



The Watershed

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As the world burns: Politicians are waking up to global warming

After years of pretending that global warming doesn't exist, politicians in Sacramento and Washington, D.C., are finally trying to do something about it.

Global warming is a reality. Higher average temperatures, rising sea levels, stronger and more frequent hurricanes, melting glaciers— the signs that something is changing in the global climate are getting harder to overlook.

And the overwhelming scientific consensus is that human beings and fossil fuels are the cause.

Now there are hearings in Congress on the changing climate and the role human beings are playing in it. And this spring there has been a flurry of new global warming legislation.

Can You Hear Me Now?

Sen. Barbara Boxer (D-CA) has been at the forefront of the issue on the national level. Boxer, now chair of the Senate Environment and Public Works Committee, has begun a series of hearings on global warming, and has co-

sponsored legislation that would reduce U.S. greenhouse gas emissions.

The witness who caused the biggest stir at the committee hearings

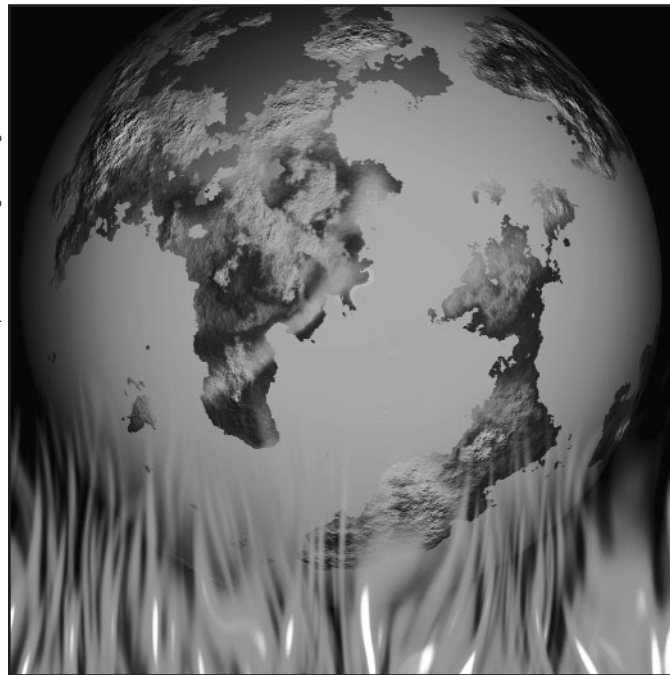
Too little, too late?

Global warming legislation is being introduced as well. Sens. Boxer and Bernie Sanders (I-VT) have introduced the Global Warming Pollution Reduction Act (S. 309), one of the strongest pieces of climate-change legislation to come out of either house of Congress.

This bill would enforce reductions in greenhouse gases, with a goal of ensuring that global average temperatures do not increase by more than 3.6 degrees F. It would limit the atmospheric concentration of carbon dioxide— the gas primarily responsible for global warming— to 450 parts per million (the current level is 378 parts per million).

S. 309 would do this by limiting greenhouse gas emissions in the United States— from cars, trucks, buses, electric power plants, and any industry that pumps these gases into the atmosphere. The goal of the legislation is to reduce greenhouse gas emissions in this country by 80 percent below 1990 levels by the year 2050.

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was undoubtedly former Vice President Al Gore (see sidebar, p. 9), recent Oscar winner for his global warming documentary *An Inconvenient Truth*. Gore appeared before the committee on Mar. 21.

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See "Warming," p. 9

Inside The Watershed

WARMING UP TO GLOBAL WARMING AT LAST . . . 2

TAKE ME OUT TO THE BALLGAME . . . 3

WATER FROM THE FORESTS . . . 4

NEEDED: NEW GUARDIAN FOR GIANT SEQUIOIAS . . . 6

JOHN BERGER: HOW DOES THE FOREST GROW? . . . 7

ROADLESS RULE BOUT ENTERS NEXT ROUND . . . 10

KENT STROMSMOE PASSES . . . 11

from the Executive Director

Global warming here and now

Why has it taken us so long to wake up to it?

"Doubt is our product, since it is the best means of competing with the 'body of fact' that exists in the mind of the general public."

— Brown and Williamson Tobacco Co. memo, 1960s

The recent scientific revelations about global warming may seem like a new issue. But it's been around a while.

French scientist Jean Fourier coined the phrase "greenhouse effect" in 1827 to illustrate how gases in the atmosphere might affect Earth's climate. In 1896 Svante Arrhenius, a Swedish chemist, calculated with surprising accuracy (compared with today's estimates) that a doubling of the CO₂ content in the atmosphere could warm the planet by as much as nine degrees Fahrenheit.

Fans of *An Inconvenient Truth*, Al Gore's history-making documentary, will remember that Harvard professor and Scripps researcher Roger Revelle began in the 1950s to document the relentless increase in atmospheric carbon dioxide.

And some 32 years ago, my college textbook for Environmental Policy 101 (*Living in the Environment* by G. Tyler Miller, Jr., Wadsworth Publishing Co., 1975) was scaring the bejeezus out of some students:

"A 1° to 2° C change would significantly modify global climate. It could trigger the relatively rapid melting of the floating Arctic ice pack, which by decreasing the albedo [reflectivity of the sun's energy off the Earth's surface] could cause further warming through a positive or runaway feedback mechanism. ... Once set in motion these [and other] self-amplifying changes would be irreversible and proba-

bly would last for millions of years . . ."

But if we have known about this for so long, why is this information just now hitting the front pages? Why has no effective action against global warming been taken sooner?

Part of the answer lies in the nec-

"Science thrives on uncertainty and politics is paralyzed by it."

— Al Gore

essarily cautious process of science, which strives always to not draw firm conclusions until proof is irrefutable. But a fuller answer lies in the arenas of PR and politics.

As Gore puts it, "Science thrives on uncertainty and politics is paralyzed by it."

Self-interested and powerful industries such as the energy companies and automakers have had an overwhelming influence on both politics and the media during most of the last century. Like the tobacco companies with their "tobacco science," the dirty-fuels delegation has distorted interpretations of the empirical findings that increasingly pointed toward a human-caused and accelerating greenhouse effect.

These lobbies spent millions to exaggerate minor uncertainties to make it look as if a real debate about global warming still roiled the scientific community. They have sought, in the words of one of their internal memos, to "reposition global warm-

ing as theory, rather than fact."

And nowhere has this smoke and mirrors exhibition been more despicable than in the White House: Between 2001 and 2004 the George W. Bush camp altered, buried, or sought to discredit close to a dozen major scientific reports on climate change.

Momentum, at least for now, seems to point toward tougher environmental regulations, toward market-based approaches, and to conservation and better forestry practices.

But if the fossil fuel industries and their spinmeisters did it before, could they not bend the public's opinion back their way? It may now be too costly even for these multi-billion-dollar entities to turn back the tide. But maybe not.

Then where would the planet be headed? Perhaps toward a runaway greenhouse that could destroy civilization itself and with it most large animals such as ourselves.

To face down the global warming threat will surely require us to change just about every aspect of our lives. But we can succeed, even against the obstacles of today: In recent decades we have torn down the Berlin Wall, ended apartheid in South Africa, and begun to repair the ozone layer.

Like those, reversing global warming is another fight we must, can, and will win.

— Paul Hughes



A brand-new ballgame

Now that Richard Pombo's gone, how will forests fare in Congress?

With a whole new line-up in both houses of Congress, for the first time in over a decade forest advocates may legitimately hope to do more than go down swinging. Let's take a look at the new bench:

The Rookie

In the U.S. House of Representatives, wind-power engineer and political novice Jerry McNerney, a Democrat from Pleasanton, defeated Richard Pombo (R-Tracy), the pol enviros loved to hate—and for good reasons—in the general election on Nov. 7. Running in California's District 11, McNerney took 53 percent of the vote versus Pombo's 47.

Forests Forever endorsed McNerney and took an active role in the campaign to oust Pombo in 2006. We sent press releases and email alerts regularly to our supporters, urging them to support Pombo's opponents.

Special election bulletins for both the Republican primary, in which we endorsed Pombo's opponent, Pete McCloskey, and for the general election appeared in our newsletter. Kristin Lysko, a Forests Forever staff member, played a key role in coordinating precinct walks and get-out-the-vote efforts in McNerney's district.

McNerney's committee assignments are a good fit for his interests and background. His highest priority, he says, is to reduce this country's dependence on fossil fuels. He sits on the Select Committee on Energy Independence and Global Warming (the high-profile committee recently convened by House Speaker Nancy Pelosi) and the

Committee on Science and Technology.

New faces on the committees

Pombo used his three years as chair of the Resources Committee (as it was then called) to ensure that few environmental bills made it to the House floor.

In the Senate

Sen. Barbara Boxer (D-CA) is now chair of the Environment and Public Works Committee. Boxer is holding hearings on global warming (see article on pg. 1), and has introduced legislation to curb greenhouse gases.

She was inspired by the signing last September of the Global Warming Solutions Act in a landmark California campaign in which Forests Forever took part.

Boxer also has been a driving force behind wilderness preservation efforts in California. She was instrumental in adding acres to the Ventana Wilderness Area in Los Padres National Forest in 2005 and in helping in 2006 to pass the Northern California Coastal Wilderness Act, which designated 275,000 acres of California's North Coast as

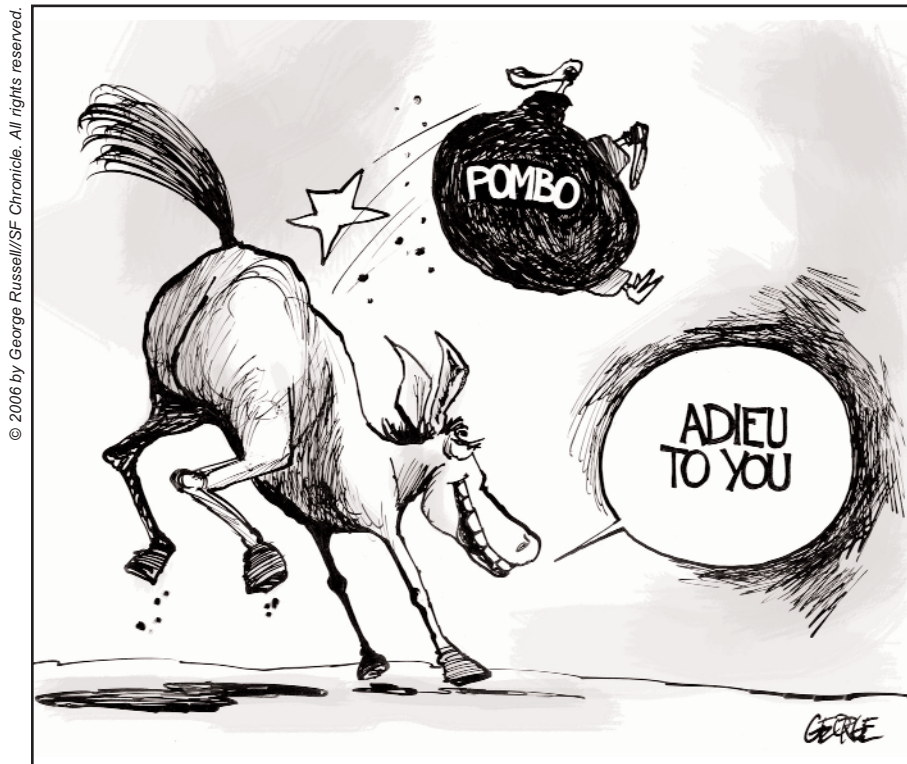
wilderness.

Her California Wild Heritage Act of 2007, introduced in February as S. 493, would protect some 2.4 million acres of federal lands in California as wilderness, and designate more than 280 miles of wild, scenic and recreational rivers.

Waiting in the wings

Despite a friendlier congressional environment, forest activists can expect some harmful legislation to be proposed, including a threatened "Son of Walden" salvage logging bill, budget provisions to punch roads into roadless areas, and continued subsidies for timber extraction in the national forests.

Now, with so many more sympathetic congresspersons in office, we're counting on some decent legislation to be offered—and passed. —M.L.



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The new Natural Resources chair, Nick Rahall (D-WV), is much more likely to give eco-friendly bills a fair shake.

Rahall already has promised to uphold, not attack, the National Environmental Policy Act and work on natural resource conservation. He has a good record of supporting conservation-minded public lands acquisitions.

The Act to Save America's Forests (see story on page 6) has been introduced each session since it was first proposed in 1997. This measure would end clearcutting on federal lands, preserve ancient forests, and protect California's giant sequoias, among other sound forest policies.

Rep. Anna Eshoo (D-CA) is re-introducing the bill this year. Because of a friendlier Congress and rising public concerns about global warming, it has a much better chance of getting a hearing.

What's in your watershed?

California's forests keep the state all wet— or not

Not long ago our hydro technology was as simple as a well and a bucket.

Now our water supply comes to us through a complex system of reservoirs, pumps, aqueducts, canals, pipelines and filtering stations.

But while the delivery system is mechanized, our water supply still begins its journey, as in ancient times, in leaves and soil.

Forests and water

Forests have long been valued— if not protected— as sources of timber. The role played by forests in supplying fresh, drinkable water has long been recognized, too— although this hasn't prevented the degradation of forested watersheds by clearcutting, pesticides, road-building, and development.

Drinking the mountains

It was in large part due to their role as collectors and purifiers of water that the national forests were first set aside. According to John Berger (whose book *Forests Forever: Their Ecology, Restoration and Protection* is coming out in September; see story on page 7), "More than half of the water supplies in the western United States flow from the national forests."

The Sierra Nevada is the state's main water collector. Some 60 percent of the state's water supply originates in its mostly forested watersheds.

Most of the precipitation there falls in the winter and spring— from December to May— and mostly as snow.

The snowpack normally melts slowly as the temperatures rise in the late spring and summer, gradually delivering its meltwater to the streams

and rivers that drain the watersheds. California's water storage and delivery system is keyed to this gradual delivery of water— an important point that we'll return to later.

In the Sierra

More than half of the forested lands

lion acres, or 58 percent.)

"The entire Sierra is very fragmented," said environmental analyst (and Forests Forever Advisory Council member) Betsy Herbert. "Because of the way the land was deeded to the railroads, it has a kind of checkerboard pattern that was typical of the whole area. It's private land interspersed with public land."

Clearcutting

California's forests have been degraded by over 150 years of human exploitation.

Logging may well be the single most damaging activity for forest watersheds (though population growth with its attendant development is becoming more and more important.)

Logging disturbs the soil, leaving it exposed to erosion. Soil bared by logging runs into watercourses as sediment, degrading water quality, harming fish, and often leading to flooding. Well-shaded forest soils, on the other hand, soak up and purify water, a function that diminishes when the canopy is removed and heavy equipment compacts the soil.

And the most damaging kind of logging is clearcutting.

Clearcutting, referred to by its apologists as "even-aged management," is a logging technique that cuts every tree within a designated area. (There are variations, such as the seed tree cut and the shelterwood cut, that leave a few trees to seed new growth before they too are felled, but these are effectively the same as clearcuts.)

Clearcutting is allowed by the California Forest Practice Rules, and is a favored technique on private timberland.



Photo copyright 2007 Big Stock Photos

Snowy forest in the Sierra Nevada. Much of California's drinking water is stored in the range's snowpack.

in California's watersheds are owned by water districts or the state and federal governments. Water districts, of course, are disposed to manage their forests primarily as watersheds, and popular pressure can force other governmental forest managers to do the same.

But private timber companies own the rest. (About 42 percent of California's 39.6 million acres of forest are privately owned; federal, state and municipal forests cover about 23 mil-

The largest owner of private timberland in the state—in fact, the largest landowner period—is Sierra Pacific Industries (SPI).

According to *Troubled Waters in the Sierra*, a 2003 report by Kerri L. Timmer from the Sierra Nevada Alliance, SPI plans to clearcut 70 percent of its million and a half acres, most of which lie in the Sierra Nevada.

SPI's ultimate goal for its timberlands is to clear them of trees, then plant the cuts, according to the report. Such tree farms are plantations of fast-growing trees that can be grown in short rotation cycles for future harvest.

But tree farms do not function like natural forests. According to *Running Pure*, a report from the World Bank and the World Wildlife Foundation, "... old forests may consume less water than the vegetation that establishes itself after clear-cutting." Old growth forests—roughly defined as stands of trees with an average age over 200 years—have been shown to produce the highest water quality.

And there is evidence that old forests produce the greatest quantity of water as well. Younger forests and tree plantations produce less moisture-retaining shade, have shallower soils, and drink up a greater share of runoff.

Pesticides

Tree farms also require large quantities of pesticides and herbicides to keep away competing plants and the insect pests that can wreak havoc with such monoculture crops. The residue from pesticides washes into nearby streams

and enters the water table, with an obvious negative effect on water quality.

According to Vivian Parker of the Pesticide Action Network, "more herbicides are applied in California by the

zone— but allows logging and road-building, albeit to a lesser degree, inside the buffer.

"We don't have a no-cut buffer zone in California," Herbert said.

Some water utilities have enforced their own no-cut zones to improve water quality.

Many water utilities have been purchasing conservation easements to prevent forested land from being developed or roaded even if ownership changes.

"Roads can change the whole hydrological regime of a watershed," Herbert points out. "They can change the stream flow. Roads that are not maintained can actually turn into part of the stream. They become watercourses."

In addition to causing erosion and sedimentation, this diversion of water from streambeds means that there is less water available to sustain fish populations.

Global Warming and Water

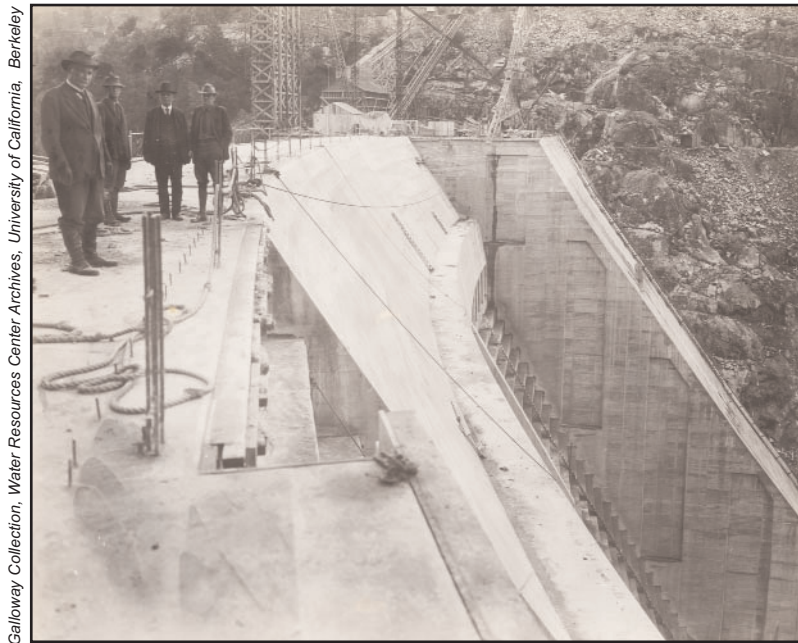
The acceleration of climate change will bring about tremendous changes in the watersheds of the Sierra Nevada. California may never be the same.

Global warming will not turn off the tap and dry up the state's precipitation: In fact, there may even be heavier rainfall than at present. But warmer winters mean that more precipitation will fall as rain,

rather than snow. And the heaviest precipitation may come at different times of the year than heretofore.

These changes could be devastating for California. Less snow means a lessening of the snowpack, the state's primary water storage.

What is worse, increased spring rains falling on snow could melt more of that snowpack at once. The gradual release of water from melting snow, mentioned earlier, would be lost, replaced by sudden floods of silt-laden water. The resulting runoff could be more than our



Finished in 1923, O'Shaughnessy Dam drowned Hetch Hetchy Valley in Yosemite to keep San Francisco supplied with drinking water.

Forest Service than any other national forest lands in the nation."

And the Forest Service uses less pesticide than the timber industry. The private timber companies are by far the bigger user of herbicides in California. In 2002—the most recent year for which data were available—private industry accounted for almost 90 percent of herbicides applied in California's forests.

Salmon: roadkill

Roads built to service timber harvests degrade water quality as well. Runoff from roads is the main source of sediment washing into forest streams.

Buffer zones are the forested areas along stream banks not logged or logged selectively to keep the stream shaded, regulate stream temperature, and to absorb sediment runoff.

The requirements for buffer zones differ greatly from state to state. California requires a fairly broad

Logging may well be the single most damaging activity for forest watersheds.

See "Watersheds," p. 11

Park the Forest Service

Saving forests from their erstwhile protectors

The national forests were founded to protect the last big woods and wild watersheds of this country from rapacious logging. But since that beginning, getting out the cut has come to be the watchword of the U.S. Forest Service.

The Act to Save America's Forests, slated to be re-introduced in the new Congress by Rep. Anna Eshoo (D-Atherton), would shift this focus and protect tens of millions of acres in the national forests from logging. Importantly, it would also transfer Giant Sequoia National Monument (GSNM) from the Forest Service to the National Park Service.

Turning over the Monument

On Oct. 19, 2006, Rep. Pete Stark (D-CA) and 28 other members of the U.S. House of Representatives sent a letter to Mike Johanns, Secretary of Agriculture, and Dale Bosworth, Chief of the Forest Service, demanding an immediate halt to logging in the GSNM.

"These logging operations are destroying the natural sequoia forest ecosystem of the GSNM," the letter reads, "in direct violation of the spirit and the letter of the presidential proclamation creating the GSNM in 2000."

One of the most egregious example of these logging operations was the removal in 2004 of over 200 of the larger trees from the most popular tourist attraction in the monument, the Trail of 100 Giants. The logging operation, justified by the Forest Service as "hazardous tree removal," violated the National Environmental Policy Act.

Several California lawmakers signed this letter: Barbara Lee (D-Oakland), Tom Lantos (D-San Mateo), Pete Stark (D-Fremont), Anna Eshoo (D-Atherton), Michael Honda (D-Campbell), Jane Harman (D-Venice), and Grace Napolitano (D-Norwalk).

The best of the rest

The Act to Save America's Forests would prohibit logging and roadbuild-

ing in roadless areas, ancient forests and riparian areas (the banks of streams and rivers).

The measure would ban logging in forests that contain endangered species, rare or endangered ecosys-

Nevada would be protected under the act. According to the 1996 Sierra Nevada Ecosystem Project's *Final Report to Congress: Status of the Sierra Nevada*, areas of "late-successional emphasis" make up 42 percent of the

Photo courtesy Sequoia Forestkeeper



Sugar pine cut down along the Trail of 100 Giants in Giant Sequoia National Monument

tems or key habitats for the recovery of threatened or endangered species; rare or underrepresented forest ecosystems; migration corridors; areas of outstanding biodiversity; old-growth forests; commercial fisheries; or sources of clean water such as key watersheds.

Importantly, the act would prohibit any and all clearcutting. This includes all types of "even-aged" management, where all or most of the trees in a stand are cut down. The only exception is for the removal of clearly defined invasive trees to permit the restoration of native species.

Roadbuilding and logging in all roadless areas greater than 1,000 acres would be prohibited under the act. (Note that this prohibition includes Alaska's vast Tongass National Forest.)

All roadless areas and virtually all late-successional forests in the Sierra

national forests in the Sierra Nevada.

The act would also protect lands identified as "potential Aquatic Diversity Management Areas" (ADMAs) in the same report. These watersheds are greater than 50 square kilometers, have a natural hydrologic regime, are dominated by native species, contain a wide representation of aquatic habitat types, and are in "good condition." The report lists 48 ADMA watersheds in the Sierra Nevada.

Carl Ross of the Washington, D.C. group Save America's Forests, has been working for a decade to pass this bill, and thinks its time may have come at last.

"Now that there is a more environmentally friendly Congress," Ross said, "if enough citizens speak out, we can end a century of destructive logging and pass the Act to Save America's Forests into law."
—Matt Rogina

Energy for change:

Author John Berger wants forests that keep on giving

John Berger writes about facts.

He writes about energy and the environment, and about how we can heat our homes, build our houses and feed ourselves without using up forests and wildlife or contaminating the atmosphere.

But his development as a nonfiction writer began in fiction.

As a young man Berger wanted to write novels. After college (he studied political science and economics at Stanford) he went to work as a news writer, first for a local radio station, and later for Alternative Feature Service Inc., a national news service in Berkeley.

After leaving the news service, "I needed to find a way to make a living," Berger said, "and I thought it might be possible to write nonfiction books, and thereby subsidize the writing of novels.

"I looked around for a topic to write about—this was in the early seventies—and I decided to write a book about nuclear power."

Researching the problems of nuclear power got him involved in broader issues of energy. This research in turn led to wider-ranging investigation of energy sources and their effects on society and, crucially, the environment.

Berger began to think about the best way to power our complex, always growing civilization without destroying the world around it, and without using up the very resources we depend on for our continued existence. He began to study alternative sources such as solar, wind, geothermal, and tidal power. And he began to think about sustainability.

Since then Berger, who now lives in

the San Francisco Bay Area with his wife and two sons, has gone on to research and write six books— about climate change, environmental restoration, forests, nuclear power, and renewable energy.

His latest book, *Forests Forever: Their Ecology, Restoration, and Protection*, is due out in September 2007, a co-publication of Forests Forever Foundation and the Center for American Places.

Photo courtesy John Berger



John Berger, rafting down Alaska's Copper River in 2004

Early on it attracted the backing of Robin Williams, Peter Coyote, and other influential persons concerned about protecting the world's forests.

Only connect

Berger's interests have tended to connect, one book leading to the next.

In his important 1987 book *Restoring the Earth* (Doubleday) Berger first examined the idea that it is not enough to protect the natural world from destruction: We must return to health what has been damaged.

One of the chapters dealt with reforestation— replanting logged forests and restoring the complex communities of organisms in them to help re-create complete ecosystems, not merely tree farms.

In researching the subject Berger became fascinated by the many components that interact to create a forest ecosystem. He noted that current forestry practices— such as clearcutting— often damage this delicate balance.

This research led to a deeper study of forestry, and to the writing of *Understanding Forests* (Sierra Club Books, 1998). This earlier edition, after extensive revisions and additions, has now become *Forests Forever*.

The new edition came about, Berger says, because he felt that the subject of forest ecology was still a timely one— given the recent intensification of threats to forests— and he saw ways to improve the original book.

Berger has given a lot of space in *Forests Forever* to the radical changes brought to 30 years of forestry policy by the current administration. In a new chapter "New Developments in U.S. Forest Policy," he scrutinizes the regulatory reform initiatives and political appointments of the Bush administration, and discusses their potentially damaging effects on the nation's forests.

"The Bush administration has obviously been trying to undermine forest protection efforts and environmental regulations across the board in very brazen, cynical, and short-sighted ways," Berger said.

He pays particular attention to the Roadless Area Conservation Rule, the Endangered Species Act, and the deceptively titled Healthy Forests Initiative.

Continued on next page

While the book has a North American emphasis, Berger also includes a chapter covering tropical rainforests and the special problems they face. He also takes a look at more positive recent developments in forest protection, such as the Canadian Boreal Initiative, a coalition of 11 conservation, First Nation, and timber industry groups that reached an agreement to preserve 50 percent of the vast Canadian northern forest and to sustainably manage the rest.

Forests Forever will be distributed nationally by the University of Chicago Press. The book has a four-color cover photograph of a Sitka spruce grove taken by Northwest photographer Bob Herger (see image, this page). There will be three photographic galleries, featuring contemporary color photos by some of the most respected names in nature photography— Gary Braasch, Daniel Dancer, Herger, and Larry Ulrich among them.

First wisdom

“As a boy I loved forests,” Berger said. “I used to wander through the Hudson Valley near my home, visualizing what it was like when the Indians lived there.”

Berger feels that Native American lore is not merely historical, but something we should attend to today.

“We need to learn from Native

With so little undamaged forestland left, and with the pressures of population growth and global climate change and the destruction caused by ramped-up exploitation since World War II, Berger sees restoration forestry as not simply a good but a necessary thing.

“We need to restrain human population growth and replace the notion of endless exponential economic growth and its concomitant increasing demands for natural resources and energy. We need instead to adopt policies based on harmonious, steady-state, sustainable use of resources, and thus build sustainable economies.”

Up in Alaska

Berger, who holds a Master’s degree in energy and natural resources from the University of California, Berkeley and a Ph.D. in ecology from U.C. Davis, now works as writer and consultant specializing in natural resources and the environment.

Berger has been visiting Alaska since 1975 and has traveled frequently to the

south-central Alaska were dead or dying from spruce bark beetle infestations,” he said. “As the climate has heated up in Alaska due to increasing concentrations of greenhouse gases, insect pest populations have reached epidemic proportions.”

Like many who encounter Alaska’s spectacular wild lands, Berger has seen how, little by little, they are being sacrificed to development and resource exploitation. He wants to help preserve them before it is too late.

“The focus of my research has been an effort to help identify a sustainable development path for Alaska that doesn’t amount to environmental degradation and loss of wildness on the installment plan.”

Of use

Berger would like to see *Forests Forever* used to educate the public about the importance of forests. He’d also like to see his book used to help train the next generation of forest activists.

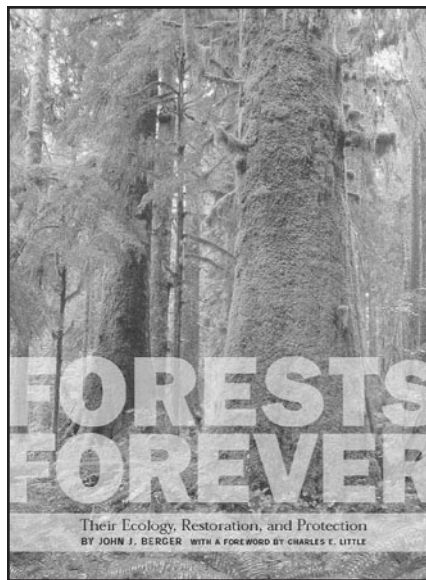
“Throughout my career I’ve been very impressed by the power of the committed individual to change things,” he says.

“We need to fight for the protection and restoration of forests, and their management according to principles of ecology and conservation biology, not for narrow, short-term profit at the expense of sustainable natural systems.

“I’d like to shine a spotlight on the existence of, and potential of, sustainable forestry to protect and perpetuate healthy forests while supporting human needs,” Berger says.

“It can be done!”

—M.L.



A Sitka spruce grove graces the cover

A selected bibliography of John J. Berger

Nuclear Power: The Unviable Option. A Critical Look at Our Energy Alternatives (Dell, New York, 1976)

Restoring the Earth: How Americans Are Working to Renew Our Damaged Environment (Alfred A. Knopf, New York, 1985; Doubleday Anchor Books, New York, 1987)

Charging Ahead: The Business of Renewable Energy and What It Means for America (Henry Holt and Company, New York, 1997)

Understanding Forests (Sierra Club Books, San Francisco, 1998)

Beating the Heat: Why and How We Must Combat Global Warming (Berkeley Hills Books, Berkeley, Calif., 2000).

Forests Forever: Their Ecology, Restoration and Protection (The Center for American Places, Staunton, Va., and Forests Forever Foundation, San Francisco, 2007).

Americans and their traditional ecological knowledge,” he said. “They are the true masters of sustainable living.”

Last Frontier over the past three years. “Many of the forests I saw on the Kenai Peninsula and the interior of

For more information about *Forests Forever: Their Ecology, Restoration, and Protection*, see the Forests Forever website at: <http://www.forestsforever.org/ConciseGuide.html>

The bill also promotes a cap-and-trade system that would set a limit on the amount of greenhouse gases that could be emitted, awards credit to polluters that stay under this limit, and allows them to sell their unused credits (see sidebar, p. 12).

The measure encourages development of new technology to reduce greenhouse gas emissions, such as "geologic sequestration" of carbon dioxide (capturing and storing CO₂ underground).

Sens. John Kerry (D-MA) and Olympia Snowe (R-ME) have authored S. 485, a bill similar to Boxer's. The Kerry/Snowe bill, however, mandates a 65 percent reduction in global warming pollution emissions by 2050 based on levels in the year 2000—a more lenient standard than the Boxer bill's. The Kerry/Snowe bill would amend the Clean Air Act to cover greenhouse gas emissions, and would promote cap-and-trade market-

The Climate Stewardship Act of 2007 (H.R. 620), introduced by Rep. John Olver (D-MA), is entirely focused on promoting market-based solutions

National Greenhouse Gas Database, and would award credits for carbon sequestration, including credits for forest preservation and reforestation.

Photo courtesy U.S. Senate



Barbara Boxer wields the gavel at the Senate hearings on global warming. Sitting beside her is Republican Sen. James Inhofe of Oklahoma, who has called global warming "the biggest hoax perpetrated on mankind."

to limiting emissions through a cap-and-trade program of emissions credits.

Sacramento Warms To Climate Change

A few years ago, state-level bills addressing climate change were as thin on the ground as honest politicians.

But when A.B. 32, the Global Warming Solutions Act, was signed by Gov. Arnold Schwarzenegger last September, the floodgates opened and global warming bills came pouring out.

A quick search on the California legislative information website (<http://www.leginfo.ca.gov/>) turns up more than 75 bills on the topic.

Fuel me once

Bills promoting alternative fuels for gasoline are a popular item in Sacramento this session. Introduced by Sens. Christine Kehoe (D-San Diego) and Don Perata (D-Oakland), S.B. 494 requires half the cars in California to be running on alternate fuels by 2020.

Other bills promote solar and wind (S.B. 411, by Sens. Joe Simitian and Perata).

Plugging alternative fuels such as ethanol and biodiesel into the gasoline distribution system seems like a good idea at first glance, since these fuels

Al Gore gets all inconvenient on Congress

Al Gore's list of things we need to accomplish to avert a global warming catastrophe is more radical than anything envisioned in legislative proposals thus far. In his testimony before the Senate committee on Mar. 21, Gore:

- Called for an immediate freeze on CO₂ emissions;
- Argued that we should cut payroll taxes (such as the one that pays for Social Security) and substitute these revenue streams with pollution taxes, especially carbon dioxide taxes;
- Proposed that we negotiate a new treaty to go beyond the goals of the Kyoto Protocol, to begin in 2010;
- Asked for a moratorium on new coal-fired power plants that are not equipped with carbon scrubbing and sequestration equipment;
- Recommended a ban on incandescent light bulbs;
- Proposed building a decentralized electricity grid, an "electranet" structured like the internet;
- Said fuel economy standards for cars and trucks should be raised;
- Proposed a "carbon neutral" mortgage association for energy-efficient housing; and
- Called for corporate disclosure of carbon emissions.

Photo courtesy U.S. Senate



Al Gore

based approaches.

The bill would establish a registry of greenhouse gas emissions, the

See "Warming," p. 12

Bush & Co. appeal roadless rule decision

Defeated in court, their attempt to overturn the popular rule thwarted, the Bush administration and the timber industry nevertheless continue to tussle over the 2001 Roadless Area Conservation Rule.

In September 2006 U.S. District Court Judge Elizabeth Laporte declared the administration's repeal of the 2001 roadless rule to be illegal.

The Department of Agriculture filed an appeal of Laporte's decision on Apr. 9, submitting a three-page notice that gave no grounds for or reasoning behind the appeal.

Silver Creek Timber Co. of Merlin, Ore., which had intervened in the case to protect its interests in the Biscuit Fire salvage-logging project (part of which lies in the South Kalmiopsis Roadless Area) has also appealed, even though the Biscuit projects have already been logged.

Thrown out

In her initial decision Laporte ruled that the U.S. Forest Service, in repealing the original roadless rule, failed to conduct an environmental review as required by the National Environmental Policy Act, and failed to consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, as required under the Endangered Species Act.

She reinstated the original rule (with the exception of the Tongass amendment, which exempted Tongass National Forest in Alaska from the provisions of the 2001 rule), and issued a final injunction on Feb. 7, 2007, retroactive to Jan. 12, 2001.

Written briefs from all parties to the suit are due to the court sometime in July 2007.

Wyoming strikes out in court

Meanwhile, the State of Wyoming asked the court to revive its lawsuit against the original roadless rule. The state's original lawsuit became moot when the Bush administration repealed the roadless rule in May 2005.

Earthjustice, representing environmental groups in the case, argued for the original roadless rule. (Earthjustice is the environmental law firm that represented 20 environmental groups, including Forests Forever Foundation, in the lawsuit that overturned the Bush

administrative Procedure Act.

The department intends to issue state-specific rulemakings for roadless area protections— or, as is more likely, the removal of such protections.

Although the governors of Colorado and Utah are planning to file petitions, only Idaho's petition has been accepted so far. This is the first time the Department of Agriculture has considered a governor's petition for a state-specific rulemaking.

The governor's petition would redefine 525,000 acres of Idaho roadless forest as "general forest," removing them from the protection of the roadless rule.

Idaho has more roadless forest outside of parks and preserves than any state in the lower 48— more than 9.3 million acres. These acres contain some of the last unspoiled wild forest in the West.

"Losing these roadless forests to logging, oil and gas drilling, roadbuilding and ski resort development would

be a loss not just to Idaho, but to the country as a whole," said Forests Forever executive director Paul Hughes.

The Forest Service announced a 30-day public comment period on the Idaho petition's plan for the state's roadless areas.

Thirty-seven conservation groups from across the country (including Forests Forever) sent a letter to the Forest Service asking to have the comment period extended to 90 days.

The Forest Service, however, denied this request on May 14, saying that it "did not see a need to extend the comment period."

—M.L.

Photo credit: Barbara Ullian / KS Wildlands Center



Part of the 335-acre Mike's Gulch Timber Sale in the South Kalmiopsis Roadless Area, Oregon

repeal.)

Judge Clarence Brimmer of the 10th District Court heard the case on May 25. On June 7, Brimmer refused to reinstate Wyoming's suit. This means that, for now, the original roadless rule is in force.

Attorneys for both sides, however, predicted that the court battle will continue.

Petitions for Idaho, Utah, Colorado

Even though their attempt to replace the national coverage of the original roadless rule with a state-by-state petition process has been thrown out by the court, the Department of Agriculture is still accepting petitions from state governors under the Ad-

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"Watersheds," continued from page 5

present system of reservoirs, levees, and dams could control, resulting in widespread disastrous flooding, as well as increased costs for treatment.

Paradoxically, this excess of water could be followed by extreme drought. There would be less water in reservoirs, and less runoff from snowmelt over the course of the summer.

Herbert points out that the forest management techniques that are used to improve water quality—minimizing soil disturbance, no clearcutting, few or no roads, preserving old forest—also result in a forest with more ability to sequester carbon. What's good for clean water also fights global warming.

Managing forests for water quality

Since passage of the federal Safe Drinking Water Act in 1996 there has

been a renewed emphasis on preserving forest watersheds to ensure water quality.

By ensuring that a forest watershed can continue to provide its gathering and filtering functions without being damaged by development, water districts are saving themselves—and their customers—millions of dollars that would otherwise have to be spent on maintaining reservoirs and building filtration facilities.

Forests are beautiful. But they are useful, even essential, to our urban civilization as well, and not merely as suppliers of lumber. Clean drinking water and an adequate supply of water for irrigation are also gifts of the forests.

"There's a great value, economically, in preserving forests, because of these natural services that they perform," said Herbert. "They do it for nothing."

—M.L.

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**"Restore,
Reinhabit,
Re-enchant"**

Kent Stromsmoe

1953 - 2007

The forests of California have lost one of their strongest champions.

Longtime Forests Forever board member Kent Stromsmoe passed away on May 31, leaving many California forest-protection advocates stunned.

"Kent was an amazing man," said Mark Fletcher, president of the Forests Forever board of directors. "He was incredibly intelligent, knowledgeable and hardworking. He shunned the spotlight and waved off recognition for his tireless work."

A retired firefighter and businessman who made his home in Martinez, Stromsmoe began his association with Forests Forever as an advisory council member in 1999. He became a board member in 2001.

Over the years he regularly attended meetings of the California Board of Forestry and became one of that agency's most relentless gadflies, at the same time earning respect that put him on a first-name basis with many of his adversaries.

Said Fletcher: "Kent knew the fine details of California forest practice rules like few professionals. He dedicated much of his life to volunteer work to protect the old-growth forests and wildlife of the state."

In a future issue of *The Watershed* we plan to do an article on the life and many contributions of Kent Stromsmoe.

— P. H.

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Executive Director

produce less carbon dioxide. But critics point out that the amount of energy that goes into creating ethanol— fertilizing, harvesting, transporting and processing it— is almost equal to the potential energy it contains.

This situation, and the likely disruption of food markets if more corn is devoted to fuel, may well keep ethanol from becoming more than a small part of the future energy picture.

Turn your lamp down low

If biofuels won't scale up, and nukes are too dangerous and expensive, and coal is too polluting, what's a wanna-be-green elected official to do?

Conservation is probably the quickest and most effective way to address greenhouse gas emissions and our energy problems. While not as popular as biofuels or cap-and-trade schemes, conservation-oriented bills have the advantage of costing little to nothing but potentially having a big effect on fossil-fuel emissions.

Assemblyman Lloyd Levine's (D-Van Nuys) A.B. 722, the "How Many Legislators Does It Take to Change a Light Bulb Act," would ban incandescent bulbs in the state by 2012. Replacing a 75-watt incandescent light bulb with a 20-watt compact fluorescent, according to the Rocky Mountain Institute, would provide the same amount of light but would save 1,300 pounds of carbon dioxide and save

Cap 'N Trade

"Cap-and-trade" is a market-based approach to controlling pollution emissions. In a global warming regulatory framework a cap-and-trade system would place an upper limit on the amount of greenhouse gases a business would be allowed to emit.

Credits, essentially licenses to pollute a given amount, are given to polluting businesses, allowing them to generate emissions up to the cap. Businesses staying under their limit could sell any unused credits to businesses that exceeded their emissions limits.

In theory, over time the economic pressures embodied in cap-and-trade would create innovation and competition to pollute less. Moreover, the caps could be steadily lowered in future years.

This approach is quite popular with the business community and some environmental groups. Other environmentalists, however, argue that cap-and-trade is likely to encourage greenhouse gas production rather than lower it, or at very least allow emissions to continue unabated.

One problem that could stymie the program is "credit inflation," in which the government distributes too many permits, causing them to lose market value, thus making them less attractive to polluting industries. This was a problem in the first phase of the European Union's carbon-trading plan.

Also of concern to environmentalists: Would already existing forests be eligible for carbon credits? Would tree plantations earn credits for their owners?

Critics of cap-and-trade and market-based approaches to emissions reduction would generally rather see regulations imposing hard and fast limits on greenhouse gas emissions, and assessing fines and penalties for failure to meet these standards.

—M.L.

customers \$55 over the life of the bulb. Meanwhile, incandescent bulbs use 750 kilowatt-hours over 10,000 hours, while compact fluorescents use only 180 kWh.

Better late than never

A recent U.S. Supreme Court decision that carbon dioxide may be considered a pollutant under the Clean Air Act cleared the way for California

and other states to regulate greenhouse gas emissions. This ruling may mark a turning point in the fight to halt global warming.

In the coming world of changing climate and more expensive, harder-to-find conventional energy sources, legislation like that beginning to emerge from California and Congress is more than overdue.

—M.L.

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