



# FORESTLAND STEWARDSHIP

WORKING TOGETHER FOR HEALTHY FORESTS

## Working to reduce the negative effects of roads

By Richard R. Harris and Peter H. Cafferata

### What is the Matter with Our Roads?

There is little debate that unsurfaced, poorly constructed roads are the primary source of sediment and water quality problems in many forested watersheds. On Timber Harvesting Plans monitored by CDF, roads and associated stream crossings have been identified as the parts of the plans with the greatest potential for sediment delivery to stream channels.

The negative effects of roads are attributed to: 1) road design and construction (surfacing, drainage and location); 2) the amount of road (usually expressed as road density [length of road/unit area]); 3) road maintenance; and 4) road use. All land uses in forested watersheds (e.g., timber management, residential use, recreation) are potentially responsible for bad roads.

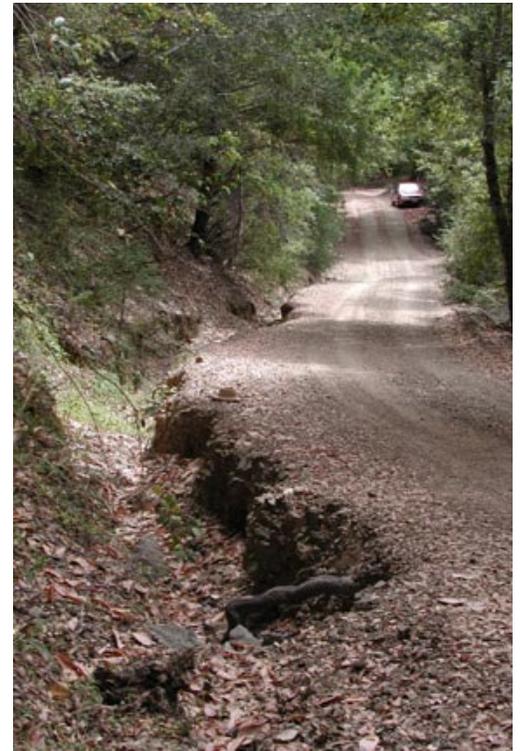
The relationship between road density and drainage density (number of streams/unit area) is used by watershed managers as an indicator of watershed condition. Many roads and many streams results in too many intersections, or crossings, between the two.

Watercourse crossings are the principal places where sediment enters streams from roads either continuously (e.g., road surface erosion) or periodically (i.e., when stream crossings catastrophically fail due to large floods). This is illustrated by studies in the Lake Tahoe basin

where watersheds with high road and drainage densities produce high levels of sediment production, and may be true throughout California.

On lands managed for timber, road density is generally higher on ownerships harvested repetitively with ground-based harvesting systems. On residential lands, road density is a function of the minimum lot size and requirements for access to individual parcels. Use of aerial harvesting systems can reduce road density on managed timberlands. Cluster development can minimize the extent of residential roads and driveways.

Road design and construction practices have significant effects on the potential for sediment production. Roads located within 200 feet of streams pose a high risk to water quality. Roads designed and constructed with an insloped



*The inboard ditch on this road is eroding.*

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surface and inboard drainage ditch generally deliver more sediment directly to stream channels than roads that are outsloped with rolling dips. Roads surfaced with rock generally produce less sediment than roads with natural soil surfaces. For example, in a recent study conducted in the central Sierra Nevada, native surface roads produced 10–50 times more sediment than comparable rocked roads.



*Rolling dips are highly effective road drainage structures.*

In some cases, roads are inherited from former uses. These “legacy” roads can present problems to the new users. For example, they may be improperly located or designed for the new use. They may also be deficient in terms of current regulatory requirements. This often occurs when properties formerly subject to timber harvest are subdivided and developed for residential uses. The road system may have been adequate for timber harvest but is inadequate for the more intensive residential uses.

New roads are not always constructed according to watershed-friendly regulatory controls. Roads constructed for harvesting timber are regulated under the California Forest Practice Act and Rules. Provisions incorporated into Timber Harvesting Plans (THPs) require specific standards for new road construction and re-construction, many of which are aimed at protecting water quality.

The situation can be different on lands used for residential or other uses. In some counties, road standards imposed by county public works departments require insloped roads with ditches that directly connect to streams. This design can actually encourage sediment production. More importantly, private roads (e.g., driveways) are commonly constructed on residential parcels with little or no regulatory control.

Road maintenance on county and private roads is also problematic. County maintenance can cause adverse impacts and may be subject

to budgetary constraints. Maintenance of private roads is variable and few residential watersheds have formal maintenance provisions. In contrast, requirements for road maintenance are incorporated into THPs. Most large timberland owners also have road maintenance programs.

Road use is another factor that affects sediment production and watershed conditions. As a general rule, roads used for timber harvesting are either restricted during the winter or must be designed to withstand wet-weather use. Roads used for residential purposes will often receive year-round traffic and may not be adequately designed to prevent erosion and sediment production. Wet weather, combined with disturbed road surfaces, often delivers sediment to streams.

### The negative effects of roads are attributed to:

- 1) road design and construction (surfacing, drainage and location);
- 2) the amount of road (usually expressed as road density [length of road/unit area]);
- 3) road maintenance; and
- 4) road use.

## Reducing the Impacts of Roads

Since roads are commonly a major cause of watershed degradation, steps have been taken to improve their design and construction through the regulation of timber harvesting. For example, to reduce the potential impacts of watercourse crossings, the California Forest Practice Rules currently specify that: 1) permanent crossings in fish bearing watercourses must allow for upstream and downstream movement of fish and listed aquatic species during any life stage; 2) constructed or reconstructed permanent watercourse crossings must accommodate the estimated 100-year flow, including debris and sediment; and 3) permanent crossings must be constructed and maintained to prevent diversion of streamflow down the road. These practices are needed to address problems such as culvert plugging, as well as to protect fish.

Road densities in areas managed for timber production can be reduced in several ways. Because the total length of roads required for ground skidding operations is typically two to three times as much as that required for harvesting using skyline cable systems, choosing less damaging cable yarding or even helicopter yarding where feasible are options for reducing road densities. Cable yarding systems also eliminate the need for high-risk roads along lower slopes adjacent to streams. Additionally, average road width can be reduced to the minimum required for safety and equipment passage, and construction on steeper slopes can be minimized through the use of full bench roads. Adequate transportation planning is the critical first step for addressing these concerns and, ultimately, minimizing or reducing road densities.

Some efforts have also been made to reduce the impacts of rural residential roads. For example, the Five County Salmon Conservation Program, which covers the northern coastal counties, has spearheaded efforts to improve the quality of county-maintained road systems. This has included complete assessments of future sediment delivery, the development of prioritized plans for thousands of sediment prevention projects, and the identification and elimination of barriers to fish passage. Some coastal counties have increased regulatory controls over rural road construction, primarily through the development and enforcement of grading ordinances. These efforts do not address the many miles of private road on subdivided land or the

huge legacy of old, substandard roads on private forested land.

## Road Upgrading and Decommissioning to Reduce Water Quality Impacts

The identification and treatment of “problem roads” has become big business in coastal California. Literally millions of dollars of public and private money are expended every year on upgrading or “decommissioning” (i.e., closing or removing) problem roads and stream crossings.

Much of this activity has occurred on industrial timberland. All major timber companies in California fund in-house road upgrading and decommissioning programs. For example, Pacific Lumber Company (PALCO) annually “storm-proofs” about 75 miles of sub-standard road per year at a cost of \$35,000-40,000 per mile and the company has permanently closed or decommissioned 38 miles of road. All of this has been done at company expense. Roughly 80 miles of road have been decommissioned on land owned by Green Diamond (formerly Simpson) Resource Company, Hawthorne Timber Company and Mendocino Redwood Company, with matching funds from the coastal Fisheries Restoration Grant Program (FRGP) administered by the California Department of Fish and Game. An unknown but potentially substantial amount of road upgrading and decommissioning has been done at private expense on industrial timberland in other regions of California, such as the Sierra Nevada.

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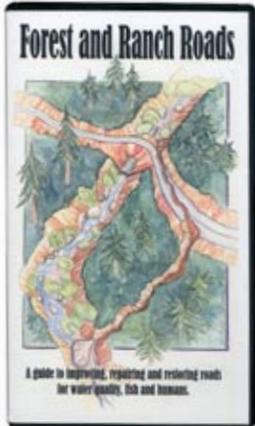
*Road design and construction practices have significant effects on the potential for sediment production. Roads located within 200 feet of streams pose a high risk to water quality.*

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*In a recent study conducted in the central Sierra Nevada, native surface roads produced 10-50 times more sediment than comparable rocked roads.*



## Must-have video for forest roads work



The *Forest and Ranch Roads* video is available for \$15 (plus tax and shipping) from the Mendocino County Resource Conservation District, 405 S Orchard Ave, Ukiah, CA 95482. (707) 468-9223.

The authors of the *Handbook for Forest and Ranch Roads* have done it again. A companion video, *Forest and Ranch Roads: A Guide to Improving, Repairing and Restoring Roads for Water Quality, Fish and Humans*, illustrates many of the concepts and techniques described in the *Handbook*. Both are indispensable resources for anyone with forest roads on their property.

The goals of the video are ambitious...to help landowners

- Make roads safer and more reliable in all kinds of weather
- Maintain downstream water quality by avoiding excessive erosion caused by the road
- Reduce road maintenance costs

- Avoid litigations as a result of excessive erosion such as violations of the Clean Water Act, or property damage to downhill or downstream neighbors
- Create roads that will have low impact and low cost in the future

Roads are a new and unnatural feature of our watersheds. They cut across the landscape and alter natural drainage networks. This can result in erosion, which in turn can cause excess sediment to enter streams, endangering the aquatic life that lives there.

The video suggests you survey your roads to look for problems, then select techniques based

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### Negative effects of roads *(continued from previous page)*

Road upgrading and decommissioning is also occurring on public land and on land used for residential uses. As of 2003, at least 200 miles of road had been upgraded and 10 miles of road decommissioned in rural subdivisions on the coast using FRGP funds. On public lands, the Forest Service, National Park Service, Bureau of Land Management and California State Parks have been very active, primarily in the decommissioning of old logging roads. For example, since 1978, 230 miles of former logging road, including 990 stream crossings, have been decommissioned in Redwood National Park. The BLM decommissioning program has focused on lands in the Sinkyone Wilderness, the Mattole River watershed, the South Fork Eel River basin, and the Headwaters Forest Reserve. Since 1995, the BLM has decommissioned approximately 35 miles of former logging roads.

### Conclusions

Road density, design, location, construction, maintenance, and use all determine the degree to which forested watershed conditions, streams, and in-stream habitats may be affected by land uses. Although historically the effects of roads used for timber management and harvesting were the main cause of adverse impacts, that may be changing. Timber management uses on relatively large parcels are controlled or restricted to reduce impacts of roads. Large timberland owners are reducing road densities by decommissioning, upgrading remaining roads,

and using designs that are more watershed-friendly.

When large parcels are subdivided for other uses such as residential development, road densities are likely to increase due to the need to provide access to all parcels. Upgrading or decommissioning may become more difficult because of the need to coordinate with many owners, and road designs may not be subject to a level of regulatory control equivalent to that required by the California Forest Practices Act.

Some of the issues related to roads on rural residential parcels can be addressed in part through education and cost-sharing grant programs. UC Cooperative Extension and other organizations have conducted road management workshops throughout the state for landowners. Follow-through may not occur, however, because of landowner willingness and finances. The landowners who are taking actions to improve their roads are generally those in watersheds with active watershed groups or Resource Conservation Districts. There are many other watersheds where such organizations do not exist.

As the California forested landscape continues to transform from predominantly resource uses on large land ownerships to more residential uses on small parcels, there will be a need to control the impacts of additional roads on watershed conditions. At stake is the quality of our streams and rivers and the life they support.

on individual site conditions and the type of use expected for the road. The shape of the road should vary along its length based on the drainage system and safety concerns. As you walk along the road, write your ideas on flagging and tie it on site. Then build a map with your plans. Plans should be checked by a qualified professional. Free advice is available from NRCS (Natural Resource Conservation District).

The goal of a good road is to make it invisible to the watershed's drainage pattern. With knowledge and planning, roads can be built to incorporate the natural drainage system. Water is moved off the road as quickly as possible to minimize erosion, safety problems, and adverse effects on fish and other wildlife.

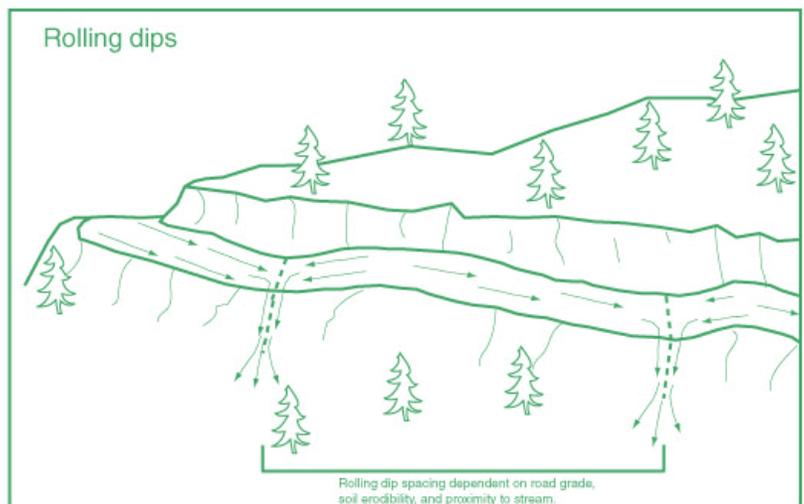
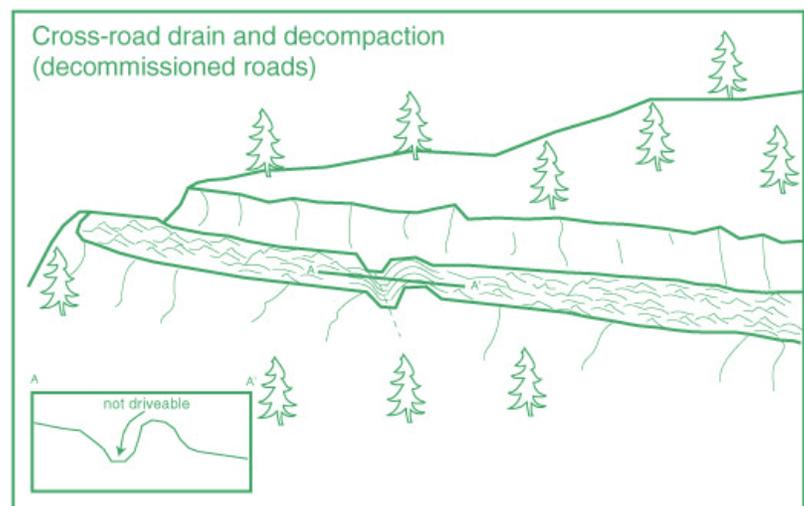
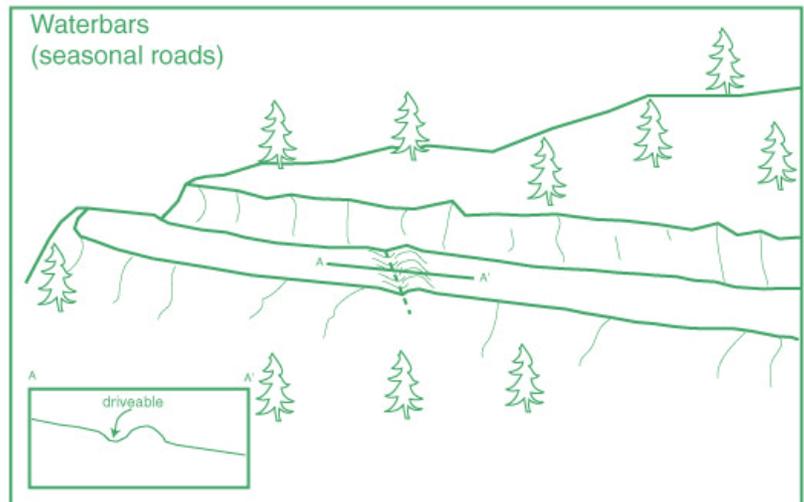
There are four processes that need to be controlled: surface erosion, gully erosion, channel erosion, and mass erosion. The video shows warning signs to help you identify present or future problems. It then discusses a variety of solutions to these problems.

The construction techniques covered in the video include a) shaping the road surface, b) drainage structures, and c) stream crossings. There are in-depth discussions with demonstrations of sloping, rolling dips, ditch relief culverts, bridges, culverts, rock armored fill crossings, and other ways to reduce controllable erosion from roads.

Like the *Handbook for Forest and Ranch Roads*, the *Forest and Ranch Roads* video is friendly and relatively easy to follow. Both offer a wealth of technical information to help forest landowners plan, design, construct, reconstruct, maintain, and close their roads. The video covers a lot of ground—vocabulary and basic concepts are presented rapidly—but you can always push the rewind button to go back and catch anything you missed.

Ideally, the video and handbook should be used together. The hour-long video gives a good introduction to the effects of roads in the watershed and describes various problems and solutions. The handbook goes into greater technical detail in all areas and is usually read in sections.

*The Forest and Ranch Roads video is available for \$15 (plus tax and shipping) from the Mendocino County Resource Conservation District, 405 S Orchard Ave, Ukiah, CA 95482; (707) 468-9223 or [www.mrcd.ca.nacdn.org](http://www.mrcd.ca.nacdn.org). It can also be found online at [http://www.krisweb.com/biblio/gen\\_mrcd\\_weaveretal\\_1994\\_handbook.pdf](http://www.krisweb.com/biblio/gen_mrcd_weaveretal_1994_handbook.pdf).*



*Techniques for dispersing road runoff.*

*From California Salmonid Stream Habitat Restoration Manual, Part X—Upslope Assessment and Restoration Practices*  
<http://www.dfg.ca.gov/nafwb/manual.html>

## Seasonal Stewardship

# After planting: what next?

*The goal of post-planting activities is to help the seedlings become established and able to dominate the site without external care.*

The first few years of a seedling's life are fraught with danger. It can burn, freeze, drown, or suffer from too little (or too much) light, water, or nutrients. It can be nibbled, consumed, or trampled upon. After all the effort and expense of planting, it's certainly worth your while to do all you can to ensure your seedlings are healthy and survive.

The goal of post-planting activities is to help seedlings reach the stage where they are able to dominate the site without external care.

Seedling growth is slow for the first couple of years while their root systems become established. During this period, other species can grow more rapidly and aggressively. Undesired trees, shrubs, forbs (broadleaf plants without woody stems), and grasses can compete for limited nutrients and water. Those able to gain height quickly may overtop and shade seedlings.

### Take a Walk through Your Stand

The secret to successful maintenance of seedlings is regular monitoring. That way you can find and mitigate any problems before they cause too much damage.

Check your newly planted seedlings at least once a year, preferably twice, during the first few years. It is best to inspect in the winter when it's easiest to see the condition of the seedlings, and then again in the summer when competing vegetation is fully leafed out and visible.

Take a systematic walk through the stand and note your observations on a map.

- Check the general condition of the planted seedlings. If foliage is sparse or color is bad,

there may be a problem. Healthy foliage is essential for growth—that is where the plant's food is manufactured through photosynthesis.

- Survey the surrounding vegetation to see whether there is danger from other plants overtopping or crowding the seedlings.
- Look for signs of physical damage by animals—deer, rabbits, cattle, and other varmints.
- Note any damage from insects or disease.
- Make sure all physical barriers, such as fences or tubes, are intact and effective.
- Ensure that drainage structures are in good shape to avoid standing water.
- Make sure that the sunlight is not too intense. Sun shades are available to avoid sunburn.
- Determine the fire risk to your stand. Clear fire lines and take precautions as needed.

### Some Solutions to Animal Pests

If animals are a problem, there are numerous solutions available including fences, tubes, repellents, baiting, trapping, and other creative approaches. First of all, determine which animals are doing the damage. Then find solutions that are effective for the specific pest(s).

There are a number of protective barriers and devices that can exclude or deter animals. Fences can protect against trampling by cattle and many other plant predators. However, fences are expensive. Vexar tubes and other similar protective devices are another way to exclude animal damage.

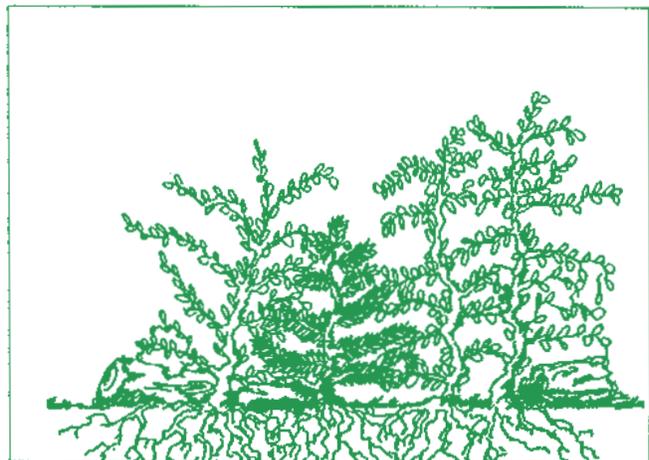
In some cases you may choose to modify the

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From *The Woodland Workbook* by Oregon State University Extension Service.



*Shrubs overtopping a seedling.*



*Shrubs crowding a seedling.*

habitat. Remove brush piles or other vegetation that provides shelter or food for pest species.

Providing an alternative food source can sometimes reduce animal damage. If a more preferred species is available, hungry animals may choose that instead of your seedlings.

### Competitive Release

You can give your seedlings a competitive advantage by controlling nearby vegetation, a practice known as release. In California, where water is often a limiting resource, this can mean the difference between survival or not.

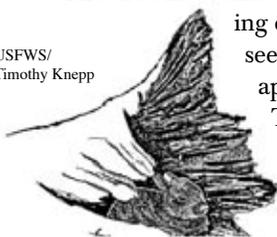
However, you don't want to waste money by overtreating. The objective is to control competing vegetation until the seedlings are able to grow on their own. It is not necessary to eradicate all vegetation in the area.

You may want to consider release treatments if you observe any of the following:

- Undesired vegetation is taller than the seedlings and the shade it creates is reducing growth.
- The crowns of undesired vegetation are touching or crowding the planted seedlings, causing foliage to appear sparse or unhealthy.

This usually indicates the seedling is losing the competitive struggle for sunlight, moisture,

USFWS/  
Timothy Knepp



nutrients, or shade.

- Dense grasses or forbs are creating a favorable habitat for animals that feed on seedlings.

Contact a licensed Pest Control Advisor (PCA) for specific recommendations of products to use, concentrations and time of application.

### Control Methods

Competitive release is usually accomplished using either manual or chemical methods. Mulching and grazing are also used in some circumstances. Each method has its pros and cons.

Manual control can include cutting, chopping, pulling, hoeing, etc. using any of a variety of tools and equipment. Grasses and forbs should be cleared from at least a 3 x 3 foot area around seedlings. Manual control should be used in environmentally sensitive areas.

Chemical control is often less expensive than manual, but involves important environmental and health considerations. Be certain that the chemical you are using is appropriate for the species you are trying to control and will not harm desired species. Apply at the correct time of year and according to instructions. Follow all safety precautions. Certain chemicals can only be applied by licensed applicators.

Your newly planted trees need all the help they can get during their first few growing years. Careful vigilance and thoughtful solutions can give your seedlings a good start in life.

### Use herbicides safely!

- Wear protective clothing and safety devices as recommended on the label. Bathe or shower after each use.
- Read the herbicide label—even if you've used it before. Follow instructions closely.
- Be cautious when you apply herbicides. Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from herbicide use.

## Practice good hygiene when feeding birds

Bird feeders benefit both birds and people. The birds get energy they need, and people get the pleasure of watching the birds. However, there is a potential down side. Bird feeders may increase the possibility of transmitted diseases. If you choose to feed the birds, it is your responsibility to do what you can to keep your feathered guests healthy and well.

Birds suffer from a number of common infectious diseases caused by bacteria, viruses, fungal spores, and parasites. These are more likely spread in crowded conditions. Setting up numerous feeders can help reduce crowding.

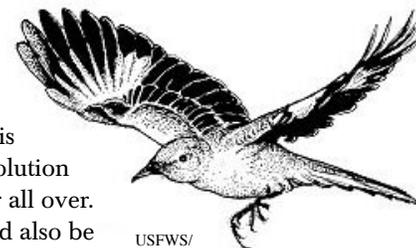
Good hygiene is the key to avoiding disease. Clean and disinfect your bird feeder whenever you refill it, at least once a week. Make up a 10% solution (one part bleach and nine parts water) of liquid household bleach; the solution needs to be made up fresh each time as it loses

its strength after 24 hours. Soak the feeder for 10 minutes in the solution, give it a good scrub with soap, then rinse and dry thoroughly. If the feeder is too large to soak, put the disinfectant solution into a spray bottle and spray the feeder all over.

Nectar feeders and bird baths should also be thoroughly cleaned and bleached once a week. Refill bird baths with fresh water daily.

Clean the area around the feeder as well. Birds are messy eaters and leave wasted food and droppings on the ground. Use a broom, shovel, or vacuum cleaner, then hose down the area well. Disinfect if possible.

Keep bird food fresh and dry. Store it in rodent and water proof containers in a cool area. Throw food away if it smells musty, looks moldy, or has fungus on it. Clean any containers or scoops that have held spoiled food.



USFWS/  
Bob Savannah

# State of the forest industry in CA

*Less than one third of the lumber used in California comes from here in the state.*

The forest industry in California today is far different from that of even a decade or two ago. It faces a large number of complex challenges—environmental, social, political, and economic—that continue to reshape the industry as well as the forest landscape. These include

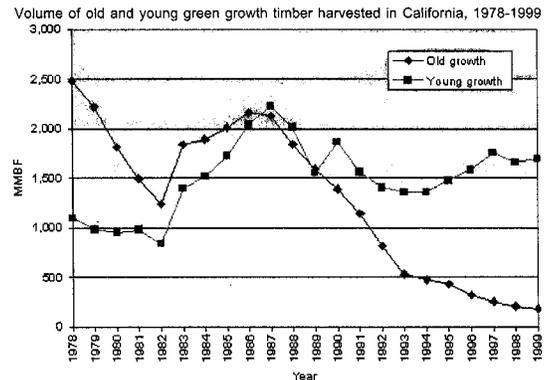
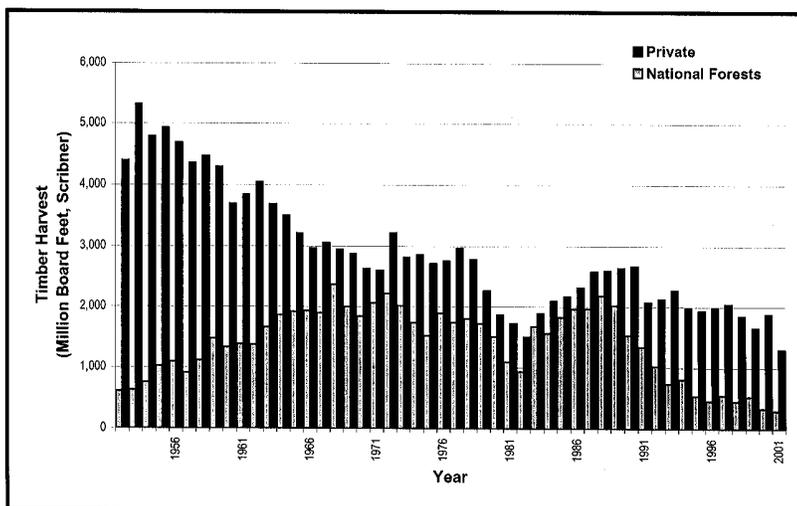
- environmental factors such as fire, disease, and climate change
- loss and fragmentation of forestland, largely due to pressures from an increasing state population
- decreasing number of sawmills
- increasing involvement in forestry issues by the public
- government environmental regulations
- new technologies
- global market conditions, with competitors from other parts of the US as well as international markets.

This article covers some of the interconnected issues that affect the forest industry. There are no answers here, but some background on the situation is a good place to start.

## Timber Harvest

The California timber harvest was 2,250 million board feet (MMBF) in 2000, less than 68 percent of the average annual harvest for the past 20 years. The 2001 harvest was 2,180 MMBF. These declines are largely due to reductions in national forest harvest levels since the late 1980s. Timber supplies have increasingly

*Timber harvest has decreased on public lands.*



come from privately owned lands. However, government regulations and market prices have caused decreases in timber from privately owned lands as well.

In the last two decades, timber harvesting in California has moved from old growth to almost entirely young growth. To accommodate this change, sawmills made the transition to smaller diameter logs.

## Lumber

Lumber consumption drives the market. Consumption peaked in the late 1980s, dropped during the early 1990s, and has increased in recent years. Future consumption of lumber depends in large part on the demand for housing, including renovation and remodeling. This in turn depends on interest rates and the economy. In addition, there are alternative materials on the market, such as steel and plastic, that compete with wood in the building industry.

Less than one third of the lumber used in California comes from here in the state. California is a net importer of lumber, most of which come from other states and Canada. Oregon is the largest supplier of our lumber imports. California exports lumber primarily to other western states.

Stumpage price is the value of a tree before it is harvested. This price depends on many factors, including harvest location, logging costs, transportation costs, and log prices offered by mills. Average stumpage value grew from 1978, peaked in the early 1990s, declined, and then rose again in 2000. Lumber prices peaked from 1992 to 1995 and have shown a downward trend since then.

## Fewer sawmills

The number of sawmills in California has dropped in the last decade. However, due to improved technology and operations, mills are now able to recover twice as much wood from a single log as they could in 1970.

California sawmills produced 3,100 MMBF of lumber in 2000, just under 9 percent of U.S. production of softwood lumber and nearly 6 percent of U.S. consumption. Production dropped to 2,700 MMBF in 2001, still ranking third in U.S. softwood lumber production.

## Forest product producers

In 2000, there were 93 primary forest products plants in California that processed timber into products such as lumber, as well as facilities that use the wood fiber residue directly from timber processors. These included 47 sawmills, 25 bioenergy plants, 10 bark/mulch plants, 5 reconstituted board plants, 2 veneer plants, 2 pulp/paper mills, and 2 manufacturers of other primary wood products.

Total sales for California's primary forest products were about \$2.3 billion in 2000, with lumber accounting for 65 percent. Most of these products (62%) were sold in California; other western states received most of the exports.

## Employment

Approximately 112,700 workers, earning \$4.5 billion annually, are employed in the primary and secondary wood and paper products industry in California.

While the forest industry still plays a major role in the economic well-being of many rural areas in California, the economies of many of these areas have diversified. Recreation and tourism now are important sources of revenue, though significantly less than the forest industry historically provided.

## The global marketplace

California now operates in a global market, competing against other countries, many with lower labor costs and few environmental constraints. There is currently an oversupply of cheap lumber on the world market.

While some believe that California's rigorous environmental regulations put the state's forest industry at a disadvantage, others are trying to use these high standards for a competitive advantage. If consumer demand for environmentally sustainable lumber increases, and it

has the infrastructure, California could be well positioned to take advantage of global environmental concerns.

## The future of the industry

The future of the industry is unclear. The predicted log supply does not look promising for keeping manufacturing facilities economically healthy, especially from the north central part of the state southward. Processing facilities are vital to managing our forests. Drought, insect attack, and fire are a natural part of California forests, but when they result in widespread safety and health concerns, salvage operations must occur. Without mills in an area, the associated industry professionals don't reside in sufficient numbers to handle the need to remove the fuel. This is has never been more evident than in Southern California where millions of board feet of timber have died in the last few years. The problem has become so acute that counties are bringing in loggers and foresters from all over the country to help, many totally unfamiliar with California's Forest Practice Rules. Without processing plants, wood from mature pines were burned in large incinerators or placed in landfills. While some of the wood is being hauled to the north, this is often not economical due to today's higher fuel costs.

The State and federal government are providing millions of dollars in the Sierra to reduce fuels. Where will this material go? Who will remove it? There are not enough taxpayer dollars to ever begin to pay for the monumental task of bringing millions of acres of forested watersheds back under management. Merchantable trees removed as a part of fuels reduction would help offset costs as well as provide much-needed building materials for a state with a burgeoning population.

## Conclusion

The state of the forest industry in California is exceedingly complex. Solutions to the challenges and problems facing our forests will not be easy; it will require communication and creative solutions. Landowners should stay informed and get involved with the issues. Going back to a simpler age is not an option.

*—much of this information came from The Changing California Forest and Range 2003 Assessment, available at <http://www.frap.cdf.ca.gov/assessment2003>. The future of the industry analysis was provided by Jeff Calvert, RPF.*

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*California operates in a global market, competing against other countries, many with lower labor costs and few environmental constraints.*

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## Resources

# Everything you ever wanted to know about timber taxes...and then some

Sometimes you come across a resource that is so good it answers all your questions and then clarifies things you never thought to ask. The National Timber Tax website is one of those resources. You could spend weeks going through its pages.

The website points out that very few sections of the Internal Revenue Code are written specifically for timber and, therefore, there is considerable interpretation involved in its tax treatment. This website was developed for anyone trying to make sense of it all—forest landowners as well as professionals—accountants, attorneys, foresters, and others.

Start with the home page where there is information on tax law changes. Then go down the page to choose from numerous other options: general information, tax strategies, state resources, tax research, estate laws, and extras. Within each of these sections is a great wealth of information.

For example, are you unsure about the appropriate classification for your forestland? Answer a series of questions and the website will

help you determine whether your land should be classified as a hobby, investment, or business. Learn about recordkeeping, a critical part of any business. The website even offers a section where you can set up an account to keep track of your personal timber transactions. A sample journal shows how easy it is.

If you want to do sophisticated research, the tools are all there. After an introduction to timber tax research, choose from the Internal Revenue Code, court cases, ruling, regulations, and other light reading. Of course, all the forms and publications you need are available for the downloading.

Each year, Larry Bishop, a forest management and taxation specialist with the Forest Service, provides “Tax Tips for Forest Landowners.” These tips include discussion of any important changes in the tax law and provide background information and suggestions. The current 2004 tax tips are now available.

The National Timber Tax website is at <http://www.timbertax.org>. Site provided by Purdue University and the USDA Forest Service.

*Check out the National Timber Tax website at [www.timbertax.org](http://www.timbertax.org) well before April 15. “Tax Tips for Forest Landowners for the 2004 Tax Year” is now available at the site.*

## Technical Assistance

*Many agencies are available to provide technical assistance, referrals, information, education, land management plan assistance, and advice.*

**California Stewardship Helpline**  
1-800-738-TREE; [ncsaf@mcn.org](mailto:ncsaf@mcn.org)

**California Department of Forestry & Fire Protection**

Forest Landowner Assistance Programs  
Jeffrey Calvert  
(916) 653-8286; [jeff.calvert@fire.ca.gov](mailto:jeff.calvert@fire.ca.gov)

**Forestry Assistance Specialists**

Jill Butler (Santa Rosa)  
(707) 576-2935; [jill.butler@fire.ca.gov](mailto:jill.butler@fire.ca.gov)

Jim Robbins (Fortuna)  
(707) 726-1258; [james.robbs@fire.ca.gov](mailto:james.robbs@fire.ca.gov)

Adam Wyman (Red Bluff)  
(530) 528-5116; [adam.wyman@fire.ca.gov](mailto:adam.wyman@fire.ca.gov)

**California Association of RCDs**

(916) 447-7237  
[staff@carcd.org](mailto:staff@carcd.org)

**California Dept of Fish & Game**

Marty Berbach  
(916) 327-8839; [mberbach@dfg.ca.gov](mailto:mberbach@dfg.ca.gov)

**California Resources Agency:**

California Environmental Resources Evaluation System (CERES)

Deanne DiPietro  
(916) 653-8614; [deanne@ceres.ca.gov](mailto:deanne@ceres.ca.gov)

**Farm Service Agency**

Larry Plumb  
(530) 792-5520

**Natural Resources Conservation Service**

Jerry Reioux  
(530) 792-5655; [jerry.reioux@ca.usda.gov](mailto:jerry.reioux@ca.usda.gov)

**U.C. Cooperative Extension Forestry**

Richard Harris  
(510) 642-2360; [rrharris@nature.berkeley.edu](mailto:rrharris@nature.berkeley.edu)

Gary Nakamura  
(530) 224-4902; [gmnakamura@ucdavis.edu](mailto:gmnakamura@ucdavis.edu)

**USDA Forest Service**

Sandra Stone  
(707) 562-8918; [sstone01@fs.fed.us](mailto:sstone01@fs.fed.us)

## Calendar

### February 22–23, 2005

#### Two Forestry Legal Seminars: Access, Easements, Rights-of-Way & Timber Trespass; Forestry Contracts

Location: Medford, OR  
 Sponsor: Western Forestry and Conservation Assn.  
 Contact: 503-226-4562 [aimée@westernforestry.org](mailto:aimée@westernforestry.org)  
 Cost: \$125 for one day or \$199 for both days; late fees after 2/17/05  
 Notes: [www.westernforestry.org](http://www.westernforestry.org)

### February 23–24, 2005

#### Rangeland Water Quality Conference

Location: Woodland, CA  
 Sponsors: UC DANR, USDA FS Region 5, BLM, NRCS, Soc. For Range Mgmt. CA Pacific Section  
 Contact: Sherry Cooper 530-224-4902  
[slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu)  
 Cost: \$125; add \$50 after 2/1/05  
 Notes: <http://nature.berkeley.edu/forestry/rangelandwq/>

### February 27–March 2, 2005

#### Forest Products Management Development

Location: Corvallis, OR  
 Sponsor: Oregon State University  
 Contact: Conference Assistant 541-737-2329  
[forestry.outreach.education@oregonstate.edu](mailto:forestry.outreach.education@oregonstate.edu)  
 Cost: \$1,599  
 Notes: <http://outreach.cof.orst.edu/fpmgt/>

### March 3, 2005

#### CLFA Spring Workshop

Location: Sacramento, CA  
 Sponsor: California Licensed Foresters Assn.  
 Contact: Hazel Jackson 209-293-7323, fax 209-293-7544  
[clfa@volcano.net](mailto:clfa@volcano.net)  
 Cost: \$150-\$200  
 Notes: <http://www.clfa.org/>

### March 4–5, 2005

#### CLFA Annual Conference

Location: Sacramento, CA  
 Sponsor: California Licensed Foresters Assn.  
 Contact: Hazel Jackson 209-293-7323, fax 209-293-7544  
[clfa@volcano.net](mailto:clfa@volcano.net)  
 Cost: \$150-\$200  
 Notes: <http://www.clfa.org/>

### April 19–20, 2005

#### Science and the Northwest Forest Plan: Knowledge Gained Over a Decade

Location: Portland, OR  
 Sponsor: Oregon State University  
 Contact: Conference Assistant 541-737-2329  
[forestry.outreach.education@oregonstate.edu](mailto:forestry.outreach.education@oregonstate.edu)  
 Cost: \$150  
 Notes: <http://outreach.cof.orst.edu/nwforestplan/index.php>

### April 21, 2005

#### Annual Beef & Range Field Day

Location: Browns Valley, CA  
 Sponsor: UC Sierra Foothill Research & Extension Station  
 Contact: Chris Feddersen 530-639-8800  
[cafeddersen@ucdavis.edu](mailto:cafeddersen@ucdavis.edu)  
 Cost: TBA  
 Notes: [http://danrrec.ucdavis.edu/sierra\\_foothill/events.html](http://danrrec.ucdavis.edu/sierra_foothill/events.html)

### April 26, 2005

#### Conference on Water Quality Conference II: Turbidity and Suspended Sediment Sampling

Location: Redding, CA  
 Sponsors: CDF, UCCE & Sierra Pacific Industries  
 Contact: Sherry Cooper 530-224-4902  
[slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu)  
 Cost: TBA  
 Notes: <http://groups.ucanr.org/forest/>

### May 9–10, 2005

#### Selling Forest Products

Location: Corvallis, OR  
 Sponsor: Oregon State University  
 Contact: Conference Assistant 541-737-2329  
[forestry.outreach.education@oregonstate.edu](mailto:forestry.outreach.education@oregonstate.edu)  
 Cost: \$450  
 Notes: <http://outreach.cof.orst.edu/sellingfp/>

### May 11–13, 2005

#### 2005 California Plant and Soil Conference

Location: Troutdale, OR  
 Sponsor: USDA FS  
 Cost: TBA  
 Notes: <http://www.fs.fed.us/pnw/calendar/tech-transfer/index.shtml>

### May 23–24, 2005

#### New Visions for the Future of California Forests: Strategies to End Forest Loss

Location: Sacramento, CA  
 Sponsors: The Pacific Forest Trust & UC Berkeley  
 Contact: Sherry Cooper 530-224-4902  
[slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu)  
 Cost: TBA  
 Notes: <http://nature.berkeley.edu/forestry/forestfuture/>

### June 17–18, 2005

#### Forest Stewardship Workshop for Forestland Owners

Location: Placerville, CA  
 Sponsors: NRCS, El Dorado & Georgetown Divide RCDs, UC Cooperative Extension  
 Contact: Sherry Cooper 530-224-4902  
[slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu)  
 Cost: TBA  
 Notes: <http://groups.ucanr.org/forest/>

## Save a tree & other benefits

If you choose to receive the internet edition of *Forestland Steward*, the newsletter will come to your email address approximately two weeks before the hard copy...and with photos in color. You are welcome to receive both versions. Send an email to [jeff.calvert@fire.ca.gov](mailto:jeff.calvert@fire.ca.gov) or fill out the coupon on page 12.

*For more information on these events call the number provided or the Forest Stewardship Helpline, 1-800-738-TREE.*

*To submit an event, contact Sherry Cooper, 530-224-4902; [slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu)*

## Sierra Nevada

# New conservancy to help provide funds for Sierra Nevada projects

## What is a conservancy?

*A conservancy is a state agency that is designed to focus policy support and funding for efforts to protect and restore natural resources within a particular region of the state. The Sierra Conservancy has no authority of eminent domain or land ownership.*

The Sierra Nevada now has a new mechanism to channel money into resource, recreation, and economic preservation efforts. The Sierra Nevada Conservancy, which was signed into law on September 23, was created to undertake projects and make grants and loans to public agencies, nonprofit organizations, and tribal organizations in the Sierra Nevada region.

The Sierra Nevada Conservancy is the ninth conservancy in California. It covers a large and diverse area that includes 25 million acres over 22 counties—Alpine, Amador, Butte, Calaveras, El Dorado, Fresno, Inyo, Kern, Lassen, Madera, Mariposa, Modoc, Mono, Nevada, Placer, Plumas, Shasta, Sierra, Tehama, Tulare, Tuolumne, and Yuba.

Projects to be funded include efforts to increase tourism and recreations; cultural, archaeological, and historical resource protection; risk reduction from natural disasters such as wildfire; water quality protection; and local economic assistance. Unlike other conservancies, the Sierra Conservancy is not able to own land, but it can give grants to land trusts and state agencies to purchase important properties.

Sierra Nevada Conservancy Service Area



The Sierra Nevada mountain range is one of the most biologically diverse areas in the state with 50% of the plants, reptile, and amphibian species in the state, as well as 66% of the bird and mammal species. The region provides 60% of the state's water supply and almost 50% of its annual timber supply. More than 50 million recreational visits are made each year.

Despite its importance to the state, from 1996 to 2001, the Sierra Nevada received only 1 percent of the state's conservation funding. The new conservancy can help direct more of state monies to the region.

The California Resources Agency administers the Sierra Nevada Conservancy. Local government has a stronger role in this conservancy than others in the state. A strategic program planning process involving public outreach must be repeated at least every five years.

The Sierra Conservancy's Board of Directors will consist of 13 members—six county supervisors from the 22 counties, five members appointed by the governor, and two by the State Legislature. The Board could be chosen by February and an Executive Director in place by April. The first year is expected to focus on public outreach to the local communities in order to establish priorities.

## How can the *Forestland Steward* newsletter serve you?

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Send to CDF, Forestry Assistance, P.O. Box 944246, Sacramento, CA 94244-2460.  
Phone: (916) 653-8286; Fax: (916) 653-8957; email: jeff.calvert@fire.ca.gov