



# The Watershed

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THE NEWSLETTER OF FORESTS FOREVER

SPRING, 2004

## New Framework weakens Sierra safeguards

The U.S. Forest Service released its Sierra Nevada Forest Plan Amendment in January.

"As it has in so many other areas of forest protection recently, the Bush administration has put forward a revision that would decimate environmental protections for the Sierra Nevada," said Mark Fletcher, president of the board of Forests Forever. "The Framework affects more forested acreage in the state than any

other federal plan or policy.

"The timber companies that enjoy federally subsidized logging privileges should be very pleased."

The revisions to the Framework were originally scheduled to be released in October 2003. But when it became clear that the new Forest Service proposals would triple the amount of logging and harm wildlife such as the California spotted owl, Pacific fisher, willow flycatcher

and Yosemite toad, environmentalists, forestry scientists (including Forest Service scientists), and concerned citizens weighed in.

The volume of comments that ensued forced the agency to postpone release of the document. Officials had received at least 55,000 comments against the revised Framework by the time the public comment period closed on Sept. 12, 2003.

In spite of the outpouring of criticism, the final plan was not

much changed.

"They've only made it worse," said Craig Thomas of Sierra Nevada Forest Protection Campaign.

The Forest Service paid an outside public relations firm—OneWorld Communications of San Francisco—\$90,000 to present the final plan in a PR campaign titled "Forests with a Future."

See "Framework," p. 9

## Fresh start for oak woodlands protection bill

An important piece of legislation that would protect the disappearing oaks of California has been rewritten, given a new bill number, and is now moving through the state Senate.

Senate Bill 1334 (formerly SB 711), introduced by state Sen. Sheila Kuehl (D-Santa Monica), would help protect California's remaining oak woodlands. Kuehl's bill would bring conversion of oak woodlands under the provisions of the California Environmental Quality Act (CEQA), which requires environmental analysis before a project can go forward.

Oak woodlands cover about one-third of California, and are the forest ecosystem that many residents consider most typical of the state. But oaks are van-

Photo courtesy California Oak Foundation



California loses 20,000 acres of oak woodlands a year.

ishing at an average rate of 20,000 acres a year. More than one million acres of the

state's native oak woodlands have been wiped out since 1945.

"Conversion" to housing developments and parking lots is not the only threat to oak woodlands. Grazing cattle browse and trample seedlings, keeping oaks from propagating. Decades of fire suppression have allowed other tree species to displace oaks. Sudden Oak Death Syndrome is killing oaks statewide at an alarming rate.

"People have to know how important it

See "Oaks," p. 12

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*from the Executive Director*

## Ancient resource, modern dilemma: Forests' supporting role in all civilizations

The trailer for the new movie *Troy* opens with a tight shot of an ancient Greek fighting ship, then slowly pulls back to reveal a vast armada bound for the invasion of that city-state.

Part of the awe of this scene for some viewers may be the realization that much of the forest of ancient Greece set sail with these ships, and that the depleted landscape left behind would never be quite the same.

The rise of Greece's power coincided with its access to ample forest resources. In other ancient empires as well— Mesopotamia, Rome, Egypt— forest resources were not just a useful commodity, but actually determined the ability of those civilizations to conquer territory and control trade.

Wood was a truly strategic material. It was used not only to build tough ships' hulls and tall masts for war and commerce, but also to fashion chariots and spears and arrows, stockades and breastworks, assault towers, catapults and maybe even Trojan horses.

Perhaps more important, wood (as charcoal) was the fuel used most often to smelt copper, silver, and iron and to fire pottery and bricks.

Wood heated baths and buildings, cooked the meals, made up the looms and furniture and roofs, the hand tools and barrels and farm implements, and even childrens' toys. Every aspect of society depended upon this light, strong, beautiful material that doubled as an energy source.

By 465 B.C. wood shortages prompted Athens to institute passive solar construction and to raid nearby city-states, such as Amphipolis, for their timber. By 400 B.C. Athens was overshadowed in the Mediterranean by forest-rich Macedonia.

City-states such as Troy, at the mouth of the Scamander, became impor-

tant largely because of their vast stores of wood upriver. But as their watersheds were stripped bare, silt washed down into the harbors and necessitated expensive dredging operations and in some cases the settlements' relocation.

Troy held a controlling view over its natural harbor on the day Achilles

even today, an apt metaphor for forests and their dependent human societies. In ways both different from and similar to the ancient world, the planet's sole current superpower rose up with vast forests at its disposal. Now we threaten to squander them, and in doing so destroy environmental pillars of our civilization's survival.

Less important than in ancient times as fuel and building material, forests now arguably provide even more precious resources— irreplaceable genetic diversity evolved over billions of years, large-scale water storage and purification services, and the sequestration of atmospheric carbon.

Yet from the deforestation of the Amazon basin to the Bush administration's aggressive efforts to gut U.S. environmental laws, forest destruction amidst a fast-growing human population surges forward.

Perhaps there's a paradox: If Athens had had to fashion its "wall of wood" from the sparse forests of modern-day Greece, future generations might not have benefited from her contributions to art, governance, philosophy and science.

At the same time, maybe launching a thousand ships to reclaim Helen wasn't such a good allocation of national resources, if things really happened as Homer said.

In any case we could do worse than to look to the forests and times of Troy for a lesson in whether we are doomed to repeat history— and this time with possibly even longer-lasting consequences to humankind.

—Paul Hughes



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*"A protective 'wall of wood' may be an apt metaphor for forests and their dependent human societies."*

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landed. But today the site is located a full 1.5 miles farther inland due to alluviation from the denuded watershed.

Silt plains often became marshes, breeding mosquitoes and typhus. Disease often delivered the final blow to nearby struggling urban centers. Deforestation also caused floods, mudslides and cropland salinization, which helped doom great city-states.

When threatened by an overwhelming Persian invasion force, the citizens of Athens sought advice from the oracle at Delphi. Said the seer: "Though all else shall be taken, Zeus the all-seeing grants that the wooden wall only shall not fail."

It was Themistocles who convinced the panicked populace that this "wall" must take the form of a fleet of warships, to be constructed from local wood. So the Athenians feinted, abandoning their city temporarily to the invaders, then surprised and crushed the Persian fleet at Salamis in 480 B.C.

A protective wall of wood may be,

# Death of a Thousand Cuts

## Bush administration picks apart roadless rule forest by forest

Bush administration appointees are chipping away at the rules governing the nation's last remaining tracts of roadless and unprotected wilderness.

Undersecretary of Agriculture Mark Rey has said that the Roadless Area Conserva-

federal forests. Federal officials have used categorical exclusions to exempt logging projects from environmental review in the name of "hazardous fuels reduction" and rewritten rules that had protected wildlife and assured public input to decision-making.

The Bush strategy apparently is to undo the roadless rule one forest at a time.

### Popular rule

The roadless rule was written during the Clinton administration and put into place in January 2001. The rule was developed over three years in more than 600 public meetings and received 2.5 million public comments, 95 percent of them supportive.

The roadless rule protects the last third of our undeveloped national forest land, areas not already designated as wilderness. By shielding 58.5 million acres from roadbuilding, logging, mining, and ski resort development, the rule helps preserve habitat for more than 1,500 species of fish and wildlife, and protects watersheds, helping to ensure our supply of clean drinking water.

Most importantly, the roadless rule keeps our last remnants of wild forest intact so future generations will be able to enjoy them unscarred by roads and clearcuts.

There are 4,416,000 roadless acres in California's national forests. If the roadless rule is weakened, this vast acreage could be opened to logging, mining, and oil drilling.

A series of projects that would go into roadless areas already have been proposed for

national forests in California, as if the protections of the roadless rule did not exist.

### Drilling on Los Padres

The Forest Service is studying 760,000 acres in Los Padres National Forest for possible oil and gas drilling. The agency identified 140,000 acres in the forest as potential "high-priority" drilling areas. Three-quarters of this area is currently roadless; Inventoried Roadless Areas are included in the list of potential drilling sites, according to Forest Service maps.

Los Padres lies on the central coast, stretching from Big Sur to western Los Angeles County. The forest is home to many threatened and endangered species, most famously the California condor. The areas being considered for drilling contain 66 percent of the oak woodlands in the forest.

The California Wild Heritage Act (S. 1555), a bill by U.S. Sen. Barbara Boxer (D-CA), would preserve 58,000 acres in Los Padres as wilderness.

Another bill would protect Los Padres from all forms of oil and gas development, including the exploratory drilling proposed by the Forest Service. Rep. Lois Capps' (D-Santa Barbara) bill H.R. 3805, the Los Padres National Forest Conservation Act, co-sponsored by Rep. Sam Farr (D-Santa Cruz), was introduced in the U.S. House of Representatives on Feb. 11, 2004.

See "Roadless," p. 11



Roadbuilding in the Tillamook Burn, Oregon, 1953

tion Rule will be rewritten to allow state governors to waive its provisions for federal lands in their states.

Reyes said the revised rule would be published in the early months of 2004; as of this writing, however, it has not been released. Environmental groups expect the changes to be announced in spring 2004.

### An unappealing administration

The administration has failed to vigorously defend the roadless rule in court, refusing to appeal adverse decisions.

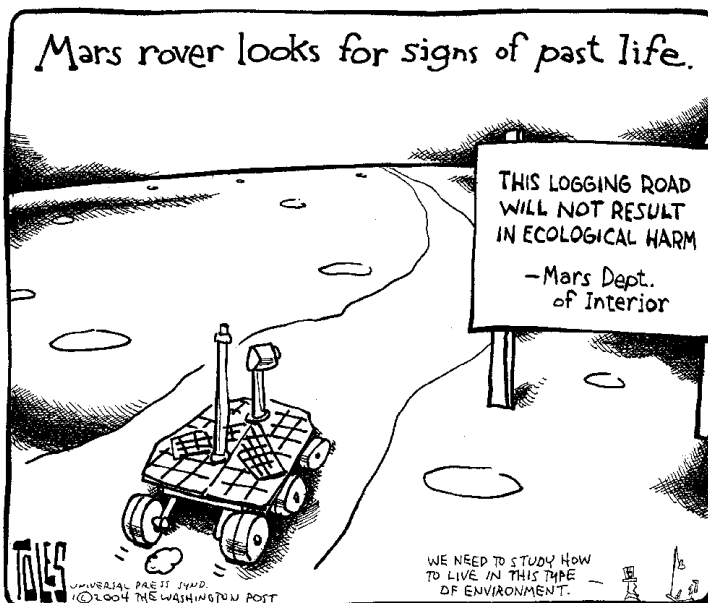
To settle a lawsuit brought by the governor of Alaska, the administration exempted the Tongass National Forest from the roadless rule on Dec. 23, 2003, opening 300,000 acres of virgin forest to clearcutting and roadbuilding. An exemption for Chugach National Forest also is being considered.

Together the Tongass and Chugach forests contain one-fourth of all the roadless acres in the United States.

This "sue and settle" tactic and other attacks on the roadless rule are part of a larger administration assault on public forests.

The administration has proposed revisions to the National Forest Management Act, the National Environmental Policy Act, and other laws, which would help clear the way for logging and other extractive uses on

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# A tree is not a forest:

## Can replanting trees restore complex forest ecosystems?

More than 35 million new trees are planted each year in California, according to the California Licensed Foresters Association. That equals seven trees planted for every one harvested.

So why do environmentalists rally against logging if cut trees can simply be replaced?

John Isom of the Mattole Restoration Council said replanting figures such as the one used by the Foresters Association are misleading, since many of those trees die before they become full-grown.

"They're using the rhetoric of raw numbers to overwhelm people and make them feel like everything's fine," Isom said.

Re-creating forests is not as simple as planting trees. There are many reasons why replanting trees cannot be regarded as a panacea for logging's impacts.

### *Forests are complex systems*

Logged areas, particularly clearcuts, cannot be replanted without net loss to the forest. This is because there are important ecological differences between a forest that has grown naturally over time and one that has been heavily cut and replanted.

"The forest is really a very complex system for recycling nutrients," said John Berger, an environmental science and policy consultant based in Berkeley. "All the little creatures in the forest play a role in nutrient recycling. If some of those components are lost (due to logging), then nutrients aren't recycled properly."

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## *Recreating forests is not as simple as planting trees.*

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Replanting cutover areas also replaces trees of diverse ages with young trees that are all the same age, Berger said.

Removing older trees destroys important habitat for species such as the spotted owl, red tree vole and northern flying squirrel. In addition, Berger said, logging often removes snags—the stand-

ing dead trees that, like the older live trees, provide crucial habitat for wildlife.

### *Increased fire danger*

The timber industry and the U.S. Forest Service often use the threat of fire to justify logging. While

thinning smaller trees and removing brush does reduce fire hazard, timber companies typically cut large trees, since that is where the profits lie. But logging these larger trees and replacing them with smaller ones is part of the wildfire problem, not its solution, forest ecologists say.

The shade provided by older trees lowers forest temperature and increases its humidity. Large downed logs also provide windbreaks and often store large amounts of water. Removing these older trees and downed logs during logging makes the forest drier, windier and therefore more flammable.

The younger trees in a plantation can themselves pose a fire hazard. While older trees tend to have thick bark and higher branches, enabling them to survive many fires, younger trees do not have these advantages. Stands or rows of densely packed younger trees with overlapping, low-lying branches burn much hotter and quicker than forests with a high number of older trees.

Timothy Ingalsbee of the Western Fire Ecology Center points to Oregon's 1991 Warner Creek Fire as an example of this. During that fire, 28 replanted areas burned intensely, destroying all the young trees and almost all of the nearby old-growth stands.

"Instead of reducing the intensity of the fire the clearcut-plantations whipped up extreme fire behavior that resulted in catastrophic fire effects," Ingalsbee wrote in "Plantations: Fire Bombs in the Forest" an article on the Western Fire Ecology Center website.

### *Logging reduces biodiversity*

For years, particularly in the southeastern United States, timber companies and the Forest Service cut native trees and replaced them with faster-growing non-native species such as loblolly pine. These

Photo courtesy Bureau of Land Management



Seedling nursery in Oregon

days the Forest Service and timber companies say they work to ensure replanted trees are native to the area.

"The seedlings we use are from seed sources that have been previously identified," said Forest Service Forester Monty Maldonado, adding that the seeds are carefully labeled and tracked to ensure they suit the area in which they are planted.

### *Rules for replanting*

Replanting on federal land is governed by the National Forest Management Act of 1976. Under this act the Forest Service must replant timberlands that have been clearcut or salvage-logged. A minimum number of trees (roughly 300) per acre must survive after five years.

The State of California has its own monitoring methods to ensure the trees replanted on private timberlands survive. The state's Forest Practice Act contains guidelines foresters must follow when replanting logged sites. On most sites, 300 trees per acre must be growing after five years.

Private timber owners pay for replanting their own lands. On federal lands the Forest Service allocates funds for replanting; money is also available from the Knutsen-Vandenberg Act of 1930, which allows the

agency to keep a portion of funds from timber sales to use for replanting. (Ironically, these “K-V” funds act as an incentive for timber sales, to bring replanting funds into the agency budget.)

## Replanting trees, losing the forest

Five reasons why replanting trees after logging may not be enough:

- *Oversimplified ecosystems.* Replanting individual trees does not reproduce the interactions of different species that make up the forest ecosystem.
- *Habitat Loss.* Even-aged plantations lack the age mix that provides diverse habitats for many animals. Even-aged stands are also more fire- and disease-prone.
- *Herbicide Use.* Applied to reduce competition from “undesirable” trees, these poisons kill non-target species and may pollute watersheds.
- *Damaged soil.* Soil compaction by logging equipment leads to erosion, polluting watersheds. May also hinder regrowth.
- *Timber production over sustainability.* Plantations are managed mainly for timber harvest, not to create a living forest.

Private timber firms are subject to the regulations of whichever state they operate in. Frank Mendizabal, spokesman for the international timber firm Weyerhaeuser, said

his company has its own standards beyond what the states mandate. While many states require trees to be replanted within three to five years, Weyerhaeuser typically replants within one year, Mendizabal said. There are two reasons for this. One, the company wants to get the land back into production as quickly as possible. Second, the sooner trees are replanted after logging, the less brush control is required.

Mendizabal said Weyerhaeuser has detailed guidelines for ensuring its seedlings suit the logged area. The replanted trees must be of a species native to the forest, he said, be suitable to the climate and soil, and come from trees grown in the same 500-foot elevation range. The seedlings, however, need not come from the forest in which they are replanted.

Geneticist Larry Riggs said seedling specifications such as those the Forest Service and Weyerhaeuser follow may not be enough to ensure forest biodiversity. Studies in which Riggs participated, under the California Gene Resources Program, concluded that tree seedlings varied significantly even on opposite slopes within the same elevation range.

“In a natural forest you have diversity at a whole range of scales,” Riggs said. Seedlings vary down to the level of “meters rather than kilometers,” he said.

Forest activists say the Forest Service and timber companies replant with economic gain in mind, not the complex ecological needs of the forest.

“They’re converting diverse communities of native forests complete with all kinds of forest species and simplifying those into tree farms or fiber farms,” said Jake Kreilick of the National Forest Protection Alliance.

Kreilick, who worked on Forest Service tree-planting projects in Montana, saw firsthand the types of trees planted.

“They were tree types that were native to the area but it still was simplifying the ecosystem,” Kreilick said. “Nowhere near the normal species composition would have been represented by what we were planting.”

### *Not all seedlings survive*

Besides altering the natural structure of the forest, logging causes secondary damage that can make survival difficult for replanted trees. The effects of logging range from understory plants crushed and uprooted during operations to streams damaged by sediment from erosion caused by logging roads and the removal of trees.

Mendizabal said Weyerhaeuser’s seedling survival rate is upwards of 90 per-

cent. Mendizabal said the company uses precautions such as putting biodegradable protective barriers around the seedlings to protect them from deer and elk.

The Forest Service has a much lower survival rate for its replanting—about 50 percent, says John Buckley of the Central Sierra Environmental Resource Center. This is due to the generally better-quality timberland in private hands, he said, and because the Forest Service uses much less herbicide, sometimes none at all.

Maldonado of the Forest Service said his agency surveys seedlings at three and five years after replanting to make sure the required number of trees has grown back. The required number varies by location, he said. (The minimum federal requirement is usually 300 “points” per acre. A “point” does not necessarily equal one tree; a tree four or more inches in diameter, for example, can count as three points.)

“The basic principle is to bring the site back into production,” said Maldonado.

And that goal of timber production, says



Fifteen-year-old loblolly pine plantation

Kreilick, is exactly the problem.

“I look back at all the trees I planted and I don’t feel that good about it. The purpose was just basically growing those trees so they can get cut down again.”

### *Heavy use of herbicides*

The Forest Service monitors the replanted areas to make sure other species don’t out-compete the seedlings for moisture and nutri-

See “A tree is not a forest,” p. 10

# They Call by Night

## Forests Forever's canvassers have something they want to tell you

At 6 p.m. most of the phones in the Forests Forever canvass room—a big open space subdivided by cubicle walls—are still in their cradles, waiting for the callers to begin their nightly telephone marathon, calling people to tell them about the dangers to California's forests, and to ask for their help.

Soon the phone canvassers begin to show up. The callers now have to prepare themselves mentally for work. Every night includes a fair share of people who ask tough questions, who are fighting their own personal battles, financial and otherwise, and people who simply don't want to interrupt what they're doing to learn about a new threat to the planet and be asked to write a letter or make a donation.

"I recently spoke to one lady who had limited funds, but was very involved in the call," recalls Moira Worland, a training assistant at Forests Forever. "She was gasping and exclaiming throughout the call at the short-sightedness of the Board of Forestry and the developers. I thanked her

year degree and plans to continue to work at Forests Forever as she attends UC Berkeley for her bachelor's degree.

As a training assistant, Moira teaches new callers the ropes: how to stay informed on the issues, how to handle tough questions, and how to sound confident without being pushy. Most of the people who come to the Forests Forever phone canvass have never worked in a "phone room" before.

The Forests Forever phone canvass started in 1993, four years after an anti-clearcutting ballot proposal, the "Forests Forever Initiative" (Prop. 130) gave birth to the organization. There are usually around 25 canvassers working the phones each evening; in a typical year they contact about 80,000 people.

The "PCV" was formed to provide one-on-one contact with tens of thousands of Californians and inform them about the pressing forestry issues of the day. Phone

canvassers have had a combined total of over one million contacts with Forests Forever supporters, resulting in hundreds of thousands of letters, calls, faxes, emails, and personal lobbying visits to California representatives.

Surveys have shown that individually written letters—the form of citizen expression that the PCV most emphasizes—are the most effective way of influencing public officials. The personal voter contacts that Forests Forever helps bring about are a crucial

element in the fight for legislative change.

The phone canvass is also a vital fundraising tool for the organization, which relies almost entirely on the support of individual donors.

"Most people are excited about the letter-writing," Moira laughs. "The money can make them a bit more tense, so I make sure to emphasize that we only want them to donate what they are comfortable with."

On this night Erich, one of the canvass's

newest callers, gets a relatively detailed question about the oaks campaign. (Saving



Photo © 2004 Jon Dakin  
Forests Forever callers at work.

California's oak woodlands by passing Senate Bill 1334 is a high priority at Forests Forever; see story on page 1.) He asks the member to wait while a manager comes over to field the question.

"Our supporters tend to be very informed," says Worland. "Sometimes they know a good deal more about the issue than a caller on his or her first few days."

A couple of seats away, Sophia is complaining: too many answering machines, too many people running out the door.

"Most of our supporters don't mind being called very much," says Moira. "With the folks that do, those with small children, for example, I set up a time that works for them."

Many contacts can be pleasantly surprising. Supporter will come in and speak to the PCV about a political or social issue of their own. And some callers have wound up volunteering for members' causes.

"I recently spoke to a woman about our oaks campaign," recalls Moira. "She was fighting to save a very old oak in her own town. The conversation reminded me that even though it is a hard fight, none of us are alone in our love for the environment."

The phone room is busy now. Many callers are talking at once, all of them attempting to convince people to give their time or money or both to saving forests and wildlife—the sort of one-on-one contact with the citizens of California that helps keep our woodlands intact so they can be enjoyed by future generations.

—Jon Dakin



Photo © 2004 Jon Dakin  
Moira Worland, training assistant.

at the end of the call and she said, 'No, thank you so much for the work you are doing.' It made my night!"

Moira came to Forests Forever in July of 1999 when she was 16 and just starting college. She knew very little about politics or ecology, but was looking for a part-time job in something more meaningful than retail work. Now 21, she has remained with the phone canvass all the way through a two-

# Logging planned for Sequoia Monument

## *The Forest Service sees its way through the "Great Cathedral"*

The U.S. Forest Service recently announced plans for extensive logging in Giant Sequoia National Monument in the southern Sierra Nevada.

The Forest Service management plan for the monument would log 4,050 acres a year for ten years, taking out 7.5 million board feet of timber annually.

This may come as a surprise to those who thought that establishment of the Giant Sequoia National Monument put an end to logging there.

The monument includes some of the largest trees on Earth, as well as "species of special concern" such as the Pacific fisher and California spotted owl. More than 200 endemic plant species are found there—that is, species found nowhere else.

Forests Forever worked from 1998 to 2000 to preserve the sequoias, generating 21,473 letters and commitments to write, call, fax or email.

Then-president Bill Clinton created the 328,000-acre monument by presidential proclamation in 2000. The proclamation limited logging and grazing on the monument to contracts awarded as of Jan. 1, 2000, and these were to end within three years. New timber sales were forbidden.

The wording of the proclamation is unambiguous:

"No portion of the monument shall be considered to be suited for timber production, and no part of the monument shall be used in a calculation or provision of a sustained yield of timber from the Sequoia National Forest."

The logging recently proposed by the Forest Service goes beyond the timber sales grandparented in by Clinton's proclamation. It would be done under the guise of "mechanical thinning" for "catastrophic wildfire prevention." The agency's plan would cut trees up to 30 inches in diameter (as it would in the rewritten Sierra Nevada Framework; see article on page 1), purportedly to reduce fire risk.

The Forest Service claims its plan is in the interest of public safety and ecological restoration. Forest activists are not convinced by the agency's rationale.

"They want to log," says Ara Marderosian of Sequoia Forestkeeper. "Their purpose is to log."

The giant sequoias themselves are not much sought after for timber. But logging the valuable fir and pine in sequoia groves leaves the big trees open to the wind. The

newly exposed soil is subject to erosion and is ripped apart by heavy logging equipment, which also breaks up the giants' shallow root systems. All this makes the sequoias more vulnerable to blowdown.

The Forest Service's plan would also create "gaps" in the forest of up to two acres where the trees have been clearcut. The agency claims these gaps provide space for sequoia seedlings to take root. In certain unspecified conditions the gaps could be larger than two acres.

But according to Marderosian, in an



Giant sequoia surrounded by felled trees.

alert issued by his group, "such gaps . . . are partly responsible for the catastrophic fire conditions the agency says it is now trying to counter with this management plan. Experience has shown that the predominant vegetation that returns after a clearcut is highly flammable brush."

"We asked them not to cut these gaps but the Forest Service didn't listen," said Marderosian. "They said it wasn't 'economic' [not to cut the gaps], that it would not create jobs. They wanted to do it real fast, where Nature takes centuries."

"You have to wonder how the sequoias

got along all those centuries without the Forest Service," said Martin Litton, a lifelong sequoia advocate who is working with several groups to end logging on the monument. (Litton sits on Forests Forever's advisory council.)

As a barrier against wildfires the agency is proposing one-and-a-half-mile-wide "defense and threat zones" around communities, where "fuels reduction" would take place. Forest Service scientists and other forestry experts previously had recommended a treatment zone between 150 and 200 yards wide. Forest activists see the wider zone as merely another excuse for logging.

Marderosian accuses the Forest Service of ignoring its own scientists.

"Scientist Jack Cohen (with the USDA Fire Science Laboratory in Missoula, Mont.) said his science showed that 200-foot-wide treatment for fuel reduction is adequate and would protect structures."

Logging also would be permitted in Pacific fisher habitat under the new plan. The fisher is sensitive to disturbances in its habitat. Marderosian fears that the rare mammal will flee in the face of logging and brush-clearing projects, making it more vulnerable to predators.

Finally, the Forest Service plans to construct more roads within the monument, where there are already more than 900 miles of roads. But the agency already has a \$14-billion road maintenance backlog in the national forests. And with its budget recently cut by \$7.5 million, obtaining funding for additional road maintenance would be difficult if not impossible.

The Forest Service does not deny the effects its management plan will have on wildlife habitat, watersheds, and forest composition. The agency maintains, however, that "catastrophic wildfires" would cause more damage than logging.

"The Forest Service report violates the proclamation," says Litton. "The management plan also contradicts what George H. W. Bush said about the sequoias: 'We should treat them as a great cathedral.'"

How should the monument be managed, then? Said Litton: "No logging. It's that simple."

On Mar. 1, 2004, Sequoia Forestkeeper, joined by three other groups and two individuals, filed an appeal of the Forest Service management plan for the monument.

—M.L.

# Making humans safe for Nature:

## A Watershed interview with Seth Zuckerman

Seth Zuckerman is a writer on ecology, energy, forestry and ecosystem restoration issues. His informative, thoughtful pieces have appeared in magazines, online and print, and in several books. Some of his publications are listed at the end of this article.

When *The Watershed* spoke with Zuckerman by phone recently, we asked him first to describe for our readers what exactly he does for a living.

**Seth Zuckerman:** I write about environmental issues. A lot of what I write is influenced by my relationship with the Mattole Valley, which has been my home since 1988. The Mattole Valley is mostly in Humboldt County, with a little bit in Mendocino County. It has a watershed of about 300 square miles and a population of between 2,000 and 2,500 people.

It's pretty isolated: It takes more than an hour to get to a town, either Garberville or Eureka. But of course those of us who live there consider it to be the center of the known universe. It has a couple of restaurants and bars, a post office, and an elementary school. It's rural, in a good way.

It's a community that has been a pioneer in salmon and forestry issues. In 1988 the Mattole Restoration Council, our local watershed group, mapped current old-growth forest and compared it with maps of old-growth forest from 1947.

We saw that there had been a dramatic decline: Nine percent of old growth was left! More recently, we got curious about the grassland, about the fact that brush and young trees were encroaching onto the prairie. First we consulted old soil and vegetation maps to see what the area had looked like 50 years prior. Then we used satellite imagery to determine what the grassland looked like at that point. We found that in 50 years we had lost one-third of our grassland!

When I left college I originally wrote mostly about energy issues. In 1987, I wrote a story for the magazine in the San Francisco Sunday newspaper about forest fires, and interviewed people in the Sierra Nevada and the Klamath mountains. I was fascinated with the question of how forest management was contributing to forest fires.

At that point I realized that I hadn't learned much about the role of living things in environmental issues.

This realization inspired me to go back to school at the University of California, Berkeley and get a master's degree. My

learn from the natural world!

Nature is a rich vein of metaphor for what goes on in human society. For example, I've got a small orchard in Humboldt County of about 100 trees. For a few years I left the horizontal branches when I pruned.

But this, I found out, was unsustainable! I left those branches in order to get more fruit. But once the branches were laden with fruit, they broke.

So what I learned was that I couldn't afford to be too greedy. Once I identified my mistake I just 'fessed up and dealt with it. I resolved to do better the next time. The natural world gives you lots of feedback!

*What environmental issue is closest to you?*

**SZ:** I'm curious about how we as humans in the modern world can still see ourselves as part of the wild. If we see ourselves as part of the natural world, not separate from it, then it becomes that much harder to damage it: We see it as essential to ourselves. We humans need to reintegrate ourselves into the way we perceive the natural world.

The industrial economy fails to honor that truth. The natural world, according to that way of thinking, is there for humans to exploit. And even some environmental thinkers make that mistake. Wild nature, they believe, is something out there that needs to be protected from humans. I believe that the issue is, How can we humans change so that we're safe for Nature to encounter?

*How do you personally live an ecological life?*

**SZ:** I have to say that living an ecological life isn't a binary choice, something that you either do or don't do. The challenge that confronts my friends and me is, What aspects of our lives can we make more ecological?

Because my wife is in graduate school, I've been living in a city, Seattle, for the past six months. This is the first time in 15 years that I've lived in a city. It's so different!

When I live in the Mattole Valley I can connect with the cycles of life on a local basis, through my firewood, through knowing where the water comes from, and through knowing where my waste goes. I



Seth Zuckerman

Photo © 2004 Jen Lindsey

department was the Energy and Resources Group and I was able to put together an interdisciplinary area of concentration. I took a lot of forestry classes. I also took hydrology, population biology, and economics.

I was curious about how foresters think about forests, how engineers think about water, and how economists think about natural resources. These ways of thinking have a tremendous effect on how Nature is treated. It's useful to understand the thinking in order to combat it.

*Can you tell us more about just what an environmental writer does?*

**SZ:** To start out in this line of work you have to eat a lot of beans and rice! Besides that, it's about finding things out and passing on what I learn. I try to put things together that, at first, might not seem to go together. There's so much that we can



Critics accused the agency of using the PR firm to spin its revision of the Framework as fire prevention and to downplay the tripling of commercial timber harvest and the weakening of protections for threatened and endangered species.

"The Forest Service maintains it needed this expensive PR firm to 'explain a complicated issue to the public,'" Fletcher said. "But that's what agency staff are for. In reality the Forest Service bought this slick PR campaign to sell the revised Framework, not to explain it."

On Apr. 2, two U.S. congressmen demanded an investigation into the Forest Service's use of the PR firm.

The Sierra Nevada Framework covers 11.5 million acres of national forest in the Sierra. Put in place at the end of the Clinton presidency, the

Framework protected old-growth forest and laid the groundwork for watershed and wildlife habitat restoration.

The plan was the result of 10 years of scientific analysis and received more than 47,000 public comments and peer reviews by independent scientists.

The Bush administration initially supported the plan, but the timber industry attacked it, prompting the Forest Service to take another look. In a letter dated Dec. 31, 2002, Regional Forester Jack Blackwell announced that the agency would rewrite the Framework. The agency presented its draft revision to the public on June 5, 2003.

The revised plan called for almost three times more logging to take place than the original Framework. It also increased the size of trees that could be logged to as large as 30 inches in diameter. (Previously the maximum diameter was 12 or 20 inches, depending on whether the area being cut was an old-forest area.)

This expansion of logging was cast by the Forest Service as fuels reduction to help forestall wildfires. The larger timber would

help pay for brush removal, it was claimed.

Environmentalists, however, say that the new plan is more likely to promote wildfires than prevent them. The larger trees attractive to commercial harvesters

are also more resistant to fire, so removing them does little to slow down wildfires. The slash-limbs and wood fragments left behind by loggers increases fire danger. And the canopy removal that would be allowed by the revised Framework—up to 60 percent in certain vaguely defined circumstances—would cause windier, drier

conditions in spotted owl habitat, and provides "discretion" in managing grazing allotments that could endanger the Yosemite toad and the willow flycatcher.

The new plan allows full implementation of the Herger/Feinstein Quincy Library Group pilot plan, with its extensive "experimental" clearcuts, characterized as fire-breaks. The original Framework would have mitigated many of the Quincy Library plan's worst features.

Many scientists and federal agencies had concluded that implementation of the Quincy Library plan would threaten the spotted owl, Pacific fisher, and

pine marten, since it would increase logging in the old-growth habitat these creatures require.

While the original Framework was based on 10 years of scientific studies, the revised plan cites no new science to justify its changes.

"The Forest Service and its timber-company backers knew that Congress would never swallow such a sweeping set of revisions that defies the science," Fletcher said. "That's why they are using the stealth maneuver of putting through big changes in the form of regulatory

revisions rather than statutory ones. It's an all-too-familiar pattern in the administration's anti-environmental strategy."

In 2003 Forests Forever contacted 4,012 people who agreed to write letters to Regional Forester Blackwell, telling him that they opposed any changes to the Sierra Nevada Framework. California senators Barbara Boxer and Dianne Feinstein also received a total of 4,237 letters from Forests Forever supporters opposed to the Framework revisions. —M.L.



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## *The new plan triples logging, reduces community protection, and endangers wildlife habitat.*

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forest floor conditions and brush growth. This would make wildfire more likely.

Studies have identified logging—and especially the cutting of larger trees—as increasing the risk of forest fires. The Sierra Nevada Ecosystem Project Report (1996), for example, says, "Timber harvest, through its effects on forest structure, local microclimate, and fuel accumulation, has increased fire severity more than any other recent human activity."

The revision also allows "small reduc-

participate in the cycles of life. It's much different in the city. On the other hand, I use my car a whole lot less!

But wherever I live, the common denominator is awareness. It starts with the commitment to perceive and to think about how what we do affects the world beyond us. It's just simple consideration: It's what your parents taught you when you were a kid.

*How can we develop broad grassroots education about forests and organize people to save them?*

**SZ:** The first thing that comes to mind is what farmers have done for organic farming: They've put a face on the farmer. So many more people nowadays know who raises their food because of farmers markets. It would be significant for people from the city to know who raised their two-by-fours.

There are many misconceptions on both sides. There's a lot of derision direct-

ed at environmentalists by people from rural areas who don't feel heard or understood. An increasing amount of the forest is owned by non-industrial private forestland owners. They face pressures that city people fail to appreciate. Many of them are land rich and cash poor. They have issues related to estate tax. They face the difficult fact that the price for the commodity that they sell is low, and yet the prices for the finished products are high. There's an old saying: The farmer buys retail, sells wholesale, and pays the freight both ways.

The protection of old-growth forests is hugely important. At the same time we need to consider the other 90-odd percent of the landscape. All of that land has ecological value and much of it supports a community of local people who have important knowledge about the landscape and how to take care of it.

—Interview by Kathy Kaiser

**A selected Seth Zuckerman bibliography:**

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*Salmon Nation: People, Fish & Our Common Home.* Elizabeth Woody, Edward C. Wolf, Seth Zuckerman. Ecotrust, September 2003.

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**Online**

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*"A tree is not a forest," continued from p. 5*

ents. In some cases, Maldonado said, the other vegetation must be killed off. And that leads to another one of replanting's drawbacks: the use of herbicides.

Chris Colson, Forestry Associate with Californians for Alternatives to Toxics (CAT), said that even though the Forest Service does use herbicides, the timber industry is a much bigger user.

"They're carpeting entire clearcuts with the stuff," he said.

Glyphosate is the most commonly used herbicide in California forests. Different formulations are known under brand names RoundUp, Rodeo, and Accord. Other herbicides in use are hexazinone, triclopyr, and clopyralid.

The Forest Service now uses mostly RoundUp. Private companies, according to Buckley, use all of the above, and more problematic herbicides such as atrazine as well.

In Humboldt County alone between 1999 and 2000, timber companies sprayed 20,463 acres with forestry herbicides, according to the California Native Plant Society (CNPS). The timber industry claims that her-

bicides can be used without causing significant harm to the forest.

"The ideal herbicide can be used to eliminate specific undesirable plants while causing little or no damage to valuable crops," says the National Council for Air and Stream Improvement, an industry group.

But the CNPS says that herbicides used in logging do harm native plants such as tanoak and manzanita, which stabilize and replenish disturbed and depleted soils. No permit is needed to use many of these herbi-

logging, they are not required during herbicide applications.

Colson said herbicides are used before logging to kill back plants and allow for easier harvesting. After the cut, they are used to kill off competing vegetation to allow replanted seedlings to grow back.

"A lot of the treatments we see will kill anything, including rare plants," Colson said. "They're designed not to kill the trees but to kill everything else."

One of the dangers of herbicide use is contamination of streams and rivers. Herbicide manufacturers claim their products do not pollute waterways because they stick to the soil. But Colson pointed out that the soil itself often makes its way into the water due to erosion, and can carry the chemicals with it.

Herbicides have health impacts for both humans and wildlife. These substances have been shown to be endocrine disruptors in amphibians, Colson said. (Endocrine disruptors are chemicals that can imitate hormones and are suspected of causing a range of health effects, from cancer to reproductive abnormalities.)

Perhaps as troubling as herbicides' known side effects are their unknown ones. Vivian Parker, a biologist who has worked with various nonprofit and government agencies throughout the Sierra, said



Native plants in this clearcut have been killed by herbicides.

cides, the CNPS says, and while buffer zones are required to protect native plants during

## The Watershed

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*"Restore,  
Reinhabit,  
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*"Roadless"*  
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Senators Boxer and Dianne Feinstein (D-CA) have offered a parallel bill in the Senate.

### Cleveland be dammed

On Southern California's Cleveland National Forest, a local transportation commission is studying proposals to widen the highway that runs through the forest between a roadless area and the San Mateo Wilderness. The Forest Service also has been asked for a permit to build a line of electric transmission towers through the forest.

Last but not least, Nevada Hydro and the Elsinore Valley Municipal Water District want to build a large reservoir in Morrell Canyon, located on the national forest in a roadless area on the edge of the San Mateo Wilderness.

"The canyon would be sealed off by two dams to make a reservoir," says Sierra Club activist Paul Carlton. "Two pipelines will pump water up from Lake Elsinore into the reservoir at night when the electric rates are cheaper. By day, when the rates are higher, the water would be pumped downhill to drive a hydroelectric generator."

Local environmentalists hope to see Morrell Canyon designated a wilderness area.

### Salvage logging in Sequoia

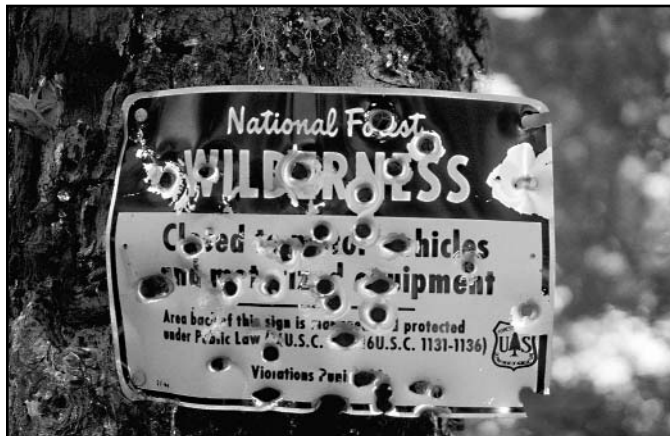
The Forest Service is planning to log the Rincon Roadless Area in Sequoia National Forest. The Rincon covers 41,000 acres and has never been logged.

The agency maintains that the burned trees from the McNally wildfire of 2002 are a fire hazard, and propose logging by helicopter.

"If they do want to restore the forest and reduce the chance of a reburn," says Joe Fontaine of the Sierra Club, "they could cut the small wood and brush, stack 'em and burn

'em. That would reduce the chance of a reburn more than taking out all the big trees."

Boxer's California Wild Heritage Act would add the Rincon Roadless



© 2003 G. Donald Bair/The Geo-Images Project, Berkeley.

Area to the Golden Trout Wilderness.

The roadless rule has helped to protect federal lands from heedless development and exploitation. The Bush administration seems determined to find ways around, over or under the rule to increase logging, drilling, and driving on our national forests.

—M.L.

## TAKE ACTION:

Write to Undersecretary of Agriculture Mark Rey and tell him not to destroy the Roadless Area Conservation Rule:

**Mark Rey**  
U.S. Department of Agriculture  
Room 217-E, Jamie L. Whitten Bldg.  
1400 Independence Avenue, SW  
Washington, D.C. 20250  
(202) 720-7173

## FORESTS FOREVER FOUNDATION

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"A tree is not a forest"  
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no one knows what forest herbicides' true impacts are.

"In fact, most laboratory studies have focused only on the lethal effects from ingestion. They seldom have looked at the more subtle effects of these products on eggs and sperm, developing embryos or on juvenile organisms," Parker wrote in an article on the Pesticide Action Network website.

#### Replanting can have benefits

While replanting as practiced by most

timber companies clearly has its problems, when done right it can help revitalize damaged forests. The Mattole Restoration Council has been replanting cutover land since the mid 1980s in Humboldt County's Mattole River Watershed. Isom, the council's reforestation program coordinator, said the organization takes pains to replant in the most ecologically sound way possible.

"For us, the mandate of improving the quality of the watershed we call home is paramount," he said.

Isom said the organization recently received funding to undertake a large assessment of the sites replanted in the 1980s. The council will be looking at how many of the trees survived and their current state of health. It is that kind of monitoring that makes for a responsible landowner, Isom said.

"Stewardship connotes active tending," he said. "It's time-consuming, but it makes for better long-term viability of the forest."

—Andria Strickley

"Oaks"  
continued from p. 1

is, after the cumulative impacts of urban sprawl and losses from disease, that we protect the living, healthy oaks," said Janet Cobb of the California Oak Foundation.

There are no effective laws or regulations in place that protect California's oaks outside of parks and preserves. SB 1334 would require the state Board of Forestry to establish such regulations.

The bill also would require developers to offset the loss of any oaks they clear. Several possible mitigation measures are listed: replanting five oak trees for every one destroyed, purchasing conservation easements on oak woodlands, or contributing to the Oak Woodlands Conservation Fund.

Replanting would involve not merely planting individual trees, but also establishing biologically functional oak woodlands.

SB 1334 has been rewritten slightly from last year's SB 711 but offers the same strong

protections. It was passed out of the Senate Environmental Quality Committee on Apr. 19 on a vote of 5 to 1. Forests Forever pushed especially hard to enlist the "aye" vote of Sen. Bruce McPherson (R-Santa Cruz). The bill now goes to the Senate Appropriations Committee.

Supporters are optimistic about SB 1334's chances in the Senate but less sanguine about the Assembly. Development interests are fighting hard to defeat the bill.

"Ranchers and the timber industry are gunning for it," said Cobb.

Forests Forever has campaigned on the Oak Woodlands Protection bill since November 2003, generating 2,950 commitments to contact legislators in support of it.

We also have been pushing the state Board of Forestry to designate oaks as a commercial species. This would provide oaks with the same protections afforded conifers. Without commercial species status oaks can be treated as weeds and eradicated without much recourse. We have

generated 2,742 letters and faxes to the board in support of our position. —M.L.

### TAKE ACTION:

Please urge your state senator and assemblymember to support SB 1334. To find contact information for your legislators, visit

<http://www.leginfo.ca.gov/yourleg.html>

Send a copy of your letter to:

**Gov. Arnold Schwarzenegger**  
State Capitol Building  
Sacramento, CA 95814

**Assemblyman Fabian Nunez,**  
Speaker of the Assembly

**Assemblywoman Hannah-Beth Jackson,** chair of the Assembly  
Natural Resources Committee

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