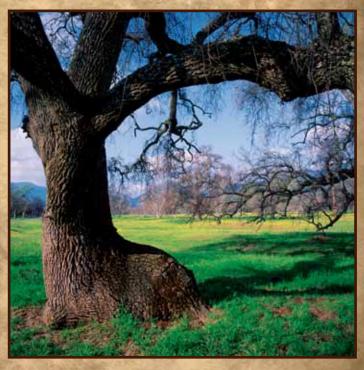
Welcome for the Toothills



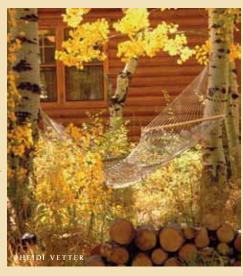
A Guide to Living Lightly in Eastern Madera County

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Welcome to living in the foothills of Eastern Madera County! This booklet is offered as a starting point for information to help you effectively take care of your property, provide for personal safety and live in harmony with the flora, fauna and your human neighbors.

If you have moved here from an urban area, you might not be aware of the many natural resource riches just outside your door or how to help improve and sustain them. A few of those riches and needs are:

- Adequate supplies of clean water
- Wildlife to observe and enjoy
- Healthy ecosystems with native plants
- Clean air to breathe
- Fire-safe communities, public lands and personal property



Each of these riches needs care and protection. This booklet is designed to help you do your part in the conservation of our natural resources so that you may continue to enjoy your surroundings in the years to come and that we may pass them on to future generations.

Cover Photo by Khaled Alkotob

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To order more copies of "Welcome to the Foothills", contact the Yosemite/
Sequoia Resource Conservation & Development Council: (559) 877-8663, www.ysrcandd. org or info@ysrcandd.org

For additional information contact the Natural Resources Conservation Service at (559) 674-2108 or www.ca.nrcs. usda.gov to request "Living in the Foothills".

Watersheds of Eastern Madera County

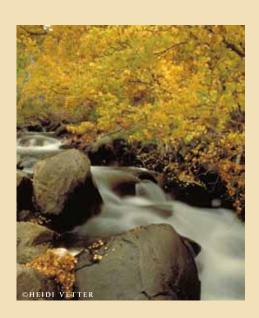


What is a Watershed?

A watershed is where a drop of water would flow from the top of a ridge down to the lowest point, where it joins together with water from other watersheds. Water flows from small streams to larger streams and rivers. It doesn't care about county or city lines, as it follows the path of least resistance to its final destination, the ocean.

Maintaining clean water within a watershed is of concern to everyone. Water is an important commodity to all living organisms. Although it appears as if we will never run out of water, 97% of the earth's water is salt water which is unusable. Only 3% is fresh and of this 3%, two-thirds is locked up as ice and is unusable. Only 1% of all water on the planet is available for us to use.

Since only pure water evaporates, pollution is left behind. Even though this pollution does not enter our water cycle, it is still present in our streams, rivers and oceans. For this reason, we must be concerned with what we put into our water systems.





Where does your water come from?

As precipitation falls to the Earth, it remains on the surface, evaporates or seeps into the ground. Surface water includes lakes, rivers and reservoirs. Water beneath the land surface that is not held in the soil is called groundwater. Rain and snow are the principal sources of groundwater in the mountains.

Beneath the surface layers of soil is a thick bed of hard rock. The bedrock is full of cracks or fractures, created over millions of years. Water collects in some of these cracks and, if the fractures are connected, passes through. A well may access one of these water-filled fractures and provide water. These cracks may not refill with water as quickly as it is used. When this happens, wells go dry.

Water is a precious commodity and it is important to use it wisely for the sake of everyone. To read

Watersmarts - A

Homeowner's

Guide to Mountain

Ground Water,
go to www.

co.jefferson.co.us/
jeffco/planning_
uploads/water_
ed/water_smarts_
print.pdf

Water Quality

Clean water is essential to life as we know it. There are many things you can do as a property owner to help ensure safe, clean water for yourself and for others in the watershed. Proper septic system care, erosion control and fire hazard reduction all have far reaching effects on water quality. Ensuring the proper disposal of hazardous and solid wastes will help protect water quality whether you are on a well or a community water system. Everything you do on your property affects the whole, for better or worse.

How does pollution get from your backyard to the local reservoir, aquifer or river and beyond? Rain or snow falls and either soaks into the ground or flows away to find a body of water, carrying with it traces of everything you've applied to your landscape: insect spray, weed killers, nitrogen fertilizer, etc.



At least half the households in the U.S. use pesticides, fertilizers (or both) in their yards. Pollution caused by storm runoff from sources such as backyards, parks and fields, parking lots and streets, is called nonpoint source pollution. Nonpoint source pollution is a leading cause



For information on testing the quality of your water, contact Madera County Environmental Health Dept. at (559) 675-7823.

of water quality degradation and impairs drinking water supplies, recreational opportunities, fisheries and wildlife habitat.

There are many alternatives to chemical fertilizers and pesticides. Some are as easy as homemade vinegar/pepper sprays. Compost and manure are two of the best fertilizers available. Ask your local nursery or pick up a publication on organic gardening.

Water Conservation

What can we do to help maintain the health of our watersheds? Use less water! Small changes can add up. Here are some suggestions:

In the House

- Check pipes and faucets for leaks. One drop per second wastes 2,700 gallons of water per year!
- Test for toilet leaks by adding food coloring to the tank. If color appears in the bowl after 30 minutes, your toilet is leaking. One leaking toilet can waste 200 gallons of water a day!
- Install water-efficient toilets. Low-flush models can save 8,500 gallons per year for the average household.
- Turn off the water or install a flip on/off aerator for use when brushing your teeth or shaving.
- Install low-flow showerheads and save up to 40 gallons per shower.
- Run your dishwasher and washing machine only when you have a full load.
- Take short showers instead of baths. Baths can use 30 to 50 gallons of water. Showers use 5 gallons of water per minute or less if a flow constrictor is installed.
- When washing dishes by hand, don't let the water run freely to rinse. Fill up the second side of your sink with rinse water.
- Fill a pitcher of water with drinking water in your refrigerator. Do not cool the tap water by running it every time you want a drink.
- Catch shower and sink warm-up water in a pan or bucket and use it to provide water for plants and pets.



Saver Home at
h2ouse.net
or
wateruseitwisely.
com for more
information.

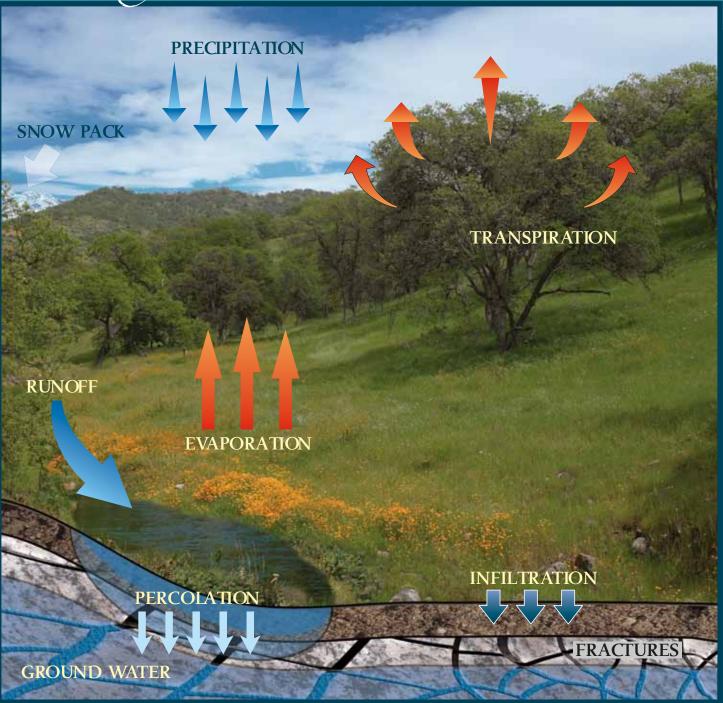
Visit the Water

- When it's time to replace your washing machine, buy a water-saving model. These models use up to 1/3 less water and half the energy.
- Install a hot water recirculation system in your house. These systems keep the water hot in the water line so you don't waste water waiting for it to heat up. An average household can save a minimum of 15,000 gallons of water annually.

Outside

- Water lawns and gardens during the coolest part of the day.
- Use a drip irrigation system, instead of sprinklers, to apply water slowly exactly where it is needed.
- Collect rain from your home's gutter system in a rain barrel to use for watering.
- Use a bucket of water and a spray head on the hose to wash your car. A running hose wastes over 100 gallons of water in the time it takes to wash your car.
- Choose plants that are native to the area where you live (and/or plants that are drought resistant) for landscaping.
- Reduce the use of chemicals, fertilizers and pesticides that can get into the water table.

Water Cycle



Rain and snow are the primary sources of water in the mountains. A large percentage of the rain and snow that falls is returned to the atmosphere by evaporation from soil, rock, plant and water surfaces. Some of the precipitation seeps into the ground and is called **groundwater**.

Water from rain and melted snow that collects and flows downhill is called runoff and is considered surface water. Most surface water moves downhill into streams and rivers, but some seeps into rock fractures and "recharges" the ground water. This water supplies many mountain wells. The water levels in fractures vary due to precipitation and season. When water in fractures empties out at the surface, it is called a spring.

10

Native & Drought Tolerant Plants

For more information: California Native Plant Society at (559) 243-0815 or www.cnps.org

You can reduce your water consumption, help to protect your home against fire and use fewer pesticides and fertilizers by planting low-maintenance native or drought tolerant trees, shrubs and perennials in your garden. Native plants are better suited to local soils and can be more resistant to local pests.

Recommended Native Plants:

COMMON NAME

BOTANICAL NAME

Trees

Western Redbud	Cercis occidentalis	
Mountain Mahogany	Cercocarpus betuloides	
Ponderosa Pine	Pinus ponderosa	
Black Oak (above 4000')	Quercus kelloggii	
Valley Oak	Quercus lobata	
Interior Live Oak	Quercus wislizineii	
California Buckeye	Aesculus californica	

Large Shrubs

Coyote Bush	Baccharis pilularis
Toyon (California holly)	Heteromeles arbutifolia & 'David's Choice'
Coffeeberry	Rhamnus californica & 'Eve Case" & 'Mound San Bruno'
Evergreen Currant	Ribes viburnifolium
Manzanita	Arctostaphylos densiflora 'Sentinel'
St. Catherine's Lace	Eriogonum giganteum
Holly Leaf Cherry	Prunus ilicifolia
Spice Bush	Calycanthus occidentalis
Flannel Bush	Fremontodendron californicum



Medium Shrubs

Golden Currant	Ribes aureum	
Manzanita 'Howard McMinn'	Arctostaphylos densiflora	
Paradise Manzanita	Arctostaphylos pajaroensis 'Paradise'	
Hybrid Manzanita	Arctostaphylos 'John Dourley'	
Dr. Hurd Manzanita	Arctostaphylos manzanita 'Dr. Hurd'	
Bush Anemone	Carpenteria californica	
Redtwig Dogwood	Cornus stolonifera	
Mountain Dogwood	Cornus nuttallii	
Santa Cruz Island Buckwheat	Eriogonum arborescens	
California Buckwheat	Eriogonum fasciculatum	
Hybrid Flannel Bush	Fremontodendron 'Ken Taylor' & 'Pacific Sunset' & 'San Gabriel'	
Wild Lilac	Ceanothus 'Blue Jeans' and many more	
Oregon Grape	Mahonia aquifolium	
California Holly Grape	Mahonia pinnata 'Ken Hartman'	
Blue Wild Rye	Leymus condensatus 'Canyon Prince'	
Deer Grass	Muhlenbergia rigens	
Allen Chickering Sage	Salvia 'Allen Chickering'	
Bradegee's Sage	Salvia brandegei	
Mexican Sage	Salvia leuchophylla	
Black Sage	Salvia mellifera & 'Terra Seca'	

Small Shrubs

Common Yarrow	Achillea millefolium	
Lavender Yarrow	Achillea millefolium 'Lilac Beauty'	
Red Yarrow	Achillea millefolium ' Paprika'	
Monterey Manzanita	Arctostaphylos hookeri 'Wayside'	
Green Supreme Barberry	Arctostaphylos uva-ursi	
Dwarf Coyote Bush	Baccharis pilularis 'Twin Peaks No. 2'	
Wild Lilac	Ceanothus gloriosus 'Anchor Bay'	
Red Buckwheat	Eriogonum grande rubescens	
Sulfur Buckwheat	Eriogonum umbellatum polyanthum	
Island alumroot	Heuchera maxima	
Alum Root (Coral Bells)	Heuchera micrantha	
Stickey Monkeyflower	Mimulus aurantiacus	
Red Sticky Monkeyflower	Mimulus puniceus	
Foothill Penstemon	Penstemon heterophyllus & 'Blue Springs' & 'Margarita BOP'	
Hummingbird Sage	Salvia spathacea & 'Las Pilitas'	

Groundcovers

Dwarf Coyote Bush	Bush Baccharis pilularis 'Pigeon Point'	
Wild Lilac	Ceanothus 'Centenniel'	
Creeping Mahonia	Mahonia repens	
Bee's Bliss Sage	Salvia 'Bee's Bliss'	
California Fuschia	Zauschneria canum 'Carmen's Grey' & 'Sierra Salmon' & 'Wayne's Silver' & 'Everett's Choice' & ' Route 66'	
California poppy	Eschscholzia californica	

Learn to recognize and avoid contact with poison oak (Toxicodendron diversilobum), abundant and widespread in the foothills. This deciduous shrub is poisonous to many people year-round, producing a burning, itching skin rash. Inhaling the smoke of burning poison oak can also cause a severe reaction that may require medical treatment.

Despite its toxic effect on people, poison oak offers food value to wildlife, its berries favored by many birds and its flowers attractive and beneficial to pollinators such as bees.

Noxious Weeds-Landscaping

The booklet, "Field Guide to Invasive Non-Native Weeds of Mariposa, Madera and Fresno Counties" is a great tool to learn more about noxious weeds. For more information, contact Joanna Clines at the US Forest Service, (559) 877-2218 ext. 3150.

Noxious weeds are non-native plants that have an extraordinary capacity to spread and become pests. One of the primary problem weeds in Eastern Madera County is yellow starthistle, a spiny plant that is poisonous to horses. Yellow starthistle has a deep, thirsty root system that takes the water needed by native plants. It produces enormous numbers of seeds each year, helping it increase its range rapidly.

When a noxious weed such as yellow starthistle expands and displaces desirable plants, ecosystems become degraded and can no longer provide good wildlife habitat, livestock forage or native wildflower displays. Noxious weeds often take over in areas where the vegetation and soils have been disturbed, so maintaining healthy soil and diverse native vegetation helps deter weed expansion. Areas such as roadsides and overgrazed pastures tend to be ideal sites for weeds to get a foothold. Weeds can be spread by vehicles, heavy equipment, contaminated hay and straw or anything that moves contaminated soil to a new place. Some pest plants are actually still sold as ornamentals.

AN OUNCE OF PREVENTION...

Preventing the spread of noxious weeds is far cheaper than waiting until they have spread and require expensive

control measures (and herbicides). Although noxious weeds will forever be newly introduced into our mountain area, recognizing and eradicating plants before they have a chance to proliferate will go a long way toward protecting our landscape.



What you can do:

- Plant only non-invasive species in your garden. Contact the California Native Plant Society at www.cnps.org for a list of safe plants.
- Remove weed seeds from your clothing, gear and pets' fur when you are in a contaminated area. Store the seeds in a plastic bag until you can dispose of them by burning.
- Trive only on established roads and trails. Rinse off all soil and plant particles from tires before moving from an infested area to a non-infested one.
- * Ask for certified weed-free hay and straw from your supplier.
- ** Practice good land management. Keep your native and landscape plants healthy to resist noxious weed invasion.
- 🌟 Manually pull weeds as soon as they appear.
- Report infestations to landowners or land management agencies.
- ** Join volunteer eradication efforts through your local Resource Conservation District or the **Sierra San**Joaquin Noxious Weed Alliance (www.cdfa.ca.gov).

Please note that there are many other noxious weeds in our area. They include: Spotted Knapweed, Klamothweed, Milk Thistle, Bull Thistle, Italian Thistle, St. Johnswort, Scotch and Spanish Broom. For more information: visit the Weed Management Areas web site, www.cdfa.ca.gov/wma or contact Joanna Clines at the US Forest Service, (559) 877-2218 ext. 3150.

For more information, visit the Weed Management Areas website at: www.cdfa.ca.gov/wma

For information on the Sierra Resource Conservation District's Yellow Starthistle Eradication & Control Program visit www.sierrarcd.

Oak Woodlands Preservation

For more information read Coursegold Resource Conservation District's "Voluntary Oak Woodland Management

Guidelines"

available at

www.crcd.org

/voloak.html

Care of California's Native Oaks

Native oaks, when young trees, are very tolerant of their environment and make excellent and adaptable landscape assets. The mature native oak is an invaluable part of our environment, but does not tolerate many changes once established.

Most native oaks in California evolved in an environment with cool, moist winters and hot, dry summers. Homeowners should attempt to approximate the natural environment for these trees. They should be very careful in siting buildings amidst these magnificent giants.

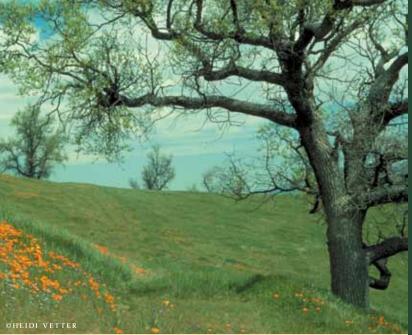
Any substantial change in the mature oak's environment can weaken or even kill a healthy specimen. A good rule of thumb is to leave the tree's root protection zone (RPZ) undisturbed. This area, which is half again as large as the area from the trunk to the dripline, is the most critical to the oak.

To protect a mature oak, pay particular attention to drainage and avoid filling, trenching, paving, use of heavy machinery and other soil-compacting activities or disturbances near its root zone. It is best to leave the natural grade within the root zone alone. It may be helpful to put up temporary fencing around the RPZ to protect it if constuction is occurring nearby. If you need to brush under an oak, use only hand tools if possible.

Poor drainage is a common cause of oak tree deaths. Too much moisture, particularly in the warm, dry months, can smother the roots and encourage the growth of fungi. Avoid irrigation within the oak dripline.

When growing under natural conditions, native California oaks are relatively tolerant of most diseases. The two oak diseases most often encountered in irrigated settings are crown rot and oak root fungus. Symptoms are a decrease in vigor, twig die-back and wilting, abnormally yellow leaves and lesions on the bark with oozing, dark-colored fluid.





For more information on oaks, call the California Oak Foundation (510) 763-0282 or visit www.california oaks.org

Treatment includes removing lawn and plants that require irrigation from the RPZ. Remove soil and other debris near the trunk. Do not water in the RPZ during the summer. Improve drainage around the tree and prevent mechanical damage.

When an oak appears unhealthy, consult a certified arborist to determine the cause. Pruning should be performed by a certified arborist. Excessive pruning may cause a decline in vigor or kill a tree. Never remove more than 20% of a tree's foliage during a single year.

To manage oak woodlands appropriately and according to California state law, consult a certified arborist or registered professional forester (RPF) when management projects cover more than a few landscaping trees.

Mistletoe is a partially parasitic plant that has evolved with oaks for centuries. Removing heavy infestations of mistletoe may kill an oak. If located away from roads and structures, these oaks should be left natural to maintain mistletoe's food value for wildlife, especially wintering birds.

"Leafy mistletoe usually has little impact on healthy oaks..." (*A Field Guide to Insects and Pathogens of California Oaks*, USDA). However, mistletoe can cause stuctural weakness in some branches, causing them to break. If you have infestations near a road or building, you may want to remove the mistletoe by cutting the branch a foot from the attachment towards the trunk. Remember, oaks do not respond well to heavy pruning.

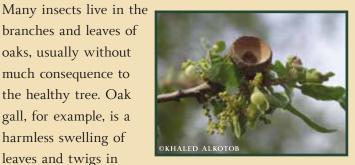
Oak Woodlands Preservation (cont.)

Coniferous Forest Land Management

For more information read "Living Among the Oaks". Contact U.C. Cooperative Extension, Forest Management Specialist (510) 643-5428.

branches and leaves of oaks, usually without much consequence to the healthy tree. Oak gall, for example, is a harmless swelling of leaves and twigs in

Insects



reaction to enzymes released where a wasp lays its eggs.

For more information read "A Field Guide to Insects and Diseases of California Oaks" at www. suddenoakdeath. org/pdf/ psw_gtr197.pdf

Some infestations, however, can cause serious damage. Pit scales, oak moths and other leaf-eaters can weaken oaks, making them susceptible to disease. Whenever an infestation causes substantial leaf loss, changes in leaf color, twig die-back, sticky or sooty foliage and branches or other significant changes in appearance, a certified arborist should be consulted.





Forest Land Management

If you are fortunate enough to have forest woodlands on your property, there are some things you should know about water, diseases, thinning and fire danger.

One place to start is to contact CAL FIRE (the California Department of Forestry and Fire Protection) or hire a private forester for a consultation. CAL FIRE's goal is to maintain the sustainability of California's natural resources. This department funds and administers state and federal Forestry Assistance programs for landowners, who are advised by registered professional foresters (RPFs). CAL FIRE also demonstrates sound management practices on eight state demonstration forests, enforces the California Forest Practice Act on all non-federal timberlands, provides research and educational outreach to the public on forest pests such as sudden oak death and bark beetle.

The removal of almost any conifer to be sold requires a state-issued permit. Such permits must be prepared by a registered professional forester.

Contact CAL FIRE at: (559) 877-2322 or visit their website at www.fire.ca.gov

Forest Stewardship help-line: (800) 738-8733.

Another resource is the Madera County Agricultural Commissioner at (559) 675-7876.

Septic Gare

Why is it important to maintain your septic system?

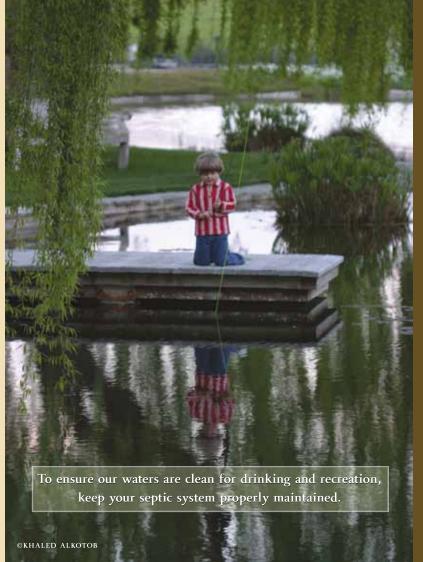
- Failing septic systems may release raw sewage into the environment, which can affect water quality in surrounding water bodies and impact drinking water supplies in nearby wells.
- Improper maintenance may result in expensive repairs.
- Surfacing sewage may expose your family and pets to disease-causing bacteria and viruses.

Some guidelines:

- Never dispose of paints, varnishes, thinners, waste oils, pesticides or other hazardous chemicals in your septic system.
- Avoid disposal of coffee grounds, diapers, kitty litter, sanitary napkins, grease, paper towels and other household items in your septic system.
- Fix leaky faucets and running toilets and use washing machines and dishwashers only when full. This will prevent saturation of the soil in the drain field, which can affect the quality of the soil and its ability to naturally remove toxins, bacteria, viruses and other pollutants from the wastewater.
- Annually inspect your septic system to ensure that it is working properly and determine when the tank should be pumped. If your septic system utilizes a dual disposal field, it is recommended that you switch leach lines when the clocks change.
- The frequency of pumping your tank depends on the tank size, the number of people living in your home and the habits of your particular household. The general recommendation is 3 to 5 years.

Maintain and repair your septic system if it is defective, leaking or experiencing problems. Contact the Mariposa County Health Department prior to beginning repair or replacement work.

Madera County
Enviromental
Health Dept.
(559) 675-7823 or
at www.maderacounty.com/
envhealth/



Soil Care and Conservation

For more information on seeding for erosion control on slopes, visit the Coarsegold Resource Conservation District web site, www.crcd.org

Learn about key soil health terms and strategies in "Keeping Water on the Land Longer" at http://www.blm. gov/pgdata/etc/medialib/blm/wy/field-offices/rock_springs/docs.Par.8628.
File.dat/newkpwtr.pdf

Healthy soil goes hand-in-hand with a healthy environment. Landowners need to be aware that poor soil quality is linked to: invasions of non-native weeds; erosion, sediment in our streams, rivers and lakes, reduced land productivity (ability to grow plants); and an ineffective water cycle, leading to reduced water in springs and wells. Increases in noxious weeds, erosion and low spring and well levels are all indicators of poor soil health. The first and most important step in improving soil health is to recognize that soil is a living organism and all other parts of our ecosystem depend on it.

Soil health is directly connected with water quality and availability. This is especially important in the Sierra-Nevada, where 80% of the water Californians consume originates. Soil washing downstream is known as sediment. It is the leading pollutant in our nation's surface waters. It fills reservoirs, reduces water availability and fish spawning habitat and depletes important nutrients from topsoil. Sediment in streams, rivers and lakes may be caused by ground disturbance during grading on construction sites, use of mechanical and/or heavy equipment on slopes, lack of or improperly-sized culverts, inadequate gutters and drainages, improperly-installed driveways and access roads or any other activity that disturbs the soil and is not properly treated or mitigated prior to the rainy season.

Organic matter (decomposing vegetation) in soil is an important indicator of soil health. Low levels of organic matter in our soils are as great a cause of runoff and erosion as paved surfaces, homes and development. Vegetation not only provides cover and habitat for birds, mammals and beneficial insects, but also prevents soil erosion. Vegetation holds the soil in place, adds organic matter, provides important nutrients and reduces weed competition. In addition, increasing the organic material in your soil increases the amount of water infiltration and retention, which facilitates ground water recharge.



Some basic practices are to avoid compaction and tillage, conserve topsoil by preventing erosion and increase organic matter with compost, cover crops and mulch. Be sure that water, nutrients and air are adequate for plants to grow well.

What you can do:

- Protect cut-and-fill slopes with stabilizing material such as vegetation, fiber cloth, straw, wood chips, riprap (large rocks), gabions (wire baskets filled with rocks) or retaining walls.
- Install culverts according to local, regional and California State Code standards.
- Maintain vegetative ground cover in riparian areas.
- Divert water away from driveways and pathways to prevent gully erosion. Water bars may be used where appropriate.
- Minimize soil surface disturbance. Maintain vegetative cover using native plants whenever possible.
- ✓ Do not remove naturally fallen pine needles and leaves from the ground surface, if possible.
- Clean and/or remove undesirable or human-caused debris from riparian areas.
- Avoid mechanical or machinery use on slopes greater than **30%** whenever possible.

Most importantly, revegetate all bare or disturbed soil with grass seed or native plants, wood chips and straw mulch (be sure straw is certified weed-free to prevent the introduction of noxious weeds). The optimum time to do this is between October 15 and November 15.

There are over 20,000 soils mapped in the U.S., each one unique like snowflakes. You can search for your soil by address and no longer guess about its specific properties for septic, construction, grazing and farming. Web Soil Survey website:

http://websoilsurvey.nrcs.usda.gov/

Information on soil erosion, grazing and the water cycle and management for social, financial and ecological benefit: http://www.managingwholes.com Read a set of
10 informative
"Rangeland
Soil Quality
Information
Sheets" at http://
soils.usda.gov/
sqi/management/
files/RSQIS9.pdf

Before grading, please contact Madera County Engineering Department at (559) 675-7817.

To learn
about Holistic
Management
that restores
land health, visit
www.holistic
management.org

Fire Hazard Reduction

For Fire Hazard
Reduction
information, visit
www.firesafe
council.org

Eastern Madera County has been identified as a "High Fire Threat Area" by CAL FIRE. The United States Forest Service has listed many of our communities in the Federal Register as "Communities at Risk," based on the threat of fire from federal lands. The 1961 Harlow Fire took place in our area. That fire still holds the record for the fastest-moving fire in California firefighting history.

The threat of a large damaging wildfire is high, as is the potential for loss of valuable natural resources, personal property and human life.

Without clearing and thinning to reduce the fuel load, the risk of wildfire on your property continues to increase. To protect your property, public law requires that you create a fire-safe buffer at least 100 to 200 feet around your home. The steeper and more vegetated the property, the larger the buffer must be.

To comply with the law and help save your home from a catastophic wildfire, create a defensible space around your home by following these guidelines:

Lean: Thin out thick vegetation to create a more parklike look.

Clean: Keep lawns mowed and trim shrubs.

Remove dry, resinous or dead plants and flammable debris.

Remove lower tree limbs and limbs within 10 feet of chimneys, power lines and outbuildings. Use non-combustible surfaces for walkways, patios and driveways.

Green: Use low-growing, non-woody plants for landscaping.

DEFENSIBLE SPACE

Recommended spacing of trees and bushes based on steepness of slope

SLOPE	0-20%	20-40%	+40%
Shrubs*	2x	4x	12x
Trees	10'	20'	40'

* times the height of the bush. For example, a 2' high bush on a 20% slope will need 4' spacing.



REMEMBER:

Clearing need not be to bare mineral soil for entire 100 feet. To learn how to properly create defensible space, read CAL FIRE's "Why 100 Feet?" brochure found at: www.fire.ca.gov/communications/downloads/fact_sheets/2007DefSpaceBrochure.pdf

For more information,
Contact the
Eastern Madera
County Fire Safe
Council at (559)
877-3772 or www.
maderafsc.org
or CAL FIRE
Madera-MariposaMerced Unit at:
(209) 966-3622.

Fire Hazard Reduction (cont.)

For burn day information, call the San Joaquin Valley Air Pollution Control District at (877) 429-2876 or (1-800-HAZ-BURN)

ADDITIONAL PREPARATION FOR FIRE SEASON

- Clean all vegetation from roof, eaves and rain gutters.
- Cover chimney outlets and flues with a spark-arresting, half-inch stainless steel mesh screen.
- Clean all flammable materials from beneath decks.
- ** Keep emergency phone numbers and evacuation routes clearly posted.
- Prepare a "Grab and Go" bag for each family member and pet.
- Keep weeds cut back.
- Move firewood at least 30 feet from all structures.
- Plan your escape route in advance and make sure everyone knows it.
- Make sure your address is clearly visible from the street in all weather.
- Keep vehicles full of gas.
- Keep a two-week supply of water, candles, non-perishable food and medications.





To obtain a burn permit, contact your local CAL FIRE station at (559) 877-2322 or contact the Forest Service at (559) 877-2218.

WHAT TO DO IF A FIRE IS HEADED YOUR WAY...

If time permits, take a few precautions to provide additional fire defense for your home:

- Remove flammable items such as grass doormats and bamboo shades.
- Minimize flat surfaces that could let a burning ember smolder. Tip wood picnic tables and benches on their sides.
- Remove patio umbrellas, collapsible awnings and outdoor cushions.
- Close all windows, doors and garage doors.
- Wet down buildings and defensible zone, including mulch piles and hay storage areas.
- Move furniture to the center of rooms away from the oncoming fire.
- Use telephones only for emergencies.
- Evacuate if you are directed to do so. Fire moves faster than you or your vehicle can.
- To report a fire, call 911.
- For professional fuels-management advice, consult a registered professional forester (per California law).

Air Quality

California Air
Resources Board,
"Fifty Things You
can do" at:
www.arb.ca.gov/
html/brochure/
50things.htm

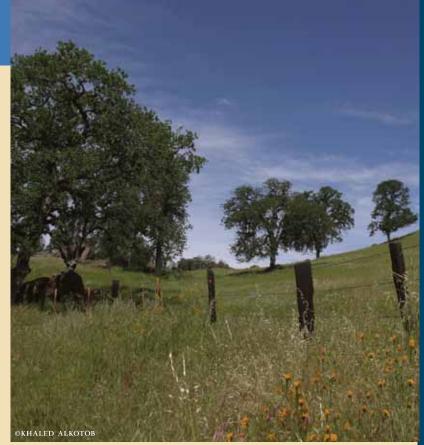
Although we live in a relatively pristine environment, air quality is an increasingly important issue in the Sierra foothills. As air quality worsens in the San Joaquin Valley, the foothill area experiences the repercussions. Poor air quality not only threatens the health of people in our area, but can also damage our ecosystems.

Nearly 60 percent of the air pollution in our area comes from cars and trucks. Other sources include off-road vehicles, watercraft, lawn and garden equipment, woodstoves and fireplaces (especially inefficient ones), outdoor burning, electrical generation (from non-renewable fossil fuels), industrial sources, consumer products and wildfires.

Indoor air quality also affects our overall health and wellbeing. Smoking, some cleaning products, mold and offgassing from paint, furniture and carpeting all contribute to reduced indoor air quality.

Things you can do:

- Drive less! Carpool or use public transportation whenever possible, walk, ride a bike, telecommute, etc. Limit your trips to town by combining all your errands into one trip.
- Drive an efficient, low-polluting vehicle and keep it well maintained.
- Don't use a woodstove, pellet stove or fireplace on days when the air quality is poor.
- Fig. 1. If you use a woodstove, pellet stove or fireplace insert, make sure it's EPA-approved and that the catalytic converter is functioning properly.
- & Chip yard trimmings and brush piles. Don't burn them.



For more information, contact the San Joaquin Valley Air Pollution Control District at (559) 230-6000 or www. valleyair.org

- Choose air-friendly products with low or no VOCs (Volatile Organic Compounds).
- Paint with a brush instead of a sprayer.
- Drive slowly on unpaved roads.



Energy Conservation

Be sure to visit

www.pge.com to

learn about your

energy status,

free programs,

community
initiatives, rebates
and other energy
saving services.

Choosing Renewable Energy and Energy Efficiency can help you save money on rising utility costs and protected your health while, also reducing your footprint on the environment. Emerging technologies in the energy field last longer and are cheaper to operate. Green energy is electricity from renewable sources — sun, wind, water, biomass and geothermal. These renewable sources emit little pollution and, unlike nuclear production, leave no radioactive waste.

Some things you can do:

- Consider having a comprehensive audit done on your home. Make a plan of action. For more information, visit Energyupgradeca.org
- Check insulation in the attic, basement and walls annually. Note the age and condition of heating and cooling equipment, appliances, windows and water heaters.
- Wrap water heaters with insulating jackets.
- ★ Turn off lights when leaving a room.
- Set thermostats to 68°F in winter when you're home and down to 55°F when you go to bed or when you're away.
- Use energy-saving settings on washing machines, clothes dryers, dishwashers and refrigerators.
- Don't waste water, hot or cold, inside or outside your home.
- ≰ Clean your refrigerator's condenser coils once a year.
- Air-dry your clothes.
- Close heating vents in unused rooms.



- Repair leaky faucets and toilets (5% of water "use" is leakage).
- Close drapes (and windows) during sunny summer days and after sunset in the winter.
- Install water-efficient faucet heads in your kitchen and bathroom sinks.
- Install a programmable thermostat.
- In the attic and basement, plug the air leaks and replace and reputty broken window panes.
- Clean or change the air filter on your warm-air heating system during winter and on air conditioning units in the summer.
- Insulate the first three feet of hot and cold inlet water pipes.
- Buy energy-efficient appliances. Energy Star products power down when not in use.
- Recycle and choose recycled products whenever possible.

To learn more about what you can do to reduce your energy intake visit www. energysavers. gov and pin point saving opportunities in your home, vehicle, workplace and even tax credit and rebate information.

Energy Conservation (cont.)

Visit the Rocky
Mountain Institute
online at:
www.rmi.org or
www.energy
actionresources.
org

Use energy-efficient lighting such as indoor compact fluorescents, motion sensors and solar lights outdoors.

- Seal and insulate warm-air heating (or cooling) ducts.
- Have heating and cooling systems tuned up every year or two.
- Make insulating shades for windows and add insulating storm windows. In summer, shade sunny windows or add films that control solar gain.
- Insulate hot-water pipes in unheated basements or crawlspaces.
- Consider installing other energy sources such as solar panels, wind or water power.
- Rideshare or use public transportation whenever possible.
- Consider a hybrid or alternative-fuel vehicle when it's time to buy a new car.

The view of the Sierra-Nevada mountains from the Valley after rains have taken the pollution out of the air.





Conserving energy reduces pollution, preserves our natural resources and helps keep our scenic foothills and mountains beautiful.

To learn more about getting a comprehensive audit done on your home, visit Energyupgrade. org

Living With Wildlife

For more information visit the Coarsegold Resource Conservation District's web site at www.crcd.org

You can also contact the U.S.
Department of Agriculture's Wildlife Services at (301) 734-7921 or visit www.aphis.usda. gov/wildlife_damage/

Wildlife contributes to our enjoyment of nature and living in our rural area. Wildlife can also damage resources and property and may threaten human health and safety if natural balances are disrupted or animals become too accustomed to people. Here are some tips to help you enjoy living in harmony with the wildlife in our area.

- Never feed wildlife! It reduces their ability to fend for themselves, causes them to lose their natural fear of humans and leads to human/wildlife conflicts. Feeding big game mammals such as deer and bears is illegal (Barclays California Code of Regulations, Title 14, 251.3); and attracting deer and other wildlife may attract predators, including: bears, coyotes and mountain lions.
- Landscape with plants that deer don't like to eat.
- Secure garbage containers and eliminate odors. Do not put meat, fish or other pungent scraps in compost piles. Keep barbecues clean and grease-free.
- Feed pets and livestock indoors wherever possible. Store feed where it is inaccessible to wildlife.
- Don't allow pets to run free and provide secure nighttime housing for them. They may not only chase and injure, or kill wildlife, but may also become tempting food for wild predators.
- Confine livestock at night in secure areas such as barns and sheds.
- Place electric or animal-resistant fencing around fruit and vegetable gardens. Fencing, sensor lights and dogs may also deter wildlife from coming too close to your home.
- Close off access to spaces under decks and in garages, attics and sheds. Seal off or screen foundation openings, vents, doors, windows and eaves.
- Don't hike alone.

Don't leave small children unattended outside! Keep them close and in your sight. Bring them inside from dusk to dawn.

What to do if you encounter a mountain lion, bear or coyote:

- Don't approach the animal. Give it a way to escape.
- Don't run. Stand and face it, make eye contact and pick up small children so that they don't run.
- Don't bend over or turn away, even when picking up children. Bending over, turning away or crouching makes you look like prey.
- LOOK BIG! Raise your arms, open your jacket and throw stones (or whatever you can reach) without crouching.
- Wave your arms slowly and speak firmly in a loud voice.
- Bang pots or pans to make noise.
- Fight back if you are attacked.

Wild Birds

- Ouring bird-nesting season avoid distubing nesting
- Wait until fall to brush or prune trees.
- If you find a baby bird, leave it alone. The parent birds are likely nearby and will continue to care for it.



For more information contact the California Department of Fish & Game at (559) 243-4005 x132 or visit www.dfg.ca.gov

Info available from CDF&G includes:

"General
Gardeners Guide
to Preventing
Deer Damage"

"Living with California Black Bears"

"Living with California Mountain Lions"

"Living with Coyotes"

For information on rattlesnakes, visit www.dfg. ca.gov/livingwith wildlife/
Under "Living with Wildlife" click on Pest
Notes, then
Rattlesnakes.

Trash, Recycling & Composting

For information about brush disposal contact Eastern Madera County Fire Safe Council at (559) 877-3772.

Reducing the amount of trash you produce can make a big impact on your environment. Reduce, Re-use, Recycle.

Some simple things you can do are:

- Re-use grocery bags rather than taking a new one.
- Don't take unneeded napkins and utensils at restaurants. Use cloth napkins at home.
- Compost yard waste.
- Separate cans, glass, plastic and paper and take to a recycling center.

Disposing of Recyclable Solid Waste

North Fork Transfer Station, Road 274, North Fork, CA (559) 877-4226. Hours are Thursday through Monday from 8:30 a.m. to 5 p.m. sharp (must be finished by 5). Place clean and dry recyclabales in clear plastic bags (white grocery bags OK), separated by category:

- Paper and newspaper, magazines, cereal boxes (tied or in bags)
- Metal cans
- Aluminum cans
- #1 and #2 plastics no lids
- Glass no lids (seperated)
- Corrugated cardboard can be loose

Anderson Recycle Center

35442 Highway 41, Coarsegold, CA 93614 - (559) 760-5405

Recycling Center outside the North Fork Market: CRV glass, plastic and aluminum bought. Hours: 9:00-5:00 Thursday-Monday.

Emadco Disposal Service, Oakhurst, CA (559) 683-4680. Recycling is done at the Madera County landfill, which sorts out the recyclable materials.

Heartland (behind Raleys) **(559) 683-7623.** Takes aluminum, glass and plastic CRV. Also takes regular glass as a donation. Hours: 8:00-12:00, 12:30-2:30, Monday-Friday.

Disposing of Hazardous Wastes

Contact the Madera County Environmental Health Department at (559) 675-7823 for hazardous waste drop-off days throughout the county - once or twice a year.

Oil Recycling:

Eagle Lube at (559) 658-2300.

Dan's Auto Center at (559) 683-6006 in Oakhurst.

O'Reily's at (559) 642-4644.

Disposing of Brush

Because of air quality concerns, chipping is preferred to burning. Chips can be used as mulch around plants, which helps retain water, puts nutrients back into the soil and reduces soil erosion. Contact Eastern Madera County Fire Safe Council at (559) 877-3772.

Contact the Madera County Environmental Health Department at (559) 675-7823 for hazardous waste drop-off days.

Tribal Information

Resource List

To learn more about the North Fork Rancheria of Mono Indians or to visit the Mono Museum in North Fork please visit www.northfork rancheria.com or call at (559) 877-2461

To learn more about the Picayune Rancheria of the Chukchansi Indians please visit www. chukchansi.net or call at (559) 683-6633

Collaborating with Nature and Native Resources

The Chukchansi people have lived in what now is the Sierra Foothills, for more then 14,000 years. Throughout these years the Chukchansi have learned to survive with nature and to become a crucial part of the delicate world around them. Evidence of our presence in the area can still be found, granite outcrops with mortars and obsidian flakes. For hundred of years people have been fascinated by the Native lifeways and have collected baskets, tools, stories and even the remains of our elders. All can be found in repositories located all over the world. We still are here working with our native environment and other like minded people to protect, respect and nurture the way of our ancestors.

North Fork Rancheria of Mono Indians of California

Generations of North Fork Mono Indians have inhabited the central Sierra Nevada for thousands of years, living off the land, moving from place to place with the seasons and traveling and trading with other local tribes. Historical knowledge and skills continue to be passed from elders to youth, as evidenced by traditional baskets crafted by Mono weavers.

The Mono people treasure their traditions and culture and are committed to being stewards of the land. By combining science with indigenous skills the Tribe is recognized as a local leader in conservation and sound land use practices. Sacred sites and areas known to produce plants used for food, medicine and basketry are held in high regard by the Tribe. Protection of these resources is critical to the Tribe's future generations.

The North Fork Rancheria of Mono Indians of California, a federally recognized tribe, provides for the well being of its Citizens by offering services through North Fork Rancheria Government and Administrative Offices, North Fork Rancheria Indian Housing Authority, Environmental Protection Department and Temporary Assistance for Needy Families/Family Wellness Center.

A handy place for local information is in your phone book. Those responsible for issues concerning private property are State and County agencies. Look under "Government" sections for local, state and federal offices, official's names, addresses and phone numbers, area maps and zip codes. For emergencies, fire, ambulance and law enforcement call 911.

Look under "California" in the White Pages when looking for California Department of Forestry and Fire Protection or California Department of Fish and Game and under "Madera County" when looking for county resources such as the Sheriff's Department, roads, health services, libraries, etc.

A few important information resources are:

California Department of Fish and Game - www.dfg.ca.gov

California Department of Forestry and Fire Protection - www.fire.ca.gov/index.php

Madera County - www.madera-county.com Sierra National Forest - www.fs.fed.us/r5/sierra United States Environmental Protection Agency www.epa.gov

Coarsegold Resource Conservation District - www.crcd.org

USDA Natural Resources Conservation Service, Madera Service Center - (559) 674-4628

Check out the library and local book sellers for the many great guidebooks on identifying and learning about wildlife, plants and mother Earth. A good general information book is: "Sierra Nevada Natural History" by Storer and Usinger.

Community Information Et Organizations



To learn more about and become more involved in your community contact:

Yosemite Sierra Visitors Bureau – This site links you to establishments in Eastern Madera County that will allow you to get involved in the communities around you.

......www.yosemitethisyear.com

U.S. Forest Service, Sierra National Forest
Bass Lake Ranger District – for information about fire issues, weather, trails and recreation.

(559) 877-2218......www.fs.fed.us/r5/sierra

Bass Lake Chamber of Commerce (559) 642-3676 www.basslakechamber.com

North Fork Chamber of Commerce (559) 877-2410www.north-fork-chamber.com

Coarsegold Chamber of Commerce (559) 642-2262 www.coarsegoldchamber.com

Oakhurst River Parkway – A community project to clean up and create a walking trail in Oakhurst along the Fresno river, Oak and China Creeks

Fresno Flats Historical Society – An organization that preserves the historic settlement site of Oakhurst, once called Fresno Flats

(559) 683-6570 www.fresnoflatsmuseum.org

Central Sierra Watershed Committee – Promotes the quality, quantity and aesthetic values of water resources through conservation and restoration of watersheds. (559) 642-3263 www.crcd.org/wtrshed.html

Public Utility meetings – PG&E: Energy Line: (800) 933-9555. www.pge.com

Coarsegold Resource Conservation District – Promotes, protects and improves the natural resources of Eastern Madera County..... www.crcd.org

California Forest Stewardship Program – Provides technical and financial assistance to landowners who want to protect and enhance their forest lands and associated wetlands.

(800) 738-8733 www.ceres.ca.gov/foreststeward/index.html

For information on lakes, campgrounds, lodging, outdoor recreation and other activities:

- www.parks.ca.gov
- www.basslake.com
- www.historichwy49.com
- www.homesteadcottages.com
- www.millerslanding.com
- www.sierrameadows.com
- www.sugarpine.org
- www.museumsusa.org
- www.yosemitelodging.com
- www.yosemitethisyear.com
- www.yexplore.com
- www.yosemitetours.com

Special Thanks

About Vs

The Yosemite/Sequoia Resource Conservation $\mathcal E$ Development Council wishes to thank our many sponsors and partners for their generous assistance in making this publication available to you!

Special Acknowledgements go to:

Sierra Nevada Conservancy for their generous financial contribution for material development, printing and distribution.

Urban Tree Foundation for their native plants expertise.

Chowchilla Red-Top Resource Conservation District for their editorial assistance and content revisions.

Coarsegold Resource Conservation District for their editorial assistance and content revisions.

North Fork Rancheria of Mono Indians for their contributions of time and content.

Picayune Rancheria of Chukchansi Indians for their contributions of time and content.

U.S. Forest Service, High Sierra Ranger District staff for their contributions of time and technical assistance.

Khaled Alkotob, Jenny Gabor, Sierra National Forest engine 52, David Greenwood, Liana Lopez, Len Wilcox, Charles Phillips, Robyn Smith, Brian Ziegler, Joseph Fitzgerald and Kris Randal for their contributions of photographic images.

Heidi Vetter, for the contribution of her photography. (559) 683-8156www.heidivetter.com

City Press for their assistance with printing. (559) 449-1117 www.citypressfresno.com



Chowchilla Red Top Resource Conservation District

The Chowchilla Red Top RCD formerly known as the Chowchilla Soil Conservation District was formed by circulated petition in early 1956. The original district included about 19,000 acres. Since due to a strong desire of the local landowners to conserve soil and water resources, by 1978 the Chowchilla Red Top RCD grew to cover 278,731 acres. Their mission is to provide education and technical guidance in sustainable resource conservation and management to our communities and landowners and managers both current and future.

Coarsegold Resource Conservation District

The Coarsegold RCD was formed September 19, 1966. The District covers 534,380 acres in eastern Madera County, serving the communities of Bass Lake, Coarsegold, Oakhurst, O'Neals and North Fork and includes a portion of Yosemite National Park. It is their mission to promote, protect and improve the diverse natural resources of Eastern Madera County. Their goals to promote stewardship are:

- Demonstrating conservation practices with cooperative land users
- Providing information and assistance
- Educating the public in resource conservation and enhancement methods
- Providing technical, scientific and professional advice to public agencies on the social, cultural and economic impact of land use on the environs of all life forms, ownership and natural resources

About Is (cont.)

For more information about eligibility and how to apply for grants from the SNC, please visit our website at: http://www.sierranevada.ca.gov.

Sierra Nevada Conservancy

The Sierra Nevada Conservancy (SNC) is a state agency created by bi-partisan legislation and signed into law by Governor Schwarzenegger in 2004. The SNC was created with the understanding that the environmental, economic and social well-being of the Sierra Nevada and its communities are closely linked and that the Region would benefit from an organization providing a strategic direction. The SNC Region, made up of all or part of 22 counties and over 25 million acres, is one of the most significant natural and biologically diverse regions in the world. The Sierra constitutes about 25% of California's land area and is the state's principal watershed, supplying 65% of the developed water supply to residents and businesses across the state.

The Sierra Nevada Conservancy's vision for the future is: The magnificent Sierra Nevada Region enjoys outstanding environmental, economic and social health with vibrant communities and landscapes sustained for future generations.

The Sierra Nevada Conservancy initiates, encourages and supports efforts that improve the environmental, economic and social well-being of the Sierra Nevada Region, its communities and the citizens of California.

The SNC supports the Sierra Nevada Region in many tangible ways: from providing funding for local projects to offering technical assistance and other support for collaborative projects in partnership with local government, non-profit organizations and Tribal entities. Activities supported will contribute to the following program objectives:

- provide increased opportunity for tourism and recreation in the Region;
- protect, conserve and restore the Region's physical, cultural, archaeological, historical and living resources;
- aid in the preservation of working landscapes;
- reduce the risk of natural disasters, such as wildfire;

- protect and improve water and air quality;
- · assist the regional economy; and
- enhance public use and enjoyment of lands owned by the public.

Funding for the implementation of the SNC's programs is primarily provided by bond funds (Proposition 84, 2006). The SNC has been allocated a total of \$54 million of Proposition 84 funds for grant distribution and necessary administration of the grants. In its first year of grant-making (2007-08), the SNC distributed nearly \$17 million to 146 projects throughout the Sierra Nevada. The Conservancy awards grants to eligible entities supporting projects consistent with our mission and funding sources.

Yosemite/Sequoia Resource Conservation and Development Council

The Yosemite/Sequoia Resource Conservation and Development Council is a quasi-governmental non-profit organization that works on economic and natural resource projects throughout the foothill communities of Fresno, Madera, Mariposa and Tulare Counties. The Y/S RC&D Council first opened its doors in 2001 and, since that time, has administered more than a quarter million dollars in grant related projects and programs. It is our mission to promote the quality and aesthetic values of our cultural, environmental and recreations resources by improving the quality of life through sustainable, diverse economic development. Our projects and programs have focused on biomass utilization opportunities, agriculture and nature tourism efforts, community education, hazardous fuels reduction and education, supporting small businesses and reinvesting in our local economies, as well as a variety of other need-based areas. Partners and sponsors are diverse and range from Tribal Governments, Resource Conservation Districts, Fire Safe Councils, County Board of Supervisors, Community Development Councils and other environmental and community based non-profit organizations.

To contact Y/S RC&D and to learn more about our projects and programs, visit www.ysrcandd. org or call (559) 877-8663.





The Yosemite/Sequoia Resource Conservation $\mathcal B$ Development Council prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation and marital or family status. (Not all prohibited bases apply to all programs.) The Y/S RC $\mathcal B$ D Council is an equal opportunity provider and employer. The Council accepts no liability for the content of this booklet or for the consequences of any actions taken on the basis of the information provided, unless that information is subsequently confirmed in writing.