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America's Department of Natural Resources



...the U.S. Department of the Interior
Conservation Bulletin 39

The Natural Resources Family Tree

General Functions of the Interior Department

Mineral Resources

Geological Survey
Bureau of Mines
Office of Minerals
and Solid Fuels
Office of Oil and Gas
Office of Coal Research
Oil Import Administration

Water and Power Development

Bureau of Reclamation
Bonneville Power Administration
Southwestern Power Administration
Southeastern Power Administration
Alaska Power Administration

Public Land Management

Bureau of Land Management
Bureau of Indian Affairs
Bureau of Outdoor Recreation
Office of Territories

Fish, Wildlife, Parks and Marine Resources

Bureau of Sport
Fisheries and Wildlife
Bureau of Commercial Fisheries
National Park Service
Office of Marine Resources

Water Quality and Research

Federal Water Pollution
Control Administration
Office of Saline Water
Office of Water
Resources Research

Department Administration

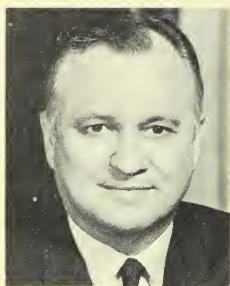
SECRETARY
Under Secretary

By various statutes Congress has specifically imposed upon the Department of the Interior and its bureaus the responsibility of collecting, interpreting, and disseminating information about its functions. While this publication does not attempt to present all the activities in which the Department engages, it does contain an outline which can serve as a guide to those interested in obtaining further detailed information about the Department's work,

CONTENTS

- 4 Organization of the Department
- 6 Conservation's Challenges
- 10 Activities of the Department
- 14 Bureaus of the Department
- 46 Significant Dates
- 47 Secretaries of the Interior

Conservation's Challenges



Walter J. Hickel



Meeting the national challenges of the final and critical third of the twentieth century demands more than ever before sound and balanced programs for the wise use and conservation of all of our natural resources.

The Department of the Interior—the principal agency of the Federal Government charged with developing and carrying out better ways for managing our resources—is moving forward under the theme of assuring that America will be, in President Nixon's words, a land of "majesty and inspiration."

But this is not a task for the Federal Government alone. It requires the full support and understanding of every American.



An expanding population and increasing material wealth require new public concern for the quality of our environment. Our nation must pursue its activities in harmony with the environment. As we develop our natural resources, we must be mindful of our priceless heritage of natural beauty.

The path for conservation has by no means been smooth. It has been disrupted and delayed by wars. It has been contested by those who put immediate gain above the long-range good of their country.

We need stronger measures to help eliminate pollution of our water supplies; to give greater protection to our wildlife; to develop new uses for minerals and fuels and to improve the use of our forest lands. We must match in dedication the previous peak of national concern for conservation evidenced in the days of Theodore Roosevelt.



In the 1970's, President Nixon has promised, the battle for the quality of the American environment will be a battle against neglect, mismanagement, poor planning, and piecemeal approaches to the problems of our natural resources. In this battle, the people themselves will be in the front lines, for modern conservationists now number in the millions, and the count is increasing daily.

Conservationists think not only in terms of natural resources but in terms of people. The more their voices are heard the fewer will be the actions that too often have punished our natural surroundings and harmed man in the process.

We are paying heavily for the mistakes of the past. The *quality* of life must become our chief concern.

The boy sitting on the steps of a ghetto tenement deserves places where he can discover that the sky is an endless canopy, not just the

touch of soot-tinged blue he can glimpse between massive buildings. The technology that gave us the massive structures and the soot also can help clean the skies in a balanced attack on our environmental problems.

President Nixon has stressed the importance of this balance in dealing with our natural environment:

"Obviously we must make more use of our natural resources to maintain our high standard of living.

"But the more inroads we make upon our land and water and air, the less we are able to enjoy life in America.

"We need lumber to build our homes; but we also need untouched forests to refresh our spirit.

"We need rivers for commerce and trade; but we also need clean rivers to fish in and sit by.

"We need land for homes and for great industrial plants; but we also need land free from man's works, land on which a man can take a long walk, alone away from the pressure of modern life.

"We need the dynamic productivity of industry; but we also need fresh air to breathe. We need the raw natural materials with which to create the products we desire; but we also need large areas of land in which a man can re-create himself, areas of true recreation."

America is fortunate in having a wealth of resources that can serve us well. Hand in hand with preservation go wise management and wise development and use.

This is balanced conservation. In the words of the noted zoologist, Aldo Leopold: "Conservation is a state of harmony between man and land."

That must be the hallmark of the New Conservation of America in the last third of this crucial Twentieth Century, as it is the by-word of America's Department of Natural Resources—Your Department of the Interior,



Secretary of the Interior

AMERICA'S DEPARTMENT OF

Activities of the Department of the Interior

THE DYNAMIC STRENGTH of a forward-looking America depends ultimately upon the full and creative development of our Nation's natural resources base—our mineral wealth, our vast plains, our timber-laden forests, our rivers, streams, and lakes, our

irreplaceable wildlife, and our scenic and recreational resources. In addition, we must restore our cities and repair the damage which we have wrought on our waters.

In peace and war, these resources have met the needs of our people and



NATURAL RESOURCES

have provided the sinews for the most highly developed industrial society in mankind's history.

Our resources, however, are far from inexhaustible, and predictions have been made that, by the middle of the 21st century, people will face a

grim struggle for existence, with food and water in short supply and with reserves of many minerals depleted.

No one really knows, of course, whether such grim predictions will come to pass. Human resourcefulness, ingenuity, and invention—coupled



with creative determination—can prevent such a calamity.

We must work creatively, therefore, to provide for the development, conservation, and wise utilization of the Nation's natural resource base to meet the requirements of today's citizens and to pass along our resources to generations of unborn.

Scope of the Department

This is the task of the Department of the Interior which centers its activities on helping to meet constructively both the long-range and immediate resource requirements of the Nation. As the principal conservation agency of the Federal Government, the Department of the Interior is engaged in activities which daily affect the lives of all Americans. The term, "interior," is actually a misnomer—for the Department should more properly be called a department of natural resources.

Representatives of the Department are at work today around the globe. Employees are engaged in resource conservation activities in every State of the Nation, in our few remaining territorial areas, in the major oceans, at the north and south polar regions, and by invitation in many foreign countries.

The Department of the Interior manages some 450 million acres of public domain lands and has mineral leasing responsibilities for all other federally owned lands, as well as on the Federal areas off the coasts of our Nation.

It markets electric power from plants with an installed capacity of about 18 million kilowatts, derived from federally constructed water, and flood, and navigational projects.

It provides irrigation water for more

than 10 million acres of agricultural lands in the arid and semiarid West which, for the most part, produce high-quality nonsurplus foods and fibers, with a gross value of \$1.8 billion annually.

It exercises Federal trust responsibilities for about 440,000 Indians, working constantly to improve the natural and human resources of the Indians.

It is responsible for administration, economic improvement, social and political betterment in the few remaining territorial areas of the United States—Guam, American Samoa, the Virgin Islands, and the United Nations mandated Trust Territory of the Pacific.

It increases the mineral and fuel potentials of the Nation by assisting technically—and in the case of strategic minerals, financially—in developing and improving mining methods and geologic knowledge, and by promotion of conservation through wise utilization of our mineral and fuel resources.

It protects and administers more than 270 national parks, monuments, historic sites, seashores, parkways, and scenic riverways and creates new recreational areas at multipurpose water resource projects—as well as making public lands available for recreational needs to States and municipalities. The various recreational lands and areas of the Department are the scene of some 200 million visitor days' use annually.

It promotes the conservation and development of our vital fish and wildlife resources and protects these resources from unnecessary depletion and selfish use.

It surveys and conducts research on the water and mineral resources of the

Nation with an eye to the future. It provides for the basic geologic and topographic mapping of the Nation.

It administers laws and programs to solve water pollution problems of the nation.

It directs and coordinates the national effort to achieve the economical conversion of the waters of the oceans into fresh water for human use.

It strengthens, through several of its offices and bureaus, by means of grants and other cooperative arrangements with colleges and universities, the Nation's academic capabilities for natural resource research and education.

Continuing Influences

Lengthy as this list is, it still does not completely tell the natural resource story of the Department of the Interior. The foregoing are just the major areas in which it functions.

For example, in addition the Department has also been delegated defense mobilization responsibilities related to minerals, fuels, electric power, and commercial fisheries.

To carry out its many responsibilities, the Department receives annual appropriations from the Congress. The Department also returns substantial revenues to the Federal Treasury and to the States from its resource management activities.

In recent years, the appropriations of the Department for all purposes have neared \$2 billion and its income has approached or exceeded this amount. As you can see, the annual investment in resource conservation by the Department continues to create new wealth and to generate new income throughout the Nation.



Bureaus of the Department of the Interior

THE DEPARTMENT of the Interior has its roots deep in the expansion and development of our Nation. Although it has played a vital role in the adventure-packed conquest of the West, it has emerged in recent years as a truly creative *national* Department. Its programs now have an impact in all parts of the 50 States—in cities, towns, counties, townships; in the East, West, North, and South.

Records of the Department are filled with the names of the men, the towns,



the territories that shaped the West. They are rich with stories of new discoveries in resources—from gold at Sutter's sawmill to uranium on the Colorado Plateau and oil from far beneath the ocean's floor.

More recently, and increasingly, the Department's story covers new missions: battles against pollution of rivers, streams, and lakes, particularly in heavily populated areas; healing of the wounds left by strip mining in the Appalachian region; protection of endan-

gered species of wildlife in Florida; conversion of sea water to drinking water in North Carolina; administration of the Land and Water Conservation Fund, providing assistance to every State in expanding recreation opportunities; studies to improve fishing in the Delaware River; water research sponsorship at institutions of higher learning in every State and in the Commonwealth of Puerto Rico. These are examples of the many fronts on which the Department acts con-

Department programs to serve the needs of man.



structively to husband the resources of America.

But, had it not been for the westward movement, establishment of the Department probably would have been delayed. For many years, statesmen had debated the need for a "domestic" department.

Creation of Department

Finally, in 1849, Congress created the Department of the Interior. President James K. Polk approved legislation on March 3 of that year and 5 days later Thomas Ewing of Ohio was named the first Secretary of the Interior.

The fledgling Department, conceived as a "Home Department," began its existence as repository for numerous seemingly unrelated Federal activities dating back as far as 1812.

Although the need for an agency of this nature had been discussed, the Department's formative years reflected much of what appears to have been trial-and-error composition. The new Department took under its wing several stepchildren of other Federal agencies. Some have matured without further shifting; others have undergone major changes.

The General Land Office, which had been a Treasury Department agency since 1812, became an important part of the new Department in 1849. In 1946, this agency was consolidated with a 12-year-old Grazing Service to become the Bureau of Land Management, one of the principal components of the Department of the Interior today.

The Office of Indian Affairs was switched from the War Department, where it had been since 1824, to the

new Department of the Interior. As the Bureau of Indian Affairs, it today carries out a major responsibility of the Department.

The Pension Office, the Census Office and the Patent Office, all going concerns before 1849, were gathered into the new Department of the Interior. All have since been withdrawn from the jurisdiction of this Department.

Since its creation more than a century ago, the Department of the Interior has shared the growing pains of a lusty Nation. Agencies of the Department have matured to full Cabinet status in four directions:

The agriculture bureau has become the Department of Agriculture.

The bureau of labor was transformed into the Department of Labor.

Other functions formed the nucleus of the Department of Commerce.

Some activities, once a part of the Department, now are lodged in the Department of Health, Education, and Welfare. In turn, the Water Pollution Control Administration was transferred from the Department of Health, Education, and Welfare to the Department of the Interior in 1966.

The Pension Office has become the Veterans Administration.

And, during its first 2 years, the Interstate Commerce Commission was part of the Department of the Interior.

Fish and Wildlife Service

In 1939, two agencies were transferred to the Department of the Interior.

or from other Departments of Government, and the following year they were brought together to form the Fish and Wildlife Service.

The two component agencies were the Biological Survey, transferred from the Department of Agriculture, and Bureau of Fisheries, originally a part of the Department of Commerce.

The Department's functions in this field were further reorganized in 1956. Subsequently, the position of an Assistant Secretary for Fish, Wildlife, Parks, and Marine Resources was established. The new Fish and Wildlife Service is composed of two bureaus—the Bureau of Sport Fisheries and Wildlife and the Bureau of Commercial Fisheries—each with its own Director.

Bureau of Sport Fisheries and Wildlife

A major challenge facing the Nation is to maintain the integrity of its fish and wildlife resources despite changing conditions of land and water.

Helping America meet this challenge is the Bureau of Sport Fisheries and Wildlife's contribution to the broad field of conservation. In performing its tasks the Bureau works with other Federal agencies, State conservation agencies, and other organizations devoted to safeguarding natural resources.

The Bureau of Sport Fisheries and Wildlife contributes directly, in many instances, and indirectly in many more instances, to the well-being and recreation of millions of Americans who seek relief from the day-to-day routine.

Programs include:

Improvement of fishing in National Forests, National Parks, Reclamation reservoirs, Indian Reservations, public



Waterfowl, alligators, ferrets protected.



Fishery research yields life's clues.

lands, and military and United States hospital areas;

Research on fish and fishing waters to assure better angling;

Research on fish diseases and nutrition, production, and growth; and growing fish in flooded rice fields and farm ponds;

Research on game bird diseases; ways to make land produce more wildlife; reforestation-wildlife problems;

Research on migratory waterfowl problems and on various phases of other wildlife resources; development of a North American Continent approach to waterfowl management;

Conservation education of the public on healthful living environment, in cooperative programs with State agencies, other resource bureaus, schools, and citizen organizations;

Research on pesticides to determine how the farmer can protect his crops against insects without injury to fish and wildlife;

Research to obtain the maximum potential for fish and wildlife conservation on 20,000 square miles of reservoir surface in the United States which is growing constantly toward an

estimated 30,000 square miles in the year 2000;

Research to develop fully the marine sport fishery resources of our oceans, a program conducted both on the Atlantic and Pacific coasts and in the Gulf of Mexico;

Acquisition of more land for necessary migratory waterfowl habitat;

The Bureau also:

Plans the protection of fish and wildlife resources in large and small watershed development programs and other Federal water projects—irrigation, flood control, power;

Protects endangered species, such as the whooping crane and numerous other animals threatened by civilization;

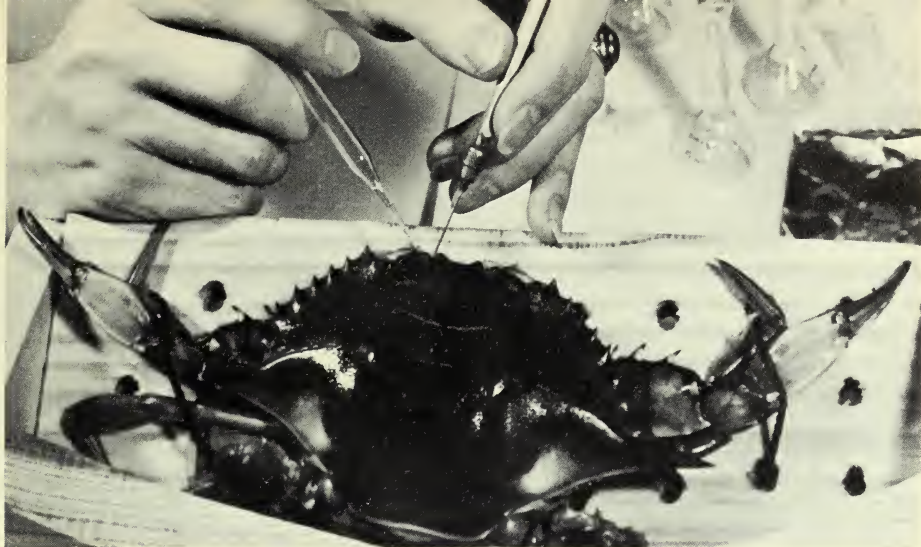
Conducts surveys to determine trends in duck and goose populations, as the basis for fixing hunting regulations;

Enforces Federal Game Laws;

Operates 100 National Fish Hatcheries;

Provides habitat for wildlife on the more than 300 National Wildlife Refuges, totaling about 30 million acres;

Protects land and fiber from animal damage;



Blue crab undergoes examination.

Operates a Federal Aid Program, supervising tax money allotted to the States for their fish and game work;

Cooperates with State fish and game departments in all phases of resource management.

Bureau of Commercial Fisheries

The Bureau of Commercial Fisheries will be 100 years old in 1971. Its primary duty is to serve the well-being of the commercial fisheries of the United States—and to do this without destroying or depleting the Nation's fishery resources.

The Bureau carries out its responsibilities in many ways: it finds fish, devises the best ways to catch them and keep them wholesome; studies the most efficient and economical ways of unloading, freezing, processing, and distributing them to the Nation; provides all pertinent facts to the industry on the kinds and prices of fish, and where and when they are available, so that industry can make informed decisions; and provides information to the public ranging from price to preparation of fish.

In its work, the Bureau also employs scientists, chemists, and engineers in biological and technological laboratories where research is done on various fishery problems. It helps industry by devising newer methods of processing fresh fish for home, restaurant, and institutional use and develops improved systems for converting non-food fish into useful commercial products such as fish oil, fish protein concentrate, and fish meal for animal feed. It enters into agreements with other fishing nations to protect certain fisheries and the American fisherman's interests.

As it approaches the beginning of its second century of service, the Bureau sees dramatic possibilities ahead for the industry, the United States, and the world. The U.S. demand for fishery products is increasing. In 1968 the per capita consumption rose to 11.1 pounds, an increase of .4 of a pound over 1967. Increasing imports and foreign competition off our shores are of concern to the Bureau, however, and bold steps are needed to place the U.S. fishermen in a position where they can compete favorably with for-

eign production. Researchers of the Bureau estimate the U.S. catch can be increased sixfold over 1968 landings of 4.2 billion pounds. Removal of institutional barriers and elimination of technological obsolescence in the harvesting segment of the industry are essential if this goal is to be realized.

The seas have great significance for the United States and the world because the food supply will have to be doubled in the next 40 years to meet the needs of a growing population. One of the most promising products of the seas is fish protein concentrate, containing 75 to 85 percent high-quality animal protein, and suitable as a food supplement or additive. The concentrate, subject of intensive research by the Bureau, can end "protein starvation," the most urgent food problem of the century for about two-thirds of the world's population.

The product is made by treating chopped fish with alcohol, which removes the water and inactivates enzymes and microorganisms, resulting in a stabilized protein powder.

The Bureau administers the United States Department of the Interior's (USDI) voluntary inspection service for members of the fishing industry. Handled on a fee-for-service basis, the program makes available an impartial national inspection and certification service on all types of processed fishery products—fresh, frozen, canned, and cured. Members of the fishing industry are advised of improved methods of handling, grading, processing, and packaging fish and fishery products. The program also provides a basis for quality and price relationship. It assists in establishing orderly marketing, and expands marketing outlets to



provide better financial returns to the producer. USDI-graded fishery products enable consumers to buy with confidence.

The Bureau of Commerical Fisheries cooperates with industry to exploit new products such as fish portions and fish sticks; aids in meeting increased demand for United States canned products, fish meal, and oil; explores new ways of finding and harvesting fish, including electronic detection devices and better trawls.

Continuing goals of the Bureau are increased catches for United States fishermen and more modern vessels and gear, to help fulfill domestic market re-



Public lands help feed America's livestock.

quirements, and provide vigorous competition for a larger share of the world market.

Bureau of Land Management

As mentioned earlier, the Bureau of Land Management was created in 1946 by merger of the General Land Office and the Grazing Service. Today the Bureau is the Nation's largest land manager and one of its major revenue producers, looking after approximately 450 million acres of public domain located mostly in eleven western states and Alaska.

Thirty states have been carved out

of the public domain, which once included about 1.8 billion acres. In addition, the public domain has provided lands and resources for homes, farms, towns, schools, railroads and other industry, public roads, parks, and many other uses.

Today the Bureau of Land Management is pursuing a definite course of land management in the public interest, applying multiple use principles to lands under its jurisdiction. The Bureau disposes of land which, on the basis of careful analysis and study, would best serve the public interest through transfer out of government ownership. Because of the rising population and



More than 160 million people visit
the National Park System each year.

the demand for heavier use of the public land, management is being intensified for greater yield of all values, including recreation, wildlife and beauty, as well as the more traditional purposes of grazing, mining, and mineral leasing.

The Bureau continues to serve land needs for local government, schools, industry, and individuals by selling land needed for expansion and public purposes. To assure orderly growth of towns and communities, such development must be preceded by adoption of zoning ordinances by the local government involved.

Congress' action in providing for classification of public domain land for multiple use, or for disposal, was a turning point in the Bureau's land management program, setting the course for permanent programs through which these lands will best serve all Americans. Modern travel has brought all parts of the country much closer to the public lands, and the Bureau is seeking to keep pace with the demand for full use commensurate with the land's capabilities. The Bureau's revenues from land users, including oil and gas leases, run several times higher than its operation expense each year.

As one of the Government's leading conservation agencies, the Bureau is concerned with recreation, wildlife, grazing, water, timber, mining, mineral leasing, natural areas, archeological sites, and scenic beauty on an area more than twice the size of France.

National Park Service

The first national park in the world—Yellowstone—was established in

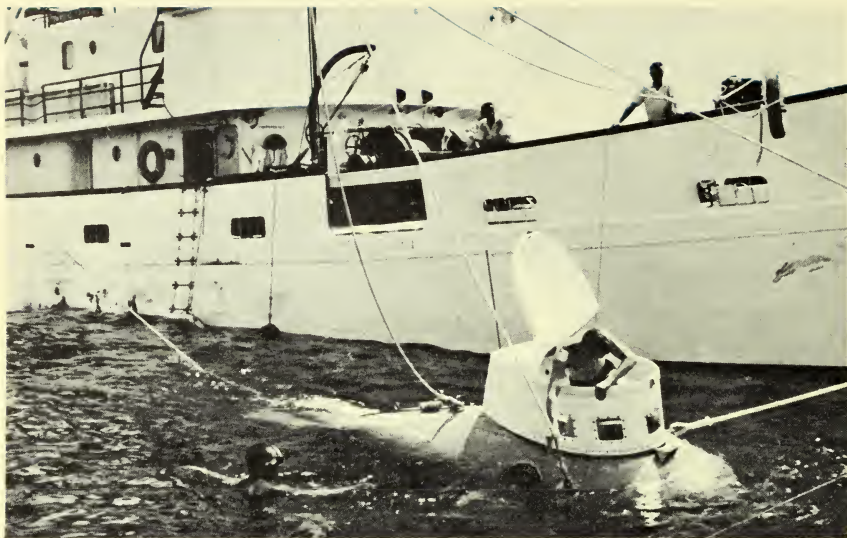
1872 "as a public park or pleasuring ground for the benefit and enjoyment of the people." Assigned to the jurisdiction of the Department of the Interior, new parks like Yosemite, Sequoia, Mount Rainier and others were added until—in 1916—the Congress authorized the establishment of the National Park Service, as an agency of the Department of the Interior, to administer the national parks and monuments, shrines and historic sites.

Since 1916, the Service has administered the National Park System—which comprises more than 270 areas of outstanding natural, historical, and recreational significance.

In both the natural and historical parks the concept of conservation is distinctive in that the resources are managed as catalysts which react with and enrich the life of the user, but in themselves remain unaltered. Maintaining the natural or historical integrity of such parks for visitor enjoyment is the primary management objective.

While the tradition of natural and historical parks goes back to the 19th century, the concept of national recreation areas is comparatively new. Within the National Park System these areas are of equal importance to the natural and historical sites.

Resources in recreation areas are managed so as to provide a maximum of outdoor recreational activities, such as boating, water skiing, swimming, fishing and hunting. Mining, grazing, and other consumptive resource uses are permitted only if such activities will not conflict with the basic purposes of the areas. Recreation of many types, of course, may be enjoyed in all three major types of National Park areas.

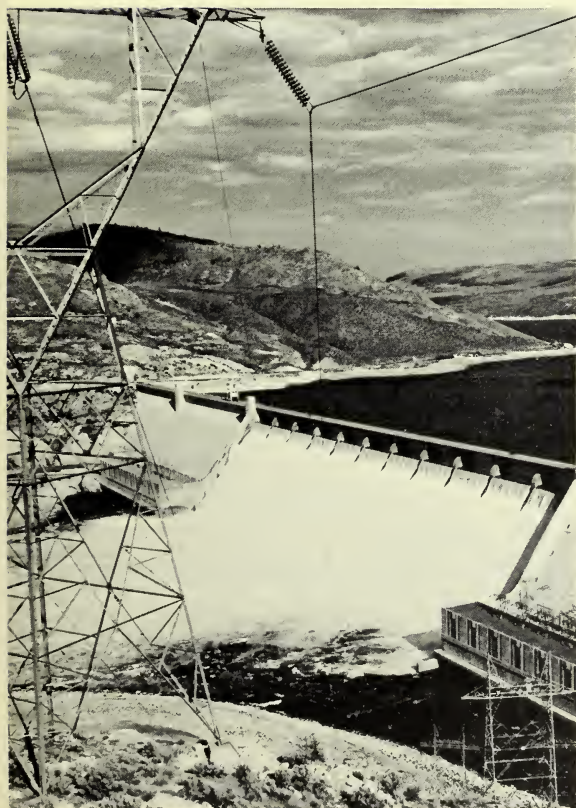


Bureau of Commercial Fisheries researchers are playing a major role in the new and important field of oceanography.



Under Secretary Train (second from left) launches a task force study of the development of Alaska's North Slope oil lease areas. The study was established by Secretary Hickel to "make sure that this vast area's natural resources are developed in a manner compatible with the wise conservation of the esthetic environment."

A Federal coal
mine inspector of the
Bureau of Mines
collects roof-dust
samples for testing.



Much of the electric energy
needs of the West are
met by reclamation
power projects such as
Washington's Grand Coulee.

To meet the expanding needs for our ever-increasing population with its greater income and more leisure time, the National Park Service works constantly with every level of government—Federal, State and municipal—to increase nationwide recreational facilities.

Bureau of Outdoor Recreation

The Bureau of Outdoor Recreation, established April 2, 1962, is the Nation's principal agency for coordination, planning, and cooperation in outdoor recreation.

The Bureau does not manage any recreation facilities, but has administrative responsibility for actions and programs that bring major additions to the Nation's recreation systems at the Federal, State, and local levels of government. The Bureau believes that all citizens are entitled to adequate and varied outdoor recreation opportunities as near their homes as possible.

Bureau-led studies and recommendations have helped the Nation gain many new national parks, seashores, lakeshores, and other recreation areas. The Bureau urged a national trails system and a nationwide system of wild and scenic rivers. Both these new concepts were approved by Congress in 1968.

Initially, the National Trails System Act established the Appalachian Trail in the East and the Pacific Crest Trail in the West. Congress also provided authority to develop national recreation trails near urban areas, connecting and side trails, and directed that historic routes be studied for possible inclusion in the national trails system.

The Wild and Scenic Rivers Act ini-

tially set aside stretches of eight great rivers that will be preserved and maintained in their natural state for all time. Portions of the Clearwater and Salmon in Idaho, the Eleven Point in Missouri, the Feather in California, the Rio Grande in New Mexico, the Rogue in Oregon, the Saint Croix in Minnesota and Wisconsin, and the Wolf in Wisconsin were the first eight.

Congress directed that 27 additional rivers be studied for possible future designation as wild or scenic rivers.

The BOR is responsible for preparing a Nationwide Outdoor Recreation Plan, which considers the variety, quantity, and quality of our outdoor recreation resources, forecasts needs to 1980 and 2000, and makes recommendations for ways to meet such needs.

The Land and Water Conservation Fund administered by BOR has made available millions of dollars in matching grants to States, and their cities and counties, for planning, acquiring, and developing outdoor recreation areas and facilities. Millions also have been used to acquire Federal recreation lands and waters for the public's enjoyment.

In 1968, Congress amended the Fund Act to raise the level of revenues available in the five fiscal years 1969-1973 to \$200 million annually.

The Bureau provides the Executive Director and staff support for the President's Council on Recreation and Natural Beauty, which is under the permanent chairmanship of the Vice President.

Council members are: Secretaries of the Interior; Defense; Agriculture; Commerce; Health, Education, and Welfare; Housing and Urban Development; and Transportation; Chairman,

Federal Power Commission; Chairman, Board of Directors, Tennessee Valley Authority; and the Administrator, General Services Administration.

The Council provides broad policy advice and coordinates programs among Federal agencies to protect and enhance our environment. It stimulates action in behalf of natural beauty and outdoor recreation on the part of States, local government, private organizations, and individual citizens.

The Council has published a 304-page report, "From Sea to Shining Sea," which analyzes the environment and suggests broad avenues of improvement.

The Bureau does outdoor recreation planning for Federal water projects of the U.S. Army Corps of Engineers and Bureau of Reclamation, and for certain National Park Service projects.

BOR determines the suitability of transferring Federal surplus property to non-Federal agencies for park, recreation, and historic monument uses. After such property is transferred, the Bureau enforces compliance with requirements of the terms of transfer.

BOR also participates in numerous natural resource area studies. Among its major special reports are a study of the recreation potential of the Connecticut River area titled, "New England Heritage," and a four-State study of the Missouri River, "The Middle Missouri—A Rediscovery."

Bureau of Indian Affairs

During the administration of President Washington, Congress, at the President's suggestion, authorized creation of Government trading posts to control barter with Indians. These posts eventually became areas of set-

tlement. Then, as the period of land purchases began, the Indian tribes were induced, sometimes by persuasion and sometimes by force, to move to western areas. Indian affairs were under the control of the War Department after the adoption of the Constitution, and military means were increasingly used to remove Indian groups. Indian Territory, meanwhile, had been carved from the Louisiana Purchase and set aside for Indian use by President Jefferson, who felt that the removal of Indian groups from heavily settled eastern regions would contribute to the Indians' advancement.

By 1849, with the creation of the Department of the Interior, the Bureau of Indian Affairs passed from military to civil control. Its work consisted of attempts to "civilize" Indians by training them for farming and trades. The continued resistance of many Indian tribes to the encroachments of the white man's civilization—accentuated during the gold-rush period—led to a period of bitter Indian wars and culminated in a series of negotiations resulting in the establishment of reservations as they exist today.

Conditions grew progressively worse among tribal groups, with hunger and disease reducing the Indian population to a record low of less than 250,000 by the close of the 19th Century.

Citizenship was granted to Indians in 1924, and in 1934 Congress passed the Indian Reorganization Act, which named the Secretary of the Interior as trustee of Indian land. Unrestricted sale of Indian property was halted and provision made for acquisition of additional lands by tribes and individuals. It created a foundation for tribal self-sufficiency by permitting establishment



Navajo carpenters are skilled builders.

of constitutional tribal governments, providing Federal credit for economic development, and providing for the institution of modern conservation and resource utilization techniques.

Having fostered the conservation concept and stressed the economic development of Indian lands for Indian use, the Government began focusing greater attention on the Indian people themselves—the human resource.

Thus, the Bureau of Indian Affairs today has a dual responsibility—for land and for people. The people, including Indians, Aleuts, and Eskimos, having a special relation to the Federal Government, number slightly more than 440,000.

The basic aims of the Bureau of Indian Affairs, as influenced by tribal leadership, are now:

Higher Indian standards of living; assumption by Indians and Indian tribes of the responsibility for managing their own funds and other resources; and political and social integration of Indians, with preservation of their heritage and cultures.

Adult literacy programs are a part of the Bureau's education effort; scholarships for high school graduates are available; and a large-scale program of adult vocational training and employment assistance has helped tens of thousands of Indian workers and their families, at no cost to them, to become established off the reservations. A school to foster the native talents of Indian youth—the Institute of American Indian Arts—was opened in 1962 at Santa Fe, New Mexico.

English now is taught in Bureau schools as a second language and preservation of the Indian language through the schools has become basic BIA educational policy. Indian-speaking adult teacher-aides are also employed by Indian schools when Indian-speaking teachers are not available.

As the trustee for some 50 million acres of Indian-owned land in 26 States, the Bureau of Indian Affairs offers financial and technical aid for road-building, irrigation, sustained yield management of forests, conservation and soil improvement for farming



Samoan children enjoy educational TV.

and ranching; provides a safeguard against over-exploitation of mineral reserves; helps arrange commercial and industrial development of lands wherever feasible; and oversees leasing for surface use or minerals development to assure Indian owners a fair return based on current market values.

Where reservation lands offer potential for commercial and industrial development, the Bureau has concentrated on a program which provides financial aid to tribal groups for developing tribal enterprises and also advises private business seeking to locate in Indian areas.

In 1968, the President sent a message to Congress on goals and programs for the American Indian. This message and an Executive Order provided for Indian involvement in decision-making regarding Indian affairs. The Executive Order established a National Council for Indian Opportunity under chairmanship of the Vice President of the United States and provided for appointment of 6 Indians and 7 high Federal officials to membership.

The Bureau also informs Indian groups of other sources of help—private, State, and Federal—and works closely with other Federal agencies whose efforts can and do help give the Indian greater economic opportunity. Federal agencies include the Departments of Health, Education, and Welfare; Commerce; Housing and Urban Development; Interior; and Labor and the Office of Economic Opportunity and Small Business Administration.

Office of Territories

It was not until 1934 that the Division of Territories and Island Possessions was created. Now known simply as the Office of Territories, it centralized economic and social programs for the Philippines, Alaska, Hawaii, the Virgin Islands, and Puerto Rico. Alaska and Hawaii have since achieved statehood and the Philippines became independent in 1946. Puerto Rico obtained commonwealth status in 1952.

At present, only Guam, the Virgin Islands, American Samoa—the few re-

maining American territories—and the Trust Territory of the Pacific Islands come under the supervision of the Office of Territories.

Gradually, the development of their own natural resources has become increasingly important to the economic welfare of the more than 240,000 people living in these areas outside the continental United States.

With the rapidly changing requirements of modern life, the responsibilities of the Office of Territories have become more important and more complex.

Today, the basic objective of the Office is to aid in the development of the educational, economic, social and political programs of the areas under its jurisdiction—Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands (administered by the United States under an agreement with the Security Council of the United Nations).

The orderly development and sound utilization of natural and human resources are emphasized. Accelerated and expanded programs are under way to assist the peoples of the island territories to attain an ever-increasing measure of political and economic self-sufficiency and to receive better health care as well as better education. Aggressive action is being taken to diversify and to broaden the economic base, making full use of those limited natural resources available, to provide a better livelihood for the peoples of each territory.

Under a Federal law passed in 1968, people of the Virgin Islands and Guam were given the right, for the first time, to elect their own governors. The bill's effective date: 1970.

In addition to the foregoing territories, the Department of the Interior has administrative responsibility for Canton and Enderbury Islands, Howland, Baker, and Jarvis, Wake and Palmyra, all in the Pacific. Canton gained prominence as the site of a tracking station for space flights. Wake Island is used by the Federal Aviation Administration to supply transpacific aviation support services.

Geological Survey

The Geological Survey came into being March 3, 1879—the 30th Anniversary of the Department—when Congress acted upon a recommendation by the National Academy of Sciences to establish a single Federal scientific organization to replace the four Territorial Surveys of the post-Civil War period.

Assigned to the Geological Survey were the tasks of “classification of the public lands and examination of the geologic structure, mineral resources and products of the National domain.” The new organization quickly became a center of research, and its activities ranged across the entire spectrum of the natural sciences. During the early decades, the Survey assembled statistics on mines and mining, assessed potential water supplies for the arid west, and made studies or special surveys of the Nation's mineral, water, and timber resources. Results of these early activities provided a broad base for many of today's conservation programs.

The Department's Geological Survey has made many significant contributions to scientific information, and its projects aid in developing basic technological knowledge of natural re-

sources, an essential ingredient in a sound public program for the conservation and wise use of our minerals, water, and land. Recognizing that new sources of ores, fertilizer minerals, fossil fuels, and construction materials must be found—along with a need to understand the nature of the land being encroached upon by urban expansion—the Survey is conducting research on a wide variety of geological environments.

Using newly-developed tools and techniques, the Survey is identifying favorable mineral target areas considered to merit more detailed exploration and appraisal. The sea floor, also considered a likely source of mineral raw materials, is the subject of a broad program of research in cooperation with other Federal agencies and with universities. Studies are underway to decipher the geologic environment of the continental shelf and to identify favorable target areas that may become future sources of metals, minerals, oil, and gas.

In response to increasing population pressures, cities continue to expand into areas susceptible to natural hazards. An important part of the Survey's research is a program of regional geologic analysis and detailed mapping which not only serve as exploration aids in the search for economic deposits of useful minerals and fuels but, in keeping pace with urban growth, are also used to develop new scientific approaches to industrial site selection, highway engineering, and overall land management.

Certain areas of the country are earthquake prone. Ways to live safely in these areas are being sought by the Survey through studies of the nature of

the earth's crust and of active faults, the source of most earthquakes.

Reaching into space, the Survey is carrying out a program of research in support of manned and unmanned extraterrestrial exploration, with the Moon as the first step. The program consists of lunar geologic mapping, study of terrestrial analogs of lunar features, and the development of instruments and techniques needed to explore the Moon effectively.

The Geological Survey evaluates and supervises development of leasable minerals on Federal lands so as to insure that fair value is received from their exploitation; that conservation practices are followed which will insure maximum resource recovery; and that potential mineral lands are classified and reserved to meet future demands for mineral commodities.

Through Survey's resource programs for Federal lands, millions of acres of withdrawn or prospective mineral areas in the United States will eventually be evaluated and classified. Those with significant potential will be reserved for future leasing and development. Outer Continental Shelf areas are also being evaluated as a guide for selecting lease tracts to be sold for development, and to insure fair value to the Government from the disposal of the mineral resources of these submerged lands.

Water studies by the Survey establish firm foundations for planning and monitoring the maximum development and safe use of the Nation's water resources. Some 1,600 research and basic-data projects are in progress, including the measurement of quantity and quality of water at about 50,000 sites—streams, estuaries, lakes, reser-



Geological Survey ranges from Antarctic to dating ancient charcoal.

voirs, wells, and springs. Most of the projects are carried on in cooperation with State, local, and other Federal agencies. Special-purpose studies include delineation of location and frequency of flooding in metropolitan areas as a guide to flood-plain occupancy and zoning; analysis of causes, effects, and possible solutions of other urban hydrologic problems; and regional and river-basin appraisals of hydrologic systems in sufficient detail to explain and predict the flow and quality characteristics of rivers, the interrelated influences of ground water, and the effects of human activities upon the systems.

The Survey carries out functions as-

signed to the Department to acquire certain water data. Among these are design and operation of a national water data system, coordination of Federal water data activities, and development of a catalog of information on water data.

The Geological Survey has been designated the responsible agency for defining, implementing, and operating the Department's Earth Resources Observation Satellite (EROS). The program is devoted to providing resources survey data, uniquely collectable from space, for the Department to apply toward solving national resources problems.

Accurate topographic mapping, for

example, is essential for the proper study and development of natural resources and for the orderly planning of urban and industrial growth. Emphasis today is on adequate mapping of the United States—a task now about 78 percent complete.

Bureau of Mines

The Bureau of Mines, created in 1910, is the Nation's principal mineral resource conservation agency. It also has major responsibilities for promoting the safety and health of workers in the mineral- and fuel-producing industries.

Minerals are non-renewable natural resources, best conserved through wise use and the avoidance of waste in their extraction and processing. Improved technology, developed in advance so that it is ready to be applied when needed, is a path to both goals. Bureau programs are designed to provide improvements in mining, processing, and using minerals, and to encourage the adoption of these improvements by private industry.

The search for better methods and equipment is usually a response to specific resource problems. Traditionally, such problems have been met only as they arise, and the Bureau is attempting to make responses more effective by pinpointing potential problems in advance. This effort takes the form of mineral resource evaluations that develop accurate pictures of mineral supply-demand relationships so that today's needs can be met more efficiently, and tomorrow's anticipated more reliably. The Bureau's work includes engineering evaluations of deposits, sophisticated economic studies of markets, regions, or commodities,

and periodic collection and analysis of information on production, prices, and other aspects of all major minerals and fuels.

Once identified, specific mineral resource problems are screened to determine whether they may be appropriately attacked by a Bureau research program. As a rule, the Bureau only conducts research that cannot be performed by other public or private organizations, usually because the problem to be solved has not yet become of immediate economic concern. (Exceptions include problems of environmental pollution, which are both immediate and serious in their implications.) Bureau research covers three general fields: mining, metallurgy, and fuels technology. The work is innovative, and aimed at development of specific new scientific and engineering approaches.

In addition, the Bureau has a special conservation responsibility for a unique and limited resource, helium. Large volumes of this inert gas, which has found hundreds of uses in industry, research, and defense, are stored underground to meet future needs. The Bureau is also the Nation's major producer of purified helium, which is sold to an ever-growing number of consumers.

The safety and health of mineral industry workers are responsibilities of the Bureau, which has authority to inspect all mines. In addition to enforcement of Federal mine safety laws, the Bureau conducts nationwide safety education programs for workers, performs research on new safety devices and methods, and tests equipment supplied by manufacturers to determine suitability for use in mines.



Mines researchers use tank to simulate sea-floor.

Results of all Bureau programs are published in technical reports, hundreds of which appear annually. These reports not only provide an accounting for the expenditure of public funds; they are also the Bureau's most important means of informing the mineral industries and others about promising new conservation developments. By publishing research results as quickly as possible, and by maintaining close contact with private industry, the Bureau tries to insure that the Nation's mineral resources are used as wisely as possible, for the greatest benefit of the Nation and its people.

Office of Oil and Gas

The close and effective working relationship between the petroleum industry and the Federal Government that developed during World War II led President Truman to request that an agency be created in the Department of the Interior to foster continuation of this association. Accordingly, the Office of Oil and Gas was established in 1946 as the Federal agency having primary responsibility for leadership and information on petroleum and natural gas and to serve as the principal channel of communications between the Government and the petroleum and natural gas industries.

The Office of Oil and Gas develops information to serve as the basis for Federal policies and programs relating to oil and gas and is the coordinating agency for a program aimed at improving petroleum statistics needed by the Federal Government. In addition to its extensive contacts with the petroleum industry, the Office of Oil and Gas maintains liaison with the Inter-

state Oil Compact Commission, State oil and gas conservation agencies, and several international organizations concerned with petroleum and natural gas matters.

A prime responsibility of the Office of Oil and Gas is to maintain in readiness a standby organization for mobilizing the Nation's petroleum resources in a national emergency. This agency, the Emergency Petroleum and Gas Administration, would be responsible for directing the supply of such fuels under wartime or emergency conditions.

Office of Coal Research

A major objective of the Office of Coal Research is to achieve interchangeability of coal products with energy products from other sources. Coal is a prime source of energy, but energy is transported most easily in the form of a liquid, gas, or electric power. Economical processes are being sought through contracts awarded by OCR for research on conversion of coal into these forms.

Other research contracts seek ways to reduce the cost of mining, improve the handling of coal, explore the problems of new markets and retain existing markets, and improve the economy.

Although the first OCR contracts were not executed until fiscal year 1962, sufficient results have been obtained to affect the new policies of major firms that provide petroleum, gas, and power. As a result, such firms have been accelerating coal-land purchases and corporate mergers. From these have emerged "total-energy" companies.

The OCR-aided research program

offers considerable hope for creation of rural industrial complexes and significant contributions to regional development and to our country's gross national product. This will help provide assurance of a proper base to justify the large capital outlays required to utilize more widely the Nation's extensive coal resources.

Electric utilities and the construction materials industry have displayed growing interest in OCR pilot plants already using coal for treating sewage and for making brick and other building materials from otherwise-wasted flyash.

Substantial cost reductions in underground mining of coal have been effected by applying computer systems developed under an OCR contract. Computer technology is used in developing the best mining production methods, in mine-cost analyses, and the design and operation of systems for belt-haulage, rail-haulage, mine ventilation, and drainage. These computer mining systems are also being used for obtaining potash and other minerals mined similarly to coal.

Power Agencies

To meet the Department's increasing responsibilities for the marketing of hydroelectric power created by irrigation projects and other Federal water programs, four power-marketing agencies have been formed in the Department of the Interior in addition to the Bureau of Reclamation, which markets power in the western states.

Bonneville Power Administration

Established by Congress in 1937 to market power from the U. S. Army Corps of Engineers' Bonneville Dam,

in the Pacific Northwest, the Bonneville Power Administration is now the power marketing agency for all the Federal multipurpose dams in the Columbia River Basin system. In 1964 a treaty with Canada was signed for Upper Columbia River development. It calls for three Canadian dams—Duncan, Arrow, and Mica—which will double the storage capacity on the Columbia and its tributaries. The Treaty also made possible construction of Libby Dam in Montana. Its reservoir will extend 42 miles into Canada. Duncan and Arrow Dams are complete. Mica and Libby are scheduled for completion in 1973.

BPA, with headquarters at Portland, Ore., serves Oregon, Washington, Idaho, western Montana, and parts of California, Nevada, Utah and Wyoming—an area of nearly 300,000 square miles and a population of about 6 million.

To accomplish its mission, BPA has designed and built one of the largest networks of long-distance, high-voltage transmission lines in the nation—more than 12,000 miles. The system, adding capacity rapidly, is the main power grid for the Pacific Northwest. More than 1,500 miles of line operate at 500,000-volts. By 1978, BPA will have 3,000 miles of 500,000-volt lines in operation.

A Pacific Intertie is operating to permit ready exchange of Northwest and Southwest power. The Nation's first two 750,000-volt direct-current transmission lines travel 850 miles from the northern terminal near The Dalles, Ore., to the southern terminal near Los Angeles. By 1974, the second direct-current line, from Oregon to Hoover Dam, will be ready. Com-

bined, these four Intertie lines will have a power transfer capability of 4½ million kilowatts.

BPA dispatches power for more than a score of Federal dams with a combined capacity of 7 million kilowatts. An additional 8½ million kilowatts of capacity is under construction. BPA wheels or exchanges more than 4 million kilowatts for nonfederal utilities over its grid. In 1968, Pacific Northwest utilities and BPA agreed upon a hydro-thermal program to assure the region adequate low-cost power in coming years. BPA will continue to supply about half the hydro power generated in the region and will wheel and exchange large amounts of energy for nonfederal utilities.

BPA does not build dams or operate power plants. These are built and operated by the Corps of Engineers or Bureau of Reclamation. In addition to producing power, most of these projects also provide flood control, navigation, irrigation, municipal and industrial water supplies, pollution control, recreation, and other benefits.

Southeastern Power Administration

Southeastern Power Administration, headquartered in Elberton, Ga., was established in 1950 to market electric power from U.S. Army Corps of Engineer reservoir projects in West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, and Kentucky.

Power from 16 projects with approximately 2 million kilowatts of installed capacity is being sold to some 175 preferred customers (electric cooperatives and city and State power agencies) and to TVA as well as to several privately owned utility compa-

nies. New projects under construction will increase the installed capacity to over 2.7 million kilowatts.

Southeastern does not operate transmission facilities, but contracts with private utilities which wheel power to customers of the Department.

Southwestern Power Administration

The Southwestern Power Administration, located in Tulsa, Okla., is the Department's power marketing agency in Missouri, Kansas, Oklahoma, Arkansas, Texas, and Louisiana. Formed in 1943, the agency markets power generated by 15 Federal multipurpose water projects, with installed capacity of more than 1,400,000 kilowatts.

The power-producing capacity of Southwestern Power Administration has increased more than 2100 percent from its initial 1943 capability of 70,000 kilowatts.

SWPA has marketing authority for 23 Federal hydroelectric projects in its service area. When the last of these projects is placed in commercial operation, scheduled in 1977, SWPA's installed generating capacity will total 2,130,000 kilowatts.

To serve the needs of its customers, SWPA operates approximately 1,500 miles of high-voltage transmission lines, together with substations and switching stations, interconnecting federally produced power with the transmission systems of other public and private utilities in the area.

Alaska Power Administration

The Alaska Power Administration, headquartered at Juneau, was established in 1967 to promote the development and use of the water, power, and related resources of Alaska.

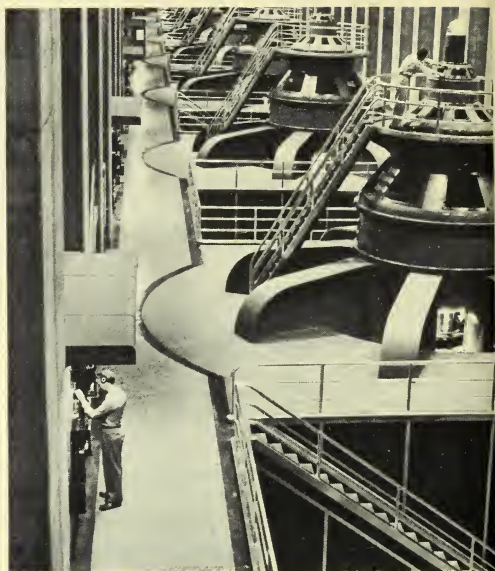
By transfer, APA acquired the functions and property of the Bureau of Reclamation in Alaska, including operation of the 30,000-kilowatt Eklutna hydroelectric project, near Anchorage, and marketing of electricity from this project through approximately 50 miles of transmission line. APA also will operate and market power from the 70,000-kilowatt Snettisham project being built near Juneau by the U.S. Army Corps of Engineers. Twin 45-mile underwater direct-current cables will convey the power to Juneau.

The APA is the leading Federal agency in studying Alaska's water and related land resources. Projects include proposed power pools for Southeast Alaska and the Railbelt area and the international Yukon-Taiya hydroelectric power project in which the United States and Canada would participate.

Bureau of Reclamation

The Federal Reclamation program was authorized by the Federal Reclamation Act of 1902 for the purpose of reclaiming arid lands of the West by irrigation to promote settlement. For the first five years the program was administered by the Reclamation Service, a part of the Geological Survey. In 1907 the Bureau of Reclamation was created as a separate agency in the Department of the Interior and was charged with responsibility for the program.

As the water needs of the Nation escalated and changed in nature, the role of the Bureau evolved and expanded to meet them. Its functions multiplied to include, besides irrigation: flood control, navigation improvement, hydropower generation, municipal and industrial water supply, recreation, fish



and wildlife enhancement, and water quality improvement.

The Bureau of Reclamation is designated by law to operate in the 17 Western States and, with limited authority, in Alaska and Hawaii.

Through the years, as irrigated agricultural development increased, it stimulated other development. Towns grew up around the irrigation projects, commerce and transportation expanded to meet the widening needs of the farmers, attracting scores of other workers. As a result, more electric



Reclamation provides power, irrigation water, clear lakes.

power was needed for the larger communities and more water was required for household consumption and for use in the newly founded industries.

Benefits of this mushrooming Reclamation development are evident today in every facet of the West's healthy economy, and they are also reflected across the Nation.

Reclamation irrigation projects provide homes and livelihoods for about 136,000 farm families. Irrigation water is available for serving some 10 million acres, on which more than 150 differ-

ent crops are grown. The present annual gross value of these crops is more than \$1.8 billion, and the cumulative value since 1906 is nearly \$27 billion. The latter sum represents a return, from irrigation alone, of about 5.8 times the entire cost of project facilities. A steady stream of dollars flows directly into the Federal Treasury in the form of tax revenues generated by project development.

Reclamation farmers and nonfarm businessmen and workers in the vicinity of Federal irrigation developments

annually pay more than a half billion dollars in Federal income and excise taxes, which since 1940 have amounted to nearly 1.7 times the total cost of completed project construction. This does not include taxes paid to local and state governments, nor taxes realized from commerce arising out of the functions of the projects other than irrigation, such as power generation, municipal and industrial water supply, and recreation use.

The reservoirs of Reclamation projects provide ever-increasing opportunities for all forms of water-oriented sports. Millions enjoy public recreation activities of varying kinds—sightseeing, swimming, boating, fishing, water skiing, hunting, camping—at some 230 Reclamation project areas encompassing nearly 3.8 million acres of land and close to half that area of water surface, with more than 11,000 miles of shoreline.

Nearly 90 percent of the cost of Reclamation facilities is directly repayable to the U. S. Treasury by beneficiaries of the projects. Each year more than \$100 million goes into the Treasury as income from project operations. Accruing from sales of water and power, the payments are increasing rapidly as recently completed large-scale projects reach maturity. Hydroelectricity has emerged as the outstanding paying participant, or “cash register,” of the program, not only paying its own way, but assuming some of the obligations for irrigation’s share of construction costs.

At the Grand Coulee Dam in Washington State, work is underway on a third powerplant which will increase the generating capacity of the present giant generating facility from 2 million

kilowatts to 5.6 million kilowatts. The new installation is scheduled to go into operation in 1973, and it is now planned at some future date to double its capacity, bringing the ultimate capability of Grand Coulee to 9.2 million kilowatts, greater than that of any hydropowerplant in the world today.

Though the Bureau of Reclamation is not primarily a power marketing agency, one of its functions is the marketing of hydroelectricity. It has constructed and is operating 51 powerplants, which have an installed capacity of about 7.2 million kilowatts. The Bureau sells most of this power, except for that used for its own pumping purposes and that sold by the Bonneville Power Administration, and it also markets power generated by six Corps of Engineers powerplants and the Falcon plant operated by the International Boundary and Water Commission, which have a combined capacity of more than 2 million kilowatts. The Bureau’s marketing capability is scheduled to increase steadily in coming years.

Reclamation’s some 450 power sales contracts are with electric cooperatives, municipalities, Federal and States agencies, irrigation districts, public utility districts, and private utilities.

The Bureau has constructed more than 15,000 circuit miles of transmission lines to convey its own power and that generated by other Federal and non-Federal agencies, as well as private utilities, to consumers throughout the West. In cooperation with other electric power interests, the Bureau of Reclamation has effected an interconnection of the Nation’s eastern and western power grids that links some

265,000 miles of major transmission lines and more than 200 major public and private power systems with a combined generating capacity of nearly 250 million kilowatts. This represents about 94 percent of the United States generating capacity and about 40 percent of the entire world's capacity.

The Bureau, along with the Bonneville Power Administration and several other public and private agencies, is constructing the epochal Pacific Northwest-Southwest Intertie, joining together electric systems—public and private—extending from Seattle to Los Angeles and Phoenix.

The Bureau of Reclamation conducts an extensive research program, which includes "Project Skywater." This is aimed at developing methods for inducing precipitation from clouds transporting large quantities of moisture. The goal is to augment runoff, which could then be stored in reservoirs for release during dry periods. Cooperating with the Bureau in this weather modification research are more than a score of universities, government agencies, and private research organizations.

Water Pollution Control Administration

The opportunities and responsibilities of the Department of the Interior for improving the quality of the American environment were given fresh impetus and new goals with the addition of water pollution control activities in 1966. The action marked the beginning of a new era for America's troubled waters.

The Water Quality Act of 1965 established the Federal Water Pollution Control Administration, thus lifting the

Federal administrative machinery out of relative obscurity in the government structure to the status of a full-fledged operating agency. It was given a nationwide mandate to clean up and protect this country's streams, rivers, lakes, and coastal waters.

In the Department of the Interior, the agency has bureau status under the supervision of an Assistant Secretary whose responsibilities include coordination of the Department's water resources research programs. This has brought together all activities in the Department that are focused on water quality management, desalination of sea and brackish water, and related research.

The new approach to pollution control recognizes that maintenance of water quality requires broad action. Between the first temporary Federal pollution legislation in 1948 and the Water Quality Act of 1965 with its companion measure—the Clean Water Restoration Act of 1966—emphasis underwent a major shift from the remedial program of cleaning up waters to the positive approach of maintaining the Nation's waters at the highest quality possible by preventing pollution.

Federal legislation has established the policy that water cleanliness is a natural resources problem and that quality must be restored and maintained for the benefit of all users. The provision of the Water Quality Act of 1965 calling for all the States to establish water quality standards for their interstate and coastal waters represents the first systematic nationwide strategy for water quality management.

The appallingly polluted condition of most of the Nation's rivers, lakes, and estuaries did not develop sudden-



Fish-filled tank helps determine water quality.

ly. Congress found that a combination of circumstances resulting from the national growth obviously required a program beyond the financial capabilities and legal responsibilities of States and cities.

The population increase since the end of World War II, the growth of industry, and the movement of people to urban areas have added an intolerable outpouring of waste products into the Nation's waters. Since the volume of water available for man's use cannot be increased appreciably, the only alternative is improved management and conservation of both surface waters and ground water.

Facilities for treating municipal and industrial wastes have lagged seriously behind requirements. In many communities there is too narrow a margin between overloaded and obsolete treatment facilities and the welfare of the

population. There is general deterioration of the waters used for recreation. Esthetic values have been impaired. Fish and wildlife resources are seriously affected. Some industries have difficulty in obtaining water of suitable quality.

The United States as a whole is not in danger of a failing water supply. Generally, there is enough water in our river basins to meet the needs of a much larger population than today's. But there is a danger of running out of a supply of water of sufficiently high quality to meet the needs of cities and industries, fish and wildlife, recreation, and other beneficial purposes. Adequate supplies of high-quality water are not obtainable today in many urban communities.

In short, the ever-increasing need for clean water and the mounting impairment of water quality by pollution



Desalting plant typifies Interior's broad water programs.

are on a collision course in many parts of the nation. It has become obvious that the situation can be remedied only by a program designed to upgrade the quality of the Nation's water.

The Federal Water Pollution Control Administration (FWPCA) is combating water pollution on a large scale and in several broad areas. In its continuing drive to enhance and protect the quality of our waters, FWPCA:

- Makes grants for constructing municipal waste-treatment facilities.
- Works with States in administering water quality standards.
- Administers a far-reaching Federal enforcement campaign against interstate pollution.
- Supports research and development seeking better methods of controlling all forms of water pollution, with particular emphasis on finding improved ways to help mu-

nicipalities and industry do the job.

- Provides expert technical assistance on difficult pollution problems, and supports and encourages the training of much-needed manpower for all aspects of water pollution control.

- Encourages effective river basin planning that takes into account all factors affecting water quality.

- Extends financial and other assistance to States to help them strengthen their own water pollution control programs.

In addition, FWPCA conducts economic and technical studies and other special projects to provide new and more complete information to help meet long-term goals.

Office of Water Resources Research

This Office was established July 17,

1964, to administer the Water Resources Research Act of 1964—an Act passed by Congress to assist in assuring the Nation at all times a supply of water sufficient in quantity and quality to meet the requirements of its expanding population.

Under this Act, the Office of Water Resources Research (OWRR) stimulates, sponsors, provides for, and supplements present programs for conducting research and the training of scientists in the fields of water and of resources which affect water. Through its Water Resources Scientific Information Center it disseminates facts about water research results and developments to interested persons throughout the water resources community.

The OWRR does not conduct its own, or in-house research; it supports research and training through annual allotments and matching grants to each of 51 state water resources research institutes as authorized by the Act and through contracts and grants to individuals and private and public agencies that have competence in water resources research.

The water resources research and training program administered by OWRR is broad in scope. It involves Federal-State cooperation and the utilization of water resources research expertise throughout the Nation, and encourages the pooling of manpower, brainpower, and research tools in efforts to solve prevailing and potential water resources problems.

Other functions of OWRR are to promote exchange of information and coordination to minimize undesirable duplication of research effort and to encourage research to fill information

gaps and focus on high-priority research needs.

Office of Saline Water

Taking note of acute water shortages which were beginning to plague arid areas of the United States and realizing that additional areas would begin to find water in short supply in future years, Congress provided in 1952 for the Secretary of the Interior to establish the Office of Saline Water. The initial Act, with amendments passed by succeeding Congresses, provides for development of a practicable low-cost means of producing from sea or other saline waters, water of a quality suitable for agricultural, industrial, municipal, or other beneficial consumptive uses.

The Office of Saline Water operates a research and development program by means of grants and contracts with universities, private research groups, industrial organizations, and in cooperation with other Federal agencies.

Under a separate authorization, the Office of Saline Water has constructed, operated, and tested sea water conversion plants in Freeport, Tex., and San Diego, Calif., and brackish water conversion plants at Webster, S. D., and Roswell, N. M. The Office of Saline Water also has a Research and Development Test Station at Wrightsville Beach, N. C., a sea water test facility in San Diego, and a brackish water test facility at Roswell. An earlier plant constructed at San Diego was dismantled and was transported to the Naval Base at Guantanamo Bay, Cuba, to provide desalted sea water for military and civilian requirements.

The Office of Saline Water also carries out a program of international

cooperation, sharing its technology with other nations of the world.

To maintain and push forward the accelerated program needed to meet the growing water shortages of the world, the Office of Saline Water is moving ahead on several fronts:

—Use of present technology to meet present needs of water-short areas;

—Development of second- and third-generation improved desalting processes to meet the needs of the 1970-75 time frame;

—Basic research to develop new technology and new processes.

Other Agencies of the Department

The Office of Minerals and Solid Fuels is responsible for defense planning and mobilization preparedness in the field of minerals and solid fuels.

The Oil Import Administration administers the oil import program by issuing allocations and licenses for the importation of crude oil, petroleum products, liquefied gases, such as ethane, propane, butane; also gasoline, jet fuel, naphtha, fuel oil, lubricating oil, residual fuel oil, asphalt, natural gas products and unfinished oils except those entering the United States over-

land (Canada and Mexico) from their country of origin. Allocations and licenses for petrochemical feedstocks are included in the OIA's area of responsibility.

Publications

THE DEPARTMENT OF THE INTERIOR, through its several bureaus and offices, publishes a wide range of books, pamphlets, maps and leaflets. The subject matter is as varied as the diverse activities of the Department.

With a few exceptions, the Department's publications may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., 20402. Prices differ, according to the individual publication. Single copies of some of the smaller leaflets may be obtained, without charge, from the bureaus or offices in which they are originated.

Leaflets listing conservation publications of the Department of the Interior and 16 mm. sound motion pictures as well as slide programs of the Department are available on request from the Director of Information, Department of the Interior, Washington, D. C., 20240.

