



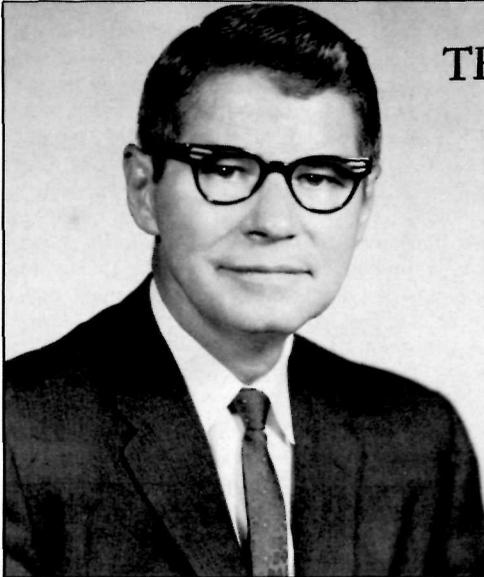
# TRENDS

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## THE NEW U.S.D.A. RECREATION POLICY

by ORVILLE L. FREEMAN  
Secretary of Agriculture

*Remarks by the Secretary to the National Recreation and Park Association Federal Assistance Institute, at Washington, D.C., May 3, 1967.*

I would like to discuss what the U.S. Department of Agriculture is doing to hammer out a department-wide, unified policy for recreation development . . . why we're doing it, and what we hope to accomplish.

For want of a better name, I call it a "unified field theory" on recreation/conservation.

Joe Califano, a special assistant to President Johnson, spoke to this point before the Washington chapter of Sigma Delta Chi last week. He said, in part:

"... This new approach to problem-solving and decision-making has many names: systems analysis, cost effectiveness, planning-programming-budgeting-evaluation.

"The name is not important. The approach is. It is a systematic way of saying: what are all the parts of the problem, how do they affect each other, and why? It gives us new management tools to determine our objectives, set our priorities, examine the options open to us and apply the resources available to those programs which will have the maximum impact on the solution of our problems.

"For the approach to be total, problems must be defined and examined in their entirety, as a whole, rather than in bits and pieces . . ."

Mr. Califano was talking about the entire Federal establishment in his speech, with particular reference to Presidential problem-solving. But his words are equally applicable to our subject today.

The USDA got into the recreation business in bits and pieces, over a period of many years, law-by-law, as authority was granted by the Congress.

The Forest Service, of course, has been in the business ever since its founding, back in the early 1900's, both because of the nature of the lands it administers and because of the prescience of some of its early Chiefs.

Long before passage of the Food and Agriculture Act of 1962, the Soil Conservation Service, Farmers Home Administration and the Agricultural Stabilization and Conservation Service had limited authority to foster recreational development and did much with what they had. But the 1962 Act—sometimes called a Charter for Rural America—greatly expanded this authority. It amended P.L. 566 to include recreation in small watersheds, it allowed us to include planning and technical assistance for recreation on public and private lands, and gave us authority for Resource Conservation and Development Projects.

The Department's recreation efforts got another boost in 1965 with passage of the Food and Agriculture Act, which provided for recreation and wildlife conservation measures under the Cropland Adjustment Program, and for parks under the Greenspan program.

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Last year, Title III of the Bankhead-Jones Act was amended to allow FHA rural renewal loans to be made to local non-profit organizations engaged in recreation, and this year we have asked Congress for funds to cost-share under this program. The President requested, also this year, broadened loan authority for the Farmers Home Administration to bolster its farm-based recreation development program.

Only now are we really getting under way. Yet we have already accomplished a great deal under these programs. I won't cite all the statistics, impressive as they are. Suffice to say we have put idle acres — unneeded for crop production — to work producing recreation, or providing cover for wildlife, rather than lying in a sterile soil bank. We have put several hundred thousand acres of water to work providing recreation — in addition to flood control. And we have launched 26 Resource Conservation and Development projects.

I'm especially proud of these RC&D developments. Many of them wrap up water-based and shoreline recreation, municipal water and flood control into one package. All are planned in a comprehensive manner, one in which physical development is keyed into an over-all community development plan, and recreation is given a prime spot. In addition, many RC&D's provide a tangible example of how soundly-planned recreation resources can help a community attract industry by providing the kind of physical environment that plant-location experts demand.

In doing all of these things we leaned heavily on the multiple-use concept, pioneered by the USDA's Forest Service. In the National Forests, the same public domain that provides a timber harvest also provides recreation, serves as a watershed, conserves the soil . . . perhaps grazes cattle.

Similarly on private land, an acre of cropland, taken out of production in the national interest, can still serve the national interest by providing cover for game, or perhaps open space for city residents. The same dam that protects us from floods can also impound water for boating, picnicking, fishing, and boost the local economy by attracting a new industrial plant.

And so, bit by bit, over the years, we have hammered out viable recreation programs in the USDA. Then the time came to graduate from a piecemeal approach. More than a year ago, we determined to set out an over-all Department policy for recreation, one that would program recreation as a primary Department mission.

The result is a USDA recreation policy that encompasses both public lands in the National Forests, and the three-quarters of United States land area in private hands.

First the public lands. As you know, recreation visits to the National Forests are literally exploding. And so, as part of our over-all recreation policy, we plan to triple the capacity of National Forest recreation facilities to help keep pace with this greatly expanded use.

We are well on our way toward completing studies of the National Forest portion of the Wilderness Preservation system, and by next fall, will have proposed inclusion of 12 more wilderness areas totaling more than one million acres.

We have strongly supported both the proposed Scenic Rivers and National Trail System legislation and are planning on providing major segments of both systems within the National Forests, when and if they become law.

As you know, the Department was an early proponent and is now an active supporter of the Land and Water Conservation Fund — the Golden Eagle program — an act that allowed us to acquire the 18,000-acre Sylvania tract in Michigan, and that has funded other badly-needed recreational lands in the East.

Most of you in this room are thoroughly familiar with our recreation work in the National Forests, and now in the National Recreation areas. The National Forests provide a lion's share of the public recreational facilities available to most Americans. Last year they received some 151 million visitor days of use, 43 percent of the recreation visits to all Federal lands.

And I am sure you are just as familiar with the demographic characteristics of this nation: If we use the Mississippi River as a dividing line, some 66 percent of our population lives east of the River, yet only little over 8 percent of our National Forests lie in the East.

The population center of the United States — that point on which the U.S. would "balance," if every person in it weighed the same — is in Illinois.

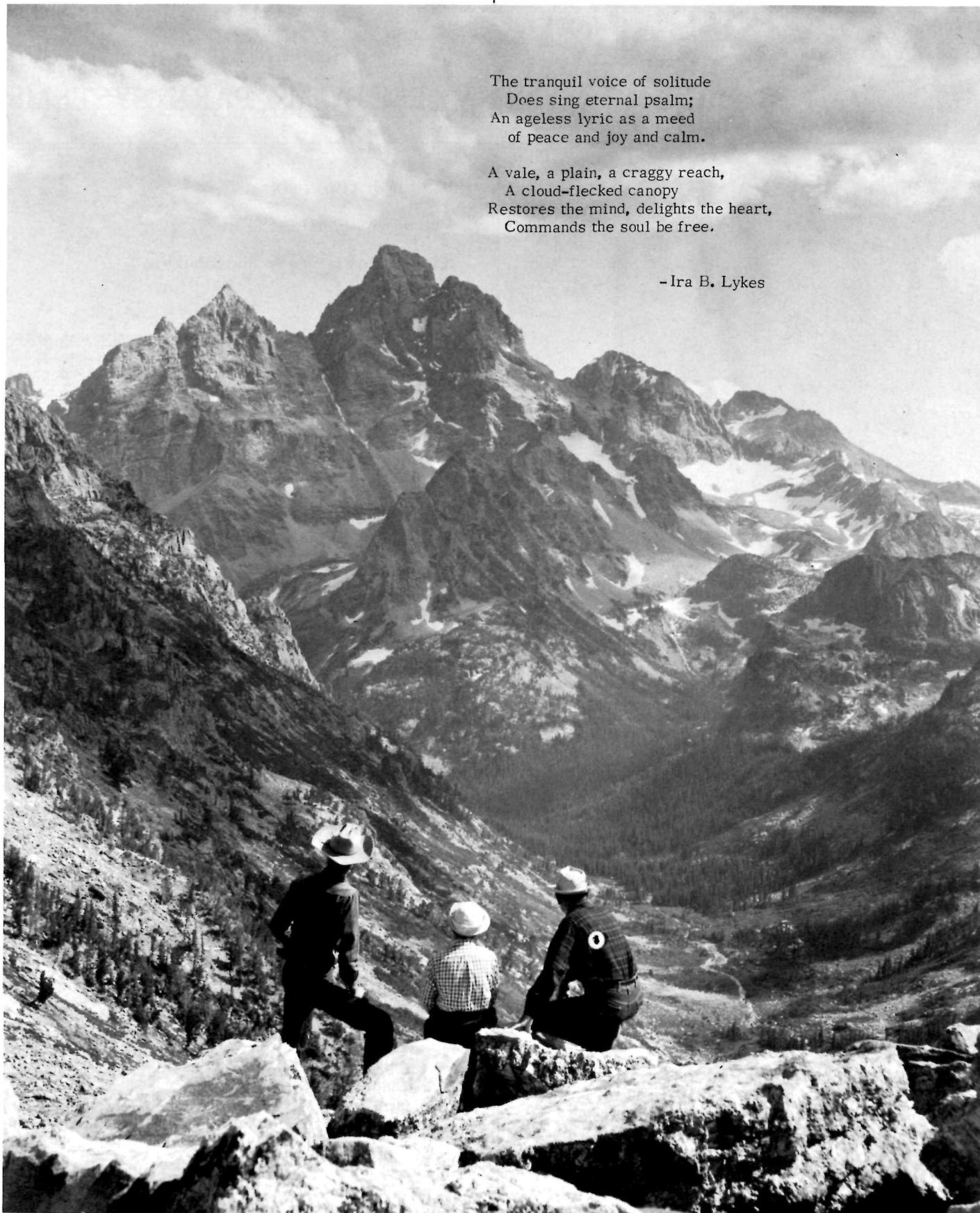
The "National Forest Centerline" — that line on which there is as much National Forest acreage to the east as to

(Continued on page 24)

The tranquil voice of solitude  
Does sing eternal psalm;  
An ageless lyric as a meed  
of peace and joy and calm.

A vale, a plain, a craggy reach,  
A cloud-flecked canopy  
Restores the mind, delights the heart,  
Commands the soul be free.

- Ira B. Lykes



Overlooking West Slope of Tetons and Cascade Canyon Trail Above Lake Solitude

NPS Photo

*Guest editorial -*

## BALANCE AND VARIETY IN PARK SYSTEMS



by BEN H. THOMPSON

Executive Secretary

National Conference on State Parks

Some park agencies have only intensive use, active recreation areas. Some try to accommodate the demand for intensive use, active recreation in scenic or historic areas that can only be impaired by such use. Some are interested primarily in developing tourist resort areas. Many have not yet seen the potential values in preserving the scenes, the geological wonder and the natural ecology of the many different native plant and animal types near at hand.

Time works against us in trying to plan, acquire and protect the best possible balance of area types in our park systems. It works against us in the accelerating rate of loss of the best potential park areas. If we are to preserve all the kinds of areas needed for the enrichment of life, that must be done as quickly as possible, for the opportunities are running out faster than we realize.

Perhaps the highest priority should be given to identifying and acquiring the places of great intrinsic value, wherever they are, before they are destroyed. Frederick Law Olmsted prepared such a plan for California in the late nineteenth-twenties. Later, he returned and prepared a complementary State recreation area plan oriented toward the places of greatest outdoor recreation need. These were logical and closely related steps in State park planning, although they came about over a period of more than twenty years as the developing needs became apparent.

Today, with many decades of such experience to build on and with Federal, State and local funds and cooperative programs to build with, it should be possible for all park agencies to plan and move toward the goal of a comprehensive, balanced, park plan involving areas of scenic and natural history interest; wild or wilderness areas and heavy use areas; sites of prehistoric and historic significance; water recreation areas, including beaches, stream and lake shore areas and those on artificial lakes and reservoirs; parkways that are planned and constructed for leisurely driving—elongated parks encompassing a road; scenic roads; systems of interpretive trails, foot trails, bicycle trails, horseback riding trails; waterway's for canoeing and boating; marinas and small harbors; and with a wide range of supporting facilities and accommodations, as required for the appropriate public use and enjoyment of each kind of area in the park system.

Balance and variety in the system help protect each kind of park area, for then people can find the different satisfactions they seek and they will seek the kinds of areas that meet their wants.

*Ben H. Thompson*

## INTERIOR'S GOALS IN THE FEDERAL ASSISTANCE PROGRAM

by DR. STANLEY A. CAIN ●

Like others here, I spend hard-to-find time writing my own speeches. This gives me a chance to chip away a few fragments from the hard rocks of experience and make a sort of breccia, bound with the silt of verbiage. A breccia, as you know, is made up of sharp-edged fragments which, had they stood the weathering of time, would be rounded and polished. The resulting matrix of such pebbles would be called conglomerate or pudding stone. Having entrapped myself in this figure of speech and an implied apology, which is the worst possible way to start a talk, I hasten to say that the burden of today's program will be carried by the individual bureaus of Interior, so I can let the chips fall where they may.

Let me start by saying that to a considerable extent we live by myths of our culture which are no longer tenable. For example:

. . . Since we landed on Plymouth Rock and then fell upon the Indians, we have been busy occupying an essentially empty continent. Nothing—the Indians, the vast forests of Appalachia, the prairies of mid-continent, or the mountains of the West—has stayed our inexorable expansion. Out of this experience we got the idea that nature has to be dealt with ruthlessly; that progress is materialistic expansion; that growth is necessary and inevitable; and that conservation, as we now call it, was something that we had neither time nor stomach for. Here, then, is the myth of human separateness from nature.

. . . Our Federal Government was created out of thirteen colonies. These states and the ones to come later had all the powers that the central government had not specifically reserved to itself. Nearly two centuries later we dispute over states' rights while striving for creative federalism. Not since the 1860's have we tried to live apart, yet in some ways the conjugal relationship is a marriage of inconvenience. Here, then, is the myth of separateness from socio-political reality. To some degree the position taken by some states on certain matters reminds me of a sign I saw on the outskirts of a small town in the Upper Peninsula of Michigan. Presumably directed to tourists, it said, "Don't bother to come yourself, just send us the money."

Like it or not, the states and the Federal Government must be hand in hand as we struggle through the morass of our problems. Each dares not relinquish its hold on the other at the risk of submergence. Today we will hear many of these problems discussed. What is most hopeful is that the emphasis will be on cooperative programs. Here are some of the problems.



● Stanley A. Cain, a native of Jefferson County, Indiana received his B.S. degree from Butler University, Indianapolis in 1924, his M.S. at the University of Chicago in 1927, his Ph.D. from the same University in 1930, and a D.Sc. (Hon.) from the University of Montreal in 1959.

Dr. Cain is presently on a leave of absence from a Conservation Professorship at the University of Michigan while serving as Assistant Secretary for Fish and Wildlife and Parks, U.S. Department of the Interior.

In addition to his earlier teaching positions at Butler University, Indiana University, University of Tennessee and University of Wyoming, he is the author of the ORRRC Study Report #6, "Hunting in the United States," and other books, and is the recipient of numerous honor awards in the fields of conservation and natural history.

. . . Above all other people, we have had the opportunity to expand and fill an essential vacuum—a vast continent of fantastic riches in natural resources. For a long time, worked out farms, devastated woodlands, mined out minerals, and wasted water were of little moment. There was always the expanding frontier, expanding, that is, until a few short decades ago. We know now that we can no longer have a happy disregard for the future. Who now could say: "What has the future done for me? Let the future take care of itself."

. . . Through most of our history we have been short of labor. There was much to be done and not enough people to do it. Because population growth had a positive economic value, it has been difficult to grasp that there could be too many people. After all, we like to sell everything from layettes to shrouds. Who could imagine too many customers? But what about harassed school teachers? Park Superintendents when there are millions of visitors? Public officials trying to raise the funds to provide services to sprawling suburbs and deteriorating central cities?

. . . Because we have had more to do than we could get done, we turned to what we like to call Yankee ingenuity. That is, we adopted the industrial revolution. We took to mechanization like birds to the air. One consequence of this is an ingrained optimism. Science and engineering technology will surely solve any problem that arises. Something will turn up, it always has.

. . . Related to this is our devotion to quantities. If we can count it, weigh it, or measure it, we believe in it. If we can't, we are suspicious of it. If what some people wish to do does not contribute measurably to the gross national product, to growth and progress and profits, it must be something "kook" if not downright un-American. For example, it is all right to read Thoreau, but who wants a Walden Pond?

. . . When confronted with the double-entry bookkeeping of limited accountant mentality, we have yet to figure out how to enter intangible, non-marketable values such as natural beauty in the computation of benefit/cost ratios, except, I should add, that sometimes on large construction projects when we can't reach that magical favorable ratio of one to one, we plug in the deficit by claiming it for recreation. Recreation is this generation's magic persuader. Fortunately, however, we don't have to say exactly what we mean. Part of it can be quantified. Fishing and hunting licenses and the sale of Golden Eagle permits are easy to account for. Tourists, campers, and picnickers can be counted and their contribution to local, state and national business can be estimated. But who knows the number and worth of bird-watchers and rockhounds, or those who would merely walk and steep themselves in solitude and nature unadorned?

Enough of that. I do not wish to misrepresent the situation that we face today. A profile of a people is always false. Just as statistical averages of any kind are an abstraction and not necessarily representative of any single member of a population, so what I have said is no more than a general truth. And general truths are subject to change.

It is for this reason that conservationists today have reason to be encouraged. In their own way and in the context of the times there have always been those who departed far from the average. I refer in this connection to persons who value the intangible, who refuse to put a price tag on everything that they value. We allow the poets their foibles, but there are also those like the farmer's wife who persuades her husband to leave the forty-acre woodlot just as it is because the spring flowers are some compensation for a hard winter, or the marsh undrained because the peepers make music.

The point that I have come to is that today the voices raised for wilderness are not voices crying in the wilderness. They are heard in the halls of Congress and the Legislatures of the states, and in New England town meetings.

Some of the problems that we have brought upon ourselves have arisen so gradually and so naturally as a part of our accustomed lives that we have not noticed them until some

threshold has been passed. Then we are shocked by them. This is the case with most pollution, and with what we are now calling the population explosion. Other problems are sudden in their occurrence, like atomic power, and we ask ourselves in astonishment, "What hath Man wrought?"

An editorial writer for the NEW YORK TIMES on April 23 reiterated a point that we have been hearing more and more frequently:

The wild places are now seen not as an enemy but as a vanishing resource. As the neon lights glare ever brighter and the miles of paved roads wind ever onward, the chance of escape to the solitude of a roadless area, an unspoiled forest or an untamed river becomes ever more precious. Congress recognized the importance of preserving this chance for today's Americans and for all the generations to come when it passed the Wilderness Act in 1964. Putting its provisions into effect is not easy because its philosophy still has to wage a battle against the hardy myth of growth.

Farther along the editorialist wrote:

Growth is no longer the decisive consideration. Not only this country but the entire world has reached a point at which voluntary population control and wise use of land and resources are essentials if civilization is to survive.

Are these apocalyptic words, or are they the opening lines of a new Domesday Book? I think not. If I thought so, I would go away somewhere by myself. The reason that I am cautiously and deliberately optimistic is that there are new stirrings. There are new mechanisms for actions. But there are old ones, too.

The Federal Government and the states are in business together. Confronted with many mutual problems, we take each other by the hand, sometimes by the scruff of the neck. This has long been the case in the development of natural resources. In the building of the economy, region by region and state by state, the Federal Government may have hesitated and fumbled at times but it has never failed its partnership directly with sectors of the economy and indirectly with the states. The roll call includes price supports and production allocation, tariffs and import quotas, credit rates and other fiscal operations, depletion allowances and other tax benefits — in fact, direct and indirect subsidies of many kinds. Government itself has become big business, doing construction jobs that others could not accomplish, such as the big multiple-purpose dams, and it has carried research and development when the risks were too great or the lead time too long for states or private enterprise.

Not every state has benefited equally. Some inequality results from facts of nature such as climate and the geographic occurrence of minerals, forests, and good farmland. Some of it results from the unequal capacities of the people themselves or from the ineffectiveness or inappropriateness of state laws and some of the inequality among the states results from the very makeup of legislative groups. Some can be traced to the vagaries of the party in power, but these are only details of the broad landscape, often transitory.

I want to mention one partnership in some detail. More than a century ago Congress established the land-grant colleges as a Federal-state arrangement in agriculture, and followed it not long after with the experiment stations and an effective extension service. Education, training, research, development, and extension have helped the people of every

state — not just the farmers, but all of us. Slowly and inexorably there has been improvement in the genetic stocks of crop and livestock varieties, in soil and water management, in fertilizer, in cultivation and harvest, in storage and marketing and credit, in machinery and its power. This has borne fruit. From the agricultural distress which some say triggered the depression years, we have seen follow the stupendous production of the past two decades that gave us embarrassing farm surpluses. But these surpluses gave us a new tool in international diplomacy and humanitarianism, too, as billions of dollars worth of grains and other products have been given to distressed nations or sold for soft currencies that we can not spend.

I know that this is not an agricultural conference, but there is a pattern here that should help us maintain equanimity as new Federal-state devices are being proposed and worked out.

The land-grant idea has been transposed to the sea-grant program authorized by the last session of Congress. This may do for our marine interests what has been done for the land, and very much faster, too. All coastal states, including those of the Great Lakes, have a direct stake in aquatic and subaquatic resources. Authorization by the same Congress of the Federal construction of a plant to manufacture fish protein concentrate has not found the states sitting on their hands, either, and when a new laboratory is in the offing the competition among the states is intense.

The Pittman-Robinson and Dingell-Johnson programs have had decades of effective Federal-state cooperation in the fish and wildlife fields. Here federally collected excise taxes are invested by the states mainly for the benefit of the sportsmen whose dollars are involved. This is a system that works. But it is no more than a small part of the total program. There are the Federal fish hatcheries, the first of which was built nearly a century ago. I doubt that any state has ever turned down one that Congress proposed. Many states have costly and effective programs of their own which are only supplemented by Federal installations. On the other hand, I regret to say, some states have no hatchery programs or at least operate only minimal ones of their own. There is also, as you know, an extensive system of Federal wildlife refuges and game ranges. Here again the efforts of the states are unequal. But the sportsmen, with the duck-stamp money that is expended by the Migratory Waterfowl Conservation Commission, support a national program for production, migration, and wintering lands, and the wetlands acquisition program, expended by the Bureau of Sport Fisheries and Wildlife, is aided by a Federal advance against such revenues. This is people-to-government cooperation with the states playing a minor role.

That problems remain between the states and the Federal Government is not surprising. The problem of migratory waterfowl and some other species, especially song birds, has been settled by Federal pre-emption and international treaties. This does not make it easy for the Bureau of Sport Fisheries and Wildlife to determine each year the limits of open seasons and the number of birds that can be taken. Such decisions are not autocratic, however, though at times they may seem arbitrary to certain states. Elaborate flyway committees, each including several states, help decision-making. Also, state research and data are added to the Federal effort in determining population sizes, safely huntable numbers, breeding success and other pertinent data, as well as increasing understanding of the biology and ecology of species.

Still, when a new program comes along, such as that to help rare and endangered species, old fears of Federal encroachment on states' rights flare once more, especially

in regard to resident or non-migratory species. Another source of disturbance is the estuary bill, H.R. 25, which proposes a national system of estuaries with the various units in local, state or Federal ownership as may be worked out most equitably. The same fears have arisen as were expressed many years earlier with the coordination Act, yet today the states recognize that the Federal Government has not sought to pre-empt states' rights.

I suggest that we all remember that our country has never nationalized American agriculture, forestry, mining, or the development of other natural resources, and that in many connections there is a long history of Federal restraint in cooperation with other levels of government and with private enterprise.

People in the states as well as we in Federal work have many publics. Although the Department of the Interior is a department of natural resources and their conservation management, there are many other departments that have interests and responsibilities in land and water, in the seas, in minerals, in fact in the economy of the Nation and its fundament, all of the natural resources and the quality of the environment. It is the same in the states, of course, for although some states have single departments with broad resource responsibilities, most have a series of agencies.

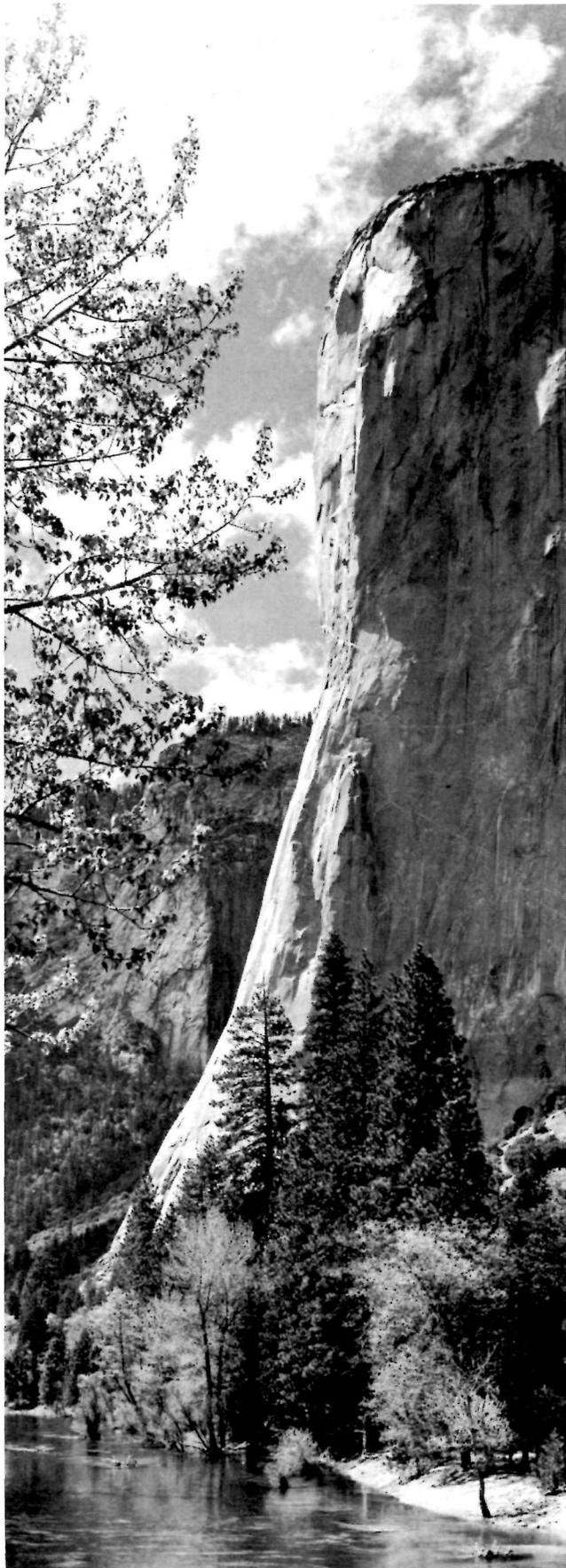
It is a consequence of the fundamental nature of resources that public agencies have a wide variety of publics. Many of our problems arise from the differences among the primary interests of the different publics. One measure of good government is the degree to which a working consensus is arrived at, one in which no single interest gets all that it might wish, nor nothing that it does not deserve. As has often been said, effective government is the art of compromise. This may sound better if we call it the optimization of net benefits. Yet I believe there are times when compromise marks failure. There are issues that call for a firm stand, when principle is more important than agreement. It may be that most of the time half a loaf is better than no loaf at all, but there certainly are other times when the risk of no loaf needs to be taken. The politics of conservation may be no different from the politics of human rights, leaving no room for compromise, only questions of *modus operandi*. Perhaps one of the human rights is the inheritance of a livable world, one that delights the soul as well as nourishes the body. If we accept that, then we are obligated to be good husbandmen, even at the expense of private profit.

The management of natural resources, and in that the relations between governments and between governments and the people, would be easy if the choices presented to us were between good and evil. They would be easy if the choices were between the present and the future. They would be easy if they were between public and private enterprise. They would be easy if they were between Federal and state governments. But they are not. We do not live in a world of choices between black and white, but in shades of grey. So we have never a dull moment.

In closing I wish to illustrate this point by a few words on nature preservation and recreation. At one point in the interplay of the two they are in harmony. At the other extreme they are antithetical.

The point of harmony is found when recreation consists of those relationships with the outdoors that are based on, and the activities are derived from, nature itself. This is found in natural beauty and the harmony of its many ingredients, and in the quiet, nondestructive appreciation and study of the living and physical components of our world — plants, animals, clouds in the sky, and rocks underfoot.

Disharmony arises when activities in natural areas are unrelated to nature, activities that could as well be engaged



Yosemite

NPS Photo

in where nature is no longer pristine. It also arises with overuse. To swim naked in a mountain lake is a rare and satisfying experience. To emerge among the midges and blackflies is another matter that soon ends the impulse to experience nature in the raw.

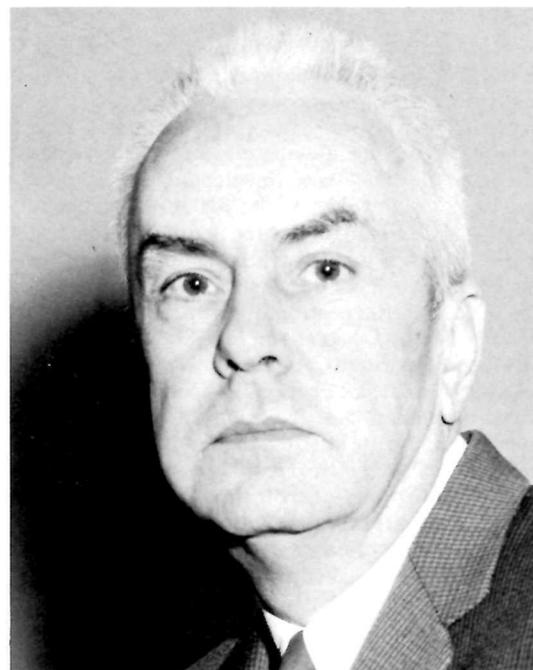
Today's dilemma is of our own making. As a species we have become too numerous for much of nature to remain undisturbed. We have become too powerful technologically to expect that everyone with the power to use it will use our technology with restraint. Inevitably some technologists use a sledge hammer to kill a fly. Yet we are of no mind to allow the complete destruction of nature.

This point, I am sure, will be addressed by every speaker today. It enters into every aspect of interest to the Federal Assistance Institute. It is a central problem for the Federal-state planning programs of the Bureau of Outdoor Recreation: One hundred and forty million visitors are a gratification and an embarrassment to the National Park Service. The national system of wildlife refuges and game ranges was not created as reservations for recreation, nor for that matter as sanctuaries, yet many forms of recreation are appropriate and compatible on these lands. The Bureau of Commercial Fisheries directs its attention to an industry but it cannot turn its back on the sportsman's use of many of the same resources. The Geological Survey has little direct connection with recreation, but if there were extracted from the ranks of their professionals all those who went into geology because they were amateur naturalists in childhood, or because they loved the outdoors, not much would be left of this distinguished bureau. And in this roll call of today's program, what can I say of the Federal Water Pollution Control Administration? At least it would not exist if it weren't for us, the exuberant polluters. One can say also that their concern for a quality environment for man—for clean air and water—will be a boon to other creatures too.

What, then, is Interior's goal in the Federal assistance program? It is simply said, if difficult to realize. It is to work constructively with the states. It is nothing without the states. Like any other socio-political institution, Interior is a sort of organism. One cannot dissect it and sever its organs and still have an organism. The integrity is in the whole, not in the parts. There is no escape. The cells and tissues and systems and organs accomplish nothing of themselves separated from the system which they compose. A noncoordinated part that runs amok is cancerous. Monstrosities are not viable.

Let me push my biological analogy one step further. The socio-political organism is of man's creation. He can direct its life history and over time its evolution. He can also bring about its extinction. It behooves us, then, to consider carefully our actions. Man is not a rare species, but he may be an endangered one.

This is an age of accelerating technological and social change, increasing population and urbanization, fragmentation and overlapping of governments, increasing disparities between central cities and suburbs, and multiplying sources of decision-making affecting physical development. Given these trends, one cannot help but become increasingly concerned with the problem of coordinating the large number of Federal programs affecting the environment with one another and with State, local, and private development. Park and recreation programs, like other functions of government, have been caught up in the administrative turmoil that has resulted from the rapid expansion of the number, size and diversity of Federal programs. The National Recreation and Park Association, in its recently published catalog describing Federal assistance programs for recreation and parks cites approximately 70 programs administered by 12 agencies.



## MEETING PARK AND RECREATION NEEDS THROUGH INTERGOVERNMENTAL COOPERATION

by WILLIAM G. COLMAN ●

The 1945-64 postwar era witnessed a substantial increase in Federal Government attention to the problems of providing adequate outdoor recreation facilities for a burgeoning national population. Rapid population growth and economic prosperity in the postwar era led to increasing public use of existing outdoor recreation facilities. At the same time, the growth of cities and suburban communities began increasingly to encroach on wild and rural areas suitable for outdoor recreation use. The need to conserve existing areas suitable for recreation and to develop new ones to meet anticipated growing demand, particularly in the crowded Northeastern areas of the country, emerged increasingly as a major conservation problem of the postwar era. Federal policy to meet outdoor recreation needs did not develop all at once. In the first decade following V-J Day, it took the form of a sporadic series of laws authorizing the inclusion or development of recreational features on the various lands owned by the Federal Government and in water projects built by Federal agencies. Behind such authorization lay the realization that the Federal Government, which owned or controlled one-third of the entire land area of the Continental U.S. and Alaska, had in its hands vast land and water resources, in many cases ideally suited for recreation use, which could be developed to help meet future outdoor recreation needs and without precluding other uses of the land and water — such as fish and wildlife development, construction of dams and reservoirs for flood control, power, water supply and similar purposes, preservation of scenic beauty, conservation of forest resources and so forth.

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During the period 1947-1954 he held a number of technical and executive positions with the Department of State, the foreign aid agencies, and the Office of Defense Mobilization.

In 1954-55 he served as Assistant Director of Research for the "Kestnbaum" Commission on Intergovernmental Relations, and later as Executive Assistant to the Director of the National Science Foundation. Since 1960, he has been Executive Director of the Advisory Commission on Intergovernmental Relations.

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With the advent of the Kennedy and Johnson administrations, the focus on using existing Federal land and water resources for multiple purposes, including recreation, continued and even received more emphasis than in the past. In addition, a new element began to receive heavy stress — the need to coordinate development of outdoor recreation facilities by government at all levels, Federal, State and local — and to plan for acquisition of additional suitable lands, while they were still available to meet Federal needs. A major development in this respect was the 1962 report of the Outdoor Recreation Resources Review Commission, established by Congress in 1958.

After an exhaustive study, the Commission recommended an over-all national recreation policy which heavily emphasized coordination of Federal, State, local and private development in the field of outdoor recreation; the creation of a Bureau of Outdoor Recreation to serve as a national recreation planning and coordinating agency; and a program of Federal grants to the States to help them acquire lands suitable for local recreational uses. In 1962, such a Bureau was created by executive action, and in 1963, it was given statutory authority by Congress.

resource projects to prepare suitable outdoor recreation plans.

Other programs under consideration are a wild, scenic or natural rivers proposal, a suggested nationwide system of trails consisting of national historical trails, State trails and metropolitan trails. A national system of scenic roads and parkways has been under consideration for several years by the Executive Branch. A Public Land Law Review Commission will probably express a policy view as to the role of recreation on the public lands.

The role of local governments in recreation, along with that of the States, is becoming more and more prominent. There were, for example, in 1950, 933 county parks. In 1960 there were 2,610 county parks — and increase of nearly 280 percent. Professional personnel in county recreation programs numbered 3,000 in 1950; this number had increased to 7,400 by 1960. The most dramatic indication of public enthusiasm for these programs was the increase from less than 5,000 unpaid recreation leaders in 1950 to almost 42,000 in 1964 — and increase of 840 percent. In the five-year period from 1955 to 1960, county parks and recreation expenditures doubled from \$ 67 million to \$ 122 million and this trend has continued to date.



Burns Run, Denison Dam (Okla-Tex)

U.S. Army Corps of Engineers Photo

In 1964, another Commission recommendation was fulfilled when Congress authorized the creation of a Land and Water Conservation Fund, to finance Federal grants to the States and to underwrite spending by Federal agencies for accelerated acquisition of suitable land and water resources for outdoor recreation. With the creation of the Bureau of Outdoor Recreation and of the Land and Water Conservation Fund, the nation for the first time had a central recreation planning agency and a mechanism for financing the acquisition of needed outdoor recreation land.

New National Parks have been established, as have National Monuments and Historical Sites and National Recreation Areas. Congress through the Federal Water Projects Recreation Act has made recreation a major project purpose in all Federal multiple purpose water resource developments. The Federal Power Commission has issued regulations requiring applicants for licenses for water

State governments, too, have been active. In August 1966, the Bureau of Outdoor Recreation reported that at least 24 States possessed bond financing authority to finance outdoor recreation programs. These include both revenue and general obligation bonds. Grants to local governments are a feature included in a number of these actions. Six States had authorized bonding and tax powers for local governments to finance recreation programs.

As of May 1966, 49 States and four Territorial Governments had prepared initial versions of State outdoor recreation plans, and submitted them to the Bureau of Outdoor Recreation in order to qualify for participation in the Land and Water Conservation Fund Program. During 1965 and 1966, at least 28 States and one territory took executive or legislative action to clarify or strengthen their authority and/or the authority of their political subdivision to participate in the Land and Water Conservation Fund and other Federal Assistance programs.

Bureau of Reclamation Photo by F.S. Finch

This partial listing of action being taken on all levels of government indicates a tremendous escalation from which one fact is clearly emerging: a well coordinated partnership effort of the Federal, State and local levels of government is essential to the successful conservation and utilization of our natural heritage. The problem is twofold: the local governments, limited as they are in jurisdiction and in financial resources, cannot direct or finance the vast undertaking; on the other hand, the Federal and State governments, removed from direct contact, cannot competently administer projects and programs at the local level.

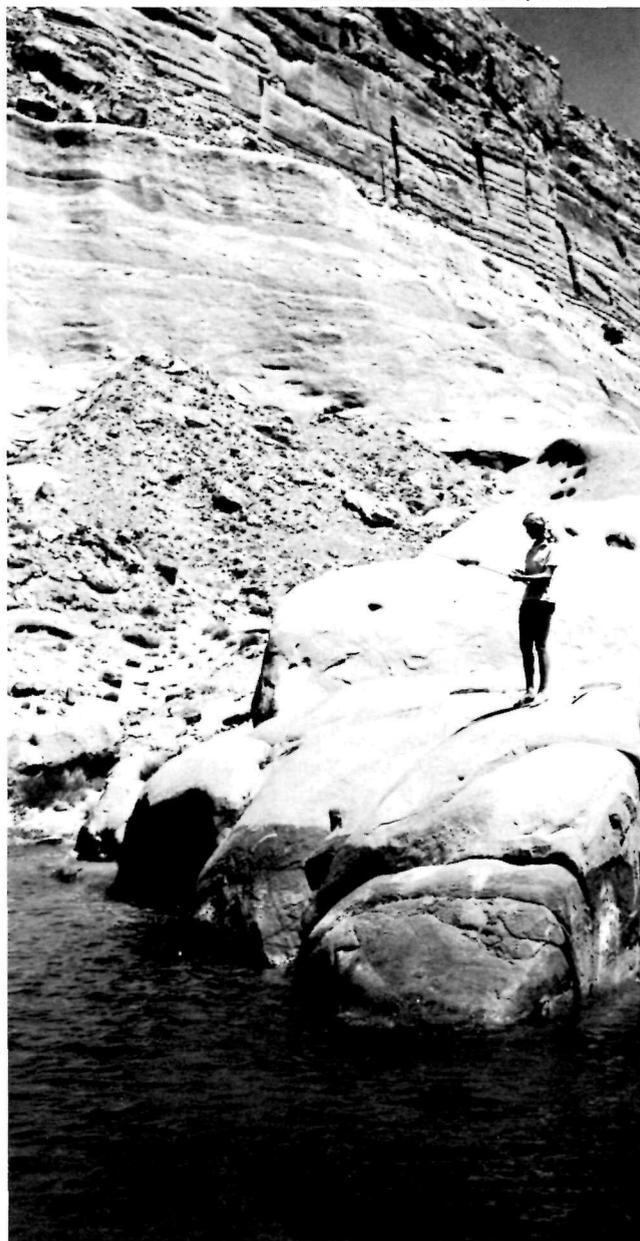
Our immediate problem, then, is how to make the Federal-State-local partnership more effective. If this new federalism is to be realized in our efforts concerning natural beauty and recreation, each of the three levels must identify its role in the partnership, and each must assume and exercise its responsibilities in it. Hopefully the State and local governments will take more initiative in attending to this, because if they do not, they encourage the growth of what some have referred to as the "Federal monolith" reaching into all aspects of American governmental life. The Federal role is important—indeed, only from it can come nationwide leadership and stimulus and guidance and help—but it is limited and rightly so. If we are to preserve and enhance the beauty of this nation and keep the pattern varied and diverse and imaginative, it will have to be done mainly in the communities and by the people who live in them.

A program of resources preservation and development must focus upon the complete picture. It is impossible to intelligently plan for development of our resources without proper research and planning. Therefore, all levels of government must recognize the need for acceleration of our topographic mapping, soil surveys, hydrologic studies, river basin studies and comprehensive planning. You can't do recreation planning in a vacuum. Recreation planning must be within the framework of a comprehensive planning approach. Comprehensive planning at every level of government, from the Federal down through State planning, regional planning, county and local planning is an essential first step in recognizing the responsibility of each unit of government involved in protection and development of our natural beauty. Logically, it follows that acquisition and development programs must be accompanied by adequate controls and zoning on the State and local level. It also follows that any and all grant-in-aid programs and loan

TVA Photo



A few of the thousands of Canadian geese that stop to feed on the Land Between the Lakes



Glen Canyon, Colorado River Storage Project (Ariz-Utah)

programs must be identified as part of the comprehensive planning programs of the various units of government.

A generally accepted characteristic of our federal system is the sharing of functions in which most governmental responsibilities involved have the active participation of the Federal, State, and local governments. This is especially true with respect to programs affecting land use and the environment. Each governmental level has a vital stake in, and an indispensable contribution to make to, the successful administration of these programs. It is therefore appropriate to direct recommendations for action to both the Federal Government and the States—stressing always the need for bold and vigorous action by local officials and citizens to utilize these Federal and State aids, as well as their own resources, to meet effectively their needs for development of the land and improvement of the environment. The Advisory Commission's recommendations in the

field of natural resources are consistent with this philosophy. Since we work on a problem-by-problem basis, we do not have what might be termed a philosophy on recreation. However, many of our recommendations are relevant to the problems of coordinating programs dealing with recreation and with the proper development and utilization of natural resources that are basic to outdoor recreation.

On the Federal level, Congress enacted last year, in the Demonstration Cities and Metropolitan Development Act of 1966, legislation to provide metropolitan planning review, though not necessarily approval, as a prerequisite to Federal approval of assistance for open space, hospitals, airports, water supply systems, waste treatment facilities and highways within metropolitan areas. This legislation implements the Commission's recommendation that effective as well as comprehensive planning be required and promoted at the local level to the extent appropriate in all Federal urban development aid programs. The Senate last year passed the Intergovernmental Cooperation Act, 1966, which would implement several Commission recommendations; the bill did not pass in the House, but has been reintroduced in the Senate by Senator Muskie and identical or similar bills have been introduced in the House by Congressmen Fountain, Dwyer, Fascell, Reuss, Machen, Ullman, Fuqua, Gonzales, Saylor, McCarthy and Rooney. S. 698 contains several provisions of particular relevance to today's subject. The proposal was designed to achieve the fullest cooperation and coordination of activities between the levels of government in order to improve the operation of our federal system. The measure would —

1. Authorize full information for the Governors or grants made to their States and would provide for more uniform administration of Federal grant funds to the States. It would also improve the scheduling of fund transfers to the States and permit the States to budget Federal grant funds in much the same manner as they budget other revenues;
2. Provide for Congressional review of future grant programs to insure that such programs are re-examined in a systematic fashion and reconsidered in the light of changing conditions;
3. Authorize the Federal departments and agencies to render technical assistance and training services to State and local governments on a reimbursable basis;
4. Establish a coordinated intergovernmental urban assistance policy, by authorizing the President to establish rules and regulations for uniform application in the formulation, evaluation, and review of urban development programs and projects for the provision of federally aided urban facilities and Federal projects having a significant impact on the development of urban and urbanizing communities;
5. Prescribe a uniform policy of procedure for urban land transactions and use undertaken by the General Services Administration, by requiring consistency of that agency's policies with local zoning regulations and development objectives;
6. Authorize the President to submit to the Congress plans for the consolidation of individual categorical grants within broad functional areas and to effect the interagency transfer of administrative responsibility

for grant programs, subject to the type of Congressional veto proviso that governs executive reorganization plans;

7. Authorize a program of uniform relocation assistance for those forced to relocate as a result of the acquisition of real property for Federal and federally aided public improvement programs;
8. The bill provides for the establishment of a uniform policy for the acquisition of real property by Federal Government agencies and by State agencies using Federal funds for public improvement programs.

Enactment of this legislation, which is aimed at improved basic administration of intergovernmental programs could go far toward resolving the problems that made this conference necessary.

On the State and local site, the Commission has found that all too often local government lacks the legal powers, the geographic jurisdiction, the sources or revenue, and the centering of responsibility to formulate policy or manage local affairs effectively. And this lack is primarily the result of the archaic, powerless, fragmented, and unrepresentative structure of most of our local governments.

The unshackling and modernizing of local government must begin in State legislatures, because the structural changes so necessary can be accomplished only by legislative enactment or by constitutional amendments. Recognizing this need, the Advisory Commission publishes an annual State Legislative Program which translates its recommendations to the States into legislative language for consideration by the legislatures. Model legislation has been developed for: (1) State water resources planning and coordination; (2) acquisition by the States of interests or rights in real property which could include, among other interests or rights, conservation easements designed to remove from urban development key tracts of land in and around existing and potential metropolitan areas; (3) authorization for local units of government to acquire interests or rights in real property within existing metropolitan areas for the purpose of preserving appropriate open areas and space within the pattern of metropolitan development; (4) establishment of State departments of community development; (5) State financial assistance and channelization of Federal grant programs for urban development; (6) State technical services for local government; (7) State assistance for interlocal cooperation; (8) authorization for creation of regional councils of public officials; (9) metropolitan functional authorities; (10) metropolitan area planning commission; (11) interlocal contracting and joint enterprises; (12) extraterritorial planning, zoning, and subdivision regulation; and (13) county powers in relation to local planning and zoning actions. Copies of the Legislative Program, as well as slip bills are available from the Commission.

There is much to be done in the struggle to improve present patterns of development and the state of the environment, yet as a nation we now have the opportunity to achieve the urban and rural environment that we wish to have. Yet, in so doing, we must not forget that our primary aim is to enhance individual well-being and human relations, and make more applicable the principles of human dignity, equality and opportunity. In developing our planning and development goals we must remember, as Alexis de Tocqueville wrote: "... the end of good government is to ensure the welfare of the people, not merely to establish order in the midst of their misery."



## NO RECREATION SPACE AVAILABLE

by ERNEST M. SWANTON ●

The search for recreation space in the suburbs is sky-rocketing to the same proportions as in the fully developed metropolis. Many suburban townships and villages surrounding large metropolitan areas have been continually attempting to meet this demand, but the result in most cases is too little, too late, or the facilities are inadequate. The solutions to these problems may not necessarily be blamed on local government but it is nonetheless a fact of life.

Suburban communities surrounding metropolitan areas such as New York City, have grown from populations of 8,000 people to the fantastic figure of 65,000 in ten short years. The tax burden to supply instant public service is monumental indeed, and in the head-long rush to meet these demands, recreation must once more take a back seat. The life of the public official is not a happy one when he must weigh the cost of a park against a new incinerator while garbage builds up at the curb.

A few weeks ago, I received a call from Islip Town Councilman, Caesar Trunzo, saying in his typical tone of voice, "What are you doing this evening?" This was followed by my typical answer of "You tell me." As it turned out, a delegation from the local P.T.A. and Scouts had requested an urgent meeting with the Town to discuss what additional recreation facilities would be ready for the summer program. Much to our dismay, due to land acquisition cost for additional recreation facilities and, of all things a new incinerator plus many other municipal problems, there wasn't much left in the pot. It would appear that as well planned as our recreation program was, the neighborhood, which this delegation represented, has been left without a square inch of open space due to prefiled sub-division maps. This is a township which, upon the completion of a survey and the utilization of a recreation master plan, indicates three acres of recreation land for every 100 people. However, due to geography, physical boundaries, the evils of prefiled maps, and the concentration of commercial and residential development, there existed no open recreation space within this almost two square mile area.

Imagination supplied us with the source of two solutions; the local School District and private business.

### Cooperative Government

The local School District operates two neighborhood elementary schools within this area which, in meeting State education requirements, maintains approximately 10 acres at each school site. Cooperation with the School District in the past had generally been excellent, but in some cases, resulted in conflict due to disagreements as to areas of responsibility. But now a serious problem had occurred, a solution was required, and a general campaign was on throughout the Nation to take the locks off the school gates. All things being equal, the open school gate policy is an exemplary program if, when you open those gates, facilities exist on the other side. The suburban School District is faced with problems similar to local municipal government problems— instant education— instant recreation. As well rounded as an elementary physical education program can be, it falls far short in meeting the challenge as a community recreation center. In addition to this problem, it is the general opinion of the school board that its primary function is to supply education, not recreation. So, we were back where we started but this time we couldn't drop the ball. The P.T.A. was interested, but this only represented a small segment of the community and this community could only be won with facts on economic feasibility. The resulting solution has proven to be multi-faceted and palatable to the

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public taste. In short, for the Town to acquire land within the area (if it were available in the first place) the cost for initial development would break down somewhat as follows in this hypothetical example.

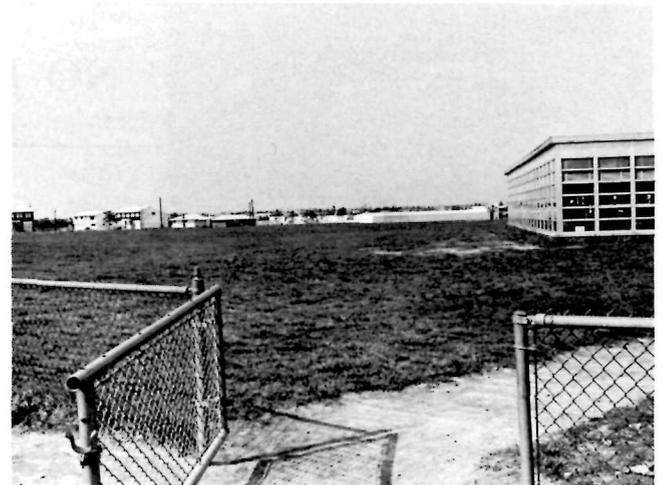
**Initial Cost**

1. Land Acquisition —	
5 acres at \$ 8,000 per acre . . . . .	\$ 40,000
2. Clearing and Grading . . . . .	2,500
3. Fencing . . . . .	5,000
4. Curbs, parking area and drainage . . . . .	5,000
5. Utilities . . . . .	1,500

Total \$ 54,000

This total figure is completely exclusive of any recreational development.

The figure of \$ 54,000, whether or not the land was available, is an interesting one to reckon with when, after spending it, all you've got is a fenced, cleared piece of land with a parking lot. The school site possessed these resources and now that we were talking money we had established the first phase in our community economic educational feasibility program. Phase two was the most interesting of all. In many states throughout the country aid formulas have been established by the State Education Departments where a varying percentage of the initial cost in the construction of an educational facility is paid by the State. Upon close examination of our school construction program, the relative cost of physical education facilities within the school plant was of such a minimal nature that even with considerable embellishments these could be absorbed under the State Aid formula as long as they were constructed with the initial plant. In this we had the formula we were looking for, the question now was how to use it. The economics were quite sound — no initial outlay for site acquisition and development (and in this particular case, the possibility of 75 percent aid for equipment and facility development). Two problems remained. One, convincing the School Board that the development of a recreation facility did not take it out of the education business, and two, convincing the administration that a cooperative formula could be established defining areas of responsibility.



School yard undeveloped

The school board was in the process of preparing a school expansion bond issue for the voters approval. This, in a way, was ironic since our goals were mutual and, for the first time, could be solved cooperatively. In short, recreation facilities became a major plank in the platform of those running for the School Board, and is well under way to becoming a part of the bond issue for school facility expansion presenting the public, for the first time, an acceptable package. Administration presented a completely different problem — in short, general maintenance and program responsibility. Both of these items are being resolved through the use of town personnel directing the program and supervising facilities. Due to the fact that the town cannot maintain property which is not under its ownership, a unique arrangement is now in development.

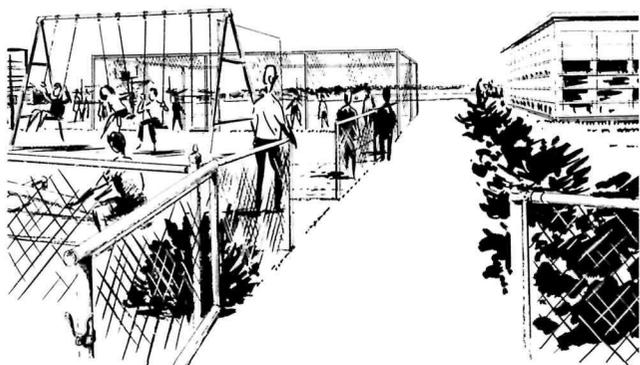
As has been discussed previously, joint cooperation between governmental bodies must be a two-way street. An embellished physical education program can go only so far. Therefore, as its contribution to cooperation, the town is in the process of developing a municipal stadium for cooperative use by school districts in major athletic events. In



Parking spaces at a typical shopping center designed for ultimate use as a play area.



A play area with strategically located safety fences.



One of many minor development possibilities.

addition, a municipal theatre auditorium is also under serious consideration.

### Private Enterprise and the Imaginative Playground

The most desirable solution to the playground problem would be to construct the facilities at no cost to the public. In evaluating the area under question, one complaint which continually pops up concerns the lack of facilities — the kids had no where to go and tended to congregate around the shopping center. When we asked ourselves why, the reasons appeared obvious and simple. Although primitive in scope, a shopping center does provide a unique recreational facility. Any parent will bear testimony to the fact that after spending considerable money for junior's toys, he usually ends up playing with a cardboard egg box or, for larger projects, the box in which you brought home the groceries.

The importance of harnessing youths' creative instinct has proved itself time and time again. The rising success of various types of free form playground equipment presently



Shopping center parking lot under daily use.

being manufactured is not surprising in an imaginative playground.

The side walls of a supermarket could well be used as a handball court, the paved parking area, which is illuminated at night, offered the youngsters a place to play touch football when the store was closed. We had the answer to our problem! — the overall concept was there and, except for minor details, provided us with a unique solution. The deeper we have gotten into this shopping center play area, the more enthusiastic we found the store owners to be. What was formerly a mythical handball court could be an actuality; the open parking field could provide unlimited possibilities through the use of different colored paints. Game lines for various sports activities could be superimposed over car parking space designations. Parking lot lamp poles could be converted into basketball backstops — which isn't such a bad idea in parks, either. By dividing the nose-to-nose ends of a parking space with a section of three feet high chainlink fence, driving through the parking lanes is eliminated and at the same time a tennis court is created.

The variety of games which can be played is endless and the challenge for new concepts never ceases. In the first shopping center under development, various tenants have offered to pay for the purchase and installation of the equipment. In addition to this, further studies into the program have opened up all types of possibilities.

In many communities the zoning requirements for car parking spaces in shopping centers far exceeds actual need. (See photograph.) Thus, even during the business day, recreation play areas could be set up through the incorporation of a minimal amount of fencing to provide a dual use facility when the parking area is not required in its entirety.

Originally, the idea of the shopping center play area was an all day Sunday or an evening recreation facility, but what about Saturday and the week days? A proposal for parking space play area is now being made to a regional bank which observes early closing hours and which is closed all day Saturday. With but one tenant, details are not too difficult to work out.

With at least one effective solution to this major problem, we are well on our way to a greater community recreation program than was originally anticipated. These new approaches to an urgent problem may even result in a patented commercial lamppost basket-ball backstop!



The shopping center parking lot as a basketball court.



## PROVIDING OUTDOOR RECREATION

### RESOURCES FOR THE FUTURE

by JACK L. KNETSCH ●

*A paper prepared for the 46th Annual Meeting of the National Conference on State Parks, Kentucky Dam Village State Park, October 17, 1966.*

When the total volume of outdoor recreation was much smaller than it is today, by whatever index we choose to measure it, and when it could be supplied at relatively low cost, partly as a by-product of multiple use of resources, we didn't have nearly as many problems. Certainly the choices and issues confronting us were less acute. But as the demand for outdoor recreation increases and the costs mount ever higher, we are increasingly faced with hard policy and management choices.

There is, of course, one factor dominating all others in questions of outdoor recreation. This is the growing demand on the part of people everywhere.

The fact that demand is increasing, and that we have every right to expect it to continue the increase, cannot seriously be questioned. However, it is worth pointing out that the use statistics or participation rates which we are used to looking at, i.e. numbers of visit days in this or that activity, etc., depend and will continue to depend as much or possibly even more upon the facilities we provide as upon the demand. Our usual statements of what we call demand are figures of participation at existing areas and facilities. Such statements of participation or consumption, without some connotation of supply or available opportunities—that is, statements made without consideration of the corresponding supply of facilities, have very little conceptual or statistical meaning and are full of planning pitfalls. I should well imagine that the people who live near Kentucky Dam, for example, participate in water-based outdoor recreation in far greater numbers than people in Washington, D.C. The reason having more to do with the facilities which are provided than with anything else.

However, that there is an increasing demand, we can all agree. But what is done to meet this demand is where we can begin to raise questions. There is often the very easy presumption that more demand necessarily means more free or nearly free publicly provided outdoor recreation facilities to satisfy it. However, should our presumption be that easy? There is a likely chance that it should not be. The alleged imbalances of demand and supply suggest some difficulty. There

is, after all, a demand for all manner of things, which is rarely fully satisfied. For increasing the supply to meet the demand of one activity, in the end simply means taking away from some other use which presumably is satisfying some other demand. For such reasons of impracticality it is highly unlikely that St. Peter will ask any of us if we have "satisfied the demand."

The more useful enterprise is to keep asking ourselves how we might improve the range and type of opportunities we provide in a setting which takes account of more alternatives. When we put the question of provision of outdoor recreation facilities in the perspective of coping with a range of demands in any of several ways, we focus in an important way on our primary question of how we should do it.

By tradition and for some other reasons a great deal of our recreation opportunities have been publicly provided. However, over the years a private market has also developed in many areas of outdoor recreation. In the future the private provision of recreation services seems destined to take on a greater dimension and we might well now ask ourselves in which ways the mix of private and public might be

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He worked as Agricultural Economist for the Tennessee Valley Authority from 1956 to 1961. Economic problems related to resource utilization. A major project deals with economics of outdoor recreation, including demand studies, pricing policies, acquisition and development schemes, locational aspects, local and regional economic impact of recreational development and the economic value of the resources used for this purpose.

most effectively combined. There are good reasons for public development and there are good reasons for private. There are disadvantages of each as well. I think we need to concern ourselves increasingly with how we can overcome some of these disadvantages and in this way work out a rational and adequate expansion of recreation supply. This is particularly important in these times when increasingly the provision of parks and other outdoor recreation areas have been and are being undertaken with a variety of objectives or motives. A response to demand is certainly one of these. Others, however, seem to take it that we ought to take advantage of the demand to accomplish various short and long range economic goals, including the provision of jobs and increasing the levels of economic well-being in certain local areas. Certainly in some cases outdoor recreation and tourism can be useful adjuncts to a local economy, but it all the more points out that we need to increasingly examine the rationale by which we undertake various kinds of public and private outdoor recreation investments.

We might well at least briefly examine our reasons for public provision of recreation, how it is paid for, and the role or roles of government in this field.

### Rationale for Public Provision of Outdoor Recreation

A number of arguments have been advanced at one time or another for the public provision of outdoor recreation facilities. One pertains to the nature of the recreation commodity. For private provision of recreation to be profitable and feasible there must be a market and a marketable product. Sellers must be in a position to withhold the product or service so that buyers are forced to pay a price to make use of the facilities. National defense, for example, is not marketed since it is impossible to withhold protection from those people who do not choose to pay for it. There are many recreation areas which have some of the same characteristics, where it would be too costly to withhold use, thereby making it unfeasible for a seller to have a marketable commodity.

Many private landowners find it difficult to withhold recreation use of their areas from the public. Large private forest industry firms, for example, have often opened their lands to hunting in spite of the lack of a direct economic advantage of doing so.

Another case of market imperfection occurs in certain kinds of development where a single private developer may not be able to collect for some of the beneficial effects of his development, or in some cases does not need to pay for all of the adverse ones. Private hydropower developers, for example, may not have an economic incentive to develop recreation facilities on their reservoirs.

In many cases a scale of development is called for which is unavoidably large relative to existing capacity and demand. Under some such conditions the profit prospects for private firms, even if managerial and financial capacity to undertake the project could be had, are often poor. These considerations of scale and lack of profitability are often found in natural resource development activities, and form a primary justification for public provision of such services.

Another factor of importance favoring public recreation development is the large amount of uncertainty which may accompany this sort of development as a private undertaking. Public development may also offer the means of obtaining a better balance of recreation facilities than could perhaps be achieved by individuals undertaking recreation development as a private business venture.



Old Hickory Reservoir

TVA Photo

An important further reason for public support or provision of outdoor recreation stems from the existence of what may be called the general public benefit argument. It is widely argued that outdoor recreation is essential to a full and well balanced life, that participants tend to become better adjusted socially and more productive citizens and thus the welfare of the whole nation is enhanced. According to this argument everyone benefits in some way and even those who do not participate in recreational activities have an interest in its ready availability.

Further, even when the market functions properly in a technical sense, we may still prefer nonmarket provision because the community rejects the outcome of private marketing decisions. In many instances society desires to maintain a quality or a condition which the private market may destroy by over-commercialization and site exploitation. The private developer is often under considerable economic pressure to manage resources in ways that would lower its quality. A good example is appropriate preservation of historically important sites. The maintenance of high quality scenic, scientific areas and just quality landscapes and surroundings may be equally important. Quality is often difficult to define. Yet, there is clear indication that mass popular use which the private recreation operator is usually under pressure to increase in order to increase his profit, may destroy the qualities which make the area valuable\*. I think that this may be one of our most important problems of providing recreation/tourist facilities, and we don't seem to have come up with any universally accepted way of dealing with it.

A properly functioning commercial market response to consumer preferences also may not insure that various

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\* See William J. Hart, "Factors in Park Building Design," Trends in Parks and Recreation (April 1965).

special types of recreation development are adequately represented in the choice open to individuals. This is not to condemn private developers as such but to suggest that the economics of development may bring forth the kind of development which is often rejected by the community. For these reasons public provision may be advocated and chosen. On the other hand, it must also be recognized that public activities often tend toward a level of uniformity or even mediocrity, in part because this is less likely to produce adverse political criticism as would unusual undertakings. Also public area managers are often subject to similar mass use pressures as private developers. Further, there is virtue to competition, albeit sometimes difficult to appreciate. The role of limited public enterprises to effectively set quality guides for competitive enterprises may be an important one.

Many of the arguments for public provision of outdoor recreation are indeed valid. The structure of the recreation industry often does not favor private suppliers of certain types of recreation opportunities. But however true this may have been in the past and however true it may be for many recreation experiences, more and more this concept needs to be re-examined as more and more various parts of the recreation commodity do indeed become marketable commodities.

As we contemplate expansion of recreation opportunities we might well ask if more highly developed campgrounds or lodges and resort complexes which the public is demanding, should be increasingly publicly provided. Or can we provide varying combinations of public and private development which can better meet the whole array of demands? As more of the public recreation budget is used for projects with less of a public good character, less may be left for projects that truly call for public investment and which may well be more important. Urban oriented play areas and good interpretive programs might be examples. At the same time we need also examine our propensity for letting commercial recreation/tourism developments, having real effects external to the individual business concerned such as landscape or environmental pollution, go unchecked. Again, there are some real opportunities for improvement. However, in any discussion of further private development and increasingly public development as well, the question of paying for recreation opportunities by the users comes up.

### Rationale for Free Entrance to Outdoor Areas

The arguments for public provision of outdoor recreation areas have all been used at one time or another to favor free or nearly free entrance fees. The one of most force involves the external effects rationale.

The externality argument really says that recreation benefits some people directly and others indirectly and that all should share in the cost. The public benefit argument has long been used to support universal free public schools and certain kinds of public health services. Many objections were raised at one time or another against such provision on the ground, for example, that it is immoral for one man to pay for the education of another man's children, and that health services are the responsibility of the individual rather than of the public at large. In these cases it has many times been decided that public benefits were so great as to far outweigh any inequities that might arise from using general tax revenues for such purposes. The conviction that there are important social, political and economic advantages to be gained by a literate population has justified the establishment of free public schools. To the extent that there are

external benefits from outdoor recreation, the case for public provision of free recreation facilities is strengthened.

The belief in general social benefits arising out of recreation is widely held by many people. There is surely something to this argument. The unresolved question is how much and which forms? Perhaps everyone wishes to live in a city with adequate and attractive parks just as he wishes to live in a city with good art galleries, even if he never patronizes either. Moreover, most people are probably willing to pay some modest amount to make such opportunities available. While there may be general benefits to the community in forms, for example, of providing off-street play areas and open spaces, the direct evidence of the productivity and other social values of many forms of outdoor recreation is not overwhelming. There has been little empirical research to test the assertions that outdoor recreation produces an intellectually and emotionally healthier population and some research has failed to substantiate the claims made. Some of the more extreme claims for the beneficial effects of outdoor recreation have surely been exaggerated. There also may well be differences among kinds of outdoor recreation in this regard. There may be considerable external effects from urban play areas or visits to various kinds of historic areas, or major scenic or scientific areas for example, or from interpretive programs carried on by some park and recreation agencies. But use of picnic areas, beaches, campgrounds and many other such facilities is less likely to benefit any but its immediate users.

Additionally, participation in outdoor recreation is highly variable among the population. Many surveys of the cross-section of the whole population have shown a substantial number of people who never go to public parks or recreation areas; others who go infrequently; and only a few who go often. In this regard outdoor recreation differs sharply from education. Every normal child is compelled to go to school, distributing the social benefits of free education widely.

Many are also deeply convinced of the social wisdom of free public parks and recreation areas, on the help-to-the-poor argument. This is a form of the externality argument but it has additional weaknesses, particularly in terms of our present array of recreation opportunities. By and large the present supply of free public parks in this country is less adequate in crowded city areas where people are poor than in the suburban and higher income residential areas where the people concerned are more nearly able to pay for their own outdoor recreation. On a state or national basis the discrepancy is even worse—the really poor people do not own private automobiles which are necessary to get to most state parks and to all national parks and national forests, nor can they in most cases afford other travel costs of such visits. If income discrimination is a factor of concern, as it no doubt should be, programs might well be altered to deal more specifically with it without undue distortion of other objectives.

The further defenses of free entrance to parks and public recreation areas are less often made explicit but may underlie some of the discussion. Free provision of public outdoor recreation is a form of income redistribution as are free schools, free public libraries, free art galleries or scientific museums, and many other cultural and economic facilities publicly provided. Many tax systems, notably most income taxes are also income redistribution, since those with high incomes pay proportionately more. One may argue on social or humanitarian grounds in favor of more income redistribution. But in this case one must go further and argue that provision of free public outdoor recreation is an efficient and socially desirable way of doing it.

## Role of Government

Any level of government, whether federal, state, city or other may play more than one role in the provision of recreation. It acts as the entrepreneur, planning the area or project, acquiring the necessary land, making the improvements, managing the area later, and so on. In most public outdoor recreation it also plays the role of financier, raising the necessary funds, paying the necessary costs and either collecting fees or deciding not to collect fees. Many have assumed, perhaps unconsciously, that these functions were necessarily inseparable in government provision of outdoor recreation.

In fact any level of government may assume the entrepreneurial function of providing outdoor recreation without at the same time committing itself to being the financial angel. It may, if it wishes, make those who use the area pay all the costs involved. The range of choice is wider than it is usually assumed to be the case; we are not necessarily committed to free public recreation areas.

## Role and Principles of User Charges

Prices whether for recreation or other goods and services play several roles. In the first instance, they serve to allocate natural resources, capital, labor, and other factors among the various activities or uses. Prices also play the role of helping consumers choose among alternative ways of using their available income to their own ends. Very few people have such large incomes that they can afford everything they want. Their purchases are made on the basis of prices together with personal preferences. In the case of recreation their choice must be outdoor recreation as against other items of consumption; and among the various kinds of possible recreational activities. If costs are high, fewer people can afford them or will choose to give up the comparatively large amounts of other goods and services that could be bought with the same money.

If prices are to play their role effectively, the users or consumers pay in accordance with their consumption or use. If prices of goods and services bear no relation to the cost of the production of the goods and services, consumers will look upon them as free and will use them in greater quantity than if they had to bear the cost. Recreation facilities are produced at anything but a zero cost but they are often used as if they were a free good. Under such conditions, consumers have little or no incentive to economize. They instead adjust their consumption to include more free public recreation goods and less of other goods. Instead of helping users make choices which are economically rational, zero or nominal and arbitrarily determined prices may encourage wasteful and excessive use of recreation opportunity. In part, and perhaps in large part, the apparent rising demand for outdoor recreation in recent years has been due to users not paying the cost of their use. We may increasingly wonder about artificially stimulating some recreational demands by general public subsidy, particularly when other forms may consequently go short-changed.

The notion of having beneficiaries pay the cost of providing services involves important equity and efficiency concerns. It is in a real sense proper that those who enjoy the benefits that give rise to costs should in the absence of countervailing reasons pay these costs. Charges can be used to discourage excessive use where the costs of supplying recreation opportunities exceed the values derived, and thus preserve efficiency in terms of the amount of recreation satisfaction provided by our scarce resources.

The use of charges has in the past often been ambiguous in objective, and arbitrary in practice. There is no single objective of recreation policy. However, the sheer magnitude of the expected costs of providing areas and facilities in the future should make us increasingly wary of concentrating only on non-efficiency concerns, and ignoring efficiency objectives. It is clear that these policies are becoming more defective as the pressures for economizing increase and should in the light of oncoming recreation problems at least be re-examined.

A better use of price and finance principles can do a great deal to make better and more efficient use of existing facilities and can improve decisions about kinds and timing of future recreation investment. To accomplish these objectives, however, price policy cannot be established arbitrarily. Although a zero charge may be appropriate in certain instances, in others it is for the most part inconsistent with efficient and equitable use of resources.

A serious pursuit of better financial policies for outdoor recreation cannot ignore the question of imposition of user charges. To evaluate the relevant alternatives raises questions of who is to be charged, for what, and how much. Informed speculation and field experience have both amply demonstrated that much more is involved than simply a decision to make use of user fees or not.

## And What of the Future?

We are committed beyond doubt to an expansion of the provision of outdoor recreation opportunities. If this is not due to our strong belief in the inherent goodness of outdoor recreation, and I don't think that we need to really believe this, it is due to the simple fact that people are demanding it in the sense that they are willing to give up time and money to engage in these activities, and resources devoted to these uses take on increasing importance relative to other uses. The provision of outdoor recreation is not free and the costs must be met in some way. As the demand for recreation resources mounts, the issue becomes of more immediate importance.

In the final analysis the major issues are (1) the degree to which public development is to be relied on and the degree to which private provision is to be used to meet the demand and (2) the degree to which users of outdoor recreation areas and facilities should pay for them individually and directly as they use them, or have the costs met by general or special taxes. I would not suggest that the answers to these issues are clear or without some complications. I would suggest that it would be increasingly useful if we at least ask these questions and to concern ourselves with the mix of private and public provision, and with the mix of individually financed and publicly financed recreation opportunities.

This is not to ignore the questions of control or maintenance of quality in the case of many areas; but at the same time it is not to ignore the real questions of how are we going to manage our areas to overcome the congestion and crowding which is beginning to be the dominant feature of our current provision of outdoor recreation; or of probably equal importance the all too common occurrence of undesirable ecological changes and physical depletion of resources. We may well be in favor of more outdoor recreation opportunity but it seems we have to go beyond this simple proposition if we are going to come up with useful guides for the future that meet the standards of not only park and recreation planners but also of taxpayers and current users and potential users.

Since inception it has remained the policy of TRENDS to explore and present all views and opinions on subjects related to conservation and recreation. Representatives of commerce and industry can and do make valuable contribution in these matters.

The April issue was devoted almost entirely to natural beauty and the subject of littering and surface pollution was frequently mentioned in articles and stressed by editorial.

That industry is equally concerned with the litter problem is nowhere better expressed than in the accompanying article. It is from a keynote address by Mr. William F. May, Chairman of the Board, American Can Company, delivered before the 36th National Packaging Conference sponsored by the American

Management Association in Chicago on April 10, 1967.

Mr. May's remarks demonstrate, rather conclusively we believe, that the manufacturers of containers are mindful of the growing litter problem and are expressing concern over proper remedial measures. Mr. May's point that the users of packaged material have an obligation to properly dispose of containers is a valid one. A wholly satisfactory solution to the problem can come only when the consumer has been educated and has developed a pride in his environment, and when the container makers develop — on their own initiative and in their own best interests — easily and totally disposable products.

We compliment Mr. May on his perception and forthrightness.

—Ed.



## $C_p + D \stackrel{?}{=} P$

Does packaging convenience plus disposability have to equal pollution?

by WILLIAM F. MAY ●

This was the question posed by William F. May, Chairman of the Board, American Can Company, in his keynote address before the 36th National Packaging Conference sponsored by the American Management Association in Chicago on April 10, 1967.

Mr. May suggested a first step with which industry can take the lead in changing this equation.

● William F. (for Frederick) May was elected Chairman and Chief Executive Officer of the American Can Company on September 1, 1965.

Prior to occupying his present position, he served as Vice Chairman from April 28, 1965, and as Executive Vice President of Corporate Administration, from October 22, 1964, until April 1965.

Mr. May was born in Chicago, Ill., on October 25, 1915. After graduating from the University of Rochester (N.Y.) as a chemical engineer in 1937, he did graduate work in business administration at the Harvard Business School.

His first position with the American Can Company, in 1938, was as a labora-

tory technician in Maywood, Ill. He held managerial posts in research, manufacturing, industrial relations, marketing, sales and administration. In 1958, he became Assistant to the Vice President of Sales and was subsequently elected a Vice President of the Executive Department in February 1959. Two months later he became Vice President and General Manager of American's former Canco Division, which operated 60 container plants in the United States and Canada.

Mr. May is a member of the Board of Directors of the Chromium Corporation of America, the Bankers Trust Company, M & T Chemicals Inc., the National Association of Manufacturers and the Great

American Insurance Company where he also is on the Executive Committee. He is also a Trustee of the University of Rochester and the Polytechnic Institute of Brooklyn.

Mr. May holds an honorary degree of Doctor in Engineering from Clarkson College of Technology. He is a member of Phi Beta Kappa and the Vectorian Engineering Society.

Mr. and Mrs. May (the former Kathleen Thompson, of Oak Park, Ill.) and their two daughters (Katherine and Elizabeth) make their home in Chappaqua, New York. Active in the community, Mr. May is a member of the Chappaqua Town Club and the vestry of St. Mark's Church.



Gentlemen:

I greatly appreciate the opportunity you have afforded me to "keynote" this 36th National Packaging Conference. When I was given unlimited latitude in selecting my subject, I decided very quickly that I didn't want to carry packaging coals to a packaging conference.

You will have ample opportunity in the next few days to hear about all the technical, as well as the sales and marketing, aspects of packaging from an array of experts. For the moment let's theoretically unbutton our collars, slip off our shoes and talk within the family.

How familiar are you with the words "disintegration," "degradability" or "terrestrial environment"? Does that sound like a foreign language when applied to packaging? Within the next ten years those words will become as familiar to us as "convenience" and "disposability" are today.

In fact, the words "convenience" and "disposability" will necessitate the addition of the others to our packaging vocabulary. Their use will be engendered by another word with which you are familiar: "pollution."

By this time I know that you are putting two and two together and quite possibly they total a statement made recently by John W. Gardner, Secretary of Health, Education and Welfare: "The time has come for man to make his environment his ally, not his enemy."

Now if I cite some statistics from President Johnson's Science Advisory Committee to the effect that each year United States citizens must dispose of more than 48 billion cans (more than 250 per person), 25 billion bottles and jars (135 per person), 65 billion metal and plastic caps and crowns (338 per person), plus billions of miscellaneous packages . . . then the mental picture I've been drawing you begins to take form.

Let me add a little more substance with the results of a study made by one of our own trade associations which disclosed that litter taken from a composite mile of highway in Michigan, Texas, Florida, Maine and Washington consisted of about three cubic yards, loose measure, of material ranging from cigarette packs and gum wrappers to beer cans, beverage bottles and even people's pajamas. The chief offenders, however, are paper packages, cans and bottles, in that order.

By actual count there were 2,665 pieces of litter in that composite mile and it is estimated that it cost the taxpayers 32 cents a piece to have them picked up. It was estimated further that the annual cost of cleaning that one-mile stretch of road, with pick-ups three times a year, was \$2,500.

I can complete the picture by saying that pollution is a national problem. Stating the obvious, however, doesn't tackle the problem . . . and the problem is our problem. You'll remember that the highway litter study disclosed that paper packages, cans and bottles were the most prevalent items in that three cubic yards of litter.

It is perfectly correct to say that industry, municipalities and agriculture must share the major responsibility for our national pollution problems. Nevertheless, the American citizen is prone to place emphasis on industry's responsibility possibly because it is a profit making entity and because he considers it to have unlimited resources to deal with the problem.

You logically might raise the issue that it's the American citizen's obvious lack of concern with how he disposes of packages and wrappers of all kinds that is one of the principal contributing factors to national pollution. I would agree without reservation.

Nevertheless, so long as package users demand more convenience packaging, and more and more disposable packaging, and that demand is satisfied by the package manufacturer, the ultimate consumer will persist in his rationale that the manufacturer and the package user are responsible.

There are literally dozens of examples of such rationalization already plaguing us. The citizen who uses the circular, easy-open ring-tab from a can of beer to illegally operate a parking meter is seldom caught, or adequately punished if he is apprehended. The manufacturer of the beer can featuring the easy-open device is held responsible and is told to change the design of the tab so it will no longer fit the meter.

The alternative confronting the beer can manufacturer can be a ban on his product in the community. No genuine thought is given to the fact that the people who use the tab are cheating their community or that the suggested remedy is not improved morality but a mechanical change that would cost the can manufacturer hundreds of thousands of dollars.

The same applies to the inconsiderate citizen who litters a roadside or beach with beer and carbonated beverage cans. Those who complain do so to the manufacturer of the can and their complaints are even more vociferous when the easy-open tabs on the cans are thrown on the beach and result in cut feet. The individual is not held responsible but the company is.

I hope that you don't have a feeling at this point that I'm laying the groundwork for a request for funds for Keep America Beautiful. I'm not. I would assume that most of the

corporations are supporters of KAB. It's a fine organization and performs a very useful, informative and educational role in this area. Nevertheless, it can never be the complete answer to the litter problem.

What I am suggesting is that we in packaging and the users of our products must anticipate the future. We must anticipate the inevitability of the necessity of our doing something to minimize litter resulting from packages before the federal government directs us to, or takes it upon itself to, initiate a remedy.

We have seen what has happened with automobile safety legislation and truth in packaging legislation. We know that truth in lending legislation is a possibility in the current Congress and that President Johnson has called for legislation to minimize the likelihood of massive power failures and improve our system of meat inspection.

We in packaging should be the masters of our own destinies. "If industry would anticipate areas into which the government is likely to move, such as auto safety, it might by timely action preclude the intervention," the Wall Street Journal declared in a recent editorial.

I'm confident that most of us would agree with that. However, should legislation be proposed I hope, too, that industry has learned from the protracted period of time and the tremendous amount of effort and money spent in haggling over "truth in packaging" legislation that intransigent opposition is a mistake.

Anticipatory action by package-makers and packagers with respect to solving the problem of litter created by their products, after they are used by the consumer, is the only way to avoid outside intervention. One of our industrial publications stated it quite well recently when it said: "If it can be shown that a million thumbs feel the hammer's bite each year, and the law can't improve the aim of the citizen, it CAN require soft hammers."

The most monumental information and education program in the world will not have a major impact upon the confirmed litterers of this country. We've already recognized that the affliction of littering is not confined to the uneducated but encompasses citizens of all educational levels. Its common denominator seems to be "irresponsibility."

Nevertheless, we must live with this irresponsibility and if we don't find ways to make our products "fool-proof," so far as their disposability is concerned, we can fall prey to "soft hammer" legislation. Enlightened self-interest dictates our response in this respect but I would hope also that our social responsibilities, as corporate citizens, would motivate our search for a solution to the problem.

We must accept the fact that proliferation means problems and that we live in a world of proliferation. The world population doubled in the last century and it is predicted to double again within 50 years. That projects to more than 400 million people in the United States alone by the year 2015. The need for foresight is obvious.

Technological skills comparable to those that provided us with the automobile and the most convenient, efficient packaging in the world, certainly must be capable of solving the attendant problems of safety and pollution. It can be argued that pollution resulting from irresponsible disposition of metal, glass, plastic or paper packaging indicates an obvious lack of planning in our technological advancement.

Further technological application should solve these problems, however, before their sheer size makes them insoluble. Recognizing that what is sometimes considered too much technology is really too little, scientists now emphasize that unplanned, uncontrolled technological growth can no longer be tolerated.

I hope we won't find, as the automotive industry did, that the Congress or a government agency or commission will decide that we must have a solution to the problem of litter resulting from packaging on a specified early date. We might have to look for a miracle at that point such as the Federal Judge who recently ruled that an automobile manufacturer was not liable for the collapse of his product in a collision on the ground that it had not been manufactured or sold for the purpose of colliding.

Pollution control consultants are quite direct about cans, glass bottles, plastic bottles, metal and plastic caps and crowns and paperboard packaging. They state unequivocally that one of the most difficult problems in waste disposal are these used containers and packages.

An article in the Harvard Business Review disclosed that collecting and transporting this refuse load, together with garbage and other rubbish, costs the municipalities of this country more than \$1.5 billion annually. This projects to more than \$50 billion for the remainder of this century.

"While tin plate cans will rust and disintegrate in time," the article stated, "aluminum and glass are much more permanent. And the new family of plastic containers will probably be even more durable. None of these containers can be completely consumed by the incinerator. Consequently, the present trend toward 'throw-away' soft drink and beer bottles and plastic milk bottles adds to the problem."

The concluding sentence in that part of the article stated: "The situation probably will get worse if producers and distributors continue to concentrate more on pleasing the consumer and the storekeepers than on the disposal problem."

That is about as neat and comprehensive a statement of the problem confronting us as I have seen.

Convenience packaging is rapidly becoming problem packaging and we all are caught right in the middle. How do we continue to satisfy consumer demands for easy-open, readily disposable, adequately protective packages with built-in assurance that irresponsible disposal by the user will not result in advancing the litter and pollution problem?

I'm not an expert in this respect. Someone told me once that an expert was someone who knew the way but couldn't drive the car. Nevertheless, there are directional signals from qualified experts in the field.

The Environmental Pollution Panel of the President's Science Advisory Committee stated in a recent report: "The accumulation of present types of non-reused containers, whether made of metal, glass or plastic, is a substantial and difficult part of the solid waste problem. The development of containers with adequate storage life which will nevertheless degrade rapidly when discarded is not likely to be an easy task, but the advantages of success are great."

The Panel has not sugar-coated its suggested remedy. It will be costly, it will be time-consuming and it will be difficult. Nevertheless, the future of packaging depends upon our tackling the problem now.

The Harvard Business Review article I mentioned earlier suggests that the fiber-foil container is a step in the right direction. It concluded that this style container "now being used increasingly for frozen juice concentrates and for motor oil can be easily crushed and disposed of, and represents the kind of degradable container that should be developed for numerous uses."

This is only one small step, however, and I believe it is obvious that there must be an all-encompassing approach to the problem, involving not only container and package



manufacturers, but the suppliers in the metal, glass, plastic and paper fields as well.

I'm always reluctant to suggest the formation of another group to seek a solution to a problem, but I think in this instance it is essential that a representative group accept the challenge. I would suggest the formation of a Packaging Materials Research Council with initial representation drawn from the Glass Container Manufacturers Institute, the Can Manufacturers Institute, the American Paper Institute, the Iron and Steel Institute, the Aluminum Manufacturers Association and the Society of the Plastics Industry.

Initial representatives could be limited to two from each of the organizations named and they should represent the best top research personnel of each organization's membership. Their initial task should be to review the entire packaging materials field to determine what is now being done to provide degradable materials.

This review should be the subject of a report by the Council to be made available six months after its organization. The report should contain not only a review of the present situation on degradable materials but recommendations for future courses of action by container and package makers and their materials suppliers.

Further than that, it should evaluate technological developments in the multi-million dollar business of refuse disposal in general. Even the cans, glass bottles, plastic containers and paper packages that are properly disposed of create refuse problems.

If they are processed through grinders, the resulting waste still must be disposed of and if they are incinerated they pollute the air. Some contaminate the ground if they are used for purposes of fill. Yet we must put them somewhere, so we are slowly filling the earth with our refuse, and one day we may fill the seas with it.

The non-combustibles in this group generally account for 24 percent of the total amount of municipal refuse while the combustibles, including all paper refuse, account for 64 percent. The remainder is in food wastes.

I would suggest further that the Council review its activities on a regular basis with the anti-pollution agencies of the federal government such as the Department of the Interior, the Department of Health, Education and Welfare, and Congressional Committees on Public Works and the President's Science Advisory Committee.

I don't need to tell you that we are living in a rapidly changing world. Today the control of air, water and solid waste pollution is not only an industry problem but a responsibility. Weird as it may sound, control of these pollutants is actually a battle for survival on the part of man.

One university scientist has predicted that "the world's atmosphere will grow more and more polluted until, a century from now, it will be too poisonous to allow human life to survive, and civilization will pass away."

All of us already are involved in projects to control air and water contamination. Control of litter and accumulation of solid wastes is nothing more than an extension of our existing antipollution efforts and represents an area in which we in packaging can make a direct and major contribution.

As a good businessman, as citizens we must do no less.

Someone once said: "True achievement is measured by how much better off the world is for our having lived in it."

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American Management Association*

(Continued from page 2)

the west — runs through Western Wyoming, somewhere near Rock Springs.

And so the public lands are where the people aren't, and this has important ramifications in the Department's recreational policy. For, while we are bending every effort to upgrade the National Forests' recreation potential, we are also making plans to put recreation where the people are.

I've already discussed the Golden Eagle program that has allowed the Department — and other Federal agencies — to acquire lands for recreation. This is a good program, and it's putting the National Seashores, the National Recreation Areas, out where the people are.

Yet — as I'm sure all of you realize — funds under this program are limited and probably won't ever be sufficient, even with cost-sharing by local communities, to provide all the public recreation lands we need.

An example is the Redwood Park out in California. Here's a proposed park with nationwide support, highly publicized, that would preserve some of the most spectacular examples of God's handiwork on the North American continent.

With all of these things going for it, getting the money is still extremely difficult, and may prove to be impossible.

How much more difficult, than, to get funds for a less well-known, less spectacular — but just as worthwhile — recreational area.

These inherent difficulties — the imbalance in public lands, East vs. West and the money problem, plus the overriding need of our people for recreation — all went into the Department's basic recreational policy, and all affected our specific policy on recreation on private lands, that I issued today.

These are the highlights of this policy:

1. More emphasis on recreation developments on private lands in rural areas, for those landowners who want to build them, and have the capacity to manage them, with a view toward providing the recreational opportunities needed and desired by the American people.

2. USDA agencies have been directed to provide the research, technical, educational and financial help needed to strengthen existing programs for private land recreation. A high priority has been assigned to these programs.

3. Special attention will be devoted to income-producing recreation in low-income rural areas as a means of creating more jobs and new sources of income.

4. USDA will seek to establish recreation development in connection with each watershed project carried out with public help.

5. Recreation research activities will be greatly expanded to catalogue private lands suitable for recreation, to determine what the recreation-consuming public wants, and to discover the thousand-and-one items that spell success or failure for the individual enterprise.

This is important.

Right now, Federal government recreation research totals less than three-tenths of 1 percent of total recreation expenditures. Some aero-space companies, to cite just one example, spend around 50 percent of their income for research.

I'm not suggesting we spend that high a proportion on research, but obviously we should be devoting much more to it than now, if we hope to succeed.

Each USDA Agency has been directed to submit long-range plans on a research program to support the basic recreation mission of the Department. This program is now underway.

The goals we hope to achieve with our private lands policy are these:

First, we hope to create a geographic pattern of development that puts more recreation facilities where the people are.

Second, we hope to provide a proper "mix" of outdoor recreation, so that families of all economic levels — rich or poor — can satisfy their individual needs; one that provides for the varying recreational tastes of this pluralistic nation.

This, also, is important. Peoples' taste in recreation varies as much as their taste in houses, automobiles, or clothes. A proper mix of recreational facilities — everything from a farm-based vacation . . . swimming in an RC&D Lake . . . skiing in the National Forest . . . to the solitude of Wilderness — is vital. A broadly based recreation policy is one that has the best chance of success.

Such a policy won't succeed without planning on all levels. The Community Development District bill in the last Congress was an attempt to put wheels under this kind of planning. This act would have provided funds for multi-county planning districts in rural areas, approved by local and state governmental units, and run by local people.

This year the President has requested an additional \$20 million in 701 fund to accomplish this purpose.

The importance of this kind of planning on a local level cannot be overstated. With it, local government has a blueprint for making recreation a viable, living part of overall development plans. Growth — industrial, residential, recreational — can proceed in a logical, comprehensive manner.

Without it, growth is often chaotic and fragmented, with the important often overshadowed by the immediate. Without comprehensive planning, recreation is all too often ignored or overlooked, or occurs only as an afterthought, rather than a prime consideration.

A good blueprint requires a good draftsman. But today, all too many rural areas — and many urban areas too — lack the trained, professional recreation planners needed to prepare comprehensive programs of community development. As a result, requests for Federal assistance — for recreation and other purposes — are often rejected as unsound or are subject to frustrating time-consuming delays.

Planning — and especially planning for recreation — is something that should not, and cannot, be done out of Washington. It has to be done on a local level, and the action has to come from the local level to the Federal level, rather than the other way around. And so one of the best things that your organization — and others like it — can do, is to get behind the legislation and local leaders that will make it possible for communities to develop their recreation planning to the same degree as other planning.

If this is done, then the various programs you're examining at this meeting — from Agriculture, Interior, HUD and others — have a good chance to succeed. But without this comprehensive planning foundation, without a blueprint, the house of Federal recreation programs all too often collapses . . . the local Greenspan project, or the golf course, or the multi-purpose watershed development, doesn't get off the drawing boards.

As professionals you are all too familiar with the relentless statistics of recreation supply and demand. You are aware that land suitable for outdoor recreation is a fixed resource getting scarcer, and more expensive, with each passing year. You are aware of the almost geometric growth of pollution that is rapidly destroying much of our outdoor recreation potential.

By 1980 the U.S. will produce enough sewage and other waterborne wastes to consume, in dry weather, all the oxygen in all the 22 major river systems of the U.S. Yet our need for fresh, clean water will rise from today's

370 billion gallons a day to the 700 or 800 billion gallon range.

The two problems — vanishing recreation space — growing pollution — are closely intertwined. In solving one, we can be well on the way to solving the other.

Dr. Glenn Seaborg, Chairman of the Atomic Energy Commission, testifying before the Senate in hearings to establish a Select Committee on Technology and Human Environment, had this to say:

“Technically . . . we know how to keep our rivers clean and our air free of pollutants . . . we are building smokeless nuclear power plants. We can filter raw sewage before it enters our waterways . . . we can develop exhaustless electric automobiles and we can relocate much of our industry.

“For almost every environmental problem that exists today . . . there is a ‘technological fix.’ What we need to do now is learn, as a society, to take the long view, to think along broad lines emphasizing human goals and values, and to act, rather than react. We have been finding ourselves in a series of technological traps because we have relied on a crisis-to-crisis approach in handling our environmental affairs.”

What this means, it seems to me, is that much of our trouble has been that we haven’t considered alternatives. The pollution-recreation equation is a good example of this.

The cost of cleaning up the Potomac River will be many millions of dollars. But so will be the cost of acquiring — by buying urban land for parks — the recreational areas to serve another one million people who will be moving into the Washington Metropolitan area. All too often both propositions are presented piecemeal, separately, and both fail for lack of public support.

But what about coupling the two propositions together? Here is a major river system, much of its shoreline publicly owned, which could be ideal for swimming, water-skiing, fishing and boating. But swimming in it now is like taking a dip in your local sewage disposal plant.

At the same time, here in the Washington metropolitan area we have a population of over two-and-a-half million people, starved for recreation, packed into woefully inadequate facilities, with very little hope, as a practical matter, of getting enough space to satisfy future recreational needs.

By considering the real alternative — by coupling river-basin cleanup to the recreation locomotive — it seems to me that both stand a very good chance of success, given enough public education and enough repetition of the real facts.

In the end, such a public policy will mean no less than the creation — for we don’t have it now — of an environment in which man “does not merely endure . . . but one in which he prevails.”

Today, in the city, in the country, almost everywhere he goes, the American is confronted with an environment dominated by his own wastes and his own technology.

This is new: No others before us have experienced it on the scale we experience it today. The end result is not certain. Man, with all his ability to adapt, for all his domination of the “lesser” species, is still a child of the sea, the mountains, the open spaces he is so rapidly obliterating. We know this. Now we must act accordingly. We must use what we know.

And so I am happy to be here today, and I am happy to be one of you. You are involved in the most important work that any American can be involved in. You are saving, and building, an environment fit for man. I hope that the Department I represent can be of increasing help to you in this most important task in future years.

Thank you.



Picnicking, Coronado National Forest, Arizona

U.S. Forest Service Photo

## LAKE CITY JUNIOR COLLEGE FOREST RANGER SCHOOL ANNOUNCES PARK MANAGEMENT PROGRAM

*C. R. Vinten, park and recreation area specialist from St. Augustine, Florida, will serve as coordinator for the new and unique Park Management Program at Lake City Junior College and Forest Ranger School, Lake City, Florida.*

*Mr. Vinten graduated from the University of Massachusetts, 1922, with a Bachelor of Science degree in Landscape Architecture and Engineering.*

*He had more than a dozen years of experience in landscaping and engineering before becoming a superintendent with the National Park Service. During his 28-year career with the National Park Service, Vinten was field supervisor of planning and developing the seven original Florida State Parks, the Dade County Parks (Miami area), and was coordinating superintendent of the Southeastern National Monuments in Florida, Georgia, and South Carolina.*

*Most recently, he has served as safety officer for the 11 states of the Southeast region, National Park Service, with studies in 50 parks and the regional office.*

*In 1964, Ray Vinten was honored by the United States Department of the Interior with its Award for Meritorious Service in recognition of his "outstanding accomplishments in the establishment and over-all development of units of the National Park System."*

*His reputation includes such a variety of accomplishments as scoutmaster, musician, singer and writer of songs, player of the Spanish guitar, as well as a lecturer and an athlete - fisherman, hunter, long-distance walker, and bicycle rider.*

*Recognized as a civic leader, he has headed many community drives for funds while maintaining membership with Rotary International, National Red Cross, and Young Men's Christian Association.*

*Vinten is well-remembered because of his pioneering work in state and county park systems, Everglades National Park and the Southeastern National Monuments, as well as his work with the advisory council of the Florida Audubon Society and the original Mission 66 advisory board.*

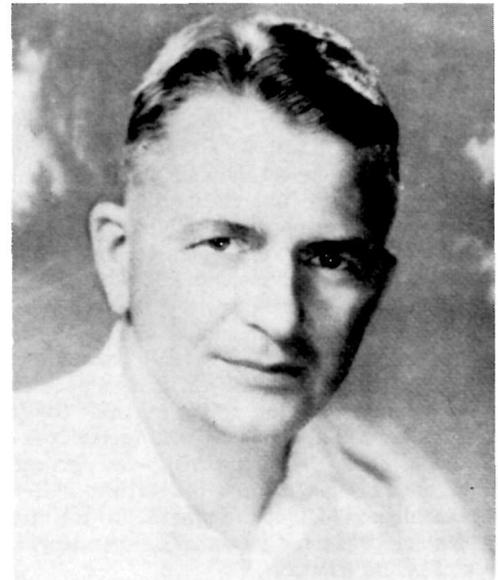


Photo by Burdines, Miami, 1946

The Park Management Program opening this August at Lake City Junior College and Forest Ranger School in Florida projects education and training into the future of parks, recreation, and conservation.

This pioneering venture is the only program of its kind in the South and is one of two such programs in America.

The philosophy and purpose of the new Park Management Program are to train young men (and women) for managerial and supervisory positions in the rapidly expanding field of recreation and parks. The two-year program has been designed to present the maximum training and learning in the minimum time. Emphasis will be placed on giving each student a sound practical background with combined field-and-classroom work.

The concept of the Park Management Program evolved from the efforts of three groups.

For several years a state association of park personnel had cooperated with the University of Florida's Division of Continuing Education by providing in-service training for parks and recreation employees. Each group felt that the short-term training was not sufficient and sought an alternative for schooling prospective park managers.

Meanwhile, back on the campus, administrators of Lake City Junior College and Forest Ranger School had reached

a similar conclusion. They hoped to introduce into their already successful Technical Division a two-year program which would produce an educated and skilled graduate ready to perform on the supervisory level.

The three formed an advisory group which included representatives from these Southeast agencies: University of Florida Division of Continuing Education, Florida Division of Parks, Florida Institute of Park Personnel, Inc., Pinellas County Parks Department, Dade County Parks and Recreation Department, U.S. Forest Service, North Carolina Division of State Parks, Virginia Board of Parks and Historic Memorials. This advisory group created the Park Management Program, outlined the curriculum, and set up the structure for this newest school for providing a constructive and basic background in the field. The curriculum is a mixture of general education and technical park courses.

Teaching and structure of the program will be coordinated by an "off-campus" expert in parks and recreation.

A veteran in the national, state, and county park fields, C. Ray Vinten of St. Augustine, Fla. is the coordinator. In addition to teaching a class in the history and philosophy of parks and recreation, Vinten will develop the library and select visiting lecturers for the other courses.

An unusual method of instruction will be utilized in teaching during the first semester. Sixteen different lecturers — each an expert in his field — will take the park management class for an entire day. During the day, the expert and his class will meet on campus and will travel on field trips to near-by parks and recreation centers.

Subjects covered in the first semester of history and philosophy of parks and recreation will relate to parks and safety and human values, public support and growth, visitors' information, historic and scientific resources. Studies will include how to use the out-of-doors as "classrooms" to teach geology, botany, archeology, biology, ecology, nature, and recreation.

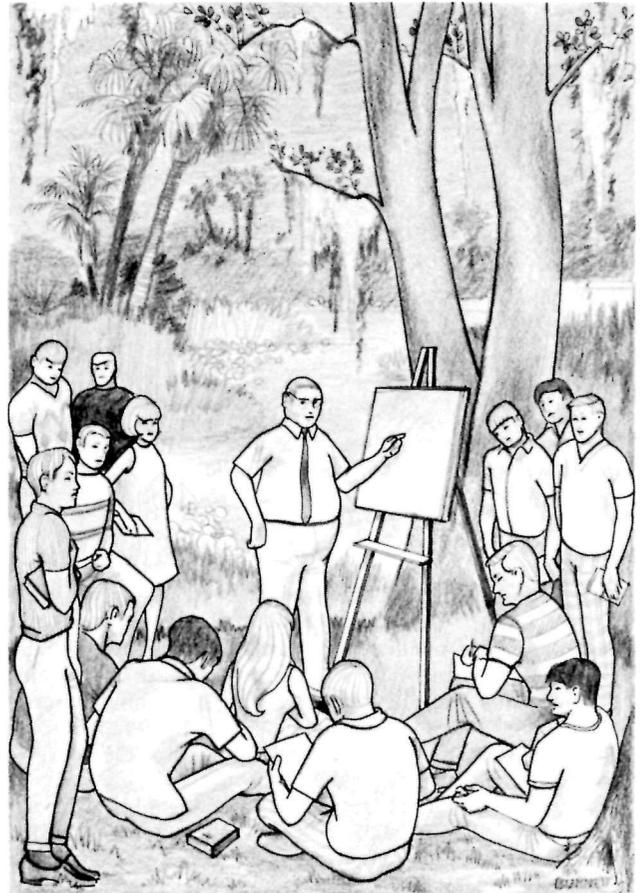
Curriculum for the two-year program has been designed to allow transferral of credit to a four-year college or university for greater specialization. An Associate of Science degree is awarded graduates of the Park Management Program by Lake City Junior College and Forest Ranger School.

General courses included in the two-year program are: accounting, business math, personnel management, and human relations, as well as English, speech, and reading. Some classes in history, physical science, and physical education are included, as are several classes in ornamental horticulture, soils and fertilizers, pest control, and landscape design.

Specialized courses include: history and philosophy of parks and recreation, parks and recreation practices, artisan skills, and on-the-job training.

History and philosophy of parks and recreation . . . is a study of the origin and development of public and private parks as a source of recreation in the United States. The course will cover the effects of past successes and failures in park and recreation management and will incorporate the lessons learned in both as considerations in future park development and management.

Parks and recreation practices . . . is a study of principles and practices carried out in parks which are conducive to efficient management and which result in facilities that satisfy the recreational needs of the American public. It will spotlight advanced practices such as those



carried out by progressive parks, pointing to recreational needs of changing public tastes and looking toward the parks of the future.

Artisan skills . . . is the development of those skills and capabilities in planning and doing: plumbing, masonry, carpentry, electrical installation, sewage and garbage disposal, etc. In addition to being developed, these skills are broadened and refined.

On-the-job training . . . is supervised work experience under actual field conditions in a private or public (state or federal) park. Training is carefully laid out and coordinated to include the diverse activities involved in park management.

"Preliminary registration this spring enrolled 21 young men who came from states ranging from New York to Hollywood (Fla.), including the Carolinas, Tennessee, New Jersey, and Pennsylvania," according to Ray Vinten who predicts that several more students will join the initial group by the time classes begin August 21.

Park and recreation personnel who know of prospective students can explain the Park Management Program to them and tell them to write for further information: Dean of the Technical Division, Lake City Junior College and Forest Ranger School, Lake City, Fla. 32055.

Photo by I. Galin and V. Yukhno



Lotuses in blossom in the Astrakhan preserve.

In the Aralskoye Sea, thousands of miles away from Moscow, lies the island Barsa-Kelmes. Few grasses and bushes can obtain moisture and nutrient substances from its saline earth. On the other hand, nimble-legged Saiga antelopes have the time of their lives here. Nothing disturbs them, neither rapacious animals nor human rifles. Only from time to time a research team appears on the scene to study the flora and fauna of the reserve.

Today the reserves in the southeastern part of the Soviet Union contain 2,000,000 Saigas. Not so long ago this antelope had been nearly completely exterminated over the vast steppes stretching northwest and east of the Caspian. Owing to the ban imposed in 1919 and the establishment of reserves like that on Barsa-Kelmes the herd of Saigas had multiplied to such an extent that planned hunting was started in 1951. In the last ten years nearly a million and a half animals have been taken, which means 30,000 tons of first-rate marketable meat and millions of squarefeet of leather.

The Saiga is only one example of the planned use of the Soviet Union's natural wealth, including fur and feather and wild life in general. Hunting is strictly regulated. Both commercial and sports hunting must conform to the rules and laws on the preservation of wild life adopted by all Soviet republics. The Soviet Union's 73 reserves and reserve-hunting farms are engaged in the development of scientific principles of protecting, restoring and increasing valuable wild life. Some reserves were set up specially for protecting some definite highly valuable animals: the Barguzin reserve beyond the Baikal for the protection of the sable, the Voronezh reserve for the protection of the beaver, the Khoper reserve for the protection of the Russian desman (its fur is musquash), etc.

It is only owing to thoroughly thought-out and scientifically justified measures in the reserves of the European part of the Soviet Union that the king of the forest, the elk, has been saved from extermination. As a matter of fact, the number of elk has increased to such an extent that now they can be met in the suburban parks of large cities. In many districts a regulated hunting of elk has been permitted and from 30,000 to 35,000 animals are obtained annually (the average elk weighs 350 to 400 kg).

Nature has endowed the beaver with deep brown, almost black, glittering fur, dense, soft and water-repellent. Because of unrestricted hunting and fur trade, and partly as a result of a change in the natural conditions owing to man's economic activity, the beaver had disappeared almost

## NATURE AND WILDLIFE PRESERVES IN THE SOVIET UNION

by S. PERESHKOLNIK, Novosti Press Agency

completely from the banks of forest rivers by the beginning of the 20th century. Only 1,500 animals survived in the remotest, almost inaccessible forest areas of the Soviet Union. Urgent measures were needed to preserve and increase this valuable species. Hunting was banned, a network of national reserves was set up, and about 1926 beavers began to settle where they had disappeared or where they had never lived. The largest beaver reserve is now the Voronezh reserve which contained 150 beavers in 1927, 450 in 1964. Two thousand animals have been removed for inhabiting other areas. Today the number of beavers exceeds 40,000 in the Soviet Union. Their numbers had reached the commercial hunting level in 1963 and commercial hunting was permitted. If we take into account the world-market value of beaver fur and a product of its gland used in perfumery, it will be clear why every beaver family and every dam it has built on a forest river are taken into account.

Of the 350 species of animals valuable for commercial hunting and widespread in the Soviet Union, none is more valuable than the sable, characteristically nicknamed "the soft gold of the taiga." The Barguzin sable is the rarest and most expensive among the varieties of the sable. The reserve set up on the slopes of the Barguzin ridge has preserved and multiplied the numbers of this precious animal.

The Voronezh preserve is a habitat of beavers.



Photo by V. Minkevich



The leader neighed, jerked up his head and led away the herd of Far Eastern punctate deer and Asian Buffalo.

Novosti Photo

Today the annual output of sable for the Soviet Union as a whole amounts to 100,000 pelts.

The reserves have also saved from extermination the Russian desman, the Kamchatka beaver or the sea otter, and the eider, famous for its remarkable down. The personnel of the reserves are doing their best to make the numbers of these animals sufficient for commercial hunting again.

The hunting of the Turan and Ussuri tiger, white bear, noble deer and the onager or mountain ass, is forbidden throughout the Soviet Union. The Przhevalsky horse, the only wild ancestor of the domestic horse known today, has also been saved and its scarce numbers are carefully preserved. The last species of bison have been preserved in Belovezhskaya Pushcha (Byelorussia), in the Caucasian and Oka-Terras reserves. Dolphin-hunting has recently been banned in the territorial waters of the Soviet Union.

The Soviet people are determined to preserve and enrich the widely varied fauna of their country spreading from the Carpathians to the Pacific.

Translated by Navrozov

### Askania Nova: Natural Zoo in the Steppes

World-famous Askania Nova, a research establishment combining a stock-breeding institute, a preserve and zoological gardens, is located in the steppes of the southern Ukraine.

For several decades the zoological gardens at Askania Nova have been working to propagate, acclimatize, hybridize, tame and domesticate many species of valuable and rare wild hoofed animals and birds.

The zoo has more than 100 animal species, including the wild Przhevalsky horse, zebras, various types of deer, New World camels such as the llama and the guanaco, a large number of antelope, from the small Indian antelope to bull-like African antelopes weighing about 700 kilograms and wild goats and sheep, and American, African, Indian, Asian and other bovines. Birds include all species of wild ducks, swans, cranes, bustards and pheasants. They come not singly but in herds, flocks and even local populations (pheasants, mallards, and grey geese) and are kept in large enclosures, or allowed to fly free in the open steppes and inhabit the reservoirs and tracts of parkland. Under these conditions many species retain the ability to reproduce and some become more prolific than in their natural habitat.

Askania Nova is the chief supplier of rare and valuable hoofed animals to Soviet and foreign zoos.

Askania Nova was made a national park preserve in April 1919 and turned into a State Steppe Preserve in February 1921. Today it covers an area of 10,000 hectares of virgin steppeland, surrounded by ploughland. A 90-year-old park and ponds and marshes, which never dry up because they adjoin a lowland that is flooded in spring, form the centre of this oasis in the steppes.

The hoofed animals are kept in enclosed virgin tracts that have been enlarged ten times over in the past eight years. Some herds graze in the open steppe, while many of the birds live freely in the parks and on the reservoirs. Like the animals, the ostriches are kept in enclosures in summer.

In winter, heat-loving animals (zebras and antelopes) are moved indoors, as are the ostriches and other birds, which have a building with a pool. The animals in the zoo are housed and fed similarly to related domestic species.

Eighty years of experiments to reproduce wild hoofed animals and birds at Askania Nova, in captivity or semi-captivity, has resulted in the propagation of 168 species and hybrid forms.

Askania Nova's program includes research and practical work to hybridize animals in other countries besides the Soviet Union.

### Sand and snakes

The Badkhyz preserve lies in the foothills of the Paropamisus range, along the southern borders of the Turkmen Republic, Central Asia. It resembles a plain over which hillocks, remains of the activity of an ancient volcano, are scattered. The more elevated section of the preserve is covered with a thin pistachio grove, like a savannah. In spring the hillocks are thickly carpeted with meadow-grass desert sedge, and large numbers of vivid tulips, iris, and sainfoin.

Scattered groves of saxaul grow in the desert areas of the preserve. These trees draw moisture from the soil with their long roots. Cobras and other poisonous snakes live in the hillocks.

Kulans and wild sheep race across the plain, their hoofs clattering on the rocks, to escape the leopards, hyenas and

wolves. The kulan is now almost extinct. Efforts by the preserve staff have brought their number up to 600. They are popular among the researchers who study them. Another interesting project is the cultivation of pistachio trees to increase their yield.

### Sikhote Alin

Sikhote Alin is one of three preserves in the Soviet Far East that cover a total area of 400,000 hectares. Sikhote Alin lies along the Pacific, directly opposite California. The physical environment of the preserve is unique, with the flora and fauna of many climatic zones growing side by side, the northern fir tree beside the subtropical liana, for example. Many of the plants have survived from remote geological ages, such as the yew tree, the Korean cedar and the Amur cork tree. The preserve also has rare medicinal plants, such as the ginseng and the shizandra.

The preserve has a large colony of hoofed animals, including gorals, Ussurian elk, and spotted deer, of which

Photo by I. Tunkel



Otters occur in the Darwin preserve, the Vologda Region, Russian Federation.

there were only seven or eight in 1932. The preserve saved the spotted deer from extinction. The policy of non-intervention pursued by the researchers, however, does not make for a quiet life for the deer and other hoofed animals. Leopards and tigers regulate the number of four-footed taiga dwellers freely and with impunity.

### Kronoki: A New Preserve

A territory of 964,000 hectares in the southeastern part of the Kamchatka Peninsula has been made a state preserve. Named Kronoki, it is situated in one of Kamchatka's most interesting districts, where all types of the peninsula's physical environment are uniquely combined, from high mountains covered with snowfields and glaciers to Alpine meadows, cedar groves thickets of alder trees, treeless plains, and birch forests.

The preserve has Kamchatka's largest fresh-water lake, Lake Kronotskoe, with unusual fauna including salmon that

Photo by V. Minkevich



Aurochs naturally live in the Prioksko-Terrasny preserve.

never go down to the Pacific. The lake is surrounded by 16 volcanoes, five of them active.

A unique valley of geysers, discovered 25 years ago between the Uzon and Kikhpinych volcanoes, has 22 geysers and a large number of pulsating springs that attract many visitors.

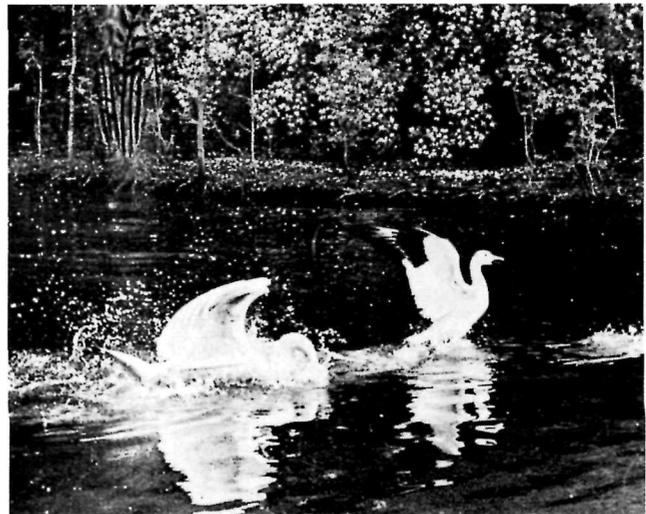
The only grove of Kamchatka firs in the world is situated at the mouth of the Semlyachik river and covers an area of 22 hectares.

### The Astrakhan Preserve

The three sections of the Astrakhan Preserve lie in the part of the 100-km. long delta of the Volga that is closest to the Caspian Sea.

Since the Volga delta is 27 meters below the level of the world ocean, it forms a flat bowl whose warmth and light make for lush plant growth. The shallows are covered with a thick carpet of pond lilies, water chestnuts and other floating plants. Walls of reeds stand five meters high with

Novosti Photo



A fight between a hooper swan and a polar goose.

Novosti Photo



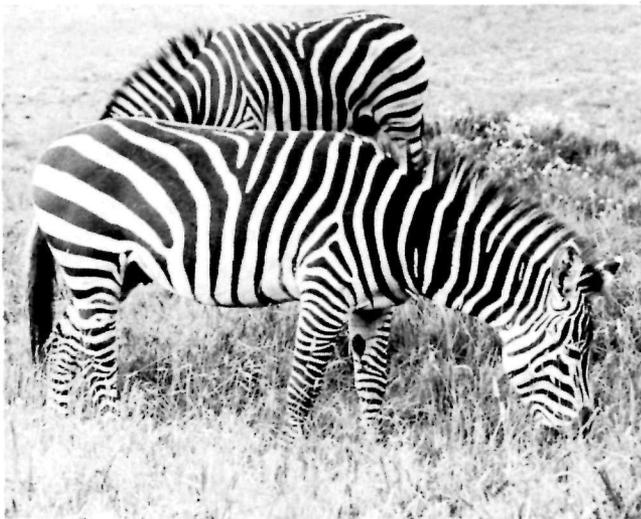
Nandu ostriches grazing on a meadow by the pond.

willow thickets entangled in climbing vines behind them. Lotuses, common in southeast Asia but very rare in the Soviet Union, grow here in the warm water. They are found in only three places in the delta.

The preserve protects a rich spawning bed for local food-fish, including the Caspian roach, sazan, bream and sheat-fish, and the routes of migratory fish, among them herring and sturgeon, the source of black caviar. Fish fry mature in the delta waters when the delta is flooded and then depart for the sea as the water subsides.

Thousands of water fowl inhabit the delta thickets. The tall trees are occupied by cormorants, grey herons and large white herons. Smaller birds, among them white and yellow herons and sometimes Egyptian herons, nest in the bushes. Large companies of pink and ruffled pelicans make group nesting arrangements along spits running into the sea that are overgrown with reeds and cattails. Thousands of moulting ducks hide themselves on the same inundated sea "islands," and migratory snipe, ducks, swans and other birds feed and rest there in spring and autumn. The scientists who work at the preserve all year round observe the changes in

Novosti Photo



The zebras were more "sociable" and allowed the photographer to approach them.

the physical environment due to the regulation of the flow of the Volga and recommend the best way to utilize the fish resources and protect the stock of fish. Stations in many parts of the country follow the migration of the birds banded at the Astrakhan preserve.

### The Darwin Preserve

The Darwin preserve on the Rybinsk Reservoir in the northwest of the European part of the USSR is among the country's comparatively new preserves. It is 68 kilometers long from north to south, and 44 kilometers wide.

Unlike other preserves in the Soviet Union, established in areas where the natural beauty has been best preserved, the natural conditions of the Darwin preserve have undergone great changes.

Even before the Rybinsk Reservoir was formed it was obvious that such a large artificial body of water with a fluctuating level would greatly change the nature of the surrounding districts. The Rybinsk Reservoir has influenced

Photo by M. Mineyev



Watchfully, listening keenly to every rustle of the taiga, this lovely Barguzin sable steals through the branches of an age-old Siberian cedar.

not only the local topography and the regimen of the region's rivers and lakes but also the climate, soil and animal and vegetable world.

These changes in the natural life of the area, taking place on a vast scale, had to be carefully studied in order that the information might be used for practical economic purposes. Another reason for establishing a research centre was that the Rybinsk Reservoir was the first of the country's big man-made lakes.

A decree establishing a state preserve on the Rybinsk Reservoir was adopted by the Government in July 1945. It is still the only preserve located on a reservoir.

The preserve was named after the great English scientist Darwin, who proved that species of animals and plants are not permanent but change as they adapt to life under new conditions.

The staff entrusted with supervising the preserve includes observers, a chief of the guard, and three foresters.

The research department of the preserve consists of a hydrometeorology station, a museum and hydrochemical,

hydrobiological, zoological, botanical and soil science laboratories. It is staffed by 11 researchers and eight technicians.

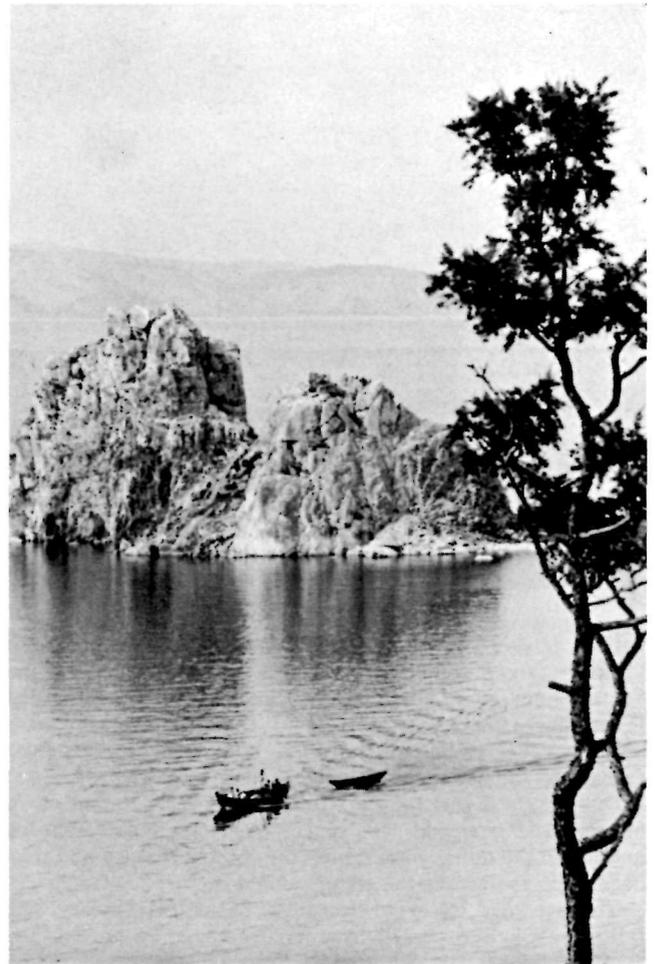
Formation of the reservoir basically changed the conditions of life of the animals and birds living within the zone of its influence. This led to a change in the preserve fauna. Some species diminished in number while other changed their way of life. Several new species appeared. The animals, of which the preserve has a very large number, are not of greatly diverse species, conforming to the lack of diversity in the tracts of forest.

Species found where there are broad-leaved trees, fir-groves, meadows and ploughland sharply diminished in numbers after the river meadow-land disappeared. The hedgehogs, moles, field and forest mice, squirrels and rabbits that were once plentiful on this territory are now rarely seen in the preserve. The number of rodents and small beasts of prey like stoat, marten and polecat has also dropped. The rise in the water level created unfavorable wintering conditions for otter.

The level of subsoil waters has risen sharply. At some periods of the year the waters are no more than one meter from the surface. This changed the burrowing habits of the badger, fox and raccoon-like dog, which began to make their homes in hollows left over from the time, centuries ago, when the craft of coal-burning was practiced there.

The Darwin preserve is rich in elk. They are unevenly distributed over the territory, and are found most often where young trees are growing on cut-over or fire-damaged areas and near former streams. The number of elk is steadily increasing, thanks to the conditions maintained in the preserve. The elk do not fear human beings. They come up to the houses and gardens in the preserve. Sometimes they are so fearless they refuse to yield the road to passersby.

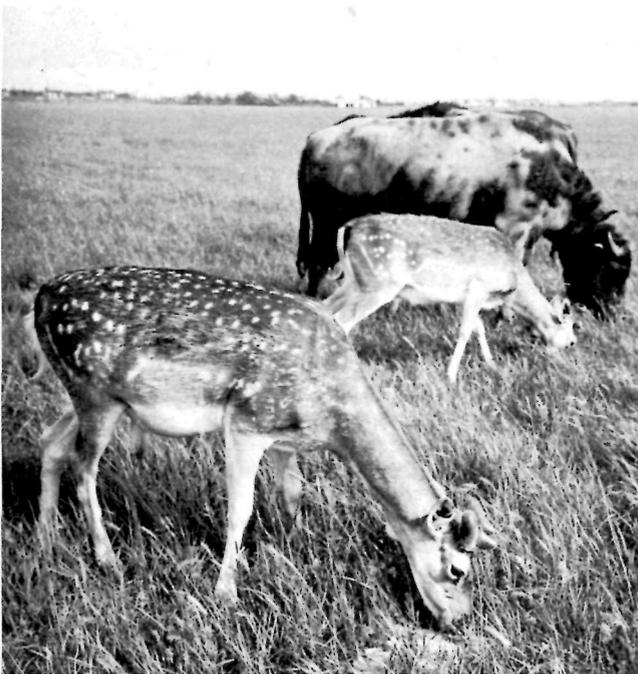
The bears that live in the preserve often come down to the banks of the reservoir, especially in spring and autumn. Sometimes they swim over to islands more than a kilometer from the bank.



Lake Baikal

Soviet Life Photo

Novosti Photo



Far Eastern Punctate Deer and Asian Buffalo.

### National Park on Lake Baikal

Research institutes at the Academy of Sciences of the USSR and planning agencies are drawing up a plan for the country's first national park, to be situated on Lake Baikal. Industrial and other activities will be allowed in the park only if they contribute to preserving the natural beauty of the lake and the purity of its water.

The park is to cover a territory of 13,000 square kilometers, later to be extended to 40,000. Camping sites, motels, guest houses and hunting lodges will be built in the area of the Khamar-Dabansk and Barguzin ranges, on the Sacred Nose promontory and on Olkhon Island, among other places. Health resorts will arise at the numerous hot springs in the foothills and ravines. A network of automobile roads is to be built.

More than half a million tourists are expected to visit Baikal National Park annually, attracted by its beauty and the opportunity to hunt, fish and engage in sports, rest and take treatment.

The park will probably be run by a scientific centre. Sanitation and technical personnel will be required; hunting and fishing will have to be regulated. But the main thing will be research work to study the only natural "factory" on earth producing so valuable and so unique a property as the pure, oxygen-rich, composition-stable fresh water of Lake Baikal.

Translated by N. Yankovskaya