

An aerial photograph of a river delta, likely the Sacramento-San Joaquin River Delta. The image shows a complex network of waterways and land. A large, central island is covered in dense green forest, contrasting with the surrounding brown and tan water and land. The water channels are intricate and winding, creating a maze-like pattern. The overall scene is a mix of natural beauty and human-made infrastructure, with a road visible on the left side.

National parks

Jan/Feb/82

Commentary

The Elements of Our Parks

The past year was an important period of germination for the National Parks & Conservation Association. Ingredients included a new President, a new Secretary of the Interior, and an Association renewing its mission. To address that mission, during the year the Board of Trustees took great steps.

To begin with, much self-evaluation occurred during 1981, prompted in part by an Administration with a different attitude about the meaning and value of a National Park System to a nation. Out of that self-evaluation, our Association has planted new seeds that will achieve our long-honored goals of focusing on the parks and related issues. The concept of a "national parks system" was created in the United States and continues to be a model for the world. It would be a great disservice to our society and our generation if we did not continue to build upon that strong commitment.

For NPCA, 1981 produced a bountiful crop of ideas, including an action plan built upon the invaluable input of a group of citizens that met with us to discuss the future of the national parks. Through the generosity of a corporation and a foundation, NPCA was able to bring together a few of the leaders of our country who are dedicated to the perpetuation of the National Park System. From varying fields of research, recreation, historic preservation, and concession utilization, all met to give us a stronger and clearer sight of our purpose.

Furthermore, 1981 gave us a stronger seed for the coming years in the National Park Action Project. This board-approved project has been slow to germinate but strong in its growth. The tropism that directs the growth of a plant has also been found in the light of a new realization for our Association, a realization that the national parks must depend on a commitment at the local level by citizens who live closest to them.

Through the generosity of two foundations, this concept of citizen support for the parks is now growing strong. Many national parks are now represented by groups or individuals around the country who are dedicated to the protection of the parks closest to them.

Two such people are Judy Johnson and Dama Rice. In 1981, we presented our Park Conservationist Awards to them, two citizens—Judy Johnson of the Committee to Preserve Assateague and Dama Rice of the Concerned Citizens Group of the Petersburg National Battlefield. Individually, as citizens, they worked to educate and mobilize others to protect two national parks.

Also in 1981, we announced the establishment of the National Parks & Conservation Association's Park Interpreter Award. Through the generosity of two outstanding NPCA members, K.C. and Gwen DenDoo-ven, we citizens will now award and reward outstanding National Park Service employees who serve as the linkage between the park and the visitor.

So, for much of what happened in 1981, we are thankful. Our success has challenged us to recommit ourselves to the parks for another fruitful year.

Most of all, we are grateful to you, our members. You are our soil, water, and sun; thank you for helping us to grow.

—*Paul C. Pritchard*
President

Editor's Note

We spent a week in late September roaming Yellowstone National Park and were astonished anew at the overwhelming beauty, variety, and richness of that place. Aspens were turning yellow, highland grasslands glowed golden against lowering skies, musical notes of bugling elk wafted over grassy vales, grizzled bison materialized out of dense mist rising at dawn from the Yellowstone River, bald eagles circled overhead, rainbows sparkled in spray of waterfall and geyser, and, finally, light snow dusted spruce and pine. These images we shall treasure always.

Thus we are pained to learn of approaching threats to Yellowstone. We want this wild, beautiful place to remain unchanged and pristine forever, a bounteous refuge for wild creatures. But the search for sources of energy is drawing a noose about Yellowstone's perimeter as applications for oil, gas, and geothermal leases in the national forests surrounding Yellowstone Park have burgeoned. Bill Schneider examines these threats beginning on page 20.

Congressman Tony Beilenson updates an earlier article we printed (February 1978) by describing continuing development of land within the boundaries of the Santa Monica Mountains National Recreation Area, because the Park Service cannot afford to buy the land (page 4).

In a related article, NPCA staff member Bill Lienesch explains how severe cuts in land acquisition funds could have a devastating effect on national parklands (page 10).

And Dean Smith describes the beautiful and historic Columbia River Gorge, which is proposed for preservation as a national scenic area (page 14).

The mandate is clear. Concerned citizens must continue their involvement in government budget and management decisions and must form new alliances and expanded constituencies to protect our American heritage.—*EHC*



National Parks

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Assistant Editor: Marjorie Ruth Corbett

Assistant Editor: Michele Strutin

Editorial Assistant: Anne Riesberg

Special Counsel: Anthony Wayne Smith

National Advertising Office (216) 243-8250

Patricia Dowling, *Director*

10 Beech Street, *Berea, OH 44017*

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FRONT COVER Grand Prismatic Spring, Copyright 1981 by Barrie Rokeach
BACK COVER Mammoth Hot Springs, Copyright 1981 by Michael S. Sample
From an unusual overhead perspective, tentacles of yellow algae provide a golden setting for jewellike Grand Prismatic Spring in Yellowstone National Park, while, like a medieval tapestry, an elk poses before a travertine terrace at Mammoth Hot Springs. Thermal features and wildlife are in danger in the park because of development in the greater Yellowstone ecosystem (page 20).

National Parks & Conservation Association—established in 1919 by Robert Sterling Yard with the support of Stephen Mather, the first Director of the National Park Service—is an independent, private, nonprofit, public service organization, educational and scientific in character. Its responsibilities relate primarily to protecting, promoting, and enlarging the National Park System, in which it endeavors to cooperate with the National Park Service while functioning as a constructive critic. Life memberships are \$1000. Annual membership dues, which include a \$7 subscription to *National Parks*, are \$150 Sustaining, \$75 Supporting, \$30 Contributing, \$22 Cooperating, and \$15 Associate. Student memberships are \$10. Single copies are \$3. Contributions and bequests are needed to carry on our work. Dues in excess of \$7 and contributions are deductible from federal taxable incomes, and gifts and bequests are deductible for federal gift and estate tax purposes. Mail member-

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What the Park Service can't buy,
the developers will
in L.A.'s backyard wilderness . . .

The Santa Monicas

Anthony C. Beilenson

A red-tailed hawk floats high above the next ridge, soaring with the thermals over the scrub chaparral. The air smells of sage and bay laurel. Somewhere below, near a sparkling canyon stream, a coyote is on the prowl. This scene is not of some remote, hidden wilderness. These are the Santa Monica Mountains, the backyard of greater Los Angeles, and the only rugged mountain range to rise directly from the heart of a major American city.

Four years ago I wrote an article for this magazine urging that the Santa Monica Mountains be protected from rapidly encroaching suburban development. Although progress has been made since that time, we have not yet succeeded in ensuring that future generations will have the chance to enjoy the recreational, educational, and wilderness experiences available in the Santa Monicas. And progress is becoming increasingly difficult now that federal and state land acquisition funds have been cut to the bone.

Stretching from downtown Los Angeles fifty miles to the sea, the Santa Monica Mountains are located

within an hour's drive of ten million people. The mountains and rocky seashore give these urban visitors a chance to hike, picnic, swim, and feel as though they are hundreds of miles away from the noisy, polluted streets of the city below them.

Seven major biological habitats—oak woodland, chaparral, grassland savannah, creekside, rocky tidepools, and saltwater and freshwater marshes—flourish within the Santa Monicas. Although threatened, they continue to support a diversity of wildlife, including mule deer, bobcat, coyote, gray fox, mountain lion, badger, red-tailed hawk, and osprey. Many of the birds whose range in-

cludes the Santa Monicas are endangered species, such as the California least tern, the lightfooted clapper rail, and the California brown pelican.

The Santa Monicas also contain an irreplaceable record of man's past from the earliest inhabitants of California, most notably the Gabrielino and Chumash peoples. Experts had originally estimated that six hundred archeological sites existed throughout the Santa Monicas. With only 15 percent of the areas surveyed to date, however, more than five hundred archeological sites—including rock art, villages, hunting camps, and burial sites—have already been identified.

Whale bones estimated to be between three and five million years old are among the most recent discoveries in the area. These rare relics were found on the site of a planned residential development.

Coming after nearly twenty years of work by environmental groups supported by hundreds of individ-

uals, the establishment of the Santa Monica Mountains National Recreation Area (SMMNRA) in 1978 was a major victory. But even though Congress has authorized incorporating 150,000 acres of the Santa Monicas into the National Park System, the abundance of ecological, historic, and cultural treasures may soon be lost. We must actually acquire sufficient land for SMMNRA; this is the ultimate goal.

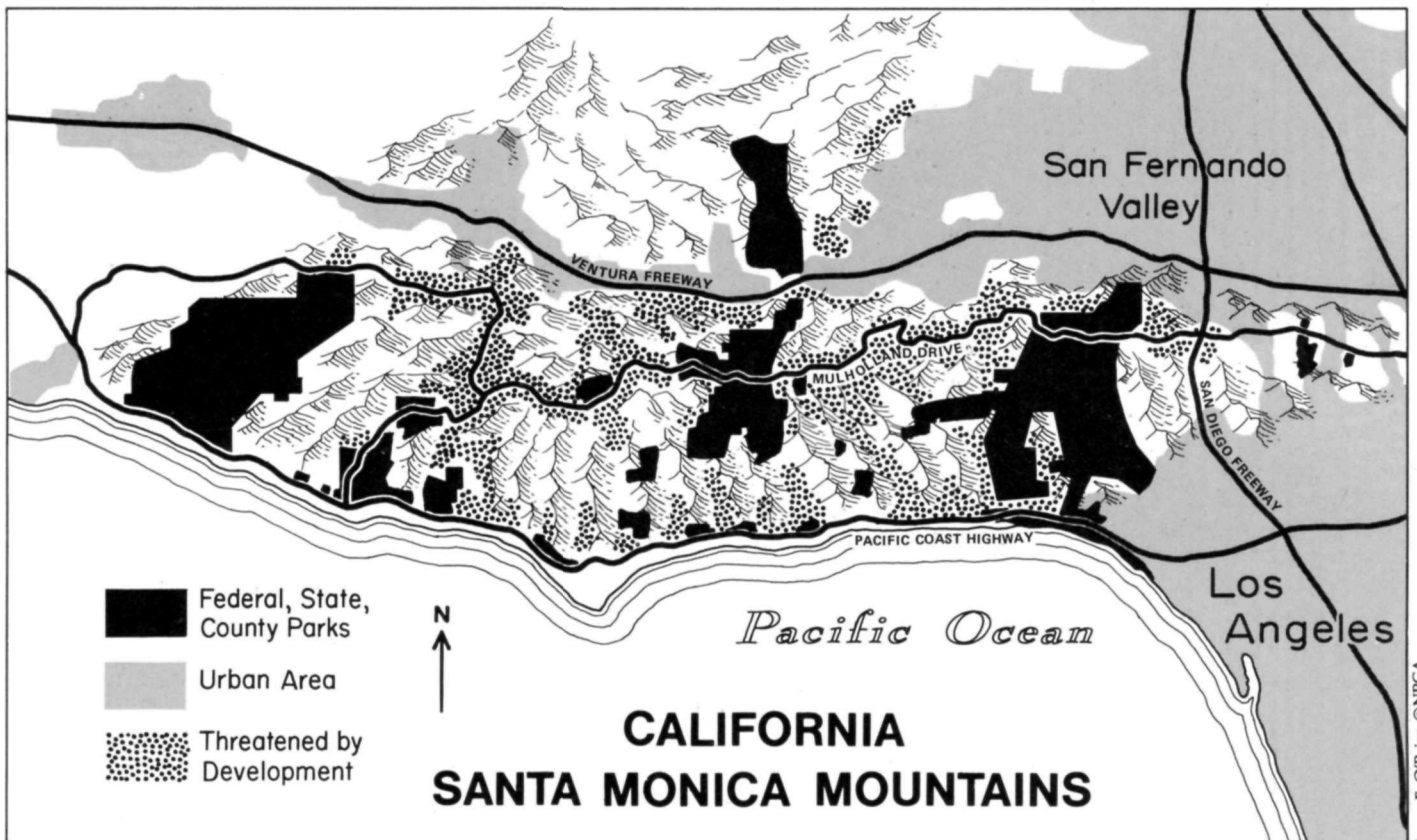
The Santa Monica Mountains National Recreation Area has already proved its worth and has the potential to become one of the most frequently visited units in our entire National Park System. SMMNRA has welcomed more than four million visitors in its three short years of existence, despite the fact that visitor accommodations are less than complete. (In fact, because SMMNRA and national recreation areas like it are adjacent to cities, they do not need extensively developed accommodations.)

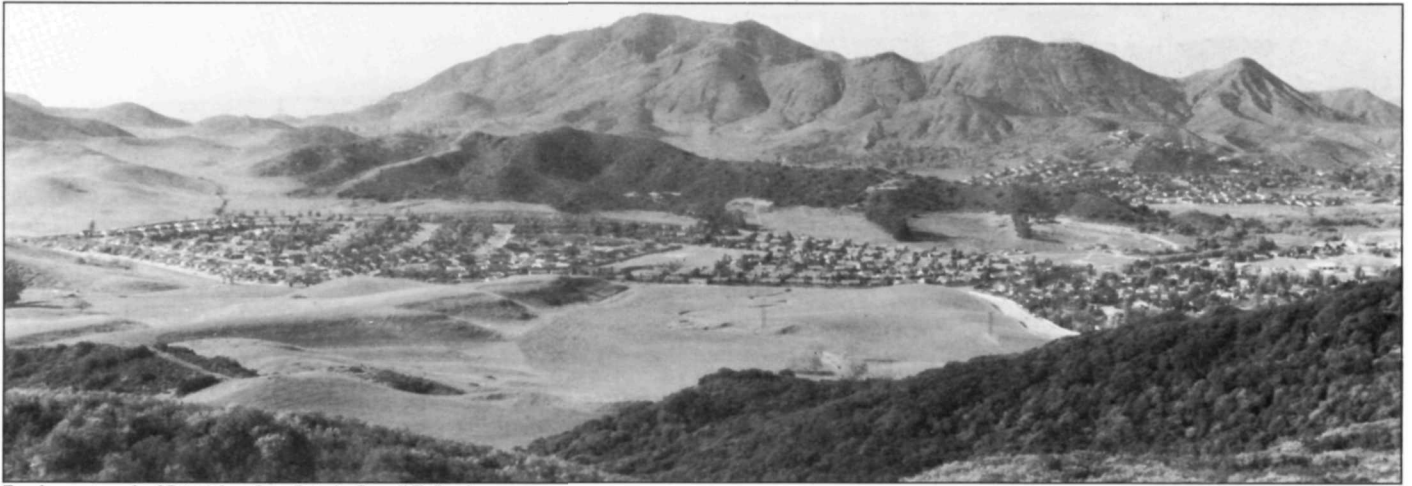
Statistics on the use of national

recreation areas near major metropolitan areas demonstrate their popularity. In 1980 alone, Golden Gate NRA in San Francisco hosted sixteen million visitors, and Gateway NRA in New York City served nearly nine million people, while certain gems of our Park System—Yellowstone, Grand Canyon, and Yosemite national parks—had about 2.5 million visitors each.

Knowing from the outset that the need and demand for outdoor education and recreation in the Los Angeles area were great, the Park Service pursued a vigorous visitor services program even before it was able to establish a large land base. Almost every day people are introduced to the mountains through new activities such as the Recreational Transit Program, which has been credited with bringing more than forty thousand transit-dependent people—senior citizens, handicapped persons, hospital patients, youth groups, and students—into the park. More than thirty-four

Santa Monica NRA has existed for three years, but it is threatened by developers, high land prices, and deauthorization.





Development north of Point Magu State Park, by Russell D. Butcher

thousand visitors have been attracted to SMMNRA for environmental education programs and special events, such as the "Celebration of the Whales."

At present, a majority of the 150,000 acres within the designated boundaries of SMMNRA, extending across Los Angeles and Ventura counties, is still untouched by housing developments and shopping centers; but because this lovely area invites speculation, each year large amounts of land are lost to development. Since Congress authorized the recreation area, plans for more than four thousand units, primarily single-family residences, have been filed with the local governments. Of these, fifteen hundred have already been approved for construction, and many of them will be built on land the NPS had hoped to buy. The scarcity of park funding is rapidly giving developers the upper hand in deciding how that land will be used.

Regrettably, the state government is unable to continue its aggressive land acquisition policy of the 1970s, when California purchased more than 31,000 acres of parkland for SMMNRA. The state's role in land purchases has been vastly reduced in the aftermath of Proposition 13. Also, there was an understanding that the federal government would be actively acquiring land for SMMNRA. For these reasons, the federal government's involvement in

SMMNRA is even more important today than it was in 1977 when I first introduced legislation to incorporate the Santa Monicas into the National Park System.

The federal government has made a modest beginning toward creating the long-hoped-for park in the Santa Monicas: the National Park Service has already bought approximately 5,440 acres of land. But our dreams for preserving the mountains will be realized only if we have enough money to purchase double the total amount of land now in local, state, and federal ownership (at present approximately 40,400 acres).

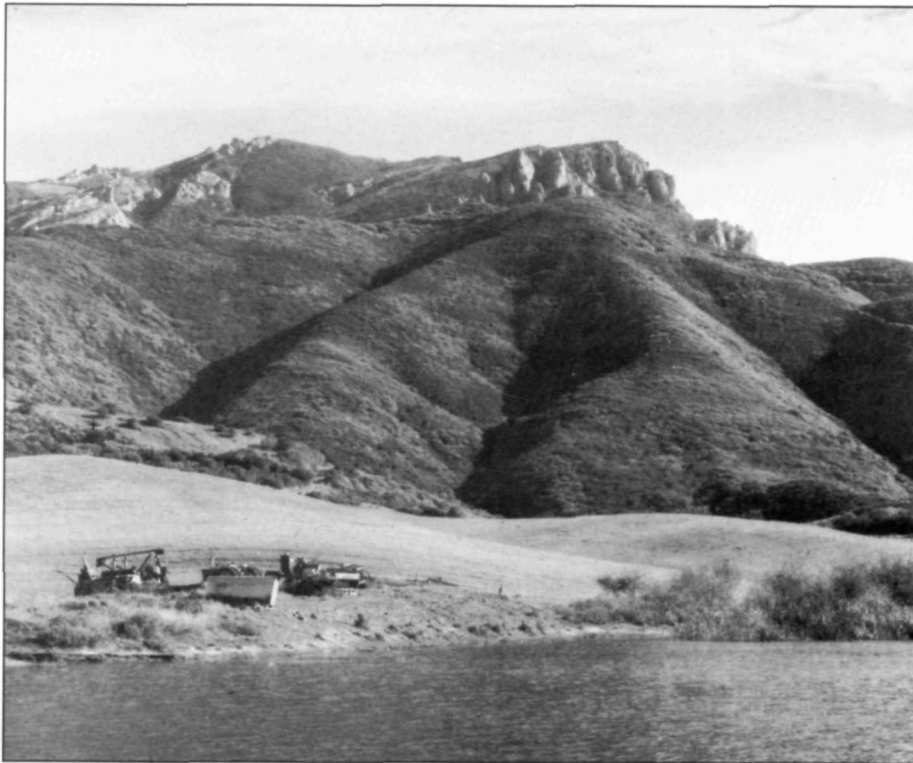
The 1978 law that established the recreation area called for the expenditure of \$155 million for a five-year land acquisition program ending in 1983. The funding timetable recommended large appropriations at the beginning to offset inflation and development pressures. Unfortunately, Congress has not adhered to the recommendation of the law: of the \$125 million that could have been spent by 1981, only \$37 million has been made available for land procurement.

Our funding problems go beyond the reductions in federal spending, though; they are also a reflection of the Reagan Administration's intent to halt federal land purchases altogether. To that end, the Administration proposed redirecting the Land and Water Conservation Fund (LWCF) from acquisition of new parkland—its originally intended

use—to restoration and improvement of existing national parks. Each year the LWCF accumulates \$900 million in revenues primarily from outer-continental-shelf leasing royalties.

The fund was specifically established by Congress for this purpose: to offset the exploitation of some of our natural resources with the preservation of others. Thwarting the original intent of the LWCF will tip the balance in favor of exploitation over preservation and will destroy the fund's usefulness as a means of acquiring and protecting unspoiled areas for future generations.

Moreover, Interior Secretary James Watt has made no secret of his disapproval of NPS involvement in the new, popular parks such as SMMNRA; and he seems particularly intent on removing SMMNRA from the Park System. Congress rejected most of Watt's requests for cuts in fiscal year 1981 parkland acquisition funding but agreed to the Department of Interior's distribution of the \$14.7 million cut it did approve. The Department singled out SMMNRA to absorb \$14.2 million—96 percent—of the total cut. SMMNRA also heads the list of five areas within the Park System that the Department was moving to oppose. Interior has refused to explain adequately why SMMNRA bears the brunt of these two policy moves, but it is reasonable to assume that



Russell D. Butcher

Habitats in the Santa Monicas include chaparral, marsh, savannah, and shore.

NPCA and the Santa Monicas:

No unit has been cut out of the National Park System—yet. In the case of the Santa Monica Mountains National Recreation Area, it's not for lack of trying. This year SMMNRA had to absorb 96 percent of the Department of the Interior's requested cut for parkland acquisition. But if the list of luminaries associated with the Santa Monica Mountains and Seashore Foundation's conference in late September is any indication of concern, the Santa Monicas have California clout behind them. In addition to Congressman Beilenson's concern, Senator Alan Cranston and Congressmen Phillip Burton, Robert Lagomarsino, Ronald Dellums, and Barry Goldwater, Jr., were among the sponsors of the conference.

The western representative for NPCA, Russell Butcher, was one of the conference's featured speakers and he commented:

"NPCA strongly supports the establishment and completion of the congressionally authorized SMMNRA. In our view, it is *the* most important and critical NPS unit near a metropolitan area because it is still so far from completion. Nowhere else in the NPS is there a representation of the chaparral ecosystem which so typifies the coast ranges of southern California. And these mountains serve the inspirational and recreational needs of great numbers of urban citizens.

"Why, then, the suggestions that this vital project be deauthorized? Why the attempts to drastically slash land-acquisition funding? From the earliest rumors that the Reagan Administration was seriously contemplating deauthorizing some units of the Park System, NPCA went to work to help defeat such an outrageous, unprecedented scheme. Let's get on with this worthy project before it is lost."

they are Watt's first steps toward calling for the deauthorization of this unit.

Admittedly, the high cost of land in the Santa Monicas is a major problem. But Congress and Park Service officials have realized this from the beginning, and the Park Service has pursued cost-effective alternatives to simple fee purchases. They have been successful, for example, in arranging for a land exchange with the Bureau of Land Management and in completing agreements for voluntary donations and dedications of land. The NPS has also followed a policy of not purchasing private camps, equestrian trails, golf courses, and other recreational facilities located within SMMNRA boundaries so long as those areas remain compatible with the purposes of the NRA.

Other new approaches, which would require congressional authorization, should be included in the NPS program. Additional tax incentives could be created for landowners who use their property in ways compatible with the goals of SMMNRA, and low-interest loans

could be extended to organizations that buy and hold land until the government can purchase it for parks. Alternative approaches, however, cannot preserve the amount of land that deserves to be part of SMMNRA. If the federal government does not provide funds soon, valuable land will be lost to developers.

Although Congress and the executive branch will continue to scrutinize the federal budget, one thing is certain: we must not make unwise land policy decisions now that will be irreversible in the future. Even at its current price, land in the Santa Monicas is still a bargain in terms of its natural and historic value. I hope the federal government will not be so shortsighted as to turn down the chance to keep this exciting new park alive and growing.

Congressman Anthony C. Beilenson represents the Twenty-third District of California, which includes western Los Angeles County. He coauthored the legislation that established the Santa Monica Mountains National Recreation Area.

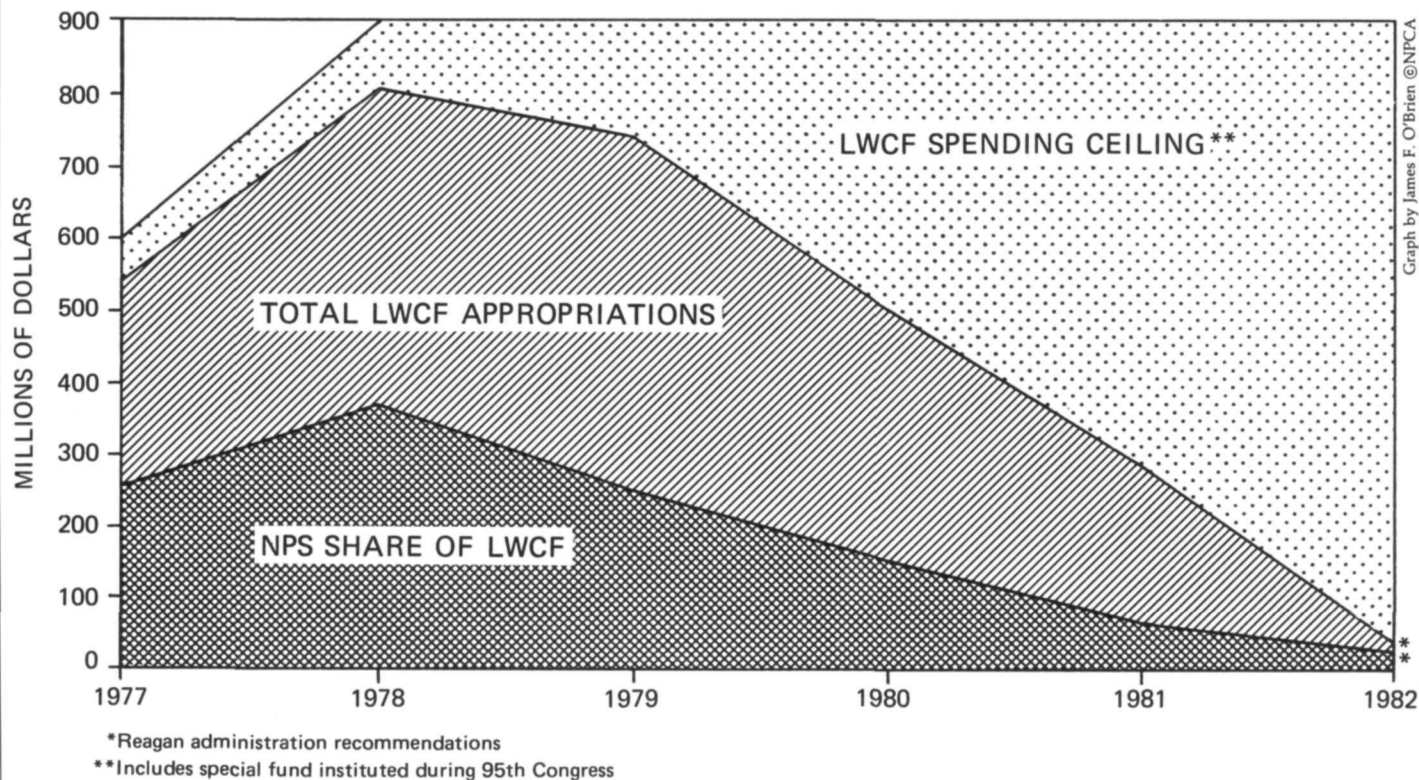


The Santa Monica Mountains are within an hour's drive of greater Los Angeles (left). This is the closest wilderness for millions of people and a haven for mule deer, gray fox, bobcat, mountain lion, badger, and osprey. Yet the valley that harbors the sycamores below is only one of many areas that may soon be subdivided.



William Lienesch

The Slash of '82: LWCF Crippled by Cuts



All across America millions of acres of outstanding natural, cultural, and recreational resources have been protected because Congress had the foresight to establish the Land and Water Conservation Fund (LWCF) in the mid-1960s. Over the years this fund has provided money to buy land for national parks, seashores, wild and scenic rivers, battlefields, critical wildlife habitat, and numerous state and local parks. One of the country's most effective conservation programs, the LWCF derives its funding primarily from oil company leasing fees and is not dependent on taxpayers' dollars.

The new Administration, while giving lip service approval to the program's effectiveness, has wielded its budget axe with a vengeance against the LWCF, proposing a massive 90 percent cut in fiscal year 1982

alone. Cuts to the LWCF—the nation's primary source of funds for parkland acquisition—mean that thousands of acres within national parks already designated by Congress may be lost to development or other threats.

Why is the Department of Interior so committed to crippling this program? What will happen to the parks that have been designated but not yet acquired? The answer to the second question is easy: Over a period of years the land values will rise, in some cases astronomically; many landowners will discover that they can't sell to the National Park Service and may find it difficult to sell to anyone else; and a whole lot of very expensive parcels of land will have to be bought with taxpayers' dollars at some point in the future.

In the meantime, many crucial

habitats, exceptional natural areas, and irreplaceable historical sites will seriously deteriorate for lack of protection. All this wastefulness doesn't make sense in an era of belt-tightening. As Representative Phillip Burton (D-Calif.) said of the Administration's position, "It's penny wise and pound foolish."

When the smoke cleared after the most recent budget battles, a \$90 million rescission for 1981 had been approved, and at press time it seemed likely that Congress would appropriate \$155 million for FY 1982. These figures are well above the Administration's recommendations but well below what was needed to buy parkland and fund other LWCF projects. Conservationists may face a similar battle with Administration budget proposals for FY 1983.

LWCF Background

The Land and Water Conservation Fund was established by Congress in 1964 (PL 88-578). It provides the money to pay for land acquisition by the National Park Service, Fish and Wildlife Service, Forest Service, and the Bureau of Land Management. In recent years, the National Park Service has received more LWCF monies than the other federal agencies. The LWCF is also used by state and local governments on a fifty-fifty matching basis to buy and develop various types of outdoor recreation areas ranging from large state parks to neighborhood swimming pools.

One of the most interesting aspects of the LWCF is that, unlike most government programs, it is not supported by taxpayer dollars. A small part of the money comes from the sale of federal surplus real property and the motorboat fuel tax. The largest share—approximately 90 percent—comes from Outer-Continental Shelf (OCS) mineral leasing revenues paid by the oil companies. The

A Popular and Effective Program

Since it started operating in 1965, the LWCF has built up a record of tremendous accomplishment in the National Park System. Its monies have been used to protect 2.8 million acres in national parks, wildlife refuges, recreation areas, historic sites, national forests, and other areas administered by federal agencies.

Important park features throughout the country have been protected, from habitat of the endangered Florida panther in Big Cypress to exceptional canoeing and fishing along a wild and scenic river in Wisconsin. Major accomplishments include the following.

- In Redwood National Park, the LWCF was instrumental in preserving a magnificent stand of redwoods, one of the last remaining in the Pacific Northwest.
- Lowell National Historical Park in Massachusetts is a fine example of cooperation among local, state, and

leasing program is becoming so big that less than 10 percent of the annual OCS revenues is now going to the LWCF. Part of the reason behind funding the LWCF through OCS revenues has been to reinvest the proceeds from the extraction of oil and gas—nonrenewable resources—in the preservation of natural land, a disappearing national resource.

The current authorized level of funding for the LWCF is \$900 million annually. The appropriations in FY 1979, 1980, and 1981 averaged about \$510 million annually. For FY 1982, the Administration requested only \$40 million for LWCF. Congress fought that recommendation, and at press time it seemed likely that \$155 million would be appropriated. The chart on page 10 summarizes the recent funding history of the LWCF.

federal governments. Lowell's most significant sites, dating from the Industrial Revolution, are being preserved using LWCF appropriations.

- Land acquisition for the 570,000-acre Big Cypress National Preserve is nearly complete. Protection is essential to preserve habitat for approximately ten threatened or endangered species, including the arctic peregrine falcon.
- The Obed Wild and Scenic River was established in the mid-1970s, but land acquisition to protect this beautiful Tennessee river has just begun. The protected river could provide recreational opportunities for canoeing, camping, hiking, swimming, fishing, and picnicking.
- Laurence Van Meter, Executive Director of the Appalachian Trail Conference, reports, "LWCF-supported federal and state land acquisition for the Appalachian Trail has proven to be critical to the preservation of both the continuity of the 2,100-mile footpath and the extraor-

Continued on page 12



During the nearly ten years he has served in Congress, Senator J. Bennett Johnston has been one of the Land and Water Conservation Fund's most committed supporters. In the mid-1970s, he was Chairman of the Subcommittee on Parks and Recreation. In 1979 and 1981, he successfully sponsored amendments to substantially increase funding to preserve tens of thousands of acres of parkland, wildlife habitat, and other critical lands.

Senator Johnston comments, "The Land and Water Conservation Fund has been one of this nation's most effective conservation programs. Its range of accomplishments is truly remarkable, from providing matching grants for local parks to protecting land in our national parks and wildlife refuges.

"The increase of nearly one thousand percent in visits to the national parks over the past thirty years signals a continuing demand for the programs supported by LWCF.

"We must continue to invest a small but significant portion of our federal budget in the preservation of America's national parks and recreation resources."

NPCA and other conservationists are grateful for the Senator's long-standing leadership on behalf of the Land and Water Conservation Fund.



Photo by Michael Warren

Continued from page 11
dinary range of natural resources along its route." Several sections of the trail still need to be protected from subdivision and moved away from roads.

- Cumberland Island National Seashore is one of the nine national seashores along the East and Gulf coasts now protected, in part, through LWCF funding. This beautiful island off Georgia features a diverse ecosystem including wide beaches, isolated marshes, and deep, live oak forests.

In addition to protecting national parks, the LWCF has been a highly effective source of seed money for state and local parks, providing recreation facilities for fourteen thousand communities. In fact, LWCF programs at both the state and federal levels have been so successful over the past eighteen years that Congress has regularly increased the authorized annual ceiling for LWCF spending from \$100 million in 1965 to \$900 million annually through 1989.

Ironically, in his confirmation hearings in January 1981, Secretary of the Interior James Watt pointed to his work on the LWCF to bolster his case that he really is a conservationist: "I successfully laid the groundwork for legislation which enlarged the fund from \$300 million to its present level of \$900 million." He added that "the Bureau managed the Land and Water Conservation Fund which was, and is, *one of the most effective preservation and conservation programs in America*" [our emphasis].

A Continuing Need

Some people wonder why more funds are needed if billions of dollars have already been used to protect millions of acres. The answer is quite simple—there remains a tremendous backlog of parklands and other important federal lands whose acquisition Congress has authorized but not funded. The acquisitions backlog for existing areas exceeds \$3 billion. This backlog has increased fairly rapidly in recent years as Congress established new parks at a fast-

er rate than appropriations were made to buy and protect them.

Many Park System areas will require funding in the near future. One of the most critical areas needing land acquisition funds now is the Santa Monica Mountains National Recreation Area. (See related story, page 4.) Many other designated NPS units face imminent threats like subdivision, clearcutting, second home development, and commercial development. Some of the most threatened areas include Olympic National Park, Cuyahoga Valley National Recreation Area, Chattahoochee River National Recreation Area, and New River Gorge National River. Congress created these and other NPS units to preserve them from damaging development, but Congress' intentions will never be fulfilled without the money to buy the land.

Opposite, a newly purchased section of the Appalachian National Scenic Trail provides an exceptional view for a resting hiker. Characterized by grassy balds and colorful rhododendrons, the Highlands of Roan on the Tennessee-North Carolina border is one of the areas along the trail that has been preserved, in part, with monies from the LWCF. Nearby sections of the trail, with similar attributes, have not yet been purchased and remain vulnerable

to encroachment. Laurence Van Meter of the Appalachian Trail Conference says that without LWCF funds to buy and preserve such areas, "an increasing number of trail miles would be relegated to inferior natural environments and roadsides or would simply cease to exist." The Appalachian Trail is just one of many natural recreation resources in America that may suffer for lack of acquisition funds from the Land and Water Conservation Fund.

The Controversy

Why has the Administration tried to virtually eliminate such a popular and effective program? And why did Secretary Watt lead the charge to convince Congress that a 90 percent cut in the LWCF appropriation was in the best interests of the country?

In justifying these excessive cuts, the Secretary contended that we must be better "stewards" of what we have before we reach out for more. In other words, problems in the existing parks must be taken care of before more parklands can be acquired. The Secretary frequently cited a General Accounting Office report that estimated the bill for public health and safety repairs in the parks at \$1.6 billion. Problems at the older, better known parks—"crown jewels" such as Yosemite—were most often given as examples of the tremendous need to revamp existing parks' facilities.

The Administration's line of reasoning has several serious flaws. First, the Secretary's sense of stewardship seems to apply mostly to roads and structures, and not to primary park resources like wildlife and pristine ecosystems. Secondly, the parks as a whole are not in quite the deplorable condition described by the Secretary and GAO. The Park Service's own study estimated a need for \$575 million to handle repairs and improve aging facilities, a figure well below GAO's estimate.

Third, the Secretary has failed to understand that he has a responsibility to protect *all* the parks. Many parks—especially newer ones where little land has been acquired—face major threats. Good stewardship

means protecting all lands within authorized boundaries, *including those not already acquired.*

Critics of LWCF say that alternatives to buying parkland have often been ignored in the past. These alternatives include land exchanges, easements, and zoning. If the LWCF is cut back drastically, the agencies will be forced to rely more heavily on such alternatives. No doubt greater reliance could be placed on buying easements, a practice that prevents development incompatible with nearby parkland, while allowing private ownership. NPCA has supported the use of easements for many years, but drawbacks to this method do exist. For example, purchase of easements is expensive when the land in question is desirable for development. Also, most easements provide no public access, limiting their value for recreation.

Land exchange programs and zoning are also of limited usefulness in protecting parklands. Land exchanges might work in some cases, especially in the West where large federal holdings still exist. In the East, however, where much of the land remaining to be bought by the National Park Service is located, the federal government owns little land suitable for exchange purposes. Zoning is only a temporary solution because such local regulations can easily be changed over the years. Norma Schaeffer, Chairman of the Beverly Shores, Indiana Planning Commission, comments: "To tout zoning as an alternative means of land preservation is to depend upon a weak mechanism. The very purpose of zoning is to provide for the orderly

development of communities." In sum, alternatives may be useful on a limited basis, but a tremendous need for LWCF appropriations remains.

Opponents of LWCF have yet another bone to pick. They say that the federal government already owns too much land—more than one-third of America. This argument fails to mention that only one-tenth of one percent of the country's land mass has been purchased with LWCF monies. More importantly, the LWCF is being used to purchase nationally significant areas and to provide much needed recreation opportunities.

The Future

The controversies surrounding the Land and Water Conservation Fund are not likely to disappear. As a result, conservationists will have to dig in their heels and fight as hard for the fund next year as they did this past year. As evidenced by the most recent battles, this program has mustered considerable support around the country. That support must grow if we are to save threatened parkland, provide habitat for wildlife, and see reasonable growth in the National Park System.

In the past year, NPCA members were asked to write their congressmen in support of the LWCF. Those letters from members and other conservationists were critically important in the battle to obtain more funding than the Administration requested.

Throughout the coming year, NPCA members and other conservationists will be asked to help again by writing letters to their senators and representatives. Your involvement can help preserve a piece of America for all of us—and our children.

Bill Lienesch is Assistant Director of Federal Activities, National Parks & Conservation Association.



Back in the fall of 1805, when Captains Meriwether Lewis and William Clark first explored it, the Columbia River Gorge was pristine—a palisade of shoreline waterfalls, basalt pinnacles, and thunderous rapids.

Perhaps more than any other place on their journey, the Gorge showed Lewis and Clark the awesome and magnificent force of nature creating, in a very small area, a landscape of great diversity and dimension.

As the explorers looked down at the Gorge, they saw the mile-wide river narrow after passing through a wide expanse of dry, sage-covered grasslands in what is now eastern Washington and Oregon. The Columbia River, having flowed more than a thousand miles southward from its headwaters in Canada, turned west and entered the mountains between two volcanic cones—Oregon's Mount Hood twenty miles to the south and Washington's Mount Adams, a similar distance to the north.

They saw Mount St. Helens—a dramatic reminder of the Cascades' volcanic origin—lying quietly farther west. Indian legend told of the eleven-thousand-foot Mount Hood and the smaller Mount Adams at war, spitting fire and stone at each other across the river. The debris filled the channel, eroding to form an earthen "bridge of the gods."

If the bridge ever existed, it doesn't now; but the recent eruption demonstrates how nature could have created such a dramatic place. This year, Congress is considering legislation to make the eighty-five-mile stretch of the Columbia River Gorge a national scenic area. Only man's extensive presence in the Gorge removes it from consideration as a national park.

Separating Oregon and Washington, the Columbia River flows through the Gorge immediately east of the Portland, Oregon, metropolitan area, and runs two hundred miles south of Seattle. The Gorge is the great natural break in the Cascade Mountains—a range of snow-capped peaks stretching from northern California to Canada.

As the passage through the mountains narrowed for Lewis and Clark, oak and ponderosa pine dotted the terrain. Abruptly, the Gorge walls became steep, just as the party entered a lush forest. In the dells, streams plummeted hundreds of feet amid the deep green finery of ferns and moss.

Impressed with the grandeur of the Gorge, the explorers noted in their journals the presence of "several beautiful cascades which fell from a great height over the stupendous rocks which closes (sic) the river on both sides..." They had seen only a few of the great number that exist; as many as twenty-five major falls punctuate the recesses of the Gorge in Oregon alone. Multnomah Falls, only thirty miles east of Portland off the Old Gorge Highway, is one of the tallest in North America, with a vertical drop of 620 feet.

Peaks lining the Gorge rise to five thousand feet, creating extensive drainages that conceal a multitude of canyons and waterfalls accessible only by foot-trail. Longtime Gorge friend and preservationist John Yeon, whose father helped build the scenic old Columbia Gorge Highway, pointed to their splendor in his 1937 report on the Gorge: "While the falls are greatly varied in form, their dominant characteristic is the sheer unbroken drop over concave cliffs into precipitous rock-walled basins. This assembly of cataracts produces in the Gorge the most remarkable all-season waterfall area in America."

For more than 50 million years volcanic activity created miles-thick layers of ash, mud, and lava that provided the geologic foundations for the Gorge. During Miocene times, great basalt "floods" occurred in successive outpourings. The great river, then a few miles south of its present course, cut through the basalt as it folded and rose during the Pliocene epoch.

But the modern Ice Age, beginning about two million years ago, produced greater changes in the Gorge than all other geologic actions combined.

Each spring melt brought runoff

Columbia Gorge:

Great Gateway to the Pacific

This dramatic river-course, rich in natural and historic treasures, may be designated a national scenic area

Dean S. Smith

Perched on Crown Point like a Japanese pagoda, Oregon's Vista House was built as a memorial to pioneers of the Oregon Trail. Across the river, shrouded in mist, lies Washington's equally dramatic shoreline, whose fate hangs in balance between federal protection and residential development.



Photo by Craig Collins

Encased in winter ice, Multnomah Falls displays the longest unbroken vertical drop of the many falls in the Gorge. Like Vista House, this waterfall is clearly visible from the Old Gorge Highway, which was carefully engineered to offer scenic views to touring travelers.

that would be regarded as major flooding today, but the "Missoula floods" put a crowning touch on the formation of the Columbia River Gorge. Noted geologist and author John Eliot Allen says that "at least twice and possibly forty times" advances of the ice sheet blocked canyons to the east with thousand-foot-high ice dams that would breach with tremendous rushes of water and rock.

About thirteen thousand years ago, the last such flood occurred. The numerous waterfalls four hundred feet and higher in the Gorge suggest that lower portions of tributaries were cut away, leaving only hanging notches from which the falls now emerge. Thus, after millions of years of preliminaries, the modern Gorge was dramatically sculpted in a cataclysmic two-week period.

Although the striking geologic form of the Gorge is the first attribute one notices, unusual biological and botanical features are found there as well. The Gorge marks the collision of two distinctly different climates—arid east of the mountains, moist and luxuriant to the west.

Within a span of thirty miles, annual precipitation increases from 15.7 inches to 63 inches. The semi-arid steppes change to mixed coniferous forests, then to dense fir. In places, two-hundred-year-old firs provide important habitat for such rare species as the bald eagle and northern spotted owl.

"The diversity and character of land structure and growth which exists horizontally also exists vertically," John Yeon noted in his report. "The formations and cover of tide-water-affected shore areas change as the terrain rises through different altitude zones to the sub-alpine summit regions. A cross section of the Cascade Range from its sea level base to its higher elevations is displayed in a living chart on the walls of the Gorge."

These dramatic variations in climate cause harsh, unpredictable weather. In summer, sun and calm may dominate one minute, thunder-

storms the next. During winter, howling winds from the east combine with heavy snows to create blizzard conditions, halting traffic in the Gorge and turning many waterfalls into frozen carapaces on the rock.

Spawned by the climatic conditions in the Gorge, at least nine plants thrive that exist nowhere else in the world. Among them are Howell's reedgrass, found in cliffs and rocky banks near waterfalls; Columbia synthyris, a blue-blossomed, early spring flower found in grassy banks; Barrett's penstemon, a brilliant rose-purple mass of blooms with gray-green foliage found in fissures of dark basalt; and the long-bearded hawkweed, endemic to the hillsides and talus slopes of the Gorge.

Approximately eight hundred species of plants have been found in the Gorge, and ultimately a thousand may be cataloged, according to Jean Siddall, chairperson of the Oregon Endangered Plant Project. Of those, fifty-eight are considered rare or endangered. "The Gorge is the southern limit of northern species and the northern limit of southern species," Mrs. Siddall notes. "Alpine plants grow here at sea level, left behind by the last Ice Age."

For some plants and animals, the Gorge has served as a corridor to allow migration beyond their original habitats. Plants from the interior of the continent and the Rocky Mountain regions have found a niche in the Gorge, to the delight of botanists. Portions of the Gorge so resemble the climate of Great Britain that scientists and nature lovers there have dubbed it "the great habitat."

"The botanical values of the Gorge are incredibly special," says Nancy Russell, chairperson of Friends of the Columbia Gorge, an Oregon/Washington citizens' organization seeking creation of the national scenic area. "The Gorge was a famous botanical collecting ground in the nineteenth century. Jean Siddall and others continue to exchange rare plants with colleagues in the British Isles."



Photo by Nancy N. Russell

The purple blossom stalks of *Penstemon barrettiae* cling tenaciously to the rocky soil of the Gorge cliffside (left). The plant is one of several species of wildflowers that grow only within the confines of the unusual habitat in the Columbia River Gorge. Visitors who take the time to hike up Eagle Creek, at

the western edge of the proposed scenic area, will be rewarded with glimpses of many spectacular falls, notably Punchbowl Falls (below). The same volcanic basalt that forms the sheer cliff walls of the Gorge is transformed into rounded, water-worn boulders in Eagle Creek.

Indeed, the natural corridor of the Gorge has been its most exploited asset and the basis for its historical significance. Being the only sea-level passage through the mountains from California to Canada, the Gorge provided a way for Indians from coastal areas to trade with those from inland regions. After the Lewis and Clark expedition, early fur trappers opened up the Old Oregon Trail, which had its western terminus in the Gorge at The Dalles. Intrepid travelers often chose the river as the final link with the rich Willamette Valley farther west. The fur trappers and French Canadian voyageurs who hastened into the Gorge were soon followed by missionaries and settlers.

More recently, the Gorge has been used as a major artery of commerce, first during the steamship era of the mid-1800s, and then when the railroads arrived in 1882. Now, both sides of the Gorge are lined with transcontinental tracks. Barges destined for points as far east as Lewiston, Idaho, ply the river. Highways on both sides complete the cycle of diverse transportation uses.

The 1915 "engineering miracle" of the Old Gorge Highway still stands as one of man's greatest achievements in the Gorge. The twisting, two-lane highway of graceful bridges, tunnels, viaducts, and stone bench waysides was the first major paved highway in the Northwest. It opened up the Gorge to Sunday

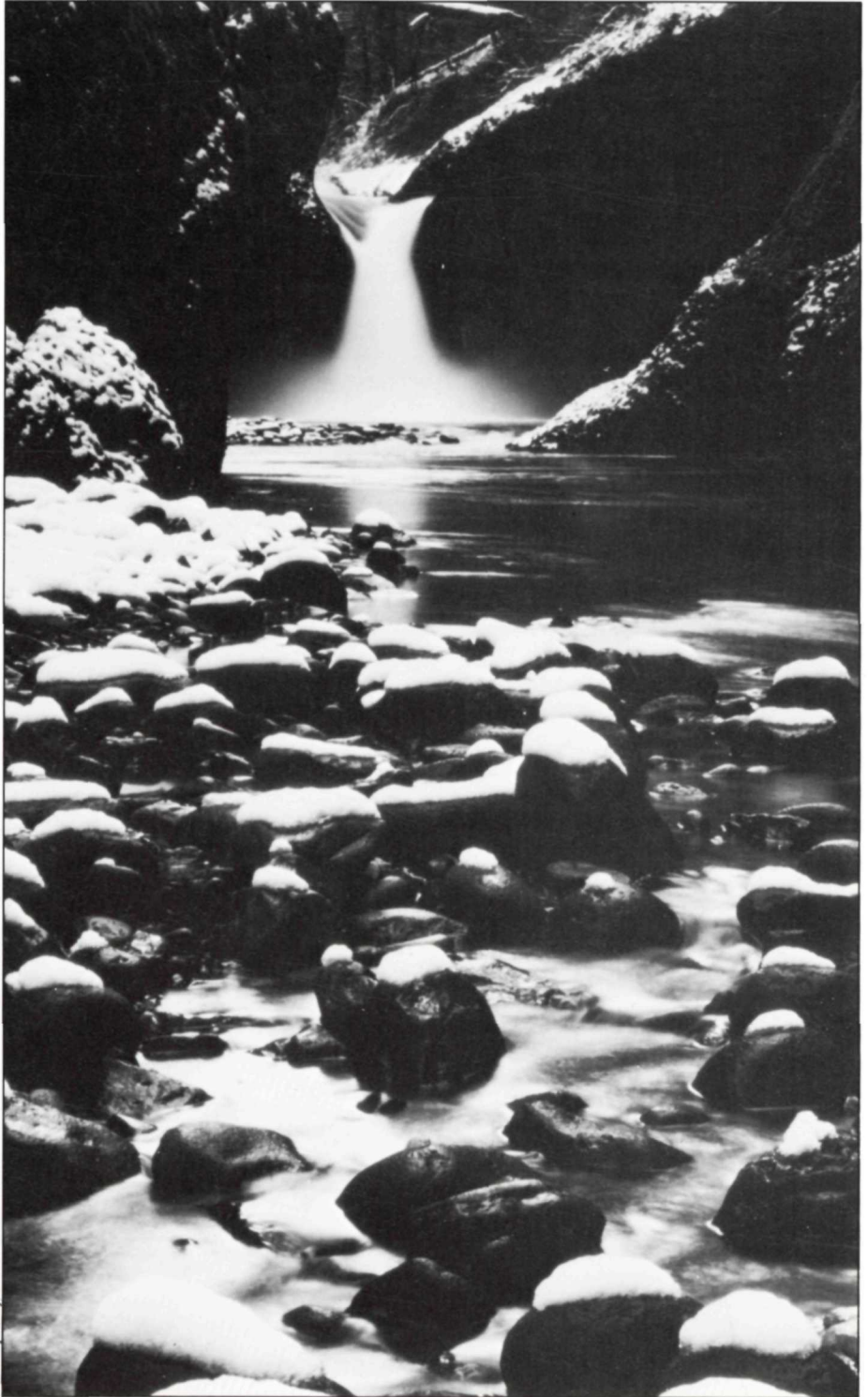


Photo by Gary Brasch

Shepherd's Dell Bridge arches over a verdant crevice, joining two sections of the Old Gorge Highway (top). Built in 1916, the highway melds engineering skill and natural beauty into a tourist's delight. Storms from the west commin-

gle with high winds from the east above the "Guardians of the Gorge" (bottom). Looming beside the Columbia River, the two mountains heralded the entrance to the most scenic section of the river for west-bound pioneers.



Photo by Gary Braasch



Photo by Craig Collins

drives by residents of the Portland metropolitan area as well as to vacationers. Last year, the U.S. Heritage Conservation and Recreation Service conducted a study of the old highway, recording the condition of abandoned sections with an eye toward restoring them for bicycle and pedestrian use.

The Gorge also provides an important array of human artifacts. Tribes of Indians who frequented the area for its great fishery left behind scores of burial sites, petroglyphs, and village sites, many of which remain unstudied and unrecorded. Remnants of immigrant roads, portage trails, Chinese bake ovens from the days of early railroad construction, and other imprints of man's activity remain as legacies of the pioneer era.

Although the Gorge has been inhabited continuously by man for eleven thousand years, the past century has witnessed virtually all of the change. The river, which had presented explorers and settlers with seemingly endless obstacles, has been stilled by eleven dams in the United States alone. Bonneville and The Dalles dams within the Gorge have reduced the river to placid pools where it once used its greatest strength to carve through the mountains.

The greatest threats to the Gorge now come from the rapidly growing suburban areas of Portland and neighboring Vancouver, Washington. In 1983, the Interstate 205 freeway bridge linking the two states will be completed. Rural areas of Clark and Skamania counties in Washington will be within commuting distance of Portland, making them attractive as "bedroom communities." Already, subdivisions as large as fifty to sixty lots are in the process of being developed in Washington across from Multnomah Falls.

The lack of formal zoning and land use planning in Skamania County, which faces Oregon's most prized section, concerns Friends of the Gorge. Much of the opposition to the proposal for a national scenic area is concentrated in that county.

Although Friends of the Gorge has

attracted enough public support to open offices in Portland and Seattle, their draft legislation to create a national scenic area has yet to receive formal endorsement from Washington's congressional delegation. All but Oregon Rep. Denny Smith have indicated support for national legislation to protect the Gorge. In Washington, Senator Henry M. Jackson will be the most important congressional actor.

Many of man's activities in the Gorge have been far from ruinous. Shortly after 1900, far-sighted civic groups in Oregon launched an ambitious effort to develop parklands. Later, national forests now totaling 44,000 acres were established in both states. Combined with the federal holdings, the thirty state parks in Oregon and Washington bring 90,000 acres of the Gorge into public use.

Each year, nearly 2.5 million people visit Multnomah Falls, making it one of the most significant natural attractions in the nation. In its landmark study on preservation options in 1980, the National Park Service estimated that 4 million people visit the Gorge each year.

The Park Service study noted that the Gorge is especially important—and especially vulnerable—because of its proximity to a major metropolitan area.

"The Columbia Gorge is an area where natural and man-made forces have combined to create a visually distinctive, diverse, and dramatic landscape that prevails upon human perceptions in an appealing manner," the Park Service report stated. "These resources make the Gorge a nationally significant resource that warrants protection."

Dean S. Smith, a former environmental writer for the Portland Oregon Journal, now serves as public affairs assistant to Multnomah County (Oregon) Executive Don Clark, a founder of Friends of the Columbia Gorge.

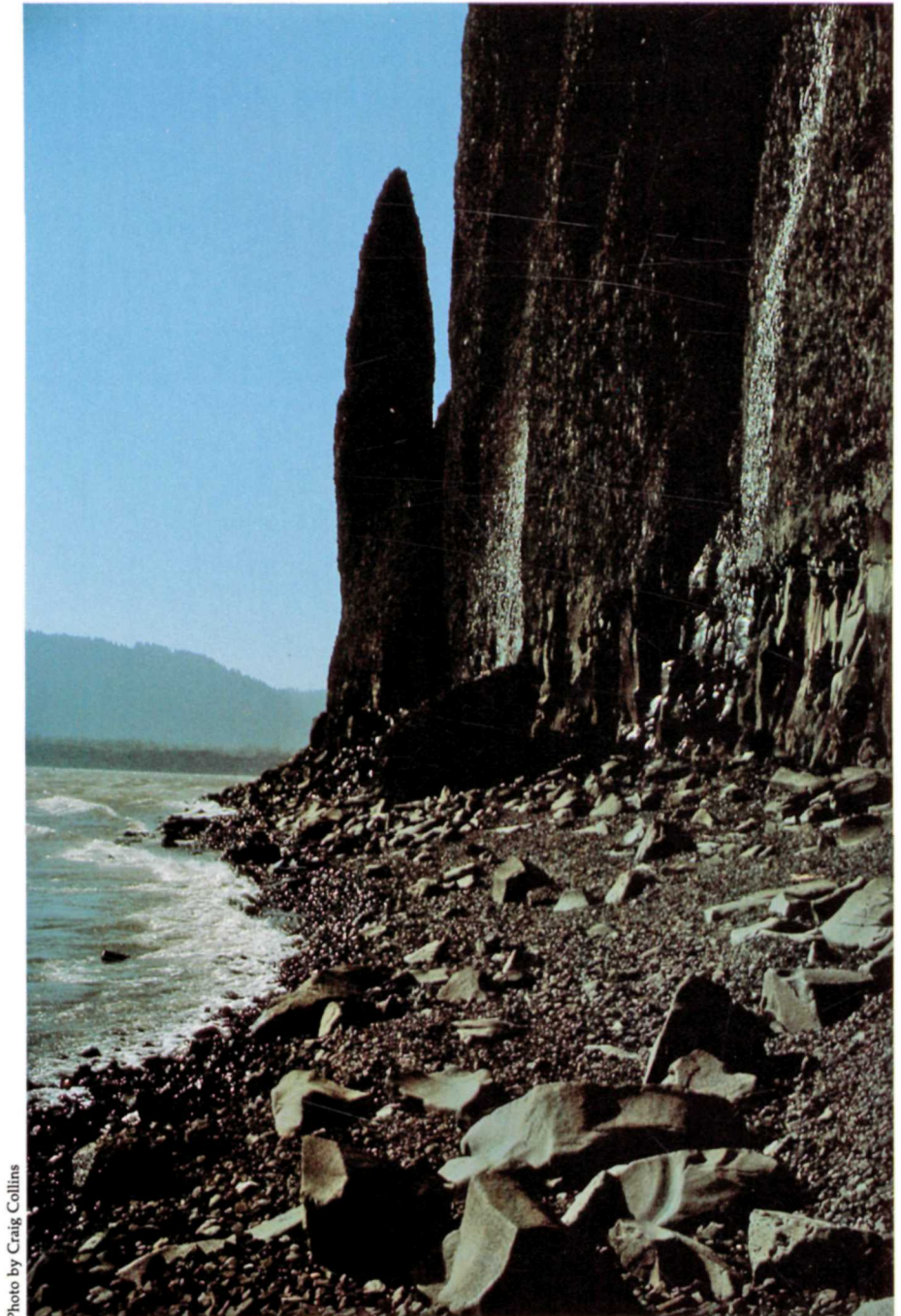


Photo by Craig Collins

Conservationists interested in protecting the Gorge can write to: Friends of the Gorge, P.O. Box 40820, Portland, OR 97240; or Columbia Gorge Coalition, P.O. Box 266, Hood River, OR 97031. At press time, it was expected that a draft bill would be presented to Congress by early 1982, and hearings on the proposed national scenic area are expected to take place in the spring.—Ed.

Ninety miles from the point where the mighty Columbia empties into the Pacific Ocean, the river stretches a mile wide between sheer cliffs. Cape Horn, Washington, marks the western border of the proposed scenic area.



Geyser basin, by Michael S. Sample

YELLOWSTONE

As the frantic search for energy
comes to Yellowstone,
we must ask:
What will we risk?

Bill Schneider

From the top of Sawtell Peak in eastern Idaho we could see just about everything. About twenty miles to the east was America's first—and perhaps grandest—national park, Yellowstone; and, beyond, some of the great wildernesses—Absaroka, Beartooth, Washakie, and Teton. To the southeast the Grand Teton created one of the world's most spectacular and popular backdrops. To the west the rugged Centennial range cast its shadow north over the Red Rocks Lakes National Wildlife Refuge, sanctuary for the majestic trumpeter swan. To the north the rolling Gravelly range and the arduous Madison range broke the horizon.

Immediately below, the Upper Snake River Valley unfolded magnificently, with Henry's Lake to the northeast and the trout fanatic's mecca, the Henry's Fork of the Snake River, to the southeast. And between the lake and the river stretches the "town" of Island Park—the only community in the nation that's twenty miles long and two hundred yards wide.

Right in the middle of all this grandeur lies a pancakelike, lodgepole-blanketed plateau referred to as the Island Park Geothermal Area (IPGA). It straddles the western and southwestern boundaries of Yellowstone National Park. The geothermal energy industry—led by Union Oil, operator of Geysers Geothermal Field ninety miles north of San Francisco—believes the Island Park area could yield possibly even more power than the California field—which now provides electricity for about a million Californians.

In response, Yellowstone Park administrators, local business representatives, and environmental groups have voiced, quite loudly, their concern for the park. They fear damage to the prized thermal features of the park—including Old Faithful, which is 13.5 miles from the IPGA—and the park's wildlife, water, and air.

The Incredible Shrinking Wilderness

The threat seems real enough to many who know the area best. "I think the geothermal development will proceed sooner or later," Bruce Smith, Forest Service biologist from the Targhee National Forest, predicted as we sat on the top of 9,855-foot Sawtell Mountain. "They'll keep pushing until they get it."

After receiving two hundred lease applications for about 77,000 federal acres of the IPGA (not including 24,105 acres of state and private land or in the same area now leased), the Forest Service put forth a massive effort to analyze the potential impacts of geothermal development. The agency hired four people for

three years just to gather data and write a lavishly decorated environmental impact statement (EIS)—all at the cost of "between \$500,000 and \$600,000," according to John "Mickey" Beland, leader of the EIS team.

After offering six alternatives in the Draft EIS, the Forest Service added a seventh alternative in the Final EIS, based on public comment, and recommended it, explains Acting Targhee National Forest Supervisor John Pruess, a minerals specialist. Basically, the EIS calls for leasing on 178,620 acres, no leasing on 94,316 acres, and defers leasing on 215,095 acres, including the two most sensitive areas of grizzly bear habitat. However, the Final EIS con-

tains four stipulations that have become the focal point of controversy for both conservationists and developers. "Lands will be available for leasing only after the Secretary of [the] Interior determines the following," the EIS stipulates and then lists four monumental challenges for natural scientists. For any geothermal development to occur on federal lands in the IPGA, researchers must prove:

- That an "exploitable" geothermal resource exists.
- That exploitation of the geothermal resource will not adversely affect the unique thermal features of Yellowstone Park.
- That geothermal development

Encroachment on Yellowstone

would not adversely affect the habitat of threatened or endangered wildlife.

- That lethal hydrogen sulfide and other noxious gas can be controlled.

Even though these conditions seem difficult, if not impossible, to meet—particularly the second and third—Pruess feels leases could be granted in the next two years. “The political climate is certainly favorable to development,” he explained. “I just had a call from the Regional Office saying the Department of the Interior wants to expedite geothermal leases.” Pruess also admits that “the public will find this hard to swallow.”

In fact, the Forest Service EIS somehow managed to make both sides angry. Industry representatives, for example, weren't impressed.

“I know of no animals who are taxed to feed, warm, house, and clothe humans and with a clean power source available, let us not confuse priorities and shackle the *energy providers* of this country. There is nothing more repugnant to a taxed investor than an impregnable bureaucracy's delaying an event long overdue, namely lease issuing in Island Park,” said John J. Wilson, Double J.W. Energy Company.

“One must simply accept the conclusion that our geothermal resources should be developed promptly, regardless of their loca-

tion,” said Alan C. Buck, Ph.D., of the Stewart Capital Corporation. “Regardless of the sensitivity of an area, the geothermal energy consumer must simply *cope* with the problems of development in the area.”

Conservationists and some local officials also were critical. “One of the reasons for establishing America's first national park [Yellowstone] was to protect the geothermal features. Any activity that would tend to damage them by means of power development would be an insult of the worst kind—insensitivity typical of nineteenth century America,” said Dr. Ralph Maughan.

“Does this document do the job that it is mandated to do by law, namely assess the impact of a given activity on a specific area?” asked Peter W. Gray, of the West Yellowstone Chamber of Commerce. “There is no question in my mind that it fails abominably.”

When discussing threatened and endangered wildlife, the plight of the beleaguered grizzly bear is emphasized. After soaking in the incredible vistas from Sawtell, Smith and I drove through Island Park to within 250 yards of Yellowstone's boundary on high-standard logging roads. Along the way, Smith explained plans to log the area extensively, even though it would have a severe impact on the area's wildlife, including a small population of grizzly bears. *Continued on page 24*

Ongoing and potential development within the greater Yellowstone ecosystem will adversely affect Yellowstone National Park and its resources.

Geothermal Leases. About 101,105 acres in and near the Targhee National Forest's Island Park Geothermal Area are under lease application. This includes private, state, and federal lands.

Oil and Gas Leases. Unless specifically withdrawn from energy development, federal land around Yellowstone Park, the majority of it at any rate, is under lease application for oil and gas exploration. This includes about 300,000 acres of Washakie Wilderness on the park's eastern flank. The Teton Wilderness south of the park was placed off limits to the energy companies by a 1916 congressional withdrawal, but now that action is being challenged in the courts.

Homestake Mining Development. This gold mine on about 10,000 acres directly adjacent to the park will soon be going into production—unless, of course, the price of gold drops back to \$35 per ounce.

Cooke City Mining District. Several mines and reclamation of past mining ventures on the northeast entrance to the park threaten the water quality of Soda Butte Creek which flows into the park.

Sunlight Basin Mining District. A large copper mine looms on the horizon in Sunlight Basin, just east of the park.

Eagle Creek Mining District. Well within the Washakie Wilderness, this copper and gold mine would adversely affect both the wilderness and the park.

Ski Yellowstone. A large, four-season resort promises to place even more pressure on the park's resources, particularly the threatened grizzly bear.

Reas Pass Power Line. Recently approved by the Forest Service, this



Fumarole, by Eugenia Horstman Connally

new line will carry more electricity to West Yellowstone. Instead of following an existing corridor, the line will go through the best grizzly habitat on the Targhee National Forest.

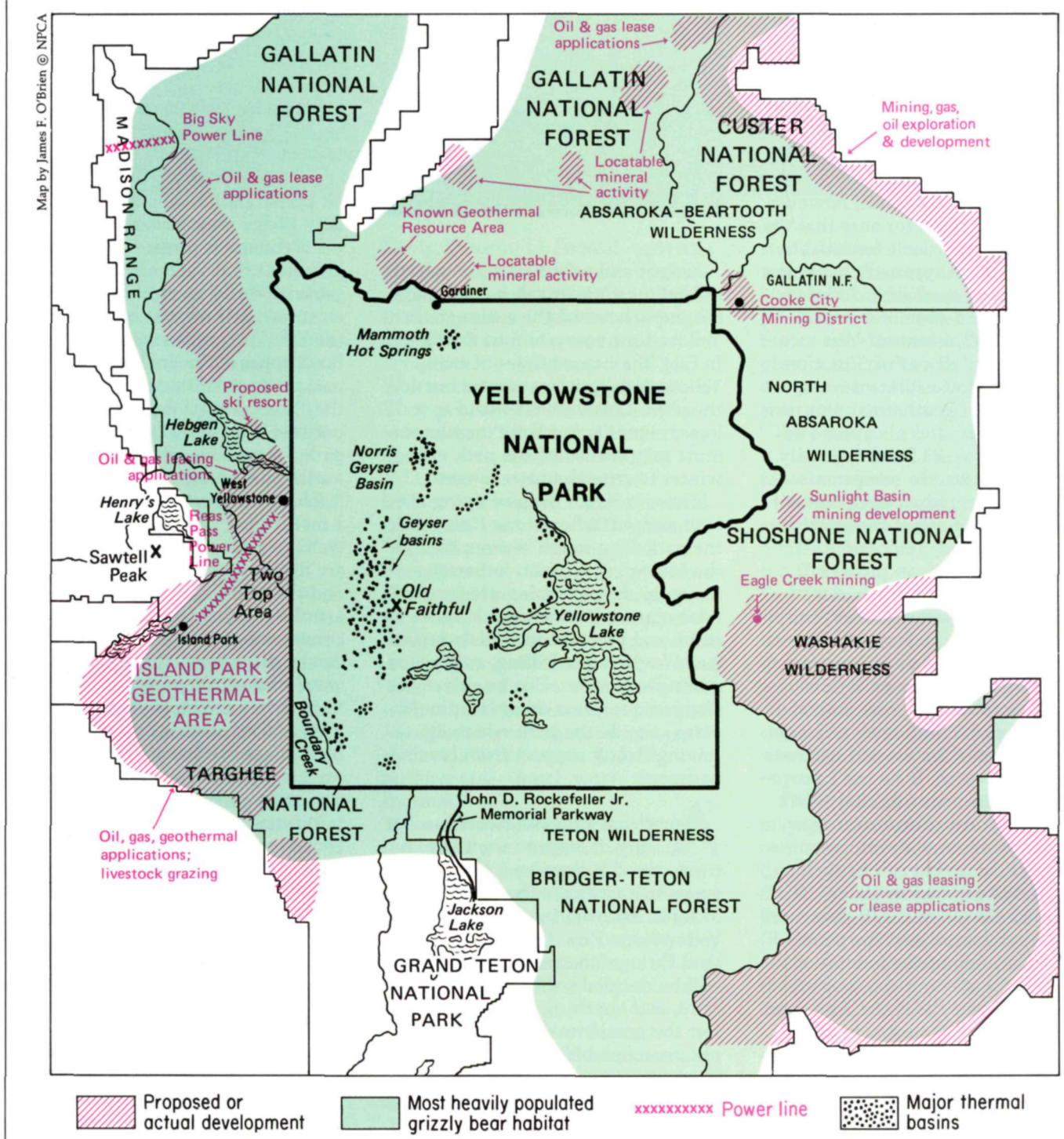
Jack Creek Power Line. On the fringe of grizzly habitat in the Gallatin National Forest, this line resem-

bles the one being built on Reas Pass, except it hasn't been approved—yet. It would cause the same impacts—more people, fewer bears.

Livestock Grazing. Domestic livestock (sheep and cattle) graze on federal lands adjacent to the park.

This threatens the grizzly. Bears always lose in a conflict with a rancher or a sheepherder.

These are only the major activities. There are, of course, hundreds of smaller land uses around the park, the sum of which poses a most serious threat to the park.



Encroachment of Energy Development in Greater Yellowstone Ecosystem—1982

We also drove through the Two Top area, one of the two areas in the Island Park Ranger District declared "Situation I" grizzly habitat. This designation is, in essence, the Forest Service's substitution for the locally unpopular and more restrictive designation "critical habitat" mandated by the Endangered Species Act of 1973. Although almost all of the Island Park Ranger District is grizzly bear habitat, only two areas (19 percent of the area) were classified as Situation I. This classification means the grizzly comes first in land use decisions affecting these sections of the forest.

Biologists readily admit, however, that nobody knows for sure that the rest of the district isn't essential to the grizzly. So why wasn't the entire area or at least most of it declared Situation I until somebody could prove it wasn't essential? Was most of the district left out of Situation I classification to facilitate development—not just geothermal, but timber, oil and gas, and phosphate development as well? Smith uneasily answers: "We had to compromise."

Proving geothermal development won't adversely affect the grizzly bear is most likely impossible. "I don't believe they can prove it," charges Richard Knight, leader of the Interagency Grizzly Bear Study Team, of which the Forest Service is a member. Knight has been studying the grizzly in the greater Yellowstone area for many years and, at this time, probably knows as much about the bears' habits and needs as anybody on earth. If he can't prove damage to the bears' habitat won't occur, it's likely nobody else can.

"This geothermal development is the worst thing that can happen to the grizzly bear," he explains. "It's an on-site development. It puts more people in the area, and the people spread throughout the habitat on their off-time."

Sadly, it seems as if the American public may accept such damage to the king of the wilderness, the grizzly bear. Knight and other bear experts have said publicly that the grizzly could disappear from the Lower Forty-Eight in the next thirty to forty years.



Old Faithful, by Eugenia Horstman Connally

Knight and others who have studied Yellowstone grizzlies emphasize the importance of the entire greater Yellowstone ecosystem to the bears. In fact, the home ranges of many Yellowstone grizzlies extend outside the park. Likewise, elk—and to a lesser extent, other large ungulates—must migrate out of the park each winter to critical winter ranges.

Those in favor of developing the land around Yellowstone Park think the park "is enough"—even though the biological facts say otherwise. Recently, for example, Interior Secretary James Watt visited Yellowstone and proclaimed it as "a crown jewel" where no drilling, cutting, or mining will occur. But he sidestepped questions on development plans outside the park which are receiving strong support from his department.

Americans probably won't accept any damage to the thermal treasures of Yellowstone Park, however. At least that's the impression of John Townsley, superintendent of Yellowstone Park. "The issue of Island Park geothermal development will be decided socially and politically, and anything that would affect the geothermal features is simply unacceptable," Townsley says. "If there is any chance that the development will affect the park, the public won't stand for it." However, he cautioned, "I don't think we can assume that social pressure will pre-

vent the development of the Island Park Geothermal Area."

Unfortunately, expert geologists can't reach a consensus on whether geothermal development outside the park will affect geothermal features inside the park. They do, however, agree on one point—that is, nobody now knows what the impact, if any, will be.

When it comes to the geology of the Yellowstone Park area, almost everybody refers to Bob Christiansen and Don White of the U.S. Geological Survey. They have extensively studied the park's "plumbing" and worked with the Forest Service on preparation of the EIS. But even they hedge their remarks.

"Although it is our considered judgment that such effects on the geysers would be unlikely," they wrote in their official comments on the EIS, "it is important that a cautious approach be included in eventual production strategies." And they admit that a deep connection between the Island Park area and the park "cannot be ruled out by any available evidence."

Christiansen and White proposed a monitoring system where test wells have been proposed: test wells are drilled near the park's boundary, and the thermal features in the park are closely observed. They feel any connection and impact on the park can be discovered "long before a wave of declining pressure can be transmitted to the geyser basins." This limited testing "cannot possibly" affect the geysers, they claim, as such damage can come only from five to ten production wells.

Wayne Hamilton, physical science coordinator for Yellowstone Park, looks at this question differently. He believes the Forest Service's stipulation on proving no impact to the park's "unique thermal features" would be very difficult to meet, but probably not impossible. "It could take ten years or more to prove this," he predicts.

As for the monitoring and testing proposal, Hamilton worries about the success of monitoring without research—namely, that "the horse will be out of the barn" before we know the answers. "That means we



Midway Geysers Basin, by Eugenia Horstman Connally

didn't *predict* the impact; we only *detected* it."

Hamilton is concerned about the numerous less famous features on the western edge of the park, such as those along Boundary Creek, only two miles from the IPGA, as much as—or more than—he is about Old Faithful, some thirteen miles inside the park. "When you're working with that much distance, the probabilities are building up in our favor," he says.

"You can build an equally valid case for both sides," summarizes Duncan Foley, a Utah geologist specializing in geothermal exploration. "Anybody who says they have an absolute answer is overstating his case. Nobody agrees because nobody knows," Foley concludes.

If development of the IPGA gets the green light, it will be closely monitored to determine impacts on the park. If an adverse impact is detected, officials will recommend that development cease. But if several wells go in, and developers find an "exploitable" geothermal resource with no apparent connection to the park's plumbing, development will escalate: more wells and then a power plant, pipelines, and transmission lines. If, at this point, the monitors show an adverse impact on the park's thermal wonderland, agencies will be hard pressed politically and legally to shut down a major industrial development.

"That would really make the politicians scramble," theorized Destry

Jarvis, Director of Federal Activities for the National Parks and Conservation Association (NPCA). "I think the companies would be able to go ahead and continue to develop."

Environmental groups tend to look at this issue with disbelief. They generally think it's so ridiculous and so "unpolitical" that it doesn't have a chance of flying.

"Lots of people really don't believe it will happen," explains local conservationist Ralph Maughan.

"But they might be surprised." Maughan and other conservationists also perceive geothermal development as a less serious threat than other development plans around the park. "Every wilderness area around Yellowstone Park is now blanketed with oil and gas lease applications," Maughan notes. "And oil and gas threatens Yellowstone Park like nothing else—much worse than geothermal."

Geothermal development hasn't received the scrutiny other issues have—one reason it might become reality. If conservationists had been closely following the course of geothermal legislation in Congress, they might not be so nonchalant. Several versions of the "Geothermal Steam Act of 1981" are floating around congressional halls with no clear indication of what will emerge as law. Each one proves a threat to Yellowstone's thermal resources.

NPCA has taken the lead in monitoring this legislation, working for strong language to protect Yellow-

stone and other National Park System areas. At least one bill, H.R. 4067 by Congressman James Santini (D.-Nev.), establishes a fifteen-mile buffer zone around Yellowstone to protect the park from geothermal development. However, Jarvis considers this distance inadequate. "They just pulled that figure out of the air. We don't know what distance would be adequate."

Instead, he would prefer a provision stating that geothermal development shall not adversely affect the thermal features of any National Park System unit, not just Yellowstone. "We're opposed to any geothermal development unless it can be proven beforehand that there would be no impact on the park. And the burden of proof must be on the applicant to prove *before development* that there would be no such impact."

Other bills, much to Jarvis' dismay, promote geothermal development with no protection for the national parks. For example, S. 1516, championed by Senators John Warner (R.-Va.) and James McClure (R.-Id.), could push the Island Park geothermal development closer to reality without protecting Yellowstone Park.

Other observers question the sincerity of the geothermal developers. "It surprises me that the developers aren't pushing for it," Beland observes. "They want the leases, but they're not anxious to follow through."

"There is no big push from the companies for geothermal," agrees Pruess. "The only interest in energy in this national forest has been from oil and gas companies." Pruess notes that 75 percent of the Targhee is under lease application for oil and gas. "But we're not issuing those until this geothermal thing is solved. Leasing is primarily a speculation game," Pruess comments on the two hundred geothermal applications.

"That's right on," Beland agrees. Perhaps a million tax dollars have been spent to play a developer's game. But why?

"Have you ever fought forest fires?" Beland answers. "When I applied for this, it was a big fire. That's why the investment was made. Now, the interest has dwindled. That's what happens when these things get political. You do a lot of work for nothing and often end up saying, 'Well, there's another statement on the shelf.'"

Geothermal development is actually only one part of the story. Yellowstone faces many threats. "There's a perception that Yellowstone Park is 2.25 million acres and that it's safe from the threats affecting other areas," Townsley explains. "I don't believe that is true. I don't consider Yellowstone Park as an island that can be self-perpetuated. Recent pressure of population growth, mineral exploration and extraction, and energy development will change the character of the land around Yellowstone Park. All these activities in combination become a tremendous threat to Yellowstone Park."

As an example, Townsley points to the grizzly. "It's blatantly clear that the grizzly bear can't survive if Yellowstone Park is its only refuge. It also needs portions of the five adjacent national forests." He strongly believes that some areas in the park should be set apart for the grizzly's

exclusive use if the species is to survive over the long term in the greater Yellowstone area. "The grizzly bear can be an extraordinary example of this society's commitment to the environment."

Actually, Townsley carries his thinking a step farther. America's first national park can be a symbol of a great nation's dedication to the preservation of unique natural phenomena. It serves as a model for other nations hoping to preserve some of their natural elements.

Unless we're very careful, of course, Yellowstone Park could also serve as an example of our disregard for the most special of American treasures.

Bill Schneider, a freelance writer from Helena, Montana, edits Wild America for the American Wilderness Alliance and sits on the executive council of the Montana Wilderness Association.

Geothermal Development & Geysers

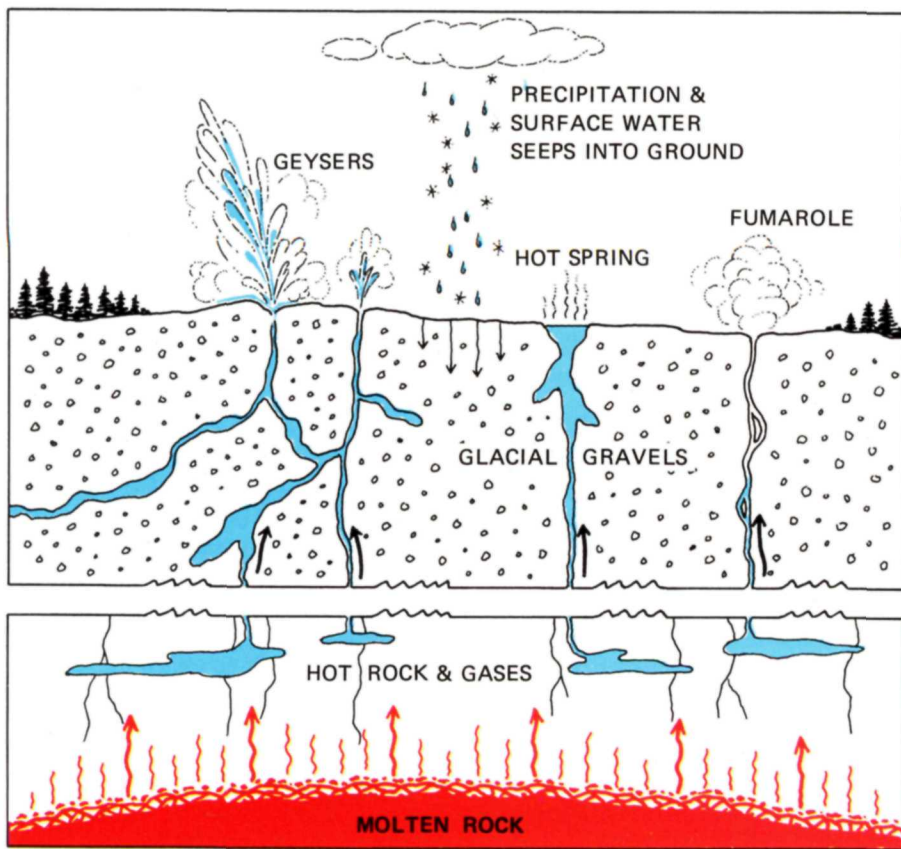


Diagram by James F. O'Brien © NPCA

Just in case you've never found anything worth reading in an environmental impact statement, read this—quoted from the Final EIS on the Island Park Geothermal Area (pp. 111-112), issued jointly by the Forest Service and the Bureau of Land Management on January 15, 1980.

The geysers of Yellowstone National Park are the rarest of thermal features. There are two hundred of these erupting hot springs inside the park, more than in the rest of the world combined. Of the ten major geyser areas in the world, Yellowstone ranks first. In the last three decades, seven of these ten areas have been destroyed or damaged by geothermal exploration or development.

Geysers depend on a dynamic, yet fragile system which can be easily disrupted. In the case of Yellowstone geysers, there is a source of heat relatively close to the surface which heats an abundant supply of ground water. This water circulates easily and at great depth through fractured volcanic rock and glacial gravel ce-

Yellowstone Plumbing



Geothermal development in California, photo by U.S. Forest Service

mented together by mineral deposits from the hot water. Periodic eruptions apparently take place because constrictions in the underground passageways cause water to become superheated, then flash into steam. Any alteration of heat or water that flows through these natural systems can cause the "plumbing" to dry out, disintegrate, and no longer produce geyser action.

Commercial geothermal development in other areas of the world has had profound effects on thermal basins. In New Zealand, for example, the Wairakei plant was installed during the early 1950s. By 1954, the Great Geyser in Geyser Thermal Valley, which ranked fifth among the major geyser areas of the world, became inactive coincident with Wairakei's declining reservoir pressure. All other springs and geysers in the valley were also diminishing in their discharge of hot water, and the last known geyser eruption occurred around 1965. Geyser Thermal Valley was closed as a tourist attraction in 1972, and the Karapiti Blowhole ceased activity in 1973. Further, production from Wairakei also affected another thermal area thought to be

independent with no connection at depth. Recent drilling nine to twelve miles from Waiotapu, another New Zealand thermal area, may have induced a chemical change or "interference" within its reservoir.

Near cessation or total destruction of natural hot spring or geyser activity from adjacent geothermal development is not limited to New Zealand. Similar changes have been recorded in Iceland; Lardarello, Italy; Beowawe, Nevada; and Steamboat Springs, Nevada. The Beowawe Geysers of Nevada were second to Yellowstone on the North American continent in amount of activity before the period of 1945–1958 when geothermal exploration began. Wells were drilled and permitted to discharge while not converted to commercial use; by 1961, all springs and geysers had ceased flowing. Without the natural continuous supply of hot water levels dripping below the surface, the geysers' hot spring formations rapidly disintegrated due to desiccation and frost expansion. A similar destruction of the small geysers of Steamboat Springs, Nevada, occurred in response to geothermal exploitation between 1950 and the

early 1960s. In the case of Yellowstone National Park, a number of its natural hot springs areas lie within twelve miles of the Island Park Geothermal Area.

It should be noted that in all of the above cases except Waiotapu, geothermal development took place in the *immediate vicinity* of the hydrothermal attractions

The exact boundaries of the Yellowstone geothermal reservoir(s) are uncertain, and no definite evidence is apparently available on what the permeability is at depth. Thus, it is difficult to say how much of a connection—if any—there is between the possible geothermal resource of the IPGA and thermal areas inside the park, or if any adverse effects might result.

The thermal areas of Yellowstone National Park are important not only for the hot springs, geysers, mud pots, etc., which lie within its margins. The natural heat flow and hot water discharge is critical to the wildlife in the park. Bison, elk, trumpeter swan, Canada geese, and many other waterfowl congregate in the thermal areas or on the rivers during the winter months.

Yellowstone Portfolio

With hundreds of thermal features throughout the park, Yellowstone ranks first among the world's ten major geyser areas, only three of which remain undamaged by geothermal energy development.



Old Faithful

T. Destry Jarvis



Minerva Terrace

Michael S. Sample



Michael S. Sample

Riverside Geyser



Upper Geyser Basin

Eugenia Horstman Connally

Rainbow Pool in Black Sand Basin

Michael S. Sample





Eugenia Horstman Connally

Bison graze in Lower Geyser Basin.

A rich diversity of wildlife finds refuge in Yellowstone National Park. Bison, moose, trumpeter swans, and many other waterfowl congregate in Yellowstone's thermal areas and rivers during the winter and disperse throughout the park during the rest of the year.



Michael S. Sample

Trumpeter swans are usually seen in pairs, as they mate for life.

Moose frequent river bottoms and willow thickets.



Mike Francis



Michael S. Sample

Yellowstone National Park and the surrounding lands constituting the greater Yellowstone ecosystem comprise one of the two remaining strongholds of the threatened grizzly bear in the Lower Forty-eight states.

Grizzlies range over vast distances both inside and outside the park.

NPCA Report

NPCA Sponsors Parks Planning Conference

In a continuing effort to help solve the myriad problems afflicting the National Park System, NPCA sponsored a conference in September 1981 of some fifty planners, attorneys, writers, teachers, businessmen, and other conservation advocates. Executive Director Paul C. Pritchard explained that the conference was intended "to bring together concerned citizen experts to provide a framework for the development of a comprehensive National Park System plan; and, second, to provide a basis for alerting the public about the current problems facing the national parks."

With the financial aid of The Columbia Foundation and The Natomas Company, the conference was held in Jackson Hole, Wyoming, from September 13 to 16.

Small working groups of people with widely differing backgrounds

and orientations (but a unifying love of national parks) examined specific problems, debated solutions, and devised general principles and recommendations to guide national park managers and concerned citizens in protecting our national parks in this time of crisis. First of all, everyone agreed that the National Park Service should focus more on protecting the natural and cultural resources in its care than is currently the case. Other recommendations include—

Management Problems. Inventory the natural and cultural resources of the parks; enact the recommendations of the NPS Report to Congress on a Servicewide Strategy for Prevention and Mitigation of Natural and Cultural Resources Management Problems; determine and enforce carrying capacity of each unit; give higher priority to interpretation and natural resources management; control concessioner facilities more tightly; encourage public participation in planning; manage new parks in Alaska as complete ecosystems.

External Threats. Congress should give the Park Service authority to deal with threats originating outside the boundaries of the national parks;

NPS managers should take public positions against external threats; and conservation organizations should take the lead in educating the public about these threats and should work to develop a broad constituency for the parks.

Politics. Conservationists should continue their involvement in the budget process for the Park Service, and additional sectors of the public should be enlisted on behalf of the parks. The Land and Water Conservation Fund should continue to be used for land acquisition and protection, as Congress intended it should. National parks in urban areas should be maintained and protected and should emphasize contemplative experiences for city dwellers.

Details of the problems addressed, speeches presented, and final recommendations will be contained in NPCA's upcoming book: **National Parks in Crisis**, edited by Eugenia Horstman Connally, 224 pages, \$18.00 hardbound (\$14.00, NPCA members). Available from Information Dynamics, 111 Claybrook Dr., Silver Spring, Maryland 20902. (Pre-paid orders include postage and handling; otherwise, \$2.00 per order.)

Conferees in one of the workshops at the National Parks and Conservation Association's September 1981 planning confer-

ence in Jackson Hole, Wyoming, discuss the many threats to the national parks originating outside their boundaries.



Eugenia Horstman Connally

Red Sea Park Plans Remain Stable

With the tragic assassination of President Anwar Sadat, plans for establishing Egypt's first national park were delayed. NPCA Trustee and noted underwater researcher Dr. Eugenie Clark and associate Mrs. Helen Vanderbilt had gained the Egyptian leader's support for protecting Ras Muhammad, a dramatic reef formation on the coast of the Red Sea. Sadat learned of the unique features of the area after his son, a scuba-diving enthusiast, called his attention to Clark's April 1977 cover story in *National Parks & Conservation Magazine*. After meeting with Clark, Madame Sadat gave her support to the project as well.

Dr. Clark commented, "We sincerely hope that the leadership this great man gave to protect one of Egypt's national treasures—Ras Mu-

hammad—will be carried on by President Hosni Mubarak."

On March 9, 1982, as part of the NPCA lecture series, Dr. Clark will present a film showing the remarkable variety of sea life on the narrow continental shelf at Ras Muhammad. Last November, Dr. Clark was awarded the David B. Stone Medal for Distinguished Service to Environment and Community.

Glen Canyon Dam Additions Halted

The proposal to add two generators to the Glen Canyon Dam has been abandoned, much to the relief of the NPCA and other conservation organizations. The additional generators would have boosted the peak power capacity of the dam for times when the demand for electricity is greatest. Conservationists, river runners, and hikers all saw the proposed higher

flow of the Colorado River through the Grand Canyon as a disaster for the delicate canyon beaches. The Bureau of Reclamation, which was planning the generating increase, said the plan was ended because of "lack of strong support" and because it would have been too costly a project for President Reagan's budget.

However, a report by NPCA's National Parks Action Project Grand Canyon representative, Robert Lippman, makes clear that the issue is only partially resolved. The report states that existing Glen Canyon Dam generators will be rewound and uprated to allow maximum peaking capacity. Present release fluctuations have caused erosion and biological damage and have been a problem for river runners. Increased release fluctuation will only exacerbate the problems.

In addition, the Bureau of Reclamation's current activities include a Colorado River Basin study to uprate and expand all existing, and some new, hydroelectric sites. Still being considered for dam sites are Glen Canyon, Flaming Gorge, and Dolores, with Desolation Canyon, Cataract Canyon, and the Yampa project anticipated.

To show your concern for Colorado River Basin projects, write to your elected representatives.

Administration Supports Protection of Undeveloped Barrier Islands

On October 21, 1981, a Senate hearing was held on the proposed Coastal Barrier Resource Act, S.1018. The proposed Act was introduced by Senator John Chafee (R.-R.I.) and identical legislation (H.R.3252) was introduced in the House by Representative Tom Evans (R.-Del.). Without formally endorsing the legislation, Interior Secretary James Watt indicated his support for protecting undeveloped barrier islands, testifying that "taxpayers should not shoulder the recurring costs and high risks of private development on coastal barriers."

The Budget Reconciliation Act of 1981, which the President signed last August, prohibits the sale of federal flood insurance for new construction on undeveloped coastal barrier islands as of October 1, 1983. In addition to cutting flood insurance on the day the law would be enacted, S.1018 would prohibit new federal expenditures and financial assistance, such as loans, grants, and subsidies for roads, airports, bridges, and beach stabilization projects.

If enacted, this proposed legisla-

tion will accomplish three important objectives. It will:

- reduce wasteful expenditure of federal funds for unwise development on coastal barriers;
- minimize the safety hazard associated with hurricanes and other storms;
- protect the barrier islands themselves by preserving their important natural and cultural resources.

In his testimony, Secretary Watt indicated a strong interest in coming up with a "workable definition of undeveloped coastal barriers." Inasmuch as this definition will determine which islands will be affected by the legislation, it is of critical importance that Congress should have the primary role in determining that definition.

It is expected that both the House and Senate will vote on this legislation this spring. You can help by writing your Senators and Representatives, urging them to support S.1018 and H.R.3252.

—Laura Smith, NPCA intern

Secretary Watt Backs ORV Use in NPS

The Department of Interior has proposed that President Reagan rescind an existing executive order concerning use of off-road vehicles (ORVs) on public lands. The existing order was issued in 1972 by former President Nixon and further amended in 1977 by former President Carter to restrict ORV use on federal lands.

If this order is rescinded, ORV use would threaten wildlife, the land itself, and enjoyment of that land by a large public sector. Any removal of restrictions also transfers the burden of proof from ORV users to their opponents. As it stands now, it is up to ORV users to demonstrate that they would not threaten public lands.

Interior Secretary James Watt argues that federal agencies, such as the Bureau of Land Management (BLM) and the National Park Service, have sufficient authority to protect public lands from ORVs without the order. But even now the restrictions often are hard to enforce because of the lack of an adequate support staff; and, for BLM and Forest Service lands, other existing legislation does not have the strength of the executive order. In effect, the revocation—if it happens—will give the go-ahead on unrestricted ORV access to most public lands other than parks.

NPCA believes if President Reagan rescinds the executive order, it will be a success for the Department of Interior's seeming design to relegate *conservation* of public lands to the back burner.

If ORV users get their way, it could have far-reaching consequences—affecting everything from deserts to beaches.

The California Desert Conservation Area, a portion of which NPCA helped secure as a National Scenic Area after four years of effort, would be open to even more ORV abuse. David Sheridan, writing for the Council on Environmental Quality, pointed out that one million

acres of California Desert have been scarred by ORVs. That figure is equivalent to half of all the acres stripped by mining in the entire United States.

The latest national seashore targeted by ORV users is Assateague Island. Like Cape Hatteras and Cape Lookout, which also are threatened by greater ORV use, Assateague is part of the chain of barrier islands—all environmentally fragile—that hug the east coast. ORV users already have access to 60 percent of this national seashore's beaches, yet the government's management plan recommends giving them more freedom.

ORV users also have petitioned for more access to Chincoteague Wildlife Refuge on the southern half of Assateague Island. Now thirteen miles of the refuge is relatively undisturbed by the roar of dune buggies and the like. Undoubtedly, this is why the refuge gets twice as many visitors as the rest of the island and has a far greater number of shorebirds.

In all these cases, ORV users have the implicit support of Interior Secretary Watt because he has repeatedly expressed his support for expanded ORV use on all public lands, including the National Park System.

Snowmobiles Slated for Spring Test

In a related issue, if the Interior Department's plan goes through, wildlife and cross-country skiers may see their last peaceful winter in certain national parks. One likely alternative calls for a one-week spring test of snowmobile use in Sequoia/Kings Canyon, Lassen Volcanic, and Yosemite national parks.

NPCA opposes this foot-in-the-door proposal, seeing it, in combination with the ORV controversy, as a double-edged threat to our public lands. Speaking in Jackson Hole, Wyoming, Interior Secretary James Watt noted that "we can manage to set aside room for cross-country skiers." He also said that snowmobiles should be allowed off roads in national parks "as long as there is no damage to the resource."

In NPCA's view, snowmobiles—and other ORVs—cannot help but damage resources, and certainly conflict with other park users and park wildlife. Russell Butcher, NPCA's southwestern representative, said at a public hearing regarding these proposed changes, "There is no justification for changing the Park Service's 1974 regulations banning snowmobiles from these parks. . . . Hundreds of thousands of acres of the national forests are open to them."

The presence of snowmobilers would also require the Park Service to spend money hiring more winter personnel for maintenance and emergency support. This is money that the Park Service can ill afford to spend. It is difficult enough to maintain the necessary staff for the peak season—summer. NPCA sees a simple solution to this problem: maintain the existing ban on snowmobile use in the parks.

Stripmining Considered Next to Bryce Canyon

Following a staff recommendation, Interior Secretary James G. Watt has asked a U.S. District Court in Utah to let him review a stripmining ban on lands adjoining Bryce Canyon National Park. A mining and utility

ORVs on Assateague Island, by Michael Ventura



company brought suit after the ban was imposed, maintaining that a massive plan to supply western states with energy from the proposed Allen-Warner Valley power plants depended on the convenient, ample coal supply to be found in lands next to the park. Environmentalists contend that stripmining the lands next to Bryce would destroy scenic views from the park and would create noise and air pollution incompatible with visitor enjoyment.

Former Interior Secretary Cecil D. Andrus had imposed the ban last year, in the first use of the provision of the Surface Mining Act of 1977 to protect environmentally sensitive lands. Rep. Toby Moffett (D-Conn.) of the House Government Operations Subcommittee on Environment and Energy has begun investigation into this apparent sudden change in Interior Department stripmining policy for these lands.

NPCA Proposes Geothermal Safeguards

The Senate Subcommittee on Energy and Mineral Resources heard testimony October 27, 1981, on proposed amendments to the Geothermal Steam Act of 1970, which bans geothermal development from all units of the National Park System (NPS). T. Destry Jarvis, Director of Federal Activities, presented NPCA's recommendations regarding the amendments: "We believe that protection outside the boundaries must be extended to *all* units of the NPS."

One of the amendments would require that the Secretary of Interior develop a list of nationally significant thermal features located on park lands and describe geographic zones outside the boundaries of these parks where development of geothermal resources may affect a park's significant thermal features. NPCA sees the listing as time-consuming and expensive, especially because any area or feature under consideration is already within an NPS unit and is therefore protected.

NPCA also recommends an amendment to provide that leases for geothermal development will not

have *any* adverse effect on nationally significant geothermal park features. Qualifying terms such as "foreseeably significant" or merely "significant" adverse effect would only cloud the issue. NPCA further recommended a fifty-mile no-lease zone around Yellowstone and five miles around Mount Rainier.

Finally, the amendments should require that any company drilling around an NPS unit must reinject 100 percent of the spent fluids from geothermal wells to ensure maintenance of hydrostatic pressure.

NPCA believes these recommendations are necessary additions, especially because Interior Secretary Watt is pressing to expedite leasing for geothermal development.

No One Likes Dirty Air

The House and Senate continue to consider the reauthorization of the Clean Air Act. The Senate Environment and Public Works Committee



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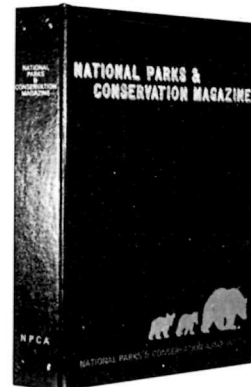
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Reader Interest Survey

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	<i>Very Interesting</i>	<i>Somewhat Interesting</i>	<i>Not Interesting</i>
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EDITOR'S NOTE <i>(inside front)</i>	1	2	3
SANTA MONICA NRA <i>(p. 4)</i>	1	2	3
LWCF BUDGET <i>(p. 10)</i>	1	2	3
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Excellent Good Fair Poor

How would you rate the cover? 1 2 3 4
Additional comments _____

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has scheduled mark-up sessions in an effort to present legislation to the full Senate this year. Congressman Henry Waxman (D.-Cal.), chairman of the House Health Subcommittee, held extensive public hearings throughout October and November on acid rain, prevention of significant deterioration, auto emission standards, and nonattainment. Action by the House of Representatives will probably continue through this year.

Congressmen Bruce Vento (D.-Minn.) and Jerry Lewis (R.-Cal.) have introduced H.R. 252, "Commitment to the Clean Air Act Resolution of the 97th Congress," which provides members from both parties an opportunity to speak out now in favor of maintaining a strong Clean Air Act. Write to your congressman and urge cosponsorship of H.R.252.

Acid Rain

Companion bills, designed to control acid rain, have been introduced in both the House and the Senate. Congressmen A. Toby Moffett (D.-Conn.) and Judd Gregg (R.-N.H.) have introduced H.R. 4829, and Senator George Mitchell (D.-Maine) has presented S.1706. Both are supported by NPCA and the National Clean Air Coalition. These measures would put an immediate cap on emissions of sulfur dioxide and nitrogen oxides (the primary pollutants from coal-fired power plants) at January 1981 levels in a 31-state area east of the Mississippi River. In ten years these states would also be required to decrease sulfur dioxide emissions by ten million tons.

In testimony on behalf of his legislation, Congressman Gregg told the Committee that the rain falling on New Hampshire that very day was as acidic as orange juice. Granite lakes, found particularly in the northeast, are especially susceptible to acidic rain damage because they lack buffering capability. Acid rain not only is killing plant and animal life in our lakes, but has been linked to increasing toxicity in drinking water, to increasing bronchial disorders, and to deterioration of marble and limestone buildings such as the

Capitol in Washington, D.C., and the Taj Mahal in India.

The fine particles that are chemically modified in the atmosphere to cause acid rain are the same culprits robbing us of clear visibility in our nation's parks.

These particles, which spew from smokestacks and tailpipes, are capable of traveling long distances. In a pristine air column fine particles more easily diffuse light, causing haze and general reduction in visual range.

In testimony given to the House Subcommittee on Health and Environment, NPCA's Destry Jarvis told of an 1978 NPCA survey that highlighted air pollution as a serious threat to the National Park System. The 1980 Park Service "State of the Parks" report verified that air quality in almost half the System's 334 units is endangered. "The bottom line really is a question of the quality of life," Jarvis said. "Air, water, and land in the parks need to be preserved in as near as possible their natural state for the enjoyment of all Americans. Congress has wisely acted to protect the air quality and visibility within these same areas. . . . Let us not turn aside an appropriate federal activity that is clearly in the national interest."

General Grant's Cabin Returns Home

After 116 years, the cabin General Grant used during the final stage of the Civil War returns to its original location. In 1865, just after the war, the cabin was moved from City Point, Virginia, to Fairmount Park in Philadelphia. Park Service officials at the Mid-Atlantic Regional Office in Philadelphia are concerned about potential damage to the cabin by vandals. So the cabin returns to Virginia. The City Point site, just a few miles from where the siege of Petersburg took place, was authorized as an additional unit of the Petersburg National Battlefield as recently as 1979. "Ground penetrating radar," a remote sensing technique that eliminates the need for excessive digging, will locate exactly the cabin's original site.

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Traveling America is a banquet for the eye and the imagination. Photographs and commentary are by Richard Tourangeau, who has crisscrossed America camping at national parks from the Blue Ridge Mountains to Portage Glacier, Alaska. Tourangeau's photos for Traveling America come from around the country. Commenting on them, he recounts local fact and lore, offers camping suggestions and highlights things to see and do during your own visit. Traveling America is beautiful to see and fascinating to read.



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Interior Advisory Board Rejects Proposed Park Cuts

After James Watt became Secretary of the Department of the Interior, he appointed six new members to the twelve-person National Parks Advisory Board.

At the first Board meeting since the new appointments, a number of critical issues were decided by close votes. The splits occurred between older members of the Board and Watt's appointees. Some of their recommendations jibed with Watt's point of view and others did not:

—The Advisory Board recommended that monies from the Land and Water Conservation Fund continue to be used for Park Service acquisitions, thereby rejecting the Interior Department's position that the fund by used only for improving and restoring existing units of the Park System.

—The Board also rejected, by a one-vote margin, a resolution considering deauthorization of certain Park System units. Specific units being considered for deauthorization by the Interior Department are the Santa Monica Mountains National Recreation Area and Jean Lafitte National Historical Park and Preserve.

Park Briefs

The National Park Service recently signed a contract with the American Association for State and Local History to develop a training program



Arsonists succeeded in totally destroying historic Marshall Hall, Maryland, last October 16. The Park Service-owned mansion was 256 years old—

believed to have been built several years before George Washington was born—and was listed on the National Register of Historic Places.

for Park Service interpreters. The program comprises studies in "Historic Research" and "Interpreting the Historic Scene." This significant action will enable park interpreters to expand their professional skills and provide better programs for park visitors.

On October 20, 1981, Mount St. Helens was designated as the na-

tion's first National Volcanic Area by the Department of Agriculture. The area, site of volcanic eruptions since March 1980, includes 84,710 acres. The Forest Service management plan for the area would allow salvage logging and preclude any wilderness designation.

Representative John Seiberling (D.-Ohio) introduced a bill on October 29, 1981, to better protect two of our most valuable resources: our land and our youth. The youth conservation work program, proposed in H.R.4861, would employ young men and women with special emphasis on hiring disadvantaged youth and youth living in high unemployment areas. Projects would involve conservation and rehabilitation of federal, state, local, and Indian lands, and would include urban as well as rural areas. This legislation would help further some of this Administration's stated goals: self-help, work ethics, and government efficiency. Write to ask your Representative to cosponsor H.R.4861.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION (Required by 39 U.S.C. 3685)

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A. Total no. copies printed (Net Press Run)	35,103	37,019
B. Paid circulation		
1. Sales through dealers and carriers, street vendors, and counter sales	<i>None</i>	<i>None</i>
2. Mail subscriptions	31,720	33,460
C. Total paid circulation	31,720	33,460
D. Free distribution by mail, carrier, or other means		
Samples, complimentary, and other free copies	295	301
E. Total distribution (sum of C and D)	32,015	33,761
F. Copies not distributed		
1. Office use, left-over, unaccounted, spoiled after printing	3,088	3,258
2. Returns from news agents	<i>None</i>	<i>None</i>
G. Total (Sum of E & F—equals net press run shown in A)	35,103	37,019

I certify that the statements made by me above are correct and complete: *M.S. Kell, Director of Operations*

Feedback

Motors, Parks Don't Mix

As if tearing up America to exhaust the remaining oil weren't enough, Watt wants to encourage further destruction to the environment by allowing off-road vehicles in our national parks.

Motorized recreation is a fuel-wasting, destructive use by a minority of people; but it completely dominates more passive uses such as cross-country skiing and makes them meaningless and unsafe. Once snowmobiles are in, the dirt bike and four-wheel-drive lobbies will demand their equal "rights" to abuse our national parks.

I had always rested assured that our national parks were fully protected by law against destructive uses. They are too vulnerable if one individual like Secretary Watt can make decisions which can damage the parks for decades or generations.

*Bruce Cowan
Pacific Grove, California*

Mule Mess

My wife and I recently returned from backpacking Grand Canyon. It was an exciting experience for both of us, since I am no longer a youngster. The burro was recently eliminated from the Canyon and it was not missed at all. What the hikers would enjoy is elimination of the mules and mule urine currently found on the Bright Angel Trail. The South Kaibab Trail is much less popular with the hikers and can more than adequately accommodate the mule trains.

*Norman Roland
Great Neck, New York*

Anasazi Legacy

I enjoyed your special section featuring the Anasazi and their historical and cultural legacy in the Southwest. Very often we forget that there were people in this country before we "discovered" it, and that our national parks preserve not only land and wildlife, but our history as well. Having lived in the Southwest and seen many of these Anasazi ruins, I

can say that we would do well to follow a few of their building techniques. I hope you will continue to do special, in-depth sections like this one.

*Anne Taggart
Evanston, Illinois*

Voice of Concern

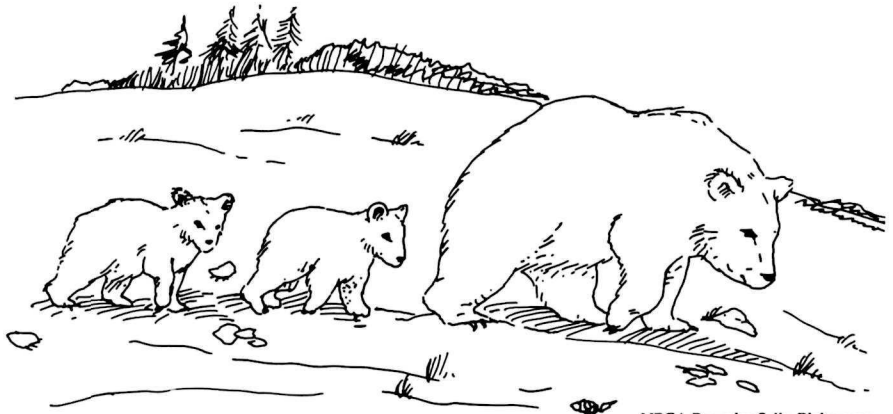
Keep up the good work. I agreed whole-heartedly with one reader who wrote to say she reads from back to front. I now look to the back for current issues and appreciate "The Latest Word" and "NPCA Report," especially when they capsule the issues, tell me what I can do to help. I hope this letter helps get others into the same spirit and encourages them to speak out and make our individual voices heard collectively.

*Dolly Garlo
Salt Lake City, Utah*

Bookshelf

**The Moore House: The Site of the Surrender*, by Charles E. Peterson. (Washington, D.C.: National Parks & Conservation Association, 1981. 116 pages, \$4.95 paperback, \$9.95 hardback.) *The Moore House* is a 1935 National Park Service Historic Structures Report written by noted architectural historian Charles E. Peterson. The house, a simple frame farmhouse made famous by the 1781 surrender of Lord Cornwallis to General Washington and the Allied French Forces, was acquired in 1931 for Yorktown's sesquicentennial celebration, and was the first historic building restored by the National Park Service. The report, the first ever done by the National Park Service, and finally available to the

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NPCA Bears by Sally Blakemore

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public in book form, has served as a high standard for the hundreds of historic reports prepared since then. The book is a compendium of letters, photographs, drawings, archeological, architectural data—all known information—relating to the house. Author Charles Peterson's goal was to present a detailed account of his findings and to promote a better understanding of the building and its surroundings. *The Moore House* offers the reader a unique look at the extensive pre-restoration research that needs to be done before a historic building is renovated.

Day Walks in the Santa Monica Mountains, edited by Lou Levy. (San Francisco: Sierra Club Books, 1980. 90 pages, \$3.95 paperback.)

Lou Levy describes forty-seven hikes in the Santa Monica Mountains with the help of maps and sketches.

***Hiking Trails of the Santa Monica Mountains**, by Milt McAuley. (Canoga Park, California: Canyon Publishing Company, 1980. 296 pages, \$8.95 paperback.) Sixty hikes in the Santa Monica National Re-

creation Area are described. Artwork illustrates the more interesting features of the area.

Thirty-five Hiking Trails—Columbia River Gorge, by Don and Roberta Lowe. (Beaverton: Touchstone Press, 1980. 80 pages, \$5.95 soft-cover.) Experienced hikers Don and Roberta Lowe give the reader much vital information on hiking the Gorge, such as the average hiking time, distance, and elevation of each trail, and advise the hiker which trails to take for waterfall viewing or wildflower spotting. This book is available through the Oregon Historical Society Bookstore, 1230 S.W. Park Avenue, Portland, Oregon 97201.

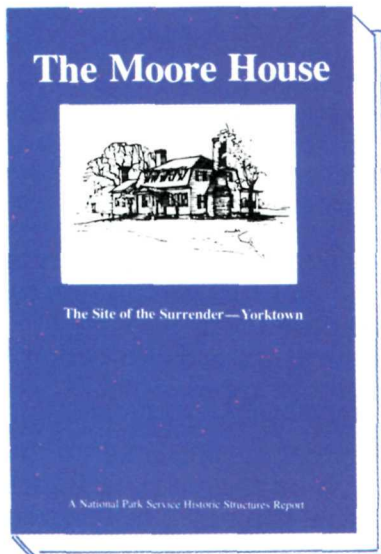
***Bridge of the Gods, Mountains of Fire**, by Chuck Williams. (San Francisco: Friends of the Earth Books; and White Salmon, Washington: Elephant Mountain Arts, 1980. 192 pages, \$29.50 softbound.) A history and present-day controversies in the Columbia Gorge. The author of this visual masterpiece recently returned to live in the area and fight for the Gorge, where his grandmother—one

of the last full-blooded Cascade Indians—was born.

Yellowstone National Park: Guide and Reference Book, by Cliff Adams. (Boulder: Pruett Publishing Company, 1981. 86 pages, \$5.95 paperback.) Cliff Adams, a seasoned traveler, has assembled an information-packed guide to Yellowstone National Park's many attractions. He takes a look at all aspects of the park and offers the reader a broad view of Yellowstone wonders, from its wildlife and vegetation to its world-renowned geysers. Adams also includes information on Yellowstone's geologic and human history and on specific areas of interest, such as the locations and seasons for sighting mammals and the time-table of geyser activity.

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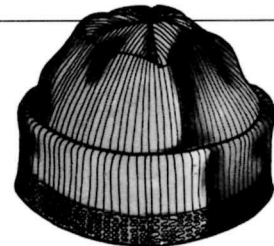
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The Latest Word

CANYONLANDS HEADS LIST A list of likely
FOR NUCLEAR DUMP SITE nuclear waste
dump sites has

been drawn up, and Gibson Salt Dome, which borders Canyonlands National Park in southwestern Utah, heads the list. The three states that now operate nuclear waste dumps (South Carolina, Washington, and Nevada) are trying to close down or phase out their dump sites. Among the reasons offered are the increasing number of shipping violations and improper packaging of nuclear waste material.

The Department of Energy and the Nuclear Regulatory Commission are looking for another place to dump these problems; and the Gibson Dome site, which lies in view of the spectacular eastern entrance to Canyonlands National Park, looks more likely than alternative sites in Utah and Texas.

Besides being a potential hazard and an eyesore, there are a number of other extremely good reasons for not locating the dump on the boundary of Canyonlands. NPCA noted these reasons at the hearing of the Nuclear Waste Repository Task Force in Moab, Utah, on November 12, 1981:

- The forty billion tons of salt mined from Gibson Dome to provide space for the nuclear waste would be piled elsewhere near the park--another eyesore. This salt would erode into park drainages and from there would pollute the Colorado River.
- Associated with the dump site is a proposed coal-fired power plant, which is a potential source of air pollution.
- To support the nuclear waste facility, transportation is necessary, and the idea is to run a railroad along the benchlands fronting the Colorado River. With the possibility of as many as twenty-four trains running per week, the panorama from places like Dead Horse Point and Island-in-the-Sky would be ruined. And what kind of impact would the necessary number of support people and machinery have on the park's environment?

The combination of these related problems would tax any area, but locating a nuclear dump next door to an awesome and

much-visited national park such as Canyonlands is an insupportable idea.

...AND A GOOD TIME NPCA's Executive Di-
WAS HAD BY ALL rector Paul Pritchard,
master of ceremonies

at the second annual members' reception and dinner, talked about the importance of grassroots involvement in the environmental movement. If the turnout of approximately two hundred people was any indication, grassroots involvement is healthy and active.

The reception--held November 19, 1981--was a time for seeing old friends and making new ones. It was also a time for rededication. In that spirit, National Park Service Director Russell Dickenson announced the establishment of NPCA's Freeman Tilden Award for Outstanding Park Interpreter. Funded by K.C. and Gwen Den-Dooven, publishers of "The Story Behind the Scenery" series, the first annual award will be presented this spring.

Executive Board member Eugenie Clark presented a dual Conservationist of the Year Award to Dama Rice and Judy Johnson for their efforts to protect Petersburg National Battlefield and Assateague Island, respectively.

The keynote speaker this year was Dr. Noel Brown, director of the U.N. Environment Programme's North American liaison office. In an eloquent and impassioned address, Dr. Brown outlined the threats to the Earth's environment, noting that "we may be the only species gifted enough to contemplate its own extinction." On an upbeat note, Brown said he hoped to see the Nobel Committee award an Environment Prize in the near future.

At their meeting the day after the reception, NPCA's Board of Trustees welcomed six new members to their midst: James Biddle (Pa.), Reginald Griffith (D.C.), Susan Hanson (Conn.), Samuel P. Hays (Pa.), Clarence E. Martin III (W.Va.), and W Mitchell (Colo.).

The members who are leaving the Board of Trustees have won our profound admiration and gratitude; their dedication to NPCA and their activities on behalf of protecting the national parks are greatly appreciated: Robert Cook, Patrick D. Goldsworthy, Darwin Lambert, John R.

ings is needed now to solve the problem because appropriations will undoubtedly lag for several years.

As a relatively new park, Voyageurs deserves the chance to become a vital, well-used part of the Park System. The park provides the visitor the opportunity to experience the waterways of the voyageurs much as they were during the heyday of the fur trade in the late eighteenth century. Chipping away at its borders is not in the best interests of the visiting public and is an inappropriate solution to local controversies.

<u>PADRE ISLAND FACES</u>	Established in
<u>SEISMIC SURVEY BLASTING</u>	1969, Padre Is-
	land National

Seashore is the longest undeveloped stretch of ocean beach in the United States. The island, which lies off the coast of Texas, serves as a classic example of an unspoiled barrier island. Today, the integrity of this fragile seashore is in danger because of a proposed seismic survey.

Cities Services Company, which has proposed the survey, plans to drill on a fourteen-mile section of the sixty-five-mile national seashore. The company will drill 352 separate holes to a depth of eighty feet each. Twenty pounds of dynamite will be plowed into each hole and forty-four miles of survey line will connect the holes to record the explosion and the resulting seismic vibrations. All this on a stretch of barrier island that, at its widest point, measures only two miles.

At present, off-road vehicles are restricted to the beach. However, ORVs will have complete access to survey the entire test area, which will result in damage both to the delicate dune vegetation and to the surrounding mud flats.

After reviewing the proposal, Padre Island's superintendent determined that the environmental quality would not be significantly altered and that "an environmental impact statement will not be required." The National Park Service has yet to make a determination. NPCA contends that you cannot drill 352 80-foot holes, spread 44 miles of survey cables over a 14-mile area using 20 men with 8 ORVs and not significantly alter the environment.

Also, Cities Services is not the only company interested in exploration on Padre Island.

The enabling legislation that created this national seashore provides for mineral inventories and extraction. However, the adverse impacts and scope of this proposal coupled with the likelihood of other such proposals compels NPCA to strongly oppose this measure.

To protest future seismic surveys, write to the Superintendent, Padre Island National Seashore, Corpus Christi, Texas 78418.

--Tom Stewart, NPCA intern

<u>600-FOOT RADIO TOWER</u>	A local
<u>THREATENS HISTORIC BATTLEFIELD</u>	radio
	station

is requesting county approval to build a 600-foot radio tower next to Wilson's Creek National Battlefield in Republic, Missouri. Unless the request is denied or the proposed location changed, the historic panorama as seen from within the battlefield will be destroyed.

<u>MAMMOTH CAVE, OLYMPIC</u>	Mammoth Cave and
<u>HONORED BY U.N.</u>	Olympic national
	parcs are among

the twenty-four sites designated as World Heritage Sites on October 27, 1981. Operating under the aegis of UNESCO, the World Heritage Committee began its work in 1976 to designate cultural or natural world sites that have an "outstanding universal value to mankind."

Mammoth Cave's universal value is in its geologically important karst system. Also, Mammoth Cave is unquestionably the Earth's longest known cave system. Olympic National Park was chosen because it is the best remaining temperate coniferous rain forest in North America.

Although the World Heritage Committee chooses the sites for the list, each country must nominate its own sites and, if they are chosen, assume full responsibility for protecting those sites. Among the other sites just chosen for the World Heritage List are Australia's Great Barrier Reef and the Serengeti Plain in Tanzania.

