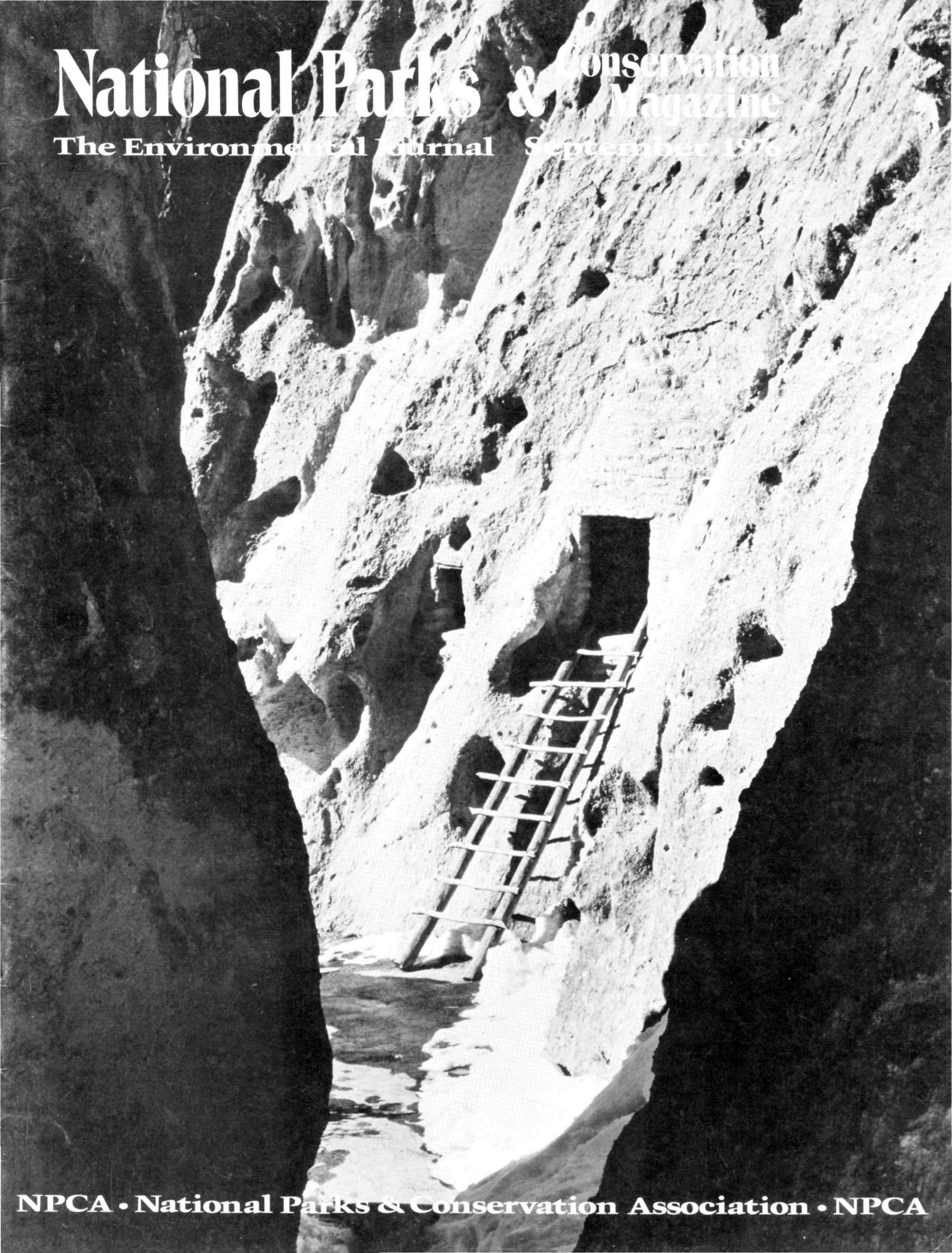


# National Parks & Conservation Magazine

The Environmental Journal September 1976



# THE USES OF THE LAND

**G**RANT FOR THE MOMENT that we are an urban society. What kind of cities do we desire? Would we like them to be quiet and spacious?

Would we seek in them the economic sufficiency and security and the cultural wealth which an industrial economy should be able to provide for all its citizens?

If so, first of all, there would be jobs in the central city for its people. There would be homes for all of the people of the city; we would have programs for the maintenance, rehabilitation, and protection of the existing houses in the city, not for tearing them down and building anew. There would be open space for all city dwellers, small neighborhood parks, large city parks.

There would be freedom in the city from the fumes and the traffic. We have learned much about parking in recent years; we cannot put it underground because the energy costs for lighting and ventilation are too high. And so it must go overhead, out in the open. We have to take it off the streets; two out of four lanes of the streets should not be devoted to free parking. And so the cost of driving from the suburbs escalates.

**P**UBLIC TRANSIT has always been the answer. Could we but take the suburban traffic and parking off the streets, there would be ample space for public transit on the surface. We would never go underground because of the cost. And so the suburban traffic could be halted at the city line, with ample overhead parking there, and good bus transportation to the central city could be substituted. This would mean comfortable, commodious vehicles—not cattle cars—running frequently, subsidized if need be. And then we could close off every other downtown and residential street, devoting the balance to neighborhood and urban traffic; and the closed-off streets could be turned into walkways, driveways, and neighborhood parks.

At that point the flight to the suburbs and the countryside ceases. The beauties of nature return to the city. The robins will be back, the meadowlarks as well; and (despite the detergents) even the redwing blackbirds. The possum, raccoon, and perhaps her majesty, the skunk, offering friendship, may return to your kitchen door.

**I**F THE URBAN EXPLOSION can be halted, the countryside may yet be saved. Looking outward from the cities to the farms and forests, what should be the objectives of rational land-use planning? Day after tomorrow we shall be faced with hard choices again, and Congress and the state legislatures will be making decisions, unless we halt them, based on the premises of opportunistic politics.

Vital, as we move outward from the revitalized cities toward wilderness, and present already in the practical thinking of the last decade, would be the protection of wetlands and estuaries, woodlands and forests, wildlife and critical habitats, roadless areas, historic sites and landscapes, and farmland and farming communities. We would seek the preservation and restoration of the natural setting for human life, within the perspective of ruralization, not urbanization.

Such planning will serve as protection against speculative subdivision and development, not their facilitation. The property rights to be protected will be those of the existing agricultural, recreational, and educational institutions in the rural environment, not those of the speculators. As the world confronts famine, the agricultural economic values will be seen as more important than checkerboard second-home promotion. A revolution in our jurisprudence will ensue.

**I**N THIS LIGHT the small town becomes the economic and cultural focus and center. Within it, person-to-person relationships become fruitful in greater measure. In an economy of relative affluence, money and leisure become available within the locality for the arts, theatre, concerts, education, adjusted to the human scale. The genuine human community does not necessarily reappear, of course, in the town or the village. But modern telecommunications have ended isolation, and the countryside now falls heir to the information and discourse of the metropolis. Yet it can retain its contact with the natural environment, the universe of grass, trees, animals, waters, and storms.

If the normal forms of state and federal cooperation are used in the new land-use planning efforts, as seems likely, we shall have federal aid on a matching basis to states and municipalities,

*Continued on page 31*

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FRONT COVER Cave Kiva at Bandelier, by Ed Cooper  
BACK COVER Frijoles Canyon, by National Park Service  
*One of the lesser known units of the National Park System, Bandelier National Monument in New Mexico consists of a vast wilderness highland slashed by many canyons running to the Rio Grande and laced by some sixty-five miles of trails inviting exploration. Precolumbian Indians dug the unusual cave kiva (front cover) out of the soft tuff of the northern wall of Frijoles Canyon (back cover), which is a veritable oasis in the midst of the arid and forbidding Pajarito Plateau and contains a multitude of Indian ruins. (See page 4.) However, an Army Corps of Engineers dam is already inundating some ruins and trails within the national monument, and easy access via boat on Cochiti Reservoir threatens additional backcountry archeological treasures with vandalism. (See page 9).*

Eugenia Horstman Connally, *Editor*  
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weathered american chestnut trunk  
jack jeffers photograph

# The Canyon Dwellers of Bandelier

Spirits of Precolumbian Indians seem to haunt the ghost towns of Bandelier National Monument

by RUSSELL D. BUTCHER

A MILLION YEARS AGO in northern New Mexico, a giant volcanic mountain erupted, sending huge quantities of ash high into the air, obscuring the sun around the world, and falling to earth to form thick layers on the surrounding lands. Next, fiery flows of molten lava spread downward from the mountain, hardening into resistant layers of dark basalt. More ash, more lava flows, and more ash followed, until finally the violence within the earth subsided and the volcano collapsed, creating one of the world's largest calderas, el Valle Grande, roughly fifteen miles in diameter. Its rim formed the Jemez Mountains; the highest peaks reach more than 11,000 feet above sea level.

During the hundreds of thousands of years since the period of eruptions streams have cut into layers of volcanic ash and lava, gradually carving sheer-walled canyons into the plateau surrounding the mountains. Primitive plant life took hold, forests eventually reclaimed the land, and wildlife found suitable habitat.

Man then arrived. At first nomadic tribes roamed about gathering nuts and berries and hunting animals with spears and arrows. These early people were followed in time by a communal society. Beginning in the 1200s, the newcomers migrated into the Rio Grande Valley from many miles to the northwest where they had built great stone pueblos in Chaco Canyon, the San Juan River valley, and the canyons of Mesa Verde. Some of these people settled on the canyon-gashed Pajarito Plateau below the

Jemez. One such settlement was in Frijoles Canyon, now protected within Bandelier National Monument.

MY WIFE AND I have explored many parts of this 29,660-acre reserve. In summer we have seen great afternoon thunderclouds form over the mountains, unleashing bolts that shook the earth and resounded in the canyon. In winter we have seen a snowfall quickly melt in the warm sunshine. We have followed trails down Frijoles to its junction with the Rio Grande; upcanyon to the shaded narrows where bigtooth maples, boxelders, and cottonwoods grow; and across the pine- and juniper-dotted plateau to other deep gorges.

On one typically bright, cloudless autumn day we took a closer look at some of the ruins of ancient Indian dwellings. At first, we ambled along el Rito de los Frijoles—the Creek of the Beans. This clear, narrow brook meandered beneath groves of fragrant narrowleaf cottonwoods and boxelders, the foliage a vibrant gold against the incredible blue of the sky. Big tassel-eared squirrels scurried among stately ponderosa pines and clumps of Gambel oaks, searching for their winter supply of cones and acorns. Steller's jays and Townsend's solitaires called nearby, and a canyon wren's descending trill echoed from a distant cliff.

Emerging from the cool woods, we came to a meadow, in the center of which sprawled the ruins of a nearly circular Indian pueblo, Tyuonyi. Only low rock walls re-

main to show the size and arrangement of the many small rooms and three round subterranean ceremonial chambers, called kivas. We tried to imagine what this community must have been like, five hundred to six hundred years ago, as it bustled with life.

It is believed that Tyuonyi contained about four hundred rooms and rose to three stories around the outer circle of rooms. The pueblo stairstepped downward toward the central plaza where sacred ceremonial dances and other community events were held, much as they are today at the modern Indian pueblos of New Mexico and Arizona. These earlier people lived close to the land and considered themselves an integral part of nature. As such, they had to strictly obey the laws of nature. They performed elaborate religious ceremonies, including compellingly rhythmic dances, to help bring themselves into harmony with the forces of the universe. They pleaded with the gods for rain and fertility for their crops

*Tyuonyi, in Frijoles Canyon, was probably occupied for four hundred years until about 1550. Believed to*

of maize, beans, and squash and asked for success in their hunting expeditions.

Other activities of the pueblo included such women's chores as making pottery, cooking, weaving baskets and sandals from yucca leaves, making coarsely woven cotton cloth, preparing furs of wild animals for winter clothing, and grinding maize in stone *metates*. Many of the lower rooms of Tyuonyi are believed to have been used for storing precious supplies of grain and other food. Fires for cooking and for firing pottery sent a haze of sweet-smelling wood smoke up the canyon. Children played in the warm sun while men and boys went off to hunt, tend crops, or gather firewood, nuts, berries, seeds, and the fruits of cactus and yucca. On our peaceful morning in Frijoles, that busy scene seemed remote from the rubble of the silent ruin before us.

Near the pueblo is the largest known kiva in the Pajarito area, believed to have served the main

religious functions of the entire canyon community.

From Tyuonyi, we followed the trail up the steep talus slope to the base of the 150-foot-high whitish-yellow cliffs that form the bold north wall of the canyon. The slanting sunlight cast dark shadows across alcoves, crevices, and jagged pinnacles. At the base of the rock wall are more ruins of dwellings. Here the Indians discovered they could scrape out rooms from the soft, compacted volcanic ash called tuff. In front of many of these hollows, they built stone and timber houses, flat-roofed like the big pueblo. Some were two or three stories high, built up against the cliff, where the holes of roof timbers, called *vigas*, are still visible. Groups of these cliff houses extended for nearly two miles along the canyon's north wall, and similar ruins have been found in other parts of the Pajarito Plateau. Typically, the rooms measured about six by nine feet and were five- to six-feet high, with doorways measuring three feet high by half as wide. As at Tyuonyi, only low remnants of stone walls remain, except for one house that was authentically reconstructed by

archeologists of the Museum of New Mexico in Santa Fe in 1920.

Farther along, we came to a series of rooms more like caves entirely carved into the rock. The ceiling of a cave kiva nearby was black with the soot of the many prayer and council meeting fires that a tribal clan had held there. At a few places along the cliff we spotted traces of petroglyphs depicting human figures and geometric designs. Here and there were the hand and toe holes of an Indian path to the top of the plateau.

We followed the trail up the canyon a short distance to Ceremonial Cave. The National Park Service has placed a series of sturdy wooden ladders from ledge to ledge, enabling visitors to climb 150 feet to this retreat. From the arched opening of the natural cave, one looks across the tops of pines and up the canyon toward the Jemez Mountains. A small kiva toward one side of the cave has been carefully restored. What a spot this must have been for the men of one of the clans to meditate and prepare for ceremonial duties!

The Indian farmers of the Frijoles, and of the vast Pajarito beyond, thrived there for about

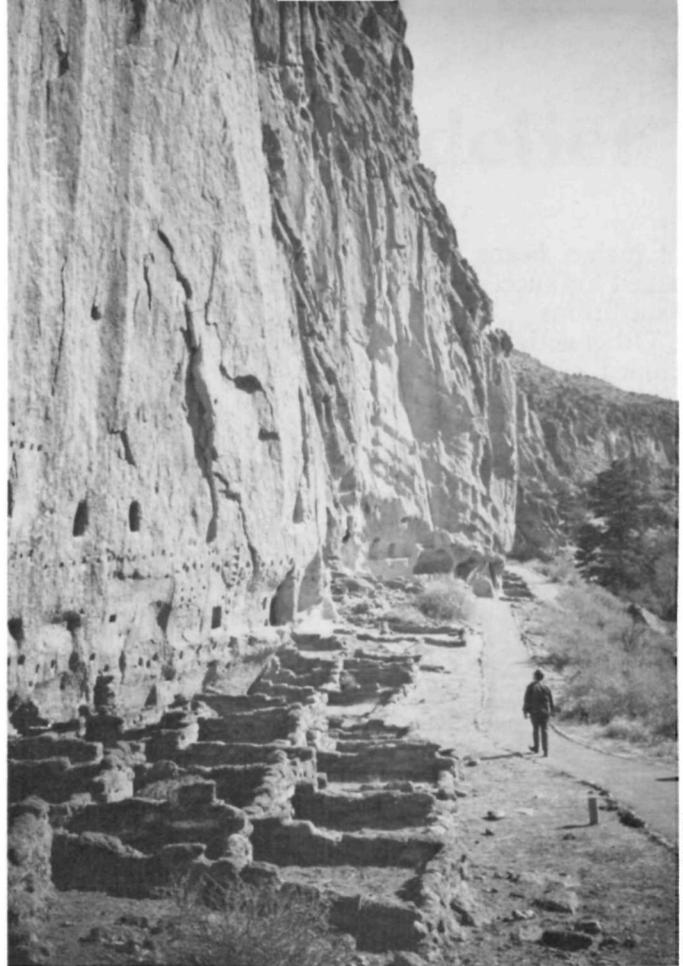
*have housed about a hundred people in approximately four hundred rooms, the village was three stories high around the outer perimeter and stairstepped down to one story around the inner circle. The central plaza where ceremonial and community events took place contains three kivas, and the single entrance suggests a concern for defense.*



ROBERT F. CAMPBELL



NATIONAL PARK SERVICE



ROBERT F. CAMPBELL

For nearly two miles along the tuff cliff that forms the northern wall of Frijoles Canyon the Indians built homes that used the cliff as the back wall, in which they gouged out extra rooms. The many small holes for roof timbers indicate structures two or three stories high. Although only stone foundations

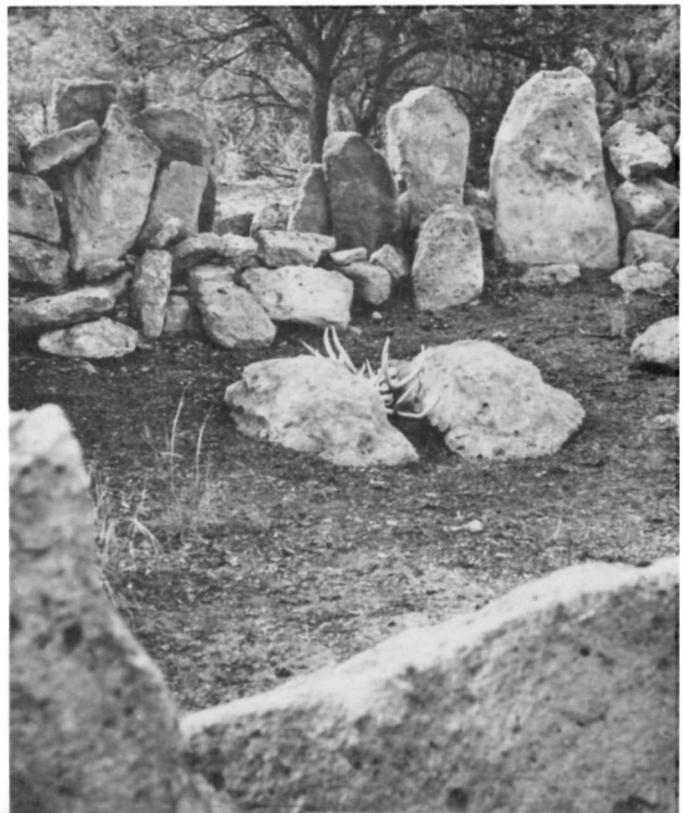
and holes in the cliff remain, one house was reconstructed by the Museum of New Mexico.

One hundred and fifty feet above the floor of Frijoles Canyon, Ceremonial Cave shelters several masonry dwellings and a small restored kiva (below left.) Kivas are sacred underground

chambers where men and boys met for religious purposes. Cochiti Indians still pilgrimage to the sacred Shrine of the Stone Lions (below right) in Bandelier's rugged backcountry. Painted Cave (right) contains some of the best preserved pictographs in the entire American Southwest.



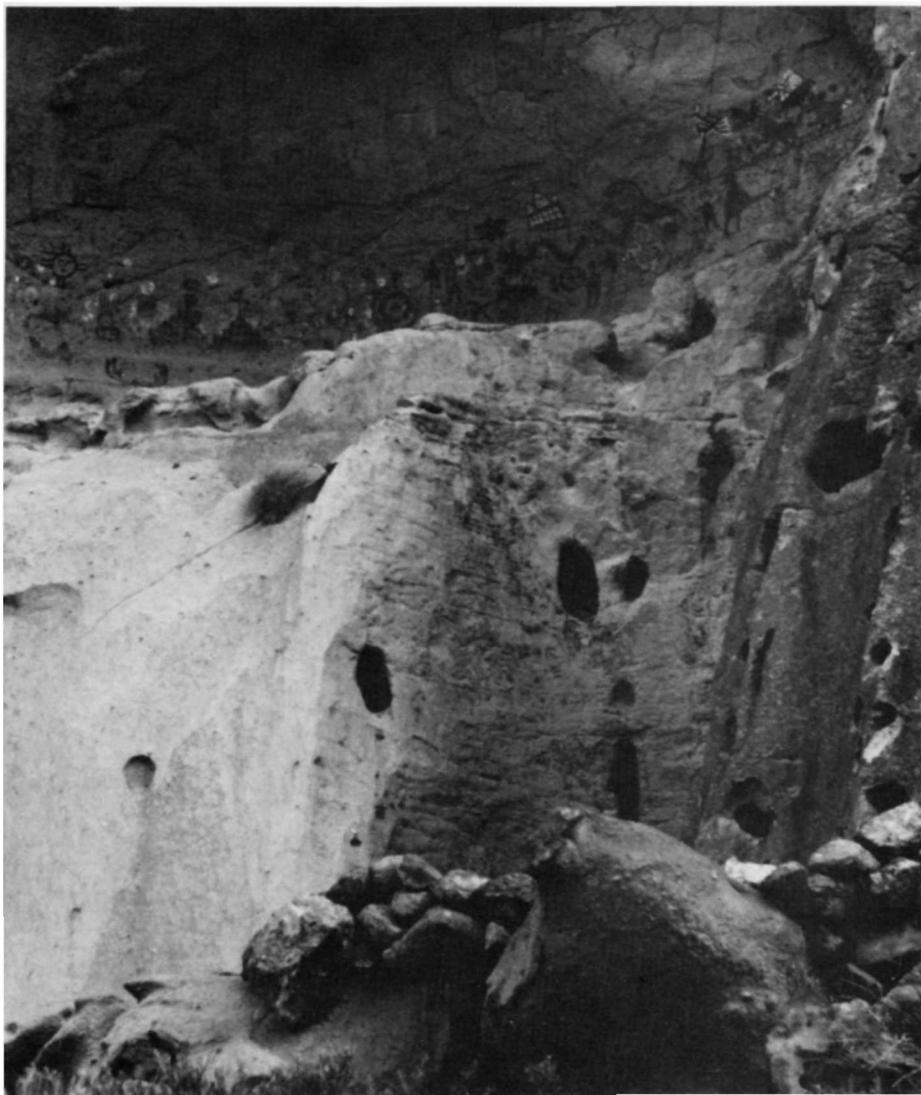
DAVID MUENCH



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three centuries. But by 1540, when Coronado was leading the first Spanish explorers into the Southwest in search of the fabled cities of gold, these people had already begun moving to locations closer to the Rio Grande. Their descendants today live in such riverside pueblos as San Ildefonso, Santa Clara, and Cochiti. The Cochiti Pueblo Indians trace their ancestry back to the people of the Frijoles.

**N**INETY PERCENT of Bandelier National Monument is a vast roadless wilderness, with some sixty-five miles of trails inviting exploration. One of the most popular routes provides a two-mile hike down Frijoles Canyon from monument headquarters. It winds among grassy meadows and groves of pines, boxelders, oaks, and cottonwoods. Now and then the trail crosses the brook.

Suddenly around a bend, the canyon narrows abruptly, and a waterfall plunges from a narrow slot in the lava rock to a clear pool eighty feet below. Four hundred yards on, a second fall drops the stream into the widest, deepest, and most rugged part of the canyon, which soon broadens to meet the Rio Grande's White Rock Canyon. The trail ends here. The mighty river foams through rapids where the Frijoles in past floods has deposited great basaltic boulders in the main channel. (Beware on the hike back to headquarters; the altitude is about 6,000 feet, and it's all uphill, when you are the most tired.)

Another trail in the monument climbs southward out of Frijoles Canyon, crossing the plateau through open stands of pine and juniper and into numerous small canyons, coming finally to the brink of Alamo Canyon. This gorge is deeper than Frijoles but lacks a year-round stream. The rugged trail switchbacks down and down into the silent depths, and from there you can continue on to even more remote places.

Other backcountry hikes, some requiring at least two days, include

trips to the sacred Shrine of the Stone Lions, two carved boulders that are still the objects of pilgrimage by Cochiti Indians; Painted Cave, one of the best preserved examples of Precolumbian pictographs in the Southwest; and the unexcavated ruins of San Miguel and Yapashi pueblos. (Visitors are urged to inquire about the backcountry and register with a park ranger before setting out.)

The monument spans several life zones, ranging from about 5,300 to more than 8,000 feet above sea level: from the Upper Sonoran life zone of piñon pine and juniper and the Transition zone of ponderosa pine, up to the Canadian forests of spruce, fir, and quaking aspen. Visitors often see mule deer, rabbits, chipmunks, and squirrels. Less common are coyotes, foxes, beavers, and bobcats; and occasionally a black bear or elk may wander down from the mountains. Among the birds are black-headed grosbeak, western tanager, and wild turkey. In autumn we have watched long lines of sandhill cranes high overhead migrating from Montana and Idaho breeding grounds to wintering areas farther south along the Rio Grande. From spring through fall wildflowers brighten the plateau and canyons—prickly pear and lupine in early summer, and red gilia and paintbrush in autumn.

**A** SEPARATE UNIT of the monument, located eleven miles along the road to Santa Fe, protects the ruins of Tsankawi Pueblo perched high atop a long mesa. A trail climbs by way of an ancient Indian path worn deeply into the soft rock. The panorama affords views of the Jemez Mountains to the west, the great wall of the Sangre de Cristos beyond the Rio Grande to the east, and the fault-block range of Sandia Peak seventy miles to the south.

Toward the eastern end of the mesa, the trail winds through the jumble of unexcavated Tsankawi—a pueblo believed to have been built by the ancestors of modern San Ildefonso Pueblo. The

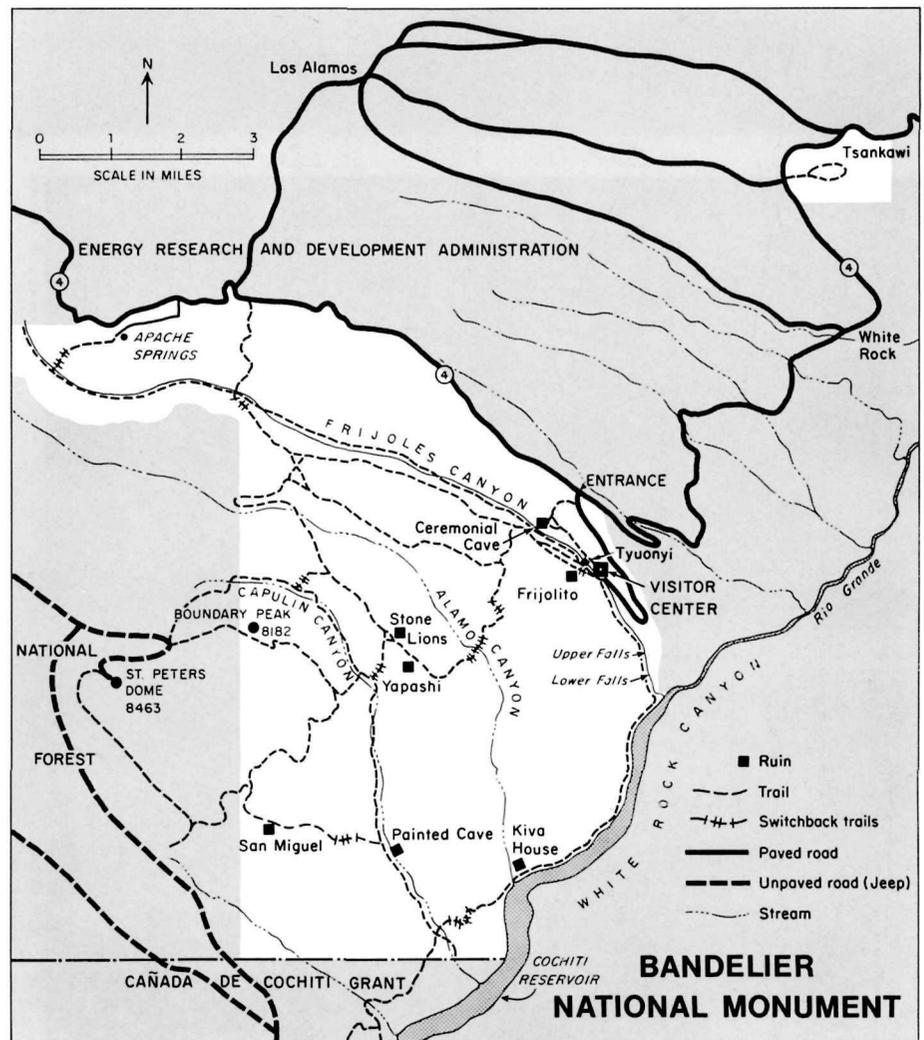
return trail follows ledges along the south-facing cliff of the mesa, where one may discover a series of deep cave-rooms, hand and toe trails, sharpening marks made by stone axes, and a fascinating array of petroglyphs portraying masked human figures, birds, concentric circles, crosses, and other geometric designs.

The monument is named in honor of Adolf F. Bandelier, a Swiss-American scholar who surveyed the prehistoric ruins of this area and studied the Pueblo Indians of the Rio Grande from 1880 to 1886. Frijoles Canyon is the setting for his famous novel, *The Delight Makers*. In it he describes the Frijoles as "a quiet, lovely, picturesque retreat, peaceful when basking in the sunlight, wonderfully quiet when the stars sparkled over

it, or the moon shed its floods of silver on the cliffs and on the murmuring brook below."

Bandelier National Monument, established by presidential proclamation in 1916, protects but a small part of the Indian cultural heritage of the Pajarito. But it is a very special place where the landscapes silently echo the mystery and wonder of the gentle people who once lived there. ■

Russ Butcher's latest book, *The Desert*, portraying the magnificent parks and other scenic reserves in the U.S. desert regions, was published in July 1976, and his *New Mexico: Gift of the Earth* appeared in 1975—both published by The Viking Press. Russ has long been a contributor to this Magazine and formerly worked for several conservation organizations.



FEDERAL GRAPHICS

# BOATING . . . in Bandelier?

Bandelier National Monument is threatened by rising water of Cochiti Reservoir and by vandalism

by GEORGE JOHNSON

**S**TRANDED high and dry from the river's shore, the half-tumbled walls of thirty-three late Precolumbian Indian ruins line the Rio Grande River at the eastern portion of New Mexico's Bandelier National Monument. A trail runs along the crumbling granite bank, connecting the ancient home sites and the jagged side canyons. But the water is rising as Cochiti Reservoir fills; in eight to ten years the ruins and the trail will all be under water. The ghosts of the ancient settlers will be drowned.

"We've really had to scramble to save some of those ruins," John Hunter, superintendent of the monument said when I met him at the rock-walled headquarters in Frijoles Canyon, the main entrance to the 21,000-acre canyonland. "Archeological crews have been excavating like mad, trying to collect what knowledge they can before it's too late. They're treating the walls with a new stabilizing compound. We hope it will preserve them—even when they're periodically under water."

"It's happening so fast," he told me. "I don't think most people realize that parts of the Rio Grande trail are already flooded."

The Rio Grande trail is just one sore spot in Bandelier's relationship with the U.S. Army Corps of Engineers, which erected a giant dam just five miles downstream from the monument.

"They originally agreed to build a new trail for us," Hunter said, "but lately they've withdrawn the offer. We figure it would run about

\$300,000—and at that price the Park Service just can't afford it."

The five-mile stretch Hunter is talking about is the connecting link in a two-day loop hike that winds from the bottoms of dry gulches to thirteenth-century Indian ghost towns perched atop volcanic tuff cliffs. (See map, page 8.) The journey begins in Frijoles Canyon, at the northeast corner of the monument; you climb up and down canyons for half a day, passing some of Bandelier's six hundred pueblo ruins. You visit the sacred Shrine of the Stone Lions, then you drop into Capulin Canyon with a six-foot-wide creek that seems to steam like a jungle river after the dry piñon and juniper mesas of the Pajarito Plateau.

As you follow Capulin Canyon down to the Rio Grande, the vegetation turns from green to brown as you approach the river. The water is unpotable, so unless you fill your canteen at Capulin Creek, you suck prickly pear fruits for the five miles it takes the Rio Grande trail to intersect Frijoles Canyon. Then you hike back up to the parking lot, along a trail air-conditioned by waterfalls.

Now the lions, the ruins, and falls are still there, but the journey has been disrupted, and the sites lie scattered like links in a broken chain.

**H**IKING TRAILS and Indian ruins were easy to overlook in 1965 when the Corps of Engineers unveiled plans for a \$70 million irrigation, flood control, and

silt control dam that would span the Rio Grande just east of the Jemez Mountains. In a state that averages less than ten inches of annual rainfall, people are water-hungry, and the vision of a 50,000-acre-foot "recreation pool" cooling the air just thirty-five miles north of Albuquerque seemed too good to resist. In 1970 the bulldozers broke the earth on what would turn out to be the largest construction project in New Mexico's history and the world's tenth largest earth-fill dam. It was christened Cochiti after the Indians whose land it would inundate.

Conservationists didn't start looking closely at what the effect of stopping up the shallow and intermittent Rio Grande would be until several years later. Cochiti's reservoir already has caused the river in White Rock Canyon by Bandelier National Monument to rise 10 feet—enough to cover a mile of the Rio Grande trail—and at maximum flood conditions it will rise 148 feet. As siltation occurs in the reservoir, the Corps will raise the level of the conservation pool, inundating ever more monument land.

At first the Park Service announced that six ruins were in jeopardy. Later, an archeological team determined that actually thirty-three would be affected. Some of the ruins would be flooded during the high-water cycles, which peak every eight to ten years; the others would be exposed to overuse and vandalism by hordes of visitors drawn to the area by the charms of Cochiti Reservoir.

In New Mexico where there's water, there's a land developer. In this case the developer was Great Western Cities, which made headlines in 1971 with a scheme to build a city of forty thousand residents in the desert adjoining the Corps of Engineers reservoir. The developer leased the land from the Cochiti tribal council for ninety-nine years and, despite protests from Indian youth groups, embarked on a massive publicity campaign to lure customers from fifty states to the new Cochiti City.

Today, Cochiti Dam snakes

across the Rio Grande flood plain at the point where the river leaves White Rock Canyon. The dam is only 251 feet high, but it is 5½ miles long, bending to form a lopsided "S." Viewed from above, it looks like the Great Wall of China.

Even after the damage estimates were released, it was hard to visualize the impact the dam would have on the geography of Bandelier. Only in the past year have the changes become severe enough to see. Hunter described a trip he took to the backcountry in the summer of 1974 to visit John Cole, the ranger who lives there.

"It was the strangest thing," Hunter said. "He had a sailboat docked in Alamo Canyon! I couldn't believe it."

Neither could anyone else who has hiked the arid mesas cut by that thousand-foot gorge. The trip down and across it is so rugged that warning signs are posted on the trail. This is the kind of land where you expect to see rattlesnakes and lizards. Alamo Canyon is seldom wet even where it joins the once unnavigable Rio Grande. But there, docked between its walls, was a forty-foot sailing rig.

"What has us worried is another kind of watercraft—the motorboat," Hunter said. "They come buzzing up here now from Cochiti City Reservoir, picnicking and strewing garbage on the shores.

The south side of the monument used to be almost completely untouched. Now we're going to have to deal with an increase in vandalism. It's becoming too easy to pilfer archeological sites."

One of the most vulnerable locations is Painted Cave, with some of the best preserved pictographs in the Southwest. Until Cochiti Reservoir plugged up the Rio Grande, it was accessible only by a rough ten-mile trail from Frijoles Canyon. Now it's an easy morning's stroll up Capulin Canyon, where boaters moor their crafts. This summer rangers patrolled the river with boats to try to prevent some of the damage that was expected to occur.

**O**BVIOUSLY, with the rising water and influx of people, something has to give. In Bandelier's case it might be the boundaries.

"We're planning to expand the south side of the monument and eventually shift the main entrance from here in Frijoles Canyon to somewhere by Cochiti Reservoir," Hunter said. To do this the Park Service would have to acquire the Cañada de Cochiti land grant, an area owned by the University of New Mexico and described in Bandelier's master plan as containing an inestimable amount of Indian ruins. Because the new area would

be closer to Albuquerque, Santa Fe, and the proposed Cochiti City development, the Park Service hopes it will act as a decoy to sop up some of the day-use crowd. The annexation would be a good move in archeological terms, too.

"It would expand the mission of the monument," Hunter explained. "We have plenty of examples of pre-Spanish pueblos, but the Cañada area is full of ruins from the later Pueblo Revolt days." The revolt was staged in 1680 when Indians from the Rio Grande pueblos rebelled against their Spanish conquerors, driving them as far south as present-day Mexico.

"If we can acquire the Cañada grant, we'll be able to display ruins that actually show evidence of fortifications."

To gauge interest in the new area, Bandelier rangers manned a houseboat on Cochiti Reservoir this past summer.

A bill to authorize the acquisition by donation, purchase with donated or appropriated funds, or exchange of approximately 4,234 acres of the Cañada de Cochiti Grant and about 3,076 acres containing the headwaters of the Rito de los Frijoles is being considered by Congress.

With the relief the Cañada grant is expected to provide to the Frijoles Canyon and backcountry areas, the monument would be better suited for protection under the 1964 Wilderness Act. The Department of the Interior has proposed establishment of a 21,000-acre Bandelier wilderness.

**B**IG CHANGES are coming to Bandelier. The dam builders talk about benefit-cost ratios, and the developers extoll great new cities, while conservationists and rangers mourn the loss of archeological treasures, the trail, and the solitude of the backcountry.

Bandelier National Monument is haunted by the future, as well as by the ancient Indian spirits of the past. ■

George Johnson, a young New Mexican journalist, specializes in environmental problems of the Southwest.



Cochiti Dam

FRED E. MANG, JR., NPS

# LEWIS AND CLARK

## a nation looks West

Superb leaders, expert planning, good fortune, and a favorable political situation joined to guarantee the success of the Lewis and Clark expedition

**T**HE FIRST U.S. citizens to cross the western half of the immense North American continent were members of the Lewis and Clark expedition, which, because of its achievements and discoveries, both scientific and political, is considered one of the major efforts of exploration in world history.

The success of the expedition can be directly traced to the genius and characters of the three men involved in its planning and execution—Thomas Jefferson, Meriwether Lewis, and William Clark.

President Jefferson, envisioning his new nation's eventual expansion to the Pacific Ocean, hoped that the expedition would find a transcontinental water route that would strengthen U.S. influence in the western lands. The purchase of the Louisiana Territory in 1803 while preparations for the expedition were already in progress intensified the importance of its mission; then it was especially necessary to obtain accurate knowledge of the new lands and to establish U.S. sovereignty there. Jefferson also showed his keen interest in scientific research by the detailed instructions he wrote to Lewis concerning the expedition. They were to make careful observations of topography, soil, flora, fauna, minerals, climate. He urged the men to deal with the natives

This series of Bicentennial articles will trace some of the events and diverse cultural influences that forged the distinctive character of our nation—and, as elements of our rich American historic heritage, are represented in the National Park System.

in a "most friendly & conciliatory manner" and to learn everything about the Indian tribes and their ways of life.

Jefferson had chosen well in selecting a leader for the expedition. Meriwether Lewis had served in the regular army before becoming Jefferson's personal secretary in 1801. While in the army he had served under Lieutenant William Clark, who joined him, at Lewis' request, in exploring the North American continent. Such was the bond of friendship between the two leaders and such was the respect and firmness that they used in dealing with their men that even under the most trying conditions they were able to maintain discipline and even a level of cheerfulness. Their intelligent decisions at crucial times and the tact and understanding with which they dealt with Indians contributed greatly to the welfare and safety of their party. Their skill and dedication in recording botanical, climatic, geographical, and ethnological observations opened up new worlds of knowledge.

**T**HE EXPEDITION got underway up the Missouri River on May 21, 1804, after camping along the Wood River near St. Louis during the winter of 1803–1804 while making final preparations. The initial complement of men numbered thirty-one: Lewis and Clark; York, Clark's black servant; Drouillard, master of sign language and expert hunter and interpreter; and twenty-seven enlisted men. They traveled in three boats—a keelboat and two pirogues—accompanied by

several horses on shore, which were needed for hunting and reconnaissance.

Once underway, Lewis and Clark set up a daily routine that they followed for the next three years. The party usually traveled fourteen to twenty miles a day depending on weather conditions, topographical limitations, and the need for rest and repairs. They lived off the land as much as possible in order to save their provisions for lean times. Drouillard, the main hunter, would leave the party in the morning with as many as four other men and rejoin the group in the evening. Clark, a riverman, usually remained on the keelboat while Lewis often walked along the shore studying the flora and fauna. Both leaders as well as several of the enlisted men kept detailed journals. They recorded temperature and weather conditions, described new animal and plant life, and determined longitude and latitude. Clark contributed greatly to the geographical knowledge of his time by his cartographic skills. His maps provided some of the best information on western geography for three decades.

Life on the Missouri was never easy. High turbulent waters and obstructions made passage difficult at times. When conditions were favorable, the boats' sails were hoisted. At other times the men had to use oars, tow ropes, or setting poles to get their crafts through tough spots. The expedition was plagued by unpredictable weather such as squalls or unbearable heat, by adverse river conditions, and by sore feet, colds, toothaches, headaches, and snakebites. Clark wrote:

The party is much afflicted with Boils, and Several have the Deassentary, which I contribute to the water [which is muddy]. . . The Ticks & Musquitters are verry troublesome.

In early August 1804 Lewis and Clark held their first council with Indians—members of the Otos and Missouri tribes. They smoked peace pipes, gave the Indians gifts, and conveyed the wish for peace and friendship from the Great White Father in Washington.

Among the gifts that Lewis and Clark distributed to natives along their route were needles, fish-hooks, pewter looking glasses, handkerchiefs, medals, and beads.

On August 20, Sergeant Charles Floyd died of what historians now believe was a ruptured appendix. He was the only member of the expedition to die during the three-year journey, and not even the most competent doctors of the day could have saved him.

By late August the terrain changed from woodland to the short-grass prairie of the high plains. Buffalo were abundant, and several new species of animals were sighted, including the prairie dog, pronghorn antelope, mule deer, and coyote.

In late September the group encountered hostile Teton Sioux, and the captains had to take a strong and potentially fatal stand against two hundred or so armed warriors. Clark wrote:

I felt My self Compeled to Draw my Sword (and Made a Signal to the boat to prepare for action) at this Motion Capt. Lewis ordered all under arms in the boat. . . . I felt My Self warm & Spoke in very positive terms.

Of the same incident, Whitehouse wrote:

Capt. Clark told them that he had men and medican on board that would kill 20 Such nations in one day. they then began to be Still. . . .

By outfacing these Indians, Lewis and Clark gained the party prestige and established U.S. authority over that segment of the Missouri.

The expedition arrived at the Mandan Indian villages on the bank of the Missouri in late October. The villages were occupied by 1,400 people belonging to three tribes—the Mandan, Minitaris, and Amahamis—all hunters and farmers and allies against their common enemy, the Sioux. The Lewis and Clark party set up winter camp on the opposite bank from the villages and immediately established peaceful relations with the Indians—a relationship that proved invaluable to the expedition. The Indians told them of the country to the west, of the Yellowstone and

the Great Falls of the Missouri. Here Lewis and Clark learned of the Shoshoni tribe, who were said to own many horses. The Indians also told them of two ways to cross the Rocky Mountains—one difficult, one easier. Unfortunately, Lewis and Clark misunderstood and took the more difficult route. They were particularly interested in learning of a navigable northern tributary of the Missouri, which Jefferson felt would provide access to and control of the fur trade in present-day Canada.

**D**URING THE WINTER at Fort Mandan, Lewis and Clark hired Charbonneau, a French-Canadian, as interpreter. One of Charbonneau's wives, a sixteen-year-old Shoshoni girl who had been captured by the Minitaris five years earlier and subsequently won by Charbonneau in a gambling game, was named Sacajawea. In February 1805 she gave birth to a son. Lewis and Clark consented to have Sacajawea join them so she could serve as interpreter among

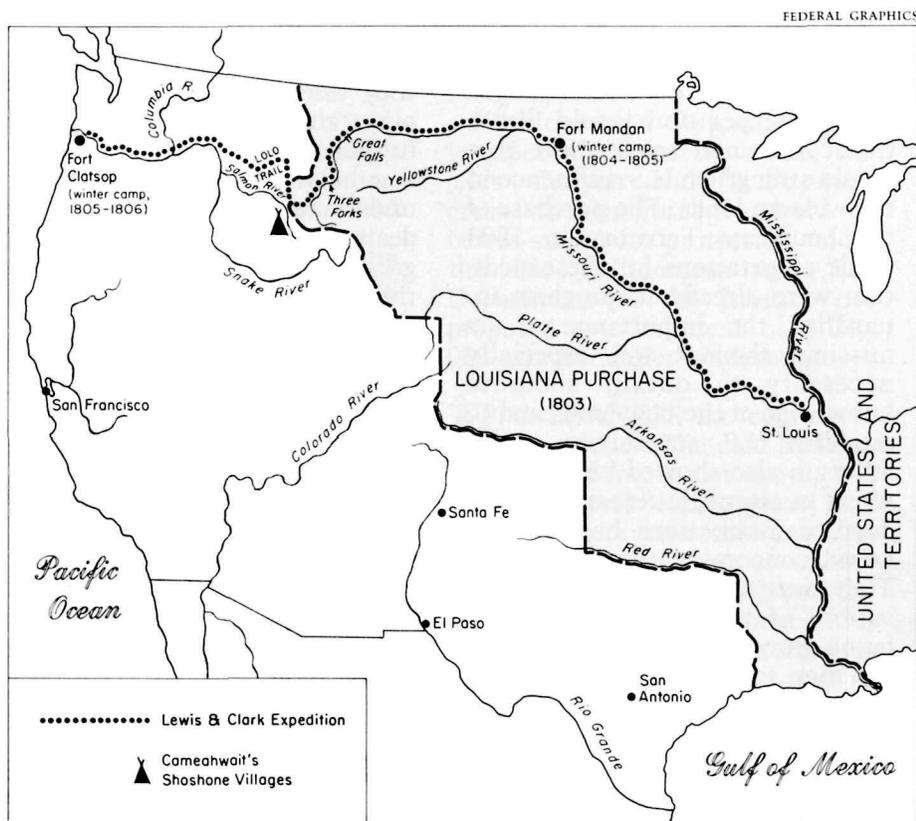
the Shoshonis. Also, her presence might ease anxiety among other Indians, because a party of men traveling with a woman, particularly one with a papoose, signified peace.

The party departed Fort Mandan in April 1805. During May they entered the Breaks of the Missouri, a desertlike rocky badland that Sergeant Gass described as "the most dismal country I ever beheld," and navigation became difficult.

By mid-June the group reached the Great Falls of the Missouri. Sublimely beautiful though they were, they presented a tremendous obstacle, and the Great Falls portage required two weeks to travel eighteen miles. Lewis wrote of the men during the portage:

Their fatigues are incredible; some are limping from the soreness of their feet, others faint and unable to stand for a few minutes, with heat and fatigue, yet no one complains, all go with cheerfulness. . . .

By the end of July the party reached the Three Forks of the Missouri, following the western



**LEWIS & CLARK EXPEDITION (1803-1806)**

Shoshoni Chief Cameahwait greets Clark with an embrace. Of the meeting Lewis wrote: "... these men . . . embraced me very affectionately in their way. . . . Bothe parties now advanced and we wer all carressed and besmeared with their grease and paint till I was heartily tired of the national hug." Sacajawea, to the right of Clark and Lewis and carrying a papoose, later recognized Cameahwait as her brother. She had not seen him since another tribe had captured her six years earlier. In the background a group of Shoshonis, fascinated by his black skin, examine York, Clark's slave, who attracted much attention from all the tribes the expedition encountered. York apparently enjoyed the attention, for Clark complained that "he Carried on the joke and made himself more turribal than we wished him to doe. . . ."



J. K. RALSTON, 1964. COURTESY OF JEFFERSON NATIONAL EXPANSION MEMORIAL

fork, which they named the Jefferson River.

They were heartened when two weeks later they made contact with a group of Shoshonis. The friendly encounter was made even happier when Sacajawea recognized the Chief, Cameahwait, as her brother.

During their stay with the Shoshonis, in the latter part of August 1805, Lewis and Clark learned about the land to the west and about a rocky road, later called Lolo Trail, that the Nez Perce tribe used to cross the mountains. For the trip over the Lolo Trail they obtained from the Shoshonis twenty-nine horses and a mule. The trip over the pass proved to be a harrowing experience. Whitehouse wrote:

When we awoke this morning to our great Surprise we were covred with Snow. . . . We mended up our mockasons. Some of the men without Socks raped rags on their feet, and loaded up our horses and Set out without anything to eat. . . .

The expedition finally reached the Columbia River drainage by September, and their goal of seeing the Pacific Ocean was finally within reach. The men built five canoes, left their horses with the friendly Nez Perce Indians until the return trip, and began their

journey from the Clearwater and Snake rivers to the Columbia. On October 16 the party had its first view of the great Columbia. One month later, after many portages, they reached their goal. On November 25, 1805, they first looked upon the Pacific Ocean.

The expedition wintered at a site seven miles inland from the ocean, which they named Fort Clatsop. Their mission complete, the men spent the next few months thinking of home. In April 1806 the party turned its sights east and began the long journey home. They followed primarily the same route back, exploring new routes on side trips. On September 23, 1806, the expedition reached St. Louis. Long given up for dead, the men were greeted as heroes. The entire population of the city lined the riverfront to welcome them back.

**M**OST SITES associated with the memorable Lewis and Clark expedition have been inundated by dams on the Missouri and Columbia rivercourses. The principal National Park System sites commemorating the expedition are Jefferson National Expansion Memorial, St. Louis, Missouri, which celebrates the vision of President Thomas Jefferson, archi-

tect of westward expansion and sponsor of the Lewis and Clark expedition; Nez Perce National Historical Park, Idaho, located within the Nez Perce Indian Reservation, a ruggedly beautiful area that allows the visitor to see the land as Lewis and Clark described it; Fort Clatsop National Memorial, Oregon, containing a replica of the 1805-1806 winter camp; and Meriwether Lewis Park, Tennessee, a unit of the Natchez Trace Parkway, which contains Lewis' grave site.

**T**HE SUCCESS of the Lewis and Clark expedition was a source of great national pride and a spur to further exploration. By 1820 thirty more expeditions had ventured west in the same spirit as Lewis and Clark—to assert U.S. sovereignty over western lands and to learn more about natural resources. The expedition also helped to alter Americans' concept of their country. The West had meant different geographical locations at different stages of the country's history. With the Lewis and Clark expedition, the West became the vast sweep of a continent—a concept that heralded the era of westward expansion all the way to the Pacific Coast. ■

# The Unarmored Three-spined Stickleback PREY OF "PROGRESS"

This tiny endangered fish with the odd name must be shielded from development in its final refuge

by STANLEY MEDDERS



**D**URING the rainy winter season in Southern California, the Santa Clara River rushes down from the rugged San Gabriel Mountains, winding its way through the deep canyons and narrow valleys of Los Angeles and Ventura counties on its journey to the sea. For the rest of the year, however, it becomes like most of the other rivers of this semiarid region as it slows to a trickle along most of its 75 miles, occasionally forming deep pools behind some natural obstruction and—even more often—leaving its crusty bed to disappear completely underground.

When it passes through the magnificent Soledad Canyon northeast of Los Angeles, the river meanders through dense stands of willows and cottonwoods; and where frequent dirt roads cut it into sections, algae-infested pools lie partially hidden by tangled undergrowth.

In these small intermittent pools, amidst old tires, bottles, and rusting cans, lives one of our most endangered and most fascinating fishes, the unarmored three-spined stickleback (*Gasterosteus aculeatus williamsoni*).

As late as 1913, sizeable populations of the tiny unarmored stickleback existed throughout the Los Angeles Basin, particularly in the San Gabriel, Los Angeles, and Santa Ana rivers. Like the Santa Clara River, these streams were dry most of the year; but occasionally they formed small permanent pools that for thousands of years

afforded suitable habitat for the isolated race of sticklebacks. The twentieth century brought development to these sheltered canyons, however, and by 1942 this stickleback had disappeared from every river in the Los Angeles Basin except the Santa Clara.

Small colonies of the interesting little fish still managed to hold their own in scattered pools along a small section of the Santa Clara River, but by the 1950s even these limited populations faced the same problems that had brought about the extinction of the other Basin colonies. Because of Soledad Canyon's proximity to the giant and ever-spreading Los Angeles metropolitan complex, housing development and recreational facilities had begun to infringe to such an alarming extent on this once serene canyon habitat that the state of California, the federal Department of the Interior, and the International Union for the Conservation of Nature and Natural Resources all declared the stickleback an endangered species.

Only one to three inches long, *williamsoni* belongs to a family whose widespread members exist in almost every topographical condition imaginable throughout most of the world. His immediate family, however, inhabits only four known areas: Soledad Canyon, the only region that holds a sizeable population of these sticklebacks; a permanent creek in the Anza-Borrego Desert State Park where a small colony was transplanted from the Santa Clara River; a few

areas of the Mohave River where they were probably introduced many years ago as bait; and a tributary of the Cuyama River in San Luis Obispo County to the northwest. This latter region is part of the Santa Maria drainage and was no doubt the original home of the subspecies.

Sticklebacks exist in either fully plated, partly plated, or unplated form. In some areas, plated forms inhabit water with a high salt content whereas unplated varieties live in freshwater streams. *Williamsoni*, belonging to the unarmored group, may occasionally have from one to three plates on the sides; but usually he is completely unarmored. His body is scaleless, and in front of the soft dorsal fin are three short erectile spines that give him his common name. Pelvic fins, too, are short and sharp; and both pectoral and caudal fins are more rounded than those of most other California sticklebacks.

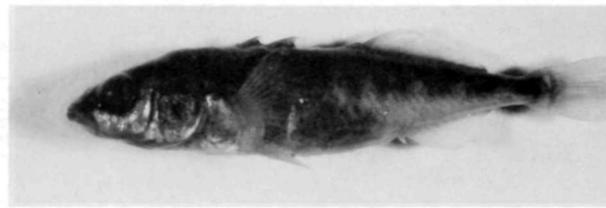
The backs of these small fish range in color from green to olive—attractive shades that blend into silvery iridescence on the lower sides and belly. During spawning season, however, both sexes change in color. The female's pinkish throat and belly are rather showy but seem subdued when compared to the male's blue eyes, scarlet throat and belly, and greenish fins.

The mating and nesting behavior of the three-spined stickleback has long fascinated scientists. In the first stage of courtship, the male stickleback performs a zig-zag mating "dance" toward the female. The female swims toward him with her head up and her abdomen bulging with as many as a hundred eggs. Later, the male prods the base of her tail, causing her to lay eggs. After fertilizing the eggs, the male remains to fan them to give them oxygen and to protect the hatchlings.

**S**OME ICHTHYOLOGISTS theorize that in the distant past *williamsoni* was the only stickleback inhabiting the rivers of the Los Angeles Basin. In fairly recent times, however, when infre-



The unarmored three-spined stickleback, only one to three inches long, is one of the most endangered of California's fishes. Once inhabiting all the rivers in the extensive Los Angeles Basin, the little fish now clings to life only in the shallow Santa Clara River northeast of Los Angeles.



CALIFORNIA DEPARTMENT OF FISH & GAME

quent floods occurred, another subspecies, *G. a. microcephalus*, found its way from its own home streams to the Pacific and then up the flooded Santa Clara to some pools in *williamsoni* territory, where crossbreeding occurred.

However, the major problem facing this "naked" little stickleback today is not crossbreeding with another subspecies but human invasion of Soledad Canyon. Many homes are being built in the area; light industry dots the mountainous landscape; and recreational development is burgeoning all along the Santa Clara River.

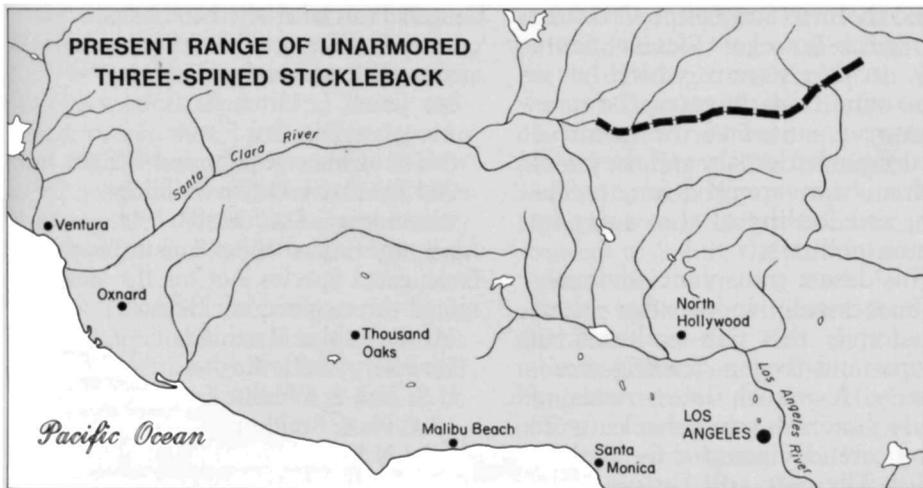
In every area where water remains in the river, in fact, some type of recreational facility sprawls beneath the willows and cottonwoods. Commercial cabins and motels—with swimming pools, playgrounds, picnic areas, and riding stables—have proliferated to such an extent that during every season of the year the canyon walls reverberate with the clamor of vacationers.

The result of this increasing intrusion is unbelievable desecration of the small pools where remnant populations of sticklebacks live. Every pool has become a receptacle for paper cups and plates, bottles, cans, tires, and even discarded lumber and baby carriages.

Unfortunately, vandalism is rampant, too, as children dig trenches in the dirt roads behind which deep pools form and let the water drain until it drops to dangerously low levels. One such pool I visited in the summer of 1975—

JIM WILLIAMS, OFFICE OF ENDANGERED SPECIES

FEDERAL GRAPHICS





STANLEY MEDDERS

Many of the pools along the Santa Clara River that provide habitat for the unarmored stickleback are infested with algae and defiled by trash.

incredibly filthy but one of the largest ponds inhabited by sticklebacks—had been completely drained when I returned one month later.

Two new threats menace the stickleback, the Interior Department's U.S. Fish and Wildlife Service (FWS) noted in February 1976. African clawed frogs, voracious exotic pests capable of devouring every stickleback coming near them, were recently found in this stickleback's last refuge in the upper Santa Clara. Although all the frogs were removed, biologists fear a recurrence because of the wide distribution of this nonnative frog in medical research laboratories and home aquariums. (See *National Parks & Conservation Magazine*, June 1975, page 17.) In addition, FWS says that trail bikes have invaded Soledad Canyon, tearing up the vegetation and soil of the stream bank, increasing silt runoff.

Because of such deplorable conditions in the canyon, the small colonies of sticklebacks remaining there will surely be completely eradicated within fewer than ten years unless steps are taken immediately to preserve their habitat. It may be too late even now to save many of these threatened populations because owners of recreational facilities I talked to in the area showed no interest whatever in taking protective steps to save

the fish, even such a simple one as fencing the most critical pools.

**I**N SPITE OF this gloomy picture, state and federal agencies are undertaking efforts to help the stickleback. FWS recently set up a team charged with preparing a detailed recovery plan for the species. However, FWS has not yet designated critical habitat for the species, which would provide additional protection under the Endangered Species Act. The California Department of Fish and Game hopes to acquire habitat area in Soledad Canyon, perhaps with funds from the state's Environmental Protection Program. In addition, in 1972 the Department's fishery biologists trapped 363 unarmored sticklebacks and transferred them to San Felipe Creek in the Anza-Borrego Desert State Park. In this stream, which has a year-round flow of water, the temperature is suited to the needs of the unique little fish, and they will be free from competition, predation, and fouling of the water by human polluters.

This desert transplant obviously is successful; soon after their transferral, the fish gathered in groups and began feeding voraciously. A month later, nests of newly hatched sticklebacks were being carefully guarded by vigilant males. They are still thriving.

In view of this modest success, conservationists, guardedly optimistic about the future of the sticklebacks, are pushing for further studies of the status of the Santa Maria populations, for the designation and acquisition of critical habitat area in Soledad Canyon, and for additional transplants to San Felipe Creek and to other suitable areas in Southern California.

Many ichthyologists believe that if all these protective measures are taken soon, the distinctive little sticklebacks that no doubt colonized Southern California's ancient rivers in some distant time may escape extinction. ■

**A native Californian and frequent contributor to these pages, Stanley Medders has long been concerned with preservation of California's environment and wildlife.**

#### SAVE THE STICKLEBACK

It is imperative that the Department of the Interior officially declare "critical habitat" for *Gasterosteus aculeatus williamsoni* without delay to provide a strong measure with which to protect the tiny fish. However, due to its small staff and the large number of endangered species of plants and animals requiring study, the Office of Endangered Species (OES) is unable to give the stickleback and many other endangered species the immediate attention they need. Concerned members should write to the Office of Management and Budget to demand that more money be requested for the OES so that plants and animals that are threatened or endangered can be studied and listed and critical habitat can be designated to ensure their survival.

Mr. James L. Mitchell  
Associate Director  
Office of Management and Budget  
Old Executive Office Building  
Washington, D.C. 20503

Also urge strict enforcement of the Endangered Species Act for the unarmored three-spined stickleback.

Mr. R. Kahler Martinson  
Director, Pacific Region  
U.S. Fish & Wildlife Service  
1500 Plaza Building  
1500 N.E. Irving Street  
Portland, OR 97208

# Bicentennial Magic

by LINDA JOHNSON VOLKERT

**H**UFFING AND PUFFING, my ciliated lungs were bursting from the strain of inhaling such vast quantities of clean mountain air so rapidly. My thirty-three-pound pack felt like a lead weight pulling me back down the hill I was so desperately trying to climb. My husband, Ph.D. consultant recently transformed into "Indian Joe, trail guide and woodsman," strode up the hill as if it weren't there.

"Wait up!" I cried desperately. "I don't jog three miles a day like you. I can't keep up."

He stopped and turned around, seeming surprised to see me so far away. When I caught up to him, he wasn't even breathing heavily, which made me feel all the more fatigued.

"Maybe I should take up yoga," I panted. "They say it's good for breath control."

He patted my shoulder and said, "You'll get used to it. After three days of this you'll be in great shape."

"Sure," I replied. "After three days of this you'll be carrying me home on a stretcher, and I'll wish we had spent the Fourth of July at home."

"Nonsense," he retorted. "We'll be there before you know it. I think this hill levels off up ahead and then we can just coast down to the river."

We hiked on in silence, and I thought of what we had left behind in Washington, D.C. When we left for our three-day weekend in the West Virginia mountains, as many as one million people were predicted to show up at the Washington Monument to view the special fireworks on the Fourth. We had decided that would be far too many people for us, Bicentennial celebration or not.

As I looked around at the lush, moss-carpeted forest, I began to forget my aching muscles and heavy pack and to realize how wonderful it was to be away from the city. Just the week before the air quality index had reached the hazardous range of 150, but out

here there were flower-scented breezes; and instead of the din of downtown traffic, the songs of birds entertained us. We paused for a moment to listen to the rollicking, flute-like song of the winter wren, such a happy melody that it made us laugh out loud. It's worth it all, I thought, to find this place of peace and solitude.

At trail's end we were fortunate enough to find an empty shelter beside a small stream. We moved in just in time as the rain that had threatened us all morning finally broke. We made lunch and ate while watching the rain drip from the roof in front of us. We were cozy and dry and confident that the rain would let up soon. When it didn't, we thought it a grand idea to take a nap; so we crawled into our sleeping bags, shut our eyes, and fell asleep listening to the rain beating a relaxing rhythm on the tin roof.

Just before dusk the rain stopped, and we walked up to the grassy clearing above the shelter to look for deer. Three does were there, and they looked like graceful ghosts shrouded by the mist hanging over the meadow. We watched them through the binoculars, their long slender necks bending down to crop the grass in dainty bites. The closest doe spotted us and fixed her huge brown eyes on us for what seemed like forever. Her long ears twitched, and her tail wagged slightly; but it didn't go straight up in the warning signal, and she finally bent down to graze, allowing us to resume normal breathing. We continued to watch the deer for several minutes more, then crept quietly back to camp so as not to disturb the peaceful scene.

After dark we went back to the clearing and there witnessed another memorable event. The night was moonless and cloudy, and mist still hung low over the meadow. Hundreds of fireflies were using this misty black velvet backdrop against which to stage a silent firefly ballet. Their dance was

choreographed to music only they could hear, and we were filled with awe at the beauty and grace of their movements.

They were the largest fireflies we had ever seen, and they glowed an iridescent green. They blinked on and whirled about in a dizzy dance that made them seem even larger. We watched spellbound as they performed just for us. We tried guessing where they would flash on next, but it was impossible to predict their intricate movements. One group seemed to go on and off in unison while others seemed to blink on and off one by one, like a set of miniature twinkling Christmas tree lights.

But it was not Christmas; it was the night before the Fourth of July 1976, and we were watching a performance that surpassed any pyrotechnics man could ever devise. Besides, we were not forced to contend with traffic jams, hordes of people, and loud, unnecessary noise. Instead, as background music we heard the gurgling of the nearby stream, the sighing of the wind in the evergreens, and the distant, lonely hoot of an owl. We breathed sighs of deep contentment, filled with the joy and wonder of God's great creation we had witnessed. No amount of money could have purchased better entertainment, and we felt no regret at having missed "the largest fireworks display ever."

Happy Birthday, America, and may the beauty and solitude of this forest be preserved for all Americans to enjoy until our Tricentennial and beyond. ■

**Linda Johnson Volkert and her husband Jay share a great love of the outdoors. They backpack in the remotest areas they can find in every season of the year. When backpacking, they pursue their hobbies of birding and wild food foraging. While Jay is fishing for trout for their dinner, Linda enjoys sitting next to a mountain stream, writing—as she did this story.**

# NPCA at work

## INDIANA DUNES

### Reactor Controversy Rages

Grave environmental and jurisdictional issues concerning the National Park System have been raised by the Bailly Nuclear Powerplant project proposed next door to the Indiana Dunes National Lakeshore.

Interior Secretary Thomas S. Kleppe has issued a sharply worded letter criticizing the Nuclear Regulatory Commission's (NRC) approval of construction permits in disregard of Park Service recommendations to the contrary. "We do not consider our responsibilities diminished by the granting of a license by the commission," Kleppe wrote, "and we will take such steps as we find necessary to protect the natural qualities of the Lakeshore."

NPCA previously told Kleppe that it would consider bringing suit against the Department if it does not exercise its congressional mandate to protect the park. A Circuit Court suit to block construction was unsuccessful largely because Interior never took legal action against the project. The possibility remains that Interior might take legal action if the NRC does not change its decision on Bailly.

Kleppe's recent comments were directed to the chairman of the NRC, Marcus A. Rowden. He urged Rowden to "personally examine the record of proceedings before the AEC (Atomic Energy Commission, the NRC's predecessor) and the issues raised by this department." Kleppe noted the availability of alternate sites and expressed concern that NPS recommendations about the proposed site "were given little consideration by NRC."

"The commission knows that we are responsible for implementation of a congressional mandate to protect the natural values of the Indiana Dunes National Lakeshore."

Kleppe said the Bailly plant would be an eyesore, visible from any part of the national lakeshore, and would create other environmental problems such as acid vapors and salt depositions. Extensive excavation associated with the plant is expected to seriously alter

water tables and pH in adjacent ponds and nearby Cowles Bog, endangering rare plant and aquatic species.

Indiana Dunes National Lakeshore stretches some eleven miles along the shores of Lake Michigan east of the proposed reactor site. Thousands of people use the national lakeshore each day, so the consequences of a nuclear accident would be tremendous. The spectre of acid mists settling over the white beaches of the lakeshore, pollution flowing into Lake Michigan, and destruction of fragile wetland ecosystems is especially grim.

### Grant Conway Ardent Conservationist

Grant Conway, long-time stalwart of NPCA's Board of Trustees, died June 25 of a heart attack. He was sixty-two years old and is survived by his wife, Ione Warren Conway.

Mr. Conway was an early supporter of wilderness designation for a large area of Shenandoah National Park; and he championed efforts to establish the Chesapeake and Ohio Canal National Historical Park ever since 1954, when he, Justice William O. Douglas, A. W. Smith, and several others hiked along the canal towpath that runs from Cumberland, Maryland, to Washington, D.C. The hike focused attention on the historical significance and beauty of the canal, which was threatened by road construction.

Mr. Conway's career included eighteen years with the U.S. Treasury and thirteen years as a loan officer with the Export-Import Bank of the United States.

After his retirement, Mr. Conway devoted himself to environmental concerns. As well as being a seventeen-year trustee of NPCA, he served as representative from Montgomery County, Maryland, to the Advisory Commission of the C&O Canal National Historical Park. He also served seven terms as secretary-treasurer of the Conserva-

NPCA has recently helped to mount a campaign to bring congressional attention to the problem. In part that message reads: "Congress has placed the Indiana Dunes National Lakeshore and the entire National Park System under the exclusive jurisdiction of the Secretary of the Interior. If another agency is permitted to encroach upon this authority, national parks throughout the country will be subject to the very degradation which it was the intent of Congress to prevent. The potential jeopardy to the substantial public investment in the national parks is enormous."

While waiting for a decision from the NRC, the Interior Department says it has gathered a group of scientists so that NPS can study the monitoring and research needs regarding the Indiana



tion Roundtable in Washington, D.C., and three terms as president of the Potomac Appalachian Trail Club.

While serving as treasurer of the Appalachian Trail Conference, Mr. Conway was one of the first people to realize the value of establishing and preserving the path that links the states from Maine to Georgia and was instrumental in securing federal protection for it. He was a founder of Canoe Cruisers Association and a member of American Canoe Association, American White Water Association, The Wilderness Society, Sierra Club, and other outdoor clubs.

Grant Conway will be much missed by his many friends at NPCA.

Dunes issue. In this way, it says NPS will be ready at an early date to document actual or potential damages if legal action is necessary to halt the nuclear powerplant.

#### DETERIORATING PARKS

### New Report Blames OMB

On July 4, 1976, the House of Representatives Committee on Government Operations released a report assessing the President's Office of Management and Budget (OMB) with the primary responsibility for widespread deterioration of resources in the National Park System.

The report, entitled "The Degradation of Our National Parks," examined documentation of a shocking decline in the System as revealed in subcommittee hearings in late 1975 and early 1976.

These hearings investigated the results of an NPCA Park Resource Survey that demonstrated the effects of OMB-imposed budgetary restrictions and personnel ceilings in sixty-eight representative park units. (See "Short-changing the National Park System," February and March 1976.) Due to the popularity of the national parks—in which visitation increased 23 percent over 1975 figures in just the first four months of 1976—the NPCA survey and the subsequent hearings have attracted nationwide attention. *Newsweek* (May 10, 1976) called the survey an "encyclopedia of neglect"; and *U.S. News & World Report* (June 7, 1976), as well as a number of newspapers, noted that service in the parks is sagging while the visits are soaring.

Even as government experts noted that park visitation could reach a record total of 300 million in the Bicentennial year, the committee report emphatically stated that "The Park Service's resources are now, and have for the last several years been inadequate to carry out the tasks which the NPS is mandated to perform. The guardian of our national parks has, despite its best efforts, seen its resources deteriorate. Visitor services and facilities are being neglected throughout the System. Park buildings, roads, bridges, trails, historic sites, and archaeological relics are not being maintained according to the Park Service's own standards. New parks cannot be operated properly. . . ."

The report discusses NPCA's findings and concludes (in agreement with NPCA) that the primary reason for the decline is twofold: first, OMB has for several years recommended to Congress appropriations "which are insufficient for the Park Service to do its job at even a minimally acceptable level" and Congress has not approved larger budgets; second, OMB has arbitrarily imposed personnel restrictions below the level upon which Congress predicated the NPS budget. Despite OMB claims to the contrary (June 1976, p. 19), the committee said that it could find no evidence of NPS inefficiency contributing to the problem.

In transmitting a copy of the committee report to NPCA President A. W. Smith, the chairman of the Conservation, Energy, and Natural Resources Subcommittee, Leo J. Ryan (D-Calif.), noted that the report cites a number of specific examples of deterioration in national park areas. For instance, in the C&O Canal National Historical Park, an insufficient number of rangers on patrol duty has resulted in a startling increase in crime, and a recent rise in traffic accident rates in Great Smoky Mountains Park is attributed to a lack of funds for road maintenance.

"It is important to note, however," Ryan emphasized, "that the report does not place the blame for these conditions on the Park Service. In fact, the committee found that 'The American people are being well served by the National Park Service.' I would hope and expect you to continue your dedicated efforts to preserve and protect our national parks. Your cooperation and assistance and that of your excellent staff during the course of the subcommittee's investigation is greatly appreciated. Keep up the good work!"

The report made several recommendations, including:

- NPS should be allowed freedom to develop budget requests based solely on its professional judgment concerning the needs of the National Park System. This recommendation bears out NPCA charges that early in the budget process OMB tells the Park Service that it may not request more than certain personnel and budgetary levels from the budget office of the Interior Department, which, in turn, reports to OMB.

- OMB should develop and apply

specific criteria in determining the size of the budget request to Congress for the Park Service. These criteria should relate to the impact the requested levels of funding would have on the natural resources and NPS visitor facilities and services.

- Congress should consider increasing the National Park Service budget.

- The appropriate committees of Congress should consider amending the Budget Reform Act to require OMB to send a rescission or deferral notice to Congress whenever any positions that are authorized or funded by Congress are not approved by OMB.

- The OMB should increase the ceiling on permanent personnel for the Park Service to a level equivalent to that authorized by Congress.

NPCA appreciates receiving this fine report and encouragement about our work from Rep. Ryan, who is the new chairman of the conservation subcommittee. Rep. William S. Moorhead (R-Pa.) recently gave up the chairmanship of this subcommittee and took on new responsibilities with the Banking Subcommittee on Economic Stabilization. Mr. Smith has congratulated Moorhead for his highly constructive work with the conservation subcommittee, including conducting the hearings that led both to the recent report and to increased public understanding of the plight of the parks.

#### FY '77 NPS APPROPRIATIONS

### Easing the Money Squeeze

The House and Senate recently completed action on the appropriations for the National Park Service for fiscal year 1977 (now beginning October 1, 1976). After complex and controversial negotiations, a conference finally approved a total of \$377.5 million for the National Park Service—an increase of \$22 million over the amount requested by the Ford Administration that will put a dent in the amount needed to check deterioration of the nation's parks.

The appropriations committees acted just before the House Government Operations Committee issued a report on the need for more NPS funds. (See preceding news item.)

Invited to appropriation hearings earlier in the year, NPCA was the only conservation organization to present substantive, detailed testimony on the

serious need of the National Park Service for more money and personnel to operate the national parks. (See page 20, June 1976 issue.)

During the course of the congressional debate on the Park Service appropriations, opposition arose to an increase for the Service within the House Appropriation Committee's subcommittee on the Interior, chaired by Sidney Yates (D-Ill.). As the accompanying chart indicates, at the time the House committee approved the appropriations bill, Yates' subcommittee, while increasing the Administration's budget request by \$10 million, had reduced the appropriations requests for *operations* for the National Park System—the principal budget account covering most management, personnel, and operation activities.

During the floor debate on the bill in the House Representatives Leo J. Ryan (D-Calif.) and Gilbert Gude (R-Md.) of the Government Operations Committee and Representatives Roy Taylor (D-N.C.) and Keith Sebelius (R-Kan.) of the Interior Committee joined to offer an amendment to increase Park Service appropriations by \$18.8 million over the subcommittee's recommendation. The additional funding would go primarily to park maintenance and rehabilitation projects and to increasing the personnel ceiling.

Rep. Yates struck down the amendment on a point of order so that the issue was never voted upon, but during a colloquy with the amendment pro-

ponents, he promised to support increased appropriations for the Park Service in conference.

However, when the House and Senate conferees met to reach a consensus on areas of disagreement between the two bills, Rep. Yates and the other House conferee forced reduction of the Senate appropriations by more than \$8 million.

Despite the loss of this \$8.2 million—money that the Park Service desperately needs—the \$22 million increase in the appropriation level for FY 1977, unless vetoed by President Ford, at least should help solve many of the Park Service's most urgent problems. NPCA will continue to work toward stemming the degradation of our national treasurelands that has resulted from insufficient levels of personnel and funding.

### LAND & WATER CONSERVATION Crucial Funding Boosted

The Senate and House are working out a compromise on legislation that would have significant ramifications on the Land and Water Conservation Fund (LWCF), a critical source of funding for land acquisition for the National Park System and the National Wildlife Refuge System, as well as for state outdoor recreation projects. Meanwhile House-Senate conferees have approved separate appropriations legislation allotting \$397 million for the LWCF in fiscal year 1977.

In the case of the former legislation,

both S 327 and HR 12234 would change the maximum annual level of funding allowed under the LWCF and guidelines for allocation, distribution, and allowable uses of the fund.

Under present law, \$300 million a year—primarily from oil and gas lease revenues—can be deposited in this fund. At press time the House and Senate seemed headed for an agreement on greatly increasing the fund in a gradual increase up to \$900 million a year by 1980.

As the bills went into conference, S 327 would increase the ceiling to \$1 billion by next year, whereas HR 12234 would set a ceiling gradually—up to \$800 million. From the LWCF, which is part of the Bureau of Outdoor Recreation budget, 60 percent of the monies go to the states for outdoor recreation projects. These projects usually involve either development of outdoor facilities or land acquisition for recreation or preservation purposes. Currently the states must match the funds on a 50-50 basis; they receive the money in a complicated formula that favors states with smaller populations.

The House and Senate bills under consideration differ in this key area. The Senate version would have the federal government contribute 70 percent of the funds for land acquisition, whereas the House wants the 50-50 split retained. The House included a proposal that would favor the states with larger populations, while the Senate did not. The Senate bill includes a proposal to allow states to spend 25 percent of their funds for sheltered facilities (such as swimming pools), whereas the House version forbids this (but lets the states use their own money for this).

Despite these differences, the great popularity of the LWCF is facilitating compromise. At the first meeting of the conference, the 50-50 split was retained, except in the case of statewide planning, for which a 70-30 split would be permitted.

At press time it seemed that only the proposals concerning the allocation method and building of sheltered facilities were likely to stimulate debate.

Although NPCA has indicated in invited testimony that we hope that certain proposals can be adopted (such as \$150 million for an Historic Preservation Fund and a ban on federal fund-

National Park Service Appropriations,  
Fiscal Year 1977\*

| NPS<br>Budget<br>Account | OMB/<br>Admin.<br>Request | Fiscal Year 1977* |         |         |
|--------------------------|---------------------------|-------------------|---------|---------|
|                          |                           | House             | Senate  | Conf.   |
| ONPS                     | \$272.9                   | \$272.7           | \$280.4 | \$276.5 |
| P&C                      | 33.2                      | 37.2              | 40.2    | 40.1    |
| RC                       | 18.0                      | 19.1              | 23.5    | 21.8    |
| HP                       | 14.5                      | 19.5              | 24.5    | 22.0    |
| PDORF                    | 14.0                      | 14.0              | 14.0    | 14.0    |
| KC                       | 3.1                       | 3.1               | 3.1     | 3.1     |
| Total                    | \$355.6+                  | \$365.6           | \$385.7 | \$377.5 |

\* Figures in millions

ONPS —Operations of National Park System

P&C —Planning & Construction

RC —Road Construction

HP —Historic Preservation

PDORF —Planning, Development, Operation of Recreation Facilities

KC —Operation of the Kennedy Center for the Performing Arts

Land & Water Conservation Fund  
Appropriations, Fiscal Year 1977\*

| LWCF: | Fiscal Year 1977*         |         |         |         |
|-------|---------------------------|---------|---------|---------|
|       | OMB/<br>Admin.<br>Request | House   | Senate  | Conf.   |
| LWCF: | \$300.0                   | \$307.1 | \$430.5 | \$397.1 |
| NPS†  | 77.3                      | 79.6    | 172.3   | 144.6   |
| FS†   | 29.9                      | 32.5    | 56.9    | 52.5    |
| FWS†  | 8.5                       | 10.7    | 16.9    | 15.7    |

\* Figures in millions

† These amounts come from the 40 percent federal share of the LWCF for land acquisition purposes. The states receive a 60 percent share.

NPS—National Park Service

FS —U.S. Forest Service

FWS—U.S. Fish & Wildlife Service

ing of sheltered facilities), in general there is good reason to be pleased with the bill that will ultimately come from the conference committee. Basically, it will be a new and improved version of the LWCF that will be a great help to both recreation and conservation.

While Congress is completing action on legislation to increase the authorized annual ceiling of the LWCF from \$300 million to \$900 million, appropriations legislation also has been approved that represents an increase over the amount of money from the LWCF requested by the Administration for fiscal year 1977. Although by present law \$300 million goes into the LWCF annually, in past years the Administration has not always requested the total amount and Congress has not appropriated such, so an unappropriated backlog of some \$250 million has accumulated. Recently the Senate Appropriations Subcommittee on the Interior proposed to appropriate \$130 million from this backlog in addition to the Administration request of \$300 million. In contrast, the House Appropriations Subcommittee on Interior asked for only a meager \$7 million increase. House-Senate conferees agreed on a compromise of a total of \$397 million. (See the accompanying chart.) In previous invited testimony, NPCA had urged a total appropriation of about \$450 million and said that the Park Service share of the fund should be greatly increased.

#### JOSHUA TREE

### Goodbye, Yogi Bear

NPCA recently expressed appreciation to the Park Service for its April 1976 acquisition of an eighty-acre inholding in Joshua Tree National Monument, California, the former Yogi Bear Jellystone Recreational Vehicle Campground.

In commenting on an assessment of the future development within the newly named Black Rock Canyon Campground, NPCA strongly recommended immediate elimination of the present mini golf course, playground, shuffle board courts, tennis court, basketball court, swimming pool, and rodeo area—recreational activities that are incompatible with the purposes of this National Park System unit.

On the other hand, the existing picnic tables, rock fireplaces, restrooms,

#### NATIONAL PARKS SAMPLER

### Saint Croix Riverway

**GETTING THERE:** To various points, an average of two-hour drive north and east of Minneapolis and St. Paul, Minn.; 55 miles from Twin Cities to St. Croix, Wis. Rail and bus transit to vicinity.

**GETTING IN:** Free

**WHERE TO STAY:** Accommodations and supplies in many nearby towns in Minn. and Wis. Primitive camping along riverway. No NPS fee. State park fee camping info from Wisconsin Dept. of Natural Resources, Box 450, Madison WI 53701, or Minnesota Dept. of Natural Resources, 658 Cedar St., St. Paul, MN 55155.

**WHAT TO DO:** Canoeing, backpacking, hiking, fishing, wildlife observation, swimming. List of commercial canoe outfitters from NPS.

**MORE TIPS:** Superintendent, St. Croix National Scenic Riverway, P.O. Box 708, St. Croix Falls, WI 54024. Visitor centers at Hwy. 63 near Trego, Wis.; Hwy. 70 near Grantsburg, Wis., and St. Croix Falls, Wis.

Along the St. Croix National Scenic Riverway, you can enjoy the romance and excitement experienced by the first French voyageurs who canoed through this northern land of forests and lakes 300 years ago and by the Dakota and Ojibway Indians before them. This is the region that inspired settlers such as the characters in William Moberg's famous novels *The Emigrants* and *Unto a New Land*. The 227-mile-long park includes the most primitive portions of the St. Croix and its northern tributary, the Namekagon, and traces the boundary of Minnesota and Wisconsin for nearly 110 miles. The additional portion of the national

riverway from Stillwater to the Mississippi River is administered by the two states. The river varies from a narrow trout stream to a broad lakelike flowage of almost imperceptible movement, and from swamps and marshes to areas heavily wooded with conifers and hardwood. You can challenge the whitewater or relax on long stretches of tranquil water and explore islands. A variety of canoe trips is available; most canoeists are comfortable with between 10 and 20 miles of paddling downstream per day. Watch for white-tailed deer, black bear, fox, beaver, mink, and other wildlife. Of course, you don't need to canoe to enjoy the riverway. Annual spring and fall migrations of warblers and many species of waterfowl delight bird-watchers. In the autumn hawks migrate along the bluffs against spectacular foliage. Bald eagles nest and winter in the valley. You can see evidence of a wide variety of geological activity along the riverway, formed 11,000 years ago when glacial meltwater from the Lake Superior basin forced its way through sandstone and lava. At Taylor Falls the river flows through a narrow metamorphic rock gorge, the Dalles. Sheer rock walls tower 200 feet above the river, and weird rock formations will fascinate you: look for the "Old Man of the Dalles." He has seen many pass before you.

JOHN M. TYSON



and stable facilities can be compatible with the national monument and may be retained if their design, construction, and location within the monument are determined appropriate for the natural area.

Perhaps more importantly, however, NPCA urged the Park Service to make an overall evaluation of the need for provision of campground services in this location. NPCA suggested that if sufficient campgrounds already exist or can be developed in the surrounding region outside the monument, serious consideration should be given to the complete elimination of the Black Rock Canyon Campground.

In the meantime, NPCA urged that the density and number of commercial campsites in the campground, along with the electrical and sewer hook-ups, be reduced to a level which the Park Service can easily handle.

#### FARM PRESERVATION

### Backing Little Cove

NPCA and five other national conservation and preservation organizations, with a total membership of well over 300,000, and the National Farmers Union, with a membership of 250,000, recently joined together to back the efforts of a local farmers and taxpayers association in Pennsylvania to protect their farms and farmland from incompatible residential development.

The Little Cove Association (LCA) and its supporters seek to protect farm resources in Warren Township, Franklin County.

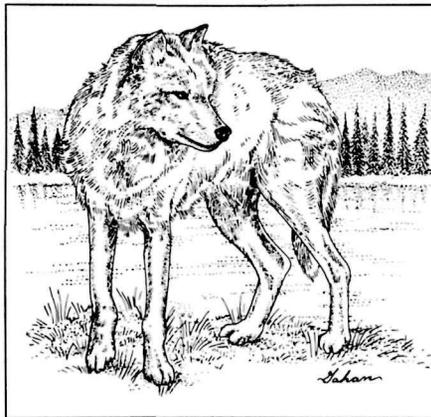
Reliance is being placed in the preservation effort on the environmental clause of the Pennsylvania state constitution that makes the state and local governments trustees for the people in the protection of clean air, fresh water, and environmental and historical resources.

In filing a 39-page brief with the Pennsylvania Department of Environmental Resources, the LCA and its supporting organizations assert that proposed developments will deplete and pollute water resources of the township, which consists of farm and forest country in an Appalachian mountain valley, and will result in a rapid buildup of tax assessments and tax rates, driving out agriculture. The brief urges the state department to require the township to adopt an ade-

quate official plan to protect the farming community.

The supporting organizations, in addition to the National Farmers Union, include this Association, the National Resources Defense Council, the National Trust for Historic Preservation, the Humane Society of the United States, and Defenders of Wildlife. The farmers union and the other groups all have substantial memberships in Pennsylvania.

Other similar large organizations are considering joining the group in the belief that the issues raised in regard to the interpretation of the environmental clause of the state constitution are matters of national significance.



NANCY LOU GAHAN

#### VOYAGEURS

### Nibbling at the Boundaries

NPCA recently supported the Interior Department in its stand against deleting an area of Voyageurs National Park, Minnesota, that some hunters and state officials want excluded from the park so that duck hunting could be resumed. (Since this part of the vast glacier-carved lake country along the U.S.-Canadian border became a national park in 1974, hunting has been forbidden.)

The deletion would be for the sake of a relatively small number of duck hunters who used the Black Bay area of Rainy Lake. The Interior Department maintains that not only is Black Bay a significant resource that belongs in the park, but any boundary changes, other than strictly minor corrective changes, would require congressional action. Furthermore, the Voyageurs National Park Association, a private group opposing the deletion, notes the inadvisability of allowing a duck hunting area that would cut into the edge of the park at a visitor entrance point.

Noting that the Interior Department is under considerable pressure on this issue, NPCA President A. W. Smith assured Assistant Secretary of the Interior Nathaniel Reed that NPCA would oppose any attempts to revise the boundaries in the Black Bay area. Deletion of this area, NPCA noted, would set a dangerous precedent and increase pressures for other concessions.

In this park—which was named after the colorful French-Canadian fur traders who once plied its intricate system of waterways—many other sports, such as canoeing, camping, fishing, and cross-country skiing are permissible.

#### MAMMOTH CAVE

### Cutting Congestion

NPCA recently lauded a newly released final master plan for Mammoth Cave National Park, noting that in general proposals for change in the plan will bring major improvements in resource protection and operations in this famous Kentucky park.

Two changes that NPCA strongly supports in the guideline for future management of the park are immediate removal of Great Onyx Job Corps Center from national park land due to its incompatibility with the purposes of the park and establishment of a visitor transportation system. The system would run from a peripheral staging area to all major park features. However, NPCA objected to the plan's proposal to allow concession users to drive cars to the Historic Entrance Area.

As noted in the park's final environmental impact statement (EIS) and the master plan, the principal limiting factor on park visitation is not the number of visitors who wish cave tours but rather the availability of sufficient space to park their vehicles. For this reason NPCA's plan for Mammoth Cave advocates a visitor transportation system from the vicinity of either Park City or Cave City or both with a two-stage transit operation—into the park and within the park. This would eliminate need for additional land acquisition outside the park and for widening Highway 70 or other park roads. In contrast, the EIS calls for a 35-acre staging area, at forested Union City, that would include a 2,300-car parking lot and associated facilities.

The decision to freeze facility development and phase out unneeded facilities at the Historic Entrance Area is commendable, but we are disappointed that no specific schedule was established for this phase-out.

NPCA remains opposed to construction of any bridge across the Green River within the boundaries of the park. No substantial case was made regarding the need to construct a bridge across the river to facilitate traffic through the park. Such a bridge would only stimulate additional nonpark-related use of roads and might well become a nuisance in terms of maintenance and expansion costs, as well as impairing park resources.

We strongly approve of the plan's apparent intention to manage lands both above and below ground in the backcountry or roadless areas of the park as de facto wilderness. NPCA agrees that the proposed foot trail and primitive camping development—both north of the Green River and elsewhere in the park—is compatible with resources of these areas.

For many of the same reasons, we believe that a more acceptable location could be found for the proposed water treatment facility atop Flint Ridge. According to the Cave Research Foundation, the site would be directly over the rarest mineral deposits in the entire park-cave complex.

#### PINNACLES

### Predators—Not Poison!

NPCA recently protested a proposal to poison with chemical pesticides the large population of Beechy ground squirrels that inhabit Pinnacles National Monument, California. However, the idea for such poisoning is just one aspect of a proposed Natural Resources Management Plan for Pinnacles, and with the exception of this aspect, NPCA considers the basic plan good.

According to the Park Service, the population of the small rodents in the monument has greatly increased in recent years. This is principally due to feeding by visitors and a lack of natural predators. Extensive burrows result in erosion problems, dangers to visitors from falls, and the possibility that diseases carried by the rodents would be transmitted to visitors. The management plan states that "If this condition

remains unchecked, maximum deterioration could result in total closure of the park to public use and enjoyment."

However, NPCA, on the basis of the information given by NPS, charged that this allegation was totally without foundation. It is an extreme position developed to justify the relatively cheap method of poisoning the rodents using zinc phosphide-treated grain and sulphur bombs.

Instead, NPCA urged the Park Service to attempt to inform park visitors of the hazards of feeding the ground squirrels and also launch a program to reestablish natural predators including snakes, hawks, badgers, coyotes, and even mountain lions. One problem slowing the reintroduction of natural predators is the small size of the monument and the inclination of land owners outside the monument to kill predatory animals on sight. Educational programs designed to end this needless practice could be instituted.

Otherwise, NPCA expressed strong support for the management plan proposals to revegetate bulldozed firebreaks, fence the monument's boundaries to preclude hunter poaching and domestic livestock grazing in the monument, and to establish a program of prescribed burning. The latter would reestablish the influence of fire on the chaparral vegetation of the monument—a natural influence that has been lost due to years of fire suppression.

In addition, NPCA supported a new master plan for the monument and proposals for its conversion into a largely day-use area with visitor facilities located on its periphery. NPS has proposed development of a transportation system to carry visitors into portions of the interior. However, NPCA expressed extreme opposition to the alternative in the draft plan that suggests construction of a road from east to west across Pinnacles National Monument.

#### ENDANGERED SPECIES

### Mining Threatens Condor

Plans to strip mine for phosphates and gypsum in the wild, mountainous Los Padres National Forest could spell extinction for the California condor, a species that has soared across this continent since Pleistocene times—before man's arrival here—and once ranged

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## Memo to Members

Hello!

I am Director of Membership Services—a very diverse job indeed. If you have had a problem with your membership, it has been directed to the attention of my department. My assistant, Maura Rubin, and I (aided by the membership staff comprised of Marcel Bloomquist, Virgie Martin, Janet Bullock, and Valerie Joy) endeavor to sort out your inquiries and your problems—and we try not to blame *everything* that goes wrong on the computer!

As Director of Membership Services my job is not only to service the members but to plan campaigns for membership growth. Those of you who have been reading this column are aware that in April 1976 NPCA launched an all-out campaign to get present members to enlist new members. At the close of July, 227 new members have been enlisted—an average of 56 new members per month. If we continue at this rate, we would increase our membership by 672 annually.

Although we are most grateful to those of you who have enlisted new members, I am convinced that we can do much better than this! In fact, we anticipated a membership increase from this source alone of at least 166 per month, or 2,000 new members annually, because we believed that at least 5 percent of our membership of some 45,000 feel strongly enough about our work to spread the word.

Perhaps if you fully understand the great financial savings your participation in this campaign will mean to NPCA, it will spur you on to enlist a new member. In order for our membership to remain stable, we must constantly offset the normal attrition rate by obtaining new members. Although our direct mail efforts are largely successful and although we can never discontinue them altogether, we hope to substantially decrease the quantities we mail as costs for direct mail continue to increase.

So we hope that one of the prime motivating factors to get our members to participate in our family recruit-



ment program is the fact that its success will mean that more of your dues and contributions can go toward our conservation programs.

When we planned this campaign, we decided to offer an award to participants as a token of our appreciation. We had a number of ideas but decided on putting together a portfolio comprised of some of the most beautiful photographs we have had on the covers of the magazine. Moreover, this particular award was less expensive for us to produce than others we considered because we had already paid for the expensive color separations.

We decided that we would offer the portfolio not just to our members who recruit a new member, but to the new member as well. This, we felt, would give you extra leverage in persuading your friends to join, as we realize that it is difficult to get people to be as enthusiastic about something as you are—especially when you are asking them to invest money.

And because we realize that some members will prefer to give an outright gift membership to a friend, we provided for that, too. If you give a gift membership, you get the portfolio; but

the recipient of your gift (not having paid his or her own way to join) does not receive the portfolio.

And it's a very nice portfolio indeed! It consists of nine photographs of magnificent park scenes by outstanding nature photographers. The prints measure 10 × 12 inches including a 1-inch border and are suitable for framing or for display as a set in your home or office. Four are in breathtaking color, five in dramatic black and white. To commemorate the Bicentennial, we added a bonus to the portfolio—a print of the bald eagle painting that graced the cover of the July magazine. Although we intended to offer the bonus only during July, we decided to extend the offer through the end of the Bicentennial year—while the limited supply lasts.

In this memo I have tried to stress the campaign's financial importance to NPCA. I want you to understand how you can help us save money for our program work. And I want to tell you that the premium—although very nice indeed—is not a costly item that offsets the savings we realize when you enlist a new member at no direct cost to us.

By the time you read this message we will have two additional months' tallies on the membership drive (those recruited in July and August). We anticipate that results will increase as the momentum of the campaign mounts. But we can't let down now; we have a long way to go.

By now you must have guessed why I chose a photograph of myself in my garden. My passion is gardening—watching things grow. Maybe that is why I have a natural bent toward membership development.

This is my personal invitation to you to join in helping NPCA's membership grow. Undoubtedly you know other people who share your interest and concern over our national parks, other natural areas, and the wildlife that inhabits them. Tell them about NPCA and about our battle to protect these natural resources. We're counting on you.

All best wishes,  
Kay Partney Lautman  
Director, Membership Services

from coast to coast. (See February 1976 issue.)

However, these carrion-eaters with nine-foot wingspans, whose magnificence in flight inspired Indians to create mythical tales of phoenixlike power, have not been able to withstand the assault of man and his ways and now number only fifty. Virtually all California condors are found in the region of the proposed mining.

In 1971 the Bureau of Land Management (BLM) issued a draft environmental impact statement on a lease application by U.S. Gypsum Co. The draft erroneously omitted some important information about condor habitat requirements. Later, although the Endangered Species Act of 1973 called for designation of "critical habitat" for endangered species, the BLM failed to rewrite the EIS and thus to allow the public to comment in light of the new situation, and issued a final statement in 1976. However, the final EIS did conclude that approval of the mining application by the Interior Department would "adversely impact wildlife, particularly threatening the California condor."

Then in December 1975 the U.S. Fish and Wildlife Service (also an Interior agency) published a proposal to designate critical habitat for the California condor under the 1973 law. If adopted, designation of critical habitat means that any federal agency that authorizes, funds, or carries out an action in that area must take whatever steps are necessary to avoid modification or destruction of critical habitat. However, not only was the proposal incredibly difficult for the public to decipher, but it turned out that the proposed rulemaking omitted the mining site! Part of the boundary of the critical habitat coincided with the leasing area boundary. NPCA protested the inadequate proposal and demanded investigation of what could have been gerrymandering.

Meanwhile, the Interior Secretary must decide whether to grant a mining permit, and the situation is complicated by U.S. Gypsum's contention that it is not subject to the environmental impact procedures because it received approval to prospect prior to passage of the National Environmental Policy Act of 1970.

The proposed Pine Mountain mine

would create severe water, air, and noise pollution, disrupting feeding and breeding habits of the condor, which has a low reproductive rate that is particularly vulnerable to further reduction when man alters habitat.

Legislators have introduced bills in both the House and Senate to halt the mine in Los Padres forest.

Your help is needed. Protest the fact that the "critical habitat" proposal for the California condor omits important habitat, and demand that the final regulation incorporate such habitat and be issued on a timely basis. Note that BLM failed to reissue a draft EIS on the Pine Mountain Phosphate Lease Application, and urge Interior to get busy and prevent this mining threat to the condor:

Honorable Thomas S. Kleppe  
Secretary of the Interior  
Washington, D.C. 20240

#### DEATH VALLEY

#### Miners & Burros & More

Not only have the romanticized days of the lone miner and his burro long passed in Death Valley, but today both miners and burros play significant roles in the problems that threaten the native vegetation, wildlife, and other resources of this national monument in California.

As many NPCA members know, huge conglomerates are destroying hundreds of acres of the monument in open-pit mining for borates and talc. Feral burros, although they are beautiful animals and colorful reminders of the Old West, compete with the native and rare desert bighorn sheep for waterholes and range.

Thus, in recent comments on environmental assessment options that will be used in developing a resource management plan for Death Valley, NPCA urged the National Park Service to strengthen its management objectives regarding existing mining there and concurred with NPS objectives to restore native species of plants and animals in their original ranges.

NPS now plans to "minimize the adverse effects of mining and prospecting" [emphasis added], whereas NPCA believes that the objective should be to eliminate mining activities wherever possible and to stringently regulate activities on valid, patented claims. (Although NPS units are generally closed

to mining—an activity grossly incompatible with the purposes of the National Park System—Death Valley is one of six units for which existing laws permit mining. When Congress invited NPCA views on this travesty, this Association supported legislation to repeal those laws and to impose a four-year moratorium on any mining operations in parks to allow time for evaluating existing claims and formulating plans to purchase the valid ones. See January 1976 issue, pp. 4–9, 18–20, and July 1976, p. 29.)

NPCA comments advocated the elimination of the feral burro population from within the boundaries of Death Valley National Monument. However, this should be accomplished by humane methods including a combination of methods such as live-capture and relocation; live-capture and sale to prospective buyers who agree to care for the burros; and live-capture and killing by humane methods in cases in which relocation or sale is not feasible.

NPCA opposes one of the plan's alternatives—retention of a managed burro herd—and also opposes a proposal to maintain a captive herd in one or two specific locations within the monument. NPCA stated that if the presence of burros is determined to be necessary or advisable for historical and interpretive purposes, we would support the retention of several burros at specific sites in the monument, such as one of the restored mining sites or towns, and at locations where Park Service personnel would be available for their care.

NPCA urged initiation of negotiations with the Fred Harvey Company, Inc., for the purchase of a large tract in Death Valley where it operates Furnace Creek Ranch and Inn. In particular, NPCA urged removal of a grove of exotic date-palm trees from the natural scene of the valley.

NPCA opposed construction of flash-flood control dams in the Furnace Creek Wash at the Gower Gulch diversion, noting that NPS seems to have bowed to pressure from Fred Harvey Company and is proposing manipulation of the natural environment for the benefit of private property owners within the monument. NPS should undertake early-warning monitoring activities to prevent harm to visitors

from flash flooding but no structural diversion dam should be constructed.

Overall, NPCA expressed strong support for the Park Service's proposal to restore disturbed areas of the monument, in particular the restoration and rehabilitation of springs that have been damaged by mining operations or feral burro activities, and the control of exotic plants—especially tamarisk and date palm—which have spread into remote areas of the monument.

## POTOMAC

### The Estuary as an Answer

Recently NPCA reaffirmed its support of use of the Potomac River Estuary to avoid critical water shortages in Washington, D.C., and its surrounding metropolitan area. The support came in testimony submitted on invitation to a House subcommittee that is conducting hearings on the status of the Potomac River in terms of water supply and water quality.

NPCA has been involved in the question of Washington's water supply for many years. Since 1963 NPCA has battled the Corps of Engineers plans to build sixteen major dams on the Potomac. Thirteen of those dams have been rejected, two more are under consideration, and only one is presently being built. NPCA reiterated to the subcommittee that these dams are unnecessary and that a more feasible alternative—economically, environmentally, and esthetically—is available in Washington's backyard—in the upper Potomac River estuary.

NPCA has supported a plan for using the estuary as a source of water for the area since before 1968, when this Association published an objective technical study by Ellery R. Fosdick entitled, "The Potomac River Estuary as a Supplemental Source of Municipal Water for the Washington Metropolitan Region." The estuary is a 117-mile stretch where Potomac currents are met by tides from Chesapeake Bay. The study shows that the upper 24 miles or so of the estuary contain all fresh water and hold over 100 billion gallons of water in natural storage. The upper estuary is more than adequate to supply area water needs well into the future.

In recent years, the Corps has begun to acknowledge the feasibility of the estuary as a source of water. An emer-

gency intake facility, for use during periods of low Potomac River flow and peak summer demands, is ready for construction. This is to be used only in emergencies; however, the Corps is designing a prototype water treatment plant to evaluate using the estuary as a continuing source of water supply.

The recent NPCA testimony also examined water conservation measures as a means to decrease the demand for water, thereby easing pressures to expand supply facilities. Such conservation measures include plumbing code amendments requiring use of water-saving devices, public water-saving education programs, pricing structures designed to decrease peak demands, recycling of water, leak reduction, and water use restrictions.

NPCA also urged the subcommittee to examine the root cause of this problem (and many others)—namely, overpopulation. NPCA called for better land use practices, more stringent controls over building and development, and most importantly, a curtailment of population growth in the area.

NPCA hopes that out of these hearings will emerge a coherent, basinwide plan to provide its residents with adequate water supply and a quality environment, as opposed to the jumbled jurisdictional disputes, fragmented planning, and pollution that now characterize the national disgrace that flows through our nation's capital.

## GLACIER

### Flathead Leasing Foiled

Recently the U.S. Forest Service released a final environmental impact statement (EIS) recommending approval of oil and gas lease applications on 91,000 acres of the Flathead National Forest just west of Glacier National Park, Montana. However, some congressmen have moved to halt any leasing.

More than a year ago NPCA opposed granting any lease applications in this critical area, because exploration and development would disrupt wildlife and pollute the Flathead River—the park's western boundary—and thus have multiple adverse effects on the national park. In its draft EIS, the Forest Service recommended granting leases on 165,681 acres of 236,000 acres covered in the applications.

NPCA urged recommending against

all the applications, however, pointing to impacts on the area's watersheds, airshed, endangered species, and other wildlife and resources. Many NPCA members submitted comments on the draft EIS opposing the leasing. In fact, an estimated 70 percent of those responding to the draft EIS directly or indirectly referred to a staff report in the September 1975 issue of this Magazine. (See also November 1975.)

The work of these NPCA readers and others may have indeed been helpful, because the final EIS has recommended granting applications on a much smaller number of acres—a difference of 74,681 acres. USFS recommends that consideration of applications on 73,000 acres of potentially important habitat for the threatened grizzly bear and the endangered Northern Rocky Mountain timber wolf be deferred



JUNE HILDEBRAND

pending delineation and designation of "critical habitat" under the Endangered Species Act.

However, NPCA believes that all the applications should be denied. The government has received applications on another 54,000 acres in the Flathead since the writing of the EIS.

The Bureau of Land Management will make the final decision on all the lease applications. However, Fiscal Year (FY) 1977 appropriations legislation includes an amendment offered by Rep. Max Baucus (D-Mont.) that deletes from the BLM budget all funds that could be used for leasing of oil and gas in the Flathead. Thus, if BLM intends to lease there, it must use FY 1976 funds before October 1, 1976.

## NPCA VOLUNTEERS

### A Special Thanks

NPCA would like to offer a special thanks to all the college interns and other volunteers who worked at NPCA headquarters in 1976 for their enthusiasm and contributions to the work of the Association.

Marilee Anderson (Winona State

College), Mary Leopold (College of St. Benedict), Jack Makarchak (Stockton State College), and Beth Penny (Wesleyan University) worked at NPCA during the winter of 1975-76 as part of school-sponsored Washington internship programs.

Other interns and volunteers spent their summer vacations working at NPCA: Eugenie Anderson (McGill University), Eve Edelson (University of Maryland), Philip L. Fairbanks (Columbus School of Law, Catholic University), Lilymae Fountain (University of Maryland), Susan Harrell (professional experience in environmental health), Dwight Hilpman (Kansas University), Jeff Johnson (University of Michigan), Dave Kittross (Penn State), Paul Shapiro (Cornell University), and Eva Silverfine (University of New Hampshire).

The NPCA internships provided an opportunity for these persons to learn the ins and outs of life in Washington by attending congressional hearings and government meetings, helping with the Magazine, preparing reports, and working with NPCA staff and other environmentalists. In turn, they made substantial contributions to the work of NPCA, for which we are deeply appreciative.

In addition, NPCA also wants to give a big thank-you to two volunteers who have been getting our Association library into shape, Robert Stacey (a professional librarian) and Rita E. Molyneux (Sr.). Their work is especially appreciated because NPCA does not have a full-time librarian.

### CUMBERLAND ISLAND Dredge Cumberland Sound?

NPCA has protested U.S. Army Corps of Engineers plans to dredge Cumberland Sound, Georgia, to serve a military base. The path of dredging touches the legislative boundaries of Cumberland Island National Seashore.

This "one-time" operation is actually a prelude to repeated maintenance dredging over the next fifty years, and NPCA is concerned about the impact upon the environment.

The Army says dredging is important to the national defense because Cumberland Sound provides ship access and safe conditions for transfer of military cargo. NPCA has insisted to the Corps that any dredging be planned in such

a manner that it will not harm wildlife or vegetation. The area has untapped potential for oyster harvesting that could benefit Georgia's economy.

One site being considered for spoil disposal contains a freshwater pond sheltering endangered eastern brown pelicans and southern bald eagles as well as wood storks, ospreys, and bitterns. NPCA insists that this site, if chosen, be subdiked to protect the pond. Alternative sites under consideration by the Corps involve dumping on marsh and in open water. NPCA opposes both.

An environmental impact statement reveals a treatment of fifty years of dredging as a sequence of noncumulative, one-time operations. NPCA cautioned the Corps against such a stance and urged cooperation with marine fisheries experts to ensure preservation of the Cumberland Sound ecosystem.

### MESA VERDE Mass Transit on the Mesas

NPCA expressed strong support for eliminating the private automobile from atop the spectacular mesas that are a hallmark of Colorado's Mesa Verde National Park, a green tableland cut by deep canyons.

The support came in recent comments on a range of alternatives presented by the National Park Service in its assessment of the general management plan for the future of the park. NPCA pointed out the particular need to ban autos on Chapin and Wetherill mesas, where extensive prehistoric Indian ruins are found.

NPCA urged adoption of the alternative proposing a convenient transportation system originating at the park entrance to accommodate day-use visitors with stops along the way to campgrounds and horse rental facilities to carry visitors atop the mesas and into the periphery of the restored ruins. Such a system, NPCA believes, would provide for increasing access to the park's historic and natural resources without the environmental damage

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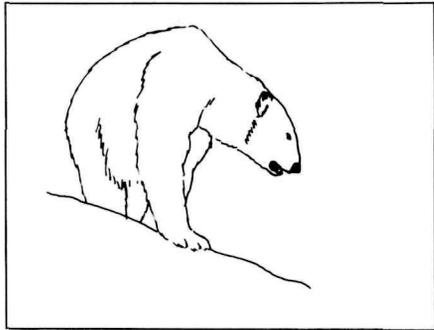
*Eddie Bauer*

Dept. NNP, Third & Virginia, Seattle, WA 98124

and esthetic intrusion caused by the private auto.

With the circulation system originating at the park entrance, logically the Park Service should locate the administrative, interpretive, and concession facilities in this area as well, thus further reducing the large amount of incompatible development now marring the mesas in the vicinity of scenic park resources. NPCA asked that the food, retailing, and overnight accommodations provided by the concessioners on the mesas be relocated to the entrance area. The park residences located on Spruce Tree Point, a spectacularly scenic area of the park that offers some of its most breathtaking views, also should be relocated.

NPCA asked that the existing vehicle and tent camping and horse rental operation in Moorfield Canyon be retained in its present location and size.



#### FOUNDATION GRANT **Mellon Helps NPCA**

President A. W. Smith of the National Parks and Conservation Association announced that the Richard King Mellon Foundation of Pittsburgh, Pennsylvania, has authorized a grant of \$25,000 for general operating support.

The Mellon Foundation is well known for its philanthropy in respect to education, health, social welfare, and civic affairs in the Pittsburgh region. Occasionally the Foundation makes contributions in the fields of education, medicine, conservation, and preservation to organizations outside Pittsburgh and western Pennsylvania.

The efforts of NPCA to which the funds will be primarily devoted will continue to be focused on the preservation of the National Park System, the maintenance of adequate park personnel, and the proper management of the budgets of the system for the benefit of the public.

## news notes

### CEQ **NEPA's Good Bill of Health**

The environmental impact statement (EIS) procedures required of federal agencies by the National Environmental Policy Act (NEPA) became increasingly routine and effective parts of planning and decisionmaking in the past year, and although some administrative adjustments are necessary, no legislative overhaul is needed. This is the conclusion of a recent Council on Environmental Quality (CEQ) report to the President and Congress.

It points out that as of April 1976 more than seventy federal departments and agencies had EIS procedures, and lists examples of how these procedures improved federal decisions.

"Whether the EIS requirement causes crippling red tape and needless delays in federal efforts to boost the economy was very much a concern of agency administrators during the recession year of 1975," CEQ Chairman Russell Peterson said.

"CEQ's report concluded that there were substantial problems of delay in the early years of NEPA, but they are diminishing as agencies improve their environmental expertise and begin EIS preparation earlier in their planning and decisionmaking process. The trend toward shorter times for preparation of draft and final EIS continued in 1975," he said.

Examining the statistics demonstrates that the claim that NEPA-related suits interfere with the timely execution of a substantial number of federal actions "simply does not wash."

Between January 1, 1970, and June 30, 1975, 654 actions have been brought alleging a NEPA issue. During that same period federal agencies initiated tens of thousands of projects. Since 1970, about 6,000 draft EIS's have been submitted. Only 291—less than 5 percent—were challenged in court as being inadequate.

Even then, many cases have been dismissed at the trial court level. Roughly 123 have resulted in temporary injunctions ranging from a few weeks to the time required to prepare an EIS. Only 6 cases have resulted in

"permanent injunctions," and not even in these was the agency precluded from proceeding with its action after it complied with NEPA.

Public meetings on the report are scheduled for September 15, 22, and 29 at CEQ headquarters in Washington, D.C., and subsequently in other cities.

### ALASKA **Oil Pipeline, Gas Pipeline**

Recent events have again raised serious questions about the environmental safety of the Alaskan oil pipeline. The implications of the issue are doubly grave because, as delineated in a recently passed Senate bill, by 1977 the President will authorize a new pipeline for natural gas produced as the oil flows at Prudhoe Bay.

In spite of numerous detailed safeguards required of Alyeska, the consortium of eight companies that is building the oil pipeline, damages to the environment occur repeatedly.

In early 1976 the General Accounting Office, the congressional watchdog, reported problems with stream siltation, heavy erosion, and wastewater treatment facilities.

According to the Friends of the Earth, reports from the field describe untreated sewage pumped onto the tundra, destruction of wildlife attracted to the camps, the spilling of thousands of gallons of fuel oil into the ecosystem, crossings for wildlife that are not in compliance with regulations, and organized crime.

The most recent development is a controversy over the quality of the welds that join the segments of the 4-foot-diameter pipeline. Alyeska's own audit shows that hundreds of the welds are cracked or otherwise irregular; and due to missing or reportedly falsified X-rays, there may be many more. In June the House held an investigation into how these failures could have occurred. The Office of Pipeline Safety and the Department of Transportation had small explanation for their lack of action. Not only has the episode aroused fears that the pipeline could break and flood the fragile arctic environment with thousands of gallons of oil, but correcting the errors will further drive up pipeline costs now estimated at \$7.7 billion (compared to \$900 million in 1969).

Environmentalists are asking that

we learn from our past experiences; if a pipeline must be built, it should be very carefully planned and carefully monitored, and the route it takes must be one to inflict the least damage.

The debate over the gas pipeline centers on what route should be chosen. Presently three formal proposals are before the Federal Power Commission to transport the gas south.

The El Paso route would follow the present oil pipeline to the port at Valdez, where (like the oil) it would be shipped to California. There is already concern over a buildup of Alaskan oil on the West Coast because no provisions have been made for transporting it to the central and eastern parts of the United States, which now import much oil from the Mideast. Gas could meet a similar fate. However, environmentalists' main worry is that, given the volatile nature of Liquefied Natural Gas (LNG) the possibility of serious repercussions from tanker collisions or to seismic activity is increased.

Arctic Gas Company proposes a route across the north slope of Alaska and into the MacKenzie River Delta, through the Northwest Territories, and south to the border. NPCA and other major environmental groups oppose this route. The Alaskan extension crosses through the Arctic Wildlife Range, a critical breeding ground for caribou. The Arctic Gas route also passes over delicate untouched land, with associated problems with permafrost damage, development, erosion, sewage, and disruption of wildlife.

The third alternative (in solid black on the map) is supported by NPCA and other environmental groups. This route would follow the oil pipeline to Fairbanks, then parallel the Alcan highway across a small section of the Yukon and into existing pipelines in British Columbia and Alberta. Because the Fairbanks-Alcan route follows existing corridors, it would cause the least disturbance to the fragile northern environment. Northwest Pipeline just recently came forward to sponsor this route, and the environmentalists' concern is to ensure that Northwest receives full consideration before the Federal Power Commission.

At the minimum we ask that what cannot be remedied on the oil pipeline should be avoided on the gas pipeline and on any other future projects.

## conservation docket

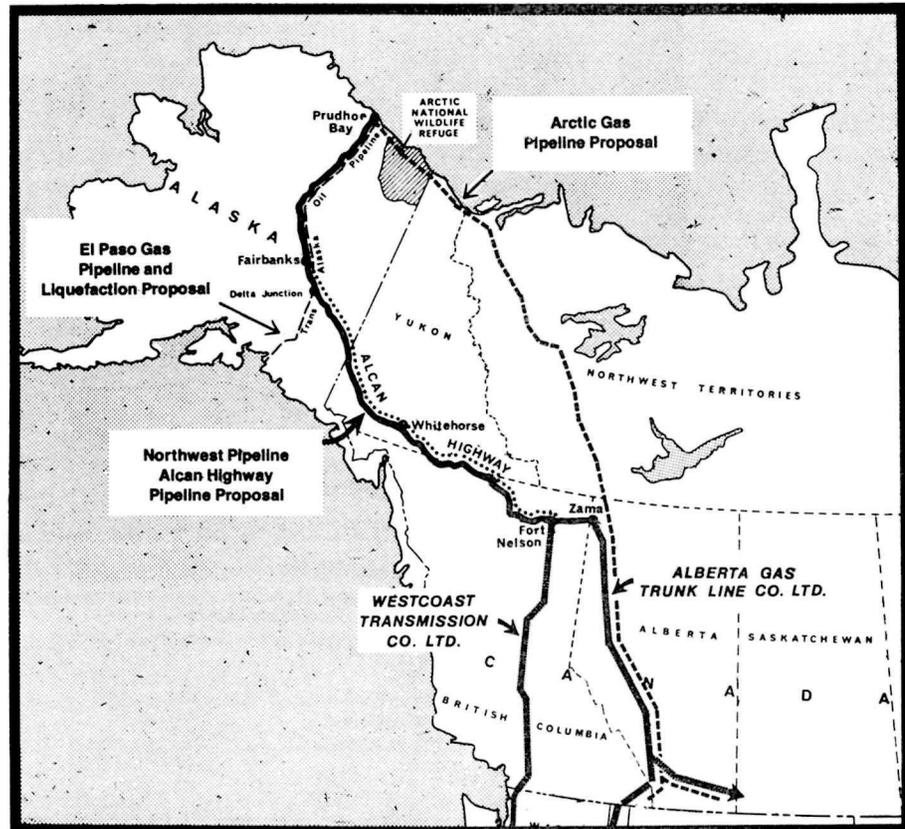
Action on the following bills may be of interest to NPCA readers:

**Alaska Gas:** S 3521—This bill would authorize a procedure for selecting a route for a pipeline to carry natural gas from the north slope of Alaska to the "Lower 48." The bill provides for completion of hearings and drawing up of recommendations by the Federal Power Commission by March 1, 1977, on the location of the route. The President then must review the recommendations and present a plan to Congress by August 1, 1977. The Congress has sixty days to approve the plan. If it is not approved within the allotted time, the President has an additional month in which to present a new recommendation. The bill precludes any judicial review of the adequacy of the environmental impact statement, but an amendment by Senator Dale Bumpers (D-Ark.) requires Congress to ensure that the EIS is in compliance with the National Environmental Protection Act. Any other judicial action on the legislation must take place within

sixty days after the enactment of the legislation. Passed the Senate, jointly referred to House Commerce and Interior committees.

**Alpine Lakes:** HR 7792—This bill to create a 392,000-acre Alpine Lakes wilderness area in the state of Washington met considerable opposition in the House Interior Committee but was passed by the full House. In the Senate the bill sailed through the Senate Interior Committee with a unanimous vote and passed the full Senate without objection.

**Coastal Zone:** S 586—This legislation was reported out of a House-Senate conference after four months of debate and amendment and sent to the President. The bill is designed to assist coastal states to deal with impacts of coastal zone development. Part of the bill provides for \$1.2 billion in loans and grants to be allocated over a ten-year period to assist state and local governments in planning and implementing their coastal zone programs. In addition, the legislation amends the Coastal Zone Management Act, which provides terms for cooperation between the state, local, and regional programs and protection for each from the actions of others and from the fed-



eral government's actions. Funds are provided as well for recreational development, preservation, and research of coastal zones.

**Coal Slurry:** HR 1863—This bill provides for the right of eminent domain to coal slurry pipelines. The pipelines would carry a mixture of crushed coal and water from strip-mined coal fields in the Northern Plains to Arkansas. The House Interior Committee voted 19 to 21 to table the bill. Further action on such legislation would require a motion to reconsider or the introduction of a new bill. (See Conservation Docket, February 1976, page 30.)

**Section 404:** HR 9560—Congress is considering legislation exempting a significant amount of wetlands from coverage under Section 404 of the Water Pollution Control Act, which directs the Corps of Engineers to take action to protect all streams, wetlands, and lakes. After much controversy and a court order, the Corps began to carry

out its mandate this year. However, this amendment to the Act would remove most of the Corps power over nonnavigable waters and could reduce its ability to regulate some of the areas still under its jurisdiction. Following hearings by the Senate Public Works Committee, the Senate is expected to act on either House-passed legislation or legislation of its own.

**Federal Coal Leasing:** S 391—Congress has overridden a Presidential veto of this bill that would reform federal coal leasing methods by requiring land use planning and reclamation, discouraging speculation, and encouraging competition. The bill originally was intended to complement strip mining regulation legislation, but after that legislation was vetoed twice, congressmen decided to move ahead with this bill by itself.

**Solid Waste:** S 2150—Legislation to promote resource conservation and recovery has passed the Senate. It was the vehicle for an amendment, offered

by Sen. Mark Hatfield (D-Ore.), to institute a national beverage container deposit system. This amendment failed 26 to 60, but an amendment creating a commission to study such a system passed. When the House completes work on similar legislation, it may be necessary for a House-Senate conference to resolve differences between the two bills.

The following new bill will interest many NPCA members:

**Asbestos:** HR 14363—This bill to forbid the discharge of asbestos fibers except on land as regulated by the Secretary of Interior would give the Secretary three months to promulgate rules for dumping asbestos on land. Mining companies (such as Reserve Mining Co.) and their affiliates then would have one month to comply with the regulations or face a \$1,000-per-day fine. Introduced by Rep. Phillip E. Ruppe (R-Mich.). Referred to House Interior Committee.

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*Continued from page 2*

conditioned on federal approval of state and local plans which will be binding on private businesses and local agencies. It is the criteria by which federal approval will be given or withheld which concern us here for the moment. Planning we have had before, for good or evil. Our means may be highly rational, our purposes insane. The choice of ends in land-use planning is critical.

Many institutions which could be used to further the sound uses of the land already exist. In the central cities, for example, we have the problem of red-lining; lending institutions are thought to be reluctant to extend and guarantee mortgages to rehabilitate housing in rundown areas. These choices fall within the control of the Federal Housing Administration in the Department of Housing and Urban Development.

And meanwhile, the FHA grants mortgage insurance on projects financed by the savings and loan associations for second-home projects in rural areas where they wreak multitudinous havoc. The result has been to escalate farmland assessments, impose heavy burdens for community services, skyrocket tax rates, and drive farmers out of business.

**I**T IS TIME that these policies of the FHA were reversed. Firm restraints should be placed on second-home and comparable development and subdivision everywhere. Mortgage guarantees should be denied where a development is incompatible with the preservation of agricultural and historic landscapes and the agricultural economy. The underwriting should be turned instead toward the rundown sections of the big cities, which will receive no aid from the banks and building and loan associations unless the government guarantees the risks.

We suggest that there is a fruitful field of cooperation here between the private organizations which seek the rehabilitation of the burnt-out or deteriorated downtown and inner-city neighborhoods and the organizations concerned with the preservation of the countryside. The farmers' associations, if they can shake off the schizophrenia which afflicts them as a result of the conflict of interest between their members as farmers and their members as speculators, should be foremost in efforts to preserve land for agriculture.

**A**LL SUCH land-use planning efforts, focused as they should be on the restoration of human community with nature, must be carried out within an understanding of the industrial situation and purpose. The factory, large or small, remains the economic unit of modern society and in large part controls its ways. We have learned in recent years to think without a shudder of social control over the location of utilities, but the size and location of industrial plants of all kinds are of equal importance. The economies of the small plant and of shorthaul distribution should attract us.

Can our industrial plants be sized and located to facilitate the rehabilitation of the central city neighborhoods? The small urban community? The protection, not the destruction, of the countryside? Can this kind of industrial planning be fitted into the statutes and institutions of land-use planning which will shortly be emerging, as a matter of prime social and economic necessity, from the deliberations of Congress and the state legislatures?

**W**E ASSUME, perhaps too easily, that our rapid progress toward internal population stabilization in recent years will continue, because of the good sense and morality of it, and that we can both halt the flood-tides of illegal immigration across our borders and balance legal immigration precisely with permanent emigration. No rational planning for any purpose—environmental protection, resources management, or industrial stability, let alone land-use management—can have any hope of success unless population stabilization, and indeed the gradual reduction of crowding, can be achieved. The point needs to be made repeatedly.

We grope toward community as village, town, and, in the cities, neighborhood. We struggle toward stability, not chaos of innovation and expansion. We turn away from a surfeit of commodities to take satisfaction in economy and sufficiency. We outgrow our fascination with gadgets and look with interest and sympathy toward living creatures. We would center our lives once again within the fields, streams, forests. We search for, and will not be denied, a new nexus with Cosmos, bespoken by sunset, and by moon-rise under stars.

—Anthony Wayne Smith

**HELP US HELP THE PARKS . . .**

Many of you visited our national parks this summer. This year we urged you to visit the less crowded parks for your own comfort and enjoyment and in order to ease pressure on the more popular areas. We hope that you enjoyed your stay in whichever park you visited; and now we ask you to make special note of the interpretive programs, shuttle-bus transportation (or lack thereof), other services and facilities, and efforts to protect natural resources that you observed. If you found them wanting, please let us know; and we hope that you will give to NPCA's contribution fund to help get the National Park Service budget and personnel allocations increased to fully adequate levels.

**NATIONAL PARKS & CONSERVATION ASSOCIATION**  
1701 Eighteenth Street, N.W., Washington, D.C. 20009

