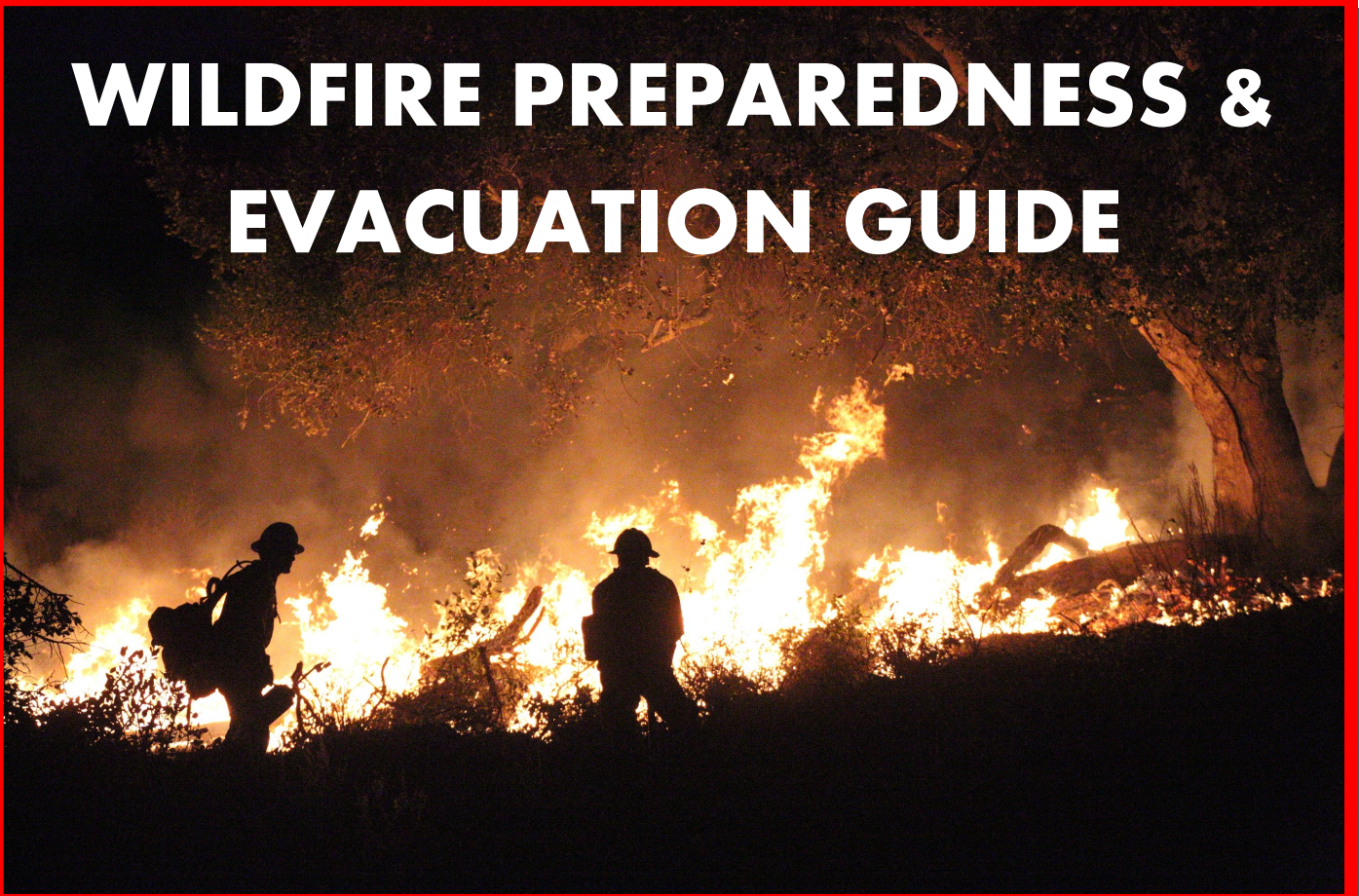




CITY OF

*Richmond* CALIFORNIA

# WILDFIRE PREPAREDNESS & EVACUATION GUIDE



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## DEFENSIBLE SPACE WORKS

If you live in a Very High Fire Hazard Severity Zone, or next to a dense vegetation area, you should provide the necessary defensible space to protect your home. Defensible space also provides Richmond firefighters with the space they need to defend your home. Create a buffer zone by removing weeds, brush, and other vegetation. This will help keep the fire away from your home and reduce the risk of ignition from flying embers. The guidelines outlined in this document provide valuable guidance on property enhancements.



## BE EMBER AWARE

A home within 10 miles of a wildfire will most likely be effected by wind driven embers which can be a risk to your property. You must prepare yourself and your home well before a fire occurs. Ember fires can destroy homes far from the actual front of the fire. Prepare your home to be ember safe. Review the Ember Awareness checklist to ensure you are ready!



## CONSIDER THIS

Unmanaged vegetation between and around homes increases the risk of wildland fire spreading throughout the community, and endangering lives and property. Pre-fire planning, fuels management, and sufficient fuel breaks allow Richmond Firefighters the space they need to keep fire from entering your community or exposing your home to fire.

**INTRODUCTION** The fire season is a year-round reality, requiring firefighters and residents to be prepared for the threat of wildland fire.

Each year, wildland fires devastate communities as they consume hundreds of homes in the Wildland-Urban Interface (WUI). Studies have shown that as many as 80 percent of high risk WUI areas where houses are built, and are surrounded by natural fuels could have been saved if their owners had followed simple fire-safe practices. In addition, related deaths in wildland fire occurred because people waited too long to leave their homes.



The Richmond Fire Department takes every precaution to help protect you and your property from wildland fire. However, in a major wildland fire event, there simply may not be enough resources or firefighters to defend every home.

Successfully preparing for a wildland fire enables you to take personal responsibility to protect yourself, your family, and property. In this guide, we provide the tips and tools you need to prepare for a wildland fire threat, to have situational awareness when a fire starts, and to act early as directed by local officials.

This guide works in collaboration with other existing wildland fire public education efforts, but attempts to capture pertinent information into one document for your convenience. Additional resources are listed within this document for further information.

**YOU ARE A KEY LEADER TO CREATING CHANGE.** You and the members of your community can take simple steps to increase your wildland fire preparedness. Your knowledge and actions may empower others to follow your lead, increasing their safety and potentially decreasing property loss and damage. Being prepared for a wildland fire is vital, as responders' resources can be spread thin quickly during a wildfire event. Taking advanced personal action can result in improved safety for all involved.

Fire is, and always has been, a natural occurrence. Hills, canyons, and forests burned periodically long before homes were built. Wildland fires are fueled by a build-up of dry vegetation and driven by seasonal hot and dry winds, called "Diablo winds." These winds can quickly spread wildfires, making them extremely dangerous and difficult to control. Many people have built homes in the WUI without fully understanding the impact a wildfire may have on their lives. Few have adequately prepared their families and homes for a timely evacuation in the event of a wildland fire.

It is not a question of if the next major wildfire will occur, but when. Through advanced planning, understanding, and preparation, we can all be partners in the wildland fire solution. The tips on the following pages are designed to help create awareness and a safer environment for you, your family, and the Richmond Fire Department.

*Please note that the Richmond Fire Department assumes no liability for any damages incurred directly or indirectly as a result of any errors, omissions, or discrepancies between this standard and any applicable law. It is the sole responsibility of the person or persons conducting any work pursuant to this standard to ensure their work complies with any applicable codes, ordinances, and regulations.*

# NOTIFICATIONS

## REGISTER NOW !!!

### Increase Your Chances of Being Notified in an Emergency

The Contra Costa County Sheriff's Office of Emergency Services maintains our **Community Warning System (CWS)**. CWS is generally used only for life-threatening incidents. The CWS can call every AT&T landline in the county in just a few seconds. It can also call VoIP phones (Voice over Internet, such as Comcast, Vonage, Magic Jack, or others that rely on the internet) and cell phones, but **ONLY** if they are registered with the system. If you have a cell or VoIP phone, you **must** register with the Community Warning System for them to be able to alert you. Your information will be kept confidential and will not be used for any other purposes. To register cell phones, VoIP phones or to subscribe to text messages and emails go to: <http://cococws.com/>.



1. Visit <https://cwsalerts.com/>
2. Register for alerts



#### Receive emergency alerts from the City of Richmond!

1. Text your zip code to 888777
2. Register Online at [www.nixle.com](http://www.nixle.com)



1. Visit [redcross.org/safeandwell](http://redcross.org/safeandwell)
2. Register yourself as "safe and well"
3. Search for your loved ones' posted messages



1. Visit [https://www.pge.com/en\\_US/safety/safety.page](https://www.pge.com/en_US/safety/safety.page)
2. Review PGE Wildfire Safety
3. Register for Medical Baseline Program during PSPS
4. Review Independent living centers



1. Visit <https://www.ready.gov/disability>
2. Review emergency preparedness



1. Visit International Association of Fire Chiefs (IAFC) [www.iaf.org/wildland](http://www.iaf.org/wildland)
2. Visit Ready, Set, Go [www.wildlandfireRSG.org](http://www.wildlandfireRSG.org)

# WARNING TERMS

To view current fire weather forecasts and Red Flag Warnings visit:

<https://www.wrh.noaa.gov/fire2/cafw/index.php>



**FIRE WEATHER WATCH** should be tracked to view any upcoming weather conditions which can result in extensive wildland fire occurrences or extreme fire behavior. A watch means that extreme fire weather conditions are possible within the next 12-72 hours.



**RED FLAG WARNING** is the highest alert and is issued when weather events may result in extreme fire behavior within 24 hours or fire conditions are ongoing. During these times, Richmond residents must use extreme caution because even a small spark can result in a major fire.



**EVACUATION WARNING** is an alert to residents of potential threats to life and property. Residents who have access and functional needs may need additional time to evacuate and may consider evacuating at this time. You must register to receive warnings: <https://cwsalerts.com/>



**EVACUATION ORDER** requires the IMMEDIATE movement of people out of an affected area due to an imminent threat to life. Law enforcement coordinates all evacuation action with the fire service. Staying behind may impede the work of emergency personnel. You must register to receive warnings: <https://cwsalerts.com/>



**SHELTER-IN-PLACE** advises residents to stay secure at their current location by remaining in place as evacuating will cause a higher potential for loss of life.



**RESCUE & RECOVERY** are emergency actions taken within the affected area to recover and remove injured or trapped citizens. You can let family and friends know you are safe and well by listing yourself on the Red Cross "Safe and Well" website at <https://safeandwell.communityos.org/cms/>. You can also search for other registrants.



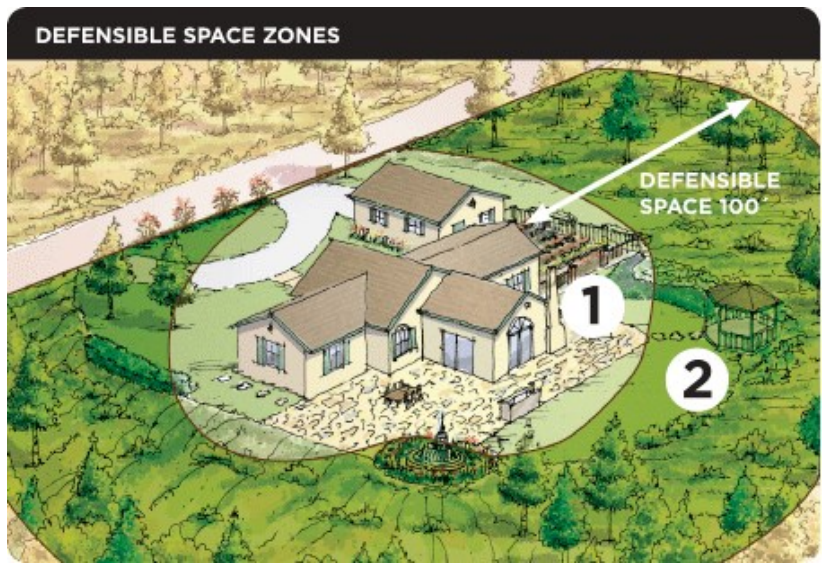
**SAFETY ZONE** is a place that may provide temporary refuge for residents who become trapped or are unable to evacuate to safety.

**IF YOU FEEL YOU ARE IN DANGER, DON'T WAIT: EVACUATE!**

## PURPOSE OF GUIDELINES

Topography climate change has resulted in higher year-long temperatures and increasing dry weather conditions in California. We are experiencing extended, sometimes multiyear, droughts and extended wildfire seasons throughout the year. Higher temperatures are occurring during dry season, making it easier for ignitions to spread. Wildfire fuel loads are also increasing due to insect infestations and plant diseases with climate change.

The Richmond Fire Department Prevention Division strives to minimize wildfire impact through comprehensive vegetation management measures in Very High Fire Hazard Severity Zones (VHFHSZ), which can help to prevent or severely limit large-scale wildfires from developing and spreading to neighboring parcels. Public Resources Code (PRC) 4291 outlines the defensible space clearance requirement maintained around buildings and structures from 30 feet to a distance of 100 feet. These guidelines are intended to provide property owners with examples of fuel modification measures that can be used to create a defensible space area around buildings or structures.



A defensible space perimeter around buildings and structures provides firefighters a working environment that allows them to protect buildings and structures from encroaching wildfires. Defensible space can also slow the spread of fire from house to house. Lastly, it can also minimize the chance that a structure fire will escape to the surrounding wildland. These guidelines apply to any person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material, and located within a Local Responsibility Area (LRA).

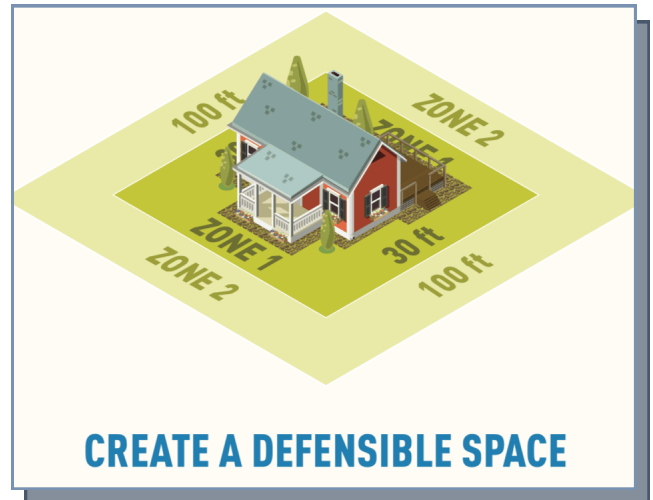
The vegetation surrounding a building or structure is fuel for a fire. Even the building or structure itself is considered fuel. Research and experience have shown that fuel reduction around a building or structure increases the probability of it surviving a wildfire. Good defensible space allows firefighters to protect and save buildings or structures safely without facing unacceptable risk to their lives. Fuel reduction through vegetation management is the key to creating good defensible space.

The City of Richmond contains wildland intermix areas which increase the community's risk of loss from devastating fire. A number of areas have been identified by the California Department of Forestry (Cal Fire) and the Richmond Fire Department as Very High Fire Hazard Severity Zones (VHFHSZ). Property owners within these zones must take special precautions within their property, including vegetation management, to reduce the risk of fire.

## PURPOSE OF GUIDELINES (CONTINUED)

Climate conditions and vegetation interact to affect fire behavior and fuel reduction standards. Richmond residents can significantly reduce the potential that a small fire will not grow into a catastrophic fire event involving one or more structures. While fuel reduction standards will vary throughout the State, there are some common practices that guide fuel modification treatments to ensure creation of adequate defensible space.

Properties with greater fire hazards will require more clearing. Clearing requirements will be greater for those lands with steeper terrain, larger and denser fuels, fuels that are highly volatile, and in locations subject to frequent fires.



Creation of defensible space through vegetation management usually means reducing the amount of fuel around the building or structure, providing separation between fuels, or reshaping retained fuels by trimming. Defensible space can be created removing dead vegetation, separating fuels, and pruning lower limbs.

In all cases, fuel reduction means rearranging the trees, shrubs and other fuel sources (through pruning or removal) in a way that makes it difficult for fire to transfer from one fuel source to another. It does not mean cutting down all trees and shrubs, or creating a bare ring of earth across the property.

A homeowner's clearing responsibility is limited to 100 feet away from his or her building or structure or to the property line, whichever is less, and limited to their land. While individual property owners are not required to clear beyond 100 feet, groups of property owners are encouraged to extend clearances beyond the 100 foot requirement in order to create community-wide defensible spaces.

Homeowners who undertake fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state or local environmental protection laws and obtain permits when necessary. Environmental protection laws include, but are not limited to, those that protect threatened and endangered species, migratory or nesting birds, water quality, air quality, and cultural/archeological resources.

The methods used to manage fuel can be important for the safe creation of defensible space. Care should be taken with the use of equipment when creating your defensible space zone. Internal combustion engines must have approved spark arresters and metal cutting blades (lawn mowers or weed trimmers) should be used with caution to prevent starting fires during periods of high fire danger. A metal blade striking a rock can create a spark and start a fire, and is a common cause of fires during summertime.

Vegetation removal can also cause soil disturbance, soil erosion, regrowth of new vegetation, and introduce non-native invasive plants. Always keep soil disturbance to a minimum, especially on steep slopes. Erosion control techniques such as minimizing use of heavy equipment, avoiding stream or gully crossings, using mobile equipment during dry conditions, and covering exposed disturbed soil areas will help reduce soil erosion and plant regrowth.

## DEFINITIONS

1. **Aerial fuels:** All live and dead vegetation in the forest canopy or above surface fuels, including tree branches, twigs and cones, snags, moss, and high brush. Examples include trees and large bushes.
2. **Building or structure:** Any structure used for support or shelter of any use or occupancy. Example: Homes, multifamily residential, offices, or other commercial buildings.
3. **Defensible space (Zone 1):** The area within that extends from the structure out to 30 feet perimeter of a parcel where basic wildfire protection practices are implemented, providing the key point of defense from an approaching wildfire or escaping structure fire. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.
4. **Fire break:** An area in which all flammable vegetation or combustible growth is removed and cleared away, thereby eliminating fire hazardous vegetation fuels which can rapidly transmit fire. Ornamental landscaping is permissible within a firebreak as long as it is adequately irrigated, maintained and spaced so as not to provide a means of rapidly propagating fire.
5. **Fire-resistant plants:** A relative term used to describe plants that “more resistant” or “less resistant” than other plants to fire. Given enough heat, all vegetation will burn, yet plants in fact differ in how fast they burn, or how high a flame they produce in addition to their ability to survive fire. Fire resistance is enhanced by higher amounts of moisture within the plant.
6. **Flammable and combustible vegetation:** Vegetative material including, grasses, groundcovers, shrubs, and trees or dead downed branches or tree trunks, which is easy to ignite during normal summer weather.
7. **Fuels:** Combustible materials, including vegetation, wood piles, combustible/flammable liquids and buildings or structures.
8. **Fuel Break:** An area in which all flammable vegetation or combustible growth is reduced and cleared away according to established standards, thereby limiting the mass and arrangement of fire hazardous vegetation fuels which can rapidly propagate fire.
9. **Homeowner:** Any person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material, and located within the City of Richmond.
10. **Ladder Fuels:** Fuels that can carry a fire vertically between or within a fuel type.
11. **Ornamental landscaping:** Decorative plants growing within a tended garden or yard which are appropriately irrigated, maintained and located to provide aesthetic decoration and functional utility, such as privacy screening, shade, weed suppression and erosion control. The use of fire-resistant plants and the removal of flammable and combustible vegetation will enhance fire safety.
12. **Reduced Fuel Zone (Zone 2):** The area that extends out from 30 to 100 feet away from the building or structure (or to the property line, whichever is nearer to the building or structure).
13. **Surface fuels:** Loose surface litter on the soil surface, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches that have not yet decayed enough to lose their identity; also grasses, forbs, low and medium shrubs, tree seedlings, heavier branches and downed logs.



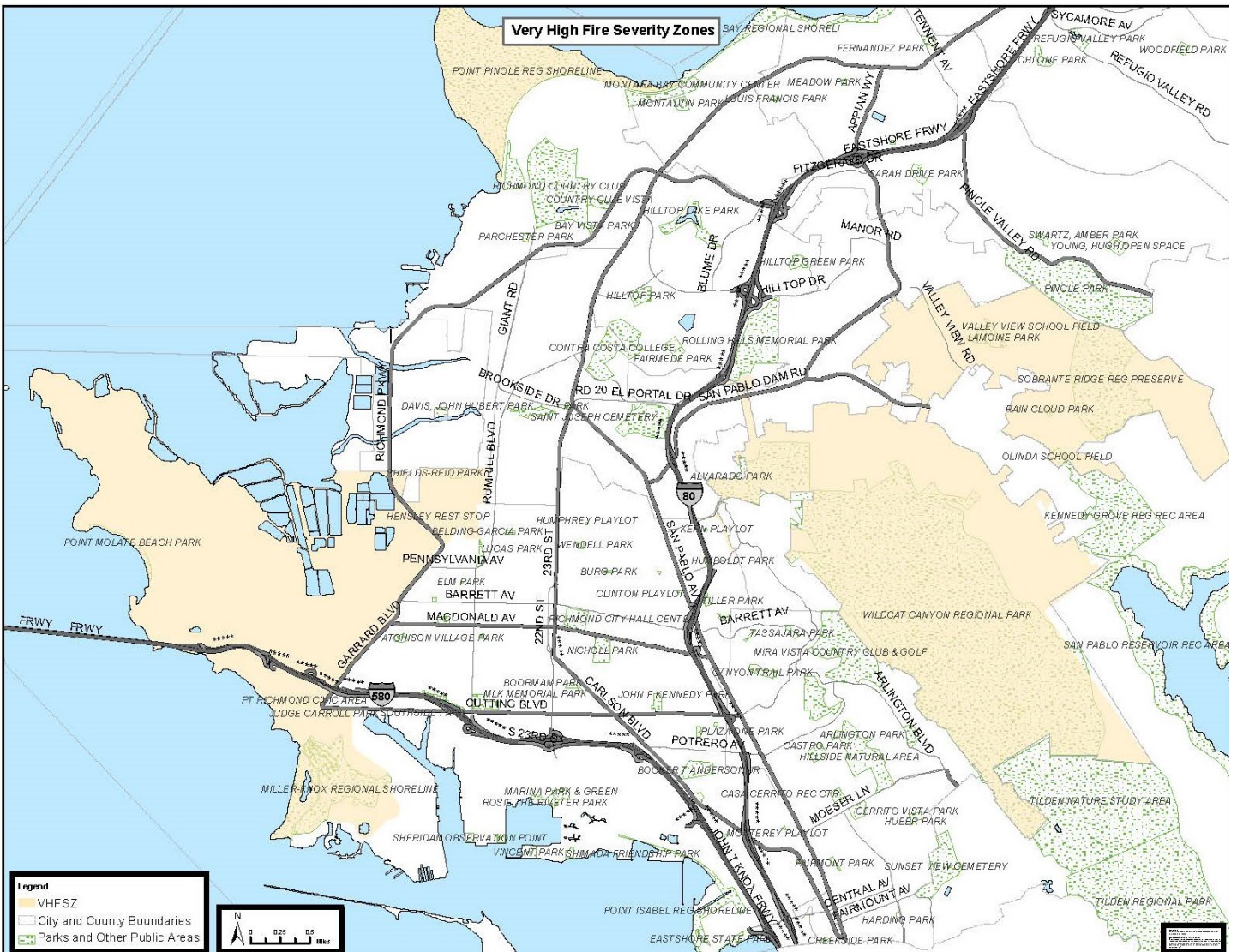


# DEFINITIONS (CONTINUED)

14. **Very High Fire Hazard Severity Zone (VHFHSZ):** Any geographic area designated per Government Code Section 51178 to contain the type and condition of vegetation, topography, weather and structure density to potentially increase the possibility of wildland conflagration fires. As a community adjacent to extensive wildland areas, the City of Richmond contains several VHFHSZ. Fire hazard reduction standards are more extensive for properties located within VHFHSZ.
15. **Wildland-Urban Intermix:** Refers to a specific type of wildland-urban interface in which the homes or other structures are intermixed with wildland fuels, as opposed to a distinct area of wildland fuel adjacent to a developed area

**Creation of defensible space through vegetation management means reducing the amount of fuel around the structure, providing separation between fuels, and reshaping retained fuels by trimming. Defensible space can be created by removing dead vegetation, separating fuels, and pruning lower limbs.**

## MAP OF CITY OF RICHMOND VERY HIGH FIRE HAZARD SEVERITY ZONES



# VEGETATION MANAGEMENT STANDARDS - ZONE 1

All persons shall follow the guidelines for maintaining Zone 1 & Zone 2 on their property. **KEEP IT “LEAN, CLEAN & GREEN”**

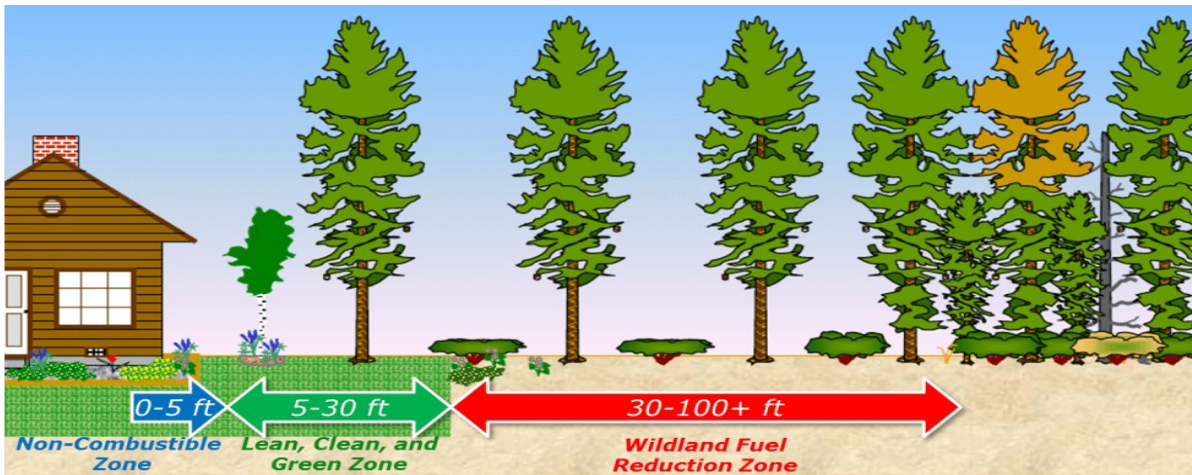


## Defensible Space Zone 1 (0-30 feet from structure) Guidelines:

1. Remove all branches or portions of trees that extend within 10 feet of the outlet of a chimney or stovepipe. Equip chimney or stovepipe outlet opening with metal screen having an opening at least 1/16 inch (1.6 mm) but no greater than 1/8 inch (3.2mm).
2. Remove any flammable vegetation like leaves and needles on roofs, gutters, on or below decks, balconies, porches, stairways and other areas surrounding the structure.
3. Remove all dead and dying trees, branches and shrubs or other plants adjacent to, or overhanging, structure(s).
4. Remove or separate live flammable ground cover and shrubs surrounding the structure.
5. Relocate any exposed wood piles or other combustible material stored against any structure(s) to outside Zone 1.
6. Create non-combustible zones from 0-5 feet from structures to reduce chance of ignition from flying embers.
7. Remove any ladder fuels to create a separation between low-level vegetation and tree branches to keep fire from climbing trees.
8. Maintain ALL weeds and grass under 4 inches in height. Lawnmowers, string trimmers, chainsaws, grinders, welders, and tractors can all start fires if not used properly. Use caution and mow before 10:00 a.m. when the air is calm, cool, and moist.
9. Provide contrasting address numbers that are readable from the street or access road (4" minimum size).
10. Maintain a firebreak by removing and clearing away all flammable vegetation and other combustible growth within **30 feet** of each structure. Single specimens of trees or other vegetation may be retained provided they are well spaced, well pruned, and create a condition that avoids spread of fire to other vegetation or to a structure. For parcels or privately owned open space greater than five acres, see page 14.
11. Maintain fuel break on vacant lots 30 feet wide along the property line and 100 feet from neighboring structures.

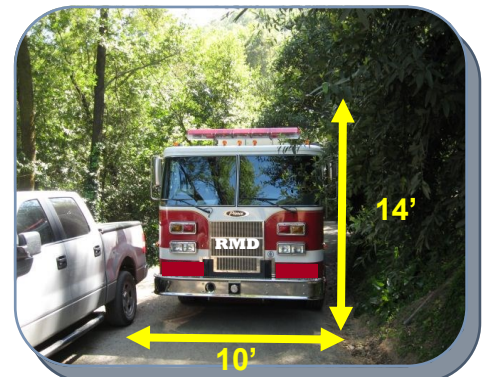
# VEGETATION MANAGEMENT STANDARDS - ZONE 2

Remember to “**REDUCE FUEL**”



## Reduced Fuel Zone 2 (30-100 feet from structure) Guidelines:

1. In conjunction with Defensible Space (Zone 1) guidelines , minimum clearance between fuels surrounding each structure will range from **five feet to 30 feet** *in all directions*, both horizontally and vertically. Clearance distances between vegetation will depend on the slope, vegetation size, vegetation type (brush, grass, trees) and other fuel characteristics (fuel compaction, chemical content, etc.). Remove dead vegetation regularly. **Properties with greater fire hazards will require greater separation between fuels.** For example, properties on steep slopes having large vegetation will require greater spacing between individual trees and bushes (see Plant Spacing Guidelines). Groups of vegetation (numerous plants growing together less than ten feet in total foliage width) may be treated as a single plant. For example, three individual camellia plants growing together with a total foliage width of eight feet can be "grouped" and considered as one plant and spaced according to the Plant Spacing Guidelines in this document.
2. Create vertical and horizontal spacing between grass, shrubs, and trees. Reduce fuel for fire and separate trees, and shrubs in this area.
3. Dead and dying woody surface fuels and aerial fuels within the Reduced Fuel Zone shall be removed. Loose surface litter normally consists of fallen leaves or needles, twigs, bark, cones and small branches, and is to be removed. This guideline is primarily intended to eliminate trees, bushes, shrubs and surface debris that are completely dead or with substantial amounts of dead branches or leaves/needles that would readily burn.
4. Downed logs greater than eight inches in diameter, or stumps anywhere within 100 feet from the structure, when embedded in the soil, may be retained when isolated from other vegetation. Occasional (approximately one per acre) standing dead trees (snags) that are well-spaced from other vegetation and which *will* not pose a threat to structures or to roadways/driveways may be retained.
5. Property owners are responsible for vegetation adjacent to roads and driveways, and must maintain a minimum clearance of 14' overhead and 10' from the sides of driveways and roadside.



# VEGETATION MANAGEMENT STANDARDS - LADDER FUELS

Even if you don't have a forest of big trees, look at the diagram below to understand the difference in fire intensity without ladder fuels. No ladder fuels = No Crown Fire. Removing ladder fuels allows the fire to remain a surface fires which helps responding fire crews extinguish the fire more rapidly. Once a surface fire propagates into a tree crown, the spread of fire is intensified greatly, and can create other fires potentially miles away depending on weather conditions. Do your part: create a defensible space around your property. The Richmond Fire Department is depending on YOU!



The greater the distance between **surface fuel** (grass, logs, twigs, fallen branches and low-lying foliage) and **tree crowns**, the more difficult it is for crown fires to start.

- 1 Periodic fires spread through surface fuel.
- 2 The surface fire cannot make the leap to the tree crowns.
- 3 The fire consumes small plants, but taller trees escape with scorched bark.



In a forest where fires rarely happen, fuel builds up: There's **surface fuel** (grass, logs, woody debris, brush); **ladder fuel** (shrubs, small trees, snags); and **tree crowns**.

- 1 Surface fires spread quickly through brush and woody debris.
- 2 Ladder fuels allow the fire to move up toward the forest canopy.
- 3 Tree crown fires are so intense, they're difficult to control.

## FIVE ACRES OR LESS VS. FIVE OR MORE

### A. Parcels five acres or less in size:

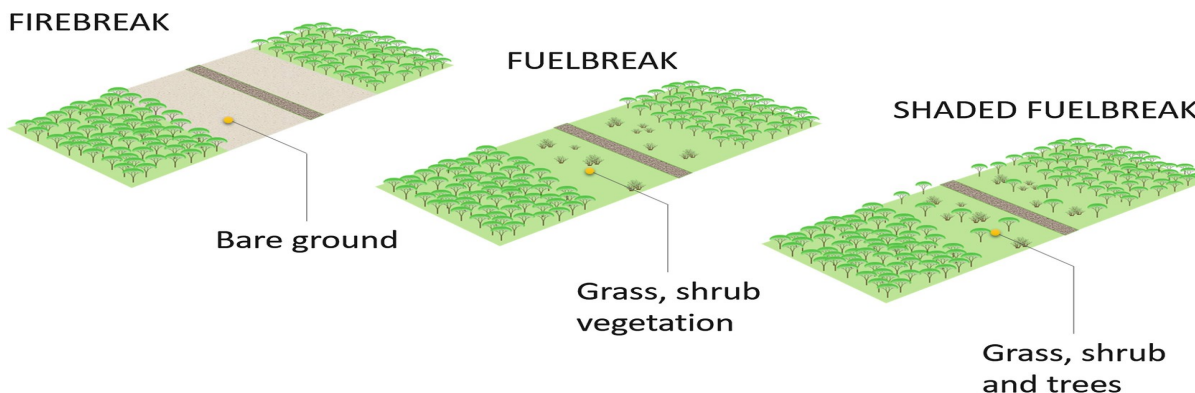
1. Maintain all weeds at a height of no more than four inches. Weeds and grasses must be mowed, with material mulched and scattered or raked and bagged, and removed from the property, or disced (refer to “Discing Quality” below). All combustible rubbish or debris, including but not limited to, cardboard boxes, pallets, trash, and wood rounds/chunks, shall be removed from the property. Parcels may require more than one abatement during the season due to the regrowth of weeds and other flammable vegetation.

### B. Parcels greater than five acres in size:

1. Shall be provided with **30 foot** fuelbreaks and **15 foot** crossbreaks should divide the parcel into approximately five-acre sections (fuelbreaks and crossbreaks are a continuous strip of disced or dozed ground, following as closely as possible to the property line and along one side of all fencelines, ditches and on top of all ridges). Fencelines may require hand mowing/weed eating to ensure completion of fuelbreak. When terrain is too steep or rugged for a tractor, a hand-treated fuelbreak may be required.
2. Fuelbreaks along roadways are required as part of the property line. Road right-of-ways shall be cleared for a minimum of **ten (10) feet** from the edge of driving surface and **14 feet vertically**.
3. Active pastureland shall be provided with 15-foot wide fuelbreaks and crossbreaks if a sufficient number of animals are present to steadily reduce height of grass during the summer months to four inches or less by the end of August. If not active, a 30-foot width is required for both fuelbreaks and crossbreaks.
4. Active cropland shall be provided with **15-foot fuelbreaks** or crossbreaks if the crop is to be harvested by mid-June. If later harvest, a **30-foot width** is required.
5. Orchards are to be maintained by complete abatement, including grass under the tree branches. This may require pruning of lower branches to allow equipment access.
6. Tree litter (eucalyptus leaves and bark, coniferous needles, etc.) shall be removed from the base of trees, tree stems and limbs within ten (10) feet of the ground and maintained throughout the fire season.
7. 30-foot to 100 foot “defensible space” fuelbreaks, where required, shall be provided around all structures, combustible storage, trees shrubs and bushes, along ridgelines, and fencelines. Remove all debris from the property which would obstruct or impede vehicles and/or equipment used for abatement work or fire suppression operations.

### DISCING QUALITY

All discing work, including fuelbreaks, shall be completed so that all weeds, grasses, crops and other vegetation or organic material, which could be expected to burn, shall be completely turned under to the point that there is not sufficient exposed fuel to maintain or allow the spread of fire.



# PLANT SPACING GUIDELINES

## Vertical clearance between aerial fuels:

The spacing between grass, shrubs, and trees is crucial to reduce the spread of wildfires. The spacing needed is determined by the type and size of brush and trees, as well as the slope of the land. For example, a property on a steep slope with larger vegetation requires greater spacing between trees and shrubs than a level property that has small, sparse vegetation. Remove all tree branches at least 6 feet from the ground. Allow extra vertical space between shrubs and trees. Lack of vertical space can allow a fire to move from the ground to the brush to the treetops like a ladder. To determine the proper vertical spacing between shrubs and the lowest branches of trees, use the formula shown in the diagram below.



**Shrub Example:** a 5' shrub is growing near a tree.  $3 \times 5' = 15'$  of clearance needed between the top of a shrub and the lowest tree branch.

| Plant Spacing Guidelines  |   |                                 |
|---|---|---------------------------------|
| Guidelines are designed to break the continuity of fuels and be used as a "rule of thumb" for achieving compliance with Regulation 14 CCR 1299. |   |                                 |
| Trees   | Minimum horizontal space  |                                 |
|   | from edge of one tree canopy to the edge of the next  |                                 |
|   | Slope   | Spacing                         |
|   | 0% to 20 %  | 10 feet                         |
|   | 20% to 40%  | 20 feet                         |
| Greater than 40%  | 30 feet   |                                 |
| Shrubs  | Minimum horizontal space between edges of shrub   |                                 |
|   | Slope   | Spacing                         |
|   | 0% to 20 %  | 2 times the height of the shrub |
|   | 20% to 40%  | 4 times the height of the shrub |
|   | Greater than 40%  | 6 times the height of the shrub |
| Vertical Space  | Minimum vertical space between top of shrub and bottom of lower tree branches:<br>3 times the height of the shrub |                                 |

## PLANT SPACING GUIDELINES (CONTINUED)

### Horizontal clearance:

Clearance requirements include horizontal clearance between aerial fuels, such as the outside edge of the tree crowns or high brush. Horizontal clearance helps stop the spread of fire from one tree to the next.



### Horizontal (slopes):

Flat to mild slope (less than 20%): Trees should have a minimum of 10 feet between them. Shrubs should have a minimum of 2x height between other shrubs.



Mild to moderate slope (20-40%): Trees should have a minimum of 20 feet between them. Shrubs should have a minimum of 4x height between other shrubs.

### Additional Plant Selection and Planting Tips:

- Select less flammable plants
- Plants shorter than 2 feet are safer than taller plants
- Herbaceous plants that are kept green are a better choice than shrubs and trees
- Deciduous trees (trees that shed their leaves) are safer than evergreens
- Avoid planting juniper, pine, and palm trees
- Clear all flammable vegetation from within ten feet of propane tanks
- If you notice tree limbs encroaching overhead lines, you're asked to contact PG&E

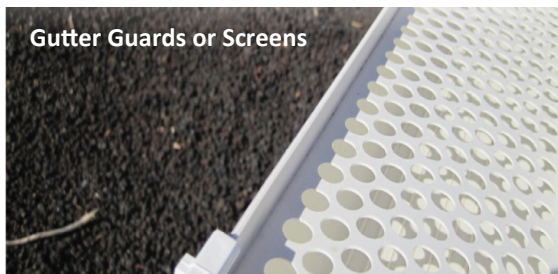
# MAKING YOUR HOME FIRE-RESISTANT: HARDEN YOUR HOME

Construction materials and the quality of the defensible space surrounding the structure are what increases the chance of survival in a wildland fire. Embers from a wildland fire will find the weak spot in your home's fire protection scheme and can easily catch because of small, overlooked, or seemingly inconsequential factors. Below are some measures you can take to safeguard your home.



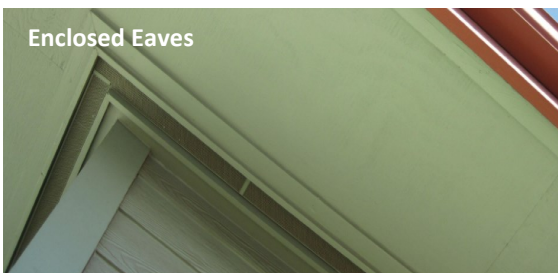
## BALCONIES & DECKS

Construct your balconies or decks with noncombustible materials, such as heavy timbers, metal decking etc., and do not store combustible items underneath them. If there is a fire threat, bring any furniture into your home. Embers can collect in or on combustible surfaces, or beneath decks and balconies, igniting the material and entering the home through walls or windows.



## ROOFS

Roofs are the most vulnerable surface where embers land because they become lodged and can start a fire. Roof valleys, open ends of barrel tiles, and rain gutters are all points of entry. Block off all open spaces, and regularly inspect these areas. Consider gutter guards or screens to reduce litter in gutters.



## EAVES

Embers can gather under open eaves and ignite combustible material. Enclose your eaves to prevent ember intrusion, and regularly clear away debris that collects here.



## VENTS

Embers can enter the attic or other concealed spaces and ignite combustible materials (insulation and other stored items). Vents in eaves and cornices are particularly vulnerable, as are any unscreened vents. Use corrosion resistant metal mesh to screen all vents, and check them regularly to remove any debris that collects in front of the screen.



## WALLS & FENCING

Combustible siding or other combustible/overlapping materials provide surfaces and crevices for embers to nestle and ignite. Build or remodel with noncombustible or ignition-resistant materials whenever possible, regularly clear away debris from any crevices, and perform annual upkeep.



## WINDOWS & DOORS

Embers can enter gaps in doors, including garage doors. Install weather proofing around your garage door, and if your garage is attached to your home make sure the interior door is solid and on self-closing hinges.

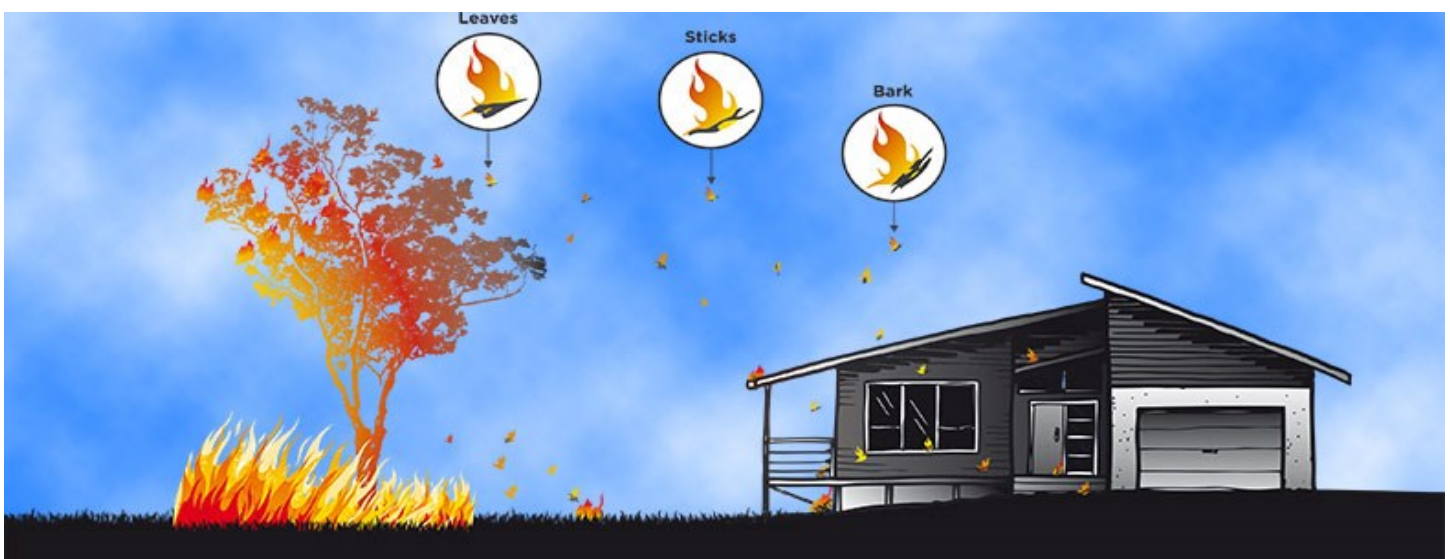
Plants or combustible material stored near windows can be ignited from embers and generate heat that can break windows and/or melt vinyl or plastic frames. Whenever possible, use dual-paned windows with tempered glass, as they are less likely to shatter from radiant heat.



## FREQUENTLY ASKED QUESTIONS

1. Am I required to maintain my property year round? **Yes.** Though inspections are generally in the spring and summer, you are required to keep your property fire-safe year-round.
2. Should ivy climbing on my house and trees be removed? **Yes.** Remove ivy and other vines that act as a fire ladder and make your home vulnerable to fire.
3. How can I avoid the erosion from vegetation removal? **Don't remove all vegetation—roots, grasses, shrubs and trees, especially on slopes that keep them stable. Remove leaves and branches, but leave the roots.**
4. Can you recommend some fire-resistant plants? **Yes.** For a guide to Fire Wise Native Plants, go to <http://diablofiresafe.org/tolerance.html>
5. I sold this property, so what do I do with this notice? **Please call our office at (510) 307-8031 and the County Recorder's office at (925) 335-7900 to correct the records.**
6. I don't use my fireplace. Do I still need a spark arrester? **Yes.** All working fireplaces must have a spark arrester as defined in the California Fire Code even if not in regular use.
7. Does the required 30-foot clearance include ornamental plants and trees and native plants? **No, but trees and plants must be maintained and lower branches removed to eliminate fire ladders.**
8. My property has junipers and bamboo on it. Are there any special requirements for removal? **No, but it is highly recommended that they be removed at least 30 feet away from any structure. Several attributes contribute to them being a fire hazard. They are dense plants and often have a lot more plant material, or potential fire fuel with volatile oils (juniper) and hollow internodes that trap heat (bamboo) that make them easier to ignite other similar-sized shrubs.**
9. Where are my address numbers required to be? **Address numbers must be posted on the building and visible from the street, numbers shall be at least 4 inches in height and in a contrasting color.**
10. What is an ember and why is there such a concern over them? **Embers are formed when a fire has only partially burnt a piece of fuel, such as leaves, sticks, cones or bark. They can be carried in the wind up to 10 miles and start new fires ahead of the main fire front.**
11. Who should I call for more information? **Call the Richmond Fire Department (510) 307-8031.**

### An Example of the various types of embers



# Where is this home vulnerable to ember attack?



# Ember Awareness Checklist

- **Wood Roof**  
Replace wood shake and shingle roofs with fire-resistant type such as composition, metal and tile.
- **Roof Openings**  
Plug openings in roof coverings, such as the open ends of barrel tiles, with noncombustible materials.
- **Roof Debris**  
Routinely remove plant debris, such as pine needles, leaves, branches and bark, from the roof.
- **Skylights**  
Replace plastic skylights with types construction of double-pane glass. One of the panes should be tempered glass. Close skylights if wildfire is threatening.
- **Spark Arrester**  
Install an approved spark arrester on chimneys or stove outlets.
- **Windows**  
Replace single-pane, non-tempered glass windows with multiple-pane, tempered-glass types. Close all windows if wildfire is threatening.
- **Vents**  
Cover attic, eave and foundation with 1/8 inch wire mesh or install new vent types designed to prevent ember entry. If wildfire is threatening, consider covering vent openings with pre-cut plywood or aluminum foil folded several layers thick and stapled.
- **Rain Cutters**  
Keep rain gutters free of plant debris during fire season. Consider using rain gutter covers to reduce maintenance.
- **Siding and Trim**  
Fill gaps in siding with trim materials with a good quality caulk and replace poor condition building materials.
- **Woodpiles**  
Move firewood stacks and scrap lumber piles at least 30 feet from the house or other buildings.
- **Patio Furniture**  
Place combustible patio furniture, such as lounges, tables and hammocks, inside the house or garage if wildfire is threatening.
- **Deck Boards**  
Replace deck boards that are less than one inch thick or that are in poor condition with thicker, good condition boards. Use metal flashing between the deck and the house.
- **Deck Debris**  
Remove plant debris from the gaps between deck boards, the gap between the deck and house, and lying on top of the deck.
- **Porch and Deck Accessories**  
If wildfire is threatening, remove combustible materials from the porch and deck including door mats, and place BBQ propane tanks indoors (garage area).
- **Under the Deck**  
Remove plant debris, wood piles and other easily ignited materials from under decks. Use 1/8-inch wire mesh to enclose decks.
- **Flowerboxes**  
Remove wooden flowerboxes from beneath windows if wildfire is threatening.
- **Eaves**  
Cover open eaves with sheathing, such as plywood or fiber-cement board but do not use butt joints.
- **Flowerbeds**  
Replace wood mulches with noncombustible types. Replace ornamental junipers with low-growing deciduous shrubs or flowers under irrigation.
- **Vehicles**  
Close vehicle windows. Back into garage and close the garage door or park away from the house.
- **Garage Door**  
Consider using trim around to reduce the size of gap openings. Close the garage door if wildfire is threatening.
- **Garbage Cans & Recycling Bins**  
Use garbage cans covered with tight fitting lids near the house or other buildings. Move recycling bins indoors.
- **Wooden Fences**  
Maintain wooden fences in good condition and create a noncombustible fence section or gate

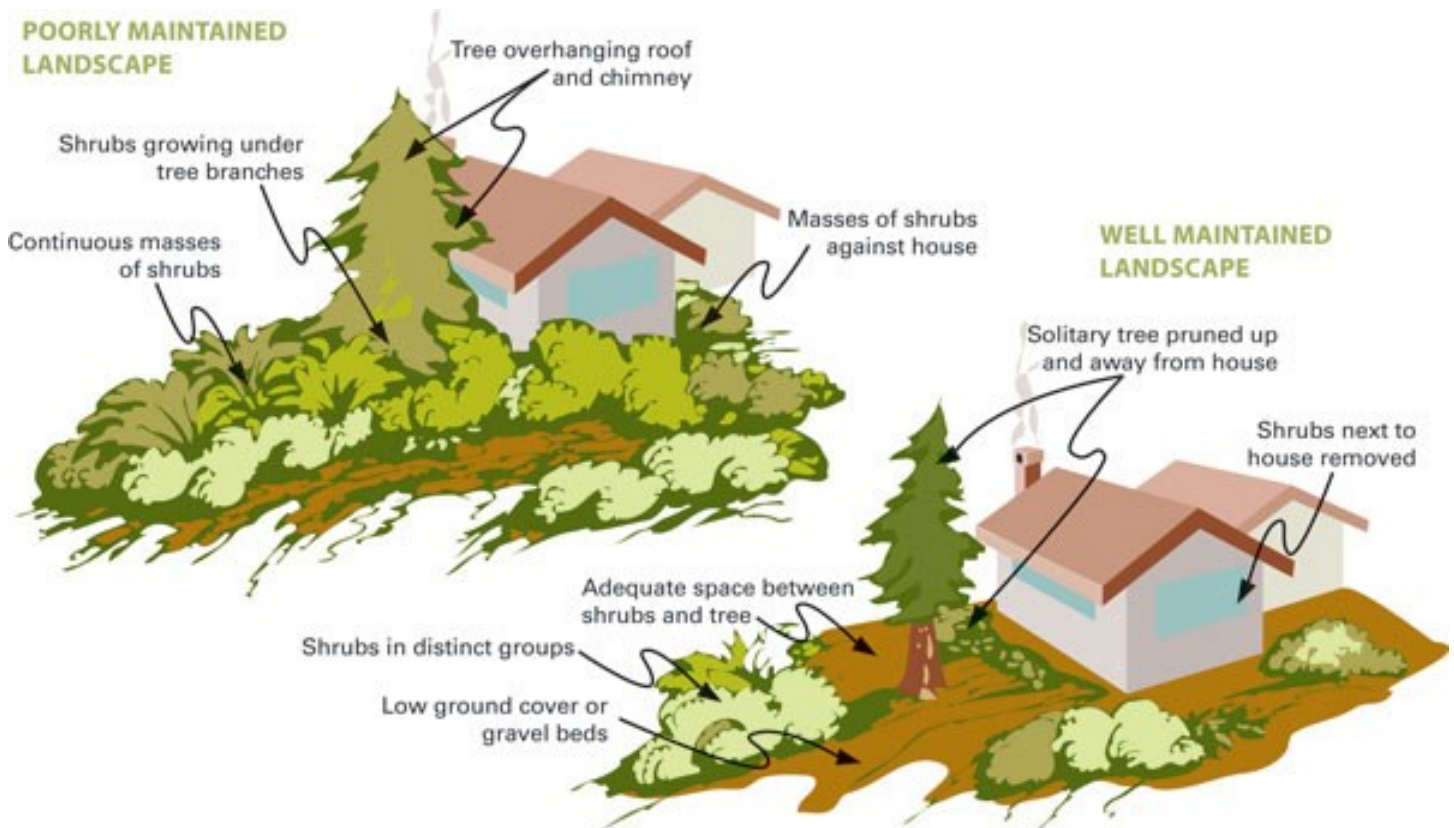
# FIRE-RESISTANT LANDSCAPING

A fire-resistant landscape isn't necessarily the same thing as a well-maintained yard. This type of landscape uses fire-resistant plants that are strategically planted to resist the spread of fire to your home. Fire-resistant plants are great in California because they are often drought tolerant, too. For more on fire-resistant landscaping, please visit <https://www.ebmud.com/water/conservation-and-rebates/watersmart-gardener/firescaping/>.

The good news is that you don't need a lot of money to make your landscape fire-resistant. And you may find that a fire-resistant landscape can increase your property value and conserve water while beautifying your home.

## Choose Fire-Resistant Plants and Materials

- Create fire-resistant zones with stone walls, patios, decks and roadways.
- Use rock, mulch, flower beds and gardens as ground cover for bare spaces and as effective firebreaks.
- There are no "fire-proof" plants. Select high-moisture plants that grow close to the ground and have a low sap or resin content.
- Choose fire-retardant plant species that resist ignition such as rockrose, ice plant and aloe.
- Select fire-resistant shrubs such as hedging roses, bush honeysuckles, currant, cotoneaster, sumac and shrub apples.
- Plant hardwood, maple, poplar and cherry trees that are less flammable than pine, fir and other conifers.



# FIRE-RESISTANT LANDSCAPING (CONTINUED)

## FIRE-RESISTANT PLANTS

**Any plant will burn under the right conditions.** Simply choosing plants from a "fire-safe" plant list is **NOT** enough. Rather, use "Right Plant, Right Place" to build a robust, fire-adapted landscape.

Plant orientation placement is critical to minimizing fire risk in your landscape. In addition to defensible space guidelines, intermix your combustible plants with non-combustible materials, such as gravel, rock, paving stones, brick, or concrete, to restrict the spread of fire.

Pruning shrubs to a single main stem can also help reduce your fire risk by reducing the volume of fuel and probability of ignition.

Take advantage of plant features that offer natural resistance to fire. When choosing which plants to use in your landscaping, look for these qualities.

### USE:

- **Hardy, slow growing plants** that don't produce a lot of thatch or litter. These plants accumulate fuel at a slower pace, reducing your maintenance requirements.
- **Drought tolerant native plants** that can maintain a high internal water content without needing a lot of water - succulents like native *Dudleya* species or aloes are examples.
- **Native trees** that have adaptations to fire such as thick bark on redwood trees. These trees have a higher tolerance for fire and help restrict the growth of more volatile invasive and shrub species.

## Hardy Succulents



### AVOID:

- Plants like juniper, Italian cypress, feather and fountain grasses, or ice plants can have **dead thatch** inside or under a green surface layer.
- Plants like eucalyptus, palms, or some manzanitas **shed dry bark** or **drop leaves** or fronds.
- Invasive plants, such as pampas grass or vinca, that can escape yards and form **continuous fuel beds** in un-managed areas, while damaging native habitat for wildlife.



# LANDSCAPING TIPS TO DEFEND YOUR HOME

With defensible space as the main prevention goal, additional key components are Landscaping, Plant Selection, and Erosion Reduction surrounding your home.

**LANDSCAPING** Clear native brush within 30 feet of buildings and limit brush height to 18 inches within 70 feet of buildings. A limited number of specimen shrubs and trees are suggested within 30 feet of a building.

**ELIMINATE** or reduce plants that serve as fuel for fires, and control their regrowth. The Richmond Fire Department notes the following species: Chamise, Red Shank, California Sagebrush, Common Buckwheat, Sage, Pampas Grass, Cypress, Italian Jasmine, Pine, Cape Plumbago, Cape Honeysuckle, and some varieties of Eucalyptus and Juniper.

**KEEP** landscape clean. Remove litter under trees and shrubs and prune out dead growth. Remove dead and dry portions of ground cover and succulents. Leave space (15 to 20 feet) between remaining shrubs and trees to curtail the spread of fire. **USE** planting techniques similar to landscaping in newly developed areas for recently burned watersheds. In general, installing smaller plants often produces the best growth. Diversity in plant selection is more desirable than planting only a few types. Spreading shrubs and trees are easier to establish.

**SELECT** only fire-retardant, noninvasive plants. The following commonly planted species are invasive: Capeweed, Australian Saltbush, Sea Fig/Ice Plant, Hottentot Fig, Pampas Grass, Broom, Russian Olive, Edible Fig, Blue Gum Eucalyptus, Algerian and English Ivy, Myoporum, Fountain Grass (all varieties),

Canary Island Date Palm, Cape Plumbago, Black Locust, Brazilian and California Pepper Tree, Cape Honeysuckle, Periwinkle, and Mexican Fan Palm. **PLANT** fire-retardant, noninvasive shrubs or trees where ground cover or grass ends. Large tree species should not be planted under or near utility lines. Low-branching or wide tree species should not be planted near roads and driveways where they can interfere with emergency vehicles. **STRESS** rapid-growth ground cover.

**INCREASE** effectiveness of fire retardant plantings with deep and infrequent irrigation, which encourages deep root growth. Drip irrigation will concentrate the water slowly, where it is needed. Conventional overhead irrigation often causes erosion on steep slopes.

## PLANT SELECTION

The Richmond Fire Department recommends that when deciding what to plant, the homeowner should select plants for the desirable attributes of fire resistance, low maintenance, availability, and erosion control effectiveness.

**TREES:** Trees are particularly valuable on steep hillsides. The roots of many trees go much

deeper than those of most ground cover plants. Trees that resprout after burning are generally the best choice for wildland areas, so you do not have to replant and the roots continue to grow. Selections for new tree plantings may include California natives like Coast Live Oak, Valley Oak, Toyon, Alder, Black Walnut, and California Laurel.

## GROUND COVERS:

Selections for new ground cover plantings may include Bearberry Manzanita, Trailing African Daisy, Sunrose, and Woolly Yarrow.

**GRASSES:** Selections for grass plantings or seeding may include Red Fescue and Bird's Foot Trefoil.

**SHRUBS:** Selections for new shrub plantings may include Aaron's Beard, California Fuchsia, Carmel Creeper, Creeping Rosemary, Creeping Sage, Dwarf Coyote Brush, Green Lavender-Cotton, Gray Lavender-Cotton, Small Leafed Ice Plants, and Point Reyes Ceanothus.

## EROSION REDUCTION

The key to erosion control is adequate planting to hold soil in place. However, planting can also increase fire hazards during warm weather. To reduce future fire hazards and still provide effective erosion control, **MINIMIZE** erosion with quick growing, fire-retardant ground cover. **AVOID** large-leafed Ice Plant on slopes because it tends to "drag" surface soils down when saturated.



## LANDSCAPING TIPS TO DEFEND YOUR HOME (CONTINUED)

If working with an existing landscape, an assessment of what is already there is imperative. What kind of plants, where they are located, what condition they are in, how they are irrigated, and overall site drainage for erosion control are all questions that need to be asked and answered.

### Which plants in your landscape are drought tolerant?

Drought tolerant plants are a good indicator of fire-safe planting. Plants that are drought tolerant tend to have thick, spongy, leaves that absorb and hold water for long periods. Additionally, having short groundcover nearest your home is best. There is nothing wrong with having turf, provided it is kept short and free of dead material and leaves. Plants that are low in oils and resins and that produce a minimum of dead material are best.

If you have plants that are not drought tolerant and are resinous, removal is not necessary in most conditions. If these plants already exist, the best practice is to keep them pruned free of dead material, away from structures, and spaced away from each other so as not to cause ignition to spread.



### Irrigation

Drip irrigation is best for drought tolerant plants. Once established, most drought tolerant plants do well on their own, needing little water to continue to thrive. Many native species of this area are drought tolerant, but there are some imported plants that do well. Install an automatic shut-off valve to prevent water loss and water damage should a fire melt portions of your irrigation system.

### Clearing leaf litter, using mulch, and pruning away dead material are necessary.

Use the proper mulch. Large wood chips or hardwood chips are best. Do not use fine, hairy material such as mulch (such as Palm fiber) as it ignites readily and the embers spread quickly. Use thick, coarse wood chips and keep them moist. This will help to keep fires from spreading.

### Property Drainage Hints to Homeowners To Prevent Erosion and for a Health Landscape

- Proper planting of slopes prevents erosion. Keep plants watered, but do not overwater. Replant barren areas.
- Perform inspections during rains. This is when trouble occurs. Watch for gullying. Correct problems as soon as possible.
- Sandbags, tools, and sheets of plastic may come in handy during heavy rains. Keep them available. However, in case of predicted heavy rains, evacuate your home. If unusual cracks, settling, or earth slippage starts, immediately consult a qualified civil engineer or geologist.
- Do not alter your slopes or drainage without expert advice. Consult a state licensed civil engineer.
- Do not let conditions on your property create a problem for your neighbors. Work with neighbors to minimize problems. It is unlawful to divert flows from their natural path to the detriment of your neighbors.
- Normal property drainage must flow to the street or an approved drainage device. When landscaping, homeowners should avoid disrupting flow patterns created when the property was originally graded. Obstructions such as patios, sidewalks, and decks must not be placed in side swales unless an alternate method of drainage is provided. Deep ponding and saturation of the soil can result in severe property and foundation damage.

## RED FLAG WARNING SAFETY TIPS

The National Weather Service issues Red Flag Warnings & Fire Weather Watches to alert fire departments of the onset, or possible onset, of critical weather and dry conditions that could lead to rapid or dramatic increases in wildfire activity. [www.wrh.noaa.gov/fire2/cafw/index.php](http://www.wrh.noaa.gov/fire2/cafw/index.php)



A **Red Flag Warning** is a term used to call attention to weather conditions that may result in extreme burning conditions with a high degree of confidence that Red Flag criteria will occur within 24 hours of issuance. A Red Flag Warning is the highest alert. A **Fire Weather Watch** is issued when weather conditions could exist in the next 12-72 hours. During these times extreme caution is urged by all residents, because a simple spark can cause a major wildfire. A Fire Weather Watch is one level below a warning, but fire danger is still high.

The type of weather patterns that can cause a watch or warning include strong winds, low relative humidity, dry fuels, the possibility of dry lightning strikes, or any combination of the these elements.

Richmond Fire Department urges residents to be extremely cautious, especially during periods of high fire danger. It's important that all residents and visitors take steps to prevent wildfires. One less spark could mean one less wildfire. See below for tips on preventing wildfires.



### Equipment

- Never mow or trim dry grass on a Red Flag Warning Day. (Mow before 10 a.m. on a day when it's not hot and windy).
- Spark arresters are required in wildland areas on all portable gasoline powered equipment vehicles.

### Outdoor Fires

- Extinguish outdoor fires properly - never leave them unattended. Always drown them with plenty of water.
- Soak ashes and charcoal in water and dispose of them in a metal can.
- Thoroughly extinguish all cigarettes and smoking material.

### Property

- Keep your lawn green and mowed all season.
- Create at least 100 feet of defensible space around your home by removing leaves, weeds, firewood and other easily ignited flammables such as lawn mowers, gas cans and patio furniture.
- Clean roof and gutters of leaves, pine needles, or other flammables. Provide spark arresters on chimney or stove pipe outlets.
- Make sure access roads/driveways to your property are cleared and properly labeled with street name and address numbers.

### Vehicles

- Never throw your cigarettes or matches out of vehicles. They can ignite grass on the side of the road and start a wildfire.
- Never pull over in dry grass, as the underside of a vehicle can cause a fire.
- Ensure trailer chains don't drag on the ground and cause sparks that can cause a fire.



## RED FLAG WARNING SAFETY TIPS (CONTINUED)

### DO WHEN A RED FLAG WARNING IS ISSUED:

1. **Be ready to evacuate. Take only a single vehicle to help reduce traffic jams!**
2. Make sure that you have at least  $\frac{3}{4}$  full tank of fuel.
3. Park your vehicle:
  - a. In a driveway facing the street, not in a garage. If you have a driveway gate, leave it open. *OR*
  - b. On the street in the direction of departure.
4. Keep vehicle keys in your pocket.
5. Keep plenty of drinking water in your vehicle.
6. Load time-sensitive medications into vehicle. Unopened insulin can be stored at room temperature for up to 28 days.
7. Keep an emergency kit and a first aid kit in your vehicle.
8. Pre-load your vehicle with Go-Bags, keepsake items and small toys for your children.
9. Plan to evacuate before a mandatory order is issued.

### DO WHEN FIRE IS NEAR:

1. If you feel you are in danger, consider evacuating early, before the Mandatory Evacuation Order is given. Traffic will be lighter and you increase your chances of getting out safely.
2. Evacuating early also helps firefighters keep roads clear of congestion, and lets them move more freely to do their job. In an intense wildfire they will likely not have time to knock on every door.
3. ***If there is any possibility that the fire might reach you, consider sleeping in shifts so that one responsible person is awake at all times to monitor fire status.***
4. If smoke is heavy, wear an **N95 mask** and use the air conditioner if you can set it to recirculate fan only. Do not open windows.
5. Turn off any propane tanks and move any stored fuel (lawnmower gas, etc.), propane tanks and other flammable items (furniture,

etc.) away from your house.

6. Place a ladder to the roof near driveway to aid firefighters. Connect garden hose to nearby hose bibs, and place near ladder.
7. Fully open or remove thin, flammable drapes. Close heavy drapes.
8. Cover up your body by putting on long pants, a long-sleeved shirt, sturdy shoes, a baseball cap, or bandana and safety glasses to cover your face. Do not wear polyester or nylon, they will melt in high temperatures. Try to wear 100% cotton or wool.
9. Do not pre-wet any clothing to avoid steam burns.

### DO AT TIME OF EVACUATION: Communicate

## Text. Don't Call.

1. Use **TEXT** messages with no photos and no voice phone calls to communicate.
2. Send a text message to your Out-of- State-Contact (OoSC) when evacuating, indicating destination.
3. Send another text message to your OoSC when arriving at destination.
4. Register on the Red Cross "Safe and Well" website [www.safeandwell.org](http://www.safeandwell.org).
5. Report any missing family members to county sheriff's office.
6. Report any found persons who were previously reported missing.
7. Keep your OoSC up to date on status of all family members.
8. Tune to local news radio stations on your car or emergency radio. KCBS 106.9 FM + 740AM \_\_\_ KGO 810AM \_\_\_ KNBR 680AM



# MONITOR DAILY WEATHER CONDITIONS

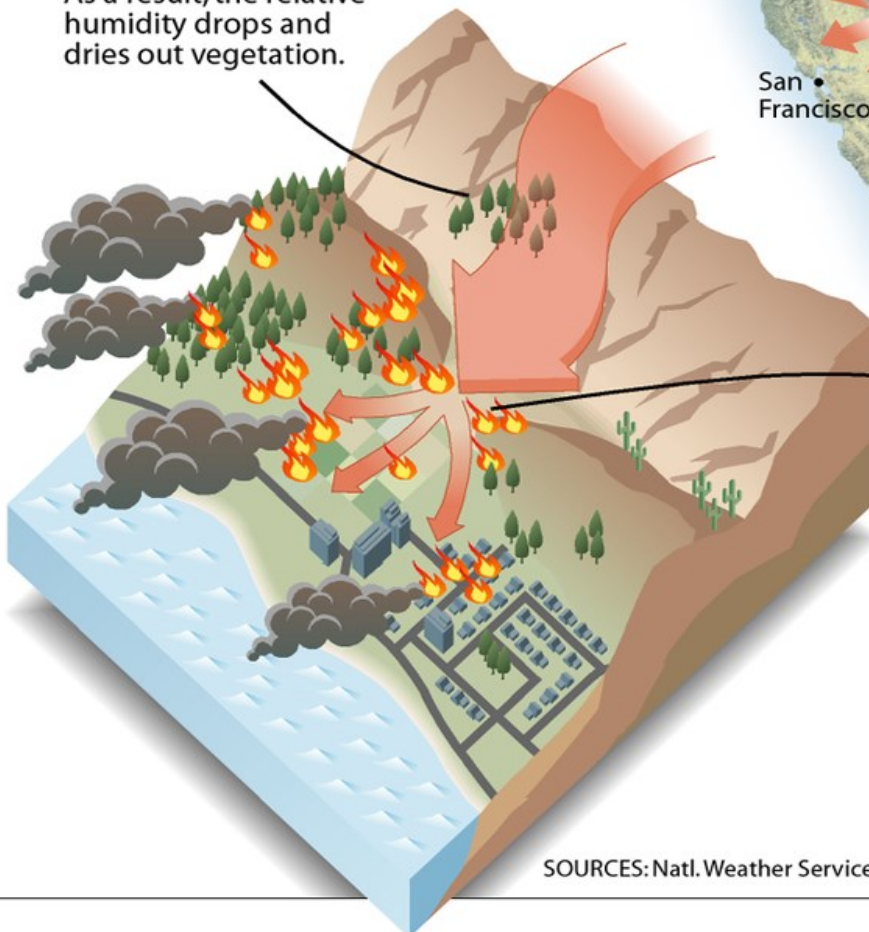
Monitoring predicted fire weather can provide advanced warning and extra time to prepare before a fire strikes. During the recent North Bay Fires, the National Weather Service issued a “Red Flag Warning” 72 hours before the fires began. Most major wildfires that destroy homes and cause death and injuries have a common denominator: dry winds blowing from the east or northeast. These conditions are most common in the fall from September to October, but can happen any time of year and will always be associated with potentially catastrophic fires during the dry season.

## Diablo and Santa Ana Winds at a Glance

This is how the hot, powerful Santa Ana winds in Southern California and Diablo winds in Northern California increase the regions’ fire risk.

### HOW SANTA ANA AND DIABLO WINDS OCCUR

- 1** A high-pressure system in the Great Basin generates clockwise desert winds.
- 2** These winds flow over the Sierras and desert ranges, compressing and warming, losing humidity. As a result, the relative humidity drops and dries out vegetation.



- 3** Winds squeeze through canyons like water through a hose, gusting up to 60 mph.
- 4** These strong, hot winds fan fires and create turbulence and unpredictable conditions for firefighters.

SOURCES: Natl. Weather Service; InsideClimate News research



PAUL HORN / InsideClimate News

# PRE-EVACUATION PREPARATION STEPS

When an evacuation is anticipated, follow these checklists (if time allows) to give your home the best chance of surviving a wildfire. Remember you must register to receive warnings from the Contra Costa County Community Warning System: <https://cwsalerts.com/registration/>

## HOME EVACUATION CHECKLIST – HOW TO PREPARE FOR EVACUATION:

### Inside the House

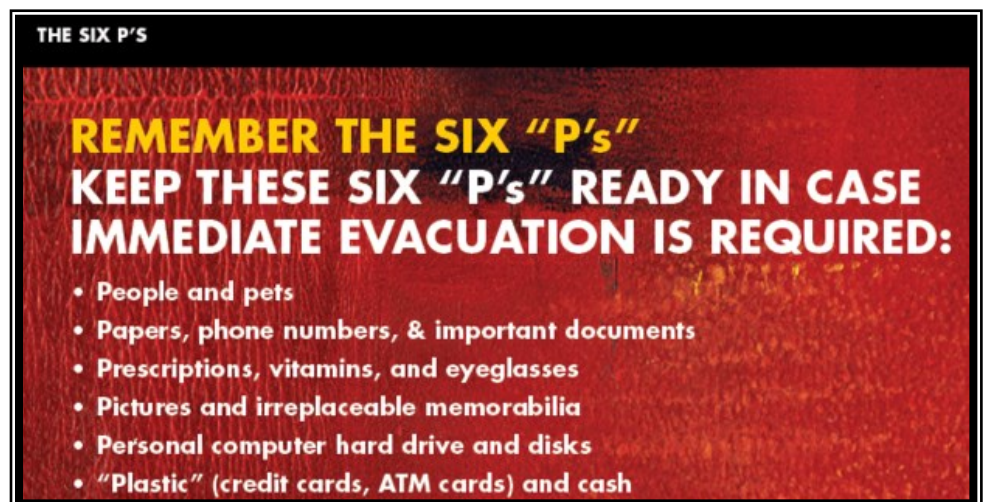
- Shut all windows and doors, leaving them locked.
- Remove flammable window shades, curtains and close metal shutters.
- Remove lightweight curtains.
- Move flammable furniture to the center of the room, away from windows and doors.
- Shut off gas at the meter; turn off pilot lights.
- Leave your lights on so firefighters can see your house under smoky conditions.
- Shut off the air conditioning.

### Outside

- Gather up flammable items from the exterior of the house and bring them inside (patio furniture, children's toys, door mats, trash cans, etc.) or place them in your pool.
- Turn off propane tanks.
- Move propane BBQ appliances away from structures.
- Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around the house.
- Don't leave sprinklers on or water running, they can affect critical water pressure. Turn off water at main valves.
- Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- Put your Emergency Supply Kit in your vehicle.
- Back your car into the driveway with vehicle loaded and all doors and windows closed. Carry your car keys with you.
- Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.
- Seal attic and ground vents with pre-cut plywood or commercial seals.
- Patrol your property and monitor the fire situation. Don't wait for an evacuation order if you feel threatened.
- Check on neighbors and make sure they are preparing to leave.

### Animals

- Locate your pets and keep them nearby. Place them in pet carriers or confined space so they are ready to go.
- Prepare farm animals for transport and think about moving them to a safe location early.



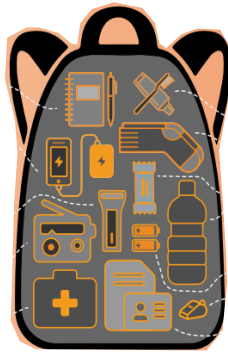
# EVACUATION PREPAREDNESS TIPS

You live in an area where an evacuation may be necessary due to wildfire, earthquake or other threat. Here are some tips to make your evacuation go more smoothly:

## DO NOW: Create a Grab-and-Go-Bag

1. Have a Go-Bag for each member of the household stored near your vehicle with at least:

- Sturdy, closed toe shoes
- Socks and underwear (2 pair each)
- Long pants
- Long sleeve shirt
- Jacket & Hat
- N95 Masks (4-8)
- Flashlight
- Toiletry kit including medications
- Spare eyeglasses and sunglasses



2. Keep your electronics (cell phone, tablet, laptop with chargers) plugged in but all together and ready to grab and go.

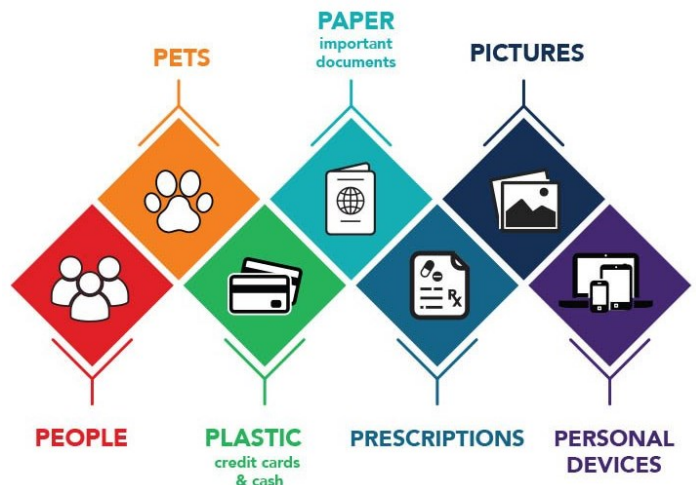
## DO NOW: Documents

1. Store in the cloud and/or have a memory stick or CD in your Go-Bags with .jpg or .pdf of the following:
  - a. House documents including title, mortgage papers, insurance policies
  - b. Personal ID including driver's license, passport, social security, DD 214
  - c. Health documents including insurance policy, medical record, Medicare card, name and phone number of primary care physician, name and phone number of pharmacy, list of current medications with dosages, list of allergies and existing conditions
  - d. Keepsake photos
  - e. Photo or video record of each room in the house showing all valuable items
  - f. List of all valuable items including purchase date, cost, model and serial numbers

2. See the Document Worksheet for documents that are needed to rebuild your life if your house is gone.

## DO NOW: Preparedness Actions

1. Register your cell or VoIP phone(s) with Contra Costa County Community Warning System. <https://cwsalerts.com/>
2. Register your cell with your local Nixle. To opt-in for Nixle, text your zip code to 888777. Set Nixle and CWS as Do Not Disturb available contacts on your cell phone.
3. Enroll in PG&E emergency alerts by calling 1877-9000-pge or Text "ENROLL" to **97633**. Additional information visit [pge.com/wildfiresafety](http://pge.com/wildfiresafety)
4. Enroll in "Safe and well" registration on Red Cross website [www.safeandwell.org](http://www.safeandwell.org).
5. Have a battery operated radio, flashlight, pocket knife, shoes, socks, underwear, long pants, long sleeve shirt in a bag tied to the head of your bed. (In an earthquake you'll be able to find it.) This is part of your Go-Bag.
6. Learn how to open your garage door when the power is out. If you are unable to pull the cord and open it now, you will not be able to do it in an emergency.
7. Install an Uninterruptable Power Supply (UPS) for your cable modem and your portable phone base station to keep your home network and phones available when power is out.



# EVACUATION PREPAREDNESS TIPS (CONTINUED)

## DO NOW: Access and Functional

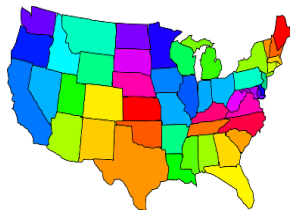
### Needs (AFN) individuals



1. AFN persons include anyone with mobility, developmental, cognitive, hearing or language issues. Frequently older but may be of any age.
2. Take special precautions so that AFN persons will know about evacuation orders at any time of day or night, even if power fails.
3. Pre-determine who will help any AFN person evacuate and have a backup. Family, friends and neighbors who live *very close by!*
4. Prepare to take durable medical goods, oxygen and any other special needs.
5. If you are the AFN individual, be proactive and find redundant, responsible people to evacuate you.
6. Do not rely on first responders to evacuate you. They may be overwhelmed.

## DO NOW: Communications

1. Predesignate an **Out-of-State Contact (OoSC)** and program the contact's cell number into each family member's cell phone.
2. The Out-of-State-Contact (OoSC) will be the clearinghouse for your family's calls. This prevents too many calls into and out of the local area.
3. My OoSC is:



Name: \_\_\_\_\_

Phone Number: (     ) \_\_\_\_\_



## DO NOW: Neighborhood

1. Know who in your neighborhood will need help to evacuate.
2. Know your neighbors and their schedules, including vacation plans.
3. Redundantly coordinate responsibilities for children, **AFN persons** and animals.
4. Select a Neighborhood Block Captain to organize the neighborhood and get every neighbor onboard a plan for checking on everyone's safety. Consider organizing through the Map Your Neighborhood program. [www.mil.wa.gov/myn](http://www.mil.wa.gov/myn)

## DO NOW: Animals

1. Have pet food in a Pet Go-Bag with leashes, poop-bags, water dish, medications, etc.
2. Keep your dogs and other animals confined indoors if there is smoke outside.
3. Have kennels for your dogs in case they have to go to a shelter.
4. Keep a collar on cats and keep them confined to a single room so you can get them easily. Keep a kennel for cats in the same room.
5. Make sure all of your animals are microchipped.
6. Have photos on your cellphone with your animals and you together to prove ownership.
7. For larger animals, have a pre-designated place for them out of the area and a way of transporting them. Contact your local horsemen's association, etc.
8. If you must leave and you don't have all of your animals controlled, leave gates and a downwind window open. Animals will frequently escape and survive.
9. Try to take your pets with you but don't become a fatality while trying to save your animals. For more information on Pets and Evacuation see Palo Alto Humane Society <https://www.paloaltohumane.org/education-programs/disaster-preparedness/>

## EVACUATION PREPAREDNESS TIPS (CONTINUED)

### DO AT TIME OF EVACUATION: Actions

1. Leave outside lights on for first responders.
2. Close and lock all doors, windows and vents. This will prevent drafts and could help save your house.
3. Leave any driveway gates open.
4. Drive safely and cautiously out of the area.
5. Drive with headlights on even during daytime.
6. Be alert for downed power lines and emergency personnel.
7. Never touch a downed wire. Consider all down lines as live high-voltage lines.
8. If you can go directly out of the area to a safe shelter area, do so, then register on the Safe and Well website.

### DURING EVACUATION:

1. If you are trapped by fire while evacuating in your car, park in an area clear of vegetation, close all windows and vents, cover yourself with a blanket or jacket and lie on the floor. If you have a windshield and/or rear window shade, deploy it to minimize the heat transfer through the windshield or rear window.
2. If you are trapped while evacuating by foot, your first place of refuge should be a defensible building or swimming pool. If you cannot reach a structure, select an area clear of vegetation. Do not seek refuge in low-lying areas such as drainage ditches as many times these geographic features will act as a “chimney” and will burn much hotter than other areas.
3. If you cannot get out of the area, go to the Temporary Refuge Area (TRA) in your area. If one has not been planned, spontaneously find a large area with few trees and shelter in the center of an open area, such as a school playfield or golf course.

### IF YOU GET TRAPPED AND ARE UNABLE TO EVACUATE:

1. Shelter - In - Place.
2. Keep your family together.
3. Stay inside your home and keep all doors and windows closed, but keep them unlocked.
4. Leave inside and outside lights on.
5. Fill sinks and tubs with water.
6. Put a large “HELP” sign in a front window.
7. Keep calm. Remember that if it gets hot inside, it is four to five times hotter outside.

*All residents who are out of town during the evacuation period are asked to register, as soon as possible, on the Red Cross’ “**Safe and Well**”*

**website:**



**American  
Red Cross**

<https://safeandwell.communityos.org/cms/index.php>

By registering on the Safe and Well website, you are telling people that you are OK. Family and friends will not worry about you and Richmond Police Department representatives and/or Contra Costa County Sheriff’s deputies will not spend valuable hours searching for you.



# EMERGENCY SUPPLIES CHECKLIST

The first 72 hours after any type of major emergency or disaster are critical. Electricity, gas, water, and telephones may not be working. In addition, public safety services such as police and fire departments will be busy handling serious crises. You should be prepared to be self-sufficient — able to live without running water, electricity and/or gas, and telephones — for at least three days following a major emergency (7-10 days preferred). To do so, keep the following items on hand in a central location:

## Essentials

- Water—one gallon per person per day (a week's worth is preferable)
- Water purification kit
- First aid kit, freshly stocked
- First aid book
- Food
- Can opener (non-electric)
- Blankets or sleeping bags
- Portable radio, flashlight and spare batteries
- Essential medications
- Extra pair of eyeglasses
- Extra pair of house and car keys
- Fire extinguisher — A-B-C type
- Food, water and restraint (leash or carrier) for pets
- Cash and change
- Baby supplies: formula, bottle, pacifier, soap, baby wipes, disposable diapers, clothing, blankets, canned food and juices, baby wipes, disposable diapers, canned food

## Sanitation Supplies

- Large plastic trash bags for waste; tarps and rain ponchos
- Large trash can
- Shampoo
- Feminine hygiene supplies
- Toilet paper
- Household bleach
- Toothpaste and toothbrushes
- Bar soap and liquid detergent

## Safety and Comfort

- Sturdy shoes
- Heavy gloves for clearing debris
- Candles and matches
- Light sticks
- Change of clothing
- Knife or razor blades
- Garden hose for siphoning and firefighting
- Tent
- Communication kit: paper, pens, stamps

## Cooking

- Plastic knives, forks, spoons
- Paper plates and cups
- Paper towels
- Heavy-duty aluminum foil
- Camping stove for outdoor cooking. (Caution: before using fire to cook, make sure there are no gas leaks; never use charcoal indoors)

## Tools and Supplies

- Axe, shovel, broom
- Adjustable wrench for turning off gas
- Tool kit including a screwdriver, pliers and a hammer
- Coil of 1/2" rope
- Plastic tape, staple gun and sheeting for window replacement
- Bicycle





**Receive up-to-date  
alerts and advisories  
affecting your neighborhood from  
the City of Richmond by texting  
your zip code to 888-777 or  
registering online at  
[www.nixle.com](http://www.nixle.com)**

## **PREPARE FOR POWER OUTAGES**

### **BEFORE**

- ◆ Register with Community Warning System [www.cococws.us](http://www.cococws.us)
- ◆ Update your contact information with PG&E [www.pge.com/wildfiresafety](http://www.pge.com/wildfiresafety)
- ◆ *Inventory the items you use that require electricity*
- ◆ Plan for your family and pet needs
- ◆ Keep mobile phones charged
- ◆ Identify backup charging methods for phones and electronics
- ◆ Store water and non-perishable food
- ◆ Keep gas tanks full

### **DURING**

- ◆ Keep freezers and refrigerators closed as much as possible
- ◆ Use perishable food supplies first
- ◆ Use generators, stoves and grills outdoors and away from windows
- ◆ Disconnect appliances and electronics to avoid damage
- ◆ Check on family, animals, and neighbors

### **AFTER**

- ◆ When in doubt, throw it out! Throw away food exposed to temperatures higher than 39 degrees for more than two hours.
- ◆ Check with your pharmacist about refrigerated medications

**Loss of  
power may  
last hours  
or days!**



**May disrupt  
communications,  
water, transportation**



**May close retail businesses,  
grocery stores, gas stations,  
ATMs, banks, and other services**



**Can cause food  
spoilage, water  
contamination**

This guide is brought to you by the Richmond Fire Department, in conjunction with the Diablo Firesafe Council, and made possible through a grant from the California Fire Foundation. For more information, including downloadable copies of this guide, please visit our website at [www.ci.richmond.ca.us/wildfire](http://www.ci.richmond.ca.us/wildfire).