

CALIFORNIA FORESTS

THE MAGIC OF THE FOREST

There is something enchanting about The Forest — something that strikes a responsive chord within every human being. It is not the physical beauty of forested land which creates this enchantment, though the splendor of The Forest fills us with reverence and awe.



Perhaps we are enchanted with The Forest because we see it as a Provider. The Forest gives of itself.

It cleanses the air of greenhouse gasses and releases oxygen into our atmosphere.

It supplies shelter and forage for a multitude of animals, and offers spiritual and recreational opportunities to human visitors. And The Forest can be relied upon as a source for the natural wood products needed by families near and far.



Or perhaps we are enchanted with The Forest because we see in it the enviable ability to renew itself.

Left alone, The Forest evolves. When wisely used, The Forest regenerates. And when replanted, nurtured, and protected, The Forest becomes more vital, more robust, and more giving.



We also see in The Forest a life cycle very much like that of our own families. At any given time, The Forest is populated with trees of all ages — youngsters, adults, adolescents, and elders. And, as is also the case in our own lives, these “family members” are experiencing differing states of health. Some are vigorously growing, others are stagnant, and some are dying. We understand that individual trees cannot live forever. Yet we know and are reassured that The Forest, like our families, will continue generation into generation.



Perhaps what enchants us most about The Forest is that in it we see a reflection of our own eternal nature.

THE FOREST CYCLE

THE "BIOLOGICAL CLOCK" OF CALIFORNIA'S FORESTS IS REMARKABLY SIMILAR TO OUR OWN.

SPANNING A PERIOD OF ROUGHLY SEVENTY YEARS, THE LIFE CYCLE OF FOREST TREES IS COMPRISED OF
A NUMBER OF DISTINCT PHASES OF GROWTH, MATURATION, AND DECLINE.

4. Forestry professionals continue to care for the established forest. Foresters prescribe corrective measures for the control of disease and insect infestation. Forestry crews also build trails and roads to provide access for fire fighters.

5. The mature forest offers California families a wealth of resources and experiences. In addition to camping, fishing, hiking, and other recreational pursuits, the forest provides a watershed that benefits urban and rural Californians alike. Sustained-growth forests also provide paper, lumber, and other natural wood products that California's environmentally-aware families want and need.

3. The adolescent forest is a haven for wildlife large and small. Light filtering through the young tree canopy stimulates the growth of weeds and brush — ideal forage for small animals. Part of the natural food chain, these small animals are in turn hunted by predatory birds and mammals.

2. Properly cared for and watched over, saplings grow vigorously. They also help refresh our atmosphere. These young, healthy trees consume more greenhouse gasses and release more oxygen, by volume, than their adult counterparts.

1. As seedlings, these young members of the forest family are highly susceptible to injury from animals, insects, drought and competition from other vegetation. The care and nurturing touch of California forestry professionals help ensure the seedlings' survival.



CALIFORNIA FORESTRY:

Protecting and Enhancing the Life Cycle of the Forest

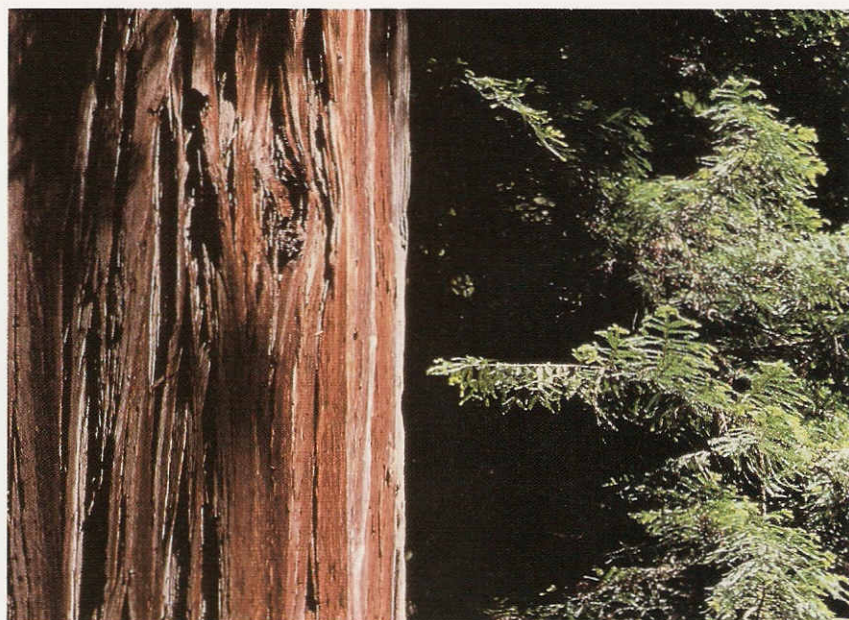
California leads the nation in its efforts to ensure the continuation of its forest resources. And California's forestry professionals have done more than any other segment of the population to protect and enhance the life cycle of the forest.

Forests cover 32 percent of California's nearly 101 million acres. About half of California's forests grow on land owned by the federal government, and roughly 45 percent of California's forests grow on privately owned land.

The state has divided its forested land into two categories: "productive" and "non-productive." "Productive" forests are those areas capable of producing 20 cubic feet of usable wood per acre every year without depleting the forest resource. About half of California's forests — some 16 million acres — have been classified as "productive," but that does not mean they are all actually used by forest resource companies. For example, two million acres of "productive" forestland, an area roughly equal to the size of the states of Delaware and Rhode Island combined, has been permanently set aside for wilderness areas and public parks. Another 8 million acres is owned and managed by the US Forest Service, offering multiple uses in the form of recreation, wildlife habitat, and wood products for homes and families.

Stringent Protection

The balance of California's "productive" forests are open to use by forest resource companies only on a highly regulated basis. The California Forest Practices Act, adopted in 1973 and supported by forest resource companies, is the nation's most stringent and comprehensive system for protecting, utilizing, and restoring forested lands. Forest resource companies in California believe strongly in the principle of



sustained-growth forestry, and willingly comply with or exceed the requirements of the Forest Practices Act.

California's forest resource companies have been going far beyond the Act's minimum requirements for reforestation and sustained-growth. In 1989, California's forestry professionals planted 35 million seedlings. And every year, private forest resource companies plant nearly twice as many new seedlings as required by law. These extra efforts are resulting in an overall increase in the volume of California's forests. According to the California Department of Forestry, California's forests grew by more than one-half-billion board feet during 1990.

California's forestry professionals also contribute to the protection and enhancement of the forest life cycle through a variety of well-planned programs that improve wildlife habitat, restore streams and rivers, prevent the ravages of wildfires, and control the spread of insect infestations and disease.

CALIFORNIA'S FORESTRY

PROFESSIONALS PLANTED

35 MILLION SEEDLINGS

IN 1989.



CALIFORNIA FORESTS:

Diverse and Plentiful

CALIFORNIA'S FORESTS CONTAIN A WIDE VARIETY OF EVERGREEN AND DECIDUOUS TREES.

THE MAP BELOW DEPICTS THE DISTRIBUTION OF SOME OF CALIFORNIA'S MORE SIGNIFICANT CONIFERS.

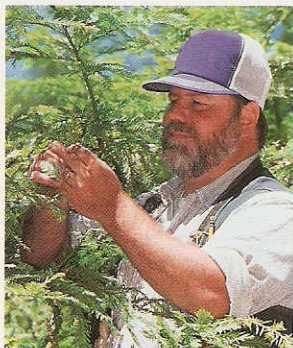


THE FACE OF CALIFORNIA FORESTRY

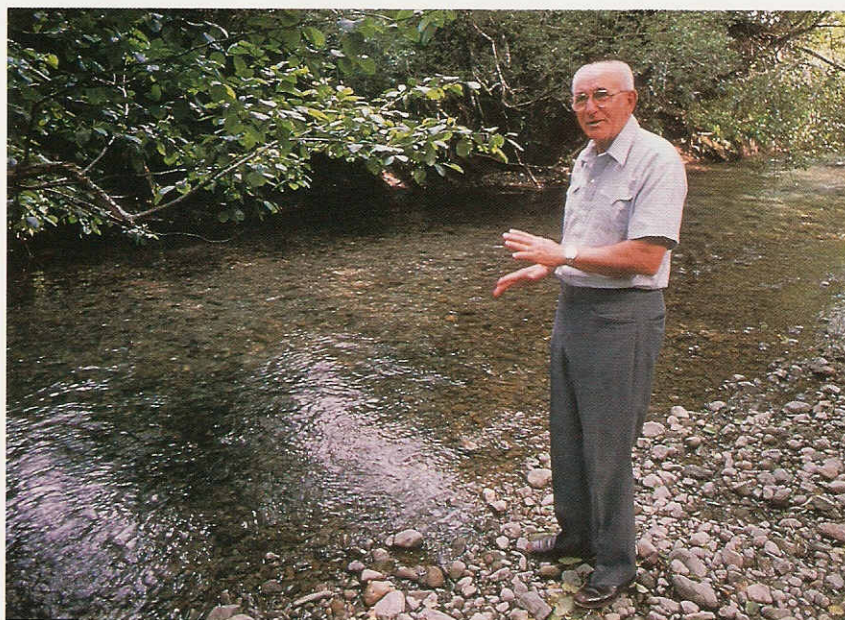
Forestry and forest-resource-dependent companies employ only about 110,000 people in this state of some 30 million. Yet these women and men do more to protect and enhance the forest than do any other group of Californians: they plant more trees; create more wildlife habitat; and stop more fires than any government or private organization. So just who are the people of California's forests?

Most of the people who base their livelihoods on California's forests work for privately-owned businesses. Some hold down jobs in the city, as urban foresters and company managers. But, by and large, forest products workers have shown a preference for blue jeans over business suits, and have chosen to raise their families in rural California, close to the forests that they nurture and protect. Forestry professionals have become the backbone of communities that rely on forest resource companies to provide jobs for residents and tax monies for schools, roads, and civic services.

Some of the people of California's forests are licensed professional foresters. Through training and experience, foresters have developed the ability to see the forest as a symphony — an interweaving of plant life, wildlife, water, and soils. It is through their insight that plans can be made that balance the needs of the forest with the ever-increasing demand for wood products.



Others are wildlife biologists who study the food and shelter needs of fish and wildlife in order to enhance habitat and ensure the survival of every species.



The people of California's forests also include private landowners. These individuals continue their long-standing family commitments to maintaining their private lands as forests — and to keeping the land as greenbelts — free from urban development.

Skilled workers at mills and manufacturing facilities provide a key link between California's forests and families. They craft the house framing, siding, paper, cabinetry, and other natural wood products that Californians love, want, and need. Committed to conservation, these dedicated workers see to it that our forest resources are used wisely and without waste.

The people who work in and care for California's forests represent a broad spectrum of professional experience, academic disciplines, and educational backgrounds. Yet they are bonded together by an overwhelming love for the forest and by a deep concern for its continued growth and vitality.

RURAL COMMUNITIES

RELY ON FOREST

RESOURCE COMPANIES

TO PROVIDE JOBS FOR

RESIDENTS AND TAXES

FOR SCHOOLS, ROADS,

AND CIVIC SERVICES.

PROVIDING PURE, CLEAN WATER

**CALIFORNIA'S FORESTRY
PROFESSIONALS ARE
HELPING TO ENSURE
THAT OUR WATERSHEDS
ARE PROTECTED.**

Pure, clean water is, and always has been, the lifeblood of California. Without the abundance of water flowing out of California's forestlands, agriculture would not thrive in the state's semi-arid Central Valley. Nor would the state be able to sustain the demands of its millions of residents, businesses, and industries. Where will we get the water we need to continue to meet the needs of a growing California?



The answer is as it always has been — from the forest watersheds. Some eighty-five percent of California's water drains from the state's forests via natural creeks, streams, and rivers that feed urban and rural water systems. While no one can control the amount of rain and snow that falls onto the forests, California's forestry professionals are helping to ensure that our watersheds are protected, and that the water that flows from the forests is pure and clear.

In compliance with California's Clean Water Act and Forest Practices Act, two of the strictest environmental laws in the nation, forest resource companies employ practices that reduce the likelihood of watershed erosion which would clog streams and rivers. Companies also must protect streams and the areas around them from damage that could

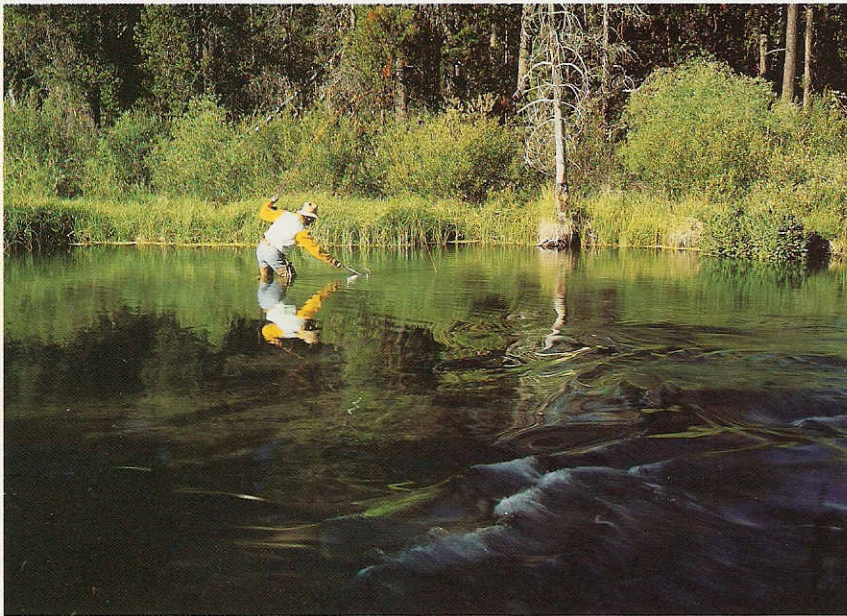
potentially impact water quality. By law, forestry operators also must protect fish habitat, and must preserve the shade trees, snags, and natural dams that ensure cool water, shelter, and food for fish.

Companies operating in California's forests are conscientious and exceptionally careful. In planning their operations, Registered Professional Foresters — licensed by the State of California — evaluate potential impacts on soils and streams, and establish procedures to keep any impact to an absolute minimum. Before any harvesting takes place, foresters draw up plans to restore impacted areas and to repair any accidental damage to the watershed. Access roads and trails are carefully engineered to minimize erosion, reduce siltation, and divert runoff away from streams. In some cases, the construction of access roads actually corrects naturally occurring erosion problems, and improves riparian habitat.

Forest resource companies also contribute money and labor toward projects that enhance and restore streams and rivers located far away from their operations. Designed to provide improved resting and protection areas for resident and migratory fish, many of these projects involve the creation of pools and overhangs to shelter feeding and spawning fish. In other instances, stream blockages are removed, easing the passage of migrating fish to upstream spawning grounds. California forestry's concern for the vitality of the state's many species of fish also has led to the establishment of company-owned fish hatcheries that are used to re-stock rivers and streams flowing through private forestlands.



RECREATIONAL OPPORTUNITIES



**THE CHALLENGE
FOR RECREATIONAL
USERS IS TO ENJOY
CALIFORNIA'S FORESTS
TO THE FULLEST WHILE
RESPECTING THE
FLORA AND FAUNA.**

Californians love to play. Fortunately, California's forests provide some of the most beautiful and diverse natural playgrounds in the world. Within California, there are more than 300 state parks (totalling 1.3 million acres); five national parks (another 4.7 million acres); four million acres of designated wilderness; and countless other recreation areas, campgrounds, national monuments, ski areas, and picnic grounds.

The National Forests account for half of all of California's outdoor recreational opportunities. Covering some 20 million acres, an area larger than the entire state of South Carolina, National Forests within California offer thousands of campgrounds, 13,000 miles of fishing rivers and streams, 10,000 miles of trails, 1,800 miles of wild and scenic rivers, 2,400 lakes and reservoirs, and 22 major ski areas.

Today, Californians are interested in the quality of the recreational experience as well as in the

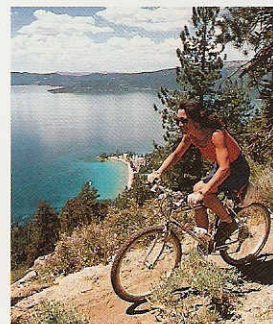
availability of modern sites. Forest aesthetics have been added to a growing list of public concerns about the environment. Partly in response to such concerns, state and federal governments have set aside more than four million acres of California forests as parklands, wildlife reserves, and wilderness areas.

By law, recreational access is just one of many issues that must be addressed in plans for use of any national forestland. Access by forest resource companies, mining companies, ranchers, and others also must be addressed in plans for use of federal lands. Forestry professionals agree that, with proper planning and under the care of professional forestry, California's forests can accommodate a multitude of uses while continuing to provide wood products for America's families.

Recreational users often benefit directly from the carefully planned operations of forest resource companies. Roads built by the companies provide recreational access to campsites, ski areas, and trailheads. Younger reforested areas are ideal for cross-country skiing and snowmobiling, or may be a superb setting for the avid hunter or photographer.

Recreational activities, like forest resource operations, inevitably impact the environment. And the greater the demand on recreational resources, the higher the potential for abuse of

the forest. The challenge for recreational users is to enjoy California's forests to the fullest while respecting the flora and the fauna.



ENHANCED WILDLIFE HABITAT



California's forests are home to nearly 650 species of fish and wildlife. The protection of existing wildlife populations and the enhancement of wildlife habitat to encourage population growth are high priorities to California's forestry professionals. Yet in recent years, increasing demands for use of forested lands have put the survival of some species at risk. What is California forestry doing to ensure the survivability of creatures big and small?

In addition to California's stringent fish and wildlife regulations, wildlife and plants are also protected by overlapping state and federal Endangered Species Acts covering species found anywhere in the state — on public or private land. California's forest resource companies operate in strict compliance with the provisions of all state and federal wildlife regulations.

CALIFORNIA'S FOREST

RESOURCE COMPANIES

OPERATE IN STRICT

COMPLIANCE WITH

THE PROVISIONS OF

ALL STATE AND

FEDERAL WILDLIFE

REGULATIONS.

When extra protection for a given species is required, forest ecologists and wildlife biologists turn to certain provisions of these endangered species acts and attempt to obtain a listing of that species as "threatened" or "endangered." Once such a listing has been ordered, concentrated efforts are required to ensure that the species will recover in number. Often, the prescriptions for recovery involve special breeding programs and the setting aside of tracts of forested land.

Major efforts to promote the recovery of the bald eagle, peregrine falcon, and California bighorn sheep are just some of the programs that have proven successful. However, sometimes recovery programs are based on limited research and information, or do not fully address the impact of such an effort on all of the wildlife in the affected area.

Forest resource companies and organizations are active in building a base of scientific knowledge that can be used as a tool for designing more effective wildlife recovery programs and for developing forest plans and operating techniques that will reduce the potential stress on wildlife habitat. For example, members of the California Forestry Association funded an independent study of spotted owl distribution on privately held forest lands, an area not researched by the U.S. Fish and Wildlife Service during its investigation of spotted owl habitat. The study showed that the spotted owl, previously thought to nest and breed only in old-growth forests, was nesting and breeding at or above normal rates in younger forests. In fact, the study concluded that the age of the trees was less a factor in owl habitat than were tree size, the depth of the tree canopy, the availability of standing dead wood (or "snags"), and other forest structure characteristics. This and other research performed by independent wildlife biologists is greatly expanding the pool of available knowledge about wildlife behavior and habitat requirements.



Forest resource companies are also putting their knowledge of wildlife habitat needs into action.

Required by law to maintain wildlife habitat, private land owners are taking the initiative to encourage the repopulation of certain species. For example, efforts to increase the deer population on young forestlands have been extremely successful.

Enhancing wildlife habitat and protecting creatures big and small comes as second nature to the people who earn a living in California's forests.



IN GOOD HANDS AND GROWING STRONG



THE FOREST IS ETERNAL.

AND IN SOME SENSE,

THE FOREST IS OUR

HOPE AND PROMISE

FOR TOMORROW.

Despite a growing demand for natural wood products and an overwhelming increase in use by campers, hikers, hunters, skiers, and other recreational enthusiasts, California's forests are more vigorous and healthy today than they have been at any time during the past 100 years. Every year, California's forests grow by hundreds of millions of board feet.

In the face of increased multiple uses, the vitality of our forests is possible only because of the protection and nurturing provided by California's forestry professionals.

Under the guidelines provided by California's Forest Practices Act, California forestry is engaged in a massive, ongoing tree-planting program. Private forest resource companies, together with the United States Forest Service, plant some 35 million seedlings in the state's forests every year — one tree for every child, woman, and man in California...and then some. The largest reforestation effort of any environmental or commercial group in the state, tree planting by California's forestry professionals benefits wildlife and humans alike. In just a few years after they are replanted, these acres and acres of young forests will provide enhanced habitat for many species



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of wildlife. They also will be highly efficient at extracting tons of harmful greenhouse gasses from the atmosphere.

At their seedling nurseries and in the field, forest resource companies also are exploring ways to make trees more drought tolerant, insect resistant, and faster growing.

For example, near Mt. Shasta, a private forest resource company is cooperating with the Forest Service in a test to evaluate the use of organic mulch to inhibit weed growth and to retain soil moisture around newly-planted seedlings. Early results of the test show that the application of a thin layer of mulch, a recycled by-product from wood-products manufacturing, can give seedlings a fighting chance for survival during periods of drought.

More than ever before, the people who practice good forestry in California are working side-by-side with other segments of the population to address environmental concerns about our forests. From the development of new legislation to in-the-field forest planning, cooperation is growing between forestry professionals and conservation-conscious members of California's public. It is only natural that these groups should come together, for they share the same concern: enhancing and protecting the life cycle of California's forests. And by working together, they can arrive at solutions that make sense for all Californians — solutions that are innovative, environmentally responsible, and economically sound.

The forest is more than a resource, more than recreation, more than beauty. The forest is eternal. And in some sense, the forest is our hope and promise for tomorrow. The forest is our future. And our future grows brighter every day.

FAST FOREST FACTS

- The State of California encompasses some 101 million acres. Thirty-two percent of this acreage is forestland.
- National Forests cover one-fifth of California's total acreage. The National Forest system owns 44.6 percent of California's forestland. *National Forests contain 1,800 miles of Wild and Scenic Rivers, more than 2,400 lakes and reservoirs, 13,000 miles of fishable streams and lakes, and 10,500 miles of recreational trails. 600 of the 800 known species of California fish and wildlife make their homes in the National Forests.*
- Private individuals and companies own 44.4 percent of California's forestland. There are approximately 100,000 individual owners of private forestland in the state.
- Less than half of California's forests are available for the production of forest products.

GROWING STRONGER EVERY DAY

- California's forestry professionals plant in excess of 35 million seedlings every year.
- California's forests are growing at an impressive rate. In 1990, the forest's net growth exceeded one-half billion board feet.

EMPLOYMENT AND REVENUE FOR THE STATE

- 113,000 Californians are employed by forest products, paper, and pulp companies.
- A full 25 percent of the gross revenues from forest resource company activity on National Forest land goes to California counties to support schools and roads. During fiscal 1990, more than \$66 million was contributed to 39 rural California counties.
- Forest resource companies paid more than \$22 million to the state in Yield Taxes during fiscal 1990.

CALIFORNIA'S FAMILIES NEED CALIFORNIA'S FORESTS

- California is second only to Oregon in the production of forest products.
- More than 64 percent of all lumber produced in California during 1990 remained in the state.
- California is the single largest housing market in the nation, accounting for 17.4 percent of all building permits issued in 1988.
- Because demand exceeded supply again in 1990, California had to import more than half of the lumber it used that year.

CALIFORNIA FORESTS AT A GLANCE



**For more information
On California Forests visit:
www.calforests.org
or call: 1-877-REPLANT**