Sierra Club Bulletin

July-August 1973

How Long Will the Tall Trees Stand?

HARD-ROCK CONSERVATION

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Sierra Club Bulletin

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Contents

Cover: ***Fluted columns brushed with soft light and bordered by lacy ferns—Philip Hyde has captured the special mood of the coast redwood forest. The tallest trees in the world, reduced by logging to a few remnant stands, is now threatened by landslides and erosion, even in such intended sanctuaries as Redwood National Park.***

Credits

Page 4: Bob Evans; pages 5, 6, and 7: Nevis Fortney; page 9: Martin Litton; pages 10, 11, 12, and 13: Dave Van de Mark; page 15: William Hamilton; pages 17, 25, and 26: Steve Johnson.

Founded in 1892, the Sierra Club works in the United States and other countries to restore the quality of the natural environment and to maintain the integrity of ecosystems. Educating the public to understand and support these objectives is a basic part of the club's program. All are invited to participate in its activities, which include programs to "...study, explore, and enjoy wildlands."

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The uncertain future of Southern California's unique Channel Islands

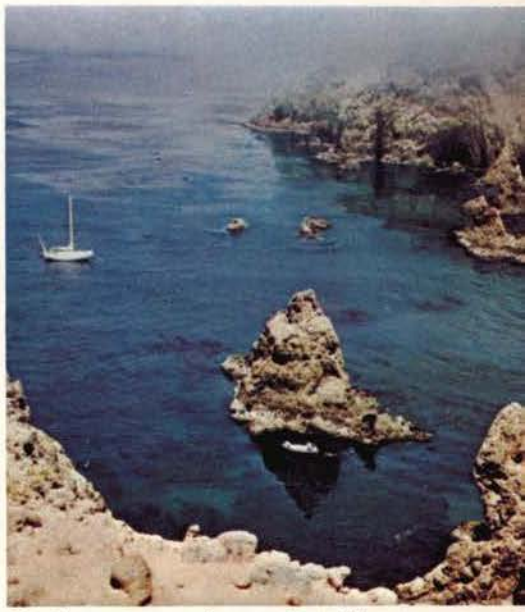
A Park in the Western Sea

LARRY E. MOSS

WHEN AMERICAN CITIES are fortunate to preserve open space of any sort, it is incredible that within 100 miles of Los Angeles, perhaps the most thoroughly subdivided corner of the nation, we now have the opportunity to create a national park of exceptional beauty and unsurpassed scientific importance. This surprising and delightful prospect obtains because 20 miles of ocean separate the Santa Barbara coast from the Channel Islands. As a result, the islands today remain virtually undisturbed by the destructive processes that have claimed so much of Southern California. They also remain almost completely unknown to most people—dark silhouettes on the horizon cut from a sparkling field of blue.

The importance of preserving the Channel Islands was recognized in the *Pacific Coast Recreation Area Survey*, released by the National Park Service in 1959. After studying all significant remaining undeveloped coastal lands in Washington, Oregon, and California—many of which were found deserving of preservation—the survey concluded that "The Channel Islands collectively constitute the greatest single opportunity for the conservation and preservation of representative seashore values, including biology, geology, history, archeology, paleontology, wilderness, and recreation." Since the publication of this report, we have made significant progress in conserving the California coast, Point Reyes National Seashore has been created, substantial coastal property has been added to the California State Park System, and the California Coastal Zone Conservation Act was passed by the voters in November of 1972 in order to curb spiraling coastal development. But the Channel Island National Park is still a dream, and the realities of 20th century America—second-home subdivisions for the wealthy and exploration for and development of oilfields—become greater possibilities with each passing day.

The four Channel Islands—Anacapa, Santa Cruz, Santa Rosa, and San Miguel—form a 60-mile chain stretching from near Point Conception to the city of Ventura, roughly paralleling the general east-west direction of this portion of the California coast. The islands are between ten and about 30 miles from the mainland, and the farthest distance between any two is just five miles. On a clear day, they so totally dominate the Santa Barbara horizon that the channel can seem like a large lake. A fifth island, Santa Barbara Island, is not properly part of the same island group (being located far to the southwest about 50 miles from Point Dume near Malibu), but would be included in



Deeply cut coves and rugged seacliffs typify the Channel Islands. Beneath a momentarily placid anchorage, divers discover a colorful sculpin (facing page) browsing for food.

Larry E. Moss is the Southern California Regional Representative for the Sierra Club.

any future Channel Islands National Park because it shares with the four northern islands many natural features, and forms with Anacapa the present Channel Islands National Monument. San Miguel (14,000 acres) is now under the jurisdiction of the U.S. Department of the Navy, which has used the island as a missile test range for years. In 1963, the Navy signed an agreement with the Department of the Interior for joint custodianship of the archeological and paleontological remains and natural values of the island. The two large islands, 62,000-acre Santa Cruz and 55,000-acre Santa Rosa, are privately owned and are therefore the keys to any substantial preservation program for the islands.

The Channel Islands are extensions of the Santa Monica Mountains, which rise from the concrete canyons of Los Angeles, sweep in a broad crescent west to the ocean, parallel the coastline from Pacific Palisades to Point Mugu and the Oxnard plain. Here, they drop away into the sea only to reappear ten miles offshore as Anacapa Island. About one million years ago, during the late Pleistocene, the sea rose and separated the Channel Islands from the mainland, a process that continued until about 10,000 years ago when the present separation was reached.

The first Europeans to discover the islands were Spaniards led by Juan Cabrillo who set foot on San Miguel in 1542. When the Spaniards arrived, they found the islands inhabited by Chumash Indians, who lived along the coast of central California and were perhaps the finest basket-makers in North America. The Chumash plied the seas in caulked wooden boats perhaps similar to those used by their ancestors long before when they first colonized the islands. One carbon 14 dating of the charred bones of a dwarf mammoth (which survived on the islands long after it was elsewhere extinct) suggests that man may have lived on the islands 30,000 years ago, which, if true, would make them one of the earliest known human habitations in North America. The maximum Indian population of San Miguel has been estimated to have been about 2,000, but today only 100 persons live on the five islands of Santa Barbara, Anacapa, Santa Cruz, Santa Rosa, and San Miguel.

From the sea, the islands present an imposing spectacle of steep cliffs, deep coves, and sea caves. Less common are broad sandy beaches and slender sandspits. Except in a few sheltered places, landing is hazardous if not impossible. The topography of the islands consists of rolling hills, gentle plateaus, deep canyons, and rugged mountains, all typical of the Southern California coast. Aside from a few ranch buildings and evidence of overgrazing, the hand of man has been slight here. The interior of these islands may be the closest thing to real wilderness left on the California coast.

The climate of the islands is a foggier, stormier version of the Mediterranean climate that characterizes most of Southern California. During the winter rainy season, the islands are true emerald isles as the land turns green with new grass, but as on the mainland, summer's drought changes the green to golden-brown. But it is spring when the islands are most beautiful, when they come alive with thousands of wildflowers—the strong hues of lupine and poppies and paintbrush, and the luminous yellow blooms of the giant sunflower (*Coreopsis gigantaea*), which is unique to the Southern California coast and offshore islands. Santa Barbara Island contains the largest remaining stand of giant *Coreopsis*, and when these bizarre flowertrees bloom the gold is visible ten miles offshore. Like most islands, the Channel Islands have developed a distinctive flora of their own aside from that they share with the mainland. They have also provided refuges for relics, such as the Torrey pine, which are barely surviving elsewhere. Twenty-eight species of plants and several species of animals are endemic to the islands, and the animals and birds they share with the rest of Southern California often appear here as distinctive races.

But perhaps the most impressive and important feature of these islands is their varied and abundant marine life. The lush canopy of kelp that surrounds the islands supports a colorful array of life, and the nearly undisturbed tidepools are unsurpassed on the California coast. Several species of pelagic birds inhabit the islands and offshore waters, and on Anacapa, the brown pelican is making its last stand on the Pacific Coast north of Mexico. Especially impressive are the six species of seals and sea lions that frequent the islands, especially near the Point Bennett area on San Miguel, where they all breed. This area supports the northernmost colony of northern elephant seals, the southernmost colony of northern fur seals, and colonies of Guadalupe fur seals, harbor seals, California sea lions, and Steller's sea lions. Conservationists are arguing strongly that the breeding and pupping areas for these and other animals be protected from human incursion should the islands ever become a national park. Wildlife, wilderness, recreation, and scientific importance—the Channel Islands present a range of values second to no natural area in the country. The question is not whether the islands should be preserved—it is clear they must be—but how to best preserve them so that each of these values will be protected.

The history of legislation to estab-

It's hard to believe this fuzzy elephant seal pup will someday resemble the gnarled adult at its side. These outsized cousins of the circus "seal" were once common from Mexico to San Francisco, but by 1900 had been reduced by hunters to a single colony on Guadalupe Island off Baja California. In recent years, they have staged a remarkable comeback, especially on the sandy beaches of San Miguel (see photo on facing page), where the colony has increased from a mere 50 individuals in 1950 to more than 3,000 today.

lish a Channel Islands National Park is not particularly encouraging. Numerous bills have been introduced in both houses of Congress since 1963, but none of them have got out of committee and onto the floor of the house of origin, much less to the desk of the President. Campaigns to create national parks, particularly parks for which substantial private acreage must be acquired, are almost always of long duration and there is nothing unusual in that we don't have the desired park. Even so, the campaign to create the Channel Islands National Park has not been building the momentum necessary to push legislation through Congress, which often acts as though inertia were the best policy. The initial introduction of Park legislation in 1963 held great promise. Senator Clair Engle, fresh from the triumph, along with Congressman Clem Miller, of the creation of Point Reyes National Seashore, sponsored a bill that received strong endorsement by then Secretary of the Interior Stewart Udall, but the legislation quietly died in committee. Subsequent legislation has not fared any better.

One of the principal reasons the park proposals have not matured is the opposition of the present owners of Santa Cruz and Santa Rosa—the Vail and Vickers Company, which owns Santa Rosa, and the Gherini family and the Santa Cruz Island Company of Dr. Carey Stanton, which own separate portions of Santa Cruz.These owners claim they are providing better protection for the land than would the National Park Service and should therefore be left alone. They do indeed seem sensitive to the natural values of the islands.They allow scientists to do field studies on their property, and Dr. Stanton has permitted the University of California at Santa Barbara to establish a field station on his 55,000 acres of Santa Cruz. A superficial look at the situation might indicate little need to work for a Channel Islands National Park when so many other conservation efforts need our attention, but recent events suggest that the future of the two large islands may not be so secure.

The Gherini family allowed exploratory oil corehole drilling on Santa Cruz Island by Union Oil in 1969, and only the failure to discover sufficient petroleum prevented the island from being developed into a working oil field. The Gherini family, owners of 7,000 acres on the eastern tip of Santa Cruz, have also proposed a subdivision for their portion of the island. The development would accommodate a population of 3,000 and would include a 200-boat marina, an 18-hole golf course, an airfield, and two major villages—Scorpion Anchorage and Smuggler's Cove—to host vacationing tourists. A large breakwater, dredged harbor, roads for subdivided lots, utility distribution systems, golf course, airport, marina—this pattern of "preservation" doesn't seem much different

to my unsophisticated eye from the 20th century sprawl that has engulfed much of the mainland in Southern California.

Vail and Vickers have allowed the Mobil Oil Corporation and the Tiger Oil Company to begin exploratory oil drilling operations on Santa Rosa Island, though State Attorney General Evelle Younger has filed an action to invalidate several of the permits granted by Santa Barbara County to Mobil Oil in apparent violation of the environmental impact report requirement of the California Environmental Quality Act. One of the Gherini family is an attorney, and he is the person who defended Mobil Oil's position in this case.

None of the above commitments to oil and real estate operations bodes particularly well for the future preservation of the Channel Islands by the present owners. Fairness demands that we state that neither oil operations nor residential development has yet occurred, but only because of fortunate circumstances.

There are numerous examples in the U.S. where private owners have provided excellent custodianship of natural places, excellent, that is, until the property changed hands or the financial profit from some development scheme became too alluring or the property taxes became too burdensome. Private ownership has again and again demanded that a substantial profit be turned on a piece of land and has proven incapable of providing the long-term preservation and stewardship which these superb islands deserve. The only difference between what has happened in much of coastal Southern California and what has happened in the Channel Islands is the time frame—geographical isolation has prevented substantial development until now and has presented us with an opportunity we should not ignore.

Some persons have indicated that Santa Cruz and Santa Rosa should not become a charge of the National Park Service because the service would encourage recreational overuse of the islands. The overdevelopments in Yosemite Valley or in parts of Yellowstone National Park are offered as examples to prove that the Park Service does not have the sensitivity to deal with the ecological systems on the islands. Most of the inappropriate development in national parks, however, is a legacy from earlier times when problems facing the park service were much different from today's. One can also point to national parks such as Kings Canyon that have remained mostly wilderness. According to National Park Service official Thomas Tucker, plans for a Channel Islands National Park would reflect a pure park concept of management for perpetuation of the natural values of the islands rather than for the accommodation of recreational activities. Certainly national park status, combined with wilderness designation of substantial portions of Santa Cruz, Santa Rosa, and San Miguel and the establishment of wildlife preserves for certain crucial areas, would provide the greatest degree of protection for the islands possible today. There have been other proposals for preservation of the Channel Islands, but to this date none have the degree of realism and completeness the national park proposal represents.

Congressional appropriations will be necessary in order to acquire the islands of Santa Cruz and Santa Rosa, and the establishment of a national park would provide the most realistic means for funding the acquisition. Carefully drafted Park legislation can provide for exploration of scientific, historical, and archeological values, guarantees of protection for the terrestrial and marine life, and perpetuation of wilderness. The Channel Islands are one of America's truly great natural places and present a spectrum of values presently unrepresented in the National Park System. There is no other area in the United States of similar park potential.

There is, of course, another threat to the Channel Islands that equals the development schemes proposed for Santa Cruz and Santa Rosa. Several oil companies have a firm hold on the Santa Barbara Channel and—despite the outcry and determined opposition of the public—show no inclination to relax their grip. The memory of the vast quantity of crude oil that bubbled from beneath Union Oil Company's Platform A in the channel during the Santa Barbara oil spill in 1969 still serves to inflame the people of Santa Barbara and provides a sobering reminder of the perils of offshore oil drilling and production. The oil companies still have their offshore leases, and the industry hopes and plans to produce the oil that is there. The development of oil production on the federal portions of the channel has been substantially slowed as a result of the notorious 1969 spill, but Congress has been unable to come up with a permanent resolution of the present impasse.

One of the few bright spots in President Nixon's energy message to Congress on April 18, 1973, was his support for continued suspension of oil operations on 35 leases in the Channel. President Nixon asked that the Department of Interior continue suspension of operations in the Channel until January 3, 1975, or until Congress has had time to act on legislation to create an oil-free sanctuary directly opposite the city of Santa Barbara. Although the final form that channel oil legislation should take is unclear (because of the need to find some way to recompense the oil companies for their investment in leases that have proven oil reserves), it is apparent that legislation must soon move through Congress if the Santa Barbara Channel and the Channel Islands are to be spared the blight and hazard of oil production.

Despite the fact that the 1969 Santa Barbara oil spill sensitized the general American public to the issue of the environment, the problem of recapturing the federal leases in the channel, which were so thoughtlessly sold in 1968 for more than $600 million dollars, has not drawn much interest in Congress. Many Congressmen from states other than California view the channel oil leases as a local problem; the establishment of a Channel Islands National Park could well be the issue to galvanize national interest and action on legislation to retrieve the oil leases in the channel.

Support from the Representative from the area, Charles Teague, is essential to success with both the park and oil issues, but he has yet to fully commit himself. In the past, he has proven an effective fighter for the environment when he puts his full effort into a campaign (such as he did when he helped defeat the notorious industry-oriented timber supply act of 1970, which would have essentially turned over portions of our national forests to the timber industry). Congressman Teague has introduced and supported legislation to rescue the channel from oil drilling operations, but—inexplicably—he has been most

Continued on page 37

ROGER OLMSTED

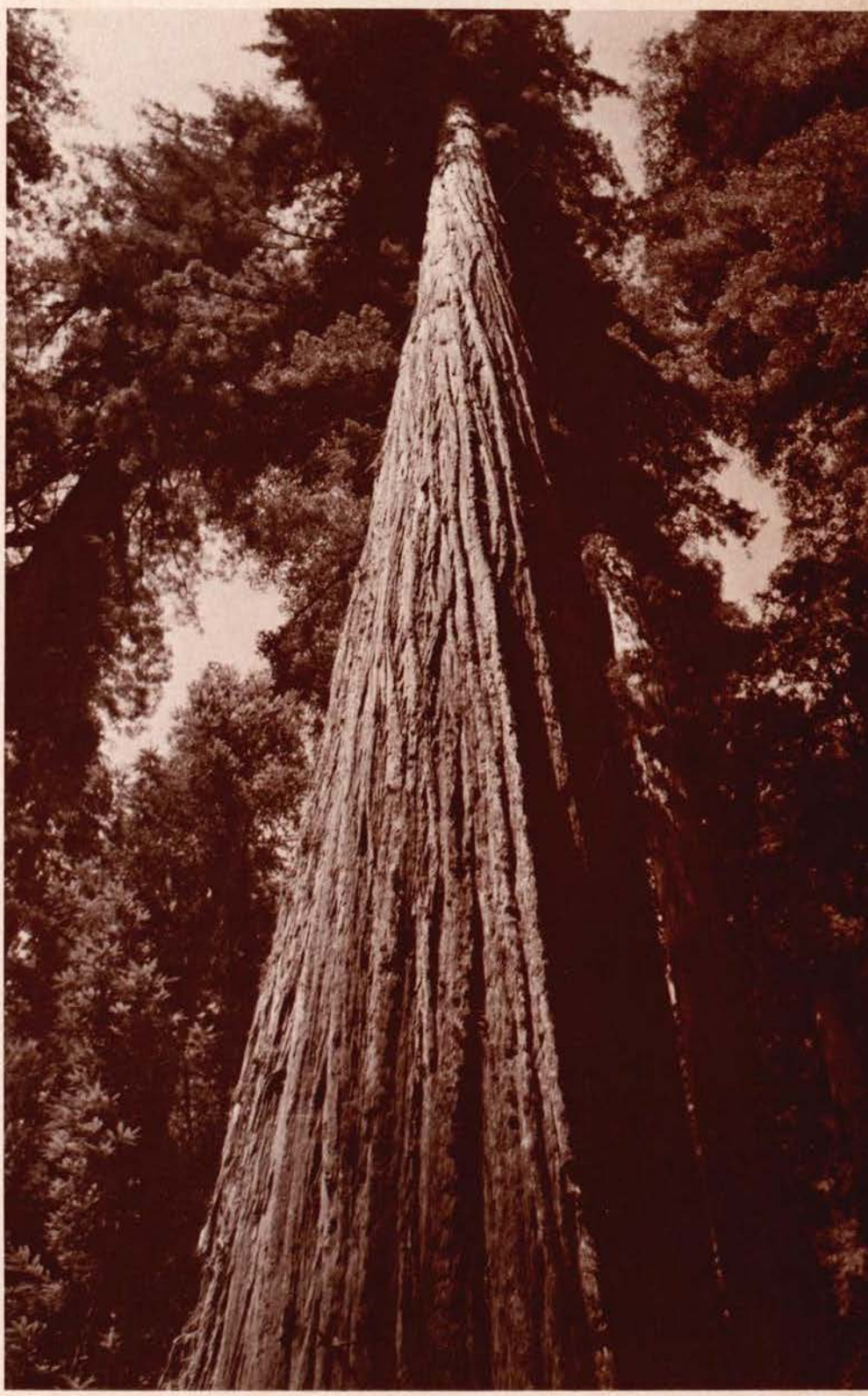
How Long Will the Tall Trees Stand?

TENS OF THOUSANDS of words have been written about the threat to the Redwood National Park posed by clearcut tractor logging on the steep slopes above the narrow park band along Redwood Creek. These words have not moved the Department of the Interior, the National Park Service, or the Congress to the actions required to protect the $92 million investment of the people of the United States in the preservation of this grand primeval forest.

Hence, we present some pictures. We hope they will prove the public case more effectively than mere words.

A few words are necessary, however, to explain what is going on. The park strip along Redwood Creek, which includes the vulnerable alluvial flat where the tallest trees in the world grow, is particularly threatened by the logging practices of the Arcata, Louisiana-Pacific, and Simpson lumber companies on the steep slopes immediately above the park or upstream. Clearcuts proceeding this summer begin to open to park visitors down in the bottomland of Redwood Creek vistas that were hardly contemplated by the Congress when it established the park. But much worse than the visual disaster is the physical disaster implied in stripping unstable slopes, lacing them with roads (up to six miles road to each square mile of land), and ripping up the fragile forest soils by tractor logging techniques.

What is happening is this: A precarious natural balance, wherein trees, soil, water, and gravity have in the main reached a compromise, is suddenly unweighted of the restraining force of natural cover; the compromise of thousands of years of natural development is in months dissolved. The next step is that debris and silt will be carried down to clog the tributaries of the main creek by water runoff, intensified by the stripping of the upland cover. Siltation, dams of debris, and the increased flood peaks will alter the course of the creek channel, causing it to undercut unstable banks or cut



Was this the world's tallest tree? It was cut down, but even today the tallest trees of the Redwood Park are threatened by erosion.

Before: *Looking eastward across Redwood Creek in 1968, when the Redwood Park was established.*

through flats (such as the Tall Tree Grove).

This grim scenario is already being carried out today. The erosion that threatens the integrity of the Redwood National Park is documented in a report prepared for the Department of the Interior by the Earth Satellite Corporation (of Berkeley, California) titled "An Aerial Photographic Documentation of Terrain and Vegetation Conditions in Redwood National Park and Adjoining Areas." This report, submitted in April, 1972, has been made public as the result of a lawsuit brought against the Department of the Interior by the Sierra Club under the Freedom of Information Act.

The report proves what the Sierra Club and other conservation groups contended at the time the park boundaries were drawn—that the protection of the Redwood Creek watershed was essential to the preservation of the Tall Trees, the Emerald Mile, and the other natural values of the primary parkland. Yet the report of his own consultants has not moved the Secretary of the Interior to use the authority granted to him by the bill establishing the park to enter into contracts with the lumber companies to abate their most destructive practices.

As the destruction of the Redwood Creek watershed advances, we can no longer take comfort in the vague (unkept) promises of the lumber companies and in the unused authority of the Secretary of the Interior. The public should buy up the endangered upper slopes to protect its huge investment in the bottomlands. It is heartbreaking to suggest the purchase of ravaged hillsides that were clothed with virgin growth when the park was established just five years ago—but unless these slopes are managed for the protection of the essential park, there is no assurance that the park will survive. On the brighter side, there are important areas of virgin growth still standing within the enlarged boundaries suggested by the Sierra Club (see map).

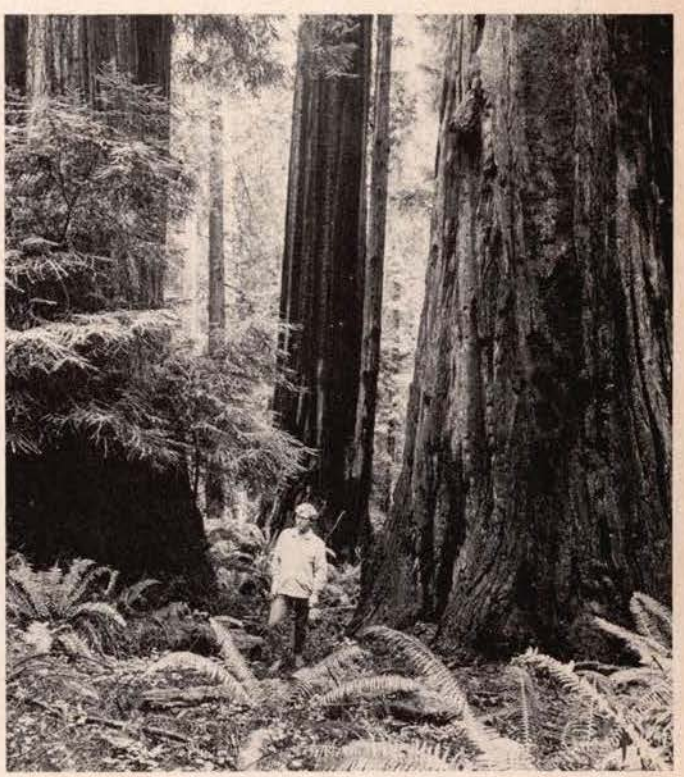
Now is the time when we must make good our determination to have a redwood park for future generations.The photographs we show to further this end are documents of careless destruction, destruction that threatens the preserved remnant of a national heritage. But the destruction has not yet gone so far that we cannot save what we have. Not yet.

Congress must reassume control over this situation. We can no longer await action by the Executive branch. Write the chairmen of the House and Senate Interior Committees asking for hearings to reveal the appalling record of inaction (Senator Henry Jackson, Senate Office Building, Washington, 20510, and Representative James Hayley, House Office Building, Washington, 20515). Such hearings are an important prelude to action in Congress on new bills to expand the park.

After: *The same scene in 1973.*

When the Redwood National Park was established by the Congress five years ago, the Sierra Club, the Save-the-Redwoods-League, and other conservation groups warned that failure to protect the watersheds of the park units might endanger the redwoods that were to be saved for posterity. Since that time, about half of the remaining virgin timber has been stripped from the steep slopes of the park corridor along Redwood Creek (7,560 acres out of 14,620 standing in 1968). In a few more years, most of the rest will be cut, and the park corridor, with its grove of the world's tallest trees, will be totally exposed to accelerated runoff and erosion of the upper slopes.

The erosion threat of 1968 is a reality today, as the pictures on the following pages show. The Department of the Interior has failed to give incentive to the lumber companies to abate their total warfare on the land (as the department is authorized to do by law). The Redwood Creek watershed must be protected simply to preserve the already acquired public interest and heritage. The Department of the Interior will not do this, nor will the lumber companies: the people must act, and Congress must do it.

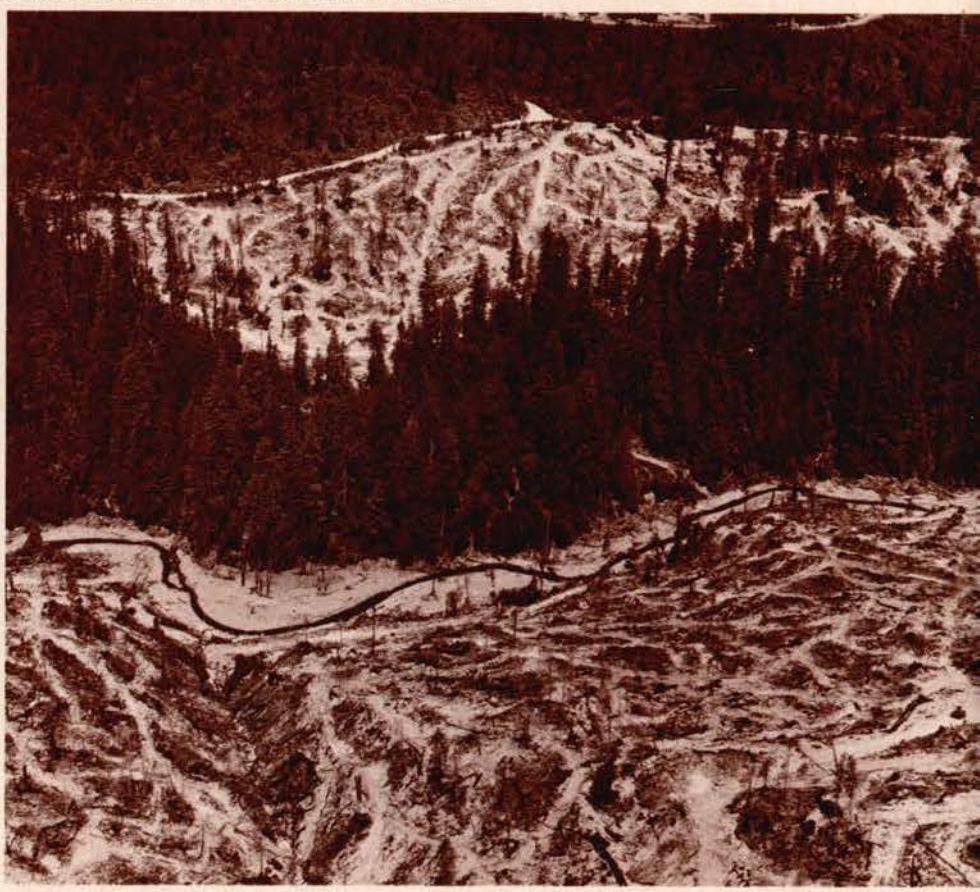


Close-up of Bridge Creek. . . . *A gully has cut through the logging road, soil and debris sweep down into the once-clear creek. This and other pictures on this page were taken in June, 1973.*

East slope. . . . *A logging truck winds thro the devastated, unstable land.*

Ready to slide? . . . *Denuded slope in a slide-prone area a few hundred yards above the park.*

Last stand. . . . *A narrow strip of virgin growth remains between two recent clearcuts alongside this major tributary of Redwood Creek.*



Photographs by Dave Van de Mark.

Promises unfulfilled. . . . *Lumber company assurances that careful logging practices would protect the vital watersheds have come to scenes such as this: they can't even keep their own roads from washing away.*

Upstream. . . . *Even with the expanded park boundary shown on the map, sound future management suggests that binding agreements with the lumber companies will be needed to insure logging methods of at least limited destructiveness. The necessary expansion of the park (to the heavy dotted line) is still far short of the original Sierra Club Redwood Park proposal (light outline).*

A top-priority environmental issue comes before the Congress this fall

NATIONAL LAND-USE LEGISLATION

WILLIAM DUDDLESON

THE STAGE is set for Congress to enact this fall a landmark federal law to strengthen the hand of state government in grappling with the nation's major unaddressed environmental challenge: effective, environmentally informed land-use planning. The final shape of this legislation will not be determined until the last weeks of the 1973 session of Congress—by Thanksgiving, say—but the result could indeed be cause for thanksgiving and make 1973 in Washington a year for some of us to remember for something besides Watergate.

The proposed National Land Use Policy and Planning Assistance Act of 1973, as passed by the Senate 64 to 21 last June 21, is (with the exception that it lacks an action-forcing "sanctions" provision) a bill that both citizen groups and conservation groups support. It will not, as its leading opponents in the Senate claim, jeopardize private-property rights, or "shift the traditional responsibilities for land use from the local and state governments to the federal government." Nor will it, as Louisiana's Bennett Johnston claims, "give to the Secretary of the Interior the right to control virtually every acre of land in the nation."

A more modest appraisal made by the Senate bill's prime mover, Washington's Henry Jackson, following its Senate passage, is fair enough: "This is a good beginning to bring order out of chaos in land-use planning and control." So is an appraisal of the significance of this pioneering national land-use legislation by a task force on land use and urban growth chaired by Laurance Rockefeller: "If the bill should pass, the future course of land-use planning and regulation will be profoundly altered, and important opportunities will exist in all states to consider new policies and techniques for affecting future growth."

The ultimate shape of this legislation still depends on what happens to it this fall, when it begins its final journey through the House. Rather than working with the bill already passed by the Senate, the House is rolling its own—beginning, unfortunately, with a flawed patchwork draft. In the form in which it has emerged before the House Interior Committee's Environment Subcommittee, chaired by Arizona's Morris Udall, the draft bill is satisfactory neither to environmentalists nor to the Council of State Governments. Regardless of how much the subcommittee is able to improve the bill (which Udall describes as legislation whose time has come), and regardless of what happens to it before the full Interior Committee, the bill will face its major tests after September 5, when Congress returns from its August recess.

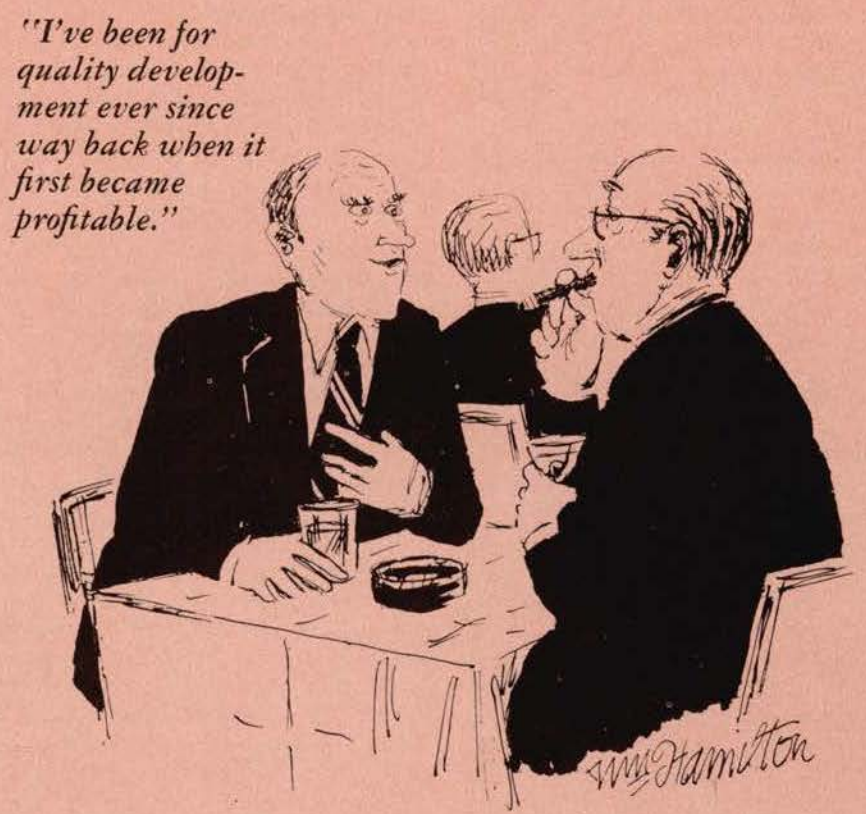
Those who fought against a strong land-use bill in the Senate will be well represented when the House version is subjected to weakening amendments both in committee and finally on the floor of the House. They include the American Land Development Association (representing second-home development interests), the National Association of Realtors, the National Association of Homebuilders, the National Association of Manufacturers, the Chamber of Commerce of the U.S., the American Farm Bureau Federation, the Office of Management and Budget in the Executive Office of the President, and, not least, representatives of municipal and county governments.

Since a central purpose of this legislation is to help the states reclaim from their political subdivisions (the country's 10,000 local governments), a voice in the regulation of private land, local government's position is understandable. The National Association of Counties and the National League of Cities, and their members—local officials in every city hall and county seat—are cool to what they consider a federal move to ease them out of the land-regulation business, a business they depend on in the form of property tax revenues. Local-government lobbyists will be listened to particularly closely by members of the House, who tend to be more responsive to county supervisors and city councilmen than Senators.

Yet, the Senate bill has the support of a diversity of economic and public-interest factions that seldom agree, and those groups listed above tend to stop short of flat-out opposition to the legislation. Even those who wish it would go away have a healthy respect for the mood of the country and assume that legislation in this field is going to be enacted. As a June 15 memorandum from the American Land Development Association to its member-developers put it: "It would be difficult and unwise to take issue with the basic purpose of the legislation." (The memo continued, however, to urge developers to ask their Senators to weaken the bill's significant new land sales and subdivision-development regulations section.)

This legislation has made strange bedfellows of former antagonists. As environmentalists and electric-utility and oil-company witnesses realized they were both waiting to testify on the same side of the same bill, they eyed one another warily. While they differ on emphasis and means, diverse

William Duddleson is a senior associate of the Conservation Foundation. The Foundation does not necessarily share the views expressed in this article.



Cartoons by William Hamilton. From *The Use of Land: A Citizens' Policy Guide to Urban Growth.* Thomas Y. Crowell Company, New York.

interests agree that the time has come to give people affected by land-use decisions with consequences beyond the boundaries of the local jurisdiction immediately involved a voice in making such decisions, whether they concern power-plant and refinery siting or failures to protect critical environmental areas. This goal calls for a new order to replace a feudal system wherein land-use control is the exclusive and final prerogative of thousands of local governments, each acting separately to maximize what each regards as exclusively local benefits.

In the words of a Sierra Club witness: "We need a more rational and responsible method of anticipating the future." The bill, as the Senate Committee reported, "is needed to move from an era of chaotic, *ad hoc*, short-term, crisis-to-crisis, land-use decision-making to one of long-range planning and management based on appreciation of all legitimate aspirations and needs." To do so would, in the long run, be to everyone's advantage, for, as a witness for the U.S. Chamber of Commerce said, "The private [business] sector faces a chaotic situation due to the delays and conflicts which typify our present methods of land-use decision making.

Both sides feel they have a stake in a more rational system, and both have some confidence that the larger constituencies will support their cause. The Senate land-use bill represents, of course, a compromise of these interests. The environmentalists get a clause that leans on the states to protect critical environmental areas; the power companies get their "key facilities" clause. Each would like the other to get out of the bed, but neither will budge.

It also should be recognized that this bill is not "environmental legislation," in the sense of the federal Clean Air Act, for example. Rather, it is essentially environmentally neutral —concerned more with process than substance. It seeks, as Senator Jackson said during the Senate debate, "to provide for economic well-being as well as environmental well-being."

In testimony to the Interior Committee, the Environmental Policy Center's David Calfee noted that "this emphasis on even-handedness and balance may have the consequence of preserving the status quo . . . where millions of decisions are made daily to maximize [economic] gain at the

expense of environmental values." Calfee noted that although much of the dissatisfaction with current patterns of land development has its genesis in concern for environmental quality, because environmental benefits are "diffuse and at times distant," they generally lack the same dynamic thrust as economic values. In light of the dynamics of development, he said, "a policy of evenhanded treatment for economic and environmental values in land is akin to Anatole France's satirization of evenhanded French law which in its majesty equally forbade rich and poor to sleep under bridges."

The purpose of the Senate bill is to induce states to exert their long-neglected constitutional authority over land use. S.268 would offer $936 million in matching grants over the next eight years to be divided among all the states. These funds would be administered in 90 percent and 66 percent federal grants to help the states develop and administer state land-use planning along the lines of Vermont and Maine's recently passed legislation. These land-use programs would include both policy and "methods of implementation" for regulation of six categories of lands and land-uses of "more than local significance" as defined by each state:

- Areas of critical environmental concern, including shorelines, wildlife habitats, unique historic areas, and other "fragile or historic lands," "natural-hazard lands" (such as flood plains), and "renewable resource lands" (like watersheds and agricultural areas);
- Areas affected by key facilities inducing growth, including powerplants, major highways, airports, and recreational facilities;
- Large-scale private developments such as industrial complexes;
- Land bordering new communities and methods for influencing the location of such communities;
- Land sales or development projects in rural areas, especially second-home subdivisions;
- Methods of implementation assuring that local regulations do not arbitrarily restrict development of regional benefit, including waste and utility facilities and public housing.

The definition of these categories is left up to the individual states, but the Secretary of the Interior may include an area of critical environmental concern of "more than state-wide significance" overlooked by a state. This provision for federal override was challenged by Louisiana Senator Johnston. His amendment lost, but the Senate will soon vote on a similar provision in upcoming power-plant and port-siting legislation. Noting that conservatives tend to favor federal override on energy and deep-port facilities for super-tankers but not on environmental protection programs, Senator Jackson commented, "It will be interesting to see whether senators will vote for one system on environment and a different system on energy."

The bill's most significant provision, provided by Senator Gaylord Nelson's amendment, calls for state regulation of land sales and development projects. This is aimed at burgeoning second home and recreational homesite schemes which would have to meet standards for environmental protection, maintenance of public services, and financial capability. State land-use programs must also assure that developments will not violate air, water, or noise pollution control standards, that federal lands such as national parks are not damaged or degraded by "inconsistent" land usage on adjacent lands, and that the public can participate in the development, revision, and implementation of the state program.

The state may implement its regulations directly, through state agencies like Vermont's State Environmental Board or California's Coastal Zone Conservation Commission, or indirectly through local or regional agencies which regulate according to state-established criteria. The indirect approach has been taken in Florida, where the planning legislation is already in trouble due to structural weaknesses and inadequate funding. This pivotal provision in the Senate act means that state legislatures will be pressured by local government, industrial, and landowner interests to choose the indirect method. One solution to the local-state relationship is a two-permit system where the state would not supplant local implementation, but supplement it by requiring a permit for land use of areas of more than local concern, in addition to whatever local governments require.

The Senate bill also provides for a three-year study including the Council on Environmental Quality, a new federal Interagency Advisory Board on Land Use Planning, state and local governments, and public hearings to develop the substance of a national land-use policy. Recommendations based on the study are then to be sent to Congress. Recognizing that S.268 is not policy legislation (it declares no policy except that land-use regulation is a state responsibility) the study is not aimed at developing a national policy, but it could provide a valuable national dialogue on such substantive issues as the tax aspects of land use and the land-use aspects of limits to growth, areas with which Congress is not yet prepared to deal.

The bill also establishes a Land Use Policy Administration in the Interior Department to administer the program with guidelines from the Executive Office of the President and advice from the Interagency Board. In reviewing state programs the Interior Secretary must defer to the Secretary of Housing and Urban Development and the administrator of the Environmental Protection Agency on urban development and pollution control. It further requires that federal projects, including grant, loan, and guarantee programs, comply with state land-use regulations. Exceptions to this may be made only in "cases of overriding national interest, as determined by the President."

The Senate land-use bill would complement the 1972 Coastal Zone Management Act, which authorized a similar assistance program to encourage states to adopt coastal management programs. So far, the Nixon Administration has not funded this legislation, but Congress is expected to appropriate funds for both this and the land-use programs.

As it now stands, state participation in the land-use planning program would be voluntary. If a state does not want to get, or continue to get, the federal grants provided by this legislation, it may simply choose not to participate. Senator Henry Jackson's proposed "cross-over" sanctions, which would have reduced federal grants for state highways, airports, and outdoor recreation to those states which after five years had not developed a land-use plan considered adequate under the act, was defeated despite support from most Senate Democrats and the Administration. The Sierra Club and other proponents of such sanctions claim that they are

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Demobilizing America

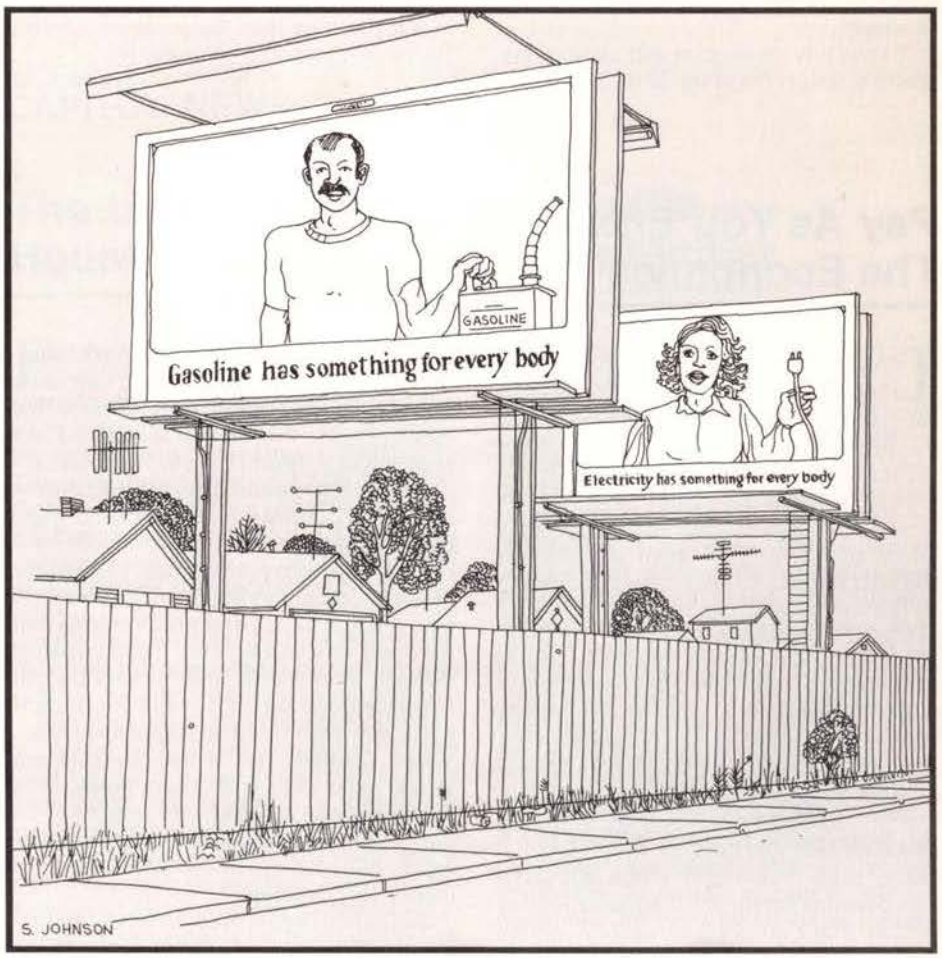
The Petrol Panic Perplex

IF WE'RE TO BELIEVE oil industry advertisements that "A country that runs on oil can't afford to run short," how is it that crude oil supply difficulties and a gas shortage could seemingly develop overnight? Surely the industry employs skilled planners as well as skilled public relations personnel, yet we're supposed to believe that the present gas shortage was unforeseen until too late by some of the wealthiest corporations in history. Something here smells suspicious: the odor is more subtle than gasoline—money.

The gasoline shortage appears to be easily rationalized by the oil interests, but their explanations are in need of thorough examination. Testimony presented last month by several top oil executives before the Senate Banking and Currency Committee illustrates this. Three reasons were given for the present gasoline situation: 1) tight fuel supplies caused by increased motor fuel demand, largely due to the new pollution control devices; 2) a shortage of refinery capacity brought about by environmental and other reasons prohibiting new refinery construction; and 3) the use of more distillate fuels by industry because of the short supply of natural gas and a world-wide shortage of low-sulfur crude oil.

As for the first charge, the oil industry, trying hard to blame the fuel shortage on environmentalists, eagerly points out that automobile air pollution control devices have caused an average loss of eight percent in fuel economy. Not usually mentioned is the nine percent loss from auto air conditioners, the five percent loss from automatic transmissions, or the losses created by heavier car weight (as detailed in the Environmental Protection Agency's study, *Fuel Economy and Emission Control*); decreasing automobile weight by 50 percent increases fuel economy 100 percent. For example, a reduction in the average weight of a passenger car from 4,800 pounds to 3,500 pounds would compensate for the fuel penalty caused by pollution control devices. Related to this is the almost insupportable energy-consumption percentage of the automobile during a supposed "energy crisis." As documented in recent reports from the Oak Ridge National Laboratory in Tennessee, cars account for, either directly through fuel use, or indirectly through manufacture, some 21 percent of total U.S. energy consumption. Cars use up to 55 percent of all fuel consumed in transportation, yet are only half as efficient as busses. Meanwhile, ironically, the expected June production of 920,000 cars is 15 percent greater than a year ago and breaks 1965's record June production level, according to a recent story in the *Wall Street Journal*. Clearly, the increased fuel demands are more attributable to our penchant for large and lavish vehicles than to any additional burden caused by pollution control devices.

The second charge, that environmentalists have frustrated attempts to build many refineries, simply isn't true. During the 1960's, only two or three U.S. refineries (depending on your bias) were delayed primarily by environmental considerations. An article in the April 14 issue of *Environmental Action* states that both Arco and Mobil built refineries between 1960 and the present, and that several existing refineries were expanded. The article further points out that the decision not to build a refinery at Machiasport, Maine, attributed to environmental opposition, was actually blocked by the large oil companies for fear of weakening the oil import quota system with a free-trade zone. Although Shell's attempt to build a refinery on Delaware Bay was stopped by widespread state determination to save the state's small coastline from ad hoc corporate planning, it could have been built had they started to build in 1960, when they initially received approval for the project, instead of waiting until 1970.



Although very few refineries have been built in this country, money, not environmental opposition, is the reason why. A number of contributing factors motivated the oil industry to build the few refineries that were constructed in the Caribbean, South America, and Canada: lower income taxes (and in some cases remarkable tax exemptions), much cheaper land, less expenditure for pollution control devices because of fewer environmental laws, uncertainty about changing gas specifications in the U.S., and a reluctance to precipitate significant changes in the U.S. Oil Import Control System, an import policy long promoted by the major oil companies themselves. Once the President ended this Oil Import Control System, however, there have been almost a dozen proposals for expanding U.S. refineries or constructing new ones in this country. The Interior Department's Office of Oil and Gas estimates this proposed additional capacity will increase domestic output by at least 1.5 million barrels a day.

Regarding the third industry charge, there is little doubt that natural gas and sweet crude are rapidly diminishing reserves. But for the moment, the real question is something else: is there presently a surplus of refinable crude that would be available to new, independent refiners if it were being equitably distributed? This remains a controversial aspect of the present gasoline shortage.

To put this shortage in still another perspective, the profits of the 32 major oil companies for the first quarter of 1973 increased over the first quarter of 1972 by an average of 28.2 percent for a total profit of $1.98 billion, according to the data in the industry's own *Oil and Gas Journal*. Most of these profits are realized as the companies sell their crude oil to their refineries, the transaction that, due to oil depletion allowances, is least taxed. Perhaps one reason that more refineries weren't built in the last decade is that the profit margin of refining is just too small; the big money is made at the wellhead. (See "The Realities and Unrealities of Energy Economics" in the May *Bulletin*.)

One solution to the present situation, strongly endorsed by the Sierra Club, is energy conservation—to attack the disease rather than the symptoms. The Club has announced its support of the Coalition to Tax Pollution proposal to increase the federal excise tax on gasoline from its present level of 4c a gallon to 14c. Not only will this higher tax discourage wasteful gasoline consumption, but it will also further "internalize," or attach to the price of the product, the cost of pollution and resource-loss now being borne by society as a whole. The Sierra Club is also examining 1) a proposed excise tax on automobiles as a means to encourage efficient automobiles and to discourage overly large, heavy, and inefficient cars, 2) a plan to tax luxury vehicles, off-road vehicles, recreational vehicles, and second cars at a higher rate than those vehicles needed for basic transportation purposes.

Eugene Coan

Pay As You Enter, Pay As You Go: The Economics of Water Projects

THE TRADITIONAL ECONOMICS of water projects were understandable even when unacceptable. By damming this river or dredging that bay, the public would lose a scenic area or natural resource, but it would gain additional water or power or agricultural land or commercial activity or flood control. Though ill-advised, such trade-offs were at least straightforward. In effect, you sold the environment for economic gain. Now, it seems, a point of diminishing returns has been passed, for current water projects often cannot be defended even on economic grounds. The new economics of pushing water around is such that the public now loses both natural resources *and* money. There is no trade-off anymore.

Such is the inescapable conclusion one gets from reading *Disasters in Water Development*, a recently released report sponsored by the American Rivers Conservation Council and a dozen other environmental groups, including the Sierra Club. This report closely examines 13 proposed water-development projects that would cost some $10 billion. The report demonstrates that these projects are at best outmoded approaches to problems for which less destructive and costly solutions exist and at worst outlandish schemes that seem little more than attempts to subsidize private commercial interests with public funds. Most of the projects were authorized by Congress years ago, often in anticipation of problems that have not developed. They have persisted through sheer inertia and through the unflinching devotion of certain government agencies to their traditional appointed tasks. What *Disasters in Water Development* should make clear is that in opposing such projects conservationists are objecting not only to the environmental destruction they entail, but also to the incredible waste of money they represent.

Ten billion dollars of environmental alterations! This incredible figure begins to assume some proportion when we consider the numerous federal programs now wilting or dead from lack of funding: education for the handicapped, library resources, day-care services, hospital construction, school nutrition programs, poverty programs, water pollution control, and many other social and environmental programs. When money is so vitally needed elsewhere and when Americans everywhere are feeling the pinch of inflation and taxes, it is ridiculous to spend enormous amounts of public money to turn Dallas into a seaport or provide Phoenix with water it doesn't need.

"These projects and others like them are absurd," says Sierra Club Assistant Conservation Director Charles Clusen. "It's almost like declaring war on our rivers and making the taxpayer finance the campaigns. Sensible alternatives exist for each of these projects, but they are being completely ignored by the Army Corps of Engineers and other agencies intent on carrying out their historic mission of disfiguring rocks, rivers, and trees."

The Sierra Club has been actively fighting ten of the projects featured in the report, three of which—the Trinity River Canal in Texas, the Central Arizona Project (CAP), and the Meramec Park Dam in Missouri—are typical of the rest. The Trinity River Canal (for a detailed account of this project, see page 25) is an especially wonderful example of the new water-project economics, and in refusing last March to fund the canal, Texas voters displayed enlightened self-interest. The canal would have profited only a few landowners and businessmen, who, in effect, would have been subsidized to the tune of 40 cents on every public dollar invested. In the bargain, the public would have received a 350-mile ditch in place of a 550-mile, wooded, meandering river.

The Central Arizona Project, an ambitious venture to route most of Arizona's water to Phoenix and Tucson, is scarcely more viable than the Trinity Canal. This $1 billion Bureau of Reclamation project was authorized by Congress in 1947 to forestall what then seemed the imminent destruction of Arizona agriculture from lack of adequate water supplies. Since then, agricultural production in the state has increased sevenfold without CAP water so that now even the bureau no longer uses agriculture to justify the project. It claims instead that the main purpose of the CAP is to assure adequate water for future demands in Phoenix and Tucson, a curious justification considering the U.S. Geological Survey's estimate that both cities have adequate local supplies to last for generations. In other words, the problems that the CAP was once and is now intended to solve simply do not exist, yet the original congressional authorization is still in force and the Bureau of Reclamation seems little inclined to reassess the project.

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WASHINGTON REPORT

Oil, Gas, and Alaska

IT WAS A VERY HOT JUNE, and wholly apart from the weather, July has been hotter yet. Many bills of longstanding importance to the environmental movement are being taken up in earnest by key congressional committees, and a number of them will be finally decided either before the summer recess, or soon after. The Senate has already passed a land-use bill, setting in motion at least the principle of some federal oversight of land planning by the states; the House companion bill is in the final mark-up stages. A toxic substances bill probably will be voted on in July, and a floor fight over a final compromise agreement on the controversial Highway Trust Fund is expected immediately before or after the recess. Strip mining legislation is in the mark-up stage in both houses, as is legislation to create a Bureau of Land Management Organic Act. Energy research and development bills are in the final stages, and the Senate Agricultural Committee has finished taking testimony on the controversial Timber Supply Act.

The environmental issue that has received most attention from the Washington Office for the past two or three months, however, has been the Alaska Pipeline legislation, not just because of the immense public resources and wilderness that is at stake—many feel that the whole future of Alaska hangs in the balance—but because there is a feeling that the issue has immense symbolic importance. In effect, it represents the first real struggle between environmentalists and the energy industry, particularly big oil, over who is going to dictate energy policy in this country, and in what manner. The oil companies are expected ultimately to win this particular battle; they poured on a massive advertising campaign in the final days before the unfortunate Senate vote, and backed this up with a perhaps "coincidental" large-scale curtailment of gas station hours in the Washington, D.C. area, allegedly the hardest hit area in the country. Many members of Congress can talk of little besides the "alleged gasoline shortage" and of the need to build the Alaska Pipeline right now, as if this were some sort of solution. (The fact of the matter is, of course, that the trans-Alaskan pipeline couldn't be completed for at least another five and a half years, and that the total amount of oil on Alaska's North Slope amounts to only about two years worth of American consumption.)

Yet despite the oil companies' high pressure scare campaign, the mood on Capitol Hill appears to be changing somewhat about the real nature and meaning of the "gasoline shortage." As the energy issue becomes more important, members of Congress tend to put their brightest young staff to work on it, and they are finding out that there is a great deal more to the whole question than appears in the slick oil company ads. Consequently, while many Congressmen still talk about the "energy crisis" we find some encouragement in that they refer to it with ever more qualifiers. Regardless of the outcome of the legislative battle over the pipeline, the environment is being once again considered in proposed solutions to the "crisis."

Many people are beginning to wonder about the oil companies' role in all this. In June, the attorneys general of six different states accused the oil industry of collusion and conspiracy in an attempt to drive up prices, to force independents out of business, and, in the words of the Attorney General of the State of Florida (which has since filed a law suit), "to get approval of the Alaska Pipeline."

The whole situation has so many curious aspects to it that humorist Art Hoppe wrote about it not long ago. His favorite character, Joe Sikspak, said that for the oil companies the "energy crisis" was the greatest discovery since Teapot Dome. Even the Federal Trade Commission, which has not been especially aggressive in its watchdog role over big oil, recently filed a staff report accusing the major companies of acting in a monopolistic fashion to drive independents out of business and to raise prices. Even Senator Henry Jackson, the champion of the oil industry in the Alaska Pipeline issue, has started an investigation by his Senate subcommittee on the real meaning behind the current shortage, and the Federal Trade Commission accused the eight largest oil companies of monopolistic refining and marketing practices that have boosted their profits, forced American motorists to pay inflated prices, and contributed significantly to the gasoline shortage.

No one knows where all this will lead. The Alaska Pipeline will probably be voted on in both houses before investigations are over, and environmentalists may lose the first test of strength. But that is only a battle; it is not the war. The war—that is, the effort to arrive at a rational energy policy which protects environmental values—has just begun. The current investigations will probably reveal the true cause of the current "shortage" and its curious timing. They may lead to a national energy policy not dictated by the oil companies, which would be a result far more important than the initial setback on the Alaska pipeline.

Brock Evans

CAPITOL NEWS

The trans-Alaska pipeline battle—House vote expected in September

ENVIRONMENTALISTS lost their first battle against the oil corporations over the trans-Alaska pipeline (TAPS) on July 17, when Vice-President Agnew cast the deciding vote in favor of the Gravel amendment. This amendment removes TAPS from further court consideration under the National Environmental Policy Act (NEPA) and provides immediate congressional approval of the pipeline. The legality of this amendment is in question, and the Club is consultings its lawyers on whether Congress can thus over-ride the judicial process by preventing the courts from reviewing a law.

The Mondale-Bayh amendment, strongly supported by the Club, was defeated three days before by a two-to-one margin. This amendment had called for a nine-month study by the National Academy of Sciences on an alternative, Canadian, route and a final congressional decision based on the findings of this study. The Canadian alternatives could preclude the possibilities of an oil spill in the treacherous waters off the Pacific coast and the potential rupture of the pipeline by an earthquake along the fault that the Prudhoe Bay-Valdez route follows.

Two environmentally oriented amendments were passed, yet they try to iron out the problems caused by the trans-Alaska route rather than abandoning it in favor of studying the more environmentally sound Canadian routes to the oil-starved East and Midwest. The first amendment would require the use of double-hulled tankers to transport the oil, thus lessening the possibility of spillage. The second forbids the exportation of Alaskan oil to Japan unless the President determines it to be in the national interest and unless Congress does not move to stop such exportation within 60 days after the President's decision.

"The energy industry has used arrogant, heavy-handed 'energy-crisis' scare tactics to win themselves large profits at the expense of the Alaskan and Pacific Coast ecosys-

EDITORIAL **Laurence I. Moss**

EPA v. The Law

As reported elsewhere in this issue, on June 11, 1973, the Sierra Club won a great victory in the fight to preserve air quality in places where it is now relatively clean. The Supreme Court supported the lower courts in their declaration that under the Clean Air Act the administration of EPA has a non-discretionary duty to effectively prevent "the significant deterioration of air quality in any portion of any state." Now another chapter in the story has just unfolded. It is one more example of the lawless activity that seems so prevalent these days in Washington—the determination of the executive branch to ignore the will of Congress and the orders of the courts.

On July 13, 1973, Robert Fri, the Acting Administrator of EPA, held a press conference. He stated that "There has been no definitive judicial resolution of the issues whether the Clean Air Act requires prevention of significant deterioration of air quality. The EPA also says that "In the absence of a definitive judicial decision on the issue, the Administrator adheres to the view that Section 110 of the Clean Air Act does not require EPA or the states to prevent significant deterioration of air quality."

EPA has two arguments for their amazing statements. First, EPA says that the Supreme Court was equally divided and that their decision was therefore inconclusive. However, regardless of the vote, the judgment of the Supreme Court was to affirm the determination of the lower courts, which held that the Clean Air Act prohibits significant deterioration of air quality. Since the Supreme Court is the highest court in the land, that determination is final, is binding on EPA, and, to use EPA's own word, definitive.

Second, EPA says that the court of appeals only determined that a preliminary injunction was proper, but it had previously entered into a stipulation with the Sierra Club to the effect that "The decision of the district court be regarded as a final rather than interlocutory order." On the basis of this agreement, the court of appeals concluded that the district court's order was a "final judgment" and EPA's own counsel told the Supreme Court that the Court of Appeals had treated the district court's judgment as final. It is now too late for EPA to attempt to break its agreement, particularly since the Supreme Court has affirmed the court of appeals' final determination.

EPA has not only said that it was not treating the decision of the federal courts in *Sierra Club* v. *Fri* as definitive, and that it still did not regard the Clean Air Act as prohibiting significant deterioration, but it is also plainly proceeding on this basis. EPA's proposed regulations, announced at the press conference, also violate the district court's order both procedurally and substantially. Procedurally, the district court ordered EPA to issue final regulations as part of state implementation plans by November 30, 1972. Although the Supreme Court issued a stay, that stay has now expired, and the EPA is therefore required to issue final regulations immediately to prevent significant deterioration of air quality. Instead of issuing final regulations, EPA has merely issued four possible alternatives. According to EPA, a minimum of four months will be required before final regulations are adopted. There can be no excuse for the delay since EPA has had almost 14 months, rather than the initial six months contemplated by the district court's order.

The delay in issuing the final regulations would not be so serious if EPA were genuinely trying to comply substantially with the district court's order. However, consistent with its express refusal to follow federal court orders, all of its four possible approaches are in direct violation of the court order. Indeed, as to three of the approaches, the agency admits that they will not prevent "the significant deterioration of existing air quality in any portion of any state" as ordered by the district court.

First, the approaches proposed by EPA are confined entirely to particulates and sulfur oxides; the problem of preventing significant increases in concentrations of nitrogen oxides, carbon monoxides, hydrocarbons, and oxidants is not confronted.

Second, all four approaches apply only to 15 kinds of industrial facilities and other large stationary sources. No limitations whatever are placed upon new highways, large shopping centers and other commercial facilities, new towns, and large apartment complexes. All of these can be major sources of pollution and therefore cause significant deterioration.

Third, while EPA proposes a 1972 baseline for measuring significant deterioration, it

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tems," observed Assistant Conservation Director Charles Clusen. "It is unfortunate that the Senate had to bow to this heavy propaganda and pressure by the industry. But we will carry the fight on to the House of Representatives. The fact that the vote was so close reassures us that the industry is not pulling the wool over everyone's eyes." Following the passage of the Gravel amendment in the Senate, the Public Lands Subcommittee of the House Interior and Insular Affairs Committee reported a bill including a provision that also abrogates NEPA. The full committee is presently marking up the bill, and it is probable that the legislation will be reported before the August recess. However, a floor fight is not expected until early September. Letters are needed to all members of the House, asking them to save NEPA and support the study of the Canadian routes.

Nixon's energy message lacks strong policy

In his second energy message on June 29, President Nixon announced expanded research to find new energy sources and government reorganization to give high priority to energy matters. The projected reorganization includes the designation of the Interior Department as the Department of Energy and Natural Resources and its absorption of related agencies, including the Forest Service, the water control functions of the Army Corps of Engineers, and the National Oceanic and Atmospheric Administration. Noting that the U.S. consumes one third of the world's energy, the President also called for a voluntary conservation drive in which the government would set the example.

Commenting on Nixon's message, Sierra Club President Laurence I. Moss observed that "Although it represents a forward step

compared with the April 18 message, it demonstrates that the President is still unwilling to implement the philosophy he expressed then: that the single most effective means of encouraging energy conservation is to ensure that energy prices reflect their true costs. The President seems content with the present system of exhorting people to use less energy while subsidizing them to use more. It is about time we learned that the policies which led to the 'energy crisis' are not likely to contribute to its solution."

Moss pointed out that the special tax write-offs, the tanker subsidy program, the payment of funds ($1.5 billion this year) from the Treasury—not from the coal industries—to compensate the victims of black lung disease, the use of the air and water as free dumping grounds, the limited liability in the event of a nuclear plant accident provided by the Price-Anderson Act, all serve to place much of the cost on the taxpayer and the victim rather than on the user of energy. "With energy thus underpriced, is it any wonder that we pollute so much? We will know the President is serious about energy conservation when he tells his friends in the industry that the subsidies must go."

On the positive side, the President has proposed consolidating all the energy-related research and development activities of the federal government in an independent Energy Research and Development Administration, with funding of $10 billion over a five-year period. "This should improve the management and coordination of such research," said Moss, "but it is disappointing that the President plans no more than a $100-million increase in the previously announced funding (of about $700 million) for fiscal year 1974. Moreover, we would have liked to have seen a more substantial commitment to solar energy, both for research and development—only $12 million is slated for this coming fiscal year—and for implementation of existing technology for heating and cooling. The same applies to implementing more efficient technology at the point of energy use. Great improvements can be made, often with net savings in lifetime costs. Finally, whatever we spend on research and development and other government energy programs should be recovered from the user of energy. A tax on nonrenewable fuels is probably the best way to accomplish this."

"We applaud this proposal," Moss said, "and hope that the comprehensive study of how to organize all energy-related regulatory activities of government will lead to application of the same principle in other areas, such as removing the enforcement of coal mine safety from the Bureau of Mines. Also, we hope that federal licensing for fossil-fueled power plants, with their enormous adverse environmental impacts, will be required as it is of nuclear and hydroelectric facilities."

Two new bills resurrect old timber supply act

Once again, the timber industry is attempting to dedicate the national forests to the sole purpose of timber production. The introduction of two new bills, S.1775 by Senator Sparkman in May and S.1996 by Senator Hatfield in June, represent two similar efforts to increase timber production by disregarding sound forestry-management procedures. The bills would further threaten our endangered national forests, which are already being cut grossly in excess of the amount that can be sustained.

Hearings on both bills were held before the Senate Agriculture Committee on June 26 and 27. A prominent and diversified group of organizations, including the Sierra Club, the Forest Service, the American Institute of Architects, and Friends of the Earth appeared to speak against the bills. In his testimony, Club Forestry Consultant Gordon Robinson quoted former assistant chief of the Forest Service, Edward Crafts to the effect that the Forest Service has substituted the flexible term "allowable cut" for "sustained yield," which is defined by statute, thus becoming vulnerable to pressure from industry to increase its cutting nearly 300 percent between 1950 and the present. These increases were not justified by improved forest practices or enhanced growth, but only made possible through application of a long series of rationalizations invented by the Forest Service to appease the timber industry and to obtain increased appropriations from Congress. Robinson emphasized that these two points were overlooked in the Library of Congress report summarizing the findings of the many recent hearings and studies relating to the national forests.

Robinson explained that the problem of mismanagement of the national forests has crept up on us gradually over the past 20 years, but since 1969 enough information has been gathered to make its continuation inexcusable. He said that it is clear that the Forest Service and the national forests are in deep trouble and urged the drafting of a firm statement to the Administration insisting that the laws governing the national forests be faithfully observed.

"There is no question but we are faced with a long period of growing scarcity of wood. But the only responsible way to deal with the situation is to observe the laws we have, laws that were carefully developed with great wisdom and foresight in less stressful times than ours."

Land-use legislation moves through Congress

CONGRESS IS MOVING toward passage of landmark legislation that would reverse the historically piecemeal process of land-use decision making that has squandered our land by needless conflicts and short-sighted decisions. Through a program of incentives and limited sanctions, the federal government would encourage area-wide land-use planning by the individual states for resources of "greater than local concern." This bill may be the first step in eventually implementing comprehensive land-use planning to restrict developments that would be detrimental to environmental quality.

On June 21, the Senate passed a bill that

Sierra Club Conservation Director Charles Clusen described as "fundamentally sound and effective" except that it lacked cross-over sanctions, which would allow the Secretary of the Interior to progressively reduce airport, highway, and land and water conservation funds by seven percent for each year that a state failed to comply with the provisions of the act. The House is developing its own version of the bill in committee, and the initial House version, although it contains cross-over sanctions, is far weaker than the Senate bill. Unless this bill is changed and strengthened before final passage, said Clusen, "It will cause mass confusion on our public lands and will amount to little more than a watered-down attempt at land-use planning for private lands." A floor fight on the bill is not expected until September—please write your congressman asking that he support a strong private land-use bill that contains no public land policy.

The strong likelihood that Congress will pass national land-use legislation at this session makes it important for members to be aware of Sierra Club policy so that they may be active in the implementation of this legislation. The Club's National Land-Use Committee is now sponsoring the organization of state, chapter, and regional land-use committees. Seminars and other means of providing information and support to these committees are being planned. Interested members should write Ted Snyder, Chairman National Land-Use Committee, P.O. Box 232, Greenville, S.C. 29602.

NEWS VIEW

Whaling ban fails again in close IWC ballot

INTERNATIONAL PRESSURES for a ten-year moratorium on the commercial killing of whales have been building up rapidly since June, 1972, when the United Nations Conference on the Human Environment, held in Stockholm, voted 53 to 0 with three abstentions in favor of the moratorium. The International Union for the Conservation of Nature supported it in September. The General Assembly of the United Nations in December, 1972, adopted all the Stockholm resolutions, including the whale moratorium.

Like the Sierra Club, environmental organizations in the nation and around the world support this halt in killing to allow an international decade of cetacean research on their numbers, geography, biological processes, and attributes. Also, several endangered species of whales could perhaps begin to increase in number, although scientists say it may take 40 or 50 years for some populations to recover.

The blue whale, mightiest creature ever to inhabit this planet, is now reduced to less than one percent of its original numbers. The right, bowhead, and humpback are similarly depleted. The California grey whale has recovered to about half its estimated numbers before intensive hunting began. These five species are now protected by the International Whaling Commission because there are so few they are, in effect, commercially extinct—it doesn't pay to send the technologically advanced whaling fleet after them.

Other species, the fin, sei, sperm, and the smaller Minke are bearing the brunt today. These are under a quota-catch system determined by the 14 nations of the International Whaling Commission. In 1972, motions advanced by the U.S. to extend the moratorium on commercial whaling to all species failed to get even a simple majority. This defeat in the IWC occurred just two weeks after the stupendous international support for the ban at the Stockholm conference.

Before the 1973 IWC meeting convened in London this June, the Sierra Club and Project Jonah undertook a campaign by mail that appealed for support of the moratorium by conservation organizations in the member-nations of the IWC. Other groups worked actively too. The moratorium vote was quite different this year, with eight nations in favor (Britain, U.S., Panama, Mexico, Argentina, Australia, France, and Canada), five opposed (Iceland, Norway, South Africa, Japan, and the Soviet Union), and one abstention (Denmark). But for a measure to pass, it must be approved by three-fourths of those nations voting.

In other actions, the IWC voted to continue the same quota on the sperm (23,000) and Minke (5,000), but reduced slightly the quota on the sei (7,500).

The species in most serious danger is the fin whale. A reduction in quota to 2,000 was approved, along with a three-year phase-out on killing fin whales in the southern oceans. This was voted over the heated opposition of Japan and the Soviet Union who together account for more than 80 percent of the total annual whale kill. The actions on southern fin whales caused them to threaten to abandon the international observer scheme as with respect to fin whales. This observation scheme monitors factory ships and shore stations to report violations of the IWC regulations. The two countries also threatened to lodge reservations within 90 days to the fin whale quotas. If they do, there will be no legal restriction on the numbers of fins they catch.

The international campaign by conservation groups for the moratorium will be stepped up. If whaling continues at the current rates, scientists estimate it is only a matter of five to ten years before it will end anyway because those species now hunted will be commercially extinct. There is grave danger of biological extinction. The irony is that while some countries continue to make lubricating oil, fertilizer, cosmetics, mink, sable, and pet food from whales (whale meat supplies 1.1 percent of total human protein consumption in Japan), scientists are learning more about their remarkable intelligence and sensory perception. There are readily available, cheap substitutes for all whale products.

Since 1971, when the United States outlawed whale hunting and banned the importation of whale products, this country has not been a party to the slaughter. It is a leading exponent of the moratorium. Many Americans are wondering what more they can do. Some are turning to a boycott on imported Japanese goods. Others are urging the government to invoke the Pelly Amendment against Japan if she ignores any of the IWC regulations. Enacted in 1971 as an amendment to the Fisherman's Protective Act, it authorizes the President to direct the Secretary of the Treasury to prohibit the importation of fish products into the United States from countries that are violating international fishery conservation programs.

Sierra Club victorious in air quality suit

"We were on the threshold of a new round of massive air degradation; our victory forestalls this. Clearly this is the most important air preservation case, and probably the most

Continued on page 39

REGIONAL REPS REPORT

Southwest: Grand Canyon Giveaway

THE GRAND CANYON needs no introduction to most people, even those who have not experienced it first-hand. Author and naturalist Joseph Wood Krutch noted that "The canyon is at least two things besides spectacle. It is a biological unit and the most revealing single page of earth's history anywhere open on the face of the globe." Just a few years ago, the canyon was the focus of an extremely hard-fought conservation battle when the Sierra Club and other groups successfully opposed the construction of two dams that would have irreparably damaged the very heart of the gorge.

The result of that effort was the widespread conviction that Grand Canyon National Park should be enlarged to encompass the entire canyon, thus better protecting it from those who would mar its majesty with construction of dams and mines and other destructive activities. More recently, we have become aware that a larger park is needed to insure that the canyon will not be damaged by the crush of visitors and to further enhance their appreciation of it. Administration of the canyon is now fragmented among five units of the National Park System, three Indian reservations, the Bureau of Land Management, the Forest Service, and the State of Arizona. An extended park would give greater unity to the management of the Grand Canyon, and, more importantly, it would extend protection to those parts of the canyon that lie outside present park boundaries.

Unfortunately, congressional consideration of bills to enlarge Grand Canyon National Park has been focused on a proposal by Arizona Senator Barry Goldwater that contains a serious threat both to the Grand Canyon and the National Park System. On June 20, the Senate Subcommittee on Parks and Recreation held a hearing on Goldwater's bill (S.1296). His proposed new park would extend from Navajo Bridge (five miles downstream from Lee's Ferry) to the Grand Wash Cliffs (some 272 miles downstream), thus extending nearly the full length of the canyon. Superficially the bill appears to extend protection to many deserving areas, but a closer examination reveals that the total acreage of the National Park System would actually be decreased by some 47,000 acres. The bill also contains a number of other deficiencies. These many weaknesses —especially a precedent-setting deletion of park lands for economic uses—make it impossible for conservationists to support the total package offered in this bill.

Most of the acreage to be added to Grand Canyon National Park by S.1296 is now protected within Grand Canyon National Monument, Marble Canyon National Monument, and Lake Mead National Recreation Area. Only some 50,320 acres would be transferred to the National Park Service from other jurisdictions, primarily the Bureau of Land Management and the Forest Service. The total acreage in the enlarged park would be 1,196,925 acres, with some 28,300 acres of this conditional upon the concurrence of two Indian nations, which is presently very unlikely.

A major feature of Goldwater's bill, and one that is completely unacceptable to conservation groups, is the proposed deletion of 97,730 acres of park-quality land from the existing Grand Canyon National Park and the two adjoining monuments. Some 41,630 acres would be transferred from Marble and Grand Canyon National Monuments to the Bureau of Land Management, primarily for the benefit of a few ranchers and hunters. The remaining acreage proposed for deletion comes from both Grand Canyon National Park and Monument and would become part of an enlarged Havasupai Indian reservation.

Deletions such as those proposed by Senator Goldwater are unprecedented in the history of the National Park System. Although lands have been deleted from parks and monuments on a number of earlier occasions, never have they involved so large an area or lands of such unquestioned park caliber. If these deletions are approved by Congress, we can expect to be besieged by similar requests to remove land from other parks. It would mean open season on the National Park System. This one factor alone is ample justification for opposing Senator Goldwater's bill.

A particularly sensitive issue is the proposal contained in S.1296 to expand the present 3,058 acre Havasupai Indian reservation to 169,000 acres, 56,100 acres of this enlargement coming from the existing Grand Canyon National Park and Monument, with the remainder (nearly 110,000 acres) to be taken from the Kaibab National Forest. Included in the enlarged reservation would be three of the four waterfalls now in the park for which Havasu Canyon is so justly famous. At the same time, the bill repeals the present authority under which the Havasupai Indians enjoy free use of a large portion of the park primarily for grazing purposes. If additional lands are needed by the Havasupai to provide for an adequate economy, this need should be met by purchasing nearby privately owned ranch lands, also within their historic territory, rather than by taking lands out of a national park. Such lands are available and are better suited to grazing, the prime use which the tribe would make of any expanded land base. At the same time, the existing use by the Havasupai of the present park is not detrimental and need not be terminated. Perhaps the study, suggested by the Department of the Interior of the economic need of the Havasupai and its relation to the need to protect our national parks, would be the best interim solution.

Other weaknesses of S.1296 include the failure to extend park protection to important areas, including a portion of Kanab Canyon, the Parashont Canyon-Whitmore Wash area, and large portions of plateau immediately adjacent to the rim. The wilderness designation provision is grossly inadequate, incorporating only about one-half the area that should be so designated. No mention is made of a wilderness designation or even a wilderness study of the lands to be added to the park. Even the Colorado River is omitted from the wilderness. The bill would specifically reaffirm the provision in the existing Grand Canyon National Park Act that allows reclamation projects in the canyon and extends the provision to cover

When the deletion of park lands, combined with other deficiencies, is compared with the limited additions proposed by Senator Goldwater, it is abundantly clear that the American people, the Grand Canyon, and the National Park System would be better off with no bill at all if the only possibility is S.1296. Fortunately, there is an alternative—S.2017 sponsored by Senator Clifford Case. This bill would create a Grand Canyon National Park of some 1.965 million acres, and it is free from the numerous deficiencies that mar the Goldwater bill. The Case proposal would place the entire Grand Canyon, with the exception of those portions within Indian reservations, in the national park. Protection would also be extended to those lands immediately adjacent to the rim that are the setting of the canyon proper.

The Grand Canyon once again needs those many friends who came to its rescue several years ago and stopped the construction of dams. Now the need is for a truly good Grand Canyon park bill to fulfill the commitment to enlarge the park made by Congress after the fight over the question of dams was concluded. Write your congressional delegation urging that they support the park bill introduced by Senator Case, and further, specifically asking them to oppose any park bill that would delete lands from any of the existing park system units.

John McComb

Southern California: Mineral King and the Kern Plateau

THE NEED TO PRESERVE the superb Sierra Nevada was the wellspring for the founding of the Sierra Club and for John Muir's leadership in efforts to preserve other magnificent natural areas in this country. The present effort to protect the remaining undesignated wilderness in the Sierra and to prevent the U.S. Forest Service and the Disney Corporation from building a mammoth year-round urban recreational complex in the Mineral King Valley of the southern Sierra Nevada is a worthy continuation of Muir's early work and has developed into a national symbol of the fight for the preservation of natural values occurring in every region of the country. The 1972 July/August issue of the *Sierra Club Bulletin* featured an article by Don Coombs that delineated the attitudes of Sierra Club members as determined by a national membership survey which was conducted in 1971. The Club's opposition to the development of Mineral King was considered by the membership to be the single most commendable conservation action in which the Club is presently involved, and people of all persuasions from all parts of the country have sent letters of support for our stand.

Despite strong public opposition to the proposed Mineral King development project and the obviously associated problems of air and water quality, sewage disposal, disruption of wildlife populations, and substantial adverse effect on the surrounding wilderness of Sequoia National Park, the Forest Service is still attempting to plod ahead with discredited development plans. This action by the Forest Service leads one to question whether the service is capable of adequately managing the Mineral King valley and the remaining wilderness of the national forest south of Sequoia National Park.

The Forest Service has recently concluded that only half of the 260,000 acres of de facto wilderness involved should be studied for possible inclusion in the Wilderness Preservation System, even though logging and development activities are proceeding on hundreds of thousands of acres elsewhere in the forest. The Sierra Club has long supported wilderness status for this magnificent Golden Trout and Little Kern River country, but the Forest Service's recent decision to omit much of our proposal from the wilderness study area leaves only one avenue open to us if we wish to see this magnificent area preserved.

Congressman Tom Rees of California has recently introduced H.R. 5732 to enlarge Sequoia National Park. I quote from Section One of his bill: "For the purpose of protecting their scenic and natural values and to prevent their destruction by logging and other commercial exploitation, the portions of the Kern Plateau, Kern River drainage, Little Kern River drainage and related areas that are specifically described in Section Two are hereby made a part of Sequoia National Park and are removed from administration as part of the Sequoia National Forest and the Inyo National Forest." H.R. 5732 would add the 260,000 acres of our Golden Trout wilderness proposal to Sequoia National Park.

Although Congressman Rees' bill does not deal with Mineral King, at least four pieces of legislation (H.R. 5752, H.R. 3089, H.R. 5272, H.R. 6823), co-sponsored by 16 California Congressmen, have been introduced in Congress in an attempt to transfer jurisdiction for Mineral King from the Forest Service to the National Park Service in order to protect the area's scenic and natural values and to prevent its commercial exploitation. Congressmen Jerome Waldie, Charles Wilson, Philip Burton, Ron Dellums, Don Edwards, Augustus Hawkins, Bob Wilson, Robert Leggett, Pete Stark, Pete McCloskey, John Moss, Leo Ryan, George Danielson, Ed Roybal, Jerry Pettis, and George Brown are the Congressmen who have sponsored or co-sponsored the legislation to place Mineral King in Sequoia National Park.

A substantial push by interested citizens to move these pieces of legislation through Congress is now needed. The addition of Mineral King Valley and the Golden Trout and Little Kern country would allow Sequoia National Park to tell the complete story of the southern Sierra Nevada from Mount Whitney and Giant Forest to the lava flows of the upper Kern Plateau, the magnificent sculpture of Little Kern Canyon, and, of course, Mineral King Valley.

Please write to your Congressman (House Office Building, Washington, D.C. 20515) and ask that he sponsor and support legislation to place Mineral King Valley in Sequoia National Park and also that he support H.R. 5732 to add the remaining unspoiled areas of the Kern Plateau and Kern River watershed to the park. Particularly needed are letters to Congressmen in states other than California in order to obtain broad national support for this issue in Congress.

Also, please write to California Senators Alan Cranston and John Tunney (Senate Office Building, Washington, D.C. 20510) and ask that they support the Mineral King and Kern Plateau legislation. Please send copies of your letters to President Nixon, The White House, Washington, D.C. 20500.

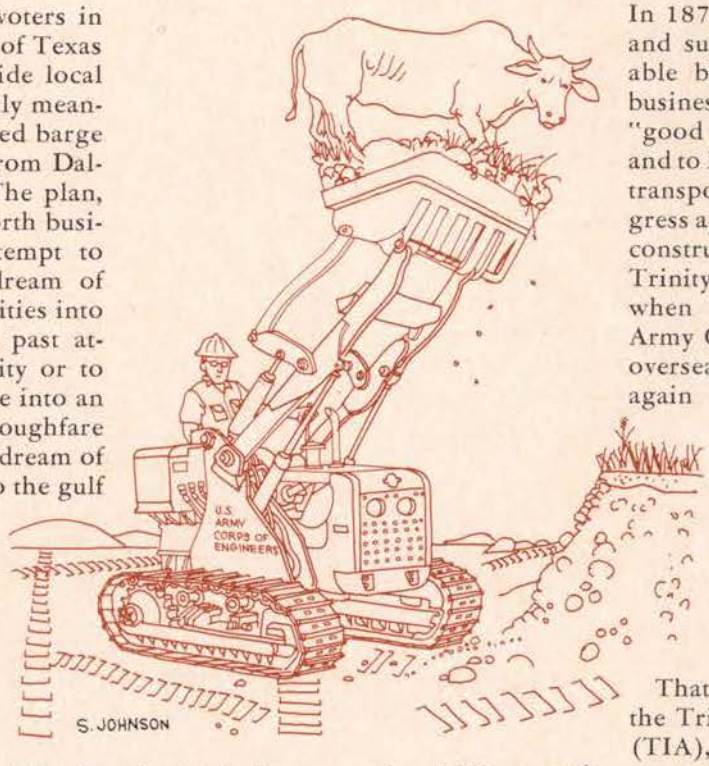
Larry E. Moss

Can you believe Dallas as a seaport?
The Army engineers can, even if Texas voters can't.

Gulliver Travels to the Gulf

GEORGE ANTROBUS
and
ROGER MILLIKEN

ON MARCH 13, 1973, voters in the Trinity River Basin of Texas defeated a proposal to provide local funds to transform their gently meandering river into a channelized barge canal stretching 335 miles from Dallas to the Gulf of Mexico. The plan, supported by Dallas-Fort Worth businessmen, was the latest attempt to realize an old, persistent dream of turning these central Texas cities into thriving seaports. Although past attempts to navigate the Trinity or to convert its roundabout course into an efficient, straight-line thoroughfare had proved unworkable, the dream of cheap water transportation to the gulf refused to die in Dallas. The recent defeat of the bond measure was the unexpected culmination of over 20 years of planning by business leaders and the sympathetic Army Corps of Engineers. At one time the canal seemed inevitable. That it has proved otherwise is to the credit of a coalition of citizens who were able to expose the impracticability of the plan. Yet having persisted for over a century, the canal idea will probably soon be resurrected.



Even before Dallas was settled—as early as 1836—a scout named Scioto Bell used the Trinity as a passage into the north of Texas. When later pioneers settled the area, they used the narrow, winding Trinity to funnel their goods to market at tidewater. Even so, in 1843, with his steamer bogged down on the shifting sand bars at the river's mouth, William Bollaert concluded, "I do not think that the navigation of the Trinity can pay, considering the length of the voyage and the expenses incident to the unloading and reloading of steamers at its mouth."

Federal funding for a survey to determine the feasibility of improved steamboat navigation on the Trinity was provided shortly before the Civil War, and small barges plied the lower half of the river with limited success. In 1873, the railroad came to Dallas and supplanted the slow, undependable boats. As rail rates increased, business leaders began to yearn for the "good old days" of river navigation and to lobby Congress for cheap water transport. As a result, in 1902, Congress appropriated $20 million for the construction of canal locks on the Trinity. Construction was first halted when the designated builders—the Army Corps of Engineers—were sent overseas during World War I, and again in 1922, because open-river navigation on the Trinity seemed too difficult to maintain. Congress abandoned all plans for the Trinity save a 25-mile ship channel to Liberty. Finally, in 1930, lack of commerce caused the suspension of funding for even the short channel.

That same year saw the founding of the Trinity Improvement Association (TIA), an organization of local businessmen who strongly favored a canal, because low-rate barge transportation at public expense continued to be an irresistibly attractive prospect. In 1955, the creation of a state agency to promote the canal, the Trinity River Association (TRA), was a long-awaited triumph for the 10,000-member TIA, whose officers quickly assumed key positions in the state agency. In fact, the two organizations were so brazenly interconnected that, in 1972, the Sierra Club petitioned Governor Briscoe to eliminate the

private interest group's influence in the TRA.

In 1973, the TRA and the Corps of Engineers pushed through Congress a $1.6 billion proposal that authorized the Trinity River Project. This legislation called for channelization of the entire river and the construction of 20 locks, 16 dams, and five major reservoirs to provide the water necessary to bring big barges from the Gulf of Mexico to Dallas and Fort Worth. Nonetheless, an additional $1.5 million had to be raised locally before the project could begin. This last March, the TRA called a bond election to raise the token local investment, but, to its surprise, the bond was overwhelmingly defeated.

This defeat must have stunned all those who favored the canal, an influential group that included Texas Governor Dolph Briscoe, all the area's city councilmen, and all but one of its congressmen, and the most vocal business groups in Dallas and Fort Worth. They must have wondered how a loose coalition of conservatives, liberals, and conservationists, which had not existed even three years earlier, could have in so short a time persuaded voters to reject what had once been an enormously popular project in Dallas.

Indeed, before 1970 the opposition to the project consisted mainly of a maverick lawyer named Ned Fritz (Chairman of the Texas Committee on Natural Resources) who had only the dubious support of railroad interests that saw a mild threat to their business. In 1965, Fritz had convinced the Dallas Audubon Society to oppose the canal, but it kept its position low key. As one Texan explained, jobs were lost over that sort of thing. Furthermore, very few people at that time even considered the Trinity worth saving. As it flows through Dallas, it is cement-lined, sluggish, and clogged with debris. Sierra Club member Mary Wright asked, "Why go to bat for a river that is already dead?"

Nonetheless, in May of 1969, Ned Fritz made a lonely trip to Washington to testify before the House Appropriations Committee in the river's behalf. That same year, Texas voters defeated the $3.5 billion Texas Water Plan, which would have financed numerous projects throughout the state. Although environmentalists had opposed this plan, the main cause for its downfall was its enormous cost. Environmental opposition was considered only a small part of its defeat.

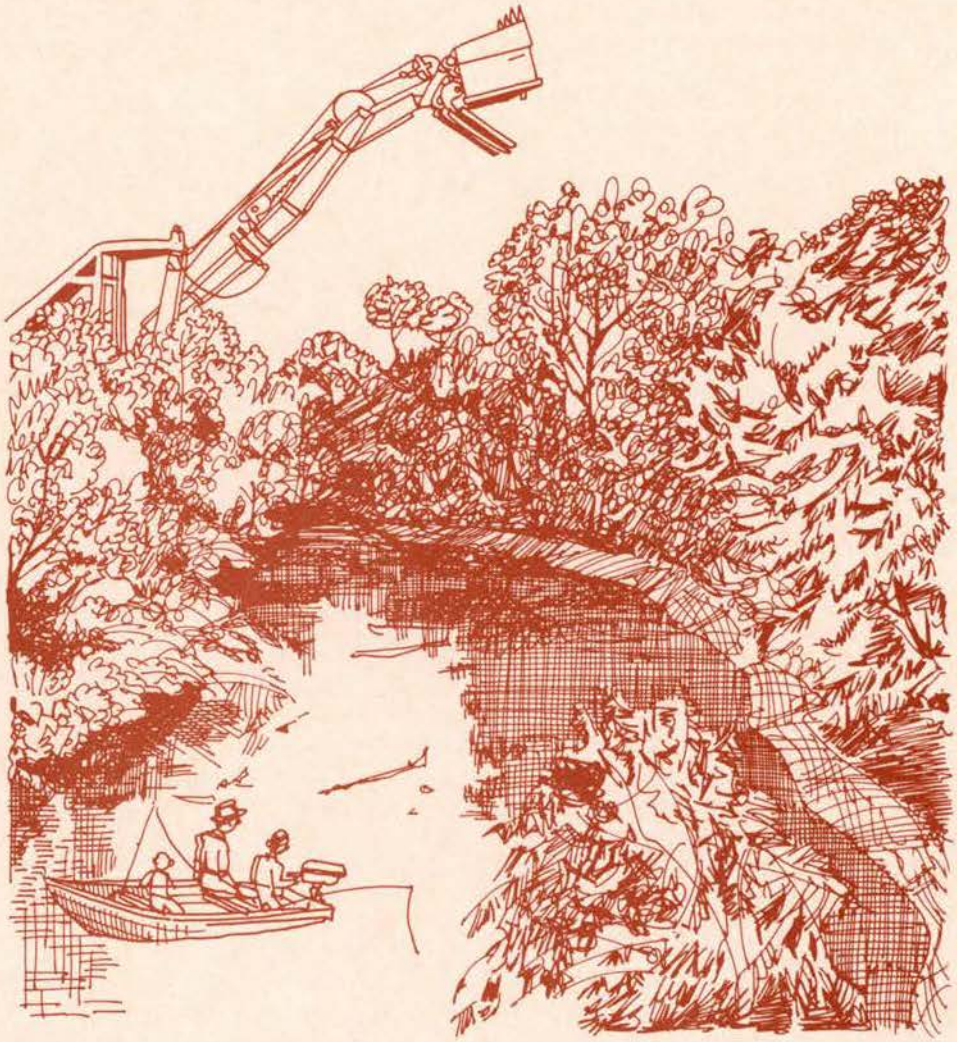
By 1970, however, conservationists had achieved greater influence in Dallas just as they had elsewhere, and they began to make themselves heard. The local Sierra Club group began to investigate the Trinity River Project and Dallas Club members invited the TIA and the TRA to the home of Conservation Chairman Mary Wright to explain their position.

The proponents arrived with maps, diagrams, and the details of the project. "It was when we pinned those aerial photographs to our living room carpet," said Mrs.Wright, "that I first realized that downstream from Dallas the Trinity was really a river, that it wasn't just the polluted creek you saw running through town. That's when we were first opposed to the project."

The opposition grew as Ned Fritz and Don Purinton led canoe trips along the lower Trinity. The canoeists found it to be a strong, slow river, which rids itself of pollution halfway through its 550-mile meandering course. Lush southern hardwoods form green canopies over the river and provide food and shelter for wildlife. Fern-lined springs drip down limestone bluffs into the slowly moving river. Deer, beaver, alligator, and heron can be seen along the banks. Absorbed as the canoeists were in the river's unfolding spectacle of life, pollution and Dallas seemed far away.

All this the Corps of Army Engineers planned to transform into a straight 335-mile industrial trench similar to the poisonous Houston ship channel, but nearly six and a half times as long and costing more than ten times what the U.S. paid for the St. Lawrence Seaway.The riverbed would be straightened, deepened, widened, and lined with cement. In all, 180 meanders would be eliminated and 440 square miles of river, forest, farmland, and estuary would be drowned behind dams.

The corps described the project euphemistically as a multi-purpose



channel providing flood control, a constant supply of fresh water, recreational opportunities, and wildlife conservation along the length of the project. That this canal would be used by commercial barges was, the corps claimed, merely a side benefit of the project. Belying this description was the way in which funds had been allocated—70 percent was to go towards construction of the barge canal. Promoters of the canal idea have always linked flood control to canal plans, hoping to thereby gain local support. Yet so-called flood control often causes more damage than it prevents because it encourages construction of expensive developments along the floodplains of rivers that will never be free from flooding, no matter what precautions are taken.

There were already numerous lakes in the Trinity River Basin that offered the development-type recreation that the proposed reservoirs were to provide. The corps' narrow definition of recreation in terms of swimming and boating completely ignored the stimulating and fast-disappearing opportunities that a free-flowing stream provides.

Throughout 1971, Mary Wright and other Sierra Club members increasingly realized the incredible amount of destruction the proposed canal entailed. Their opposition crystalized when they heard the details of the dam already being constructed by the corps in Wallisville, across the marshes of the river's delta. This dam, containing the first lock of the proposed canal, would inundate more than 12,000 acres of prime nursery ground for shrimp, crab, and 56 other estuarine-dependent species. The habitat of seven rare and endangered species, including the bald eagle and the peregrine falcon, would be destroyed. Club members realized that they must act quickly in order to accomplish anything.

Mary Wright explained it this way: "Although the Sierra Club members had come to oppose the canal, we had been promised that many bends and natural areas would be spared. We thought that in the event the canal ever became a reality we would have a say in which areas would be saved. But we had known little about Wallisville because the Fort Worth district would never discuss it. They said it was the Galveston district's project. When Colonel Nolan Rhodes, head of the Galveston district, told us the details we decided to forget participation and go all out against the total project."

Following that decision, environmentalist opposition became public in a dramatic way. On Sept. 13, 1971, the Sierra Club, the Environmental Protection Fund, the Houston Audubon Society, the Houston Sportsman Club, the Texas Shrimp Association, and two fishermen filed a class action suit challenging the Wallisville construction. They argued that the corps had not complied with the National Environmental Protection Act (NEPA), that it was building the first lock of the proposed canal without studying the impact of the whole project, and that the environmental impact statement for the Wallisville dam was obviously insufficient.

Federal District Judge Carl O. Bue refused to stop construction on the project after the plaintiff's attorneys had argued their case, but he refused to dismiss the case altogether, even though virtually every city along the river had joined the corps in defending the dam. The suit then disappeared from sight, and for over a year the plaintiffs heard nothing.

Then, on February 16, 1973, less than a month before the bond election, Bue declared Wallisville in violation of NEPA. Although the dam was 72 percent complete, the Judge enjoined further construction until the corps completed a comprehensive environmental impact statement for the entire Trinity River Project. He further added: "There are indications in the record that the Corps of Engineers may have, at one time or another, been less than objective by engaging in rationalizations and supersalesmanship."

Bue's decision, coming in the middle of the bond election campaign, could not have been more opportune, for it supported the position of those who had argued that the environmental consequences of the project had not been adequately considered. By the time of the decision, congressional candidate Alan Steelman joined the opposition and gave the issue even greater publicity.

Steelman's opposition to the project was fostered by Mrs. Wright, whom he had met during the spring primaries. Mrs. Wright, assisted by Ned Fritz, stressed the environmental damage the project would cause, while SMU economist Don Smith emphasized its lack of economic justification.

In order to be approved by Congress, a project usually has to have at least a one-to-one benefit-cost ratio. In estimating this ratio for the Trinity River Project, Smith explained, the Corps of Army Engineers had used the highly unreasonable 3.25 percent interest rate, producing a desirable 1.5 to 1 ratio. The interest rate on U.S. Savings Bonds is 5.5 percent, and, in fact, the President's Council on Water Resources had recommended that a seven percent rate be used in estimating the benefit-cost ratios of projects like the proposed canal. Using this seven percent rate, Smith found that the canal would earn only $.60 per dollar invested as opposed to the $1.50 per dollar rate claimed by the corps. Acting on this information, Steelman labeled the project a "billion dollar ditch," and, canvassing the Dallas Congressional District, was amazed at the number of voters who agreed.

Steelman trounced his opponent, incumbent Earle Cabell, former mayor and strong supporter of the canal, much to the surprise and chagrin of the Dallas business establishment. The Dallas press, which had largely ignored the canal opposition, was jolted by the unexpected victory. Spurred on to investigate the canal further, it discovered several previously undisclosed environmental impact studies, which the corps only reluctantly divulged.

One of these studies, which concerned one of the proposed reservoirs, said that the lake would drastically alter the local ecology and recommended the use of railroads instead of the canal. Another recommended that the channelization of one branch of the Trinity be abandoned. A third study listed a number of areas that would be irreparably harmed by the proposed canal. No study evaluating the total project had been prepared.

In the atmosphere of these disclosures, the corps held environmental hearings on the canal as required by NEPA. Representatives of dozens of cities and chambers of commerce were there to praise the project. They claimed that the canal was needed to prevent flooding and to bring an economic boom. Environmentalists countered these arguments by describing the canal as uneconomical and environmentally disastrous. They were joined by an unexpected ally, the Texas Parks and Wildlife Depart-

ment, which had in the past often been rather quiet during environmental controversies. The department said that "One fact is exceedingly clear: the ecological results of this project would be wholesale devastation along the entire length of the Trinity River."

Frightened by Steelman's victory, the newly disclosed reports, and the unexpected opposition of the Parks and Wildlife Department, the canal backers decided to move as quickly as possible to bring the bond to a vote. Meanwhile, environmentalists formed the Citizen's Organization for a Sound Trinity (COST), an organization dedicated to defeating the bond measure.

COST asked the corps and the other canal proponents to release an environmental impact statement immediately or delay the election until they could. The corps said that there was no impact statement ready, and the TRA said that it could not delay the election. This combination allowed the opposition to effectively claim that the citizens were being asked to vote blindly on a project that they would never approve if they knew its environmental consequences.

COST also charged that Dallas business leaders were pushing the project for their own financial gain. They documented these charges by pointing to the obvious interrelationship between the TIA and the TRA. They also pointed out that over one-third of the board of directors of the TRA were landowners along the river who would be sure to profit from the proposed canal. Several directors of the Southland Life Insurance Company, another large riverside landowner, were also members of the TRA.

These charges were countered by a $500,000 campaign to promote the canal and to persuade voters that COST was a collection of "environmental extremists." The canal proponents issued brochures, purchased billboards, gave testimonials, bought a full-color supplement to the Sunday papers, and even sponsored a gala pro-canal celebration. This free-spending campaign lent substance to COST's charges that the canal proponents were after personal financial gain: if they were willing to spend such large amounts in its support, the supporters must have expected to reap large financial benefits from the canal.

The voter turnout for the election was huge—almost twice as many people voted as did in the city council elections three weeks later. Voters in the 17 counties affected by the canal were not swayed by the advertising campaign that had been mounted, and they defeated the bond by 21,000 votes.

Despite this defeat, the project is by no means dead. Dreams such as these, with their large profit potential, die hard in the minds of businessmen and army engineers. Less than a month after the project was turned down at the polls, Texas Senator John Tower declared that voters objected only to the cost, not to the idea. Indeed, David Brune, general manager of the TRA, observed: "We will let the thing rest a while, but I don't think that this is the end of the project."

The only way that projects like these can be truly stopped is for Congress to revoke their authorization. Until such action is taken, the Trinity River Canal could still be constructed provided that the court's decision is complied with and that the small requirements for local cost-sharing can be met. Such a development would ignore the will of those people directly affected by the project, and another American river would be spoiled by the still prevalent, progress-at-any-cost ethic.

Ninety percent of the nation's water resources have been compromised by the corps and similar developers, and it does not seem unreasonable to demand that the remaining ten percent be evaluated in terms of appreciation rather than exploitation. Until we temper our consuming instincts with a deference for the natural world, ill-considered pipe-dreams like the Trinity Canal will never die.

George Antrobus is an engineering associate of the late Samuel Farnsworth. Roger Milliken is a free-lance writer studying at Harvard.

Land Use (*Continued*)

needed to ensure that sleeping states take positive steps to develop adequate land-use programs. Opponents called the sanctions "a gun at the governor's head," and Maine's Edmund G. Muskie joined the conservative Republicans on this issue. He called such sanctions premature, but persuaded the Senate to pass an amendment that may lead to the reconsideration of the question in three years.

This year's Governor's Conference voted unanimous endorsement of the

bill, though without sanctions. Yet two governors, Francis Sargent of Massachusetts and Tom McCall of Oregon, testified in favor of some such penalty. Sargent pointed out that states without land-use control could pollute neighboring states and have an unfair advantage in attracting industry. McCall feared that some sanctions were needed to prevent a future land stampede. Governors Thomas Salmon of Vermont and Kenneth M. Curtis of Maine also support sanctions of some kind.

The draft bill before the Udall subcommittee in the House includes a sanctions provision, one of the few respects in which it is stronger than the Senate version. For the most part, House Subcommittee Print No. 1, as taken up by Udall and his colleagues in mid-July, has serious structural and substantive deficiencies. Its approach to the question is so parochial and cautious, so constrained by the Interior Committee's traditional jurisdictional compartments, that the program it would set in motion could die for lack of adequate constituency. The House version as of July fails to give adequate attention to the environmental implications of land-use decisions and does not assure adequate opportunities for public participation in such decisions. It fails to provide a workable federal administrative structure and would not effectively mobilize the federal government's own resources in support of state programs.

The House draft fails in many specific areas. For example, it does not require that state plans comply with air and water-quality laws and does not provide for complementary implementation of both state land-use programs and coastal plans as authorized by the Coastal Zone Management Act. Nor does it require that federal agencies evaluate the impacts of their programs (such as highways) and policies (such as taxes) on land use. It also would discourage the implementation of interstate regulatory programs.

The House draft would place sole responsibility for implementation of a land-use program in the hands of the energy-oriented Interior Department instead of a broader-based agency such as the Council on Environmental Quality. It fails to give the Environmental Protection Agency or the Department of Housing and Urban Development adequate roles in determining land-use policies in and about urban areas. Finally, it fails to provide any federal interagency meeting place (such as the Senate bill's Interagency Board) for Interior Department officials to work on a continuing basis with other federal agencies whose actions also affect land use. But perhaps the single aspect of the House draft that would most insure the impotence of any resulting program is the provision to authorize federal grants to the states for only three years, rather than the eight provided by the Senate bill. This failure to recognize the long-range nature of land-use planning says more than anything else about the naiveté and lack of vision that characterizes the House's first attempt this year at drafting land-use legislation.

Surprisingly, the House land-use bill proposes to legislate new policy for public as well as private lands, an approach similar to that contained in last year's fiercely controversial bill, H.R. 7211, which conservationists vowed to halt because it would have opened up federal lands to a new round of exploitation. They were successful, but portions of 7211, including some of its more objectionable provisions, have bobbed up again in the Udall subcommittee's draft. One provision, for example, appears to mandate a multiple-use policy for the 9.8 million acres of the 86 national monument areas of the National Park System. Another would require the National Park Service, Fish and Wildlife Service, Forest Service, and Bureau of Land Management to manage lands under their stewardship "consistent with state or local land use planning . . . to the extent practicable." These provisions appear to mean that state officials could, in effect, determine the contents of master plans for units of the National Park System in their state, the location of national forest, primitive or wild areas, grazing and logging practices on national forest and BLM lands.

One source of pressure for this sort of mischief is the Federation of Rocky Mountain States, a six-state regional chamber of commerce based in Denver. Its president, Jack M. Campbell, has told the Interior committees that "statewide land-use planning ought to cover federal lands in respect to important economic and social activities," and that "planning of both public (federal) and non-public land should be coordinated under a state plan." Rep. Udall reportedly has made a commitment to the federation to do what he can for it.

So one problem before the Udall subcommittee is how to set up effective mechanisms for coordinating planning and management of federal lands with planning and regulation of other lands, without unwisely changing federal policy for the federal lands, and without surrendering management of the federal lands, which belong to all Americans, to state officials whose constituencies are less than that.

One of the most pervasive shortcomings of the House bill is its failure to mandate adequate opportunities for public participation at either the federal or state level. Instead, it merely encourages state officials to provide for citizen involvement "as may be necessary in a particular instance"—in the opinion of the state officials! The Sierra Club and other environmental groups are urging that the legislation be strengthened along the lines of the unambiguous plain-talk in last year's Federal Water Pollution Control Act Amendments, which explicitly encouraged extensive public participation at all levels of decision-making.

Strong guarantees in the pending federal land-use law requiring open state planning, regulatory procedures, and citizen involvement throughout are essential because the states are where the action will be. Whether this law buttresses or hobbles the efforts of citizens to secure environmentally informed land-use controls in their various states and whether it supports or undercuts those working at local government levels to bring economic growth under some controls responsive to contemporary priorities depends now on the shape of the legislation that will finally emerge from the House this fall. It is important that we do this right the first time, that we do not codify past mistakes and prejudices, for as Governor Tom McCall said, "We are in the ninth or tenth inning of a ball game that is nearly over."

A Squeeze on the Skin Trade

DIXIE SCOTT

ON APRIL 10, 1972, four crates from Brazil marked "leather goods" were unloaded at Kennedy International Airport for transfer to a plane bound for Canada. They never arrived. Through a small hole in one of the crates, alert airline employees saw not leather, but spotted fur—the pelts of jaguars, ocelots, and marguays, cats which are in danger of extinction throughout much of their range. Because trafficking in such animals is forbidden by U.S. law, the airline employees immediately notified officials of the U.S. Fish and Wildlife Service, and thus set in motion an investigation that led to the smashing of the largest fur-trafficking ring in the world.

As a result, in February, 1973, the prestigious New York fur dealer, Vessely-Forte Incorporated, pled guilty to purchasing and receiving 12,182 skins of such endangered animals as the ocelot, puma, marguay, and otter. Thirteen other firms and 19 individuals were also implicated in an international poaching and smuggling operation that in 17 months had done $5 million business from the sale and purchase of 86,167 spotted cats, including 5,644 leopards and 1,867 cheetahs. According to wildlife experts, these figures amount to substantial portions (the cheetahs comprised about 20 percent) of the total wild populations of these spotted cats.

The extensive efforts that resulted in the breaking up of this fur smuggling operation perhaps indicates that we are finally serious about protecting the world's wildlife—particularly the commercially valuable species—from extinction. The United States, of course, has pioneered in the establishment of wildlife sanctuaries and nature parks and in the passage of protective legislation to protect various forms of wildlife, but such efforts have traditionally been restricted to our own native and migratory species. The fairly recent ban on whaling in this country, the Endangered Species Acts

Ounce, or Snow-leopard (*Felis irbis*).

of 1966 and 1969 (under which the fur profiteers were prosecuted), and the 1960 Lacey Act, which forbids trafficking in endangered species protected overseas, suggest that we are finally beginning to understand that the wildlife of the world is everybody's treasure and responsibility and that international cooperation is essential to assure the survival of many species.

The situation is acute. Since 1600, about 125 species of birds and mammals have become extinct, and though the rate has dropped off sharply since the turn of the century (when 36 species of birds and mammals disappeared between 1890 and 1909), more than 700 species of plants and animals are now poised on the verge, time being all that separates them from the fate of the passenger pigeon and great auk. In almost every case of extinction, man has been directly or indirectly responsible. Some species were slaughtered for food or sport. Others were lost as a result of man's introduction of alien and domestic species. These factors are still operating today, but they are probably less important than several others that are rather more typical of our age. These include destruction of habitat through mining, logging, agriculture, urbanization, and roadbuilding, as well as the immense international commerce in both living and dead animals and plants for the pet and pelt markets.

The most encouraging sign that the nations of the world are ready to act to forestall what could become a wholesale die-off of wildlife in our time was the recently concluded 85-nation Convention on International Trade in Endangered Species, which, appropriately enough, was being negotiated last February, as Vessely-Forte pled guilty to illegally trafficking in furs. Although this treaty addresses only one of the several threats to wildlife, it is of crucial importance to commercially valuable species—whales, fur-bearing animals, exotic birds, and various plants. By agreeing formally to control international trade in endangered plants and animals, the participating countries have closed up many of the channels through which illicit furs and the like have found their way to U.S. markets. The treaty limits trade in endangered species to "exceptional circumstances," tightly regulates commerce in other species (thus avoiding a shift of attention to healthy populations), and provides the international machinery necessary to carry out these regulations. It embodies the revolutionary concept that sovereign nations should accept re-

Spectacled Bear (*Tremarctos ornatus*).

strictions on their traditional freedom of trade not only for economic or political reasons, but for the lofty purpose of assuring that forms of life other than man will continue to share the earth with him. If such motives are matched by appropriate enforcement of the treaty, it will indeed stand

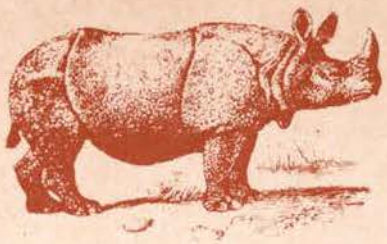
as a milestone in man's relationship to nature.

The International Wildlife Conference convened at the State Department in Washington, D.C., on February 12 of this year and ended on March 3. The delegates were a fascinating mix of game wardens, diplomats, biologists, conservationists, lawyers, customs officials, and at least one industrialist, and they brought to their task a mind-boggling array of facts about the world's flora and fauna. They also brought much distressing information about the status of wildlife around the world.

Bird of Paradise (*Paradisea apoda*).

The staggering dimensions of the problem were outlined for conference delegates in an opening-day speech by Russell E. Train, chairman of the Council on Environmental Quality. In 1969, Train said, prior to enactment of the Endangered Species Conservation Act, the U.S. imported the whole, raw hides of 7,934 leopards, 1,885 cheetahs, and 11,069 ocelots. Although he did not cite figures for the wealthy European market, Mr. Train suspected that the appetites of other affluent countries for luxury furs are just as voracious. In 1970, before specific national controls were instituted, more than 550 cats of several threatened species, and 2,397 individuals of the eight severely threatened primate species were imported live into the U.S. Among the cats were cheetahs, snow leopards, tiger cats, marguays, and ocelots; the primates included 150 golden lion marmosets—a number roughly equal to the present estimated total wild population.

Despite convincing evidence that international measures were desperately needed, the treaty went through a long incubation period, reaching back, at least, to the first formal proposal for a trade convention by the International Union for the Conservation of Nature and Natural Re-



One-horned Rhinoceros (*Rhinoceros unicornis*).

sources (IUCN) at its 1963 meeting in Nairobi, Kenya. It took over eight years to get a presentable draft and two weeks of intensive discussions between U.S., Kenya, and conservationists to produce the final paper that later became the basis for the Washington conference. Meanwhile, the 1969 U.S. Endangered Species Conservation Act called for the convening of an international conference to conclude a trade treaty and authorized funds for that purpose. An aroused world conscience finally found voice at Stockholm in June, 1972, when the United Nations Conference on the Human Environment also called for such a treaty.

From the beginning of the International Wildlife Conference, it was apparent that there were many problems of fact and semantics that had to be ironed out. If the agenda was less awesome than one dealing with war and peace, it was no less complicated. The delegates were venturing onto

Humpbacked Whale (*Megaptera boops*).

new ground, and all of them realized that to pen language that 80 countries could agree to would be no easy task. Because a treaty takes precedence over national laws, some of the obstacles to agreement were rooted in differing administrative and legal systems. Other serious differences naturally stemmed from economics, particularly where trade in animals, plants, or products figures importantly in a nation's earnings, a common situation which, unfortunately, obtains equally from illegal trafficking. Finally, there were numerous matters of definition and detail to be taken care of, such as whether to limit the treaty to entire animals or plants or to include for protection all parts, products, eggs, seeds, and the like. A great deal of debate focused on such seemingly small matters as this, but such is the way with treaties, which must of necessity specifically satisfy all parties. In this particular case, the final draft of the treaty specified that its provisions applied to animals and plants, both dead and alive, and to "any readily recognizable part or derivative thereof." An advisory list of parts and derivatives is to be drawn up as a guideline for customs officials.

As both a conservation agreement and a trade agreement, the convention will operate through two basic devices: lists of endangered species of wild flora and fauna, and export and import permits. Two lists of plants and animals are appended to the treaty. The first, Appendix I, lists "all species threatened with extinction which are or may be affected by trade." The treaty specifies that trade in Appendix I species may not be for primarily commercial purposes, and "must only be authorized in exceptional circumstances." A possible exception, for example, might be the reintroduction of certain species from their present range to a former range where they have been long absent. The heart of the convention is really the provision governing trade in Appendix I species, for which prior issuance of a valid import permit, approved by a qualified scientific body in the importing country, will be required by both exporting and importing countries.

The second list, Appendix II, names "all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival." As implied earlier, "specimen" by definition includes dead plants and animals, parts and deriva-

Brown Mouse-lemur (*Chirogaleus milii*).

tives, as well as living specimens.

Before any specimen of a species on either list may be exported, the particular export must be approved by a qualified scientific body in the country of origin, then be officially authorized by the government of the exporting country, which must issue an export permit. Before any species on either list may be imported into a contracting state, such an export permit must be presented. Similarly, tourist items, if derived from species on the lists, must be accompanied by appropriate permits when they are brought back to the country where the owner resides. Thus the pernicious souvenir trade in such treasures as stuffed baby crocodiles or stuffed monkey-eating eagles should be discouraged.

Species not designated as endangered throughout their world range, but which are in danger within one or more countries, will be listed in a third appendix. This article of the treaty offers a way for any country endeavoring to protect such a species within its borders to ask and receive the cooperation of others in control of trade. For Appendix III species, importing countries agree that before allowing the import they will require a certificate of origin stating where the specimen was taken from the wild, and, if from the country naming the species on the list, an export permit also. In all cases, member nations are required to exact a penalty for possession of protected species or other violations of treaty terms, and must also confiscate illegal specimens. Because the treaty does not specify sanctions against nations that do not carry out its provisions, the success of these efforts will depend entirely on international good will.

Perhaps the convention's biggest achievement—partly the result of Sierra Club efforts—is the inclusion of open-ocean species, a move that Japan bitterly resisted. Basing her legalistic argument on the permit requirement, Japan held that transporting marine specimens from open waters into the ship's native country is not, strictly speaking, part of "trade" as it has been traditionally defined (for which the convention requires permits), but rather a matter of "capture and taking," which in the case of whales, some salmon, and some seals, is already being regulated—at least in theory—under several international agreements.

Whales, of course, dominated the debate over this issue. In the past few years, the International Whaling Commission (IWC) has declared a moratorium on the taking of five species of whales that have been pushed to the point of extinction: the humpback, blue, gray, right, and bowhead whales. When the U.S. drew up its own international list of endangered fish and wildlife under the 1969 act, three other whales whose numbers U.S. scientists agree had been drastically reduced—the sperm, sei, and finback whales—were included along with the five species on the IWC list. Despite efforts by the U.S. delegation, the IWC refused last year to extend its moratorium to these three species. Nor were they included among the IWC five on the convention's Appendix-I list. Even so, inclusion of the five, along with other endangered marine species, must be regarded as a significant accomplishment.

The inclusion of flora in the treaty is another welcome development whose future significance can be only partly perceived today. When we speak of wildlife, we normally mean animals, yet many species of plants are also endangered and from much the same causes. For example, the great popularity of cacti, especially those that grow in the arid regions of Mexico, Africa, and the American southwest, has actually led to their being endangered by trade, as well as to the disruption of those ecosystems of which they are part. Widespread collection of cactus for private sale, like that of wild orchids and other particularly attractive or unusual plants, has reached alarming proportions.

The convention was opened for signature on March 3, 1973, and 25 countries had signed by the 9th. The treaty will go into effect when signed and *ratified* by ten nations, which will probably happen by the end of 1973. Meetings of member countries will be held every two years, to which recognized non-governmental organizations may send observers. Reports on the operation of the permit system submitted by member nations will provide data by which the effectiveness of the treaty can be determined. Headquarters will nominally be in the office of the Secretariat of the United Nations Environment Program, but much of the actual paperwork will probably be farmed out to non-governmental organizations.

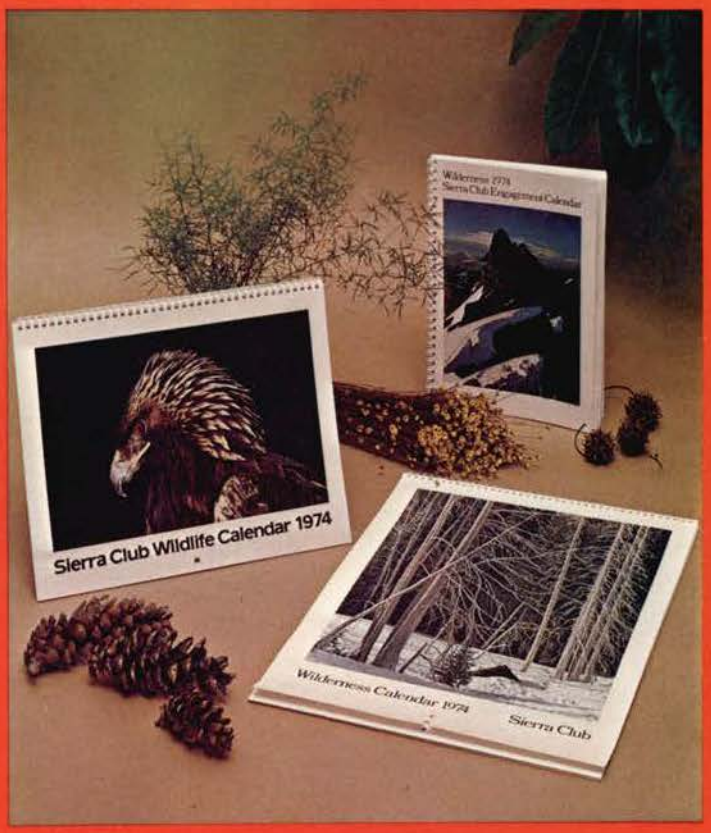
All countries joining the convention have much work to do before they will be prepared to execute and enforce the provisions of the treaty. For example, the Netherlands, which lives by trade and is Europe's principal transshipment point for animal cargoes and the entry point for whale products into the Common Market, has no import restrictions. Now she will need to set up a method to handle permits. Heretofore, a shipment of, say, 1000 birds for the huge pet and zoo trades would be admitted with no questions asked. Now adherence to the treaty will require her to know and record the species, sex, numbers, and destination for listed species. If they are included on Appendix I, her own scientific authorities must also decide not only whether the purpose of the import is scientifically acceptable, but whether the consignee is equipped to care for any living specimen properly and whether survival of the species will be threatened by the import. If the destination lies outside the Common Market, she must also issue a re-export certificate. It is precisely through this sort of double-check—the involvement of both importing and exporting governments—that the treaty can work effectively.

Even so, the treaty cannot be regarded as the ultimate answer to protecting the world's plant and animal life. Obviously it covers only one of the several threats to wildlife that will have to be dealt with in the future. There are loopholes to be sure, and, of course, the treaty cannot force a member nation to undertake comprehensive programs of wildlife preservation within its own boundaries. Nor can it control the activities of non-member nations. But it does imply that each nation has the duty to protect its own endangered species, and it does close the door on a senseless commerce that has already taken an appalling toll on wildlife populations. By controlling a substantial portion of the world market for furs and pets, the glittering lure of huge profits from the sale of these commodities may soon die out. No one pretends that the convention will make poaching and smuggling extinct, but everyone hopes they'll become endangered.

Dixie Scott, a free-lance writer living in Washington, D.C., was a former editor of National Parks Magazine.

Take the pledge today.

For only $3.50, you can help stamp out hangovers next New Year's Day.



Nothing is quite so pathetic as the unplanned obsolescence of last year's calendar hanging around on New Year's morning. It can happen to the best of us. Last New Year's morning, more than twelve hundred Sierra Club members woke up with hangovers on their walls. So did hundreds of their friends.

The causes were manifold. First, there was procrastination. We gave fair and early warning (in August 1972) that Sierra Club calendars could become collector's items before Thanksgiving. As indeed they were. Optimists who dallied were out of luck (though a crash reprinting of the wall calendar managed to satisfy a few thousand). Next, there were problems in our order fulfillment process, and these caused delays in shipping the calendars we did have. Finally, there was the U.S. Mail, a perennial problem in its own right, especially at Christmas time.

Part of the solution to these problems is to give you fair and early warning again that we can print only a limited number of calendars; if our supply should exceed the demand, then we are simply wasting money that could be put to better use in the club's conservation programs. This year, however, knowing that the demand will be greater than ever before, we have ordered additional quantities of both the 1974 wall and engagement calendars. And we are proud to introduce to you an altogether new and exciting calendar—the 1974 Sierra Club Wildlife Calendar (see next page). For new solutions to old problems in processing your calendar orders, see page 36. A return envelope is bound in opposite for your ordering convenience.

Needless to say, we can solve only **our** problems. **Your** problem may be putting off till tomorrow what you should do today. So we urge you to shop selectively through the following pages, bearing in mind that while Christmas is still some four months away, it is already later than you think.

And don't forget: by ordering your 1974 calendars now, you are not only stamping out hangovers-on-the-wall for yourself but for all the friends on your shopping list. For them especially, the natural environment should be made a daily reminder. If it's out of sight, it could be out of mind.

M. Hornocker

Jeff Foott

New Sierra Club 1974 Wildlife Calendar

13 outstanding color photos of North American wildlife, including several endangered species. For the wall. Also adaptable for use at your desk.

$3.50 each. 10 or more, $3.25 each.
10¼ x 8½ inches.

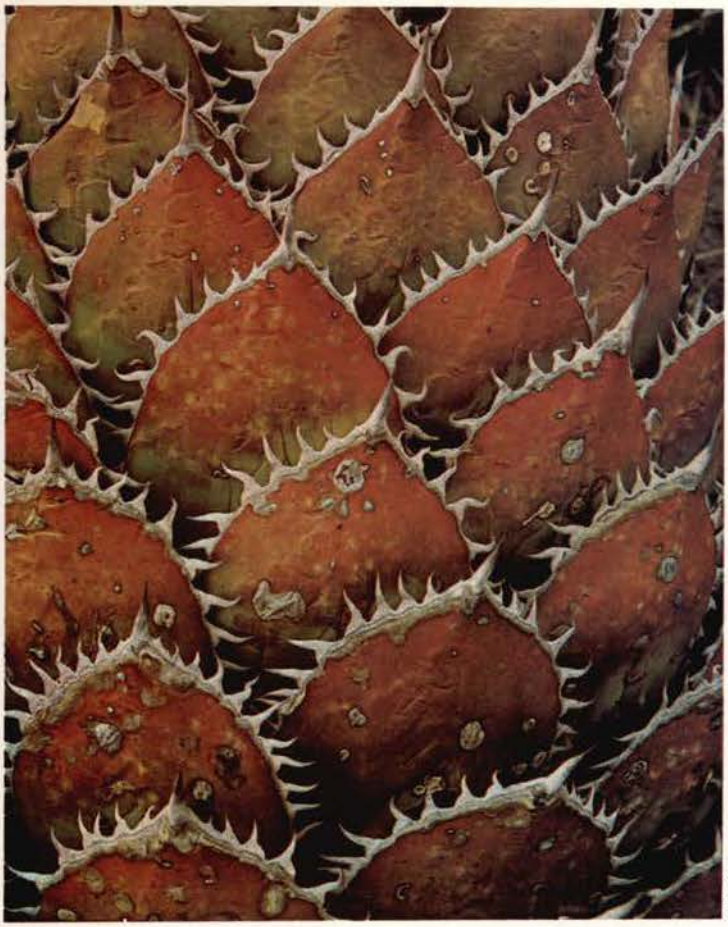
Inspired by Bruce Keegan and the members of the Club's Wildlife Committee, this new calendar is a tribute to the diversity of the wild species of North America. Included in the selection are the golden eagle (Tom Myers), coyote (Galen Rowell), bighorn sheep and bobcat (Al Morgan), grizzly bear (Edgar Wayburn), alligator (Patricia Caulfield), osprey (Don Bradburn), and brown pelican (Dennis Stock), among others.

As a pictorial primer of wildlife values, this calendar is an appropriate gift for those who love even the animals that bite.

Sierra Club 1974 Wilderness Wall Calendar

$3.50 each. 10 or more, $3.25 each.
10¼ x 13½ inches.

The Club's perennial best-seller. Featuring 14 outstanding photographs of wild America, such as Wilbur Mill's photo of the Arrigetch Peaks area of Alaska (opposite page). This edition of the wall calendar previews a number of new Club publications: two photographs by Marvin Mort from the forthcoming Landform Book, **A town is saved, not more by the righteous men in it than by the woods and swamps that surround it;** three by Philip Hyde from a forthcoming revised edition of **Island in Time** and the new Sierra Club Gallery, **Mountain and Desert.** There are photographs as well by Arthur Twomey (the Southwest) and Ed Cooper (the Northwest), among others.

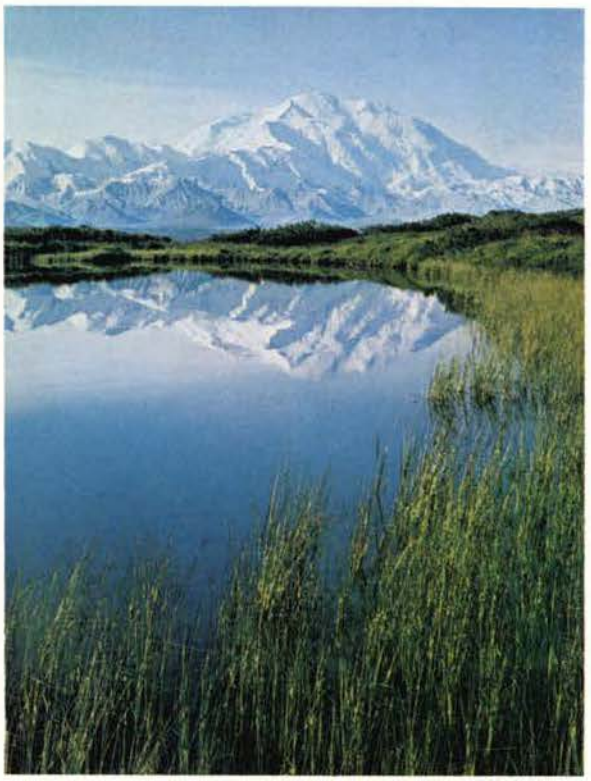


Ed Cooper

Sierra Club 1974 Engagement Calendar

$3.50 each. 10 or more, $3.25 each.
6½ x 9½ inches.

The engagement (desk) calendar for 1974 features some 56 full color photographs and facing pages for each week of the year. Among the contributors are Ed Cooper, Phil Hyde and Richard Rowan (covering the West), Wilbur Mills and Olaf Söot (Alaska), John Earl (Southeast), and Patricia Caulfield and Marvin Malkin (the Northeast). Also featured in the new desk calendar are text excerpts from such recent Club books as **Slickrock, Everglades, Edge of Life** and **Floor of the Sky.**



Phil Hyde

A word about ordering your 1974 Sierra Club Calendars

Please follow the instructions on the attached order-envelope. You will note that you must fill in your name and address **twice,** once on the order itself, and again on the shipping label. Do **not** detach the shipping label. The label is provided to ensure speedier processing of your order. Please allow four weeks for delivery. Calendars travel through the mail book-rate. That is, they do not have wings. Another reason to take the pledge today. **Note:** If your chapter or group has a publications sales program, you may find it more convenient to order your calendars locally.

Islands (*Continued*)

cool to the establishment of a Channel Islands National Park. The questions that Congressman Teague raised several years ago about the possible effect of overuse by human beings on the natural values of the islands are valid, but answers to those questions have evolved, and he has still not responded positively. In fact, he is still asking the same questions and has done nothing except introduce legislation (H.R. 7392) to authorize a study of the feasibility and desirability of establishing a Channel Islands National Park. The feasibility and desirability of establishing a Channel Islands National Park have already been studied to death by the Department of the Interior—the need is not for another study, but rather for action to establish a national park that will adequately protect and preserve these nationally significant islands. It is time for Congressman Teague fully to ally himself with those who wish to see the Channel Islands preserved for posterity.

Senators Alan Cranston and John Tunney from California support the Park and control of oil operations in the Channel, and California Congressmen George Brown and Jerome Waldie have introduced legislation to establish a Channel Islands National Park. There is a legislative position to rally behind, and now is the time to do so. The beauty, the isolation, the mystery, and the natural wonder of the Channel Islands deserve a place in our National Park System alongside America's other great natural places. Support for the park is needed from the Congressmen and Senators from the other 49 states as well as from California legislators. So the chances of success in these campaigns to establish a Channel Islands National Park and to protect the channel from oil operations really depend on everyone. Congressmen and U.S. Senators from outside California will only become informed on the issues if their constituents inform them and will only support our point of view if they ask that they so do.

Much of Southern California has already been overwhelmed by development, and a concerted effort will have to be made to shape these sprawling agglutinations of buildings and people into cities that are truly livable. But the Channel Islands have not yet been irretrievably touched by oil spills, urban sprawl, congestion, smog, and the rather strange American vision of progress, so there is something here that is really worth saving. The time has come to ensure that these mysterious and brooding Islands remain so forever.

Please write to both of your U.S. Senators and to your Congressman about the islands and ask that he or she co-sponsor and work for legislation to establish the Channel Islands National Park. The addresses are: House Office Building, Washington, D.C. 20515 and Senate Office Building, Washington, D.C. 20510.

EPA (*Continued*)

provides exceptions for any sources granted approval before promulgation of the proposed regulation. We believe that the appropriate baseline is 1970, when the Clean Air Act was enacted to prohibit significant deterioration. However, even if 1972 is accepted as the appropriate date (which is the date when the act required the adoption of state implementation plans prohibiting deterioration of air quality and the date of the district court's decision that put industry on notice that the act had this requirement), there is no basis for providing exceptions to the baseline. Sources starting emissions after 1972 should be deemed as constituting deterioration from the 1972 baseline. If they alone do not constitute significant deterioration, they need not adopt new controls; if they do, they should at least be required to adopt the best possible technology to reduce their emissions. In any event, even if we assume that this might be in some instances too great a burden for plants under construction in 1972, there is little reason to exempt sources which had not even been started in 1972, and even less basis to exempt sources which even today have been merely approved without any substantial construction having occurred.

Fourth, EPA's second, third, and fourth approaches all plainly permit substantial deterioration of air quality in some areas, in direct conflict with the court's order to "prevent significant deterioration of existing air quality in any portion of any state." The second approach, limiting the increase in total emissions in specific regions to a specified amount, will allow states to concentrate their emissions in particular areas, thereby resulting in significant deterioration of air quality. The third approach, allowing the states complete authority to define "significant deterioration," would permit deterioration of air quality up to the secondary standards in all or any part of any state. The fourth approach, authorizing the states to establish zones which allow different levels of decreased ambient air quality, permits the states to have regions where air quality will be allowed to deteriorate to the secondary standards. Since these zones will include areas with an "unusual availability of raw materials," this approach obviously intends to allow the continued massive deterioration of air quality from mine-mouth coal-burning power plants, such as those in the Southwest and northern Great Plains, which were one of the principal reasons for this litigation. At the annual average level permitted by the secondary standards, for instance, the North Rim of the Grand Canyon would not be visible from the South Rim in and near Grand Canyon Village. One additional fact —if all the proposed coal-burning powerplants in the Southwest and northern Great Plains were built, their total emissions of each of the key pollutants, even under EPA's new source-performance standards, would be ten to 50 times that of New York City and Los Angeles combined.

EPA itself admits that the last three approaches will not prevent significant deterioration of air quality in any portion of any state. Although EPA says that the first approach, which limits the decrease in ambient air quality by a specific amount throughout the country, "would prevent deterioration of clean air," it admits that the second approach would allow air quality to deteriorate "to secondary standards in one or more places due to large new sources or source clusters"; that, under the third approach, "there would be no control over the ultimate level of deterioration which could progress in finite increments up to the level of the secondary standards"; and that the fourth approach "would allow some isolated exceptions to the allowable deterioration levels."

Fifth, the third proposal, and to a substantial extent the fourth, allow the states to decide how much deterioration to prohibit. Just as in the case of emission standards, EPA argued in all three courts that the Clean Air Act did not impose a national prohibition of significant deterioration, but that the states had the authority under Section 116 of the act to adopt such a requirement on their own. Each of the three courts rejected this argument, and EPA cannot now claim that state authority to define significant deterioration satisfies the act.

Sixth, the first approach, which imposes a specific national limitation on the amount of deterioration permitted in ambient air quality, comes by far the closest of any of the proposed approaches for the two pollutants that are covered. However, the specific figures suggested by EPA are far too lenient. An annual average increase of 15 micrograms per cubic meter of sulfur dioxide and ten micrograms per cubic meter of particulate matter will produce substantial deterioration of air quality in many areas; the visibility in some places could be cut in half. Most important, EPA proposed to continue to base its determination on increases in ground-level concentrations alone, when some major measures of deterioration in air quality, such as reduction in visibility and widespread occurrence of acid rain, depend almost entirely on increases in pollutant concentrations occurring well above the ground. If any private party so flagrantly and defiantly disobeyed a court order he would be locked up. Courts, however, don't like to lock up government officials if they can, in any way, avoid it. Perhaps that is one reason why some officials have been ignoring the courts.

What recourse do we have? First, we are returning to the Federal District Court to seek a new order calling for immediate issuance of final regulations along with an elaboration of the existing order that is so clear that EPA will understand it. Second, we will actively participate in the hearings announced by EPA for the purpose of receiving public comment on their proposals. Everyone—individuals, organizations, local government officials, whoever has an interest in effectively preventing the significant deterioration of air quality should ask to be heard. The hearings will be in Washington, D.C. (August 27-28), Atlanta (September 4-5), Dallas (September 5-6), Denver (September 5-6), and San Francisco (September

5-6). We urge all chapters, groups, and members—all concerned citizens—to participate as fully as possible in these hearings. Written testimony will be accepted as well as oral presentations. Further information on how to most effectively participate in this effort can be obtained from Cynthia Wayburn, Sierra Club Legal Defense Fund, Suite 311, 311 California St., San Francisco, Calif. 94104. (Telephone 415-398-1411)

Air Quality (*Continued*)

important environmental case to date in terms of real impact and environmental protection," said Sierra Club Legal Defense Fund Executive Director James Moorman in reference to the recent Supreme Court decision affirming the Sierra Club's clean air suit against the Environmental Protection Agency (EPA).

By a four-to-four tie vote (with Justice Lewis Powell disqualifying himself), the Supreme Court left intact a lower court ruling that effectively halted movement of polluting industries into rural areas where the air is cleaner than federal standards require. EPA appealed to the high court the previous district and appeals court rulings that upheld the Club's contention that the 1970 Clean Air Act does not permit EPA to approve state plans allowing significant deterioration of existing air quality.

Sierra Club President Laurence I. Moss, who originated the suit and provided necessary technical information, said, "The real significance of this decision is that industry and the government will not be able to 'solve' their problems by dispersing pollution around the country. Instead, they will be required to develop and implement technology which will not produce significant deterioration of air quality. As a result of this decision, the air quality we have over most of the U.S., that is superior to that which would be permissible under the national standards, must be maintained.

"This does not mean an end to growth in rural areas," Moss said. "It means a more responsible pattern of growth in which the all-important quality of the air must not be significantly degraded. Those people whose plans are adversely affected by the decision, such as the builders of massive coal-burning power complexes in rural areas, will no doubt turn to Congress to amend or repeal the Clean Air Act. Those who value the quality of the air must be prepared to defend this decision then."

As a result of the Supreme Court's action, EPA must carry out the appeals court's order to draw up regulations to guide the states in a "no significant degradation" policy. The deadline set for EPA by the lower court has almost expired.

In a related clean-air development, EPA recently announced transportation-control proposals for 18 urban areas aimed at reducing car traffic to meet other specific Clean Air Act standards by 1975. The proposals include limits on gasoline sales, high daily taxes on off-street city parking, car pooling, improved mass transit and other actions to reduce reliance on cars.

Water (*Continued*)

In return for this unnecessary system of dams, aqueducts, and pumping stations, the public will lose valuable recreation areas, wildlife habitat, scenic rivers, and a portion of the Gila Wilderness (in violation of the 1964 Wilderness Act). The Yavapai Apaches will be forced to forsake 16,000 acres of fertile bottomland for 2,500 acres of rocky upland. Consumers in Phoenix and Tucson will pay $50-60 per acre-foot for CAP water instead of the $3-15 they now pay for local water, the increase resulting primarily from public subsidies to local landowners, who will only pay $12 per acre-foot for irrigation water. Furthermore, CAP water will be of such inferior quality (850 parts per million of dissolved salts instead of the present 550 ppm) that better quality water could be produced more cheaply (if it were ever needed) by treating sewage.

Arizona needs a comprehensive water management plan, but it does not need the CAP. The problem facing this state is not a shortage of water, but the "staggering mismanagement of an existing resource." According to the water-projects report, vast amounts of water are now wasted through unregulated groundwater pumping. The report rightly recommends that the CAP be de-authorized and that the state focus attention on wisely using rather than merely redistributing its valuable water resource. Such planning would respond to a real problem at a mere fraction of the cost of CAP.

Although neither so ambitious nor costly as the CAP or the Trinity Canal, the Army Corps of Engineers' Meramec Park Dam in Missouri displays the same environmental and economic myopia. This dam—along with two others proposed for the region—would flood an area of exceptional natural and recreational value. The river system is laced with an enormous number of caves, many of which are important archaeological sites. It boasts excellent fishing and provides a superb opportunity to create a natural recreation area that would preserve caves, springs, picturesque bluffs, dense woodlands, and a number of endangered species.

The corps justifies the project by citing the "flat-water" recreation the dam would provide—water skiing, sun bathing, reservoir fishing, and the like—but to destroy a beautiful river merely to substitute one kind of recreation for another is an intolerable and baffling suggestion, especially when the operation will cost $87.5 million. The corps also projects certain flood-control benefits contingent on the construction of two other dams, which may not even be built. But this rationalization is no more defensible than the recreation argument. Both flood-control and recreation benefits could be achieved at one-tenth the cost of the proposed dams by simply acquiring the floodplains. Conservationists are urging comprehensive river-basin planning and establishment of a Lower Meramec Regional Recreation Area instead of the construction of the Meramec Park Dam. If the dam project goes through, the public will once again lose both ways.

"Disasters in Water Development" recommends that Congress de-authorize the 13 projects featured in the report and that responsible agencies investigate more sensible and less costly alternatives. But there are also hundreds of other obsolete and undesirable projects that should be de-authorized so we can begin to examine various land-use and water-resource problems in the light of contemporary priorities and techniques.

Senator Clifford Case (R-New Jersey) has recently introduced legislation that would begin to clean the slate. Senator Case's bill (S.1287) would automatically de-authorize all Army Corps of Engineers projects eight years or older that have not been funded during that period. Representative Guy Van der Jagt (R-Michigan) has introduced a companion bill (H.R. 8754) in the House. Such legislation is welcome, but ultimately we need to go even further. Senator Case's bill, for example, would not affect Bureau of Reclamation or TVA projects, nor would it de-authorize projects less than eight years old that have been shown to be patently inappropriate (Meramec Park Dam, for one). But Senator Case himself recognizes that his legislation is but a necessary first step, that de-authorization of past mistakes will not prevent the commission of future ones.

What needs to be done—as Senator Case has indicated—is to redefine the responsibilities of such agencies as the Army Corps of Engineers and Bureau of Reclamation so that their engineering skills can be addressed to such essential tasks as reclaiming polluted lakes and rivers, restoration of lands scarred by strip-mining, and solid-waste disposal. Only when we provide these agencies with a new mandate, a new sense of mission, will we begin to see an end to the wasteful and destructive projects that already have scarred so much of this land.

Steve Whitney

Anyone concerned with national spending priorities and with bringing a halt to the frivolous and expensive escapades of the Army Corps of Engineers and similar agencies should contact his Congressmen and Senators and urge that funds be de-authorized for wasteful water projects such as those cited here. For more detailed information on dealing with the corps, look for the soon-to-be-released Sierra Club handbook, Engineering a Victory: A Citizen's Guide to the Army Corps of Engineers.

The Salinas Valley has an extraordinary set of climatic and geographical gifts. The broad expanse of Monterey Bay tempers the ocean winds. This interacts with the great clockwise currents of the North Pacific Ocean and the fluctuations of the Pacific High Pressure Area to give a climate that has a natural thermostatic effect. When it gets too hot, cooling fog comes in. Then the pressure difference lessens and gentle, not too hot, sunshine returns.

It produces what we believe to be the finest artichokes in the world. Cara Mia selects these succulent artichokes to make

... Cara Mia Marinated Artichoke Hearts.