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River Basins

PRESIDENT CARTER'S courageous action in tightening controls over river basin construction projects has had the strong support of conservationists everywhere, and will continue to do so.

The shock waves in Congress could have been expected and would have occurred no matter how the matter was handled.

Much of the congressional leadership is well aware of the grave deficiencies in present river basin policy, and can be counted on to support wise Presidential action increasingly as time goes on.

The controls available to the President are limited and obvious: review and appraisal, budgetary recommendations, impoundment within the limitations of law, project veto if such becomes possible, and Executive Branch reorganization.

The methods available to Congress are also clear: de-authorization of objectionable projects; tightening of criteria for benefit-cost analysis; congressional budgetary analysis; single-project authorization and appropriation; and re-examination of the basic premises of river basin management.

DURING ROUGHLY the last forty years, the goals of river basin management have passed through a phase focused on construction and have entered on a phase focused on conservation.

One of the earliest purposes was flood prevention by storage in large reservoirs. That period has passed, and we now think of flood plain protection against development, and the preservation of agricultural land.

Another primary purpose was hydro-electric power development. We have come to realize that hydropower can never provide more than a very small percentage of the total energy we need and that the valleys destroyed by the reservoirs are more important than the power. Most of the good sites have already been developed anyway.

The reclamation programs, turning

around big reservoirs for irrigation and hydropower, fostered expenditures for construction and subsidized agriculture for decades. The additions they made to agricultural acreage were trivial in comparison with the losses of farmland we have been suffering from urban sprawl and highway construction.

River navigation has always had its attractive features and was a makeweight argument for dam building. At one time it helped to get railroad freight rates under control. The highways and airlines, with heavy federal subsidy, did the railroads in for a time, but we shall be getting back to the rails.

Pollution control became a major justification for large reservoirs about twenty years ago at the precise moment when programs were emerging for the prevention of pollution at source.

Water supply has been one function of storage, but big dams are a poor solution. Small headwaters impoundments, the use of groundwater, the use of freshwater estuaries, the purification of urban and industrial wastewater, and recycling are the water supply methods of the future.

Recreation on reservoirs was touted for a while. It has the support of the motorboat and fishing tackle industries, and a few conservationists were beguiled. A better understanding has arisen among us, and the natural stream valleys are seen as affording prime recreational environment.

E MERGING FROM these profound changes and fostering them, there have been other remarkable shifts in goals and values. The farmlands which lie within the stream and river valleys are to be restored and protected, and the agricultural communities and landscapes as well. Within these watersheds also we recognize once more a vast wealth of historic buildings, sites, and communities, complete historic landscapes.

Many admirable federal-state coop-

erative programs have been established for the restoration and protection of the countryside, and await only a renewed enthusiasm and adequate financing. Soil conservation, cooperative forestry, game and wildlife restoration, outdoor recreation, wetlands, shorelines, wild and scenic rivers, and land use planning offer their contributions to environmental river basin management.

None of these environmental programs requires the heavy coordination favored by river basin managers concerned mainly with big construction. One big dam constructed without planning for the next contributes to chaos. But one soil conservation program supplements another without conflict. With big construction set aside, a variety of coordinating approaches becomes possible: federalstate commissions, interstate commissions, interdepartmental task forces, and the like. State governments, coordinating their work with federal programs, and acting in consultation with each other, as contrasted with river basin commissions, would be the dominant governmental form.

T HE POLITICAL PROCESSES which have wreaked so much destruction throughout our river basins for decades are reasonably well understood. The large contractors of the big cities have reaped enormous profits. They had the support of the building trade unions, the trucking interests, the building materials people, the big machine manufacturers, and the real estate speculators. The interests made their campaign contributions and secured irrevocable commitments in advance from politicians.

The government agencies added the weight of their bureaucracies: Army Engineers, Reclamation Bureau, Tennessee Valley Authority, Soil Conservation Service, Federal Power Commission, and the privately owned public utilities. Opportunities for individual advancement opened up in those agencies, and careers prospered as new projects were invented and promoted.

In Congress, the log-rolling technique amplified and sustained the process. One Congressman supported a *Continued on page 31*

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National Parks & Conservation Magazine

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COVERS Indian Peaks, by Kent and Donna Dannen Indian Peaks—a spectacular 76,000-acre area of rugged mountains, glaciers, tarns, alpine meadows, and forested valleys in Coloradohas been proposed several times during the past sixty years for inclusion in Rocky Mountain National Park. Once again conservationists are proposing the area for wilderness designation and annexation to the park to create a more complete ecological unit than present park boundaries. On the front cover climbers rest on the Continental Divide atop North Arapaho Peak (13,502 feet) above Arapaho Glacier. Brainard Lake, on the back cover, is a popular recreation spot in Indian Peaks. (See page 4.)

Eugenia Horstman Connally, Editor Joan Moody, Assistant Editor Nancy Schaefer, Production Assistant

National Parks & Conservation Association, established in 1919 by Stephen Mather, the first Director of the National Park Service, is an independent, private, nonprofit, public service organization, educational and scientific in character. Its responsibilities relate primarily to protecting the national parks and monuments of America, in which it endeavors to cooperate with the National Park Service while functioning as a constructive critic, and to protecting and restoring the whole environment. Life memberships are \$600. Annual membership dues, which include a \$6.50 subscription to National Parks & Conservation Magazine, are \$120 Sustaining, \$60 Supporting, \$25 Contributing, \$18 Cooperating, and \$12 Associate. Student memberships are \$8. Single copies are \$1.50. Contributions and bequests are needed to carry on our work. Dues in excess of \$6.50 and contributions are deductible from federal taxable income, and gifts and bequests are deductible for federal gift and estate tax purposes. Mail membership dues, correspondence concerning subscriptions or changes of address, and postmaster notices or undeliverable copies to National Parks & Conservation Assoand postmaster induces of antervension copies to induce and see a construction in the original set of the set A spectacular region of rugged mountains should be declared wilderness and added to Rocky Mountain National Park

BOB VOLLMERHAUSEN



ROUGHLY 27,000 years ago, glaciers advanced from high ridges of the Continental Divide in Colorado's Rocky Mountains, sculpting the land with icy fingers. They tore at unbending granite and schist until it gave way, ripped up boulders the size of cabins and tumbled them about, gouged out pockets of earth, and carved the mountains into jagged peaks.

In Indian Peaks, a spectacular 76,000-acre area of mountains just south of Rocky Mountain National Park in Arapaho and Roosevelt national forests northwest of Denver, the legacy of the Ice Age remains. The mountains are rugged and savage looking, and the peaceful valleys below them are dotted with moraines and with tarns that store the runoff of lengthy winters. Today these valleys are forested in Engelmann spruce, subalpine fir, and lodgepole pine or, higher up, are covered with delicate alpine flowers. In certain secluded patches in Indian Peaks the giant eastern oak fern can be found-a rarity in Colorado. Indian Peaks also contains native habitat of the endangered-and once considered extinct—greenback cutthroat trout. In fact, this stock is being used to reintroduce the greenback into Rocky Mountain National Park. (See the October 1974 issue of this magazine.)

The Indian Peaks region includes the southernmost glaciers in the Rockies and the easternmost point on the Continental Divide. The University of Colorado's internationally known Institute of Arctic and Alpine Research conducts alpine tundra studies and experimental projects in Indian Peaks and also operates weather stations. The proposed Continental Divide National Scenic Trail will twist through Indian Peaks for many miles.

The future of Indian Peaks, however, will be determined, not by the enormous earth-shaping force of glaciers, but by human decisions that are now being formulated.

EARLY SETTLERS began the process of civilization in the Indian Peaks region. Yet as late as 1914, many of Indian Peaks' most spectacular summits remained unnamed. This lack was remedied by a Denver high school botany teacher, Ellsworth Bethel, who could see the nameless peaks each school day from his classroom window. When Bethel retired, he assigned himself the task of sketching the range, naming the peaks for important Great Plains Indians, and submitting his names to the U.S. Board of Geographic Names. Not all his names were approved, but the Board did accept Apache, Arapaho (previously named), Arikaree, Kiowa, Navajo, Ogalalla, and Pawnee-all 12,000foot and 13.000-foot mountains.



Since Bethel's appellative binge, the area has been known as Indian Peaks.

Enos Mills, often called the John Muir of the Rockies, explored this region during the early 1900s and came to love it. Mills became the driving force behind a movement to create a national park near the small mountain community of Estes Park. The original proposal for Rocky Mountain National Park, submitted in 1914 to the Secretary of the Interior, included the Indian Peaks area. Mills' effort was the first of several to give Indian Peaks national recognition.

Unfortunately, mining interests argued convincingly that impor-

tant mining developments would occur within the Indian Peaks area before long. Comprehensive studies were not made, but enough people believed that Indian Peaks contained mineral wealth that the area had to be omitted from park proposals in order to gain support for the creation of Rocky Mountain National Park by Congress in 1915.

Ten years later an agreement was reached between the Forest Service regional forester and Rocky Mountain National Park Superintendent Roger Toll to transfer control of the land south of the park (Indian Peaks) from the Forest Service to the Park Service. But several organizations opposed this move. Ef-

forts were begun in the same year. 1925, to build a transcontinental highway through the heart of Indian Peaks. Mining interests still believed there were minerals to be extracted. The growing community of Boulder needed water, and nearby Indian Peaks was a prime watershed. Boulder appealed to Congress to prevent the transfer, and in 1927 the transfer idea was set aside. One year later Congress authorized the sale of nearly 4,000 acres of Forest Service land in Indian Peaks to the City of Boulder for a watershed.

In 1932 the issue of transfer was again addressed when the chief forester acknowledged that a part of Indian Peaks "possesses unquestioned national park qualities and characteristics" and that "a program of boundary adjustments . . . between the two Services would have the general approval and support of the Forest Service." The two services agreed to have an independent study made of Indian Peaks by Charles Eliot II, Director of Planning of the National Capital Park and Planning Commission.

Eliot's study concluded that the primary use of the area is

recreational in the highest sense of inspiration and education . . . that the incidental uses permitted under Forest Service management are unimportant from the national viewpoint, but of great political importance



locally, and that management of the area under either Service would be similar. The emphasis of the Park Service would be on preservation; the emphasis of the Forest Service on incidental commercial uses.

After a series of conferences, mining industry influence and local opposition developed; and the project was dropped for the third time.

REPRESENTATIVE Timothy E. Wirth introduced a bill in June 1975 in the House of Representatives that called for an enlargement of Rocky Mountain National Park by about 127,000 acres, which would create a more complete geographical and ecological unit than present park boundaries. The proposal included Indian Peaks, which stretches sixteen miles directly south of the park, plus five other areas adjacent to park boundaries on the north, east, and west sides. But when local opposition arose in some mountain communities in March 1976 because of fears that park status

would draw more crowds, Rep. Wirth did not press the bill. He did, however, appoint an advisory committee, consisting of opponents and supporters of park expansion, to advise him on management of the Indian Peaks area.

In 1972 Congress directed that roughly 71,000 acres of the 126,-500-acre Boulder-Grand Divide Planning Unit of Arapaho-Roosevelt National Forest be studied for its suitability for designation as wilderness under the Wilderness Act. But the Forest Service ignored this congressional directive until it was pressured by the park proposal in 1975. Not until November 1976 did the Forest Service release the Indian Peaks wilderness proposal, along with the Boulder-Grand Divide Unit Draft Environmental Impact Statement. The Forest Service proposed only 16,270 acres of Indian Peaks along the southern boundary of Rocky Mountain National Park for wilderness designation as the St. Vrain Glaciers Wilderness Area. The remaining 55,- 000 acres of unroaded land would be managed primarily for "dispersed recreation" and "developed recreation" such as campgrounds, picnic areas, ski areas, and snowmobiling-all serviced by a network of roads.

N RESPONSE to the Forest Service wilderness proposal the Wirth Advisory Committee is agreed that a larger area of at least 64,560 acres-and possibly moreshould be designated as wilderness, and Rep. Wirth supports that recommendation. But there is no consensus among the committee about whether the Forest Service or the National Park Service should manage the wilderness area.

But people who favor park expansion are convinced that Park Service management would better protect Indian Peaks. The Forest Service already manages the Indian Peaks as "wilderness," they point out; but the natural values of the area are being degraded because the Forest Service does not enforce its

Proposed Rocky Mountain National Park Expansion

Indian

Peaks

Study

ARAPAHO

PASS

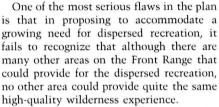
Area

Searching for excuses to avoid wilderness designation, the Forest Service claims that the "mining road" below Arapaho Pass disqualifies the area below South Arapaho Peak as wilderness. Yet in most places this "road" is no wider than the 36-inch-wide trails the Forest Service plans to build in the area. The fact is, a transmountain highway was once proposed to be built over the pass; and although the Forest Service claims no highway will ever be built, without some legal protection such as wilderness designation, Forest Service policy could easily change.

regulations. In contrast, adjoining backcountry in the national park is in prime condition.

The Rocky Mountain Park Expansion Society (RMPES), a citizens' group organized to promote understanding of the expansion proposal, charges that "overuse coupled with the failure to properly manage the Indian Peaks have caused a serious deterioration of this magnificent area." They say a herd of bighorn sheep vanished from Indian Peaks sometime after 1971; that campfire scars around the idyllic tarns mar the landscape; and that dog lovers bring pets for a day of exercise without recognizing the adverse effect on wildlife, other hikers, and campers. Of the Forest Service wilderness proposal, RMPES says:

The Forest Service claims that it is responding to needs and desires of people for a diversity of recreational experiences, but it has ignored several serious problems that plague the Indian Peaks. A severe overuse situation exists throughout most of the main trail systems in the area, especially around a few of the more scenic alpine lakes. No mention is made of this problem; no solutions are offered. Instead, it proposes extensive trail-building (36-inch trails-as wide as a sidewalk) which would almost certainly draw more visitors to the trouble spots. What is the carrying capacity of the land? What will happen to the quality of the wilderness experience? Will Indian Peaks be able to support increased numbers of recreationists? The plan does not address these questions.



ROCKY

Grand

Granby

GRAPHICS

DERAL

Lake

MOUNTAIN

NATIÒNAL

PARK

NDIA

Estes Park

Proposed park

Boulder

Minimum wilderness area proposed by Wirth Committee

Rocky Mountain National Park wilderness proposal

Wilderness area proposed by Forest Service (16,270 acres)

and conservationists (64,560 acres)

additions

The Forest Service claims that Arapaho Pass is not suitable to be included in a wilderness area because of an incompleted old wagon road (in most cases no wider than a 36-inch trail) that has been used for the past ninety years as only a foot and horse trail. This is a crucial area because of a previously proposed transmountain highway over the pass, right through the heart of the area. The Forest Service claims no highway will ever be built, but without some legal protection, there is nothing to stop it.

As a multiple-use agency, Forest Service policy frequently gives priority to consumptive uses of public land—timber harvesting being the most notable. Proponents of expansion fear that the Forest Service may permit timber harvesting in the area sometime in the future.

By contrast, the National Park Service is dedicated to preservation. According to the RMPES, "By its efforts in Rocky Mountain National Park the National Park Service has demonstrated that it can effectively deal with the problems of urban impact upon an alpine wilderness area. In short, the National Park Service has the commitment, the funds, and the proven ability to best manage Indian Peaks." DURING this latest annexation effort it will be difficult for mining interests to play a spoiler role. Although prospectors have explored the area since the late 1800s, no substantial mining has ever taken place. A recently completed study by the U.S. Geological Survey concluded that Indian Peaks contains "no known mineral deposits that can be mined profitably now or in the foreseeable future."

Local opinion, which has previously worked against park expansion, now seems to generally favor it. Local people who do oppose enlargement fear that national park status could spur unwanted regional development by attracting more people to the vicinity of Indian Peaks. Residents in small mountain communities, for example, do not want their towns to develop into another Estes Park-a highly developed resort town catering to the swarms of visitors to Rocky Mountain National Park during the warm months. Some local residents oppose the stricter backcountry regulations—such as banning dogs and hunting-that would come with national park status

Meanwhile, the Park Service manages to cope with throngs of visitors to Rocky Mountain National Park—nearly three million in 1976. In fact, even though the park is relatively small—only oneOne-and-a-half million people live within a sixty- to ninety-minute drive from Indian Peaks, making it one of the few primeval areas so close to a major urban area. Opposite, the low serrated peak to the left of center is Sawtooth Mountain, the easternmost point along the Continental Divide. Indian Peaks extends for sixteen miles south of Rocky Mountain National Park. Conservationists want the area designated as wilderness and added to the park.

third the size of Yosemite and oneninth the size of Yellowstone—it has the highest number of visitors of any park west of the Mississippi. Hiking and backcountry camping in the park have soared by nearly 500 percent since 1967. Even with this extensive backcountry use, RMPES points out, Rocky Mountain National Park management has protected the natural resources with a permit system that disperses and regulates campers to prevent destructively heavy use in any one area.

However, with demand growing every year, many people fail to obtain the permit they seek. Park Service management of Indian Peaks would provide more backcountry in which to disperse campers. Furthermore, permitbased dispersal and regulation would relieve the pressure in currently overused and worn out areas in Indian Peaks.

THE BATTLE over Indian Peaks is six decades old. Competing interests have called in the past for mining, a transmountain highway (the latest effort failed in the late 1960s), and timber harvesting; and who knows what is yet to come. For decades these rugged mountains and peaceful valleys have successfully rebuffed the grasping tentacles of civilization. They have provided uncounted millions of people with the opportunity to enjoy solitary walks in an easily accessible, heavily glaciated alpine' region offering meadows brilliant with columbine and paintbrush and forests alive with hermit thrush and chickadees, beneath craggy peaks that testify to the incredible work of an earlier era.

The primary importance and value of Indian Peaks is long-term recreational, scientific, and inspirational. The region deserves the highest form of protection for future generations to study, observe. and enjoy. Enos Mills and others proposed Indian Peaks as part of a national park in 1914. Now it is time to fulfill that dream by placing at least 64,560 acres of the Indian Peaks in the National Wilderness System, annexing it to Rocky Mountain National Park, and providing sufficient funds for adequate management.

Bob Vollmerhausen is editor of the *Colorado Earth Advocate* and works as a free-lance writer specializing in environmental issues.

Editor's Note

Get Involved: HELP PROTECT INDIAN PEAKS

The Final Environmental Impact Statement on the Boulder-Grand Divide Planning Unit, which includes the Indian Peaks, is due this summer.

NPCA members can help provide the best protection for the Indian Peaks by urging the Forest Service to revise its wilderness proposal to include at least 64,560 acres and to cooperate with the Park Service to support transferring the area to Rocky Mountain National Park.

Hon. Robert S. Bergland Secretary of Agriculture Department of Agriculture Washington, D.C. 20250 Also let the Secretary of the Interior know that you support the transfer of Indian Peaks to the National Park Service.

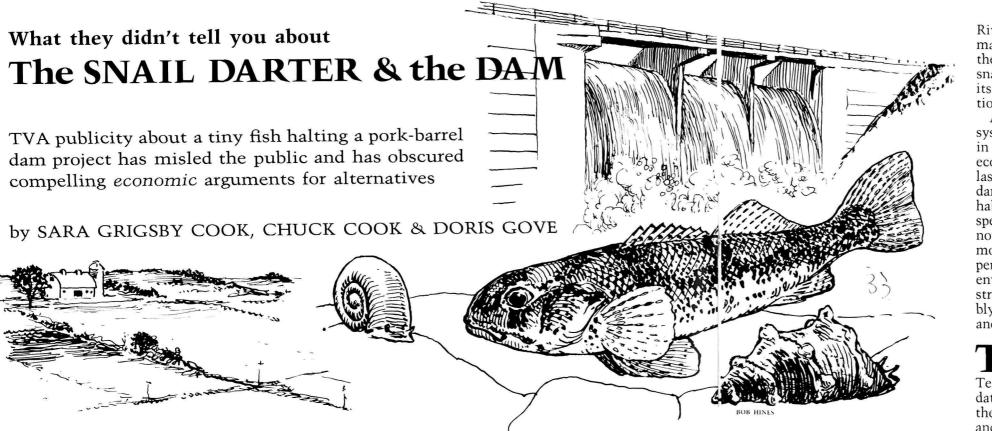
Hon. Cecil D. Andrus Secretary of the Interior Department of the Interior Washington, D.C. 20240

For more information and for suggestions of other ways you can help, write:

Rocky Mountain Park Expansion Society 90 Madison Street, Suite 212 Denver, CO 80206







River and its tributaries. But since man has impounded virtually all of the Tennessee River system, the snail darter has been backed into its last corner-this last free portion of the Little Tennessee. As Dr. Etnier explains, the eco-

systems disappearing most rapidly in this country are the big river ecosystems. The significance of the last existing populations of snail darters lies in the fact that big river habitats that had supported the species throughout the area are now destroyed. We are recognizing more and more that we are dependent on interrelationships of environmental factors and that destruction of these factors inevitably leads to a decrease in diversity and quality of life.

HE Tennessee Valley Authority has nearly completed the Tellico Dam, which would inundate the last thirty-three miles of the Little Tennessee River valley and render the snail darter extinct. On January 31, 1977, the Sixth District Court of Appeals in Cincinnati ruled unanimously to halt construction on the dam and to permanently enjoin its closing.

The TVA has had a tremendous advantage in the conflict and with the publicity it released after the court decision: It spent taxpayers' money on the Tellico Project. No taxpayer wants to see money wasted, and no representative elected by taxpavers wants to admit that money has been wasted. This is why most pork-barrel projects succeed. When completed and working, they represent money "well spent" by definition, even if the costs so far exceed the benefits that the finished project would be better abandoned. TVA is using this advantage fully, claiming that \$101 million will be "lost" if the project is not completed. A closer look at the project costs, however, does not substantiate this claim.

The Agency condemned and acquired 38,000 acres of land in the Little Tennessee River valley at a cost of \$26 million. The only conceivable way for this public money to be lost is to flood the land. Fif-

CO FAR, the Endangered Species Act is being implemented at a snail's pace," Jimmy Carter observed during the 1976 presidential campaign. A snail's pace is too slow for most animals and plants in need of protection, but the snail darter (Percina tanasi), a hunter of snails, may win its race against time.

This tiny fish of the perch family was discovered and named in 1973 by Dr. David Etnier, an ichthyologist at the University of Tennessee. That same year an overwhelming majority of Congress passed the Endangered Species Act, which may protect the snail darter from extinction-if the Act itself does not become endangered.

Not long ago, few people outside Tennessee had ever heard about the snail darter. Then news media across the nation picked up a story of a three-inch-long fish that had halted construction of a multimillion-dollar dam near completion by the Tennessee Valley Authority (TVA). Suddenly the snail darter was famous, and the Endangered

Species Act seemed unnecessarily obstructive to many people. But few people have been informed about the most surprising facts in this controversy. Not only have reports given false impressions that the effort to stop the dam consisted of a last-minute lawsuit and that this lawsuit could cause the irretrievable loss of \$101 million, but the economic facts alone tilt the scales heavily in favor of halting the dam and thus protecting the snail darter.

HY IS THIS FISH so important anyway?" many people argue. Others lament the fact that an obscure species that elicits little admiration from most casual observers is involved in an important test case for the Endangered Species Act. But the snail darter has had its defenders for several years-people who believe a little fish deserves as much concern as more familiar and dramatic endangered animals-and they watched in dismay as TVA accelerated construction of the dam to try to avoid compliance with the Endangered Species Act.

In truth, this small fish represents a major public principle. Referring to endangered species, candidate Jimmy Carter said, "Abundant and diverse fish, wildlife, and plant species are essential to our enjoyment of the natural world, as well as our own survival. Each species is unique and plays a significant role in the earth's ecosystem. Our fish, wildlife, and plant resources act as an indicator of the health of our environment. I believe that when they have trouble surviving, we should seriously examine the quality of our environment."

However, implementation of the Act is difficult. Critical habitat requirements of most species have not been identified, leaving them without sufficient protection from destructive development projects-especially those that are already underway.

Luckily for the snail darter, however, its "critical habitat" under the Endangered Species Act has been officially designated by the Department of Interior as the lower sixteen miles of the Little Tennessee River in east Tennessee. Here the darters occupy a specialized niche-only portions of clean gravel shoals with cool, swift, lowturbidity water. They feed almost exclusively on snails abundant on these shoals.

Unluckily, this high-quality habitat lies directly in the path of TVA's Tellico project, which would eliminate the last remaining major stretch of free-flowing water in the Tennessee River system.

Under Section 7 of the Act, all federal departments and agencies, including TVA, must ensure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of the snail darter and other species listed under the Act and do not result in the "destruction or modification" of habitat determined by the Secretary of the Interior to be "critical." Biologists theorize that the snail darter once inhabited several

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hundred miles of the Tennessee

teen million dollars have been spent on wages for labor on the project. This money already has had a beneficial effect on the local employment situation and the economy. An additional \$34 million has been spent on "reservoir adjustments," which include new highways, a highway bridge, and a railway bridge-all of which were needed even without the dam. These benefits are not contingent on the existence of a reservoir, and are compatible with alternate uses.

Irretrievable costs include \$14.8 million for the earthen and concrete dam structures and \$6 million for a canal. (But half of these amounts were wages.) The larger point, however, is that \$80 million of the project money has bought land, roads, and other improvements that have since increased in value far beyond the project's costs.

TVA has told the courts and legislators, in effect, "Look at how much money we have spent; you cannot stop the project now." However, inspection of the agency's figures shows that more than half the money was spent after TVA was well aware that it was violating the Endangered Species Act!

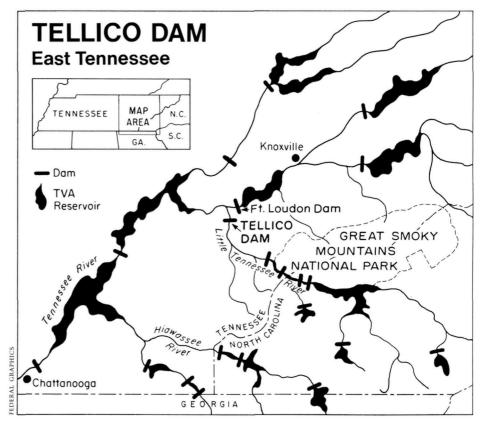
In response to the court injunction, TVA has initiated a massive public relations campaign, using the 1976-77 natural gas shortfall to magnify the dam's electrical generating significance. But the Tellico Dam has no generators. The reservoir will be connected by a canal to the nearby Fort Loudon reservoir; and Tellico water, when available, will flow over the Loudon generators, expanding the system capacity by only 0.1 percent.

Electricity is needed, of course; but such a small amount, at a cost several times more per kilowatt than that produced elsewhere in the TVA system, does not justify the dam. Furthermore, industry simply is not expanding in the Tennessee Valley as it used to. TVA's most recently completed reservoirs have not fulfilled their promises, and large tracts of land set aside for industry lie unused. There is no reason to believe that

yet another reservoir will reverse this trend. Thus, opposition to this dam is based on several considerations in addition to the snail darter and is not a last-minute effort. In fact, Congress had approved construction of the Tellico Dam in 1966, and it was already half completed before the snail darter was discovered in late 1973. Yet hundreds of citizens have been working for more than ten years toward halting this dam project, which is unjustified on grounds other than the Endangered Species Act.

UCH MORE BENEFICIAL use could be made of the project land than a lake in an area where almost every river has already been impounded. In February 1977 the Little Tennessee River Alliance, a group of six conservation organizations, called on Congress to authorize a study of the numerous alternative land uses for the Tellico Project area. They proposed that a study be conducted jointly by all agencies with jurisdiction over the area-TVA, the departments of Interior and Agriculture, and the state of Tennessee. All the land uses should be judged for economic soundness and compatibility with the maintenance of a river environment. The most promising alternatives are the return of the rich farmland in the area to agricultural production and the development of the area as a recreational resource sufficiently attractive to relieve visitation pressures on nearby Great Smoky Mountains National Park.

Approximately 15,500 acres of prime river bottom land would be permanently flooded by the Tellico Dam. Considering a threat of world food crisis and the relatively small amount of electricity that would be added to the Loudon system, burying such a valuable resource under fifty feet of water seems foolhardy. Intensive agriculture on this land not only would create 300 to 350 jobs, but would generate an estimated \$27 million in revenue annually. The portion of the project site that would not be flooded also contains 10,000 acres of valuable



agricultural land, which could also be returned to agriculture. Agricultural development would also involve resettlement of landholders displaced by the Tellico Project.

GRICULTURAL VALUES alone probably provide enough reason to maintain the Tellico area as a river valley. However, the recreational values also are considerable. With twenty-two reservoirs already within a fiftymile radius of the proposed Tellico reservoir, a free-flowing diversified stretch of river is an important recreational attraction. The Little Tennessee River is one of the best trout rivers in the Southeast that consistently produces record-sized brown trout. The river is ideal for family canoeing, and it is clean and cold, supporting many species of vertebrate and invertebrate life.

The river flows through a valley that has been inhabited by man for ten thousand years. Along the river lies the birthplace of the Cherokee Nation, evidenced by ancient burial grounds and former town sites such as Tennasee (from which the fish, the river, the state, and TVA derive their names); Citico; Coytee; Tuskegee; and Chota, the capital of the Cherokee Nation in recorded times. Artifacts reveal the existence of a highly organized agrarian society dating back to 7500 B.C. at the Icehouse Bottoms site.

Historical sites include Fort Loudon, the oldest British outpost west of the Appalachians; Coytee Springs, the site of the first treaty between white men and the Cherokee Nation; and the McClung McGhee Mansion, an impressive antebellum structure listed on the National Register of Historical Monuments.

All these historical, archeological, scenic, and recreational attributes are located in a valley less than twenty miles from the overcrowded and fragile Great Smoky Mountains National Park. This park is the most heavily visited park in the United States, with more than eight million visitors annually. The park is severely overused, and a study is being conducted now to determine ways to reduce damage to the Smokies. The appealing qualities of the Little Tennessee River as a trout stream and canoeing area could attract many of the tourists, both relieving the pressure on the park and providing economic benefits for the valley.

THE RECENT precedent-setting decision of the Appeals Court in Cincinnati gives the snail darter's friends good reason for celebration. The opinion reads in part as follows:

Whether a dam is 50 percent or 90 percent complete is irrelevant in calculating the social and scientific costs attributable to the disappearance of a unique form of life.... The complexity of the ecological sciences suggests that the detrimental impact of a project upon an endangered species may not always be clearly perceived before construction is well underway. In effect, such was the case here. For Congress or the Secretary of the Interior to be able to make meaningful decisions in the furtherance of the Act, the opportunity to choose must be preserved. Once a living species has been eradicated, discretion loses its significance. U.S. Court of Appeals No. 76-2116, Hill et al. vs. TVA.)

The Endangered Species Act specifically states that a species and its critical habitat must be preserved. In 1976 construction on the dam progressed to the point where snail darters could not go upstream during their spawning cycle because of a strong current flowing through the structure's pipes. TVA has attempted to confuse the critical habitat issue with a snail darter transplant program from the Little Tennessee to the nearby Hiwassee River, which seems to have only a small percentage of habitat suitable for the fish. The Appeals Court addressed this issue:

We recognize that TVA has completed an experimental transplant of some 700 snail darter specimens from the Little Tennessee to the Hiwassee River, which is of similar physical character. While we share the hope that conclusive evidence, not yet available, will confirm that the displaced population is thriving and reproducing, even if that evidence were properly before us, it would not alter our decision to enjoin further Tellico Dam construction. It is not the courts but the Secretary of the Interior who bears the responsibility for maintaining the Endangered Species list and designating the critical habitats of listed species. The fact that both of these determinations are accomplished by rulemaking rather than by adjudication confirms the public importance of the issues at stake. Nowhere in the Act are courts authorized to override the Secretary by arbitrarily "reading" species out of the endangered list or by redefining the boundaries of existing critical habitats on a case-by-case basis.

However, TVA is not an agency amenable to suggestions or court rulings, even if they are in that same public interest that TVA was set up to serve. Conservationists have won a battle, but the war continues in Washington. TVA plans a dual appeal to the Supreme Court and to the Congress. Court procedures take time, so efforts are being concentrated on the Senate and the House of Representatives. TVA hopes to convince Congress either to exempt the Tellico Project from the Endangered Species Act or to amend the Act itself. Proposed amendments may attack Section 7 or exempt projects that are already under way.

E VEN THOUGH the snail darter and the Little Tennessee River seem more vulnerable out in the political arena—where pork-barrel projects get funded as favors or because no one questions them—this turn of events allows all interested citizens, organizations, and political figures to express their opinions.

As President Carter's recent proposal to review thirty-five federal water projects indicates, inefficient use of our environment can no longer be tolerated, because our quality of life and very existence are at stake. The snail darter case provides an opportunity to look objectively at costs and benefits of the Tellico Project. Costs and benefits for all such projects should be examined *before* millions of dollars are spent.

The injunction against the Tellico Dam has national implications for its precedent-setting use of the Endangered Species Act, but another aspect of this decision is also important. If the injunction on the Tellico Dam remains in effect, perhaps agencies' strategy of accelerating spending on a project to avoid the law will not be used so frequently, and they will be held responsible for money that they spend after their projects come into conflict with environmental laws. But without public support, Congress may weaken the Endangered Species Act, and the strong judicial decision in favor of the environment will be lost.

The outcome of this controversy will have a far-reaching effect on all endangered species.

Sara Grigsby Cook is president of the Tennessee Endangered Species Committee, the citizens group that has raised some \$15,000 to support the Tellico legal battle and has served as the educational and public information arm of this movement. She has been involved since late 1974 acting as the group's partial coordinator of activities, media liaison, and artist.

Committee member Chuck Cook, who has also been involved in the battle for more than two years, recently received a Master's Degree in Agricultural Biology with emphasis on Entomology and a minor in Ecology.

Doris Gove, treasurer of the committee, has a Master's Degree in Animal Behavior and Ecology and is presently working on a Ph.D. studying reptile behavior.

Acknowledgment is made to the members of the Tennessee Endangered Species Committee who researched the background information for this article.

Editor's Note

Get Involved: HELP PROTECT THE ENDANGERED SPECIES ACT

For more information about the Tellico Dam controversy and for suggestions of ways you can help prevent weakening of the Endangered Species Act, write: Tennessee Endangered Species Committee P.O. Box 8590, U.T. Station Knoxville, TN 37916

Social Cures, Not Palliatives

We need a system of solving social and environmental problems at the source instead of remedying them after the fact

by BARRY COMMONER

E CONOMISTS have told us a great deal about the economic process that is supposed to govern the productive uses of wealth in the United States. The basic mechanism is *exchange*: two parties undertake voluntarily to exchange goods or services in the expectation of mutual benefit.

If, however, we examine the list of the nation's current problemsunemployment, inflation, bureaucracy, the energy crisis, environmental degradation, urban decay -we discover that they are not taken into account in the conventional market exchange mechanism. In the parlance of conventional economics, they are all regarded as "externalities," factors which have no role in the voluntary, mutually beneficial, private process of exchange. All of these problems affect the individual not through an exchange relationship with another individual partner, but through society as a whole. Thus, the basic mechanism that is supposed to govern the operation of the U.S. economic system excludes from consideration precisely those social effects that constitute the nation's greatest problems.

All this is to make the relatively simple point that, although the avowed purpose of the U.S. economic system—to meet its people's needs—is *social*, social purpose is excluded from its governance. This is to say, of course, that the U.S. economy is almost entirely governed by private decisions, made by those who own and control the capital needed to establish a production enterprise. It is, after all, a private enterprise, capitalist system.

Social needs have not been entirely ignored. Especially since the New Deal, social institutions have been created to ameliorate the various social ills, the lamentable externalities that have emanated from our otherwise successful economic system. But these institutions have not solved the problems which they were created to deal with. The numerous welfare agencies have not, after all, eliminated unemployment, poverty, and inadequate medical care. Indeed, these remedial efforts have now themselves become a problem-the onerous economic and political burden of a growing bureaucracy. Why?

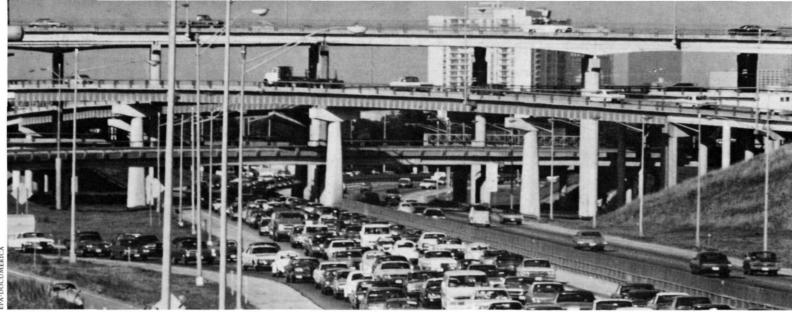
B UREAUCRATIC EFFORTS to deal with unemployment, inflation, the energy problem, and environmental degradation seem so often to fail because they intervene at a point far removed from the site at which the damage is done.

Consider the unemployment problem. Nearly half of the U.S. unemployment problem is due to the continued reduction in the number of workers needed to produce a unit of output, that is, the vaunted rise in labor productivity. Thus, the problem originates at that point where a decision is made to introduce new production machinery or processes that reduce labor input.

But the remedial action only takes place long after the problem has been created and people are, in fact, already unemployed. Then, society intervenes. The unemployed person is directed into an elaborate and expensive bureaucracy: interviews are conducted; forms are filled out; computer cards are punched; data processed. Finally, the person receives an unemployment check and the social goal-that even if unemployed, no one should starve or otherwise suffer serious deprivation-is achieved.

How much simpler it would be if there were, in fact, a job available. For this to happen would require that the social signal represented by rising unemployment be fed back into the system so as to stimulate the creation of jobs at the point where that decision is made-the design of the means of production. Like the present system of unemployment insurance, this process would also involve social intervention. But now the intervention would be designed to remedy the fault at its source, rather than merely attempting to remedy its effects by adding a costly and burdensome bureaucracy.

If social governance were exerted at the point where the problem is created—at the decision-



making point in the production system-unemployment would become, in effect, a self-correcting problem that would lessen with time. Under the present arrangements, social intervention is exerted in such a way that it has no effect on the causes of unemployment, but can only ameliorate the symptoms. As long as the governance of the production system remains largely impervious to a meaningful, operational social response, unemployment will continue unabated and the resultant bureaucracy will proliferate.

HE SAME SITUATION exists in connection with environmental degradation. It is now clear that the locus of the cause of pollution is in the design of the means of production: smog is the inevitable outcome of the post-war shift to high compression auto engines; radiation hazards derive from the introduction of nuclear technology into the production of electricity-and weapons; chemical disasters-such as Kepone in Virginia, PBB (polybrombiphenyl) in Michigan, dioxin in Italy-are a result of the huge growth of the petrochemical industry, which displaces natural products.

But we have ignored these origins of pollution and have only attempted to correct the symptoms. Exhaust devices are mandated for autos; nuclear power plants are enveloped in expensive controls and regulations; chemical products are

subjected to elaborate new tests. As a result, huge new bureaucracies-EPA, OSHA, FEA, FDAare now involved in the hopeless and expensive process of patching up environmental damage-after it has occurred, when much of the damage may be irreversible and all of it costly.

Often enough the impact of new production technologies is so great that after-the-fact remedies are indeed impossible. For example, as a result of the decision taken more than thirty years ago to produce PCB (polychlorbiphenyl) for a variety of industrial uses, these highly toxic materials have been irreversibly disseminated into the environment, with effects that no one can foresee or control. Only now have manufacturers been persuaded to abandon PCB production.

How much better it would have been if this decision had been made thirty years ago, when it was discovered that nearly all of the workers in the first PCB plant were suffering from serious systemic poisoning. If the workers could have participated in the managerial decision to produce a substance as toxic as PCB in the first place, production might have ended long ago.

These examples illustrate the advantages of social intervention that governs rather than regulates-that participates in the decisions which determine the design of the means of production:

what kinds of energy sources and productive machines are used, what kinds of goods are produced. If we fail to meet this new imperative, problems of unemployment, inflation, resource depletion, endegradation, vironmental and urban decay will persist. Efforts to ameliorate rather than solve these problems will only add to our burdens the final insult of a growing bureaucracy.

If we are to solve the knot of intractable problems, we must now confront a basic, overriding issue. This issue is how to establish, consistent with our unshakeable devotion to political freedom, processes that will enable society to govern rather than "regulate" the system which produces the nation's wealth.

National Parks & Conservation Association trustee Barry Commoner is director of the Center for the Biology of Natural Systems at Washington University, St. Louis, and chairman of the Scientists' Institute for Public Information. His most recent book is The Poverty of Power. This essay is adapted from an address delivered as part of a Columbia **University Bicentennial Lecture Series** and is reprinted by permission from The Washington Post.



These visitors to Yellowstone National Park several years ago were courting disaster by approaching bears so closely—especially a mother with young. Although such scenes no longer occur in Yellowstone because a new bear management program keeps the bears in the backcountry, they still occur too frequently in other national parks.

> Your safety in our national parks depends on a healthy respect for wild animals and other natural hazards

H, THE QUIET forests of Glacier. The chance to drink in beauty, serenity, the song of birds, cowbells. . . . Cowbells?

Sound silly? It's not. Cowbells, camp songs, whistling, and holiday noisemakers are important aids for the solitary backpacker or the leader of a hiking group in bear country in our nation's parks. Last year forty visitors to the National Park System were injured by bears. and two more died from bear attacks. These two deaths, however, were the only animal-related fatalities in a year when 154 visitors met accidental death in the parks.

Noise—almost any kind—seems to be effective in preventing chance meetings with bears on backcountry trails. Most injuries resulted from chance encounters with bears of all ages or from approaching too close to a sow with cubs. Because bears normally show little interest in unprovoked attack, noises made by hikers are usually sufficient to alert the animal of one's presence and drive it to cover.

But what safety measures should be taken by the stationary park visitor-the camper, nature photographer, or bird watcher? Although lots of precautions are advisable, none is foolproof. Aromatic foods-bacon, ham, strong cheeses, and the like-are best left at home. All food should be tightly

sealed. Just because you can't smell it. don't believe that animals can't. If you plan to remain in one place for a while, hang your foodstuffs from a tree limb, preferably a high one. In some parks this procedure is required by regulation, but it is a wise precaution anywhere in bear country.

It is wise to remember that people, not wildlife, are the intruders in the forests and swamps of America. All the studies done on wild animals have given us only marginal understanding of their habits. One of the bear deaths last year, a campground tragedy in Glacier National Park, involved a woman who was knowledgeable and careful and had followed the advice given by Park Service personnel. In spite of her caution, however, she was dragged from her tent and killed. The incident was unusual-possibly even uniquebut it pointed, grimly, to the limits of human knowledge of bear behavior.

As increasing numbers of visitors come to the parks—267.8 million visits were recorded throughout the Park System in 1976-and as wilderness experiences grow in popularity even more than visits to developed areas of parks, the likelihood of visitors meeting wildlife is growing.

Seek advice, be careful, and use common sense. These precautions remain the best tools of the wilderness hiker or rider. One unprovoked attack does not make an epidemic, but it should remind everyone that there can be an unexpected element to backwoods safety.

If you are surprised by a bear, remain calm, seek safety, leave your belongings, but DO NOT attack. Chances are you would lose any fight with a bear. Move cautiously. A sudden dash may cause a merely curious animal to charge, and you could not outrun a bear. As a last measure, if you are attacked, play dead. Certainly it isn't easy, but documented evidence confirms that the victim who plays dead will often be left by the bear. Once the bear leaves the scene, get up and leave quickly. Like many other animals, bears frequently return to the scene after such incidents.

EARS are not the only danger in our parks. Other large animals, though perhaps less fierce, can be equally dangerous. In recent years, visitors have been gored by bison, trampled by elk, or tossed by the antlers of a moose. Many have been severely cut when struck by the cloven hooves of deer and other animals.

The same basic rules apply to all large animals. Respect their size and strength, assets that few

humans can attempt to match. Watch from a distance, especially if their young are in evidence. A protective parent can be far more belligerent than a similar adult animal that has no young to guard. In their rutting season, the males of many species can be very unpredictable.

Safety in the wilderness also includes a healthy respect for other hazards. Small animals can inflict minor but painful injuries. The Fish and Wildlife Service reports that the most common culprit in reported animal-related injuries in the National Refuge System in 1976 was the raccoon. Raccoons. squirrels, groundhogs, and other small animals most commonly harm visitors by literally biting the hand that tries to feed them.

Many small animals carry diseases that are harmful to humans. including plague or rabies. Bites or scratches from even undiseased animals can become infected if not properly treated, a serious consideration for the person deep in the wilderness. The best precaution is to remain an observer of the wilderness scene and not intrude in the lives of its inhabitants.

If you find a dead animal, leave it there. Many well-meaning hikers bring carcasses to the ranger stations, but they are best left alone. Infection and disease frequently accompany death in animals just as they do in humans. Picking up dead animals is courting trouble.

N THE Park System last year the frequently maligned snake caused no more reported injuries than did catfish barbs (those of the fish, not of the fishhooks). The Forest Service reports, however, that its only animal-related fatality last year resulted from a snakebite. Bees and other insects are a much more serious threat to park visitors than snakes are. Thirty people required treatment in 1976 following serious reaction to insect bites or stings. The Park Service effort to preserve complete ecosystems whenever possible has limited insect control to that required for public health. In some parks black flies, mosquitos, and other nuisances are common during certain seasons.

HE LEADING CAUSE of accidental death among park visitors is drowning. In 1976, drowning was the cause of sixty visitor deaths. The urban visitor too often falls victim to the chill waters and unseen currents of streams, pools, and lakes, not realizing soon enough that these waters are much more dangerous than neighborhood swimming pools back home.

Falls, often associated with mountain climbing by the inexper-

by DUNCAN MORROW

Of Cowbells & Common Sense: The importance of park safety

ienced or overzealous, accounted for twenty-seven deaths in the nation's parks last year. And automobile accidents killed fifty-seven more.

All three wilderness agencies the National Park Service, Fish and Wildlife Service, and Forest Service-report the same three categories-drowning, vehicle accidents, and falls—as accounting for the bulk of accidental deaths in their jurisdictions. These needless tragedies have been partially lessened by more intensive agency programs stressing the need for visitor safety, including signs, protective fences, and warning brochures. The Park Service continues to encounter visitors who scale protective barriers "for a better view" or who feed wild animals even as warning brochures stick out of their pockets.

Visitors must be made so aware of the problems that they will exercise the commonsense precautions most of us know but too frequently ignore.

For the hiker or rider seeking the solitude of the backcountry, a little advance research, a short talk with some of the uniformed personnel assigned to the area, and such basic equipment as sturdy shoes, a compass, and some type of shelter against rain and cold should be considered minimum preparation for a trip.



Even small animals, though appealing, should be left alone, because they can inflict painful injuries or transmit diseases harmful to human beings.

This year, particularly, overnight campers should also take special precautions about cook fires. Fire danger throughout the West is expected to be especially high in 1977 because of the extended drought that has hit much of the region. The hazards of smoldering charcoal or wood fires in very dry country are too obvious to require comment.

Liquid fuel campstoves have long been recommended for backcountry use. Many parks now forbid open fires, and others restrict them through a free permit system. The restrictions are just as wise in developed campgrounds.

Safety must remain a permanent commitment of every employee and every visitor of the National Park System.

A 1966 graduate of Iowa's Parson College, Duncan Morrow has pursued his lifelong interest in the outdoors and camping as a National Park Service information officer for seven years.

SAFETY TIPS FOR PARK TRIPS

The National Park System is intended for your enjoyment, whether you are coming to view the wonders of nature, to tread in the footsteps of history, or simply to get outdoors and have some fun. But first take a minute to read these simple but very important safety rules, and follow them for a pleasant and safe park experience.

• Know the area. Ask park rangers for brochures, maps, and advice about park attractions and hazards.

• Observe park regulations. They are for your enjoyment and protection. Snowmobiles, all-terrain vehicles, fires, fishing, swimming, and other activities are governed by regulations that take into account local conditions and problems.

• Watch your children. Your knowledge, experience, and wisdom can't help a child who is beyond your protective reach and warning voice.

• Keep your distance from wild animals. Don't feed bears or other wildlife. Remember that all wildlife can be dangerous. Remember, too, that young animals are seldom abandoned—a very protective parent is probably nearby.

• Dress properly. Even in the heat of summer it is often cool in the mountains or in caves. If you are hiking on rough terrain, be sure to wear sturdy shoes or boots.

• Drive carefully. Park roads are not expressways, so take it easy and enjoy the view from overlooks and parking areas. Be alert for less considerate drivers who may stop without warning to see wildlife or scenery. Unusual hazards—rock slides, flash floods, unseasonal snow and ice, animals and visitors crossing roads at unexpected places—are all possible at some time in some place in park areas.

• Notify park headquarters of your plans to explore. Mountain climbing, hiking, or horseback riding in remote areas; exploring caves or lake bottoms; and numerous other enterprises can be dangerous even for experts. If they know your plans, park rangers can alert you to hazards, watch for your return, and if necessary organize rescue efforts. Telling them your plans could save your life.

• **Don't try it alone.** Two heads are safer than one. Whether it's a short hike in the woods or a month-long backcountry backpack trip, a companion may save your life in an emergency.

• Know your own limits. Strenuous exertion, especially in extremes of temperature or altitude, can be dangerous if you are unaccustomed to sustained exercise.

• **Report trouble.** Whether it is your own or someone else's problem, a park ranger can help only if he knows help is needed.

NPCA at work

MAMMOTH CAVE Job Corps Center Situated Within Park Damages Cave Resources

NPCA recently expressed strong support for relocating the Great Onyx Job Corps Civilian Conservation Center to a site outside Mammoth Cave National Park, Kentucky.

The center, site of a Job Corps program that trains underprivileged young adults for employment, was built in 1965 and was originally expected to be in operation in the park for only a limited time. As a result, many of the buildings have now deteriorated, and enrollment at the center exceeds the designed capacity by 10 percent. In addition, a more central location is desirable for continued effective service

GRAND TETON

Don't Expect a Peaceful Winter Retreat

Perhaps you've always wanted to visit Grand Teton National Park in the winter. You've heard about the incomparable, majestic Tetons of Wyoming, rising starkly above the snow-covered Jackson Hole plain, and about large bands of elk moving across the open flats. If you are tenaciously keeping this scene in your dream bank of travel pictures, you will have to alter it somewhat by adding an increasing amount of background noise—the roar of snowmobiles—to the picture.

NPCA has protested a National Park Service proposal to allow widespread snowmobile use in the park. The Service wants to leave open large areas of Grand Teton park and the John D. Rockefeller Jr. Memorial Parkway to the oversnow vehicles despite the fact that the official NPS Management Policies statement specifies that the vehicles should be restricted to designated routes. Grand Teton would be the only park to violate that policy.

The Park Service justifies its proposed action largely on the basis that use of oversnow vehicles has been allowed since before the enlargement of the park in 1950 when a few snowplanes were in use for fishing. However, NPCA recently contended to Park Superintendent Robert I. Kerr and National Park Service Director Gary Everhardt that historical use patterns are no justification. NPCA has conof the Job Corps Center, NPCA advised the National Park Service.

Not only has the center outlived its usefulness, but its continuing presence in its present location may adversely affect caves and cave life. Partially treated sewerage effluent from the center is piped through Three Sisters Hollow into Green River, significantly reducing water quality there.

In addition, the center draws about 40,000 gallons of water per day from the spring collection system and is one of the heaviest users of water in the park. This drain reduces the amount of water available to the caves.

sistently opposed snowmobile use within natural areas of the National Park System, and is monitoring a number of potential problem parks.

Snowmobiles are a raucous irritation to many park visitors. (Figure on hearing snowmobiles two miles away and count on about eighty decibels for each snowmobile at a distance of fifty feet.) Nevertheless, the Park Service seems to be favoring this noisy winter recreation mode in Grand Teton even while activities that are more suitable within a national park-such as ski touringare becoming more popular. Ski touring accounted for more than 8,000 user days in the park in 1975–76, whereas only about 5,500 visitor days were attributed to oversnow vehicle use in that season. Increased snowmobile use under the proposed plan will increase conflicts between these two groups of park users.

In addition, the NPS environmental assessment of winter recreation management alternatives concedes that the snowmobiling will disturb elk, bighorn sheep, and moose to some degree, but does not adequately address this problem. What impacts will increased snowmobiling have on many smaller animals, including some 200 species of birds, that find refuge in the park?

Likewise, although the John D. Rockefeller Jr. Memorial Parkway is classified as a recreation area, it is an One consideration not mentioned in the NPS environmental assessment is that some individuals in the Job Corps have been apprehended in acts of vandalism in the park, such as breaking off cave formations and damaging other federal property.

NPCA supports relocation of the center to either of two sites near Nolin Reservoir. Of the sites discussed in an environmental assessment of alternative relocation sites, these areas are the farthest from Mammoth Cave, do not drain into the park, are in a sparsely populated area, and are near enough to potential construction projects.



important habitat for wildlife including the osprey, trumpeter swan, grizzly bear, and bald eagle. The Park Service notes that harassment of coyotes—a popular sport among some snowmobilers in Grand Teton—is predicted to continue in the park. Yet the agency concludes that harm to wildlife would be "minimized" under the proposed plan without demonstrating the basis of that conclusion.

NPCA emphasized in its comments on the assessment that the burden of proof is on the Park Service to demonstrate that permitting snowmobile use will not adversely affect visitor experiences and safety or wildlife, vegetation, and other natural values of the park. The assessment fails to satisfy this burden of proof, NPCA maintains. As another example, the assessment is inadequate in its treatment of the potential for pollution of park lakes. Heavy snowmobile use might lead to con-*Continued on page 22*

Open Season on Wildlife Laws

Conservationists are fighting two crucial battles for wildlife legislation this year. The Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973—perhaps the two most powerful pieces of wildlife legislation ever enacted—are currently targets of numerous amendments aimed at weakening their protective abilities.

Now that it is clear that these acts are effective in preventing or restricting activities that threaten wildlife, pressure is being exerted to lessen federal control, which would leave the government unable to protect these species as Congress originally intended.

Marine Mammal Protection Act

This Act has been under fire from tuna fishermen and canners ever since its inception in 1972. The law requires the Secretary of Commerce to issue permits and regulations in order to reduce kills of porpoise incidental to tuna fishing operations to "levels approaching zero."

Yellowfin tuna swim under the more visible porpoise, providing an easy way for fishermen to spot schools of fish. The enormous purse seine nets used to catch yellowfin tuna trap many of the porpoise along with the tuna. This fishing method resulted in the death of more than 300,000 porpoises a year before the enactment of the Act and killed some 6 million porpoise since fishing "on porpoise" began in 1959.

During the formulation of this law, the industry lobbied for special provisions in the Act, and was exempted from the general moratorium on killing or "taking" of marine mammals in the final Act. The Act gave tuna fishermen a two-year grace period allowing incidental take of marine mammals without permits, and it allowed continued take after the two-year period under federally regulated quotas.

Conservationists, the National Marine Fisheries Service (NMFS)— the government agency responsible for administering the Act—and the tuna industry have been fighting over permit regulations on incidental take for more than two years. Conservation organizations including NPCA took NMFS to court early in 1975 for issuing permit regulations that were not in compliance with the Act. In May 1976 Judge Charles R. Richey of the U.S. District Court for the District of Columbia issued a ruling favoring the conservationists, calling a halt to fishing on porpoise, and instructing NMFS to issue more appropriate regulations for the 1977 season.

In a series of complicated court decisions in 1976 and 1977, fishing on porpoise was twice reinstated but subsequently halted. The court prohibited killing of porpoise early in 1977 pending issuance of permits. Because of slow actions and a complex process of hearings and legal briefings, the NMFS was unable to issue final regulations on permits until late February. The delay prevented tuna fishermen from obtaining permits to set on porpoise from this past November through April.

The House Merchant Marine and Fisheries Subcommittee on Fisheries, Wildlife Conservation, and Environment held oversight hearings on the tuna-porpoise issue in mid-February at which NMFS, conservationists, researchers, and the tuna industry testified. Monitor, a coalition of conservation organizations including NPCA, testified on invitation. These hearings focused on amending the Marine Mammal Protection Act to appease the tuna industry.

The industry urged that the present language in the Act mandating that the total porpoise kill be reduced to "insignificant levels approaching zero" should be changed to the "lowest practical level." Clearly, what is "practical" is a very subjective decision! Such language could eliminate incentive for fishermen to improve their equipment and methods in efforts to reduce kills, and could lead to disastrous depletion of porpoise populations.

The fishermen also recommended that the Act be amended so that permits would not be required for setting on porpoise, a move that would reduce federal control over these operations.

NPCA and several other environmental organizations invited to testify at the hearings urged that there be no amendments to the Act, noting that "if the Act or regulations are weakened, industry and government will revert back to their original attitude that the problem of porpoise kills will go away and not have to be solved."

A bill to amend the Act (S 373) has been introduced in the Senate by Senator S. I. Hayakawa (D-Calif.). The Senate Commerce Committee will be holding hearings on this amendment this spring. Although Hayakawa's bill retains the "levels approaching zero" language, the bill would allow taking of stocks that are determined to be "depleted" under the Act and also would allow taking of stocks that are up to 10 percent below their optimum sustainable population. The bill also does away with permits.

Meanwhile, on February 24, the government issued final regulations for permits to allow fishing on porpoise. The new regulations allow a total quota of 59,050 porpoise, a compromise between the original NMFS proposal of 29,000 and the industry proposal of 98,000.

With the issuance of these final regulations, the court decided to allow fishing on porpoise without permits under temporary regulations until permits could be issued in April. NPCA and other conservation organizations supported such an interim measure to allow the tuna fishermen to get back to work as soon as possible.

Nevertheless, the tunaboats remained in port at press time. Although the compromise regulations have been accepted by conservationists and should have generally appeased the fishermen, the latter continue to lobby for a change in the Act, claiming they cannot fish profitably under the new regulations and are on the verge of economic ruin because of the law.

The regulations prohibit fishermen from setting their nets around any eastern spinner dolphins, a species that has been declared depleted under the Act and that is one of the species more commonly caught in the tuna purse seine nets.

Eastern spinner dolphins often swim with other species of porpoise, and fishermen may have occasional difficulties in determining whether or not there are eastern spinners in a group of porpoise. NMFS has testified in hearings before the relevant House subcommittee that a rule of reason will be used in enforcing the regulations, allowing some *accidental* catch of eastern spinners. The fishermen do not feel that this is good enough; they want an amendment to the Act that will allow them to set on depleted species.

These new regulations do not pose a threat to the tuna industry, nor do the provisions of the Act itself. With new fine mesh nets that help prevent porpoise from becoming entangled and procedures to release the porpoise from purse seine nets, fishermen can catch thousands of tons of tuna without mass slaughter of porpoise.

A recent research cruise on one of the tuna fleet's ships caught close to 1,000 tons of tuna and killed only four porpoise as a result of the fishing operations with the new nets. Presently one porpoise is killed for every one or two tons of tuna. Certainly this ratio can be dramatically improved.

But the fishermen will not improve their fishing techniques unless they are forced to do so. Even with the "levels approaching zero" clause, the industry has not reduced its porpoise kill for the past several years; the present porpoise kill averages more than 100,000 a year. The Act has, however, stimulated development of new equipment and techniques. It can only be hoped that they will lead to a significantly reduced annual porpoise kill, but without the incentive imposed by the Act, kills would continue at present levels, eventually endangering some species.

Endangered Species Act

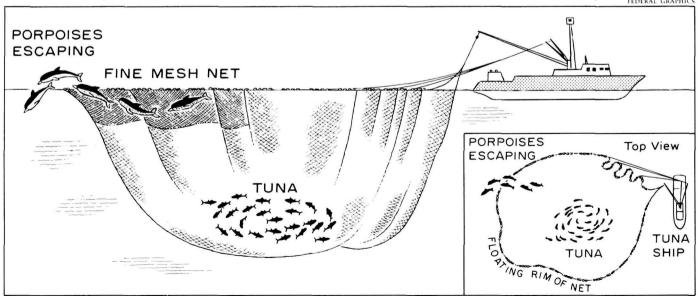
In contrast to the Marine Mammal Protection Act, the Endangered Species Act of 1973 was enacted without much controversy or adverse lobbying. Problems arising from its enactment generally have had little economic effect, have been of limited scope, and have not been highly publicized. Aside from an exemption to allow sale of pre-Act scrimshaw and whale oil, no attempts were made to amend the Act in the first three years after its enactment.

However, following a court ruling early this year that halted construction on the \$116 million Tellico project in Tennessee—which threatens to destroy the entire habitat of the snail darter, a tiny fish—rumors of preparation of amendments are flying in Washington. (See page 10 for more information on the snail darter.)

Amendments are basically directed at Section 7 of the Act, which requires federal agencies to "insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of . . . endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined to be critical." It was this provision that resulted in the Tellico Dam decision. This section is powerful and far-reaching—and vital for the protection of endangered species of animals and plants. (See February 1977, p. 19.)

Both the House and Senate are considering amendments. Rep. John Duncan (R-Tenn.) has introduced a bill exempting Tellico. Rep. Robin Beard (R-Tenn.) submitted a bill that could exempt all federal water projects under construction prior to listing of endangered species in question. The Interior Secretary could make regulations regarding construction, reconstruction, or operation of projects. But the review and regulatory process would probably be lengthy (perhaps involving court battles); meanwhile projects could gain momentum. Beard's district includes the proposed Columbia Dam, which could affect a dozen endangered species. He claims that he wants only to give the Act "reasonable" flexibility, warning that otherwise pressure to

Currently one porpoise is killed for every one or two tons of tuna caught. However, new fine mesh nets would help the porpoise, which swim above the tuna near the surface, to escape. Using such a net, a tuna fleet research boat recently caught almost 1,000 tons of tuna and killed only four porpoise. Thus Marine Mammal Protection Act requirements do not threaten the industry.



Continued from preceding page

"severely revise" it may be overwhelming.

It seems that the major actions may begin in the Senate. At the request of Senators Howard Baker (R-Tenn.) and James A. McClure (R-Idaho), the Senate Environment and Public Works Subcommittee on Resource Protection will hold oversight hearings on the Endangered Species Act sometime in July. McClure already has introduced a bill that would require the U.S. Fish and Wildlife Service to prepare an environmental impact statement before each critical habitat designation. If passed, this bill would delay and impede such designations.

Sen. Baker will probably submit a bill after the oversight hearings are held. Although no specific language has been prepared yet, the intent will be to give the Secretary of the Interior or the President authority to allow projects

Continued from page 19

tamination of snow and ice that would later enter the lakes during spring melts. Furthermore, the Park Service fails even to consider the alternative of total elimination of snowmobile use within the park.

Instead the agency forges ahead to promote snowmobile use in a potential wilderness area and critical roadless areas in both the national park and national memorial roadway units. In addition to unplowed roads and designated routes, snowmobiles would be permitted on Jackson Lake and Jenny Lake; the area that includes Baseline Flats, Timbered Island, Burned Ridge, the Potholes, and Signal Mountain; the Mormon Row hayfields; and the Pacific Creek area in the park, as well as virtually all of the Rockefeller Parkway west of the Snake River.

NPCA warned that the Park Service's disregard of management policies might be sufficient grounds for this Association to seek administrative or judicial relief and recommended that NPS withdraw the proposed regulations and issue revised ones. Preferably, revised regulations should prohibit all snowmobile use in the park, but at a minimum NPS should restrict such vehicles to designated routes. that might harm or kill endangered or threatened species if other factors—social and economic—seem to warrant such destruction. One alternative would be to amend Section 7. Will Congress try to put a price tag on the esthetic, ecological, and social values of endangered species?

It would be tragic to see this Section 7 of the Endangered Species Act weakened. In order to be effective, the Act must have the teeth to halt projects that would destroy habitat or kill endangered or threatened wildlife. Preservation of species and the ecosystems related to their habitat demands a change in our developmental practices, because these very activities have been the major cause of extinction of many species and have placed many more in danger of extinction. If the Act does not have the power to halt such destruction, it has no real power to save wildlife.

In addition, conservationists fear that if the Act is opened to amendment, a free-for-all attack on several other sections will result. Section 9 (on prohibitions) may be amended; zoo interests would like to be exempted from Section 10 (on permits); there is growing pressure from the states to take some control away from the federal government by amending Section 6 (on cooperation with states); and there is talk of amending Section 4 (on listing) to remove "insignificant" species such as invertebrates or plants.

Get Involved: NPCA members can help preserve the protective powers of these acts by writing Secretary of the Interior Cecil D. Andrus, asking him to support the Endangered Species Act; and Secretary of Commerce Juanita M. Kreps, thanking her for issuing regulations to protect the dolphin and asking her to support the Marine Mammal Protection Act.

INTERIOR POSTS NPCA Testifies on Herbst Nomination

At March Senate hearings concerning the nomination of Robert L. Herbst to be Assistant Interior Secretary for Fish, Wildlife, and Parks, NPCA asked a Senate committee to seek clarification of the philosophies and attitudes that Mr. Herbst will bring to this key federal position. Herbst has been Commissioner of the Minnesota Department of Natural Resources (DNR).

At the hearings, NPCA emphasized the importance of the assistant secretary's responsibility for the National Park System, National Wildlife Refuge System, federal endangered species programs, wildlife programs, and federal outdoor recreation programs. NPCA pointed out Herbst's key role as DNR commissioner in several controversial issues in his state, such as the proposed deletion of part of Voyageurs National Park. (See January 1977 National Parks & Conservation Magazine.) These issues relate to important broad federal policy questions. At the same time NPCA commended Herbst's strong stands on the dumping of tailings into Lake Superior by Reserve Mining Company and on proposed mining in the Boundary Waters Canoe Area.

Noting reports that Herbst will be a strong advocate of the Administration policy on the environment, NPCA asked the Committee on Energy and Natural Resources to ask Mr. Herbst to establish a clear and complete record on the general direction to be taken by the Interior Department on public lands and wildlife issues. This Association indicated that this clarification would ensure that his tenure as Assistant Interior Secretary could begin on an optimistic note, free of earlier controversies.

watershed congress Upstream America

"The Future of America's Upstream Watershed Program" is the theme of the 24th National Watershed Congress to be held June 19–22, 1977, in Washington, D.C., at Stouffer's National Center Hotel. NPCA is one of the sponsors of the congress and urges everyone with an interest in the watershed approach to resource management to participate in the critical discussions that will take place.

The conference will examine the validity of the upstream watershed concept, which is based on local participation in planning and carrying out flood prevention and water conservation programs. State and local responsibilities, operation and maintenance of completed projects, land treatment, funding policies, and post-project evaluations will also be discussed.

Thirty of the nation's leading con-

wild CANID CENTER International Symposium to Explore Action for Wildlife

"Wildlife Survival: Orientation For Action" will be the focus of the second international symposium on wildlife and wilderness habitat to be held under the auspices of the Wild Canid Survival and Research Center. The symposium is scheduled for June 1–5 in St. Louis, Missouri.

A myriad of subjects—habitat preservation, survey techniques, corporate and media involvement, the law, education, activism—will be covered during the symposium. NPCA President

NPCA BENEFACTORS Gifts for Tomorrow

Periodically the mail arriving at NPCA headquarters bears news of a sizable and sometimes mysterious—bequest to our organization.

Although such a bequest sometimes comes from a person who was well known to NPCA, at other times a donor completely unknown to the association staff has bequeathed a generous amount to the organization. On such an occasion, we wish we could read between the lines of the legal announcement to discover what sort of person this contributor was. Of course, whenever we receive a bequest, whether large or relatively small, we feel warm gratitude that NPCA has been entrusted with a legacy for the environment of tomorrow. But we can't help being a bit curious as well: What led this particular person to NPCA?

In the case of Goldie Zumwalt Warren (1883–1972), a former schoolteacher in Glendora, California, her interest in conservation of wilderness areas seemed to stem from her father and paternal grandfather. The latter was a U.S. ranger in 1903, who believed that "it is more important for a ranger to know how to handle an ax, to roll rocks, to build and lay out trails, and servation, farm, civic, and environmental organizations—including NPCA—are sponsoring the congress. For further information, write or call the National Watershed Congress, #1105, 1025 Vermont Ave., N.W., Washington, D.C. 20005. (202) 347-5995.

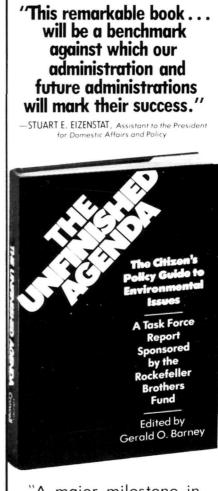
A. W. Smith will be a featured participant as chairman of the habitat preservation panel. Other symposium participants include Stewart Udall, Lee Talbot, Keith Schreiner, Archie Carr, John Strohm, Brian Davies, Cleveland Amory, and many others. Representatives from corporations, civic organizations, newspapers, television, and films will also be featured in this action-oriented meeting. Write to: WCSRC, P.O. Box 16204, St. Louis, Mo. 63105 for information.

to fight fires than it is to be educated in a school of scientific forestry." The widow of Leslie Warren, Goldie Warren had lived with her husband on family ranch properties in Los Angeles County and shared with him a deep interest in the history of Southern California.

Native Californian Hilda Palache (1888–1975) was not a member of NPCA but nevertheless left a generous amount to the Association. We have been informed that she was dedicated to the advancement of various ecological and humanitarian goals, as demonstrated by other varied charitable bequests. A cultivated woman with a keen interest in classical music, she was especially concerned about the fate of the redwoods in her home state.

Author NeVarte Conklin had an abiding love for the natural world and a fascination for observing human nature. She was born in Vaucresson Seine et Oise, France, and earned a Master of Arts in English at the Sorbonne. Ms. Conklin wrote various plays and books including *Ranhild, Howdoyoudo— The Story of a Dog,* and *Strong Man of Nevada.* She lived in Los Gatos, California, until her death in 1975.

Ranstead Lehmann (1902-1972)



"A major milestone in the environmental movement's effort to focus public attention on the need for comprehensive, long-term programs to address population and environmental issues."

-ROY MORGAN, Executive Director, Zero Population Growth

"A strong answer to the technomaniacs who foresee the solution of all our ecological and economic problems with

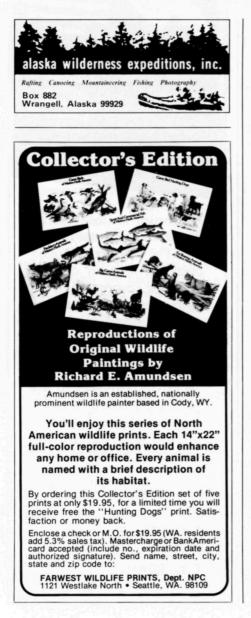
ease." ANTHONY WAYNE SMITH, President, National Parks and Conservation Association

At your bookseller \$7.95; \$3.95 paper Special to NPCA members; \$5.75 cloth; \$3.16 paper. **T. Y. CROWELL** Dept. JM-NPC

666 Fifth Avenue, New York, N.Y. 10019 (Please add sales tax where applicable,)

NPCA at work

lived in Elgin, Illnois, for most of his life and was active in many aspects of community life there. After receiving a BA from Williams College and graduating from Northwestern Law School, Mr. Lehmann entered law practice with his father and was admitted to the state bar in 1929. In addition to his law career of more than forty years in the city, he was a trustee of Oak Crest Residence there and a director of the Elgin National Bank. Upon his death Mr. Lehmann, who left no family, ensured that he would continue to contribute to his community and other worthy causes through numerous donations to educational institutions, a



children's home, the Christian Science Church, NPCA, and his employees.

Not everyone is able to plan to leave a bequest to NPCA, and certainly this association could never acknowledge through these pages all the gifts that we have received. But each and every contribution of any kind is appreciated as a way of helping to continue vital conservation programs.

IN BRIEF More NPCA at Work

NPCA has joined the National Association of Railroad Passengers in urging President Carter to make a bold commitment toward improving our **na**- tionwide rail passenger network, making it a vital alternative for countless trips now made unnecessarily by auto. Improving rail passenger service could lead to a savings of millions of gallons of fuel per day and also could decrease the congestion in our national parks. . . . The NPS will distribute a "decisions paper" on future management of Acadia National Park on or about June 1, 1977. The document will outline changes to be made in the master plan as a result of public comment on the draft plan. This organization, as well as individual NPCA members, commented on the draft master plan. (See December 1976, p. 21.) The NPS will

Getting Involved

Dear Members:

For the past several months you've been reading memos on "Getting Involved" by those of us affiliated in some way with NPCA. That means saving the national parks from the depredations of overuse, pollution, and overdevelopment, aiming ultimately at preservation for the enjoyment of all people for all time. Getting involved, however, means much, much more. The far-reaching effects of preserving the parks filter through an indirect but inexorable chain of balancing controls that grow our food, offer us shelter, purify our water, and restore the air we breathe. We cannot erect barriers to separate the parks from civilization. Water, for example, percolates downward and under or rushes past confines carrying both good and bad, nutrient and noxious. Winds blow the same moieties over the land to deposit their benefits and dangers.

Without a doubt many of you ask how to get "involved," or how to increase the strength of NPCA. You might visit Congress in session and argue for clean air, pure water, and quiet, unscarred mountain meadows. Or spend your vacation at NPCA headquarters as a volunteer helping the office staff. Or canvass city and village soliciting support against environmental destruction. Or encourage your



schools and libraries to subscribe to *National Parks & Conservation Magazine* to learn how to conserve our marvelous resources. Or write every member of Congress expressing your opinion about environmental bills.

Do these suggestions sound ridiculously impossible? You can help accomplish any one of them simply by obtaining members for NPCA. The larger we grow, the more impressive will our voice become, and the increased funds will help defray litigation costs.

You might even walk up to your inconsiderate neighbor when you espy him tossing the wrappings of a fastfood chain hamburger on the ground accept written comments on the decisions paper for a period of thirty days after its release, and the comments will be appended to the final environmental impact statement (EIS). Members can write: Superintendent, Acadia National Park, Route 1, Box 1, Bar Harbor, ME 04609. . . . NPCA has supported President Carter in his opposition to a number of federal water projects. For information about why such projects are environmentally damaging and economically unsound members can write to Rita Molyneaux at NPCA for a free twenty-page booklet covering seventeen projects, "Disasters in Water Development II."

and advise him of his error. If that produces a punch in the nose in reply, you might better consider next time to invest in a gift subscription for him. With your money NPCA can effectively campaign to educate his kind.

Let me tell you some other things I've done over the years of my involvement. I became a Life Member to ensure the uninterrupted receipt of the monthly journal, which keeps me better informed. Four years ago I undertook to teach a course in ecology in a local college to bring to the notice of astonishingly ignorant students from industrialized, urban backgrounds the atrocities perpetrated upon the parks and the resultant overflow upon the circumjacent environs. Instead of a single letter from me, Congress receives an additional forty-five.

Probably the best thing I've done over the past five years is to garner eighty-seven members for NPCA. It hasn't always been easy, but the satisfaction of a thank you for being introduced to NPCA has amply rewarded my every effort.

Finally, let me urge you to eat, drink, and breathe conservation. I ask you to join NPCA at upper levels, if possible, for your sake and your childrens'.

To thank you for enlarging our membership, we will send you a portfolio of fine nature photographs.

Very Sincerely, A. Jerene Robbins, M.D. Member, Board of Trustees

Legislation

Alaska D-2 Lands Hearings: The General Oversight and Alaska Lands Subcommittee of the House Interior Committee is considering the designation of Alaska National Interests Lands at a nationwide series of public hearings. Rep. John F. Seiberling (D-Ohio), in announcing the hearings, said that the subcommittee "wants to give people in various regions of the country an opportunity to be heard about which lands in Alaska should become national parks, wildlife refuges, wild and scenic rivers, and wilderness areas."

The subcommittee is considering several bills dealing with Alaska lands, including HR 39, a bill that would provide protection to complete ecosystems in many parts of Alaska.

The hearings started in Washington, D.C., this past month.

The schedule for regional public hearings in upcoming months is:

Midwest: Chicago, Ill., May 7 South: Atlanta, Ga., May 14

Great Plains/Rocky Mountains: Denver, Colo., June 4

West Coast: San Francisco, Calif.,

June 18; Seattle, Wash., June 20 During July and August, the subcommittee will make field trips and hold hearings in Alaska.

Anyone wishing to testify at any of these hearings should inform the subcommittee in writing no later than one week before the hearing, sending their name, address, and the hearing location to: Subcommittee on General Oversight and Alaska Lands, 1327 Longworth House Office Building, Washington, D.C. 20515. Oral presentations should be brief; written statements may be submitted to the subcommittee.

Alternative Park Transportation Bill: Sen. Harrison Williams, Jr. (D-N.J.) has introduced the "National Parks Access Act," a bill "to develop, provide, and promote alternatives to the automobile for travel to and within the National Park System." Sen. Williams states that "the reliance on the automobile for park access has had deleterious effects on national parks in the vast expanses of the West as well as those on the fringes of our major metropolitan areas. Extensive use of cars causes environmental damage and requires that more and more precious parkland be devoted to roads and parking lots. Traffic congestion on access roads adversely [affects] local communities and detracts from the visitor's enjoyment of the park.

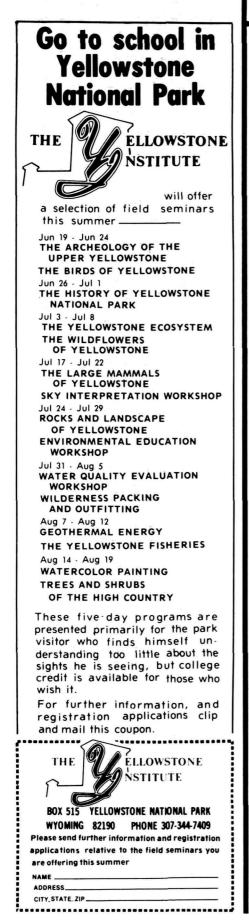
"If the parks are accessible only by car, people who do not have cars are effectively denied access. Those who bear the greatest burden of this inequity—the poor, the elderly, the young, and the handicapped—are thus deprived of their share of America's parkland heritage. The exclusive use of cars for park access is also contrary to our nation's energy conservation policies. It is difficult to imagine a less energy-efficient way to get to parks than in bumper-to-bumper traffic."

S 975 and House companion bill HR 4804 would authorize the Secretary of the Interior to provide for transportation services to units of the National Park System; to undertake park access projects at a minimum of nine parks; and to evaluate the projects and report to Congress within three years with recommendations for future park transportation projects and services. The Secretary would be authorized to implement projects at these parks and others: Cape Cod National Seashore, Mass.; Cuyahoga Valley National Recreation Area, Ohio; Fire Island National Seashore, N.Y.; Gateway National Recreation Area, N.J. and N.Y.; Glacier National Park, Mont.; Golden Gate National Recreation Area/Point Reyes National Seashore, Calif.; Indiana Dunes National Lakeshore, Ind.; Mount Rushmore National Memorial, S.D.; and Yellowstone National Park, Wyo., Mont., and Idaho. The Secretary could not expend more than \$1 million for FY 1977, \$2 million for FY 1978, and \$3 million for FY 1979. The legislation has been referred to the House Interior and Insular Affairs Committee and the Senate Energy and Natural Resources Committee.

House Committees

The following people are chairmen of House committees or subcommittees of interest to NPCA members:

Agriculture Committee—Thomas Continued on page 29



reader comment

Lug Soles Chew Up Woodland Trails We the undersigned—outdoorsmen all, old-timers all—want to express our deep concern over the growing trend to wear lug-soled boots and shoes for *all* outdoor activities.

Lug soles are great for the purpose for which they are designed, climbing and hiking on rocky trails. They are unmitigated disasters on woodland trails. Demographics and studies of outdoor recreation show that woodland trails are where most American hikers do their hiking. Lug shoes chew up dirt trails almost like bulldozer treads and snowmobiles; they make trails deeper by accelerating erosion. They cause puddles which, in turn, cause hikers to widen trails to avoid the puddles! The net result: deeper and wider trails made by the very people who ought to be most interested in the environmental impact of their own outdoor activities.

Our plea is simple: Wear lug soles for the purposes for which they were designed and which they perform admirably; for other outdoor activities, do as we do. Buy yourself a top-grade, comfortable pair of non-lug boots or shoes from a farm or army store. . . .

Lug soles have become almost a badge to identify outdoor-oriented people. Students even wear them to classes on our campuses. If you want a badge, wear Woodsey Owl. It's cheaper than lug soles and does no environmental damage! Better yet . . . let every . . . activity be of such quality that you don't need a badge.

William Harlow, SUNY College of Environmental Science & Forestry Douglas E. Wade, Northern Illinois University

George Gibbens, Florence State University (AL)

Reynold Carlson, Indiana University

George Donaldson, Northern Illinois University

More on Wolf Controversy

Dr. Mech's recovery plan for the eastern timber wolf (January 1977 issue) is a contradiction in terms. Although certain areas will be set aside as sanctuaries, these areas comprise only about one-third of the species' remaining habitat in Minnesota. The rest, or Zone 4, would have a reduction of wolves to the low density of one wolf per fifty square miles. Thus, in effect, the "recovery plan" would result in a net reduction of wolves in Minnesota. ... Dr. Mech does not explain how this reduction would take place, nor how it could be scientifically controlled. Whole packs would probably be destroyed, and it is hard to see how the density of one wolf per fifty square miles could be achieved without eliminating the wolf from many areas.

What is needed is an education program in the state on the role of the wolf as predator and its value in the ecosystem. Much of the anti-wolf feeling is based more on prejudice and ignorance than on actual livestock losses. Dr. Mech does not give any figures on the extent of these losses and does not say that they have been carefully tabulated by either state or federal authorities. A plan allowing the live-trapping of 'problem" wolves which have taken livestock, and their transport to wilderness areas, is a far better solution than a "wolf reduction program" of the already beleaguered remnant of North America's most magnificent predator.

The Fish and Wildlife Service has chosen to delay action on the petition by Minnesota to remove the eastern timber wolf from the endangered category on the federal list, but it has not yet designated critical habitat in the state, which would be an important factor in decisions on its management.

Greta Nilsson

Media, Pennsylvania

Remembering the Bicentennial Series May I take this opportunity to comment on the extraordinary Bicentennial Series. . . . The articles were grand.

Stanley Rosenberg New York, New York

What's a Fifteen-Year-Old To Do?

I would like to tell you how your magazine has helped me get involved with conservation. Before I saw your magazine I didn't know what a fifteen-yearold could do. . . . Now I am doing something instead of just thinking about it.

Greg Meyer

Elk Grove Village, Illinois

HANDY TIPS FOR PARK TRIPS

The second secon

This list of publications and information of interest to park visitors is by no means a "compleat" guide, but NPCA hopes from time to time to present helpful information for planning park vacations. Orders for the publications for which a GPO stock number is indicated should be sent to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Include title, stock number, and full payment by check or money order. (Publication titles are italicized.)

PICK A PARK!

✓ National Parks of the United States: Map and Guide: Handy map of the units of the National Park System. Includes a thumbnail reference chart showing whether there is an entrance fee to a given area and indicating the availability of NPS guided tours, various outdoor activities, living history programs, camping, campgrounds and lodging, and other facilities. GPO Stock # 024-005-00546-3. \$.75.

 ✓ Index of the National Park System: Divides the almost 300 units of the National Park System into natural, historical, and recreational areas and for each area gives a brief description of outstanding natural characteristics and history and the superintendent's address. 1975 edition. GPO Stock # 024-005-00612-5. \$1.65.
✓ Doorway to Adventure: Visit a Lesser Used Park: Features, services, facilities of 132 lesser known park areas offering exciting and more hassle-free vacations. GPO Stock # 024-005-00589-7. \$.70.

"Right Around Home" in the Southwest: A special informational program for potential visitors to parks in the Southwest. Especially designed to help those who live in the region to try a vacation near home, visit lesser used areas, experiment with off-season vacations, and learn more about parks before they leave home. The NPS Southwest Regional Office has identified park attractions within a 300mile radius of each of fourteen groupings of population centers. Free "trip planners" geared to each particular population area feature a map and brief description of parks. For more information about specific parks, you can then request a free 1977 "visit planner" for any of the thirty-three park units in the Southwest. Visit planners discuss activities, lodging, camping, weather, clothing, gear, safety tips, etc. National Park Service, P.O. Box 728, Room T-100, Santa Fe, N. Mex. 87501. ✓ National Park Guide for the Handi-

National Park Guide for the Handicapped: Describes facilities at 242 NPS areas for blind and deaf persons, those confined to wheelchairs, and other handicapped persons. 1971 edition: GPO Stock # 024-005-00286-3. \$.95. New edition due fall 1977.

Get IN Cheap(LY)!

✓ In 1977, 68 National Park System units (out of nearly 300) are charging **entrance fees** ranging from 50 cents to \$3 per person, and some areas also charge **recreation use fees** of up to \$4.

▶ 1977 Golden Eagle Passport: For persons under sixty-two years of age. Good for one calendar year. Costs \$10 and admits the purchaser and all persons traveling with him (or her) in a private, noncommercial vehicle to all designated federal entrance fee areas at no charge. Does *not* cover recreation use fees such as camping fees.

Golden Age Passport: Good for life-



HANDY TIP #1: A handout can still bring a handful of trouble!

WALK ON THE WILD SIDE

✓ Camping in the National Park System: Information on camping facilities, fees, camping seasons, limits of stay, reservations, and recreational opportunities available to campers in 99 NPS areas in 1977. Includes both the more developed campgrounds and group camps and backcountry camping. GPO Stock # 024-005-00668-1. \$.70.

▶ Permits for backcountry camping: Permits are required in forty-five National Park Service areas this year. The free permit system is designed to protect fragile backcountry areas while giving backpackers a better chance of finding the peace and solitude they seek in remote areas. Most areas issue permits on a firstcome, first-served basis; when one area is closed, backpackers usually will find that time of the permittee. Free to citizens or permanent U.S. residents who are sixtytwo years of age or older. Provides the same admission privileges as the Golden Eagle Passport, and also provides a 50 percent discount on camping and other recreation use fees and services. Apply in person.

▶ Both passports may be obtained at the designated fee areas. A brochure on the passport program listing all federal entrance fee areas and other offices where you can obtain the passport is free from the Bureau of Outdoor Recreation, Interior Department, Washington, D.C. 20240.

Play it Safe!

✓ Outdoor Safety Tips: Waterproof guide with general tips on survival, safety, and first aid. Useful to people using national forests, parks, and other areas. GPO Stock # 001-000-03427-8. \$.35.

✓ In addition, be sure to ask park personnel about particular hazards at the area(s) you plan to visit.

another area in the same park is available. However, parks indicated by an asterisk (*) will accept requests for advance reservations, and the park indicated by two asterisks (**) *requires* advance reservations for backcountry camping. The backcountry permit areas for this year are:

Apostle Islands National Lakeshore, Bayfield, WI 54814

Arches National Park, Moab, UT 84532 Assateague Island National Seashore, Berlin, MD 21811

Bandelier National Monument, Los Alamos, NM 87544

Big Bend National Park, TX 79834

Big Thicket National Preserve, P.O. Box 7408, Beaumont, TX 77706

MORE



🖄 HANDY TIP #313: Be prepared! You may need reservations at the campground of your choice.

- Blue Ridge National Parkway, P.O. Box 7606, Asheville, NC 28807
- Bryce Canyon National Park, Bryce Canyon, UT 84717
- Canyonlands National Park, Moab, UT 84532
- Capitol Reef National Park, Torrey, UT 84775
- Carlsbad Caverns National Park, 3225 National Parks Hwy., Carlsbad, NM 88220
- Cedar Breaks National Monument, P.O. Box 749, Cedar City, UT 84720
- Chaco Canyon National Monument, Star Route 4, Bloomfield, NM 87413
- Colorado National Monument, Fruita, CO 81521 Crater Lake National Park, P.O. Box
- 7, Crater Lake, OR 97604
- *Cumberland Gap National Historical Park, Middlesboro, KY 40965
- Delaware Water Gap National Recreation Area, Bushkill, PA 18324
- Everglades National Park, Box 279, Homestead, FL 33030
- *Glacier National Park, West Glacier, MT 59936
- Grand Canyon National Park, Box 129, Grand Canyon, AZ 86023
- Grand Portage National Monument, Box 666, Grand Marais, MN 55604
- *Grand Teton National Park, Box 67, Moose, WY 83012
- *Great Smoky Mountains National Park, Gatlinburg, TN 37738
- Guadalupe Mountains National Park, 3225 National Parks Hwy., Carlsbad, NM 88220
- *Haleakala National Park, Makawao, Maui, HI 96768
- Katmai National Monument, Box 7, King Salmon, AK 99613
- *Kings Canyon National Park, Three Rivers, CA 93271
- Lassen Volcanic National Park, Mineral, CA 96063
- Mount McKinley National Park, Box 9, McKinley Park, AK 99755

- Mount Rainier National Park, Longmire, WA 98397
- North Cascades National Park, Sedro Woolley, WA 98284
- Olympic National Park, 600 East Park Ave., Port Angeles, WA 98362
- Petrified Forest National Park, AZ 86025
- Pictured Rocks National Lakeshore, Munising, MI 49862
- Point Reyes National Seashore, Point Reyes, CA 94956
- Rocky Mountain National Park, Estes Park, CO 80517
- Saguaro National Monument, Box 17210, Tucson, AZ 85713
- Saint Croix National Scenic Riverway, P.O. Box 579, St. Croix Falls, WI 54024
- *Sequoia National Park, Three Rivers, CA 93271
- *Shenandoah National Park, Luray, VA 22835
- Theodore Roosevelt National Memorial Park, Medora, ND 58645
- Whiskeytown National Recreation Area, Box 188, Whiskeytown, CA 96095
- Yellowstone National Park, WY 82190 *Yosemite National Park, CA 95389
- Zion National Park, Springdale, UT 84767

If you need additional information on regulations, use limitations, and permits, write the superintendent of the park of your choice or the Division of Natural Resources, National Park Service, Washington, D.C. 20240.

✓ Reservations: All campgrounds at Grand Canyon and Acadia national parks, Point Reyes and Cumberland Island national seashores, and Chickasaw National Recreation Area require advance reservations for 1977. Four campgrounds at Mount McKinley National Park require advance reservations. In addition, many areas also require advance reservations for use of group campsites and hike-in campsites in the backcountry. Reservations can be made by writing to the park superintendent. For reservations at Virgin Islands National Park, write to the park concessioner, Cinnamon Bay Campgrounds, P.O. Box 120, St. John, V.I. 00830. Although many National Park System units provide individual campsites on a first-come, first-served basis, NPS advises you to check with superintendents in advance for the latest information.

✓ Index of National Park Campgrounds in Four Western States: Chart listing campgrounds and wilderness camping in twenty-two parks in California, Arizona, Nevada, and Hawaii. Includes info on camping seasons, fees, limits on stay, etc. Single copies free from Public Information Office, Western Region, National Park Service, P.O. Box 36063, San Francisco, Calif. 94102.

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Check with the park superintendent or the local Chamber of Commerce for information on comfortable accommodations operated by local business enterprises in locations convenient to the park of your choice. In many National Park System areas, private concessioners provide food and lodging within the park. The Park Service offers a booklet on these concessions: *Visitor Accommodations* is available free from the Office of Public Inquiries, National Park Service, Washington, D.C. 20240.

more tips 🚬

For additional information on national parks, write the superintendent of the park of your choice or the Office of Public Inquiries, National Park Service, Washington, D.C. 20240.

Continued from page 25

Foley (D-Wash.); Subcommittee on Forests—James Weaver (D-Ore.).

Appropriations Committee—George Mahan (D-Tex.); Subcommittee on Interior—Sidney Yates (D-III.).

Government Operations Committee—Jack Brooks (D-Tex.); Subcommittee on Environment, Energy, and Natural Resources—Leo Ryan (D-Calif.).

Interior and Insular Affairs Committee—Morris Udall (D-Ariz.); Subcommittee on National Parks and Insular Affairs—Phillip Burton (D-Calif.); Subcommittee on Energy and Environment—Morris Udall; Subcommittee on Mines and Mining—Abraham Kazen (D-Tex.); Subcommittee on Public Lands and Indian Affairs—Teno Roncalio (D-Wyo.); Subcommittee on Water and Power—Lloyd Meeds (D-Wash.); Subcommittee on Oversight and Alaska Lands—John Seiberling (D-Ohio).

Merchant Marine and Fisheries Committee—John Murphy (D-N.Y.); Subcommittee on Oceanography—John Breaux (D-La.); Subcommittee on Fisheries and Wildlife Conservation and the Environment—Robert Leggett (D-Calif.).

Public Works and Transportation Committee—Harold Johnson (D-Calif.); Subcommittee on Water Resources—Ray Roberts (D-Tex.).

Senate Committees

The following senators are chairmen of committees and subcommittees that are of interest to NPCA members:

Agriculture Committee—Herman Talmadge (D-Ga.); Subcommittee on Environment, Soil Conservation, and Forestry—James Eastland (D-Miss.).

Commerce Committee—Warren Magnuson (D-Wash.); Subcommittee on Merchant Marine and Tourism— Daniel Inouye (D-Hawaii); Subcommittee on Science and Space—Adlai Stevenson (D-Ill.).

Energy and Natural Resources Committee—Henry Jackson (D-Wash.); Subcommittee on Energy Conservation and Regulation—J. Bennett John-





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Public Lands and Resources—Lee Metcalf (D-Mont.). Alaska D-2 proposals will be handled by the full committee.

Environment and Public Works Committee—Jennings Randolph (D-W. Va.); Subcommittee on Environmental Pollution—Edmund Muskie (D- Maine); Subcommittee on Water Resources—Mike Gravel (D-Alaska); Subcommittee on Transportation—Lloyd Bentsen (D-Tex.); Subcommittee on Resource Protection—John Culver (D-Iowa); Subcommittee on Nuclear Regulation—Gary Hart (D-Colo.).

CANYONLANDS ENVIRONMENTAL EDUCA-TION CENTER. Nonprofit membership organization again offering outdoor nature workshops. Explore scientific mysteries behind the wonders of the canyons. Participate in small groups in enticing red rock scenery. University credit available. \$20 for 4-day sessions. Also 2-day sessions and family rates. Send for brochure: C.E.E.C., Box 177, Moab, UT 84532. 801-259-7898.

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Continued from page 2

project in the district of another without adequate regard for merit, in exchange for support at home. The Omnibus Rivers and Harbors Bill embodied and confirmed this blind consolidation of power, and made individual project vetoes by the President impossible.

Fostering, and indeed giving birth originally to this evil efflorescence, has been the developmental philosophy governing river basin management in both capitalistic and communistic countries for half a century and more. Big dams were seen to be symbols of progress; whereas they were in fact, in all too many cases, the instruments of centralized political and economic power, eagerly promoted by dictators in authoritarian regimes, and contributing, even in democratic countries, to the blind and inhuman social and economic processes which lead nations toward anomie, alienation, and despair.

UNLESS ALL SIGNS fail, as we write, the President will soon have powers of governmental reorganization which can be used to effect a benevolent revolution in these matters.

The civil works authority of the Army Engineers should be abolished in keeping with the pledge the President made during his campaign.

A clean break with the past is needed. The established procedures and permanent bureaucracy of the Army Engineers will preclude any genuine change in the ways of the Corps. Its authority over dredging and licensing outfalls should be transferred to the Environmental Protection Agency.

The Bureau of Reclamation, particularly in the light of recent revelations as to its engineering incompetence, should likewise be abolished.

A River Projects Agency should be established in the Department of the Interior with authority to do all the construction work on rivers, such as levees, flood walls, and individually authorized impoundments, where special circumstances make them desirable and necessary, and to manage completed projects.

A River Projects Review Board should be established at Cabinet level

to conduct an ongoing re-evaluation of authorized projects, recommend nonfunding or de-authorization, after the practice already established by the President, and carry on such advance planning of river-basin scope as may be needed.

The Board would have sufficient staff to evaluate individual projects within the perspective of environmental river basin management, and thus develop recommendations for authorization, appropriation, and assignment to the Agency.

THE AUTONOMY of the Tennessee Valley Authority was valued by many for decades because it was thought to permit valuable initiatives in river basin management and to provide leverage against the privately owned public utilities. The autonomy has been abused, and must now be subjected by Executive reorganization to the suggested Board and Agency.

The Federal Power Commission has been the truant of good river basin planning for decades. Conservatively integrated river basin programs could be wrecked, as has often happened, by the imprudent issuance of licenses for the construction of hydropower generating or pumped storage reservoirs by the privately owned utilities.

The issuance of licenses by the FPC should be restricted to projects individually authorized by Congress and approved by the President. The function of the FPC would be to approve the qualifications of licensees and regulate rates.

The engineering work of the Soil Conservation Service must also be brought under control. The channelization of streams which has been fostered increasingly by SCS must be halted. Meandering water courses protect environmental assets, the value of which is far greater than the supposed agricultural benefits attributed to drainage of adjacent wetlands.

The lake building proclivities of SCS should also be curbed. Its headwaters impoundments are useful mainly for water supply, helpful in flood management, and objectionable for pollution abatement. They have served too often as magnets for second home developments, contributing to urban sprawl. **B**EYOND THE REACH of such measures, comprised within the probable reorganization authority of the President, will be the contributions which can be made only by the Congress.

We are satisfied that congressional leadership includes far-sighted men and women who understand the need for single-project authorization and appropriation for all significant construction works on the rivers of the nation.

Such a change in authorization procedures will mean that each proposal can be evaluated on its merits, and not so easily on the basis of trade-offs between one congressional district and another. The congressional budgeting process can take the merits of each individual project into account. The President can sign or veto measures for individual projects as his considered judgment, exercised in the light of the recommendations of his River Projects Review Board, may dictate. The recommendations of the Office of Management and Budget with respect to authorizations, appropriations, and impoundment may also be considered on their merits.

F AMERICA at this critical juncture a can provide a model for the ecological management of river systems throughout the world, it will have done a great service to mankind. The oldfashioned programs based on big impoundments, which are moving forward everywhere around the planetin Africa, Southern Asia, Latin America, the Soviet Union, and perhaps China-could bring untold misery to millions. The fiasco of the Aswan Dam in Egypt is but one example, and there will be many others before the truth is well enough understood that men must manage their rivers in harmony with, and not against, nature.

Conservationists everywhere have welcomed the President's initiatives, hoping that they will be matched by a similar grasp of realities in the Congress, and will continue to support them, taking heart once again from this powerful leadership in a worthy cause.

—Anthony Wayne Smith

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