

Fire Prevention in the Canyons

A user-friendly information guide for improving the fire safety of your home and property.

Developed for residents of Silverado, Modjeska, Trabuco, Williams, Harding, Live Oak Canyons and Santiago Canyon Road. For us who choose to live in the canyons and foothills of Orange County, we do so to be close to nature. We enjoy the rugged natural landscape, the birds and wild animals that visit our yards, and serene beauty of a clear night sky. Our homes, cottages and ranches are nestled in the narrow canyons, on steep hillsides, or rolling plateaus that are surrounded by abundant natural plants, shrubs and trees.

While we are fortunate to live in this unique rustic environment, we also recognize that our rural lifestyle carries with it certain risks. The risk of wildfires is ever present. Therefore, we must take extra precautions around our homes and property.

This brochure has been designed to provide canyon residents with information to help make your home and property more fire safe. Each of us has a responsibility of maintaining our homes to protect not only our lives, our pets, and our property, but also our community. We must all do our part to prevent the spread of wildfires to preserve this area we love.

Hardening your home

"Hardening" means to taking steps to make your home and property more resistant to fires. Flying embers and intense heat can easily ignite a dwelling, but there are

simple things that you can do to minimize this risk. Many of these measures are inexpensive to implement.

Overgrown or dry vegetation against your home is a major fire risk. Removing dead or dying trees, shrubs and ground cover is an



obvious move in the right direction. Get rid of piles of old lumber and debris, not only because they may be fuel for a fire, but junk piles can impede firefighter's access. Keep your road and drive clear for fire trucks and crews.



Fire Safe

HELPFULL WEBSITES

www.firesafecouncil.org www.intercanyon.org www.firewise.org www.fire.ca.gov www.ocfa.org

Disclaimer: Neither the Inter Canyon League nor the designer of this booklet endorses any product, business or Internet link listed in this brochure. Information provided is, to the best of our knowledge accurate and correct. The ICL and/or the producer of this brochure is void of any and all liability from the recommendations and information provided in this brochure.

Maintaining 100 feet (or to your property line) of defensible space... around your home, and out buildings is essential, and the law!

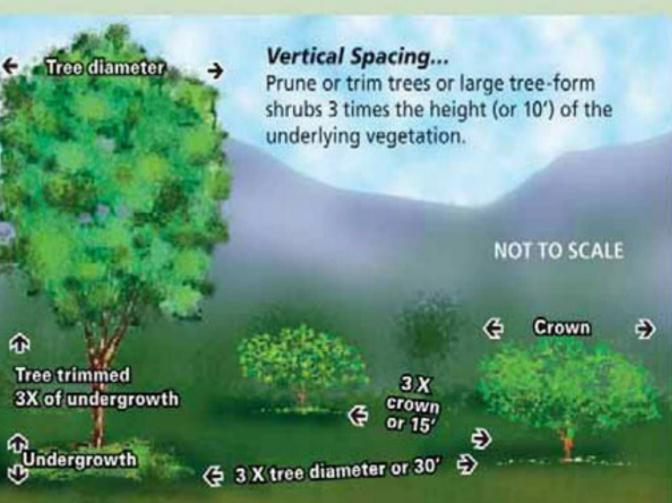
Removing, pruning, spacing and planting

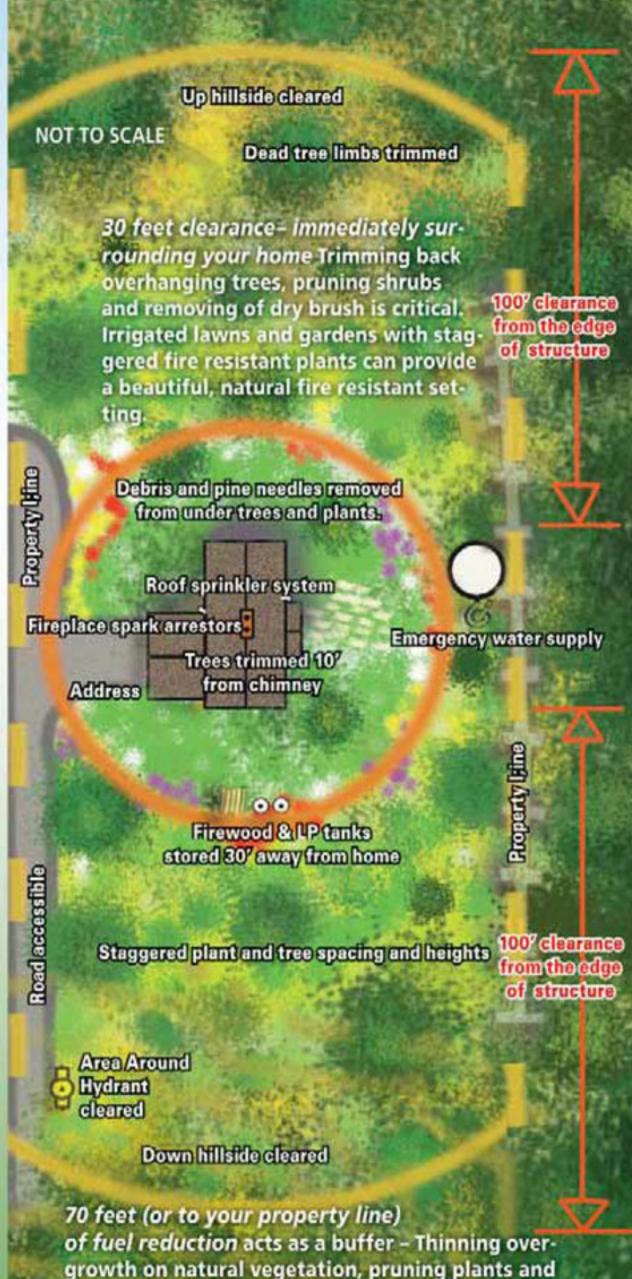
Create a pleasing natural looking landscaped garden and property by staggering plants, shrubs and trees. The idea is to provide adequate spacing between plants and trees, thus reducing the chance of a direct fire path to your home. Spacing may require removing some vegetation and planting either native species or imported plant varieties. It is not necessary to remove all native fire prone vegetation.

Horizontal Spacing...

Large shrubs and trees should be separated by 3 times the diameter of the crown of the largest shrub, or 15' between trees and other shrubs, whichever is greater. Trees should be spaced 3 times the diameter of the mature tree or 30', whichever is greater.







removing dead and dying brush and trees will

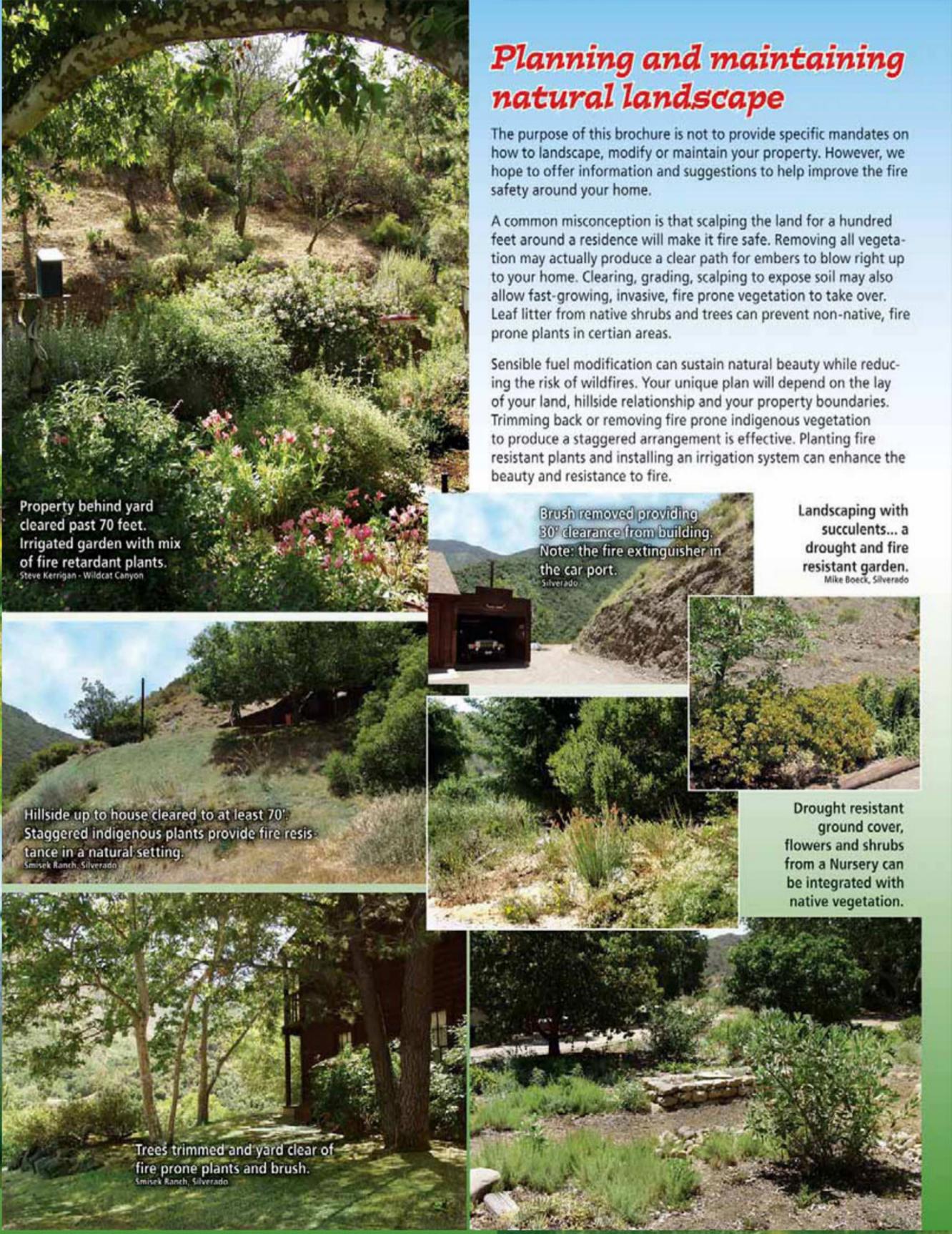
tion for your home against brush fires.

reduce the "fire ladder" that spreads wild fires. It is

not necessary to cut trees or remove all wild vegeta-

tion. With common sense land management you can

retain rustic surroundings and also provide protec-



A word about weeds and plants...

This brochure depicts some of the most common vegetation found in the canyons and foothills of Orange County, California. It does NOT list EVERY weed or plant that exists in our area. This list has been compiled in cooperation with specialists from the Orange County Fire Authority, biologists, and canyon folks. We have selected commonly found plant species and listed them by their common name, and some with Latin names.

Most of the photos were taken locally in the month of June, the peak of the growing season. Vegetation looks different from germination through growth, flowering, dormancy and death cycles. For additional information and photos, web links are listed. Some of these links are commercial websites, but were selected as they provided the most comprehensive information.

Undesirable FIRE PRONE plant species

Those of greatest concern are

Buckwheat Found throughout the canyons

Artichoke Thistle

Infestations of artichoke thistle can reduce forage production, limit wildlife, recreational, and livestock movement, and out-compete native vegetation. Digging out a plant can control artichoke thistle, but much of the taproot must be removed or new growth will develop from the cut surface.

www.countyofsb.org/agcomm/wma/AT.htm

Arundo Donax

A giant reed that resembles Bamboo. It forms dense, impenetrable clumps or spread by creeping. It is mostly native to Mediterranean countries but can be found in our canyons. Arundo can range from low, shrubby forms to towering giants over 20 feet tall. www.nps.gov/plants/ALIEN/fact/ardo1.htm

• Chamise

This is the dominant chaparral plant throughout most of California, often forming pure, impenetrable stands. Also known as Greasewood, the shrub contains highly flammable resins, which cause it to burn rapidly when ignited. Following a fire, Chamise sprouts rapidly from its basal burl (root crown) and soon outgrows most competitors. http://calflora.net/bloomingplants/chamise.html

•• California Sagebrush - Cutback during dormancy

California sagebrush is a stout, woody, grayish-green shrub growing typically to about 5' tall, rounded and much-branched from the base. California sagebrush is extremely common on lower slopes of dry foothills to 2500' throughout Southern California. It blooms August to December.

www.calflora.net/bloomingplants/californiasagebrush.html

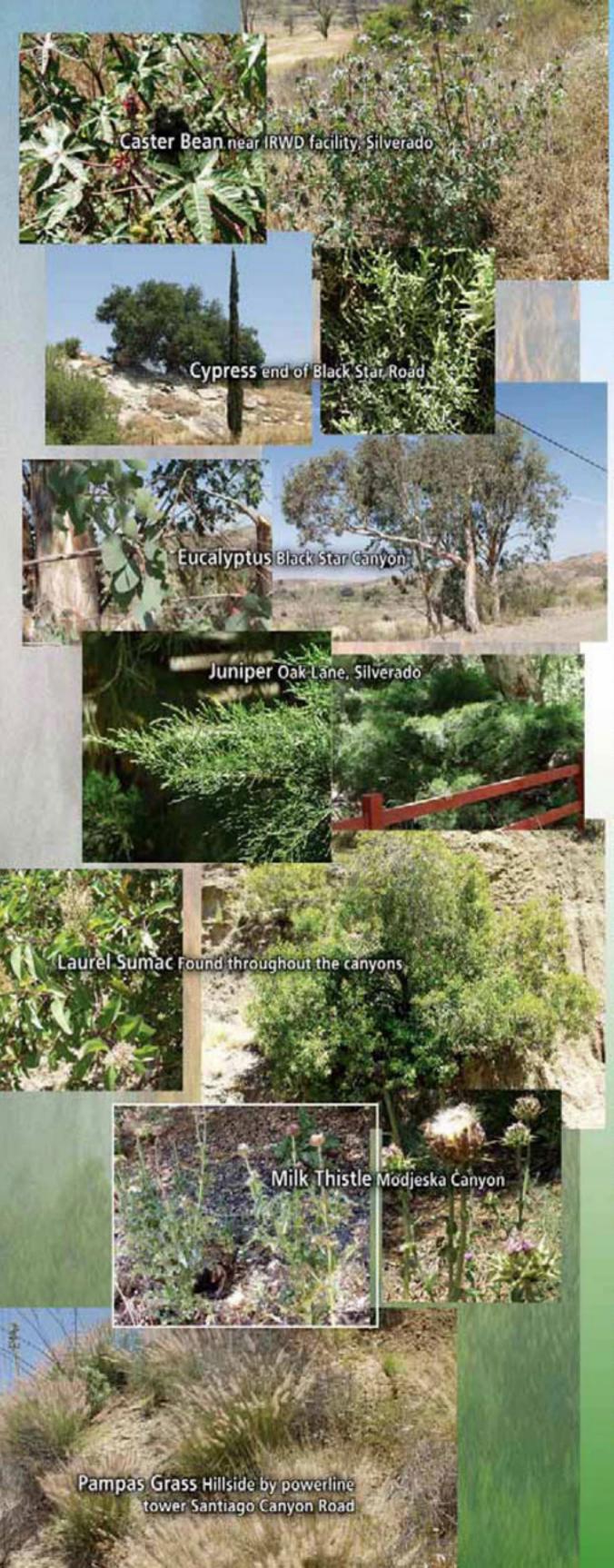
•• Black Sage - Cutback during dormancy

Black Sage is a perennial shrub that grows approximately 3' -6' tall. It is covered with simple hairs with some glandular hairs, which makes it highly aromatic. The flowers are usually a pale blue or lavender color. http://en.wikipedia.org/wiki/Black_sage

.. Buckwheat - Cutback during dormancy

Buckwheat is an annual, characterized by large heart-shaped leaves and white to brown flowers. The tall erect plant can grow from 2 to 5 ft. in height and can produce several branches. Stems are hollow and vary in color from green to red and brown at maturity. Buckwheat has a shallow tap root system, with numerous laterals extending to 3 to 4 ft. in depth. http://www1.agric.gov.ab.ca/ \$department/deptdocs.nsf/all/agdex103





• Castor Bean Plant

A stout, robust shrub-like plant with reddish to purple stems may reach 12 feet in height. The fruit is a three-lobed, green or red capsule with a soft, spine. The seeds from the castor bean plant, Ricinus communis, are poisonous. The main toxic proteins is "ricin". www.library.uiuc.edu/vex/toxic/castor/castor.htm

Italian Cypress

Cypress are evergreen trees or large shrubs, growing 16'-130' tall. The leaves are scale-like. On young plants, the leaves are needle-like. The cones mature 18-24 months from pollination. http://en.wikipedia.org/wiki/Cypress

Eucalyptus

On warm days eucalyptus oil rises. Eucalyptus oil is highly flammable and bush fires can travel easily through the oil-rich air of the tree crowns. The dead bark and fallen branches are also flammable. http://en.wikipedia.org/wiki/Eucalyptus

Junipers

Junipers vary in size and shape from tall trees, to or low spreading shrubs with long trailing branches. They are evergreen with needle-like and/or scale-like leaves. They produce "berry"-like hard-shelled seeds that are red-brown, orange or blue. http://en.wikipedia.org/wiki/Juniper

Laurel Sumac

Laurel sumac is a fast growing, large rounded evergreen shrub or small tree growing 10' to 15' tall that is aromatic with reddish leaf veins, petioles and stems. Laurel sumac is commonly found on dry ridges and canyons below 3000' in chaparral and coastal sage scrub. It is brittle, causing limbs to break off in high winds. It is a fast burning wood.

www.calflora.net/bloomingplants/laurelsumac.html

• Milk Thistle

This stout thistle usually grows in dry, sunny areas. The stem branches at the top and reaches a height of 4 to 10 feet. The leaves are wide, with white blotches or veins. The flowers are red-purple. The small, hard-skinned fruit is brown, spotted, and shiny. Milk thistle is easy to grow, and it matures in less than a year. http://en.wikipedia.org/wiki/Milk_Thistle

Pampas Grass

Pampas Grass can grow 8-12 feet tall. Its leaves are only .5 inches to .75 inches wide but can be 10 feet long. It grows in large clumps called tussocks about 12 feet tall. The leaves are razor sharp and could slice you open just by rubbing against them. Sometimes its dense bushes provide habitat for rats and mice, http://wric.ucdavis.edu/information/pampasgrass/pampasgrass4.html

Pine Trees

Pines are evergreen resinous trees. Older trees tend to have dead limbs and branches which are highly flammable. Dried pine needles can quickly ignite. http://en.wikipedia.org/wiki/Pine

Poison Oak

Western Poison-oak grows as a dense shrub in sunlight, or as a climbing vine in shaded. It reproduces by creeping rootstocks or by seeds. The glossy leaves are generally bright green in the spring (or bronze when first unfolding), yellow-green to reddish in the summer, and bright red or pink in the fall. http://en.wikipedia.org/wiki/Toxicodendron_diversilobum

Purple Sage - Cutback during dormancy

Purple sage is a three to six foot evergreen shrub with flowers that are light purple in May-Jul. Purple sage has white leaves that are (fuzzy grey). This sage is found on dry slopes and needs sun, it needs no water after established.

www.laspilitas.com/plants/611.htm

Rosemary

Rosemary is a woody, perennial herb with fragrant evergreen needle-like leaves. It is native to the Mediterranean but found in our canyons.

http://en.wikipedia.org/wiki/Rosemary

•• Tree Tobacco (Nicotiana gauca)

Tree tobacco is an erect perennial growing to 24' tall with drooping branches. The flower has a long, tubular 5-lobed greenish-yellow corolla slightly flared. It blooms from April to September. It is poisonous to ingest in any form.

www.delange.org/TobaccoTree/TobaccoTree.htm

Tumbleweed

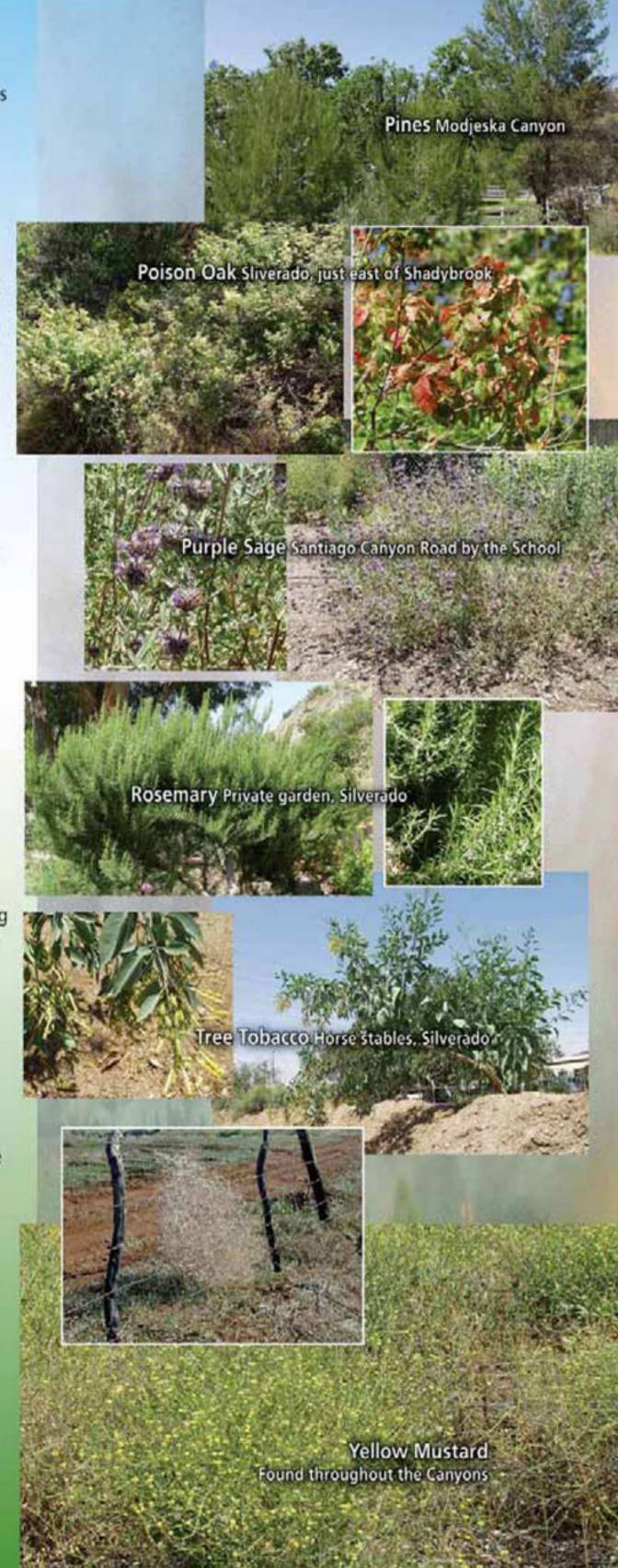
Or, "Russian thistle" looks like the skeleton of a normal shrub. Plants may be as small as a basketball or as large as a golf cart. The branches have small sharp stickers. In the fall when it dries out, it breaks loose and tumbles in the wind. It is an invasive weed that destroys native vegetation.

www.desertusa.com/mag01/may/papr/tweed.html

Yellow Mustard Plant

The canyons abound with fields of Mustard plant. The seeds are easily spread, germinate fast and grow quickly. These plants can produce a field of thick plants 6' in height. They are a flash fuel that burns quickly and spreads wildfires.

www.laweekly.com/news/news/cut-the-mustard/16469/



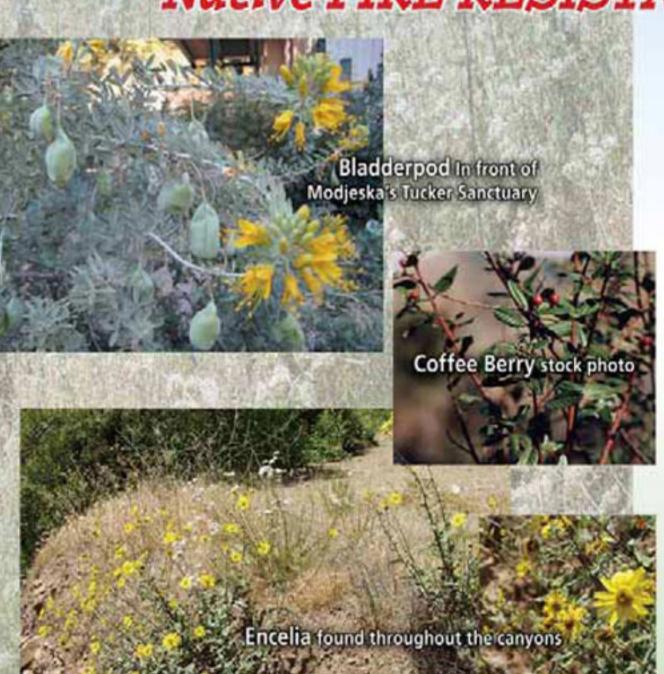
Plants... fire resistant vs. fire prone

All vegetation burns! Some burns faster and hotter than others. Fire resistant plants tend to retain moisture and have less of a woody mass, making them less likely to ignite quickly, but they are not fire proof.

Plants identified as fire prone on the previous pages are highly flammable due to their physical characteristics and/or chemical composition. Many contain volatile substances like oils, resins wax and pitch. Not only will these species burst into flames easily, but they produce embers that will spread wildfires.

It should be noted that maintaining vegetation has a dramatic effect on fire resistance. Some well-irrigated, fire-prone species are less likely to catch fire, while an overgrown, dried out fire-resistant variety can posse a greater risk.

Native FIRE RESISTANT plant species



Scrub Oaks grow abundently in the canyons

Coastal Goldenbush Local photos by Joel Robinson

• Bladderpod - Shrub (Isomeris arborea)

Bladderpod is an erect, rounded and profusely-branched, shrub growing from 3' to 6' tall. Flowers bloom in many short racemes on this strong-smelling, dense, round shrub with palmately compound leaves. Flowers, January to November.

www.calflora.net/bloomingplants/bladderpod.html

California Coffee Berry - Evergreen Shrub (Rhamnus californica)

The California coffeeberry is an evergreen shrub that grows in the canyons. It reaches a height of 6-8 ft., and has large green to black berries in late summer. This shrub is drought tolerant, tolerates sun or partial shade, and grows in all soil types.

http://bewaterwise.com/gardensoft/plant_description.aspx?PlantI D=551

California Encelia - Native canyon shrub (Encelia californica)

The California encelia is a bushy year-round plant (perennial) which grows up to 5' tall. The daisy-like flower is bright golden-yellow. It blooms from March to June. www.laspilitas.com/plants/260.htm

California Scrub Oak - Native canyon shrub/tree

The California scrub oak is an evergreen shrub that is drought tolerant. It can grow 5-10 ft. high and can be identified by its flaking bark. The scrub oak is a native to California and attracts butterflies. www.h2ouse.org/gardensoft/plant_description.aspx?PlantID=1444

· Coastal Goldenbrush - Small Shrub (Isocoma menziesii)

A long-blooming California native, it has clusters of golden yellow flowers. An erect shrubby perennial growing to 4' high. It is native to sandy slopes and canyon sage scrub. It blooms from April until December.

www.calflora.net/bloomingplants/coastgoldenbush.html

Deerweed - Native canyon shrub

Common Deerweed, also called California broom or broom lotus, is a low bushy, noxious shrub growing to about 4' tall. Flowers are yellow aging to red. Deerweed is common on dry slopes, flats and washes is very drought tolerant.

www.calflora.net/bloomingplants/commondeerweed.html

• Giant Wild Rye - Large Native Grass (Leymus condensatus)

A large clumping green grass, that grows between plant communities or in openings. Reaches heights of 6-8' in bloom and will clump 4-5' wide. This drought resistant tall grass thrives in the sun. www.malag.aes.oregonstate.edu/wildflowers/species.php/id-917

Lemonade Berry - Large Evergreen Shrub (Rhus integrifolia)

A bushy shrub that grows up to 10' tall. White-pink flowers blossom in large clumps in the spring, which become oblong berries, ripening from green to yellow and then red. It is hardy and very tolerant to drought. Water is needed only occasionally. www.smmtc.org/plant_of_the_month_200608_Lemonade_Berry.htm

Live Oak - Native Tree (Quercus agrifolia)

The Live Oak is indigenous to the canyons and a natural fire resistant species. These large and spreading evergreens act as fire barriers. Even when devastated by fire, will sprout vigorously. They are slow growing but can live to be several hundred years old. www.laspilitas.com/groups/oaks/california_oak1.html

Mexican Elderberry - Native canyon tree

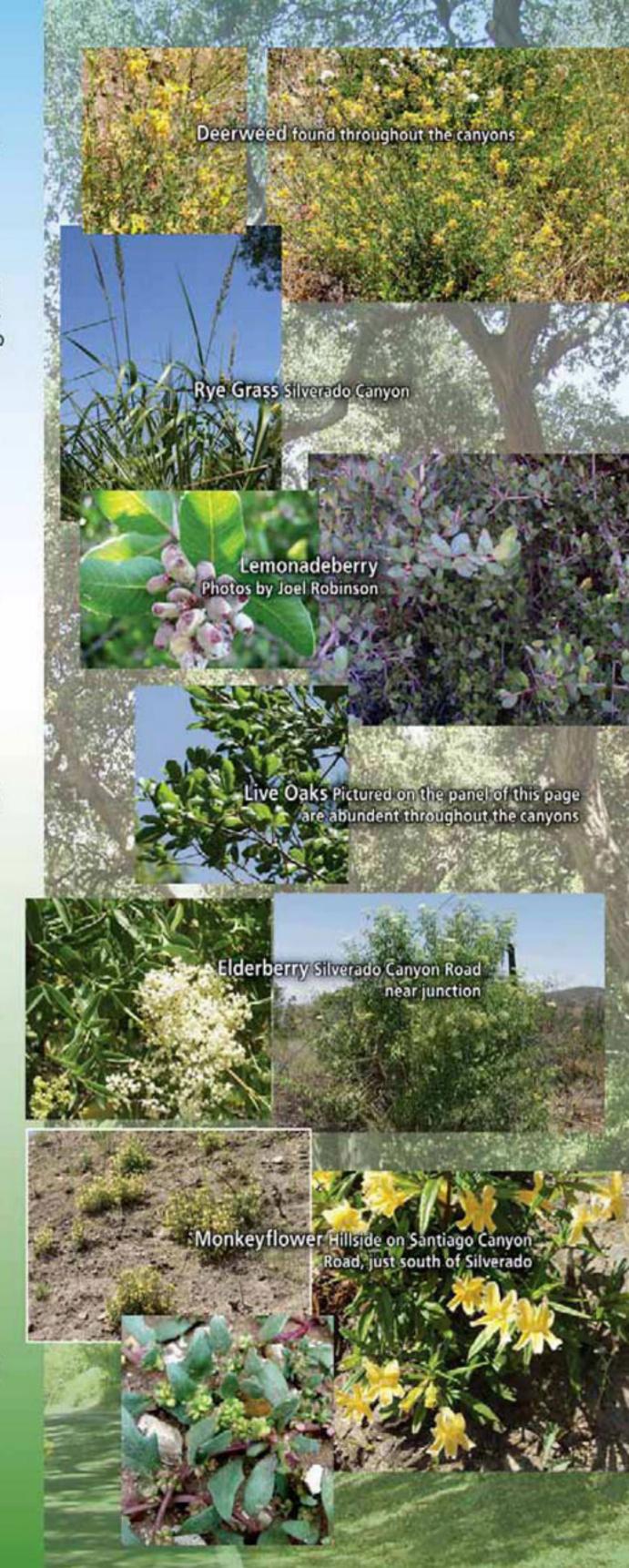
Mexican or blue elderberry is a small tree or tall shrub growing to 25', but often shorter. It has many small white flowers fused at the base. The fruit is a nearly black berry blooming from March to September.

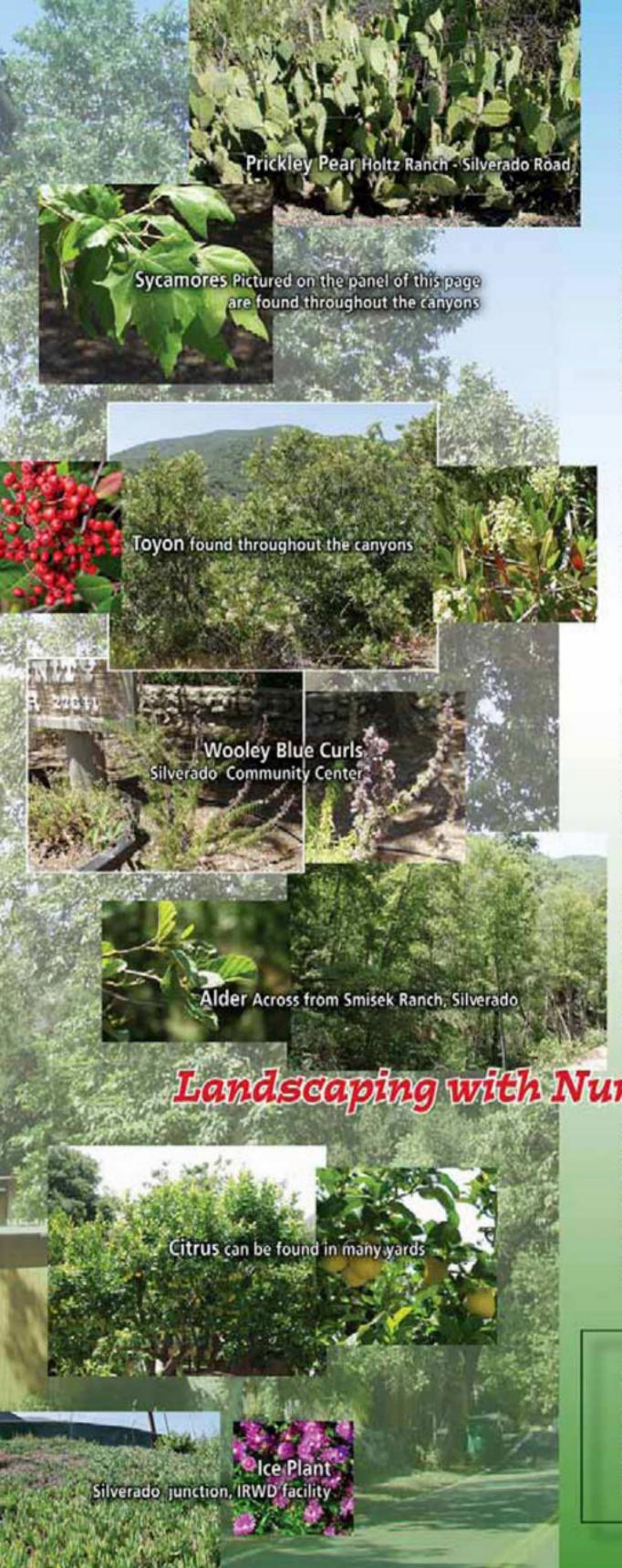
www.calflora.net/bloomingplants/mexicanelderberry.html

Sticky Monkeyflower - Native canyon plant (Mimulus aurantiacus)

Some species grow best with moisture, while others like dry rocky slopes. They do best in full sun but will tolerate part or even full shade. www.laspilitas.com/groups/Monkey_flower/California_monkey_flower.html

Poverty Weed - Ground Cover (Iva axillaries ssp. robustior)
 Poverty weed is a perennial native to California. It is a common component of many alkali plains plant communities where saline, poorly-drained, heavy clay soils occur. Although a native plant, poverty weed has been listed as a noxious weed.
 www.calflora.net/bloomingplants/povertyweed.html





 Prickly Pear Cactus - Native canyon plant (Opuntia littoralis) Prickly pear has broad, flat joints (spiny, thick "cactus" paddles). The flowers are pale yellow about 2 inches long. The fruits are small pear-shaped and dark reddish-purple and covered with bristles. The fruit is edible but has many seeds.

www.desertusa.com/magoct97/oct_pa/du_prkpear.html

 California Sycamore Tree - Native Tree (Plantanus racemosa) The sycamores are long-lived and can be as tall as 100 feet. These trees usually have multiple trunks that can be up to five feet in diameter. The outer bark peels away to create a mottled patchwork of tans, whites, grays, greens and sometimes yellows. The inner bark is usually smooth. Sycamores retain water making them an excellent fire resistant tree. www.blueroebuck.com/sycamore.htm

Toyon - Large native evergreen shrub (Heteromeles arbutifolia)

Toyon, or as it's sometimes called, Christmas Berry, is an evergreen shrub or small tree that usually grows 6-8 ft. high and 4-5 ft. wide. In the fall the berries turn bright red. http://en.wikipedia.org/wiki/Toyon

Woolly Blue Curls - Native canyon shrub (Trichostema lanatum)

Woolly Blue Curls is a three to four foot evergreen shrub with violet flowers in fuzzy spikes in May-Aug and narrow aromatic leaves. Woolly Blue Curls is native to dry slopes. They need full sun, good drainage, and no water after established. www.calflora.net/bloomingplants/woollybluecurls.html

White Alder - Native canyon tree (Alnus rhombifolia)

White alder is a fairy common tree in the canyons, with smooth whitish to gray bark that can grow 30' to 100' tall. It has a straight trunk and open, rounded crown. It grows close to streams where water is available.

www.calflora.net/bloomingplants/whitealder.html

Landscaping with Nursery plants

Other FIRE RESISTANT plants that can supplement natural vegetation. Depending on your landscape plan, drought / heat resistant varieties, along with erosion control plants and shrubs, may be integrated with native plants. Check with your landscape designer or visit a nursery familiar with plants that grow well in our area. A local nursery that specializes in native plants is Tree of Life Nursery in San Juan Capistrano. www.treeoflifenursery.com

ABOUT PALM TREES

Palm Williams Canyon

While palm trees are not on either the fire prone or fire resistant list, they have properties that apply to both. If maintained, they pose little threat. However, palms with clusters of dried fronds pose a great risk during a wild-fire.



Homeowner's Checklist for a Fire Safe home

Exterior improvement
□ Consider installing residential sprinklers
☐ Enclose the underside of eaves, balconies and above
ground decks with fire resistant materials
Access
☐ Clear roads and driveways to allow access for large
emergency vehicles
☐ Clear flammable vegetation at least 10 feet from roads
and five feet from driveways
☐ Cut back overhanging tree branches above roads
☐ Make sure that your street is named or numbered, and
a sign is visibly posted at each street intersection
Post your house address at the beginning of your driveway,
or on your house so it is easily visible from the road
Roof
☐ Remove branches within 10 feet of your chimney and
dead branches overhanging your roof
☐ Remove dead leaves and needles from your roof and
gutters
☐ Make sure your chimney outlet and stovepipe have
an approved spark arrestor
Landscape
☐ Create a "defensible space" by removing all flammable
vegetation at least 30 feet from all structures
☐ Landscape with fire resistant plants
☐ On slopes or in high fire hazard areas remove
flammable vegetation out to 100 feet or more
☐ For trees taller than 18 feet, remove lower branches
within six feet of the ground
☐ Maintain all plants by regularly watering, and by
removing dead branches, leaves and needles
☐ Do not plant trees close to any power line.
Yard
☐ Stack woodpiles at least 30 feet from all structures and
remove vegetation within 10 feet of woodpiles
☐ LPG tanks (butane and propane) maintain 10 feet
of clearance
Remove all stacks of old lumber, construction materials,
pine needles, leaves and other debris from your yard
☐ Clearly mark all emergency water sources
☐ Create easy firefighter access to your closest emergency
water source
☐ If your water comes from a well, consider an emergency
generator to operate the pump during a power failure
Garages, Barns and Shops
☐ Mount a working fire extinguisher in the garage
☐ Have tools such as a shovel, hoe, rake and bucket available
for use in a wildfire emergency
☐ Install a solid door with self-closing hinges between
living areas and the garage
☐ Dispose of oily rags in (Underwriters Laboratories)
approved metal containers
Store all combustibles away from ignition sources

such as water heaters

☐ Allow hot tools such as glue guns and soldering irons to cool before storing
☐ Properly store flammable liquids in approved containers and away from ignition sources such as pilot lights
Disaster Preparedness
☐ Maintain at least a three-day supply of drinking water, and
food that does not require refrigeration and generally does not need cooking
☐ Maintain a portable radio, flashlight, emergency cooking equipment, portable lanterns and batteries
☐ Maintain first aid supplies to treat the injured until help arrive
□ Keep a list of valuables to take with you in an emergency; if possible, store these valuables together
☐ For safety, securely attach all water heaters and furniture such as cabinets and bookshelves to walls
□ Have a contingency plan to enable family members to contact each other. Establish a family/friend phone tree
Designate an emergency meeting place outside your home
☐ Outdoor cooking appliances such as barbecues should never be taken indoors for use as heaters

☐ Disconnect electrical tools and appliances when not in use

Roof sprinkler mounted on pole Steve Kerrigan - Wildcat Canyon

Making your home safer with fire resistant building materials

If you are considering remodeling or upgrading your house, choosing fire resistant materials will increase it's fire safety and can reduce your insurance rates. A wide variety of products are currently available at local retailers, on the Internet and through licensed contractors.

Roofs... There is no question that your roof and overhanging eves presents the greatest threat in a fire. Upgrading an old roof to a "Class A" roof is a good investment.

http://www.fireresistantroofing.com/

Decks... Overhanging decks can catching fire from flying embers. However, they are also the easiest to upgrade. Wood decking can be replaced with polyurethane planks and rails that look like wood but are fire resistant. These products come in a selection of colors and are superior to wood, as they will not crack or warp. http://www.ameradeck.com/

http://www.thisoldhouse.com/toh/photos/0,,20157915,00.html

Fencing and Trim... Fire resistant materials are available for rustic fencing and building trim. http://www.trex.com/

Cautions and Warnings...

Eradicating Weeds The best time of the year to clear your property of weeds and undesirable vegetation is early Spring after a rain. The ground is soft and most of the small weeds can be pulled out, by the roots, before they blossom and spread seedlings. Larger bushes are more easily dug out and chainsaws make quick work of dead tree limbs and thick brush.

As weeds begin to sprout, like Mustard Plants, a broad leaf herbicide can killing the weed without harming the surrounding grass.

Caution must be exercised when clearing, as heat and Santa Ana winds dry out foliage. A weed wacker with a line trimmer is OK, but using a powermower, a metal blade, a chainsaw or even a pick, can strike a rock, cause a spark and ignite a grass or brush fire.

Our friends at the Baker Canyon Green Recycling have made disposing of cut brush easy. They have extended a courtesy to canyon residents to accept brush and trees trimmings without charge. However, they do not accept palm trees, palm trimmings, lumber or trash. They also offer FREE rough-cut mulch for the asking.

Baker Canyon Green Recycling 27910 Baker Canyon Rd off of Black Star Canyon Rd The Cleveland National Forest surrounds our canyons.

The U.S. Forest Service monitors vegetation and weather conditions, which determines the level of fire danger.



This level is indicated on a gauge outside their station. Current conditions along with other information can also be found on their website, or you may call 619-593-2183 for a recorded message.

http://www.fs.fed.us/r5/cleveland/

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