

**Is it a Red Flag Day?**

**Do You Have  
Defensible Space?**

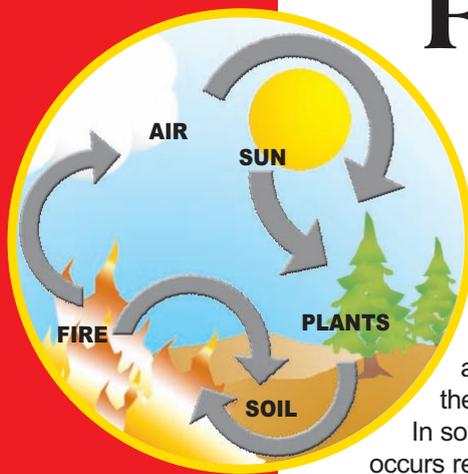


**A Special Section on the Social Aspects of Wildfire**

Presented by the National Park Service

in cooperation with Project Learning Tree, the Fire Prevention Officers of  
Marin County, and the Marin Independent Journal Advertising Department

# Fire Recycles



Wildland fire is an ecological process affecting almost all of the earth's vegetation. Underwater plants are generally an exception, although when seaweed or algae are left onshore to dry, they too, can become fuel. In some places, wildland fire occurs regularly enough that species depend on it.

The length of a fire return interval, or "fire cycle" varies based on the climate, vegetation, and ignition frequency of a particular location. Ignitions are mainly caused by lightning, volcanic ash, lava, or a variety of human sources, both planned and accidental. Without humans, the most significant ignition source is lightning. Almost all of Marin's wildland fire is human-caused.

Fire recycles energy and nutrients from plants back into the soil and atmosphere.

The energy from the sun that powers plant growth is released when vegetation burns. During photosynthesis, plants use carbon from carbon dioxide and hydrogen from water to make new cells. Energy stored in countless carbon-hydrogen bonds is released as heat during a wildland fire.

Photosynthesis means "building with light." Combustion is a way of "breaking with fire". Water and carbon dioxide are released as components of smoke. Smoke also contains tiny unburned

plant particles while the larger material remains as ash.

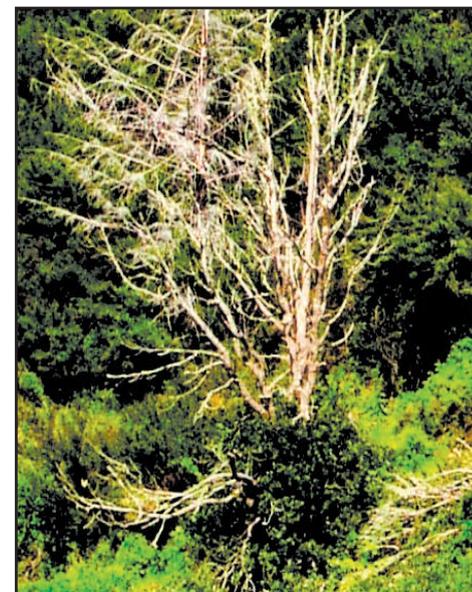
Ash returns nutrients from plants back into the soil, especially calcium, potassium and phosphorous. Nitrogen is returned by the nitrogen-fixing plants that flourish after a fire and begin the process of regrowth. Without nitrogen, proteins cannot be made, and DNA cannot be reproduced.

Most of the earth's nitrogen is in the air, but can't be breathed in. Nitrogen-fixers host bacteria in their roots which convert atmospheric nitrogen into a form plants and animals can use.

Plants in the pea family (legumes) are notorious for their nitrogen fixing abilities. Many farmers rotate their crops with soybeans (a legume) because they replenish the soil with nitrogen. Important nitrogen fixers in Marin's ecosystems include ceanothus, lupine, alder, lotus, and the bluegreen algae in some lichens.

Some species are highly adapted to survive fire. Redwood and coast live oak, for instance, have very fire resistant bark. Oaks can even resprout from the top part of the tree. These are excellent plants for fire-wise landscaping around your home.

**Jennifer Chapman,**  
Fire Education Specialist, National Park Service



Like many hardwood trees, shrubs and other flowering plants, this California bay survived a wildfire by resprouting at the base.

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## Acknowledgments:

Marin's agencies charged with wildfire preparedness and suppression would like to recognize Supervisor Hal Brown, founder and chairman of FIRESafe Marin, for his leadership, vision and dedication to making Marin a safer place to live.

We are very grateful to Linda Black, Business Development Director, and Jim Anderson, Graphic Designer at the IJ. Linda's planning expertise and Jim's outstanding art and design skills provided essential contributions to this publication.

The National Weather Service in Monterey and the Fire Weather office in Redding provided invaluable guidance in developing the weather diagrams on page 4.

Special thanks also to Pete Martin, veteran Marin County firefighter, for assistance and inspiration.

Cover photo courtesy of California Department of Forestry and Fire Protection.

Funding was provided by the National Fire Plan.

**"It's not just a water planet, it's also a fire planet."**

**Fire recycles. It is not inherently good or bad. It's a physical earth process.**

Anything that burns is fuel, including homes, especially homes made of wood. If you live in a heavily vegetated area, don't let your home be recycled too. Reduce fuel by removing and separating vegetation. This creates defensible space. Make your home more fire resistant with less flammable roofing, siding and decking. In the wildland-urban interface we can prevent loss by being **FIRE WISE** and **FIRE SAFE**.

Thick bark can protect trees.  
**DEFENSIBLE SPACE CAN SAVE YOUR PLACE**

## Break the Cycle of Repetitive Loss

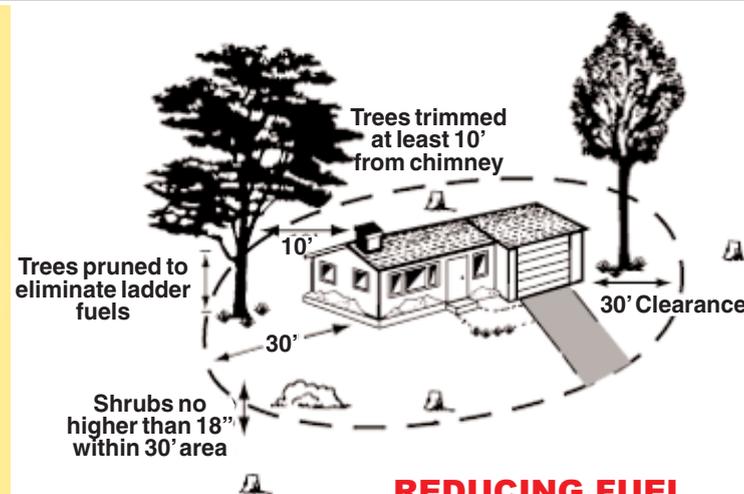
### Homes Lost, Homes at Risk

From 1985 to 1995, over 9,000 homes in the U.S. were lost to wildfire.

In 1999, 817 structures burned; in 2000, 861 structures burned; in 2001, 731 structures burned; in 2002, 815 structures burned.

In California, 585,254 homes are at "extreme" risk from wildfire. The cost of rebuilding these homes and replacing their contents is over \$106 billion. There are 7,000,000 homes at "high to extreme" risk.

(sources: National Fire Protection Association, National Interagency Fire Center, California Department of Forestry and Fire Protection).



**REDUCING FUEL INCREASES SURVIVAL**

## Defensible Space is a Human Adaptation to Fire

# Defensible Space Protects



## Firefighters

Each year during the hot and dry months of summer, California's wildland firefighters are called to duty to combat wildland fires across the state.

Our state has some of the most beautiful landscape in the country and it is easy to understand why people have chosen to call it home. As a result of

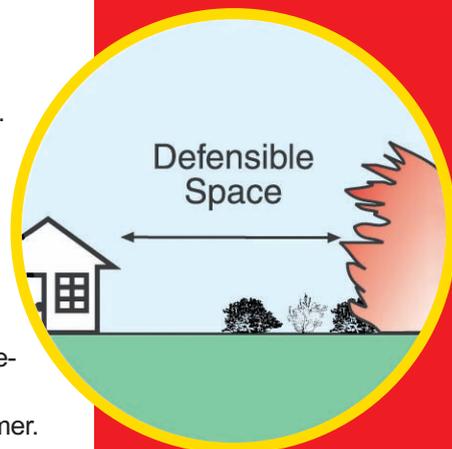
this, the building of homes adjacent to or intermixed into the wildland areas has become common and extensive, and it is inevitable many of these homes will face the threat of fire.

The term "Defensible Space" is widely used, but not always completely understood. Your firefighters look at "Defensible Space" as the space between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire intensity and provide an opportunity for firefighters to effectively and safely defend the house.

Protection decisions will be based on several factors relating to the structure, the impending threat and firefighter safety. Firefighters are well aware and accept the risks associated with our profession, "Defensible Space" is an essential way you can help us safely protect your home.

Have a safe and wonderful summer.

**Ken Massucco,**  
Fire Chief, Marin County Fire Department



## Homeowners

We are owners of adjacent properties on Inverness Ridge, in Paradise Ranch Estates (P.R.E.), which barely escaped the Vision Fire's path. Our families had worked closely together to create defensible space around and within our two properties, so that at the time of the fire, firefighters recognized they could safely defend both of our structures. Before the fire, we had requested inspections by our local fire department and followed their recommendations. We continue to manage vegetation, maintain fuelbreaks and lessen the "ladder effect" of low hanging branches on our properties.

All of us have been active in the Inverness Ridge Association. There are many

ways to be involved. Margaret has long chaired the Emergency Preparedness Committee. She wrote several successful grants that started a rebate program (up to \$100) for clearing and chipping around one's house, and for chipping debris at a drop-off along our main road. She also divided P.R.E. into 9 neighborhood areas with liaisons who maintain current phone numbers and addresses of owners for emergency purposes. Paul and Russell look after the emergency siren system. Paul and Lucille participate in RACES, the Radio Amateur Civil Emergency Communications System through the Sheriff's Department. Russell is the "keeper" of a grass trimmer loaned out to association mem-



bers. We have all written articles stressing fuel reduction measures in our association's excellent newsletter. We also attended a 3-day Fire wise workshop at Asilomar, which emphasized defensible space.

We are grateful for the partnerships that exist which led to 2 federal grants for fuel reduction and fire safe improvements in our neighborhood.

**Russell and Margaret Ridge,  
Lucille and Paul Phelps**  
Inverness Ridge Association

## How Defensible Space Became Law in California

Long before the term "defensible space" was coined, and later written into statute by the legislature in 1987 and 1992, the concept had been actively employed for over 300 years. Clearing vegetation for fire protection was done by Native Americans, Spanish missionaries, the U.S. Calvary, and early settlers. The term "defensible space" was first published in the 1980 *Fire Safe Guides for Residential Development in California*.

In 1963 a report to the legislature stated, "...laws must be initiated to require what was originally dictated by common sense, logic and respect for the property rights of others." The report went on to "...recommend legislation patterned after the clearance standards adopted by California Fire Chief's Association."

The new law, 1963 Senate Bill 643, applied to anyone that had a "...building or structure in or adjoining a mountainous area or forest-covered lands, brush-covered lands, grass-covered lands or any land which is covered by flammable material."

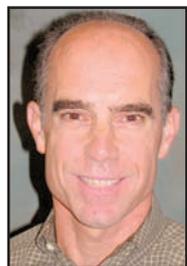
In 1987, the actual words "defensible space" were incorporated into the Public Resources Code. In 1992, extra emphasis was given to "very high fire hazard severity zones" and fines and penalties were also established.

**David LeMay,**  
California Department of  
Forestry and Fire Protection

## Insurance Companies

### STATE FARM FIRE & CASUALTY COMPANY

In Marin, the combination of hillside homes, tall trees, and lots of vegetation means the possibility of a devastating fire is always present. We insure approximately 30,000 homes in Marin County. Fire losses are expensive and it is our leading cause of loss for the county in terms of dollars per loss.



In areas prone to wildfire in California, we require a defensible space of 300 feet between the home and any fuel source. This includes removing dead trees and branches, keeping weeds and dry vegetation cleared, keeping firewood and other combustibles away from the home, and enclosing foundations to prevent flammable debris from piling up underneath the dwelling. We also recommend a roof with a Class A fire rating.

**Steve Smith,**  
California Loss Mitigation Coordinator

I used to live in Terra Linda and I remember some of the brush fires in Marin. In the Rocky Mountains, where I

work now, an increase in population near wildlands, the drought we've experienced over the last few years, and lessons we learned from last year's wildfires, have caused State Farm to reexamine the way we underwrite homes in wildfire-prone areas in Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming.

Over the next three years, 23,000 homes in these states will be inspected through State Farm's new wildfire program. An outside survey of the home will be conducted to identify whether any steps need to be taken to help better protect the property from future wildfires. This is to



increase the safety of our customers' homes.

Property owners have 18 to 24 months to complete recommended safety measures. Our hope is to not lose any customers; that's why we offered the long timeframe. However, if a homeowner chooses not to complete the recommendations, putting his or her property and the lives of firefighters at greater risk, we would look at many

options, including the possibility of not continuing to insure the property.

**Steven Niccolai,**  
Commercial Underwriting Supervisor

### FIREMAN'S FUND INSURANCE COMPANY

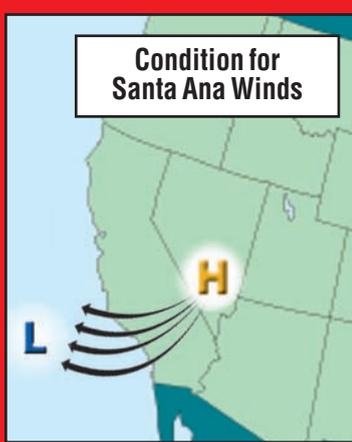
We encourage homeowners to take decisive steps for containing fire from moving quickly from field to yard to the home itself. To keep premiums low, policyholders expect their insurer to spread policies over as large a geographic area as possible to avoid catastrophic loss in any one place. For the same reason, insurers expect policyholders to participate in reducing whatever risk is most likely to become a loss.



When neighborhoods coordinate to reduce their fuel load and criss-cross fields with fuel breaks, they naturally attract more insurers to compete for their business. Incline Village near Lake Tahoe is a notable example where insurance coverage has become easier to find and less expensive.

**John Kozero,**  
Public Relations Director

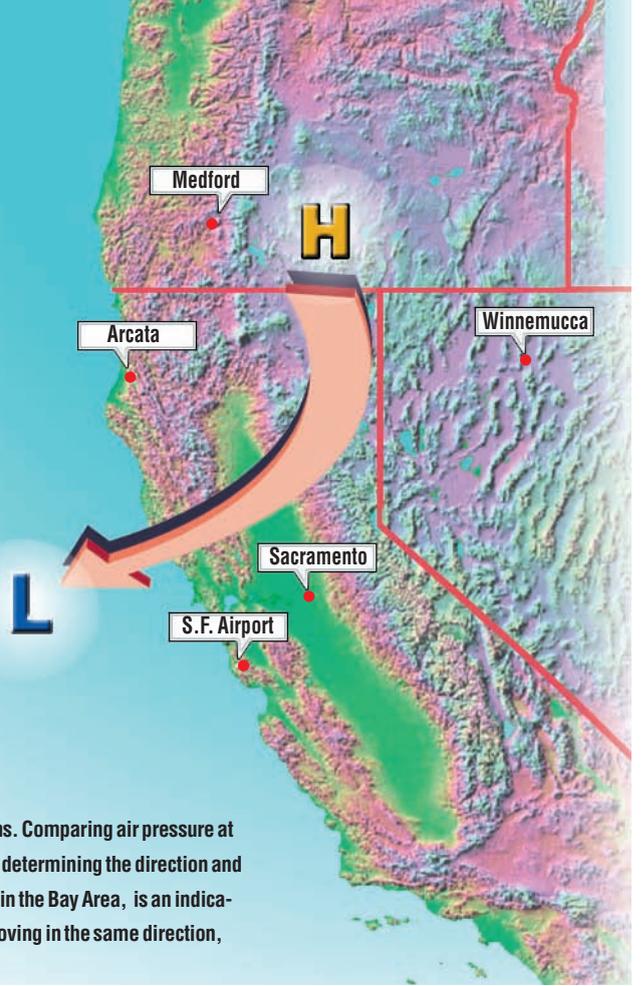
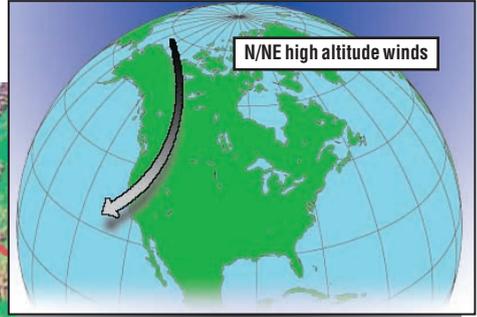
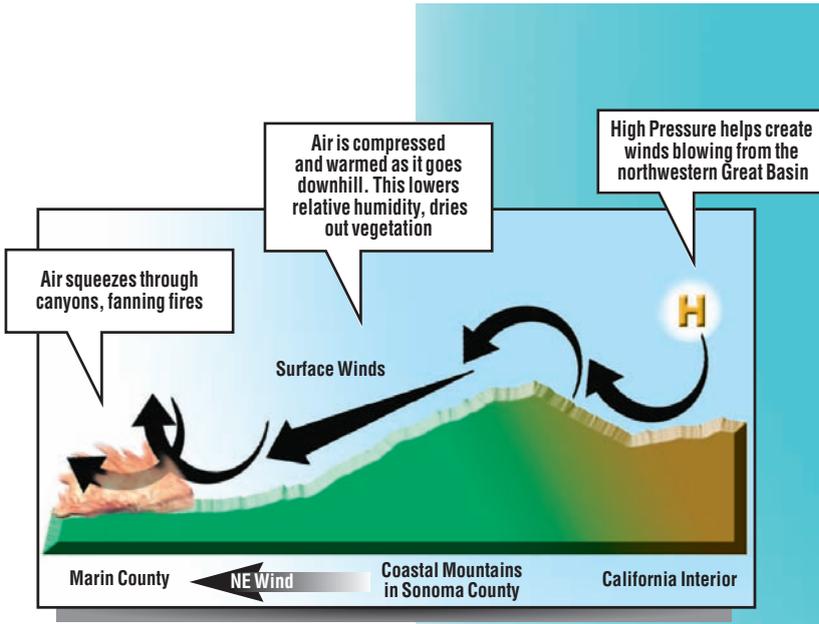
# Extreme Fire Weather and Red Flag Days



Similar to the well known Santa Ana winds in southern California, Marin occasionally experiences hot, dry, fast moving, offshore winds during the late summer and early fall. These events create our most extreme fire danger.



This new Remote Automated Weather Station (RAWS) will be used for fire weather monitoring by Marin County Fire Department and was recently provided through the National Fire Plan. There are two other RAWS stations in the county. The weather data from these stations can be viewed at [www.met.utah.edu/mesowest](http://www.met.utah.edu/mesowest).



### From Great Basin High to Ocean Low...Fire Weather Watch Out

Air under high pressure is more dense and naturally flows toward areas of lower pressure where it can expand. High pressure over the Great Basin can force dry air toward lower pressure over the Pacific Ocean. The greater the difference in pressure, the faster the surface winds will be. When air descends, it compresses and increases in temperature. Winds moving from the high elevation interior to sea level at the coast, get warmer as they flow.

Wind speed increases when air is channeled through mountain passes or flows down canyons at night, under the influence of gravity. In the late summer and early fall, air over the Great Basin and vegetation on the California coast are both at their driest. Fast moving dry air after months without rain creates an extreme fire weather situation.

Fire weather forecasters watch for these events by comparing conditions at different locations. Comparing air pressure at the San Francisco Airport with Arcata, Medford, Winnemucca, and Sacramento, is important in determining the direction and magnitude of a wind event headed for Marin. Air pressure in Redding 4-6 millibars greater than in the Bay Area, is an indication that an offshore wind event will occur in Marin. If winds aloft at 5- to-10, 000 feet are also moving in the same direction, these offshore wind events have even greater force.

Low	Moderate	High	Very High	Extreme
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**FIRE DANGER RATINGS** are determined daily during fire season. These ratings are based on the probability of ignition; the effects of wind, slope and fuel; and the potential energy released by a fire in the given weather and fuels. A daily rating of Low to Extreme fire danger is determined based on the worst case fire weather scenario during the hottest, driest part of the day on an open, south facing slope.

Fire danger ratings may vary throughout the county and are used to determine whether land use restrictions will go into effect as well as how many firefighters should be available in case a wildfire does occur. **Fire Danger Ratings** describe the potential for fire to spread rapidly in a local area. **Red Flag Warnings** predict a weather event in which fire will be difficult to control.

**RED FLAG WARNINGS** are issued by the National Weather Service to notify fire agencies in advance of critical weather patterns that will contribute to extreme fire danger and/or extreme fire behavior. A **Red Flag Warning** is issued for the San Francisco Bay Area when there is a strong chance that Red Flag conditions will occur within the next 24 hours. When a Red Flag warning is issued, Marin County Fire Department notifies public land owners who determine if land use restrictions will go into effect. These restrictions may include temporary road closures or suspension of special use permits. For information on Red Flag Land Use Restrictions, call public lands before visiting or call the Marin County Fire Department public information line at **(415) 449-7191**.

**RED FLAG CONDITIONS** are wind events lasting at least 8 hours when vegetation is dry. Annual grasses are cured; no rain has occurred in the last 24 hours; and fuels 1/4 to 1/2 inch in diameter have less than 6% moisture. Relative humidity and wind speed during these events are as follows:

Relative Humidity	Wind Speed
Day, 29-42% and/or Night, 60-80% . . . .	30+ mph
Day, 19-28% and/or Night, 46-60% . . . .	21+ mph
Day, 9-18% and/or Night, 31-45% . . . . .	12+ mph
Day, <9% and/or Night, <31% . . . . .	6+ mph

Note that hot, dry days will not have a **Red Flag Warning** unless sustained wind is also present.

# Causes of Wildfire in Marin



## Vehicles

**17% of wildfires in 2002.**

Automobiles and other vehicles can start fires when sparks come off the engine or brakes. Rocks hitting the metal under a vehicle is another ignition source. Engine fires can also spread to vegetation.



## Debris Burning

**13% of wildfires in 2002.**

Burning trash and vegetation debris causes many fires. Often the wind will carry fragments of burning debris to other areas where burning was not intended.

Debris burning requires a permit from the local fire department and is only allowed when weather conditions of high humidity and calm winds minimize the risk of wildfire.



## Powerlines

**10% of wildfires in 2002.**

Powerlines carry a constant electrical charge which can ignite a fire if the line breaks. Several recent wildfires have started this way. In June,

strong winds toppled two trees in Tomales Bay State Park which broke powerlines and started a wildfire when they fell. The fire was suppressed at 2 acres. In July, a red tailed hawk became entangled in powerlines in Marinwood, causing a charge to ignite the bird which fell to the ground and ignited the vegetation. This fire spread to 30 acres.



## Campfires

**8% of wildfires in 2002.**

With lots of open space and campsites in Marin, campfires are a major cause of wildfire. Typically this occurs by accident when a

campfire is not fully extinguished. An illegal campfire in Tomales Bay State Park was the cause of the Vision Fire in 1995. The teenagers who made the campfire had poured water on the ashes, and thought it was out, but apparently, enough heat had radiated downward, that the deep duff, on the forest floor smoldered underground and eventually ignited a bishop pine tree through its root system. The fire burned 12,356 acres.



## Mechanical Equipment

**3% of wildfires in 2002.**

Chain saws, weed wackers, lawn mowers, welding equipment.

Power tools of all kinds are another source of ignitions. Sparks from metal blades hitting rocks is one of the most common causes.



## Playing with Fire

**3% of wildfires in 2002.**

Children start many fires accidentally when experimenting with matches, candles, or lighters. Fire is a fascinating physical process to

observe, but should never be treated as a game or entertainment. Parents and teachers should demonstrate caution and respect for fire and emphasize that fire should never be lit without adult supervision.



## Arson

**2% of wildfires in 2002.**

Arson is the malicious setting of fire to provoke a response or cause damage. A common motive is to collect insurance. More uncon-

scious may be the need to experience feelings of power and control. Arson is a serious crime which does occur in Marin.



## Fireworks

**1% of wildfires in 2002.**

Fireworks for private use are prohibited throughout Marin. Last year, a wildfire near Bolinas in Point Reyes National Seashore

was started with fireworks 2 miles into the wilderness near Bass Lake. Luckily the individuals had a cell phone, and phoned 9-1-1 when they saw the fire had begun. A quick response by air tankers and ground firefighters suppressed the fire at 2.2 acres.



## Lightning

**0% of wildfires in 2002.**

Lightning is a very rare cause of wildfire in Marin. Weather patterns here do not often involve colliding air fronts which produce electrical

storms. However, lightning ignitions do sometimes occur, usually in the fall when the vegetation is dry. For instance, a single September storm in 1969 produced 4 wildland fire ignitions on Inverness Ridge.



## Miscellaneous

**43% of wildfires in 2002.**

These fires included 25 fires in which the cause was undetermined and a wide variety of determined causes such as improper disposal of woodstoveashes.

## Arson is NOT a Victimless Crime

Marin County Fire Investigation Task Force

Every 18 seconds, a fire department responds to a fire somewhere in the nation. There are billions of dollars in property losses resulting from fire each year. How much of this loss can be prevented?

In the year 2000 alone, \$1.3 billion in property damage was intentionally set. If you add in the dollars lost from the 46,500 intentionally set vehicle fires, and include brush fires, rubbish fires and other fires that are started by people, the total lost each year is approximately \$2 billion dollars.

Who pays for this? We all do! We pay for it in higher property insurance premiums; and in higher taxes to make up for the taxes lost from businesses that close down after a fire; and in the reduced market value of the surrounding properties.

But that's not all. We pay for it in costs that can't be measured in dollars. We pay in lives lost; in thousands of arson survivors who end up physically or emotionally scarred; in insurance claims for law enforcement, fire service and emergency medical service personnel injured while responding to these events; in the gutted buildings that were once thriving businesses and are now vacant. Many costs are never recovered.

### What can we do to prevent arson?

- Report suspicious activity near a house or other building to the local police or fire agencies.
- Join and support Neighborhood Watch or similar programs.

The existence of these organizations may reduce the incidence of all sorts of crime, including arson.

- Stop treating kids that play with matches as though it is just a phase that every child goes through.

We must look at children playing with fire the same way we look at children playing with guns. If you suspect a child is playing with fire, don't wait for it to get out of hand. Talk to them. Find out what they're doing. If it's because they don't know about fire, get them some education. If it's more than that, get them some help from your local juvenile fire setter intervention program. (All Marin Fire Agencies have such programs and resources.) Local fire departments, police departments, school districts, and mental health facilities can often provide guidance to a parent in need of direction.

# Last year, there were more than 200 wildfires in Marin County

# Defensible Space Guidelines

Create a  
Safety Zone  
Around Your  
Home!

## REMOVE FUEL...3 main kinds

### Fine Fuels

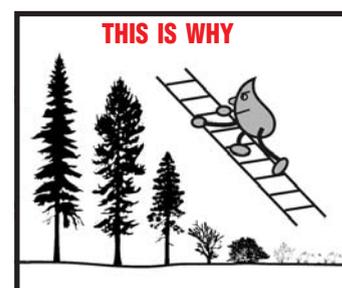
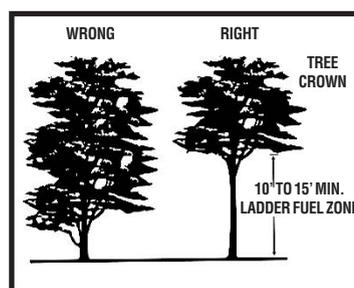
all fuel 1/4 in. or less in diameter:

- tall grass
- pine needles
- sticks and twigs

### Dead Fuels

- on the ground and roof
- in gutters
- on live vegetation

### Ladder Fuels

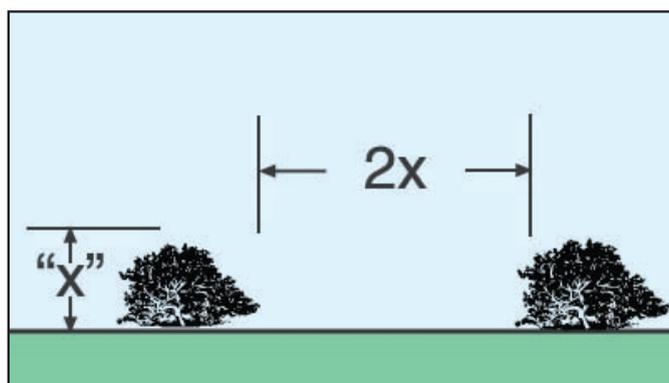


Ladder fuels are any low lying branches or plants which can carry fire to taller plants and into tree tops.

**MULCHING TIP!** Beware of mulch made of fibrous, shredded bark which is a dangerous fine fuel. Use large, thick chips instead. They don't burn as easily.

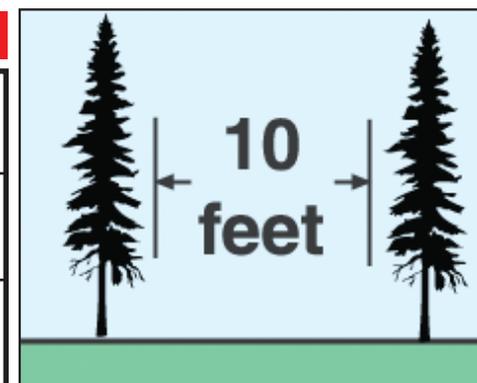
## SEPARATE FUEL...increase space with greater slope

### Shrub Spacing



Slope		
2x	Gentle 0-20%	10ft.
4x	Moderate 21-40%	20ft.
6x	Steep + 40%	30ft.

### Tree Crown Separation



Distance from Structure:	Garden	Grass	Shrubs	Trees
<b>0-10 ft</b>	<b>Minimize vegetation.</b> Use fire resistant plants. Maintain, separate and irrigate plants. Remove dead material.	<b>Cut as low as possible, to 3 inches or less.</b> Remove dead material.	<b>Remove all brush (native shrubs).</b> Use fire resistant plants. Remove all dead material. Irrigate.	<b>Trees are discouraged in this zone.</b> Remove all foliage and branches less than 2 inches in diameter.
<b>11-30 ft</b>	Use fire resistant plants. Remove dead material. Maintain and separate plants	Same as above.	Place shrubs 2x as far apart as they are tall. Remove fire prone plants. Remove all dead material.	Remove all brush and grass below trees; all branches within 10 ft of ground; all dead wood. Separate tree crowns by 10 ft.
<b>31-50 ft</b>	Maintain plants and remove dead material Cut grass to 3 inches or less.	Cut to 3 - 6 inches.	Same as above.	Same as above.
<b>50-100+ ft</b>	Maintain plants.	Cut to 3 -12 inches.	Same as above.	Same as above.

# Vegetation Debris Disposal

**How do you get rid of all the debris you remove from your property?**



Visit the FIRESafe MARIN website for more information on debris disposal. The California Fire Safe Council and Firewise websites can also help you develop a fuel management program for your home and community.  
[www.firesafemarin.org](http://www.firesafemarin.org)  
[www.firesafecouncil.org](http://www.firesafecouncil.org)  
[www.firewise.org](http://www.firewise.org)



## Chipping

Small diameter branches and other woody material can be chipped. Many neighborhoods have organized chipper days where this material is brought to a central location and chipped. Communities can also organize a curbside service where the equipment is brought to the property. If your neighborhood doesn't already have a chipping program, ask your fire department how you can set one up.

## Firewood

Large branches or trees that are removed to create defensible space make excellent fire wood. If you don't have a woodstove, consider giving your wood to someone who does. You might also store it for future camping trips, but remember to keep it at least 30 feet away from your house.

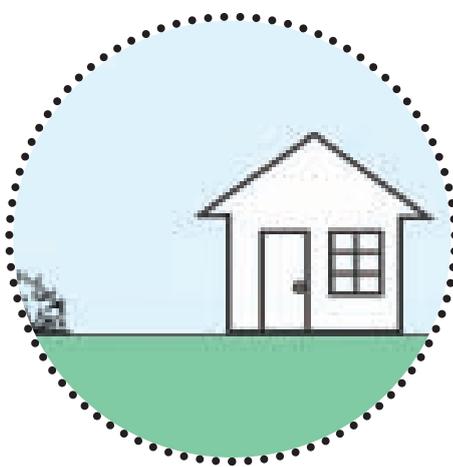
## Composting

Vegetation debris will eventually break down into soil as it naturally does on the forest floor. To speed this up, it must be ground into finer pieces so microorganisms can get to it easily. The Bolinas-Stinson Resource Recovery Center has had success in turning debris piles into compost which are used for gardening and other landscaping purposes.

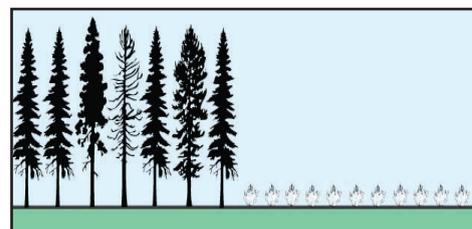
## Brush Drop-Off

If you don't already have a place to drop off brush, ask your fire department for suggestions. Neighbors can get together to either rent a truck or hire a landscaping service to remove the material and take it to a landfill.

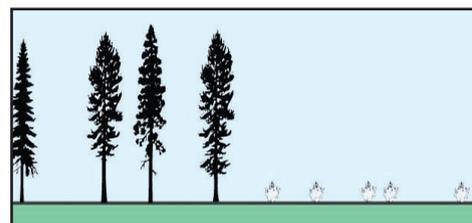
**Remember to be especially careful when disposing of material contaminated with Sudden Oak Death. This material should not be taken across county lines.**



**Before...**



**After...**



**Help Firefighters Protect Your Home  
Call Your Fire Department for a  
Free Defensible Space Inspection**

## Firefighting Agencies

### Bolinas

**Fire Protection District**  
(415) 868-1566  
**Corte Madera**  
**Fire Department**  
(415) 927-5077

### Inverness

**Public Utility District**  
(415) 669-7151

### Kentfield

**Fire Protection District**  
(415) 453-7464

**Larkspur Fire Department**  
(415) 927-5007

### Marin County Fire Department

**Hicks Valley Station**  
(415) 662-2503

**Marin City Station**  
(415) 446-4463

**Point Reyes Station**  
(415) 663-1018

**Throckmorton Station**  
(415) 338-5414

**Tomales Station**  
(707) 878-2464

**Woodacre Station**  
(Headquarters)  
(415) 499-6717

**Marinwood Fire Department**  
(415) 479-1022

**Mill Valley Fire Department**  
(415) 389-4130

**Muir Beach**  
**Volunteer Fire Department**  
(415) 380-9627

### National Park Service Fire Management

**Golden Gate National  
Recreation Area**  
(415) 331-6374

**Point Reyes  
National Seashore**  
(415) 464-5240

**Nicasio Volunteer  
Fire Department**  
(415) 662-2201

**Novato Fire  
Protection District**  
(415) 878-2690

**Ross Valley Fire Department**  
(415) 453-7434

**San Rafael Fire Department**  
(415) 485-3304

**Sausalito Fire Department**  
(415) 289-4165

**Skywalker Ranch FB**  
(415) 662-1672

**Southern Marin  
Fire Protection District**  
(415) 388-8182

**Stinson Beach  
Fire Protection District**  
(415) 868-0622

**Tiburon  
Fire Protection District**  
(415) 435-7200

# Project Learning Tree - Burning Issues Program

Since 1973, Project Learning Tree has been using natural areas as a "window" to develop the ability to make informed decisions on environmental issues and instill commitment to take responsible action on behalf of the environment. Recently, they have been



## Point Reyes National Seashore

Learn about the 1995 Vision Fire, a major wildfire which began in the bishop pine forest, and resulted in the loss of 45 homes, as well as many other ecological changes.

training educators in the Burning Issues curriculum developed by Florida State University and the Bureau of Land Management. Project Learning Tree in California is hosted by the Department of Forestry and Fire Protection.

The National Park Service offers Pro-



## Golden Gate National Recreation Area

Learn about the fire ecology of the redwood forest at Muir Woods, near the base of Mount Tamalpais, where some of Marin's greatest potential for wildfire occurs.



## Fire Prevention Officers of Marin County

The old fire service saying, "A fire prevention officer can put out more fires, than any number of fire fighters can with hose and axe," is true. Although fire prevention work often goes un-noticed in the exciting world of smoke, flames, red-lights and sirens; it requires the same dedication, pursuit of excellence, and a relentless determination to provide fire and life safety; long before the need to call 9-1-1 presents itself.

The Marin County Fire Prevention Officers (MCFPO's) are a mutual association of fire service professionals, under the direction of the Marin County Fire Chief's Association, dedicated to the promotion of the safeguarding of life and property from fire and related hazards. Members develop codes related to fire and life safety or review new or existing codes for applicability and adoption to currently used regulations. MCFPO's maintain and support a fire investigation team known as the, "Marin County Fire Investigation Task Force." Members enhance the professionalism of those in the field of fire prevention, evaluate and assist with the development of new technology in the field of fire and life safety, and promote fire and burn prevention programs in the County through public education. Public education is an important tool for the prevention officer. The MCFPO's have

promoted a number of life safety events and activities including:

### Fire and Life Safety Day, Saturday, October 4, 2003, 11am - 4pm

The annual event will take place at the Village at Corte Madera and will include interactive demonstrations, fingerprinting kits, a 9-1-1 practice calling station, a fire safety trailer, literature for parents, a child safety seat installation clinic, and other fire and safety-related displays. Animated characters "Sparky the Fire Dog" and "Pluggy" will greet the kids. Kids can also play on the giant inflatable fire engine slide. Admission to the Safety Fair is free. The Village at Corte Madera is located off Highway 101 at Paradise Drive in Marin.

### Fire Prevention Week, October 5-11, 2003

Events take place throughout the county.

### Project Safe

Project S.A.F.E. (Student Activities For Emergencies) provides a challenging hands on learning environment for middle school students. Through lecture, demonstration, and practical application the students are informed of various first aid and safety related ideas. Students learn about

ject Learning Tree - Burning Issues workshops that use examples of fire ecology and fire management from parks and neighboring lands. The next workshop scheduled in Marin will be at Muir Woods National Monument in the spring of 2004.

personal safety, fire protection, medical emergencies and disaster preparedness. Students are taught how to prepare for an emergency, when and why it is important to remain calm, and most importantly, what they can do while waiting for help.

### Alisa Ann Ruch Burn Foundation Relay

The Marin Sonoma Alisa Ann Ruch Burn Relay has taken place each spring the last 6 years. The Burn Relay is made up of Fire Agencies from all over Marin and Sonoma that travel from Healdsburg to Sausalito stopping at Fire Stations along the way to gather donations from Firefighter Associations, Firefighter Unions, and others who have donated to the cause. This year the relay made over \$44,000 and had over 30 Fire Agencies participate.

The Alisa Ann Ruch Burn Foundation works in partnership with firefighters, educators, and burn care professionals to develop innovative programs and services. One such program is "Champ Camp", a summer camp for children burn survivors. Recognizing that prevention education is essential to avoid the agony of burn injuries, the Burn Foundation has produced a variety of innovative prevention materials and programs that are distributed throughout California and all over the world.