evacuate

Before fire season, use this guide to help you make your home and road more defensible. During fire season, keep a go bag ready in your house and pay attention to local news sources and environmental conditions.

When to leave

Brush fire fatalities most commonly occur when people wait to leave their home, or are overtaken by fire.

Relocate early enough to avoid being caught in fire, smoke, or road congestion. Don't wait to be told by authorities to leave. In an intense wildfire, they may not have time to knock on every door. If you feel it is time to evacuate, don't hesitate!

By evacuating early, you give your family the best chance of surviving wildfire. If you choose not to evacuate and later need to be rescued, you may be putting emergency personnel in harm's way.

If you SHOULD evacuate, then leave. Don't call 911. It can overload the 911 system.

You can check your evacuation status on Zonehaven (aware.zonehaven.com). CalFire's Twitter (@CALFIRECZU) also features updates during emergencies.

understanding WILDFIRE

THE WILDFIRE EQUATION

Fire is part of our environment. Our brush-covered hills and forests were burning periodically long before homes were built here.

+

People are living in this fire environment. Many homes are built and landscaped with no planning for wildfire, and they're often on narrow roads.

+

A growing population means fires are more likely to happen – with devastating results.

+

Today's wildfires can burn fast... and seasonal hot, dry winds drive fires even faster, making them impossible to control.

=

DISASTER

- Deaths and serious injuries
- Natural resources & wildlife destroyed
- Homes and treasures within lost

The wildfire environment

Today, researchers are studying the fire environment in great detail. They're gaining knowledge and understanding about the complex inter-relationships between humans and nature.

Fire experts have long-recognized three basic components: weather, fuel (things that burn) and terrain.

Together, these three items affect the likelihood of fire starting, how fast it moves, its power and difficulty to control.

Weather

Dry, hot and windy weather (aka "red flag days") increases the likelihood of a major wildfire.

These conditions:

- Make ignition easier
- Help fuels burn more rapidly
- Increase fire intensity

High wind speeds, in particular, can transform a small, easily controlled fire into a catastrophic event.

Fuel

Fuel is required for any fire to burn. In a wildfire, fuels are usually living vegetation (trees, shrubs, brush, grass) and dead plant materials (dead trees, dried grass, fallen branches, etc.)

Homes, when in the path of wildfire, can become fuel. The quantity, size, moisture content, arrangement and other fuel characteristics influence the ease of ignition, rate of fire spread, length of flames and other fire behavior.

Terrain

Of all types of topographic features, steepness of slope is among the most influential on fire behavior. The steeper the slope, the faster a fire will spread. Other important factors are:

Aspect – south and southwest slopes usually have more fires.

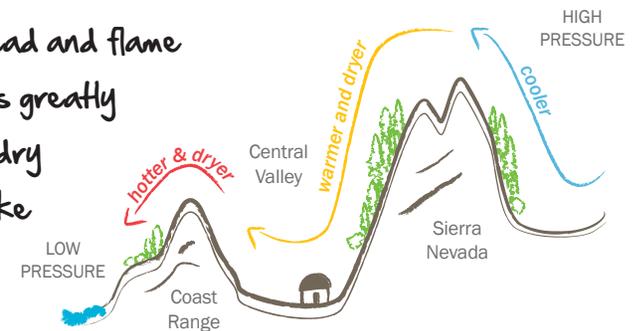
Chimneys – steep narrow drainage. A topographic feature having three walls that form a steep, narrow shoot. Chimneys can act as an air funnel and during wildfire events can create rapid wildfire spread.

Human Environment

As people move into wildfire country, the human-built environment becomes important in predicting loss of life and property. Examples of increased risk to people living with the threat of wildfire:

- Combustible construction, especially roofs
- Narrow roads, limited access
- Lack of fire-safe landscaping
- Inadequate water supply
- Equipment use on dry days
- Poorly planned subdivisions

The rate of spread and flame length increases greatly during seasonal dry and high winds like "Diablo Winds."



**Ember cast****Surface fire****Crown fire**

Wildfire spread

Wildfires spread in three main ways:

1. Ember Cast. Burning pieces of airborne wood and/or vegetation that can be carried by high winds. Embers can cause spot fires and ignite homes, debris and other objects. Most home losses in a wildfire are from embers, not by direct contact with flames.

2. Surface Fires. Small to medium flames burning through grass and ground litter. Surface fires can reach houses or structures if there are no interruptions in fuel continuity.

3. Crown Fires. Large flames burning in the tops or canopies of trees. These large flames radiate heat that can ignite wood walls from up to 100' away. The risk of crown fire can be reduced by managing ladder fuels that can carry fire from the ground to the canopy.

How does a house catch on fire?

Decades of research have shown that both the house and the landscape adjacent to it play a critical role in the structure surviving a wildfire. A wildfire can ignite a house by any of these mechanisms and more:

Embers/Firebrands. As mentioned before, flaming debris can fall down a chimney, enter an open window, or get trapped in a gutter and start a house fire.

Direct Contact. Fire can spread from outside vegetation to a house if flaming vegetation is close enough to a house for the flames to touch the sides, roof, or underside of a house or porch.

Radiation. If a wildfire is hot enough, radiant heat from the fire front can ignite flammable materials on the inside or outside of a home, like wood shake shingles or siding, even when flames are not actively touching the structure.



making a defensible HOME

Things you can do to better protect your family and home from a wildfire.

Does your home have a deck or an exterior staircase?

A combustible fence, gate or deck attached to a structure is a threat if it catches on fire, and can act as a wick, bringing fire to the house.

For more information regarding combustible decks, fences, and man-made fuels, please refer to:

fire.ca.gov/prepare



You can design or modify your home to resist wildfire – or it can be totally unprepared and indefensible. A defensible home has a far better chance of survival – whether or not firefighters can get to it in time! The manner in which a house is designed, location where it is built, materials used in its construction, and fire department access, all influence its survivability.

Roof

- Install a non-combustible roof that meets the classification requirements of your community. Check with your building department or fire marshal.
- Review roof venting and replace old style vents (screening only) with vents that resist intrusion of embers and firebrands.
- Cover your chimney and stovepipe with an approved spark arrestor.
- Remove dead trees and vine branches overhanging your roof.
- Remove any tree branches within 10 ft. of your chimney.
- Clean all dead leaves, needles and other combustible waste from your roof and rain gutters.

Construction

- If you can, build your home away from ridge tops, canyons and areas between high points on a ridge.
- Build your home at least 30 ft. from your property line.
- Use non-combustible materials for the exterior surfaces of your home.
- Enclose the underside of eaves, balconies, above-ground decks and other projections with ignition-resistant material.
- Relocate your attic vents from under the eaves to gables or roof areas. Prefabricated attic vents for gable and roof applications are available.
- Install only dual-pane (one pane being tempered glass and the other annealed glass) windows and skylights.

Landscaping

- Contact your local Fire Safe Council, RCD, fire department, nursery, or university extension for suggestions.

Yard

- Stack woodpiles at least 30 ft. away from all structures, and clear away combustible vegetation within 10 ft. of woodpiles.
- Locate LPG or propane tanks at least 10 ft. from any structure, and surround them with at least 10 ft. clearance from vegetation.
- Remove all stacks of construction materials, pine needles, leaves and other debris from your yard.
- Contact your local fire department to find out if/when open-burning is allowed in your area.
- Keep all combustible mulch at least 1-5 ft. from the foundation.



Look for educational events and home tours that offer a first-hand look at fire preparedness.

West Coast Weather Varies

No Gutters and Metal Fascia

Screwed Roof Vents, To Do: Hardy Board Covers

Zero Zone 0.5 Feet next to structures

Stucco Walls and Sillps

Person in white jacket and floral bag

Person in orange shirt and blue jeans

Person in grey hoodie

Person in maroon shirt and hat

Hostess in patterned shirt



This home followed smart landscaping rules; however, a wheelbarrow left too close to the home caught on fire, which then scorched the exterior of the home. When preparing for wildfire, make sure all flammable materials are stored at a safe distance from the home.



Emergency water supply

Maintain an emergency water supply that meets fire department standards through one of the following:

- Common water/hydrant system.
- Cooperative emergency storage tank with neighbors.
- Santa Cruz County requires a minimum of 10,000 gallons of water storage and a fire department hydrant to access the water for all new residential, non-residential and building additions of more than 500 square feet.
- Clearly mark all emergency water sources with blue reflective tape and notify your local fire department of their existence.
- Create easy firefighter access to your closest emergency water source.
- If your water comes from a well, consider an emergency generator to operate the pump during a power failure or store water in a tank higher than the house to allow gravity flow.

Access

- Identify at least two roads or access routes out from your neighborhood if possible.
- Where feasible, modify roads to allow for two-way traffic or add turnouts.

- Design road width, grade, curves and vertical clearance, to allow large emergency vehicles. Check with your local fire marshal.
- Construct driveways to allow large emergency equipment to reach your home.
- Design bridges to carry heavy emergency vehicles.
- Post road signs and addresses made of non-combustible material to show house number, traffic restrictions such as “dead-end,” and weight and height limitations.
- Make sure dead-end roads and long driveways have turnaround areas wide enough for emergency vehicles. Construct turnouts along one-way roads.
- Make sure the address numbers on your home are reflective or contrast with the background, and are large enough to be clearly seen from the street and in low-visibility smokey conditions. If needed, provide a second set of numbers.
- Clear combustible vegetation at least 10-30 ft. from roads and driveways.
- Cut back overhanging tree branches above roads. Fire trucks need a minimum 14 ft. vertical clearance.

Outside

- Designate one emergency meeting place outside the home, and one outside your neighborhood. See Design a Plan on page 14 for more information.
- Practice emergency exit drills.
- Make sure electric service lines, fuse and breaker panels are installed and maintained as prescribed by the electrical code.
- Contact qualified service personnel to perform electrical maintenance and repairs.

Other

- Check your homeowners insurance annually to ensure you are adequately covered. Know the going rate of construction costs to rebuild in your area so that you are prepared for the unfortunate event of losing your home or other structures.

THE REALITY OF WILDFIRE

“...We must all keep in mind that wildfire is a dangerous and unpredictable problem, and there is no sure way to protect a home under every situation. What we can do is take full advantage of every opportunity available in the hope that it will be enough to save a home.”

- Maureen Gilmer, author,
California Wildfire Landscaping

creating a defensible

SPACE

Steps you can take to defend your property against the spread of wild fire.

The Three R's of Defensible Space

Removal: Eliminate some plants, particularly dead trees and shrubs from the zone. Examples: cutting down a dead tree or cutting out a flammable shrub.

Reduction: Remove plant parts such as branches or leaves. Examples: pruning dead wood from a shrub, removing low branches and mowing dried grass.

Replacement: Substitute more hazardous vegetation with less flammable plants.

Example: Removal of a dense stand of flammable shrubs and planting an irrigated, well-maintained flower bed.

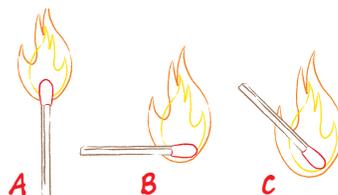
How slopes fuel fires

The diagram below provides an idea of how fire behaves on sloping ground.

A A match held in the upright position does not burn down rapidly.

B A match held at a horizontal angle would increase the speed of the flame. The match shown here might represent vegetation burning on a flat to gently sloping area.

C This match represents a fire moving rapidly up a steep slope. In this case, as in all slopes, canyons and chimneys, flames preheat vegetation and structures ahead of it, moving the fire along at an alarming rate.

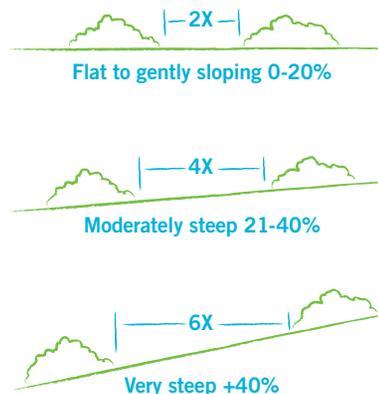


Flame length is the distance measured from the average flame tip to the middle of the flaming zone at the base of the fire. It is measured on a slant when the flames are tilted due to effects of wind and slope. Flame length is an indicator of fireline intensity.

Reducing the fuel

The more continuous and dense the vegetation, the greater the fire threat. The first goal in creating a defensible space is to selectively thin plants, then prune to reduce connectivity between plants and the ground as well as other plants. "Break it up" by providing for separation between plants or small groups of plants.

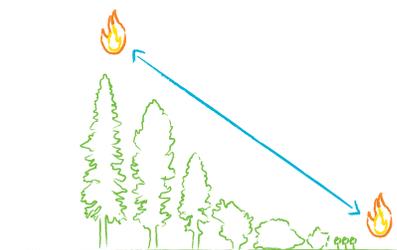
Note: Live, healthy, green trees are not in and of themselves a fire hazard. Instead of removing healthy trees near your home, focus on ladder fuel management.



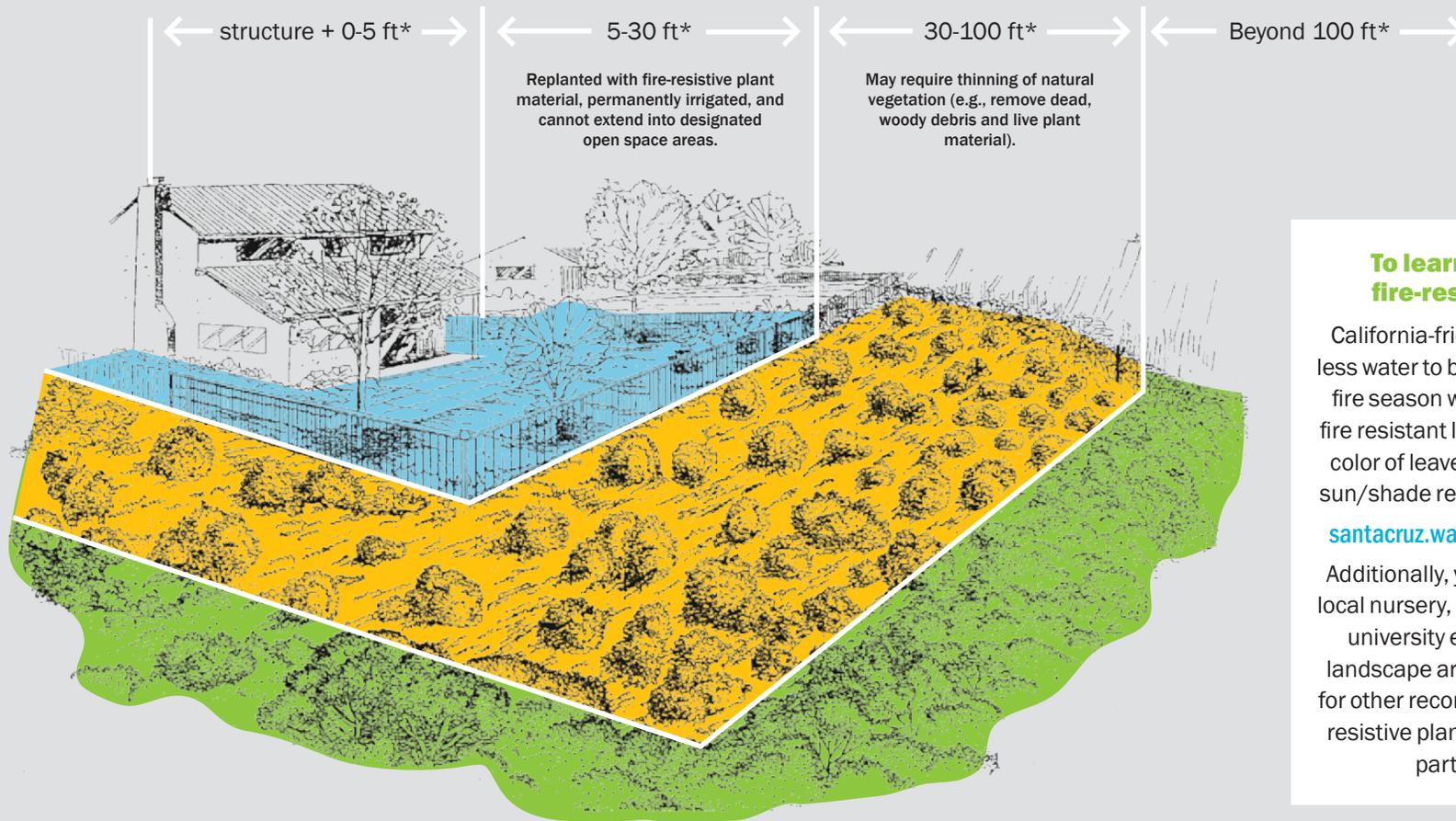
Ladder fuels

Vegetation is often present at varying heights, similar to rungs on a ladder. Under these conditions, flames from fuels burning at ground level can be carried into shrubs and small trees, which can ignite still higher fuels like dead tree branches. Within defensible space areas, a vertical separation of three times the height lower vegetation layer is recommended.

Examples of ladder fuels: skinny dead standing trees 3 – 10 feet tall; shrubs against tree trunks; wooden fences against houses



Maintaining zoned fire-resistant landscaping helps protect your home from wild fire



To learn more about fire-resistive plants

California-friendly plants require less water to be kept "green" during fire season which equals a more fire resistant landscape. Search by color of leaves or flowers, height, sun/shade requirements, soil type santacruz.watersavingplants.com

Additionally, you can contact your local nursery, conservation district, university extension office, or landscape architect or contractor for other recommendations on fire-resistive planting options for your particular area.

*Measured on a horizontal plane.

ZONE 0

Ember Resistant Zone 0-5 ft. from structures including decks

In the first five feet surrounding structures and decks avoid combustible materials including mulch, woodpiles, woody plants, trellises, or other stored items that could easily catch fire. This is a great zone for hardscaped walkways or other zero-scape features. Also include a six-inch noncombustible zone between the ground and the start of the building's siding.

ZONE 1

Lean, Clean and Green Zone 5-30 ft. from structures and decks or to your property line, whichever is closer

In this zone, eliminate connectivity between groups of vegetation by increasing the spacing between trees, removing lower branches of trees and shrubs, and creating areas of irrigated and low growing plants. Plants should be properly watered and maintained to remove dead/dry material.

ZONE 2

Reduced and Managed Fuel Zone 30-100 ft. from structures

In this zone, manage extreme fire by decreasing the density of trees, shrubs and vegetation to slow fire movement and reduce flame heights. Proper spacing and pruning is critical to reduce ladder fuels, where fire climbs from ground vegetation into trees tops.

NATIVE VEGETATION

Beyond 100 ft. from structures

In most cases, 100 ft. of zoned fire-resistant landscaping will protect your home, but may not be adequate under all circumstances. Check with environmental regulatory agencies before modifying native vegetation that might include endangered species and habitat.

This home in Bonny Doon has good defensible space that helps protect it from a rapidly moving wildfire.

30 foot zone

Free assessments

Fire Safe Council of Santa Cruz County offers no-cost safety assessments for residents in high wildfire risk areas through the HIZ (Home Ignition Zone) Pilot program. Trained volunteers offer educational suggestions about home hardening and defensible space. firesafesantacruz.org

Your local fire department might also provide at-home inspections.

Wood decks and fences

Embers can land on many wood surfaces near or adjacent to structures, then ignite and burn hot enough to ignite eaves, wood siding, and other combustible parts of houses. Wood fences catch on fire, and can ignite the house if they are attached.

- Consider replacing the surfaces and covers of wood decks, porches, and patios with fire-rated deck materials, concrete, or stone.
- Keep combustible materials 30 ft. from the house, including woodpiles, trash, wooden trellises, gas-powered equipment.
- Replace the wood fence or gate attached to the house, with wrought iron, stucco, or plastic fence or gate.

Smart landscaping

Landscaping with wildfire in mind – or “firescaping” – involves plant selection based primarily on the plant’s ability to reduce the wildfire threat. “Fire smart” plants grow slowly and stay small, so they

require little pruning. They produce fewer leaves, dead, and dry material, and they keep their moisture content even in dry summer months with minimal irrigation. Choose native or drought tolerant plants that need less water to stay "green." Avoid plants that contain oils, resins and waxes that make these plants burn with greater intensity, such as eucalyptus, pines, and junipers. Replace mulch and ground litter with rocks or mineral soil within 5 feet. of the foundation.

Maintaining fire-resistance

A fire-resistant plant can lose this quality altogether if not properly maintained and irrigated. Lack of long-term attention can result in plants loaded with dead twigs, leaves and branches, resulting in sometimes invisible fuel volumes. Prune plants that are under windows or eaves. Remove weeds, and consider putting a minimum of two inches of mulch under plants, in areas that are at least 1-5 ft. from

the foundation. Maintain the correct irrigation schedule year-round for the good health of your plants. Remove dead foliage and twigs from trees and shrubs, then treat diseases or pests to restore the plant to good health. If it dies, remove the plant immediately. A dead plant is fuel.

Environmental regulations

Federal, State and local environmental regulations might, at first, appear to conflict with fire protection planning concepts. The health of the environment should not be ignored in preparing for wildfire, and in the long term an ecologically healthy forest reduces wildfire risk. Cooperation between regulators, fire agencies and property owners has resulted in an agreement to allow a 100 ft. thinning from existing structures.

In Santa Cruz County there are special considerations in these sensitive habitats. Check with the local

planning department for addition measure to take when working in these areas.

Sandhills Habitat If you are in Bonny Doon, Ben Lomond, or anywhere in the hills west of Soquel-San Jose Road and the soil looks like beach sand, you could be in sandhills habitat. With a wide variety of protected plants and insects, you should avoid clearing, burying, or trampling the herbs and flowers, avoid soil disturbance, and leave the roots of whatever vegetation you remove in place. Also avoid clearing around dusk during the summer months (May 15 through August 15) to avoid impacts to the local sensitive insects, and if you are clearing manzanita, leave the first few branches if there is no burl at the ground level of the stem.

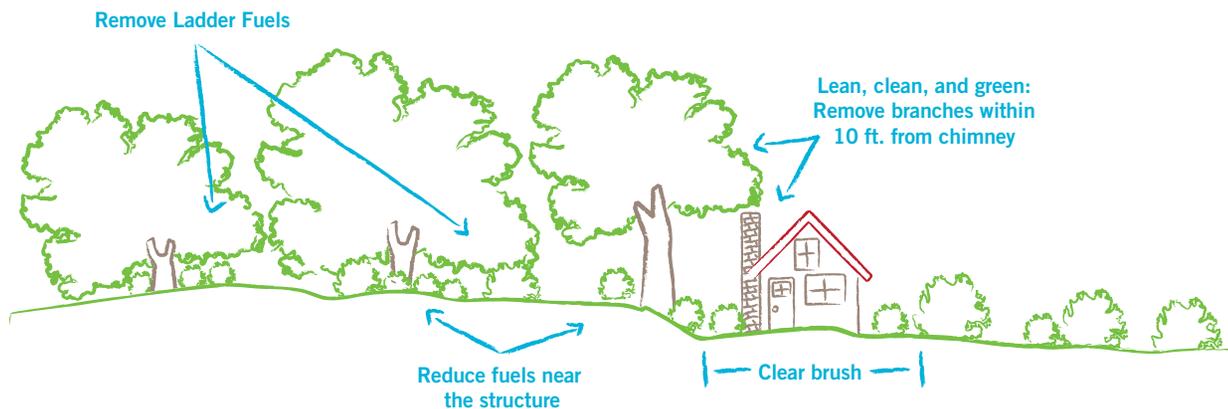
Santa Cruz Long-toed Salamander Habitat. If you are within one mile to the ocean side or three miles to the

mountain side of Highway 1, between Rio Del Mar and Buena Vista, you are probably in salamander habitat. In this area you should try and keep a low (12 to 18 inches tall) under story of native vegetation, and separate it from the canopy by limbing up trees 10 to 15 feet. Make sure everything within 30 feet of your home is green and moist, and leave damp logs with plenty of soil contact in place in the area between 30 and 100 feet of your home.

Oak Woodland. If most of the trees in your neighborhood are oak trees, you are probably in oak woodland. As in salamander habitat, separate the canopy from the under story by limbing up branches, and retain as much native shrub as you can. When reducing vegetation within 100 feet of a structure leave islands of shrubs where they won't form ladder fuels to the canopy.

Riparian Corridors and Wetlands. If your property has a stream, pond or lake on it, leave all the mature vegetation within 100 feet of standing water, 50 feet of a year-round stream, and 20-30 feet of a stream that goes dry regularly. Generally, riparian plants do not burn intensely due to high moisture content.

Create a Fire-Resistive Environment



Firefighters can control about 97% of all wildfires that start. 3% overwhelm even the best-equipped, well-staffed agencies.

That's when your advanced preparation REALLY counts.

preparing a PLAN

Best of all is the peace-of-mind that comes from planning for wild fire, preparing your home and surroundings, and practicing fire-safe activities.

PLAN

Long before fire threatens, plan your evacuation.

Create a Plan

Two great websites to help.

plan.readyforwildfire.org
www.ready.gov/plan

As part of your plan, make a list of items you want to take with you during an evacuation. Here's an example, but you should also prepare your own list.

Important Stuff / Emergency Kit

- Prescriptions, medications
- Eyeglasses/Sunglasses
- Scan important documents to a portable drive or the Cloud (passports, birth certificates, insurance policies, pink slips, bank accounts, deeds, wills, etc) Jewelry
- Pet, pet food, leash, carrier
- Child's favorite toy
- Cash (in the event that ATMs are out of service)
- Cell phone, laptop, chargers and external drive or computer backup

- Keep your "Important Stuff" list handy.
- Keep sturdy boxes ready for collecting things on your list.
- Always keep vehicle gas tanks a minimum of half full.

When fire threatens, you won't have time to shop or search for supplies. Assemble an Emergency Supply Kit that includes important items you'll need if you have to evacuate. Store them in easy-to-carry containers such as back-packs, plastic crates...

- A three-day water supply, human and pet food that won't spoil, and a way to open it (1 gallon per person, per day)
- Change of clothing & shoes for each person
- Blanket or sleeping bag per person
- A first aid kit that includes prescriptions
- Emergency tools
- Battery powered radio
- Flashlight
- Plenty of extra batteries
- Extra set of car keys

My important things:

- Toilet supplies
- Special items for infants, elderly, or disabled
- Goggles (for high wind or blowing firebrands or embers)
- Protective clothing (cotton or wool), heavy soled shoes, wool cap, N95 masks, cotton bandana, leather work gloves, reflective jacket or vest, hard hat with head lamp and wool blanket.
- If possible, involve your children in the planning – let them feel part of the process.
- Review and update your "Important Stuff" list & Emergency Supply Kit periodically.
- Learn alternate ways out of your neighborhood.
- If you have large animals, learn how to prepare.
- Designate a relative or friend as an out-of-area contact through whom family members can relay information.
- You may not be home when wildfire threatens. Make arrangements in advance for persons or pets who will be home when you're not.



ACT

When evacuation seems likely, put your plan into action.

Take a deep breath, and remember that you have planned well. Remember, too, that lives always take priority over property.

- Use your list of “Important Stuff.” Collect those items in boxes you can easily carry.
- Face your car outward, so you have the best visibility when you have to leave.
- Load your “Important Stuff” and Emergency Supply Kit into the car.
- Load pets at the last minute when the family leaves.

And if there’s time...

- Be sure all windows and doors are closed.
- Close metal window blinds.
- Cluster lawn furniture and other things that might snag firefighter hose lines.
- Leave the exterior lights on. This helps firefighters find the house in dense smoke.
- Don’t leave garden sprinklers on – they can diminish critical water pressure.
- Lock up the house.
- Remove light curtains and other thin combustibles from windows.

GO

Get a move on!

- Check your evacuation status on Zonehaven (aware.zonehaven.com). Cal Fire CZU Twitter (@CALFIRECZU) may also feature important updates during emergencies.
- Don’t wait to be told to evacuate. Authorities may not have time to order an evacuation. If you feel threatened, leave on your own.
- Obey orders of law enforcement and fire officers.
- Drive calmly, with your headlights on for visibility, and with special attention to fire trucks. They are not as maneuverable as your car.
- Do not block the access roadway for fire trucks.
- If fire overtakes you, you are far safer in the car than out – keep moving if you can see.
- DON’T call 9-1-1 for non-emergencies.
- DON’T attempt to re-enter the area until officials allow it.

Check-in at your nearest designated evacuation center to help others know you’re safe.

Parallel Concepts

Two Ways Out

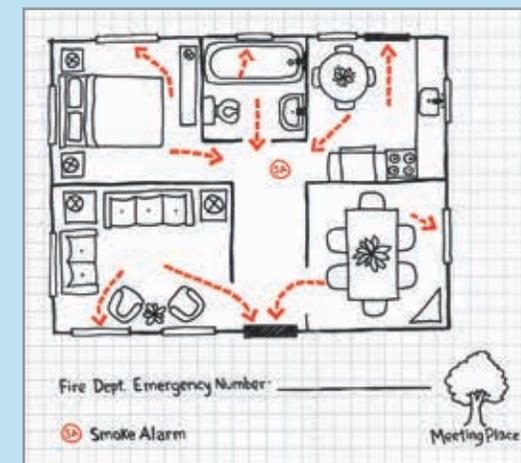
Your home escape plan should include two ways out of every room – in case the usual way out is blocked by fire. Create a plan online, plan.readyforwildfire.org

A pre-arranged meeting place...

And just as you should have a place to meet outside your home, your evacuation plan should consider alternate routes out of your neighborhood, in case the routes becomes blocked.

When local phones are disrupted in a disaster, long distance lines are often still functioning. It’s wise to pre-arrange with a distant relative or friend to call them in the event of a local disaster, to let family members know you’re OK and that your family has evacuated and is safe. Other distant family members can check in with them too, and learn where you are and that you’re OK. These plans can work in other types of disasters too. Best of all is the peace-of-mind that comes from planning for wildfire, preparing your home and surroundings, and practicing fire-safe activities.

FIRE ESCAPE PLAN



FAMILY CHECK-IN PLAN



collaborating with NEIGHBORS

Community wildfire risk can be greatly reduced by neighbors working together.



FIREWISE USA®
Residents reducing wildfire risks

Firewise USA is a national program hosted by the National Fire Protection Association. It is a framework that helps neighbors work together in a community to reduce wildfire risk, through education and collaboration.

Become a FireWise USA Recognized Neighborhood. Local Fire Safe Councils in the South Bay area can help communities with the recognition process. Neighbors will work together on defensible space, home hardening, evacuation planning and more.

What are the benefits?

- Community wildfire risk can be reduced by working together.
 - Participation is voluntary.
 - Increases good will with first responders, providing safer access.
 - Increases communication, collaboration and emergency preparedness.
 - Potential consideration by home insurance companies .
 - Potential access to grant money.
4. Complete one community education event related to wildfire risk reduction.
 5. Meet the minimum community investment criteria (1 hour or \$25 per household for the year)
 6. Create a Firewise USA portal account, complete and submit your application.

How Fire Safe Councils help

The Fire Safe Council of Santa Cruz County is a volunteer organization that supports communities interested in the Firewise USA process in these ways:

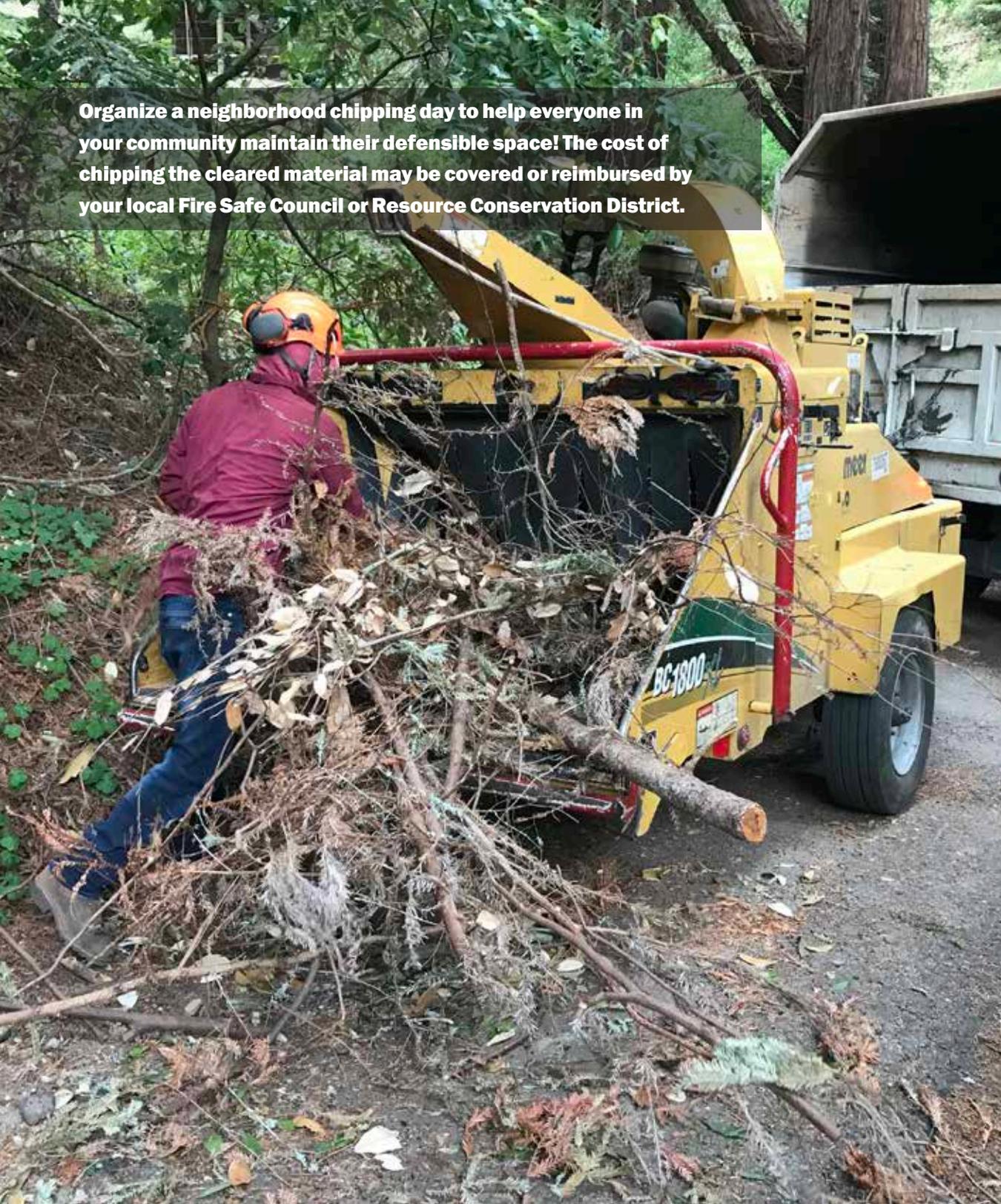
What is the process?

1. Form a steering committee with a few proactive neighbors.
 2. Collect neighborhood data for a Community Risk Assessment with input from a Fire Professional.
 3. Prepare a Multi-Year Plan, using observations from the Community Risk Assessment and neighborhood priorities.
- Provide a “Why Go Firewise” community presentation to help start the process.
 - Provide email support and coaching, as time permits.
 - Online resources for education.
 - Potential to network with leaders from other Firewise communities.



To request assistance, go to www.firesafesantacruz.org

Organize a neighborhood chipping day to help everyone in your community maintain their defensible space! The cost of chipping the cleared material may be covered or reimbursed by your local Fire Safe Council or Resource Conservation District.



Chipping programs

Chipping is a great alternative to burning or hauling for managing woody vegetation removed during defensible space clearing. Several programs are offered for both individuals and neighborhoods in Santa Cruz County through local Fire Safe Councils and the local Resource Conservation District.

Resource Conservation District of Santa Cruz County

www.rcdsantacruz.org

Bonny Doon Fire Safe Council

www.bdfsc.org

South Skyline Fire Safe Council

www.southskylinefiresafe.org

Uses for woodchips*

Here are some ideas for using woodchip. Chips should be used on your own property to prevent the spread of diseases, pathogens.

- Mulch
- Livestock or pet bedding
- In raised beds or compost piles
- Cover bare soil to prevent erosion
- Make a walkway
- Control invasive plants
- Play area for kids

* DO NOT use wood chips or any flammable material within a five foot perimeter of your home. Keep depths less than six inches.

building healthy FORESTS

"Restoring land without restoring relationship is an empty exercise. It is relationship that will endure and relationship that will sustain the restored land."

- Robin Wall Kimmerer, Botany PhD
& author of *Braiding Sweetgrass*



Restoring our Forests. The forests in Santa Cruz Mountains have significantly changed over the past two centuries, due to historic logging practices, land development, and in large part decades of fire suppression. The lack of natural process has resulted in excessive fuel buildup and invasive species are out-competing native vegetation. These conditions, coupled with extreme drought and a warming climate, are reducing biodiversity and altering fire regimes. The results are damaging to our unique ecosystem and will require environmentally sensitive management to redirect the path of changing climates and ecological conditions impacting our forests and community.

Forest management plans

A Forest Management Plan (FMP) can help landowners determine goals for their forested land. FMPs can address a broad range of subjects, including forestry, archeology, endangered plant and wildlife species, wildlife habitat, soil erosion potential, water resources, forest pests and diseases, and road construction and maintenance. Management objectives are as diverse and individualized as the landowner.

Your local Resource Conservation District and USDA Natural Resources Conservation Service (NRCS) partnership office can provide resources for developing and implementing a plan on your property, including cost-share funding recommendations.

FMPs are generally prepared by Registered Professionals Foresters (RPF). These plans may also be prepared by the landowners in conjunction with other qualified professionals and reviewed by an RPF for submittal.

To find an RPF visit bof.fire.ca.gov (search RPF roster).

Regional collaboration

Large public and private landowners, agencies, universities, NGO's, industry and tribal bands are working together to develop countywide priorities for forest health and wildfire resiliency. This is critical at the landscape level to bring in critical state and federal funding to carry out on-the-ground projects.

You can find out more about and support these local groups working towards long-term sustainable solutions reduce catastrophic wildfire at the local level.

- **Santa Cruz Mountain Stewardship Network**
scmsn.net
- **Fire Safe Council of Santa Cruz County**
firesafesantacruz.org

Coastal Regional Prioritization Group, funded through the Coastal Conservancy, is working to identify key projects, understand potential barriers, and develop local solutions in partnership.

Over the last 200 years, our mountains have lost countless trees that were many centuries old. The forests we know now are young and look very different than those of the past. It will take not only thoughtful stewardship but time...time to grow healthy, resilient forests for the future.



working with FIRE



Look deep into nature and then you will understand everything better.

-Albert Einstein



Prescribed Fire. Using prescribed fire is a cost-effective tool for managing fuel loads on large acreages and can be one of the prescriptions in a forest management plan. Our local State Parks, NGO's and UC Santa Cruz have been using controlled burns to improve habitat and manage fuels. Want to learn more about using prescribed fire on your property?

Pile burning

This is a type of prescribed fire where stacks of cut vegetation are ignited and monitored as they burn down. The vegetation is generally cut and piled many months before ignition so it has time to dry out. Pile burns are a low cost way to treat excess vegetation that has been removed from defensible space zones or shaded fuel breaks. However, it is important to build piles in areas that are either devoid of other vegetation and/or that have already been disturbed, as the concentrated high intensity of the burn may mean that it takes some time for plants to regrow in the burn footprint.

Pile burning is available to most landowners in unincorporated Santa Cruz County and Cities, however the regulations are different depending where in the county you are located. Contact your local fire department

Broadcast burning

This is a type of prescribed fire where fire is allowed to burn across an area that is bounded by control lines. Generally, fire is ignited in strips along the ground by experienced fire practitioners, and it burns until it encounters either a control line or an area that has already been burned. Broadcast/understory burning can be used in areas where fuel load is already moderate or low to simulate a low-intensity wildfire. This can have dual benefits: not only does this burn out flammable vegetation under controlled conditions, but it can also provide valuable ecosystem services in fire-adapted landscapes. Depending on permitting and personnel availability, broadcast burns may be a lower-cost alternative to repeated mechanical treatment.

Get help

Cal Fire's vegetation management program has options for private landowners to complete controlled burns on their own properties.

Large landowners interested in broadcast burning can contact CAL FIRE CZU Resource Management at (831) 355-6740. This is a multiyear process that includes environmental compliance and permits. It may also require extensive fuel reduction to ensure a safe and successful burn. Burn windows can be inconsistent and unpredictable.

The **Central Coast Prescribed Burn Association** leads and participates in all types of private land burning from cultural to grasslands to woodlands.

Cultural burning and the return of “good fire”

For many Indigenous people, including the Mutsun and Awaswas Tribal communities native to present-day Santa Cruz County, careful use of fire has played a crucial role in stewarding ecosystems and supporting livelihoods for millennia. Amah Mutsun Tribal Band Chairman Valentin Lopez emphasizes that “fire is a sacred gift from Creator that was central to our culture and stewardship prior to European colonization and must be restored to the land today through Indigenous cultural burning”.

Cultural burning involves using frequent, low-intensity controlled

burns to shape landscapes and biotic communities in support of the cultural priorities and material needs of Indigenous people. In our local context, these priorities included supporting the regeneration of particular plant species and ecosystems that provide traditional foods, medicines, materials, and habitats. In common with prescribed burning, Native applications of “good fire” also reduce the accumulation of fuel loads that contribute to catastrophic wildfires.

Today, the Amah Mutsun are reengaging with practices of cultural burning and regaining their role as

stewards in their ancestral territory and on the ancestral lands of the neighboring Awaswas-speaking Tribes, from which there are no known living descendants. With the development of a Cultural Burning program within the Amah Mutsun Land Trust and through collaborations with resource managers and prescribed fire proponents including CA State Parks, CalFire, local Resource Conservation Districts, and the Central Coast Prescribed Burn Association, the Amah Mutsun are working to restore good fire to our region for the benefit of all.



The Amah Mutsun are working to restore good fire to our region for the benefit of all.

www.amahmutsunlandtrust.org



post-fire RECOVERY



After a Fire

The impacts of wildfire take a huge toll on our families, our communities, local wildlife and our natural resources. Recovery needs vary depending on your specific circumstances. Even the best preparation isn't always a guarantee. If your property is damaged by fire, there are many resources available to you to aid in recovery. **Call your insurance company before you throw any damaged items away or clean anything up!** Always take pictures of damage right after the fire. If you do not have insurance, contact the **Santa Cruz County Office of Response, Recovery and Resilience (OR3)** or the emergency services department of the city you live in. Their staff should be able to provide information on assistance programs. Also check for local resource centers that may be set up during declared emergencies.

After the 2020 CZU fire the Santa Cruz County Long Term Recovery Group formed and continues to assist those impacted by the fires and other disasters and includes nonprofits, faith-based, local, state and national organizations that work together to

share information and resources to help address the needs of individuals and families affected by wildfire

Healing the non-built natural world such as our landscapes, forests and grasslands is also an important part of post-fire recovery. After fire we might find wildlife in distress, an increase in soil erosion, higher debris flow risk, dangerous trees, polluted runoff from burned structures and an influx of invasive weeds that can turn into fuel for the next fire season.

Partial list of post-fire resources:

OR3 - Santa Cruz County Office of Response, Recovery and Resilience

In response to the CZU Fire in 2020, the Santa Cruz County Board of Supervisors created the Office of Response, Recovery and Resilience (OR3). Their mission is to improve our community's emergency response, elevate our disaster awareness and prepare for increases in extreme weather due to climate change.

www.santacruzcounty.us/OR3.aspx

Cal Fire

After a wildfire many dangers remain. Those returning home should be

aware of their surroundings and go through the returning home checklist. Other concerns after a wildfire are the increased rate of erosion and flooding in California.

readyforwildfire.org/post-wildfire

Fire Safe Council of Santa Cruz County

The Fire Safe Council may offer up-to-date information during fires and compiles relevant local resources for fire survivors.

firesafesantacruz.org

The Resource Conservation District of Santa Cruz County (RCD)

in partnership with the Natural Resources Conservation Service has compiled a library of literature and videos to help guide property owners in the recovery of your land and the management of runoff from burned structures.

rcdsantacruz.org/post-fire

United Policy Holders is a trustworthy and useful information resource and a respected voice for consumers of all types of insurance in all 50 states and offers disaster recovery help at no charge.

uphelp.org

Redwoods are one of a few coastal species of trees that can resprout following a fire offering a glimpse of hope after tragedy strikes.



REMEMBER

Your home's survival in a wildfire – and your survival, too – are not a matter of chance...

PREPARE

Fires have always burned through our area as part of the ecological life cycle. Only in the last 150 years have we built permanent structures in wildland areas. By suppressing the spread of wildfire, we have actually interfered with the natural fire cycle. Therefore, today's wildfire is often far more intense, unpredictable and life-threatening.

As fire and environmental experts work together to find acceptable ways of returning to the natural fuel-thinning fire cycle, there ARE things you can do today to prepare for the next WILDFIRE.

If you put it off until there's smoke in the air, it's too late!

Useful Resources

Preparing your home and property
www.readyforwildfire.org

Amah Mutsun Land Trust
amahmutsunlandtrust.org

Bonny Doon Fire Safe Council
www.bdfsc.org

California Department of Forestry
& Fire Protection
www.fire.ca.gov

California Fire Safe Council
cafiresafecouncil.org

California Licensed Foresters
clfa.org

California Native Plant Society
Fire Recovery Guide
www.cnps.org

Central Coast Prescribed Burn Association
calpba.org/centralcoastpba

Fire Safe Council of Santa Cruz County
www.firesafesantacruz.org

Monterey Bay Air Resources District
www.mbard.org

Resource Conservation District of
Santa Cruz County
www.rcdsantacruz.org

Santa Cruz County Office of Response,
Recovery & Resilience
www.santacruzcounty.us/OR3.aspx

San Jose State University
Fire Weather Research Lab
www.fireweather.org

South Skyline FSC
www.southskylinefiresafe.org

United Policy Holders
uphelp.org

USDA Natural Resource Conservation Service
www.nrcs.usda.gov

Local Fire Agencies

Ben Lomond Fire Department	831-336-5495
Boulder Creek Fire Department	831-338-7222
Branciforte Fire Department	831-423-8856
Central Fire District	831-479-6842
Felton Fire District	831-335-4422
Santa Cruz City Fire	831-420-5280
Santa Cruz County Fire/Cal Fire CZU	831-335-5353
Scotts Valley Fire District	831-438-0211
Watsonville Fire Department	831-768-3200
Zayante Fire Department	831-335-5100

Contact Information for this guide

Resource Conservation District of Santa Cruz County
820 Bay Ave, Suite 136, Capitola, CA 95010 | 831.464.2950
info@rcdsantacruz.org | www.rcdsantacruz.org

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Disclaimer: This information will provide a high level of protection to structures built in the wildland/urban interface area, however there is no guarantee or assurance that compliance with the brochure guidelines will prevent damage or destruction of structures by fire in all cases.